TETRA TECH

April 18, 2013

Mr. Randy Schademann
EPA On-scene Coordinator
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd.
Lenexa, Kansas 66219

Subject: **Trip Report and Data Summary – April, June, and December 2012 Sampling**
General Motors AC Rochester Site, Sioux City, Iowa
CERCLIS ID No. IAD000686899
U.S. EPA Region 7 START 3, Contract No. EP-S7-06-01, Task Order No. 0282
Task Monitor: Randy Schademann, EPA On-scene Coordinator

Dear Mr. Schademann:

Tetra Tech, Inc. is submitting the Trip Report and Data Summary of soil sampling conducted in April, June, and December 2012 at the former General Motors AC Rochester facility in Sioux City, Iowa.

If you have any questions or comments regarding this submittal, please contact the project manager at (816) 412-1771.

Sincerely,

for Jenna Mead, RG
START Project Manager

Ted Faile, PG, CHMM
START Program Manager

Enclosures

cc: Roy Crossland, START Project Officer (cover letter only)

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TRIP REPORT AND DATA SUMMARY

REMOVAL ASSESSMENT
GENERAL MOTORS AC ROCHESTER SITE
SIOUX CITY, IOWA

CERCLIS ID No. IAD000686899

Superfund Technical Assessment and Response Team (START) 3
Contract No. EP-S7-06-01, Task Order 0282

Prepared For:

U.S. Environmental Protection Agency
Region 7
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April 18, 2013

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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked Tetra Tech, Inc. (Tetra Tech), under Superfund Technical Assessment and Response Team (START) 3 Contract No. EP-S7-06-01, Task Order No. 282, to provide removal action support at the General Motors (GM) former AC Rochester facility site (the site), at 1805 Zenith Drive in Sioux City, Woodbury County, Iowa (see Figure 1, Appendix A). Between site development around 1965 and purchase by GM in 1980, the site had been owned by Zenith Radio Corporation (Zenith), which manufactured radio and possibly television components until 1978 (*Sioux City Journal* 2005). Sioux City is in northwestern Iowa, just east of the confluence of the Big Sioux and the Missouri Rivers. The Big Sioux River (about 2.5 miles west of the site) forms the South Dakota-Iowa border, and the Missouri River (about 500 feet south of the site) forms the Iowa-Nebraska border.

The site was entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) on September 1, 1993 (CERCLIS Number: IAD000686899) (EPA 2012a). Numerous previous investigations had determined that chlorinated volatile organic compounds (CVOC), specifically 1,1,1-trichloroethane (TCA), trichloroethene (TCE), tetrachloroethene (PCE), and their common degradation products (*cis*-1,2-dichloroethene [DCE], 1,1-DCE, and 1,1-dichloroethane [DCA]) were present in soil and groundwater at the site. The site is currently owned by Confluent Enterprises, LLC, and is the corporate headquarters and warehouse for Bomgaars Supply, Inc. (Bomgaars).

EPA Region 7 Remedial Action Contract (RAC) contractor HydroGeoLogic, Inc. (HGL) submitted a Sampling and Analysis Plan (SAP) to EPA for a Remedial Investigation (RI) and Feasibility Study (FS) at the General Motors AC Rochester site (HGL 2012). The SAP, dated February 29, 2012, includes the Field Sampling Plan and Quality Assurance Project Plan (QAPP). START was asked to assist EPA with collection of soil samples under a removal action task conducted concurrently with RI/FS sampling. The objective of the soil sampling was to delineate the area of contamination for possible excavation or treatment under a removal action.

2.0 SITE BACKGROUND INFORMATION

This section presents information regarding the site's location, description, and relevant investigation history.

2.1 LOCATION AND DESCRIPTION

The site is in the Tri-View Industrial District, just north of Interstate 29 (I-29) and west of Hamilton Boulevard, about 1 mile west of downtown Sioux City (see Figure 2, Appendix A). The site encompasses about 26 acres and is triangular in shape, with the northern edge extending from northeast to southwest along the Burlington Northern Santa Fe (BNSF) railroad right-of-way at the base of a loess bluff. Most of the site is in Section 30, Township 89 North, Range 47 West as depicted on the 7.5-minute topographic quadrangle map of Sioux City South (U.S. Geological Survey [USGS] 1993). The portion of the property east of the building lies within Section 29. Topography across the site is generally flat, with elevations ranging from approximately 1,097 to 1,103 feet above mean sea level (amsl). Elevations on the bluff north of the site are about 1,225 to 1,250 feet amsl, and elevations at the Missouri River to the south are about 1,180 feet amsl. I-29 is elevated, forming a levee between the river and the site. Flooding during summer 2011 inundated much of the area south of I-29, including the Hamilton Boulevard underpass, but did not impact the site.

Figure 2 in Appendix A shows the site layout and identifies relevant current or former site features. An approximately 25-foot-wide grassy drainage swale separates the BNSF railroad grade (which is about 2 to 3 feet higher in elevation) from the site. A gravel access road (formerly another track) runs along the north side of the railroad grade and may be accessed from Hamilton Boulevard. A vegetated drainage area about 45 feet wide separates the railroad bed from the bluff. Drainage generally flows southwest on either side of the BNSF railroad grade north of the site. A large storm sewer that appears to drain the residential properties at the top of the bluff north of the site runs along the eastern property line. Industrial properties are northeast and east of the site, both above and below the bluff. Besser Company USA (Besser) (Sioux City Engine and Machine until 1998 [Besser 2012]), Soo Tractor Sweeprake, and a former American Equipment facility (currently owned by Agricultural Industrial Investment) are above the bluff northeast of the site. Agricultural Industrial Investment also owns the bluff area north of the railroad right-of way extending west to the end of Zenith Drive (Woodbury County 2013). Other commercial businesses in the Tri-View Industrial Park are east of the site, and several railspurs enter the eastern part of the industrial park. The western edge of the site, between the railroad and interstate right-of-way, is undeveloped and wooded. The river is only about 300 feet from the bluff in this area.

Southwest of the intersection of I-29 and Hamilton Boulevard is Sioux City's Riverfront Park, the location of Sioux City Riverfront Well Field. Public Water Supply (PWS) wells are identified as numbers 3, 4, 6, 10, and 24 (Raney Collector Well). Well 4 is about 300 feet south of the site, and is slightly east of a storm sewer outfall that serves the site. Wells 3 and 10 are about 800 to 1,000 feet

southeast (downgradient) of the site, and wells 24 and 6 are about 1,200 to 1,400 feet downgradient. A hotel, restaurant, and the City's Chris Larsen City Park are southeast of the Hamilton Boulevard exit from I-29. Municipal wells numbers 1, 2, 7, 8, and 9 are in this area. The two remaining wells, 5 and 11, are northeast of the intersection of I-29 and Hamilton Boulevard, near the Zenith water treatment plant.

The site includes a 221,000-square-foot, single-story metal and masonry building connected to a 19,000-square-foot, two-story office building. The larger building was formerly used for manufacturing, but is currently a warehouse. Approximately 75 percent of the site is covered with the building or asphalt paving. Storm drains route runoff from the parking areas to a city storm sewer outfall to the Missouri River near PWS well 4.

Eleven groundwater recovery wells are in the roadway east of the building. This hydraulic capture system (HCS) was installed around 2007 to intercept contaminated groundwater at the site and discharge it to the sanitary sewer for treatment at the City's waste water treatment plant. Control equipment for the HCS is in a metal building at the northeast corner of the site, next to a water tank supplying the fire suppression system. A pump house and a 250-gallon diesel fuel aboveground storage tank (AST) associated with the fire suppression system are by the water tank.

Additional features at the site include a cooling tower and an electrical substation immediately north of the building. Former propane and Stoddard solvent tank farms are along the northern boundary. Five underground storage tanks (UST) containing chlorinated and nonchlorinated solvents formerly were near the northwest corner of the building. A sixth (gasoline) UST was near the northeast corner. A small shed (about 10- by 10-foot) within a 20- by 20-foot fenced area is about 40 feet southwest of the former propane tank area. This shed was installed in 2001 and housed equipment for a butane biostimulation pilot test conducted in this area.

2.2 GEOLOGY AND HYDROGEOLOGY

The site is about 300 to 700 feet north of the Missouri River. Soils underlying the buildings and pavement are classified as Urban Land; undeveloped land to the west is classified as fluvaquents having 0-2 percent slopes that are frequently flooded (U.S. Department of Agriculture [USDA] 2012). Investigations at the site indicated that soils are unconsolidated sands, silts, and clays belonging to the Holocene-aged DeForest Formation (EPA 2011). Investigations indicated about 60 feet of unconsolidated sediments are present, and that a discontinuous clay is present from about 45 to 50 feet below ground surface (bgs) that acts as a leaky aquitard between the upper and lower deposits. The water

table occurs at about 25 to 30 feet bgs, and flows east-southeast (EPA 2011). Zones of perched water are present in various layers above the water table. The water table fluctuates, depending on river stage.

Underlying the DeForest Formation is the Quaternary-aged Noah Creek Formation. The upper portion of the Noah Creek Formation consists of about 5 to 30 feet of clay; however, this clay layer does not extend south of I-29. The lower portion of the Noah Creek Formation consists of glaciofluvial sands and gravels ranging from 0 to 20 feet in thickness (Anderson 1998, EPA 2011). This lower unit is in connection with the Missouri River, and receives recharge by leakage through the overlying clay (EPA 2011).

Bedrock is Cretaceous-aged Dakota Formation, consisting of the upper Woodbury Member, dominated by mudstones, and the lower Nishnabotna Member, dominated by sandstones (Witzke 1997). The Dakota Formation was encountered at nearby Sioux City PWS wells 3 and 4 at 97 and 100 feet bgs, respectively (Iowa Department of Natural Resources [IDNR] 2004).

The Sioux City PWS serves 82,759 individuals using groundwater under the influence of surface water (EPA 2012b). The Riverfront Well Field is Sioux City's major source of drinking water.

Table 1 summarizes screen depths and aquifers for the PWS wells relevant to the site. Driller's logs indicate wells 3 and 4 are screened in the Dakota Formation at depths of about 130 to 300 feet. Table B-1 in Appendix B summarizes available analytical data regarding selected PWS wells where CVOCs associated with the site historically have been identified. CVOC contamination in well 3 led to use of the well as a recovery well to control the contaminant plume and prevent contamination of nearby wells, particularly the radial collector well (well 24). Flooding in 2011 inundated well 3 and it has been off-line since. Groundwater modeling suggested that discontinuity of the clayey aquitard in the area was the cause of higher contaminant concentrations at well 3 (HDR Engineering, Inc. [HDR] 2004).

TABLE 1

PUBLIC WATER SUPPLY WELLS RELEVANT TO THE CITY OF SIOUX CITY
GENERAL MOTORS FORMER AC ROCHESTER FACILITY
SIOUX CITY, IOWA

PWS Well	Total Depth (feet bgs)	Screened Interval (feet bgs)	Aquifer
2	310	160-310	Dakota
3	312	130-312	Dakota
4	297	138-297	Dakota
6	90	NA	Alluvium
10	155.5	95.5-155.5	Dakota
24 (Collector)	80	(200-foot laterals)	Alluvium

Notes:

bgs Below ground surface
NA Not available
PWS Public water supply

2.3 SITE HISTORY, FACILITY OPERATIONS, AND PREVIOUS INVESTIGATIONS

The following facility history is based on documents and historical USGS aerial photographs of the site (see Appendix C) reviewed by START. Little information was available regarding facility processes during Zenith's operations. HGL is tasked with groundwater remediation at the site; consequently, START reviewed only limited groundwater information for this summary. Approximately 45 monitoring wells installed at various depths are currently being gauged or sampled at the site.

- Prior to 1965, the site was composed of individual and small business-owned parcels (EPA 2011). The 1955 and 1960 USGS aerial photographs show the area as undeveloped. A large drainage ditch was along the eastern edge of the site, and a culvert appeared to route drainage from the bluff area under the railroad track to the drainage ditch. The ditch was routed under the highway (now I-29) to the Missouri River. The 1955 aerial suggests the site was farmed, and a possible farmstead or other structure may have been at the western edge of the property, where a road north of the highway provided access to a grove of trees. The road now know as Zenith Drive is shown on the 1960 aerial photograph, with this road ending at a north-south drainage ditch just east of the vegetated area at the west. The site and a portion of the Tri-View Industrial Park east of the site appear to be sandy with little or no vegetation. A 1993 Phase I Environmental Site Assessment (ESA) of the facility indicated that sand dredged from the Missouri River had been placed at the site (HDR 1993a).

- In 1965, Zenith purchased the property and constructed a radio manufacturing facility. According to a March 1966 article in *The Machinist*, published by the International Association of Machinists and Aerospace Workers (IAM), IAM union members would soon be working in a new $3,000,000 plant for the Wincharger Corporation, a subsidiary of Zenith, producing Zenith radios, electric motors, and dynamotors (*The Machinist* 1966).

- The 1966 and 1973 aerial photographs show asphalt parking lots on all sides of the building, with the western parking lot extending about 350 feet west of the building (the approximate location of the westernmost east-flowing storm drain shown on Figure 2, Appendix A). Two large horizontal ASTs are at the propane tank farm, and a small horizontal AST appears to be present at the southeast corner. The area between the western edge of the asphalt parking lot and the end of Zenith Drive (about 800 feet west of the building) appears to be cleared but unpaved, with some lower-lying wet or vegetated areas. The undeveloped western portion of the site (about 800 to 1,800 feet west of the building), including this cleared area, appears to have become increasingly wooded after 1955.

- Zenith reportedly used acetone, isopropanol, white gas, lacquer thinner, and 1,1,1-TCA, which were stored in five 500-gallon USTs behind the manufacturing building, about 42 feet east of the northwest corner of the building (just east of a loading dock). These solvent USTs were in a tank pit measuring about 11 by 17 feet. A 500-gallon gasoline UST was immediately behind the building, about 88 feet west of the northeast corner of the building (HDR 1997). HDR reported the propane tank farm consisted of one 30,000-gallon AST and two 12,000-gallon ASTs. The propane tank farm was no longer in use during the 1993 Phase I ESA, although HDR indicated that GM had retained the propane tank farm for backup power (HDR 1993a). No information was available to START regarding the source of the information about products stored in these tanks. Consequently, it is unknown whether the solvent usage information dates to the property transfer to GM or whether that information may have been indicated on building construction blue prints.

- The Zenith plant closed in 1978. The *Sioux City Journal* stated subsequently that the Zenith television manufacturing plant had employed about 3,300 workers at its height in the early 1970s. The plant closed after jobs were outsourced to Mexico and Taiwan (*Sioux City Journal* 2005).

- GM purchased the facility in 1980 and modified the manufacturing building to an assembly and testing facility for throttle body injection (TBI) fuel systems. TBIs were automotive parts manufactured during the 1980s while vehicles transitioned from carburetors to fuel injection systems. The 1991 aerial photograph available on Google Earth shows the parking lot extends to about 500 feet west of the building. An additional, larger AST is present at the propane tank farm.

- As part of the facility modification in 1980, GM installed a Stoddard solvent tank farm (six 20,000-gallon vertical ASTs) along the northern property line, about 500 feet west of the eastern property line. A 750-gallon waste oil AST was also present at the Stoddard tank farm (HDR 1993a). Ten Stoddard solvent transfer pipes, about 7 feet bgs, ran southwest from the western edge of the tank farm for about 45 feet, then south for about 175 feet, entering the building about 75 feet east of the northwest corner. A 2,000-gallon waste Stoddard solvent UST was just east of the piping and north of the building (HDR 1997). TBI testing involved running Stoddard solvent through the injector, simulating the vacuum created by an engine. The Stoddard solvent was then returned to a spent fuel pit and pumped to a water separator tank, filtered, and returned to the tank farm. Later processes used air for TBI testing, but Stoddard solvent continued to be used for quality control (HDR 1993a, IDNR 1994). Two metal-lined Stoddard sumps measuring about 3.5 by 3.5 feet and 5 feet deep were present at the facility. A sump in the injector inspection room was empty in 1993; however, the one in the testing calibration room contained solvent (HDR 1993a).

  A 10,000-gallon UST was also installed by GM in 1980. This UST was northwest of the boiler room addition on the north side of the building, and stored water for the vacuum pump water

reclaim system (HDR 1993a). Two water sumps sealed by vacuum pumps were also present at the facility. One of these received small amounts of Stoddard solvent with water from the separator. Pits collecting water from the shipping and receiving areas were also present at the facility. Pits and floor drains present throughout the building reportedly drained to the sanitary sewer in 1993. GM reportedly did not use the USTs installed by Zenith (HDR 1993a).

- In 1984, GM removed the six USTs installed by Zenith.

- In 1985, four flush-mounted monitoring wells (MW-1 through -4) were installed around the waste Stoddard UST. These wells had total depths of about 20 feet bgs and water levels of about 10-12 feet bgs when gauged in August 1993 (HDR 1993b).

- In 1986, the waste Stoddard tank was removed after it failed a tightness test (HDR 1993a).

- In January 1986, National Pollutant Discharge Elimination System (NPDES) permit number IA0067687 was issued for the facility, for the two stormwater outfalls to the Missouri River. In November 1986, GM requested its NPDES permit be amended to remove process wastewater from the permitted discharge. GM applied for renewal of the NPDES permit in 1990; however, IDNR did not require renewal because only stormwater was discharged (HDR 1993a).

- In 1993, GM ceased TBI production at the facility, and GM's consultant HDR conducted Phase I and Phase II ESAs of the site. Based on the Phase I findings, samples were collected from depths between 7.5 and 12 feet bgs at 15 soil borings around the former Zenith USTs, the Stoddard solvent ASTs, and the transfer lines. Monitoring wells were installed at the solvent USTs (AC-103), the gasoline UST (AC-106), and the Stoddard solvent tank farm (AC-112). The wells were installed to a depth of 17 to 18 feet. The Phase II ESA indicated that both hydrocarbons and CVOCs were present, which GM reported to IDNR. Groundwater at AC-103 contained PCE (210 micrograms per liter [µg/L]), TCE (11 µg/L), and 1,1-DCA (14 µg/L) at concentrations exceeding their maximum contaminant levels (MCL). Ethylbenzene (11 µg/L) and xylenes (31 µg/L) concentrations detected in well AC-112 were lower than their MCLs (HDR 1993b). The City of Sioux City PWS was informed of the contamination at the GM facility, and subsequently identified CVOCs in wells at the Riverfront Well Field.

- In 1994, GM removed the Stoddard solvent tank farm, which was being decommissioned at the time of the 1993 Phase I ESA (HDR 1993a). At the request of IDNR, GM contracted HDR to conduct additional investigations that further defined the extent of groundwater contamination. Contaminant concentrations exceeding MCLs for drinking water were discovered. Also in 1994, IDNR conducted a preliminary assessment (PA) of the site (IDNR 1994).

- In 1996, EPA deferred the site to IDNR for cleanup and oversight. GM agreed to conduct additional investigations at the site (EPA 2011).

- In 1997, after an investigation of the Stoddard solvent tank farm area, the IDNR issued a "no further action" determination for that area. GM also entered into another agreement with IDNR to perform RI/FSs at the site. These studies detected CVOCs in the groundwater at levels above their MCLs for drinking water. An area of contaminated soil thought possibly to be the source of the groundwater contamination was also discovered during these studies. The soil contamination was not found at levels that posed a risk to human health from direct exposure. IDNR prepared a Proposed Plan that summarized the RI and FS, and presented a proposed alternative for addressing contamination at the site. Sampling subsequent to the release of the Proposed Plan revealed that the contamination extended off site (EPA 2011).

- October 1998 results for PWS well 3 indicated that 1,1-DCE (1.3 µg/L) was the only CVOC detected. No volatile organic compounds (VOC) were detected in well 4 (HDR 2002). Table B-1 in Appendix B summarizes available analytical data regarding relevant PWS wells.

- In 1999, the Iowa Department of Public Health (IDPH) prepared a baseline risk assessment of the site for IDNR (IDPH 1999).

- A butane biostimulation pilot test was conducted between February and August 2001 at the potential source area west of the former propane tank farm (HDR 2003).

- In 2001, a state Record of Decision (ROD) was signed. The ROD specified a remedy consisting of a butane biosparge system to treat the source area and a hydraulic capture system (HCS) to prevent continued migration of contaminated groundwater off site (EPA 2011).

- In July 2001, PWS well 3 began pumping directly to the adjacent storm drainage ditch to test the effectiveness of this action in intercepting the groundwater plume from the site prior to its reaching well 24, the collector well. GM paid the City for the costs associated with the loss of this well and the piping changeover (HDR 2004). VOCs data for PWS well 3 from July 2001 indicated that the well contained 1,1-DCA (210 µg/L), 1,1-DCE (12 µg/L), *cis*-1,2-DCE (48 µg/L), and TCE (7 µg/L). These concentrations were lower than the maximum concentrations from July 2000 of 1,1-DCE (263 µg/L), 1,1-DCE (15 µg/L), *cis*-1,2-DCE (61 µg/L), and TCE (9 µg/L) (HDR 2002).

- In 2003, Conestoga-Rovers and Associates (CRA) conducted groundwater modeling of the project area to evaluate the potential impact of the contaminant plume on the collector well (well 24). Modeling indicated that the clayey (glacial till) upper portion of the Noah Creek Formation was absent in the vicinity of well 3, and—coupled with pumping—this absence led to downward migration of contamination. Continued pumping of well 3 was considered likely to prevent contaminant concentrations at well 24 from exceeding MCLs (HDR 2004).

- The HCS was constructed and operational by the end of 2006 (EPA 2011).

- From 2006 to 2009, a butane biostimulation system for groundwater in the source area was operational and showed some concentration reductions, particularly southwest of the injection points. The butane biostimulation system operated until December 22, 2009. It was shut down in a manner that would allow easy implementation of future startup (HDR 2010).

- In 2009, GM declared bankruptcy and sold its assets to General Motors, LLC, a separate and independent entity. GM then became Motors Liquidation Company (MLC), which was responsible for settling the company's liability. MLC reached a settlement with the U.S. Department of Justice for the liability associated with the site. The State deferred the lead regulatory role to EPA, and on April 1, 2011, EPA assumed the lead for site remediation (EPA 2011).

2.4 WASTE CHARACTERISTICS OF CHLORINATED VOCS OF CONCERN

Chlorinated solvents including 1,1,1-TCA, PCE, and TCE and their common degradation products are the primary contaminants of concern at the site. Stoddard solvent, a petroleum distillate with hydrocarbon chains between C_7 and C_{12}, has also been identified at the site.

Chlorinated solvents commonly have been used in metal degreasing and dry cleaning. In 1975, over 90 percent of TCE use was by metal finishing or dry cleaning industries (Center for Disease Control [CDC] 1975). Most releases of the chlorinated solvents PCE, TCE, and DCE occurred in the 1950s through the 1970s, prior to enactment of environmental regulations (Interstate Technology and Regulatory Council [ITRC] 2005). These CVOCs have generally low water solubility; consequently, they persist in the subsurface and continue to generate dissolved concentrations in groundwater that may exceed regulatory limits for long periods of time (ITRC 2005).

In addition to the solvent products, daughter products can be generated by dechlorination and biodegradation. Microorganisms obtain energy by transferring electrons from fuel hydrocarbons or native carbon (electron donors) to CVOCs (an electron acceptor) in an oxidation-reduction reaction (EPA 1998). In addition, microbes feeding on petroleum hydrocarbons may consume CVOCs present in the groundwater contaminant plume. Consequently, presence of petroleum hydrocarbons may enhance degradation of the CVOCs.

2.4.1 Tetrachloroethene

PCE is a chlorinated solvent with an ether-like odor, and is typically used in dry cleaning operations and as a degreaser for metal parts (Agency for Toxic Substances and Disease Registry [ATSDR] 1997). PCE is denser than water and tends to be found at greater depths with increasing distance from the source area.

PCE was introduced as a dry cleaning solvent in 1934, and by 1948 had replaced carbon tetrachloride as the major chlorinated dry cleaning solvent used in the United States (petroleum solvents still dominated overall). By 1962, dry cleaning operations accounted for 90 percent of the PCE used in the United States (State Coalition for Remediation of Drycleaners 2002). At one time, PCE had been mixed with grain protectants and certain liquid grain fumigants, but this was no longer approved by 1980 (Meister Publishing Company 1980). PCE degrades to TCE, which degrades to the *cis*- and *trans*- isomers of 1,2-DCE and 1,1-DCE. These daughter products eventually degrade to vinyl chloride.

PCE has a low to moderate mobility in soil and may leach slowly to groundwater. It is slightly soluble in groundwater, having a solubility of 0.15 grams per liter (g/L) at 25 degrees Celsius (°C) (EPA 2013a).

2.4.2 Trichloroethene

TCE is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste (ATSDR 2003). It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers. TCE is denser

than water and is typically found at greater depths with increased time and/or distance from the source area. TCE is reasonably anticipated to be a human carcinogen. Drinking small amounts of TCE for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women (ATSDR 2003). The *cis*- and *trans*- isomers of 1,2-DCE and 1,1-DCE are common degradation products from TCE. These daughter products eventually degrade to vinyl chloride.

TCE has a high to very high mobility in soil and readily leaches to groundwater. It is has a solubility of 1 g/L at 25 °C (EPA 2013b).

2.4.3 1,1,1-Trichloroethane

1,1,1-TCA is a synthetic chemical that does not occur naturally in the environment (ATSDR 2006). No 1,1,1-TCA is supposed to have been manufactured for domestic use in the United States after January 1, 2002, because it affects the ozone layer. 1,1,1-TCA had many industrial and household uses, including as a solvent to dissolve other substances, such as glues and paints; to remove oil or grease from manufactured metal parts; and as an ingredient of household products such as spot cleaners, glues, and aerosol sprays. Daughter products that may result from degradation of 1,1,1-TCA are 1,1-DCA and 1,1-DCE. No studies have been conducted to determine whether eating food or drinking water contaminated with 1,1,1-TCA could harm health (ATSDR 2006).

Soil adsorption of 1,1,1-TCA is proportional to the organic carbon content of the soil, ranging from strong adsorption to peat moss to no adsorption to sand. 1,1,1-TCA has a solubility of 4.4 g/L at 20° C (EPA 2013c).

2.4.4 1,4-Dioxane

1,4-dioxane is a solvent reasonably anticipated to be a human carcinogen. Historically, 90 percent of 1,4-dioxane was used as a stabilizer for 1,1,1-TCA. It was mixed with 1,1,1-TCA at a concentration of about 3.5 percent. It readily leaches to groundwater, does not biodegrade, moves rapidly, and may form the leading edge of a contaminant plume (U.S. Department of Health and Human Services [DHHS] 2011). Because 1,4-dioxane is fully miscible in water, it is not detected using standard methods, and is more difficult to treat (EPA 2006).

3.0 FIELD ACTIVITIES

The three 2012 soil sampling events are summarized in this report. The April 2012 event was conducted in conjunction with RI/FS sampling by HGL. Only EPA and START personnel were involved with additional sampling in June and December 2012. Sampling activities, including quality assurance (QA) and quality control (QC) sampling, and sample delivery are discussed in this section. A copy of START's logbook is in Appendix D, site photographs are included as Appendix E, and boring logs are included in Appendix F.

April 2012 Sampling Event

START team members Jenna Mead and Jon DeBruine assisted EPA at the site from April 9 through April 17, 2012. EPA On-scene Coordinators (OSC) Randy Schademann and Susan Fisher were on site for this event and were involved with soil sampling operations, including operating EPA's track-mounted Geoprobe direct-push technology (DPT) rig. EPA's Remedial Project Manager (RPM) Nancy Swyers was on site at the beginning and end of field activities. EPA's Lorenzo Sena was also on site and provided mobile laboratory analyses of the groundwater samples collected by HGL personnel. Environmental Priority Service (EPS) of Salina, Kansas, provided DPT services for groundwater sampling, and mobile laboratory services analyzing soil samples for the targeted VOCs 1,1,1-TCA, 1,1-DCA, 1,1-DCE, PCE, TCE, *cis*-1,2-DCE, and vinyl chloride.

START and EPA logged and collected soil samples from DPT borings SB1 through SB40. Based on field screening results from the EPS mobile laboratory, HGL selected samples for submittal to the EPA Region 7 laboratory for VOC analysis under analytical services (ASR) request 5706. HGL also provided location coordinates and elevations to START.

Access was not received from BNSF in time for locations north of the railroad tracks to be sampled during the April 2012 sampling event; thereby necessitating the June 2012 sampling event.

June 2012 Sampling Event

In June 2012, STM Mead and EPA OSCs Schademann, Fisher, and Todd Davis returned to conduct additional sampling. At that time, soil samples were collected from five borings (SB41 through SB45) along the BNSF railroad right-of-way. Geotechnical samples were collected from borings at locations SB8, SB19, and SB26 for grain size analysis and organic carbon content. To collect these samples, the Macro-core sleeve was cut with a hack-saw to a 2-foot length and capped for delivery to HGL; the samples subsequently were submitted to Alpha-Omega Geotech, Inc., of Kansas City, Kansas. Organic

carbon content and percent organic matter were determined by Servi-Tech Laboratories of Dodge City, Kansas. All samples collected for VOC analyses were submitted to EPA Region 7 laboratory under ASR 5788.

Under this ASR, STM Mead also collected groundwater samples from municipal wells 2, 6, and 24 for HGL's RI. START was unable to sample well 3, which was under repair, and well 10, which was within a confined space.

December 2012 Sampling Event

Based on the April and June sampling results, additional boring locations were selected in an effort to determine the extent of contaminated areas subject to a removal action. STMs Mead and Cosmo Canicari and EPA OSCs Schademann and Manuel Schmaedick performed sampling activities. EPA's Lorenzo Sena and Jeremy Yazzie provided mobile laboratory analysis of the soil samples, which allowed field decisions regarding boring locations and selection of soil samples for submittal to the EPA Region 7 laboratory. Soil borings SB46 through SB66 were advanced in December 2012. Location SB28, near the former Zenith solvent USTs, was resampled as SB28R from 8 to 12 feet bgs to evaluate the extent of high PCE concentrations previously identified in SB28. Access was not granted within the building footprint to conduct sub-slab vapor sampling or to advance DPT borings to delineate suspected soil contamination.

During this sampling event, STM Mead also provided training to Sioux City water department employees who would be performing weekly inspections of the HCS. A sample of the HCS effluent was also collected for VOC analysis. Selected soil samples were submitted to EPA Region 7 laboratory under ASR 5872.

Sampling Procedures

Table 2 summarizes soil borings location information regarding the three sampling events, and Figure 3 in Appendix A shows the soil boring locations.

TABLE 2

SOIL BORING LOCATIONS
GENERAL MOTORS FORMER AC ROCHESTER FACILITY
SIOUX CITY, IOWA

Soil Boring	Latitude (Degrees North)	Longitude (Degrees West)	Elevation (ft AMSL)	Sampled Interval (ft bgs)	Approximate Location
April 2012 Soil Borings					
SB1	42.493608	96.433129	1098.83	0-28	Northwest parking lot

TABLE 2 (Continued)

SOIL BORING LOCATIONS
GENERAL MOTORS FORMER AC ROCHESTER FACILITY
SIOUX CITY, IOWA

Soil Boring	Latitude (Degrees North)	Longitude (Degrees West)	Elevation (ft AMSL)	Sampled Interval (ft bgs)	Approximate Location
April 2012 Soil Borings (Continued)					
SB2	42.493630	96.432907	1099.16	0-28	Northwest parking lot
SB3	42.493586	96.433336	1098.33	0-28	Northwest parking lot
SB4	42.493721	96.432899	1097.95	0-28	Northwest parking lo
SB5	42.493466	96.433432	1098.10	0-28	Northwest parking lot
SB6	42.493386	96.432992	1099.28	0-28	Northwest parking lot
SB7	42.493411	96.432698	1098.30	0-28	Northwest parking lot
SB8	42.493413	96.432422	1099.21	0-28	Northwest parking lot
SB9	42.493399	96.432866	1098.67	0-28	Northwest parking lot
SB10	42.492659	96.434481	1102.26	0-28	Undeveloped western area
SB11	42.492923	96.434463	1099.12	0-28	Undeveloped western area
SB12	42.492808	96.434934	1098.47	0-28	Undeveloped western area
SB13	42.492545	96.434903	1103.36	0-28	Undeveloped western area
SB14	42.492106	96.434856	1097.43	0-28	Undeveloped western area
SB15	42.493290	96.433494	1098.22	0-28	Northwest parking lot
SB16	42.493311	96.434056	1098.33	0-28	Northwest parking lot/undeveloped area
SB17	42.493114	96.433266	1098.81	0-32	Northwest parking lot
SB18	42.493132	96.432962	1099.13	0-28	Northwest parking lot
SB19	42.493129	96.432701	1098.63	0-28	Northwest parking lot
SB20	42.493741	96.432559	1098.37	0-28	Propane tank farm area
SB21	42.493943	96.432030	1098.86	0-28	North fence between tank farms
SB22	42.492934	96.433246	1097.83	0-28	Center parking lot storm sewer
SB23	42.493048	96.433547	1098.73	0-28	Northwest parking lot
SB24	42.493210	96.434351	1098.95	0-28	Undeveloped western area
SB25	42.492801	96.433242	1098.74	12-24	Center parking lot storm sewer
SB26	42.493839	96.432328	1098.95	0-28	North fence between tank farms
SB27	42.493469	96.431971	1099.43	0-28	Northwest corner of building
SB28	42.493489	96.431726	1099.62	0-28	Near northwest corner of building
SB29	42.493680	96.431684	1098.55	0-28	Northwest corner of building
SB30	42.493988	96.431705	1097.99	0-28	West of Stoddard tank Farm
SB31	42.493577	96.431523	1099.02	0-28	Northwest corner of building
SB32	42.493811	96.431956	1098.81	0-28	Between tank farms and building
SB33	42.492301	96.432648	1097.94	12-28	Southeast parking lot storm sewer
SB34	42.492804	96.433172	1098.85	16-28	Center parking lot storm sewer
SB35	42.492796	96.433358	1098.48	16-28	Center parking lot storm sewer
SB36	42.492435	96.433221	1098.97	12-28	Southern parking lot storm sewer
SB37	42.492102	96.431757	1099.24	0-20	Southern easement of Zenith Drive
SB38	42.492147	96.430639	1098.69	0-20	Southern easement of Zenith Drive
SB39	42.494103	96.431493	1098.60	0-28	North of Stoddard tank farm
SB40	42.493936	96.431483	1098.53	0-28	South of Stoddard tank farm

TABLE 2 (Continued)

SOIL BORING LOCATIONS
GENERAL MOTORS FORMER AC ROCHESTER FACILITY
SIOUX CITY, IOWA

Soil Boring	Latitude (Degrees North)	Longitude (Degrees West)	Elevation (ft AMSL)	Sampled Interval (ft bgs)	Approximate Location
June 2012 Soil Borings					
SB41	42.49376	96.43277	NA	0-28	South of railroad track
SB42	42.49413	96.43174	NA	0-28	South of railroad track
SB43	42.4936	96.434	NA	0-28	North of railroad track
SB44	42.49381	96.43346	NA	0-28	North of railroad track
SB45	42.49392	96.43300	NA	0-28	North of railroad track
December 2012 Soil Borings					
SB28R	42.493489	96.431726	1099.62	8-12	Near northwest corner of building
SB46	42.49291	96.43198	NA	0-24	West side of building by door
SB47	42.49326	96.43200	NA	0-28	West side of building ~70 feet south of north end
SB48	42.49356	96.43173	NA	0-28	Northeast of former Zenith USTs
SB49	42.49351	96.43095	NA	0-28	North of building at cooling towers
SB50	42.49372	96.43220	NA	0-28	East of propane tank farm
SB51	42.49349	96.43313	NA	0-28	Northwest parking lot
SB52	42.49335	96.43272	NA	16-28	Northwest parking lot
SB53	42.49255	96.43318	NA	0-28	Southern parking lot storm sewer
SB54	42.49252	96.43335	NA	0-28	Southern parking lot storm sewer
SB55	42.49345	96.43360	NA	0-28	Northwest parking lot
SB56	42.49372	96.43372	NA	0-28	North of railroad track
SB57	42.49421	96.43213	NA	0-28	North of railroad track
SB58	42.49437	96.43168	NA	0-28	North of railroad track
SB59	42.49447	96.43132	NA	0-28	North of railroad track
SB60	42.49431	96.43115	NA	0-28	South of railroad track
SB61	42.49394	96.43228	NA	0-28	South of railroad track
SB62	42.49443	96.43077	NA	0-28	South of railroad track
SB63	42.49458	96.43028	NA	0-28	South of railroad track
SB64	42.49260	96.43353	NA	0-20	Southern parking lot storm sewer
SB65	42.49245	96.43349	NA	0-20	Southern parking lot storm sewer
SB66	42.49416	96.43079	NA	0-28	East of Stoddard tank farm

Notes:

EPA U.S. Environmental Protection Agency
ft AMSL Feet above mean sea level
ft bgs Feet below ground surface
GPS Global Positioning System
NA Not available (locations not surveyed; locations based on hand-held GPS)
SB Soil boring
UST Underground storage tank

Borings were typically advanced to 28 feet bgs during all three sampling events. This depth generally corresponds to the top of the water table, which was measured at about 27 feet bgs in a monitoring well

near the SB1 area in April 2012. At locations SB1 and SB17, soils were initially collected to 28 feet bgs; however, the borings were later re-entered and sampled from 28-32 feet bgs. Two 20-foot borings were placed along the southern easement of Zenith Drive to evaluate contaminant hazard to utility workers during a planned relocation of the sanitary sewer line to that side of the street. At selected locations, soils were collected only for logging and sampling at depth intervals of interest, as determined by EPA from nearby borings.

Soil cores were collected using Geoprobe 4-foot-long Macro-Core samplers with disposable polyvinyl chloride (PVC) liners. A closed system was used whereby an activator pin opens the sampler at the desired sampling, eliminating slough from above. Soils were typically sampled continuously from the surface to 28 feet bgs and screened for VOC vapors using a photoionization detector (PID). Because chlorinated solvents generally have a poor PID response, a RAE Systems PID meter, which measures concentrations in parts per billion (ppb) rather than parts per million (ppm), was used for screening when possible.

In April 2012, START typically collected five or six samples (typically, one every 5 feet as specified in the SAP) at each location. Samples were collected for VOC and 1,4-dioxane analyses at most locations. Samples from borings SB31, near the electrical substation, were also collected for polychlorinated biphenyls (PCB) analyses. Samples from the southern Zenith Drive easement (SB37 and SB38) were screened by EPS, but only the deepest samples from each boring were submitted to the EPA Region 7 laboratory for 1,4-dioxane analyses. All soil samples were stored in coolers maintained at or below 4 °C pending submittal to the EPA Region 7 laboratory. HGL selected the samples for submittal to EPA Region 7 Laboratory under ASR 5706 based on the EPS mobile laboratory field screening results. Samples 5706-401 through 404 from SB31 underwent PCB analysis. Samples intervals from 0 to 1 feet bgs (5706-404) and 10 to 12 feet bgs (5706-401) were not submitted to EPA Region 7 laboratory for VOC analysis. The sample and field duplicate (FD) from the 4- to 6-foot bgs interval were submitted for VOC analysis as samples 5706-139 and -139FD, and for PCB analysis as samples 5706-402 and -402FD.

At each interval sampled for VOCs using Method 5035, a tipless syringe was used to collect two 5-gram aliquots of soil, which were placed into separate 40-milliliter (mL) vials preserved with sodium bisulfate. Two additional unpreserved 40-mL vials were packed with soil. These four vials were placed in a cooler and retained for possible analysis by the EPA Region 7 laboratory. Two additional 40-mL vials were filled about half-full with soil. One of these was submitted to EPS for on-site analysis of targeted VOCs. The second was heated in the vehicle. The vial was later uncapped and a headspace reading was

determined. PID readings of headspace in heated sample vials were not determined during the June or December 2012 sampling events. Table B-2 in Appendix B summarizes PID results for the heated vial as compared to the initial core PID readings, the EPS mobile laboratory data, and the EPA Region 7 laboratory (targeted analytes only). A brief lithology description for the sample is also included for comparison. Samples for 1,4-dioxane or PCB analyses were homogenized and collected in 8-ounce soil containers.

In June 2012, samples were collected from five borings within the BNSF right-of-way. Samples were collected for VOCs using Method 5035 as described above and submitted to the EPA Region 7 laboratory under ASR 5788. No mobile laboratory was used for this small sampling event. These samples are also listed on Table B-2 in Appendix B.

In December 2012, 5 grams of sample was collected with the tipless syringe and placed into 20-mL vials containing methanol prepared and pre-weighed by EPA mobile laboratory personnel. Because this sampling event was to better delineate known areas of contamination, a number of samples were collected only for mobile laboratory analysis to verify presence or absence of contaminants. At least one sample per boring was collected for VOC analysis using Method 5035 and submitted to the Region 7 laboratory for confirmation analysis. These sample results are listed on Table B-2 in Appendix B.

Soil borings were plugged with granular or chipped bentonite following sampling. Borings placed in asphalt areas in April 2012 were repaired with concrete patch. April 2012 soil cuttings were containerized for disposal by EPA contractor Environmental Restoration, LLC, along with decontamination and purge water from the groundwater sampling by HGL. Soil cuttings from June and December 2012 were containerized and left on site. PVC sleeves, gloves, and other incidental investigation-derived waste were disposed of as solid waste.

3.1 QUALITY ASSURANCE AND QUALITY CONTROL SAMPLING

Samples were collected as mobile laboratory duplicates, laboratory duplicates, and matrix spike/matrix spike duplicates in accordance with the HGL SAP. Field duplicates of 17 samples were submitted during the April sampling event. No laboratory duplicates were collected in June or December 2012.

3.2 DEVIATIONS FROM THE SAP

Sample locations specified in HGL's SAP were modified based on field decisions by the OSC and mobile laboratory results from samples previously collected at other locations. A signed access agreement from

BNSF was not received for April field activities; consequently, locations north of the track were not sampled until June 2012. In December 2012, sampling at additional locations occurred to delineate the contaminated areas for potential treatment or excavation.

3.3 SAMPLE DELIVERY

Samples for ASR 5706 were delivered to the EPA Region 7 laboratory in Kansas City, Kansas by HGL. A 60-day turnaround time was requested for the soil samples collected in April; standard 30-day turnaround was requested for the June and December sample analyses. Samples collected under ASR 5788 were hand-delivered to the EPA Region 7 laboratory on June 28, 2012. Samples collected under ASR 5872 were shipped overnight to EPA Region 7 laboratory by Federal Express on December 6, 2012. Copies of the sample field sheets and chain-of-custody forms for ASRs 5788 and 5872 are included as Appendix G. HGL field sheets and chain-of custody forms for ASR 5706 are included as Attachment 3.

4.0 ANALYTICAL DATA SUMMARY

This Section presents results from both geotechnical analyses and analytical data from field screening and the EPA Region 7 laboratory. Analytical tables are included as Appendix B.

4.1 GEOTECHNICAL RESULTS

Table 3 presents the geotechnical results (grain size analysis and carbon content) for samples collected in June 2012. The geotechnical results received from HGL are included as Attachment 1.

The geotechnical data agree with the boring logs in Appendix F. In general, sand is present above 5 feet bgs, silts predominate from about 5 to 20 feet bgs, with sandy silts present from about 20 to 26 feet bgs. Fine sands with little clay or silt are dominant below 25 feet. Boring logs identify evidence of petroleum contamination such as staining, odors, and very high organic vapor readings in several borings near the former Stoddard tank farm and northwest corner of the building.

TABLE 3

SOIL GRAIN SIZE ANALYSIS AND ORGANIC CONTENT
GENERAL MOTORS FORMER AC ROCHESTER FACILITY
SIOUX CITY, IOWA

Boring Number	Depth	Percent Gravel		Percent Sand			Percent Fines		Percent Organic Matter	Percent Organic Carbon
	ft bgs	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay		
SB-8	2-4	0	9.4	5.5	31.7	50.2	2.9	0.3	<0.2	< 0.1
	8-10	0	0	0	0.6	27.5	63.1	8.8	0.5	0.3
	14-16	0	0	0	0.2	1.5	61.4	36.9	1.2	0.7
	20-22	0	0	0	0.5	23.5	60.2	15.8	0.9	0.5
	26-28	0	0	0	0.2	95.6	3.7	0.5	<0.2	0.1
SB-19	2-4	0	0	0.4	13.2	80.9	5	0.5	< 0.2	< 0.1
	8-10	0	0	0	0	3.3	78.7	18	0.9	0.5
	14-16	0	0	0	0.2	1.3	54.8	43.7	1	0.6
	20-22	0	0	0	0.2	17.7	71	11.1	1.2	0.7
	26-28	0	0	0	0.2	95.7	2.5	1.6	<0.2	< 0.1
SB-26	2-4	0	0	0.7	31.8	67	0	0.5	<0.2	< 0.1
	8-10	0	0	0	0	3.3	80.4	16.3	0.9	0.5
	14-16	0	0	0	2.9	9.8	71.7	15.6	1.2	0.7
	20-22	0	0	0	0.2	30.6	55.5	13.7	1.2	0.7
	26-28	0	0	0	0.1	91.3	8.4	0.2	<0.2	< 0.1

Notes

ft bgs Feet below ground surface
SB Soil boring

Table B-2 in Appendix B summarizes the headspace readings, mobile laboratory results, and lithology of the samples.

4.2 ANALYTICAL RESULTS

Table B-3 in Appendix B includes all results from samples submitted for VOC analysis to both the EPS mobile laboratory and to the EPA Region 7 laboratory; it also provides a complete summary of 1,4-dioxane results from the EPA Region 7 laboratory. PCBs were not detected in samples submitted from SB31; therefore these results are not included in Table B-3. Tables B-2 and B-3 compare the contaminants of interest to remediation action levels (RAL) calculated by HGL based on groundwater protection (see Attachment 2). EPA Regional screening levels (RSL) for industrial soils from 0 to 2 feet bgs are also provided along with the soil screening levels based on the MCL. The analytical data packages for ASRs 5706, 5788, and 5872 are in Appendix H.

Only three soil samples, all from SB17 at 20 to 30 feet bgs, contained 1,4-dioxane. The 20- to 21-foot sample contained 82 µg/kg, and the samples collected at 25 to 26 and 29 to 30 feet bgs each contained 120 µg/kg of 1,4-dioxane.

Table 4 summarizes the approximate depth intervals where soil samples contained contaminants of concern exceeding the site-specific RALs based on either mobile or EPA Region 7 laboratory results.

TABLE 4

SUMMARY OF REMEDIAL ACTION LEVEL EXCEEDANCE AREAS
GENERAL MOTORS FORMER AC ROCHESTER FACILITY
SIOUX CITY, IOWA

Boring	1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	*cis*-1,2-DCE
RAL (µg/kg)	**1,780**	**16**	**62**	**65**	**47**	**505**
Approximate Depth Interval Having Concentration Exceeding Remedial Action Goal (ft bgs)						
Northwest Parking Lot						
SB1	None	23-32	23-24	18-24	18-32	23-32
SB2	None	20-22	None	17-26	17-22	None
SB5	None	20-28	None	0.5-22	0.5-28	17-18
SB6	None	15-28	23-24	None	None	None
SB7	None	20-28	None	None	None	None
SB8	None	23-27	None	None	None	None
SB9	22-27	22-27	22-27	None	26-27	None
SB15	10-11	17-28	5-18	10-18	10-22	None
SB51	20.5-23	20.5-27	20.5-23	20.5-21.5	20.5-23	None
SB52	None	21-27	None	None	None	None
SB55	None	None	None	None	None	None
South Railroad Right-of-Way						
SB3	None	None	None	9-25	6-25	17-25
SB4	None	23-24	None	5-26	5-26	17-18
SB41	None	None	None	None	None	None
SB42	None	17-27	None	6-18	3-27	26-27
SB60	1.5-2	20-20.5	None	1.5-12	None	None
SB61	None	None	None	None	None	None
SB62	None	None	None	None	None	None
SB63	None	None	None	None	None	None
North Railroad Right-of-Way						
SB43	None	None	None	None	None	None
SB44	None	17-21	None	13-19	13-19	17-19
SB45	None	None	None	None	None	None
SB56	None	None	None	None	None	None
SB57	None	None	None	None	None	None
SB58	None	None	None	None	None	None
SB59	None	None	None	None	None	None

TABLE 4 (Continued)

SUMMARY OF REMEDIAL ACTION LEVEL EXCEEDANCES AREAS
GENERAL MOTORS FORMER AC ROCHESTER FACILITY
SIOUX CITY, IOWA

Boring	1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	*cis*-1,2-DCE
RAL (µg/kg)	**1,780**	**16**	**62**	**65**	**47**	**505**
Approximate Depth Interval Having Concentration Exceeding Remedial Action Goal (ft bgs)						
Central Parking Lot						
SB17	14-15 and 29-30	10-30	5-30	14-15	5-30	None
SB18	20-21	10-28	19-21	19-20	20-21	None
SB19	None	20-26	None	None	None	None
SB22	16-17	5-27	16-17	16-17	11-24	None
SB23	None	16-27	23-24	None	None	None
SB25	None	13-22	None	20-22	16-22	None
SB33	None	None	None	None	None	None
SB34	None	None	None	20-21	17-21	None
SB35	None	None	None	None	17-18	None
SB36	None	None	None	None	14-17	None
SB53	None	None	None	None	None	None
SB54	None	None	None	5.5-6.5	5.5-6.5	9-17
SB64	None	None	None	None	None	None
SB65	None	None	None	None	None	None
Western Wooded Area						
SB10	None	22-24	None	None	None	None
SB11	None	22-28	None	None	None	None
SB12	None	None	None	None	None	None
SB13	None	None	None	None	None	None
SB14	None	None	None	None	None	None
SB16	None	15-28	None	10-16	20-21	None
SB24	None	9-21	None	16-17	None	None
Area from Tank Farms to Building						
SB20	None	None	None	None	None	None
SB21	None	25-26	None	16-21	10-26	None
SB26	None	None	None	None	None	None
SB29	None	None	None	None	None	None
SB30	None	None	21-23	21-23	21-23	18-27
SB31	None	None	None	None	None	None
SB32	None	None	None	None	8-26	None
SB39	None	None	None	None	None	None
SB40	None	None	None	None	None	None
SB48	None	None	None	10-11	None	None
SB50	None	None	None	None	None	None
SB66	None	None	None	None	None	None
Southern Easement of Zenith Drive						
SB37	None	None	None	None	None	None
SB38	None	None	None	None	None	None

TABLE 4 (Continued)

SUMMARY OF REMEDIAL ACTION LEVEL EXCEEDANCES AREAS
GENERAL MOTORS FORMER AC ROCHESTER FACILITY
SIOUX CITY, IOWA

Boring	1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	*cis*-1,2-DCE
RAL (µg/kg)	1,780	16	62	65	47	505
Approximate Depth Interval Having Concentration Exceeding Remedial Action Goal (ft bgs)						
Area Adjacent to Building						
SB27	None	None	None	7-11	None	None
SB28	None	None	None	8-10 and 20-21	None	None
SB28R	None	None	None	11-12	None	None
SB46	None	None	None	None	None	None
SB47	None	None	None	9-9.5	None	None
SB49	None	None	None	None	None	None

Notes

DCA Dichloroethane
DCE Dichloroethene
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
PCE Tetrachloroethene
R Re-sample
RAL Remedial action level
SB Soil boring
TCA Trichloroethane
TCE Trichloroethene

Figures 4 through 12 show maximum concentrations of PCE, TCE, and 1,1,1-TCA at the soil intervals 0 to 10 feet bgs, 10 to 20 feet bgs, and greater than 20 feet bgs (generally to 28 feet bgs). The maximum concentration detected over the interval, regardless of whether the result was determined by the mobile laboratory or EPA Region 7 laboratory, has been used to develop these figures.

Figures 13 through 18 show results for the common degradation products 1,1-DCA, 1,1-DCE, and *cis*-1,2-DCE. Because these contaminants were not commonly detected in the 0- to 10-foot interval, the data has been included on Figures 13, 15, and 17 with the results for the underlying 10- to 20- foot intervals.

Because of the variability of the data, soil types, and sampling events, these concentration contour maps should be considered rough approximations of contaminant distribution in soils. Moreover, contaminant concentration contours have been interpreted with consideration of site conditions such as surface water and groundwater flow directions and likely contaminant migration along storm sewers.

Table B-4 in Appendix B lists the data used to develop Figures 4 through 18, and indicates the intervals and maximum concentrations used. Contours are drawn on a logarithmic scale of 10, 100, 1,000, and 10,000 µg/kg.

Figures 4, 5, and 6 in Appendix A show maximum PCE concentrations in soils within the selected intervals.

PCE concentrations exceeding 1,000 µg/kg were detected along the railroad right-of-way drainage swale north of the former Stoddard tank area (SB42), northwest of the former propane tank farm (SB04), at the location of the former solvent USTs (SB28/28R), and at the southwestern parking lot (SB54). The concentrations detected during resampling at SB-28R were significantly lower than the original sampling, suggesting that contamination is not widespread in this area. Areas having concentrations above 1,000 µg/kg generally decrease with depth, while the areas having concentrations between 10 and 1,000 µg/kg generally increase with depth and spread southeastward (downgradient).

Because no soil samples were collected within the building footprint, PCE concentrations are assumed confined to the former UST tank excavation area, utility conduits or drainage pipes likely present in the area, and the northwest corner of the building where solvents were likely used. The UST excavation is assumed to have removed most contaminated soils to a depth of 10 feet bgs.

Figures 7, 8, and 9 are maximum concentration maps for TCE. No TCE concentrations in the 0- to 10-foot interval exceeded 1,000 µg/kg. The main contaminant areas for TCE are the same as PCE, except for the area at the building and former solvent USTs. As with the PCE concentrations, areas where concentrations are between 10 and 1,000 µg/kg increase with depth and spread southeastward. In contrast to PCE, areas with concentrations exceeding 1,000 µg/kg also increase with depth. The lower TCE concentrations in the 0- to 10-foot interval and the higher TCE concentrations with depth may be a reflection of TCE's ready transport through soils and its low potential for adsorption in contrast to PCE, which exhibits low to medium soil mobility and slowly leaches to groundwater (EPA 2013a, b).

Figures 10, 11, and 12 show the 1,1,1-TCA results. The areas having 1,1,1-TCA contamination at concentrations of 10, 100, and 1,000 µg/kg generally appear to have spread farther east and southeast (downgradient), likely due to the higher solubility of 1,1,1-TCA relative to TCE and PCE. 1,1,1-TCA is the only contaminant having a maximum concentration exceeding 10,000 µg/kg. Concentrations of 14,519 and 10,985 µg/kg were detected by EPA's mobile laboratory at depths of 20.5 to 21.5 and 22 to 23 feet bgs at SB51. The deeper sample (which induced a PID reading of 26,100 ppb but had no odor) was submitted to EPA Region 7 laboratory; however, no VOCs were reported.

The common 1,1,1-TCA degradation product 1,1-DCA was detected above 10 feet bgs in only four samples (SB18, SB22, SB24, and SB32), with concentrations ranging from 10 to 40 µg/kg. Figure 13 identifies the four areas where 1,1-DCA exceeded 10 µg/kg within the 0- to 10-foot interval, and shows the areas where concentrations exceeded 10 and 100 µg/kg within the 10- to 20-foot interval. Figure 14 shows the areas where 1,1-DCE exceeded 10, 100, and 1,000 µg/kg in soil samples collected below 20 feet bgs.

Figures 15 and 16 show maximum concentrations of 1,1-DCE, which may result from degradation of either 1,1,1-TCA or TCE. 1,1-DCE was detected at concentrations above 10 µg/kg in three 0- to 10-foot samples (SB15, SB17, and SB18), and exceeded 100 µg/kg at SB17.

Figures 17 and 18 show maximum concentrations of *cis*-1,2-DCE in soils from 0-20 feet bgs and in soils below 20 feet bgs. Low concentrations of *cis*-1,2-DCE (10 to 100 µg/kg) were detected in soils from 0 to 10 feet bgs within the areas generally corresponding to the 100 to 1,000 µg/kg concentrations at 10 to 20 feet bgs. Only one sample collected from 0 to 10 feet bgs—collected at 9 to 10 feet bgs at SB54—contained over 100 µg/kg of *cis*-1,2-DCE. The EPA mobile laboratory result for that sample was 630 µg/kg. *Cis*-1,2-DCE was detected within all three depth intervals at SB54.

5.0 REFERENCES

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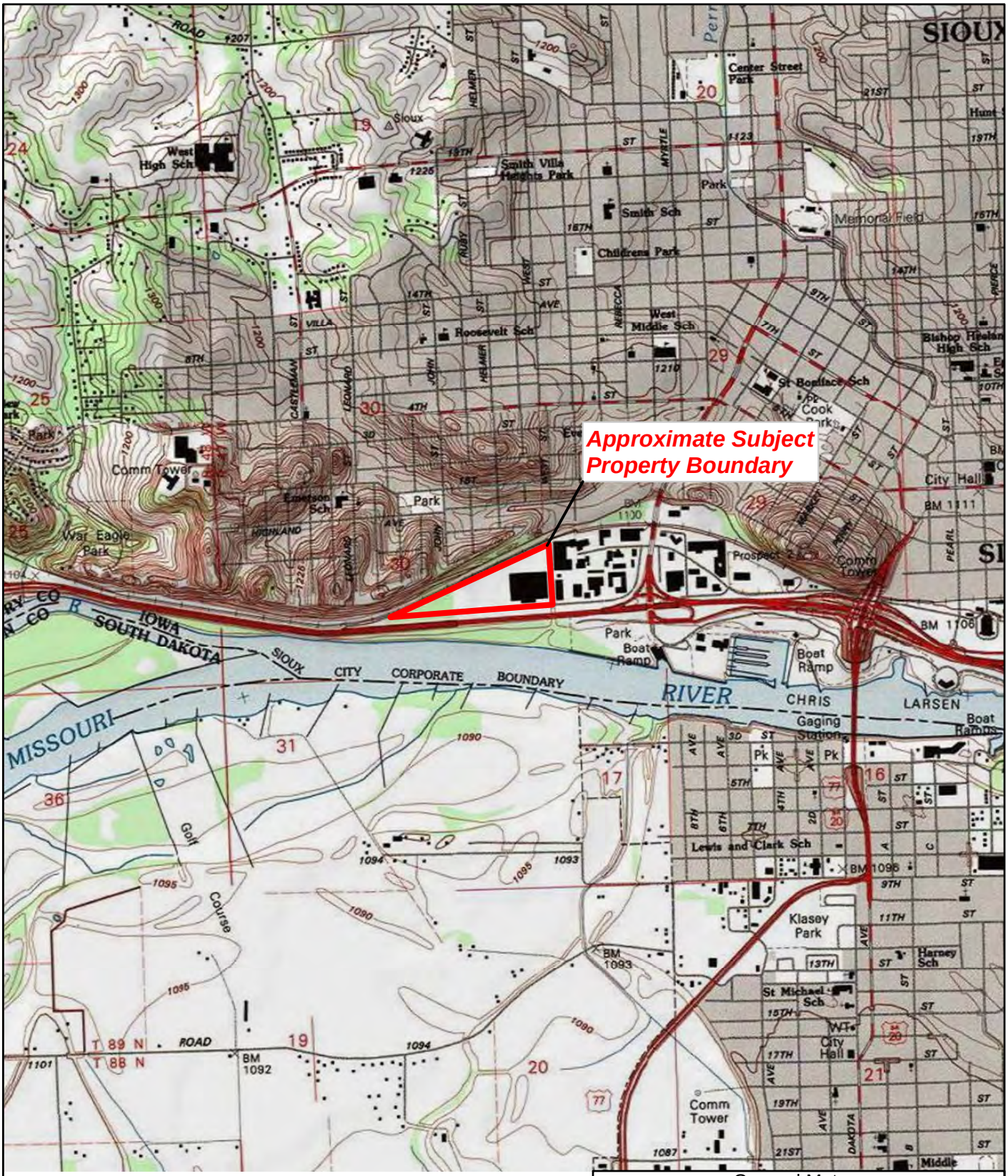
APPENDIX A

FIGURES



Source: USGS Sioux City North, Iowa 7.5 Minute Topo Quad,1994;
USGS Sioux City South, Iowa 7.5 Minute Topo Quad, 1993

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 1

Site Location Map

TETRA TECH

Date: 04/27/12 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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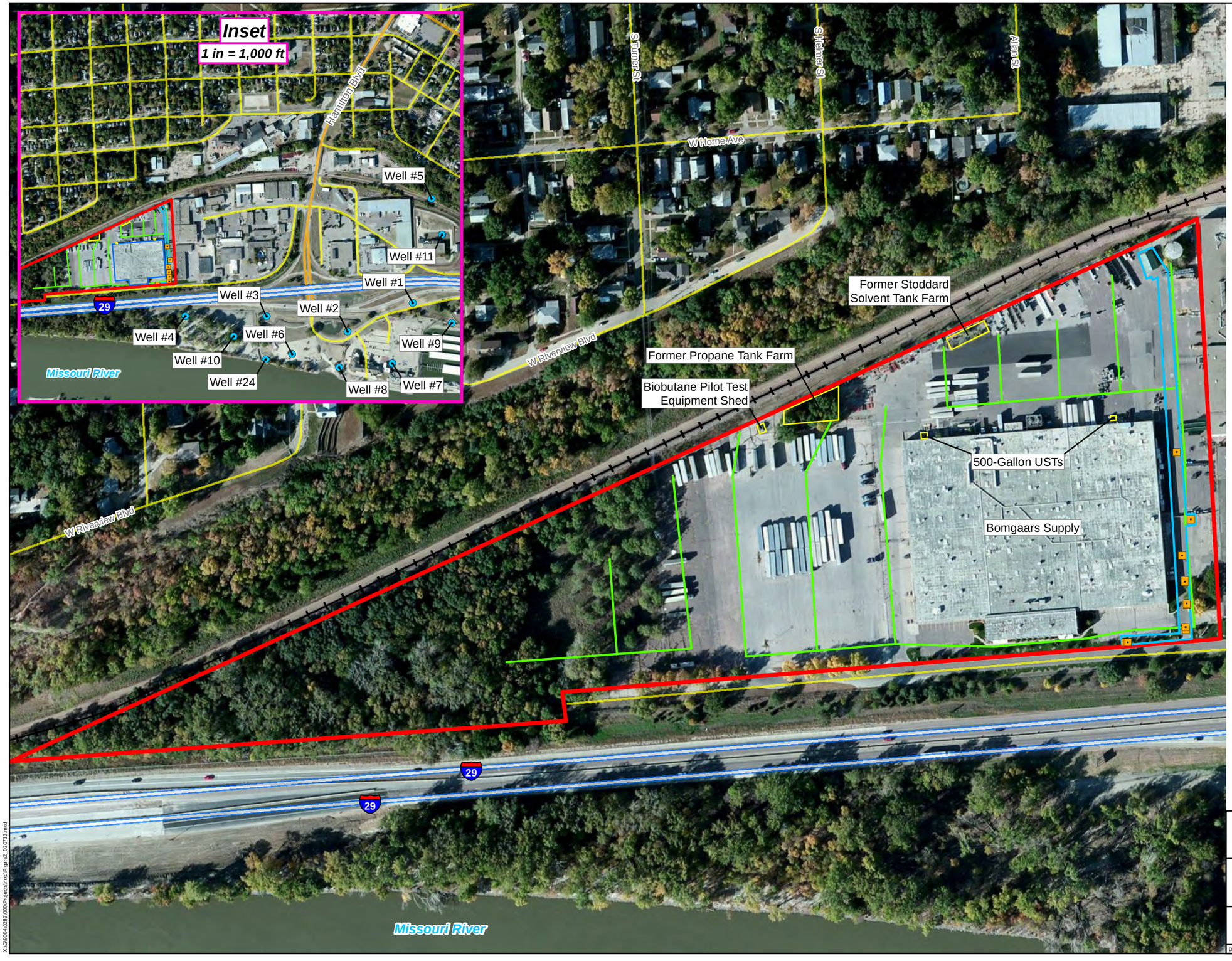

Legend

- City well location
- Recovery well location
- Burlington Northern Santa Fe Railway
- Interstate highway
- Major road
- Street
- Storm sewer line
- Approximate subject property boundary
- Hydraulic capture system
- UST Underground storage tank

N

0 100 200

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 2
Site Layout Map

TETRA TECH

Date: 02/11/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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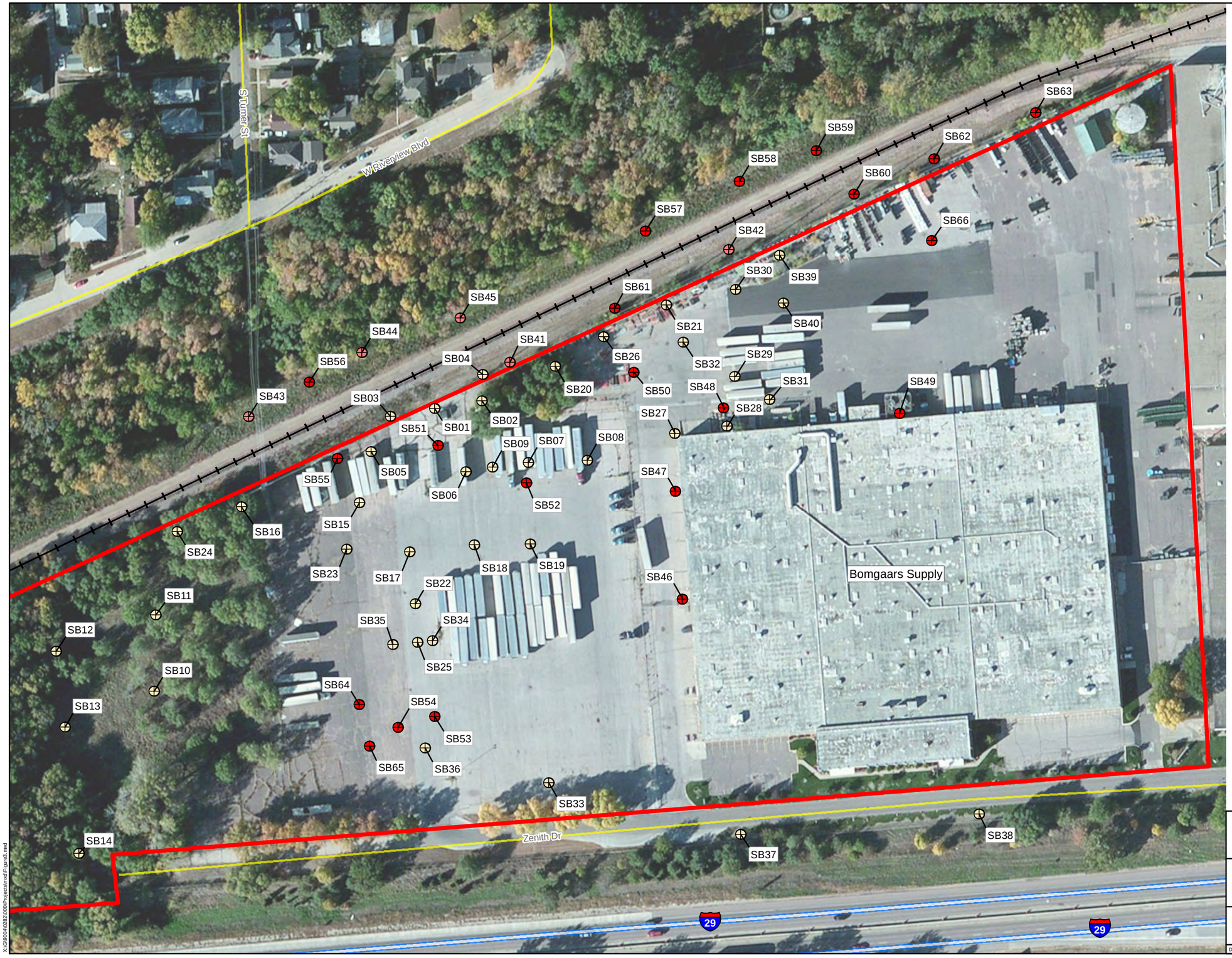

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Approximate subject property boundary

DPT Direct push technology

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 3
Sample Location Map

TETRA TECH

Date: 02/08/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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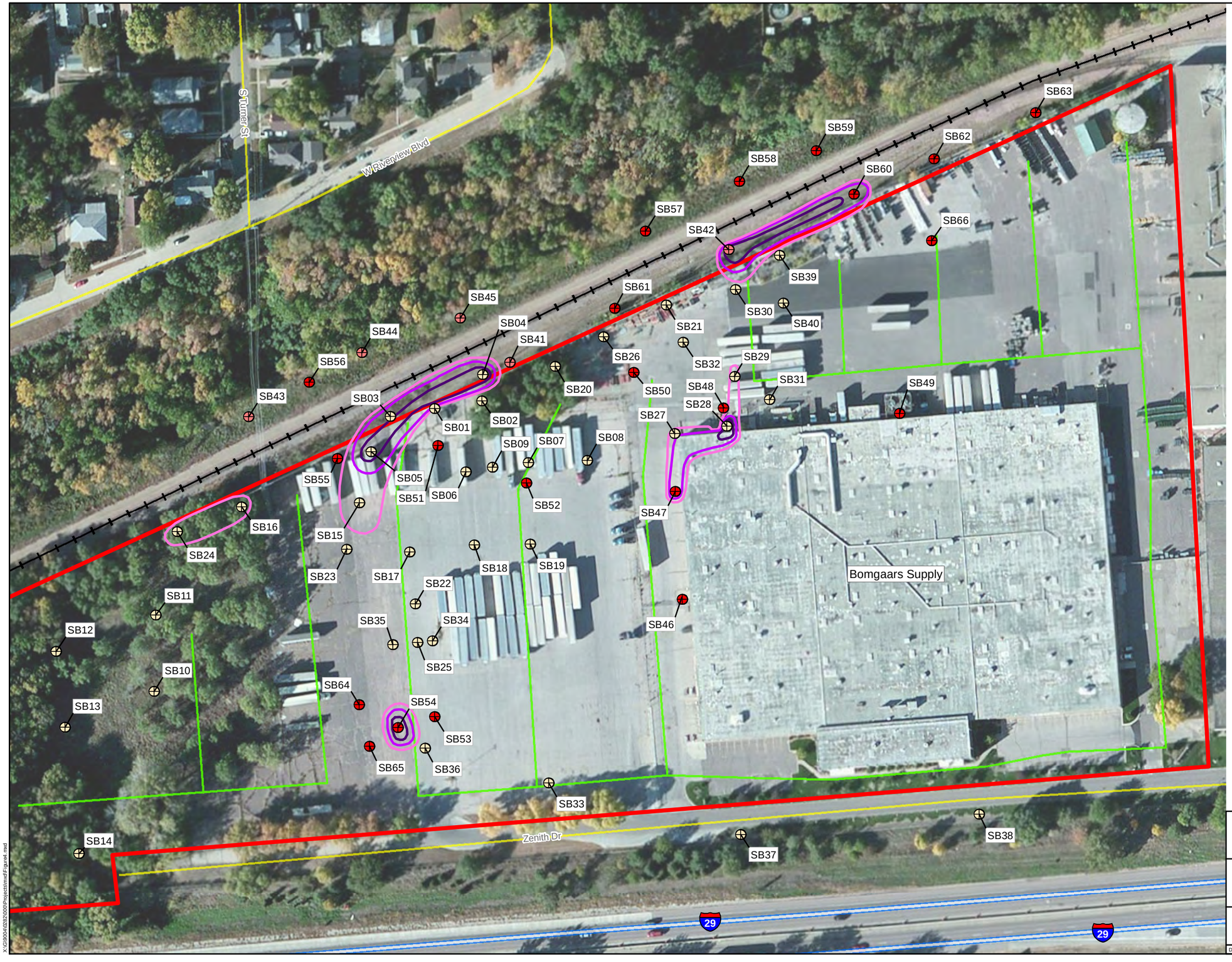

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

PCE concentration (0-10 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
PCE Tetrachloroethene

N

0 60 120
Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 4
Maximum PCE Concentrations
In Soils 0-10 ft bgs

TETRA TECH

Date: 02/11/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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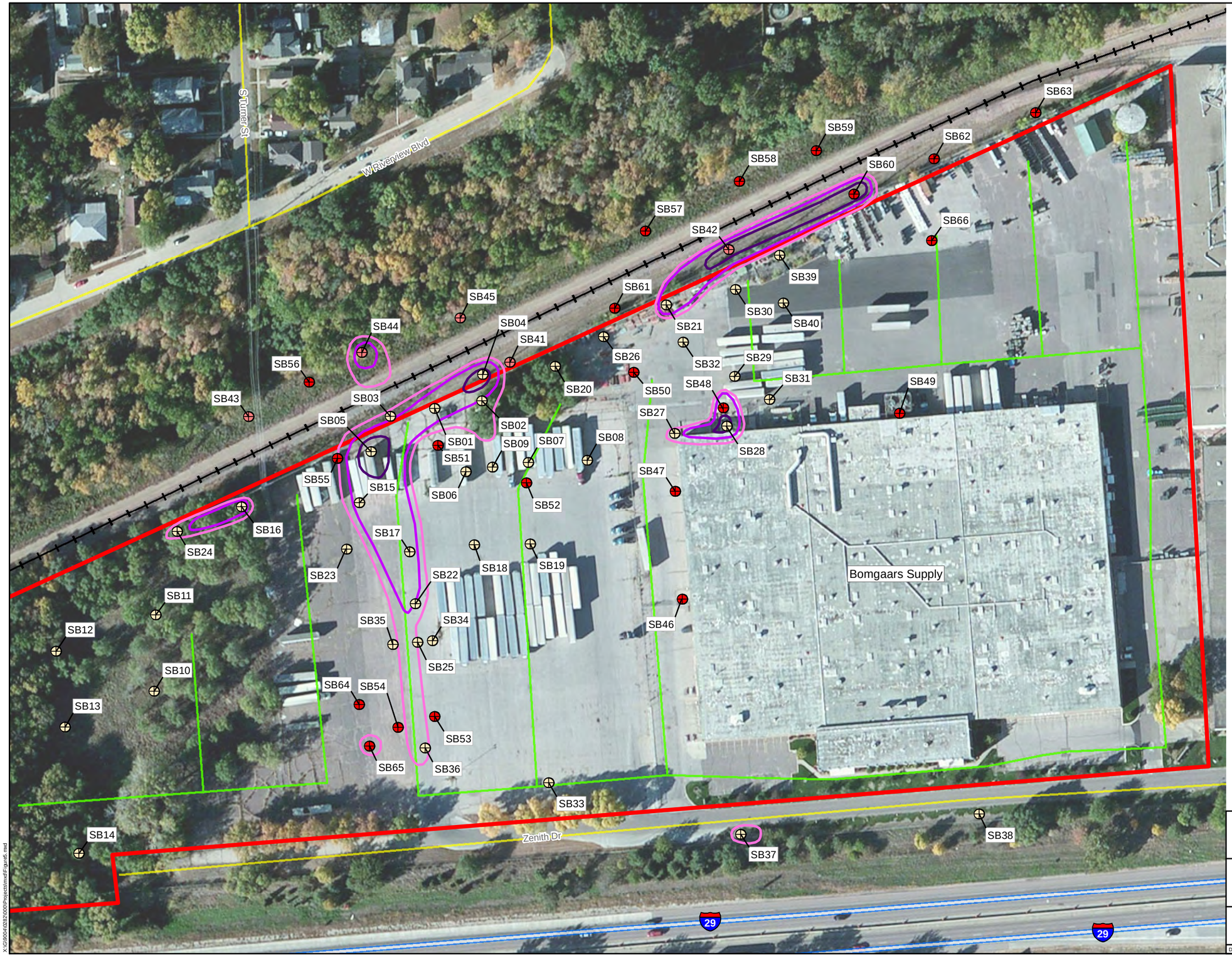

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012

PCE concentration (10-20 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg
- Approximate subject property boundary
- Storm sewer line
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
PCE Tetrachloroethene

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 5
Maximum PCE Concentrations
In Soils 10-20 ft bgs

TETRA TECH

Date: 02/22/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

PCE concentration (>20 ft bgs)

- 10 µg/kg
- 100 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
PCE Tetrachloroethene

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 6
Maximum PCE Concentrations
In Soils Greater Than 20 ft bgs

TETRA TECH

Date: 02/11/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

TCE concentration (0-10 ft bgs)

- 10 µg/kg
- 100 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
TCE Trichloroethene

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 7
Maximum TCE Concentrations
In Soils 0-10 ft bgs

TETRA TECH

Date: 02/12/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

X:\GIS\9004\l0282\000\Projects\mxd\Figure7.mxd

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

TCE concentration (10-20 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
TCE Trichloroethene

N

0 60 120
Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 8
Maximum TCE Concentrations
In Soils 10-20 ft bgs

TETRA TECH

Date: 02/12/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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S Turner St
W Riverview Blvd
Zenith Dr
Bomgaars Supply
29
29
SB01
SB02
SB03
SB04
SB05
SB06
SB07
SB08
SB09
SB10
SB11
SB12
SB13
SB14
SB15
SB16
SB17
SB18
SB19
SB20
SB21
SB22
SB23
SB24
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SB26
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SB62
SB63
SB64
SB65
SB66

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

TCE concentration (>20 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
TCE Trichloroethene

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 9
Maximum TCE Concentrations
In Soils Greater Than 20 ft bgs

TETRA TECH

Date: 02/12/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

X:\GIS\9004\l0282\000\Projects\mxd\Figure9.mxd

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

1,1,1-TCA concentration (0-10 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
TCA Trichloroethane

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 10
Maximum 1,1,1-TCA Concentrations
In Soils 0-10 ft bgs

TETRA TECH

Date: 02/12/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

X:\GIS\9004\0282\2000\Projects\mxd\Figure10.mxd

S Turner St

W Riverview Blvd

Zenith Dr

Bomgaars Supply

SB01 SB02 SB03 SB04 SB05 SB06 SB07 SB08 SB09 SB10 SB11 SB12 SB13 SB14 SB15 SB16 SB17 SB18 SB19 SB20 SB21 SB22 SB23 SB24 SB25 SB26 SB27 SB28 SB29 SB30 SB31 SB32 SB33 SB34 SB35 SB36 SB37 SB38 SB39 SB40 SB41 SB42 SB43 SB44 SB45 SB46 SB47 SB48 SB49 SB50 SB51 SB52 SB53 SB54 SB55 SB56 SB57 SB58 SB59 SB60 SB61 SB62 SB63 SB64 SB65 SB66

29

29

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

1,1,1-TCA concentration (10-20 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
TCA Trichloroethane

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 11
Maximum 1,1,1-TCA Concentrations
In Soils 10-20 ft bgs

TETRA TECH

Date: 02/22/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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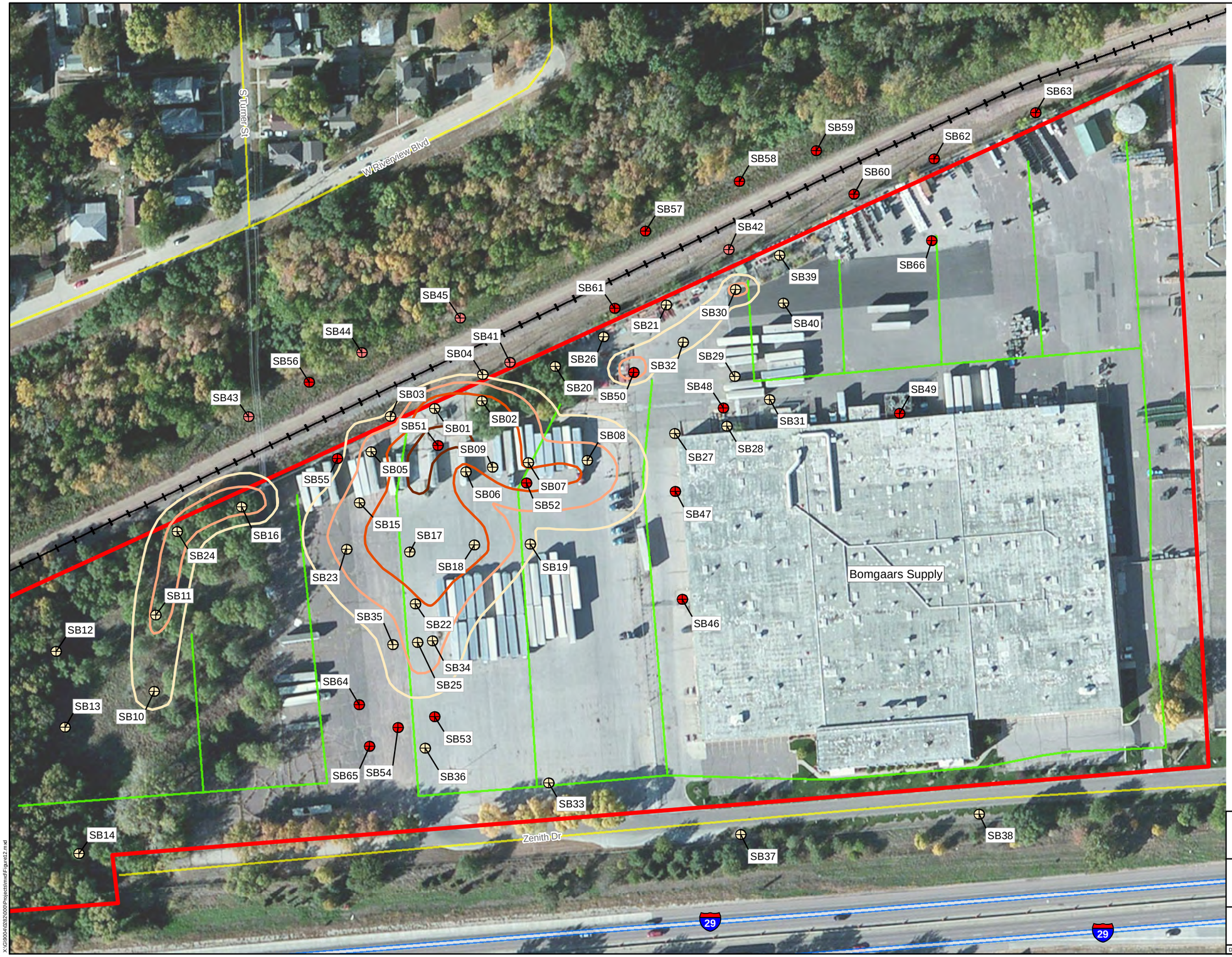

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

1,1,1-TCA concentration (>20 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg
- 10000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
TCA Trichloroethane

N

0 60 120
Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 12
Maximum 1,1,1-TCA Concentrations
In Soils Greater Than 20 ft bgs

TETRA TECH

Date: 02/12/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

X:\GIS\9004\0282\000\Projects\mxd\Figure12.mxd

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

1,1-DCA concentration (0-10 ft bgs)

- 10 µg/kg

1,1-DCA concentration (10-20 ft bgs)

- 10 µg/kg
- 100 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
DCA Dichloroethane

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 13
Maximum 1,1- DCA Concentrations
In Soils 0-20 ft bgs

TETRA TECH

Date: 02/15/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

X:\GIS\9004\l0282\000\Projects\mxd\Figure13.mxd

S Turner St

W Riverview Blvd

Zenith Dr

Bomgaars Supply

29

29

SB01 SB02 SB03 SB04 SB05 SB06 SB07 SB08 SB09 SB10 SB11 SB12 SB13 SB14 SB15 SB16 SB17 SB18 SB19 SB20 SB21 SB22 SB23 SB24 SB25 SB26 SB27 SB28 SB29 SB30 SB31 SB32 SB33 SB34 SB35 SB36 SB37 SB38 SB39 SB40 SB41 SB42 SB43 SB44 SB45 SB46 SB47 SB48 SB49 SB50 SB51 SB52 SB53 SB54 SB55 SB56 SB57 SB58 SB59 SB60 SB61 SB62 SB63 SB64 SB65 SB66

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

1,1-DCA concentration (>20 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
DCA Dichloroethane

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 14
Maximum 1,1-DCA Concentrations
In Soils Greater Than 20 ft bgs

TETRA TECH

Date: 02/14/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

X:\GIS\9004\0282\000\Projects\mxd\Figure14.mxd

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

1,1-DCE concentration (0-10 ft bgs)

- 10 µg/kg
- 100 µg/kg

1,1-DCE concentration (10-20 ft bgs)

- 10 µg/kg
- 100 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
DCE Dichloroethene

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 15
Maximum 1,1-DCE Concentrations
In Soils 0-20 ft bgs

TETRA TECH

Date: 02/20/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

X:\GIS\9004\0282\2000\Projects\mxd\Figure15.mxd

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

1,1-DCE concentration (>20 ft bgs)

- 10 µg/kg
- 100 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
DCE Dichloroethene

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 16
Maximum 1,1-DCE Concentrations
In Soils Greater Than 20 ft bgs

TETRA TECH

Date: 02/22/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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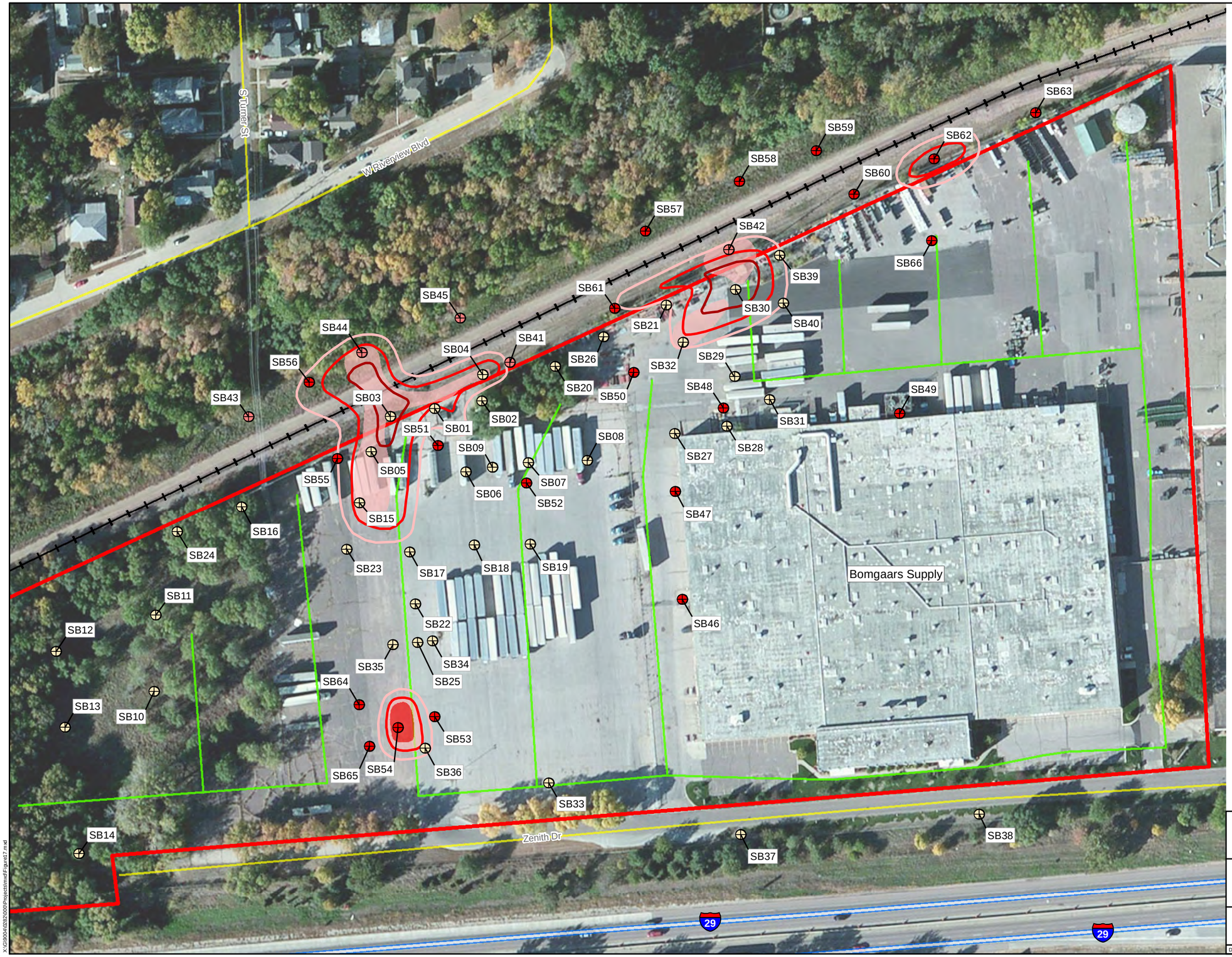

Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

cis-1,2-DCE concentration (0-10 ft bgs)

- 10 µg/kg
- 100 µg/kg

cis-1,2-DCE concentration (10-20 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
DCE Dichloroethene

N

0 60 120
Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 17
Maximum cis-1,2-DCE Concentrations
In Soils 0-20 ft bgs

TETRA TECH

Date: 02/27/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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Legend

- DPT soil sample location April 2012
- DPT soil sample location June 2012
- DPT soil sample location December 2012
- Burlington Northern Santa Fe Railway
- Interstate highway
- Street
- Storm sewer line
- Approximate subject property boundary

cis-1,2-DCE concentration (>20 ft bgs)

- 10 µg/kg
- 100 µg/kg
- 1000 µg/kg

DPT Direct push technology
ft bgs Feet below ground surface
µg/kg Micrograms per kilogram
DCE Dichloroethene

N

0 60 120

Feet

Source: ArcGIS Online, Bing Maps Aerial, 2011; HSIP Gold, 2007

General Motors
Former AC Rochester Facility
Sioux City, Iowa

Figure 18
Maximum cis-1,2-DCE Concentrations
In Soils Greater Than 20 ft bgs

TETRA TECH

Date: 02/20/13 Drawn By: Nick Wiederholt Project No: X9004.L12.0282.000

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APPENDIX B

ANALYTICAL DATA TABLES

TABLE B-1
SUMMARY OF AVAILABLE ANALYTICAL DATA FOR RELEVANT PUBLIC WATER SUPPLY WELLS
FORMER GM AC ROCHESTER FACILITY
SIOUX CITY, IOWA

Well 2

Analyte	Jan-07	Mar-07	Jun-07	Sep-07	Jan-08	Mar-08	Jun-08	Sep-08	Jan-09	Jun-09	Feb-11	Sep-11	Jun-12
1,1-Dichloroethane	0.7	1	0.6	ND(0.5)	1.8	0.9	1.9	1.4	1	1.2	ND(0.5)	ND (0.21)	ND (1)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.59	ND (0.16)	ND (1)
cis -1,2-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.7	ND (0.5)	0.7	0.6	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.22)	ND (1)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.17)	ND (1)
Vinyl chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.12)	ND (1)

Well 3

Analyte	Oct-98	Jan-00	Jul-00	Jan-01	Jul-01	Oct-01	Jan-02	May-02	Aug-02	Nov-02	Feb-03	May-03	Aug-03	Nov-03	Feb-04	May-04	Aug-04	Nov-04	Feb-05
1,1-Dichloroethane	1.3	70	263	171	210	62.6	68.2	52	51.9 J	70.5	82.4	69.1	51.6	45.5	60	33.5	36.7	74.5	72.3
1,1-Dichloroethene	ND (0.5)	3.2	15	11	12	4.2	4.4	3.4	3.3 J	4.4	4	4.6	3.9	3.1	3.3	2.5	2.9	4.8	5.5
cis -1,2-Dichloroethene	0.5	19	61	45.6	48	42.8	41.2	31.2	31.3 J	40.3	39.8	31.5	31.7	25.2	24.3	20	24	35.2	40
Trichloroethene	ND (0.5)	2	9	6	7	2	2	1	1 J	2	2	2.1	2	1	2	1	1	3	3.2
Vinyl chloride	ND (0.5)	ND (1)	ND (5)	ND (2)	ND (5)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	0.5

Well 3 (Continued)

Analyte	Jan-07	Mar-07	Jun-07	Sep-07	Jan-08	Mar-08	May-08	Sep-08	Jan-09	Apr-09	Feb-11
1,1-Dichloroethane	73	51	75	63	72	58	65	40	38	27	12
1,1-Dichloroethene	6.4	5.3	7.5	6.3	7.4	6.2	7	5.6	4.4	3.3	1.2
cis -1,2-Dichloroethene	37	31	41	34	40	34	38	36	34	26	11
Trichloroethene	3.6	3.6	3.7	3.4	5.1	4.3	4.7	4.2	3.8	2.7	1.5
Vinyl chloride	1	ND (0.5)	0.6	ND (0.5)	0.6	ND (0.5)	0.6	0.6	ND (0.5)	ND (0.5)	ND (0.5)

Well 4

Analyte	Oct-98	Jan-00	Jul-00	Jan-01	Jul-01	Oct-01	Jan-02	May-02	Aug-02	Nov-02	Feb-03	May-03	Aug-03	Nov-03	Feb-04	May-04	Aug-04	Nov-04	Feb-05
1,1-Dichloroethane	ND (0.5)	4.4	4.4	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
cis -1,2-Dichloroethene	ND (0.5)	1.1	0.9	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Vinyl chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)

Well 10

Analyte	Jan-07	Mar-07	Jun-07	Sep-07	Jan-08	Mar-08	Jun-08	Sep-08	Jan-09	Jun-09	Feb-11
1,1-Dichloroethane	0.9	6.2	4	1.9	0.7	ND (0.5)	ND(0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND (0.5)
cis -1,2-Dichloroethene	ND (0.5)	3	2	0.9	ND (0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND (0.5)
Vinyl chloride	ND (0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND(0.5)	ND (0.5)	ND (0.5)

Well 6 - No Volatile organic compounds detected during sampling in February and September 2011

Well 24

Analyte	Feb-07	Jun-07	Sep-07	Jan-08	Mar-08	Jun-08	Sep-08	Jan-09	Apr-09	Feb-11	Sep-11	Jun-12
1,1-Dichloroethane	ND (0.5)	0.6	0.7	2.8	3.3	1.4	1.3	1.1	ND (0.5)	ND (0.5)	ND (0.21)	ND (1)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.16)	ND (1)
cis -1,2-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	1.7	2.1	0.9	0.9	0.9	ND (0.5)	ND (0.5)	ND (0.22)	ND (1)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.17)	ND (1)
Vinyl chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.12)	ND (1)

Note:
ND Not detected at reporting limit provided in parentheses

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
April 2012 Sampling Event																	
SB01	0-1	NA	58	1,615	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, fine grained, brown, with silt lenses, slightly moist
	5-6	5706-1	0	5,840	ND	8.5 U	ND	8.5 U	ND	8.5 U	0.6	3.8 K	ND	1.7 J	ND	8.5 U	SAND, brown, with clay and silt, slightly moist
	10-11	5706-2	0	471	10.9	24	ND	5.7 U	ND	5.7 U	2.1	20	3	13	ND	5.7 U	CLAY, brown, soft, wet
		5706-2FD				18 J		5.1 U		5.1 U		16		10		5.1 U	
	18-19	5706-54	215	3,708	31.1	24 J	ND	5.6 U	ND	5.6 U	**301**	**240 J**	**263**	**110**	47	14	CLAY, sandy, grey, wet
	23-24	5706-4	776	6,350	588	1,400 J	ND	**170**	101	60	**106**	**120**	**2,074**	**1,800 J**	**752**	430 J	SAND, very fine grained to silty, layered, grey, wet
	25-26	5706-5	4,368	3,800	81.5	390 J	ND	**37**	ND	13	7.1	61	**154**	**690 J**	39.7	120	SAND, as above, increase in clay
	31-32	5706-184	25	9,010	14.6	5.6 U	ND	**290 J**	ND	15	ND	0.89 J	**333**	79	**770**	310 J	SAND, fine grained, brownish grey, saturated
SB02	0-2	5706-11	0	1,155	16.6	6 U	ND	6 U	ND	6 U	ND	2.2 J	ND	NA/R	ND	6 U	SAND, fine grained, silty, moist
	5-6	NA	0	1,501	19.3	NA	ND	NA	ND	NA	6.9	NA	ND	NA	ND	NA	SAND, as above
	10-11	5706-12	0	536	18.1	27	ND	5.6 U	ND	5.6 U	15.8	63	7.1	21	ND	5.6 U	CLAY, sandy, brown, saturated
	17-18	NA	300	713	22.1	NA	ND	NA	ND	NA	**90.3**	NA	**158**	NA	3.2	NA	CLAY, sandy, dark grey (reduced) and brown
	20-22	5706-13	1,800	5,668	267	1,400 J	ND	**17**	21.2	60	**323**	**710 J**	**126**	**220**	4.9	9.4	SAND, fine grained, tan
		5706-13FD				680 J		6.7		24		**390 J**		**110**		5 U	
	25-26	5706-15	1,700	1,676	73.4	130	ND	5.7 U	ND	7.9	**73.3**	**120**	24.8	46	ND	5.7 U	SAND, silty, brown, moist
SB03	0-2	5706-177	0	7	ND	6 U	ND	6 U	ND	6 U	ND	2.8 J	ND	6 U	ND	6 U	SAND, medium-coarse grained, brown
	6-7	5706-178	0	282	ND	11 U	ND	11 U	ND	11 U	35.7	51	**49.1**	44	ND	11 U	CLAY, sandy/silty, brown, wet
	9-10	5706-179	0	1,448	ND	430 U	ND	430 U	ND	430 U	**151**	**950**	**246**	**610**	4.2	430 U	CLAY, sandy to clayey SAND, brown
	17-18	5706-180	849	16,600	117	360 U	ND	360 U	7.8	360 U	45.4	36 J	**940**	**840**	**4,150**	**4,800**	CLAY, sandy, some dark stain (old petroleum?)
		5706-180FD				390 U		390 U		390 U		**91 J**		**1,200**		**7,000**	
	22-23	5706-182	448	46,100	6	290 U	ND	290 U	ND	290 U	**175**	**750**	**865**	**560**	**508**	290 U	SAND, silty, fine grained, brown, moist
	24-25	5706-183	309	72,100	14.5	320 U	ND	320 U	ND	320 U	**290**	**580**	**1,415**	**850**	**1,023**	320 U	SAND, silty, very fine grained, laminated, moist
SB04	0-1	5706-185	0	102	ND	7 U	ND	7 U	ND	7 U	ND	20	ND	1.4 J	ND	7 U	SAND, medium-coarse grained, brown, very moist
	5-6	5706-186	0	1,422	10.3	400 U	ND	400 U	ND	400 U	**208**	**3,000**	32.6	**170 J**	14.7	400 U	SAND, clayey to sandy CLAY, brown, moist
	10-11	5706-187	0	1,560	52.7	420 U	ND	420 U	ND	420 U	**869**	**5,700**	**159**	**380 J**	31.2	420 U	CLAY, with sand and silt laminations, brown, wet
	17-18	5706-188	156	6,012	12	400 U	ND	400 U	49.6	400 U	**445**	**1,500**	**916**	**840**	**622**	400 U	SAND, laminated, iron stained then grey (reduced)
	23-24	5706-189	101	3,200	ND	4.9 U	ND	**47**	ND	7.5	**173**	**480 J**	**184**	**450 J**	145	270 J	SAND, fine grained with silt laminations; iron stained
	24-26	5706-190	876	1,400	ND	6.5 U	ND	6.5 U	ND	6.5 U	**152**	37	**146**	32	118	27	SAND, as above, loose at base
		5706-190FD				6.9 U		6.9 U		6.9 U		29		27		22	
SB05	0.5-1.5	5706-16	700	15,100	51.5	14	ND	5.6 U	ND	5.6 U	**722**	**270 J**	**113**	37	ND	5.6 U	SAND, with gravel, loose, shells, (fill sand?)
	6-7	NA	100	5,186	103	NA	ND	NA	ND	NA	**1,220**	NA	**433**	NA	48.1	NA	CLAY, silty, dark grey (reduced), wet
	10-11	5706-17	0	9,991	47.5	430 U	ND	430 U	ND	430 U	**836**	**3,100**	**300**	**400 J**	249	430 U	CLAY, hard, dense, plastic
	14-15	5706-50	3,063	5,718	51.7	340 U	ND	340 U	9.8	340 U	**472**	**3,200**	**808**	**2,100**	412	340 U	CLAY, sandy, moist to wet
	17-18	5706-18	1,823	14,000	37	410 U	ND	410 U	ND	410 U	**685**	**1,400**	**1,875**	**1,600 J**	**836**	410 U	CLAY, sandy, dark brown-grey, damp to wet
	20-22	5706-19	3,203	3,003	15.8	93	ND	9.5	ND	4.6 U	55.5	25	**213**	**110**	48.3	14	CLAY, as above
		5706-19FD				610 J		**69**		24		**130**		**690 J**		100	
	27-28	5706-21	1,000	3,010	200	65	ND	**39**	28.7	11	11.5	7.5 J	**187**	**60**	279	110	Sleeve crushed in sampler. SAND, fine grained, loose, brown
SB06	1-2	5706-49	83	3,343	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	0.3 J	ND	0.29 J	ND	5.2 U	SAND, fine grained, tan, some silt
	5-6	5706-6	0	1,180	14.7	44 J	ND	5.6 U	ND	5.6 U	ND	0.39 J	ND	2.1 J	ND	5.6 U	SILT, clayey to silty clay, brown
	10-11	NA	0	3,571	13.4	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, clayey, brown, saturated
	15-16	5706-7	0	1,308	26.3	180	ND	**84**	ND	17 U	ND	1.2 J	ND	17 U	ND	17 U	CLAY, silty, some sand, brown, wet
	18-19	NA	1,560	811	5.8	NA	ND	NA	12.1	NA	ND	NA	ND	NA	ND	NA	SAND, iron stained, to fine grained, loose
	23-24	5706-8	700	760	488	450 U	**391**	450 U	**83**	450 U	ND	14 J	31	450 U	12.2	450 U	SAND, tan, layered, fine grained and silty sand
	27-28	5706-9	1,800	40	196	850 J	ND	**250 J**	3	33	ND	3.9 J	ND	14	ND	6.1 U	SAND, silty, fine grained, brown, moist

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB07	0.5-1.5	5706-22	0	0	7.6	7 U	ND	7 U	ND	7 U	4	7 U	9.9	0.45 J	3.2	7 U	SAND, fine grained, loose, brown, slightly moist
	4-5	5706-51	3,306	0	6.7	5.3 U	ND	5.3 U	ND	5.3 U	2.8	5.3 U	6.5	5.3 U	ND	5.3 U	CLAY, sandy, silty, wet, slightly oily looking
	8-9	5706-23	1,636	218	4	6.5 U	ND	6.5 U	ND	6.5 U	ND	8.8	3.4	0.31 J	ND	6.5 U	CLAY, sandy, brown, oily looking
	15-16	5706-10	618	0	3.4	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	CLAY and iron stained sand laminations
	20-21	5706-24	0	0	55	240 J	ND	**58**	ND	17	ND	2.4 J	ND	6.5	ND	5.2 U	SAND, fine grained, silty, laminated, iron stained
	27-28	5706-25	100	0	65.1	370 J	ND	**190**	ND	20	ND	1.2 J	ND	7.2	ND	5.4 U	SAND, fine grained, silty, loose
		5706-25FD				350 J		**150**		23		1.8 J		8.4		6 U	
SB08	1-2	5706-52	0	0	ND	5.3 U	ND	5.3 U	ND	5.3 U	ND	1.3 J	ND	1.2 J	ND	5.3 U	SAND, silty, brown
	5-6	5706-27	0	0	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	SAND to silty sand
	10-12	5706-28	0	0	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	CLAY to sandy clay and clayey sand, brown, wet
	16-17	5706-29	0	0	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	SAND, fine grained, silty, brown, moist
	23-24	5706-30	1,773	0	58.6	430 J	ND	**120**	ND	26	ND	2.3 J	ND	5.5	ND	5.2 U	SAND, fine grained, brown, loose, some silty, slightly moist
	26-27	5706-31	725	0	24.6	210 J	ND	**37**	ND	11	ND	4.9 J	ND	7.5	ND	5.1 U	SAND, fine grained, brown, dry to slightly moist
SB09	1-2	NA	646	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, silty, red to brown
	5-6	5706-32	78	0	12.2	15	ND	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U	CLAY, silty in part, wet from 5-7 feet
	10-11	5706-33	26	0	30.9	47	ND	6.4 U	ND	6.4 U	ND	6.4 U	ND	6.4 U	ND	6.4 U	CLAY, silty, brown, wet, soft
	18-20	5706-34	0	0	19.5	13	ND	5.6 U	4	5.6 U	7.4	0.61 J	6.7	5.6 U	4.8	5.6 U	SAND, fine grained, silty, brown, moist
	22-24	5706-35	400	800	1,050	**2,400 J**	**424**	**750 J**	35.7	**140 J**	20.1	5.7	26.3	29	ND	6	SAND, silty, laminated, brown
	26-27	5706-36	600	900	1,740	**3,600 J**	**1,693**	**1,500 J**	**116**	**290 J**	5	13	**74.8**	**160**	21	64	SAND, silty, brown
SB10	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SILT, yellowish-brown, root/wood, friable
	5-6	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, medium grained, brown, loose, dry-slightly moist
	10-11	5706-37	0	0	10.5	NA/R	ND	6.3 U	ND	6.3 U	ND	NA/R	ND	NA/R	ND	6.3 U	CLAY, sandy to silty, brown, slightly moist
	16-17	NA	0	0	9.7	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, sandy to clayey SAND, brown
	22-24	5706-38	0	0	10.9	31 J	ND	**18**	ND	5.3 U	ND	5.3 U	ND	5.3 U	ND	5.3 U	SAND, vfine to very fine grained, brown
		5706-38FD				37 J		**22**		6.5 U		6.5 U		6.5 U		6.5 U	
	25-26	NA	0	0	8.4	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, light brown, some silty, dry to slightly moist
SB11	0-1	5706-53	0	0	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	SAND, medium grained, light brown, slightly moist
	5-6	5706-40	0	0	13.2	19	ND	5.8 U	ND	5.8 U	ND	1.2 J	ND	5.8 U	ND	5.8 U	SILT, brown, slightly moist
	9-10	NA	0	0	47.3	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, silty, thin layers of sand/silty sand
	16-17	5706-41	0	0	56.5	110	ND	14	ND	5.9 U	ND	2.3 J	ND	0.45 J	ND	5.9 U	SAND, silty, brown, moist
	22-23	5706-43	0	0	89.3	170	ND	**54**	ND	6.1 U	ND	1.3 J	ND	2.3 J	ND	6.1 U	SAND, clayey/silty, greyish brown, some black staining(?)
	27-28	5706-42	0	0	10.5	28	ND	**27**	ND	7.6 U	ND	0.43 J	ND	1.8 J	ND	7.6 U	SAND, silty/clayey, iron stained to greenish grey (reduced)
SB12	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SILT, sandy/clayey (loam), brown
	5-6	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SILT, sandy, brown, layered, slightly moist
	14-15	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, silty to very fine grained, laminated, iron stained
	17-18	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, silty/clayey, brown, wet
	20-21	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, medium grained, light brown
	27-28	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, fine grained, silty, light brown, moist
SB13	0-1	NA	100	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SILT (loess?), light brown, slightly moist
	5-6	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY (fill?), compacted
	9-10	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, fine grained, light brown, dry
	15-16	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, silty, brown, very moist
	20-22	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, fine grained, light brown, some silty
	27-28	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, as above; increase in silt with depth

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB14	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, medium grained, poorly sorted, some silty
	4-5	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND to silty sand, fine grained, blackish layer at 4.75 ft
	10-11	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, laminated with silt, some cross-bedded, iron stained
	13-14	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, laminated with silt, iron stained
	20-21	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, fine grained, light brown, silt and iron stained laminations
	27-28	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	Sleeve crushed in sampler. SAND, loose, brown
SB15	0-1	5706-44	0	0	ND	10	ND	5.6 U	ND	5.6 U	ND	0.91 J	ND	1.1 J	ND	5.6 U	SAND, medium-coarse grained, light brown, dry
	5-6	5706-45	0	1,100	300	330	ND	300 U	**64.3**	300 U	ND	40 J	6.9	300 U	26	300 U	CLAY to sandy clay, brown, moist
	10-11	5706-46	0	2,000	949	**6,400**	ND	350 U	**424**	**460**	40	**190 J**	**57.5**	**130 J**	156	350 U	CLAY, soft, plastic, saturated, oily looking/bubbly texture
	17-18	5706-47	0	4,600	877	870	ND	**450**	**400**	400 U	30.5	**87 J**	**157**	**220 J**	36.8	400 U	CLAY, sandy, soft, plastic, brownish-grey
	21-22	5706-55	400	1,300	320	500 J	ND	**40**	8	19	ND	15	21.8	**54**	9.2	6.1 U	SAND to silty sand, layered, buff to light to medium brown
	27-28	5706-48	0	100	256	280 J	ND	**46**	22.9	24	ND	1.6 J	13.2	16	11.8	5.6 U	SAND, medium grained, loose
SB16	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, fine grained, tan, loose, slightly moist
	5-6	5706-56	0	0	9.6	160	ND	6.4 U	ND	6.4 U	ND	32 J	ND	2.7 J	ND	6.4 U	CLAY, sandy, dark reddish-brown, some black laminations
	10-11	5706-57	0	316	205	990	ND	380 U	ND	380 U	52.1	**480**	8.05	34 J	ND	380 U	CLAY, soft, plastic, brown, oily looking/bubbly texture
		5706-57FB				980		340 U		340 U		**480**		30 J		340 U	
	15-16	5706-59	0	114	140	240 J	ND	**19**	ND	5.8 U	20.3	**66**	5.05	14	ND	5.8 U	SAND, silty, laminated, iron stained, moist
	20-21	5706-60	0	143	209	550 J	ND	**61**	ND	5.7 U	15.1	53	**242**	**54**	3.8	9.1	SAND, very fine grained to silty, layered, firm, moist
	27-28	5706-86	0	1	26	22	ND	**22**	ND	5.6 U	ND	0.88 J	10.1	5.6 U	ND	5.6 U	SAND, medium grained, silty at 27-28 ft
SB17	0-1	5706-61	200	44	101	79	ND	5.2 U	ND	5.2 U	ND	5.2 U	8.2	7.7	ND	5.2 U	CLAY with fine gravel and SAND, fine grained, brown
	5-6	5706-62	100	8,436	650	1,300	ND	340 U	**108**	340 U	ND	340 U	**145**	**240 J**	ND	340 U	SILT to very fine grained SAND clayey, brown, wet
	10-11	5706-63	500	1,926	1,520	1,400	**380**	370 U	**144**	370 U	ND	370 U	**307**	**280 J**	ND	370 U	CLAY, silty, brown, layered, moist; oily/bubbly texture
	14-15	5706-66	1,400	25.2	**2,590**	**4,300**	**806**	380 U	**433**	380 U	ND	**130 J**	**601**	**820**	ND	380 U	SILT to sandy silt layered, brown to grey, iron stained sand at base
	17-18	5706-67	3,800	961	910	710 J	**161**	**64**	10.5	26	ND	11	13.7	21	ND	6 U	SAND, laminated, silty/clayey, grey, damp
	20-21	5706-68	2,600	9,658	1,150	880	**350**	280 U	**72**	280 U	ND	62 J	**163**	**65 J**	2.5	280 U	SAND, fine grained, soft, some silty layers
	25-26	5706-69	1,100	1,520	123	930 J	ND	**170**	6.1	24	ND	13	29.2	**52**	ND	6.8 U	SAND, as above
	29-30	5706-96	288	1,676	**2,450**	1,300 J	**1,210**	**960 J**	**267**	**100**	ND	3.3 J	**67.6**	35	4.9	5.9	SAND, coarse grained, poorly sorted, saturated
SB18	0-1	5706-64	0	0	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	0.26 J	ND	5.2 U	SAND, fine grained, loose, slightly moist
	6-7	5706-65	0	284	173	87	ND	15	13	7 U	ND	7 U	ND	1.4 J	ND	7 U	SILT, clayey, plastic, oily/bubbly texture
	10-11	5706-70	0	1,182	300	840	**128**	360 U	56.9	360 U	ND	360 U	ND	360 U	ND	360 U	CLAY, brown, soft, plastic, saturated
	15-16	NA	0	1,400	932	NA	**101**	NA	45.3	NA	ND	NA	ND	NA	ND	NA	CLAY, silty, laminated, firm, some iron staining
	19-20	5706-71	600	6,450	1,076	200	**231**	**100**	**64.3**	13	**74.1**	6.9	45.8	8.8	3.8	6.2 U	SAND, silty to fine grained layered, iron staining at top
	20-21	5706-72	0	2,202	**2,050**	**2,400 J**	**750**	**1,700 J**	55.9	**110**	11.3	27	**85.7**	**140**	5	12 U	SAND, medium-fine grained, layered with silts/clays
	27-28	5706-73	1,600	26	195	520 J	ND	**320 J**	8.8	18	ND	2.7 J	16.8	22	ND	5.9 U	SAND, as above
SB19	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY with gravel to SAND, medium grained, light brown
	5-6	5706-74	0	0	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	CLAY and SILT, soft, plastic, saturated, slightly oily looking
	10-11	5706-102	0	0	24.6	23 J	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	CLAY, firm, hard, damp
	15-16	5706-75	0	0	92.2	24	ND	7.6	4.1	5.8 U	ND	5.8 U	ND	0.62 J	ND	5.8 U	SAND and silty sand, layered, brown
	20-21	5706-76	0	0	28.6	13	ND	**86**	12.6	12 U	ND	12 U	ND	4.6 J	ND	12 U	CLAY, grey (reduced), saturated, iron stain at top
	25-26	5706-77	0	1,062	51.5	55	ND	**28**	ND	6 U	ND	0.75 J	ND	6	ND	6 U	SAND, medium grained, light brown, some layering
SB20	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, medium grained, light brown, moist
	5-6	5706-78	0	0	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	CLAY, silty to clayey SILT, brown
	10-11	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, brown, alternating firm and soft, some oily looking
	16-17	5706-79	0	6	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	SAND, silty, wet, some oily looking
	20-21	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, grey, soft, plastic, wet, some oily looking
	25-26	5706-80	0	54	ND	5.1 U	ND	5.1 U	ND	5.1 U	8.4	19	2.15	8.1	ND	5.1 U	SAND, fine to medium grained, yellowish-brown

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB21	0-1	5706-81	0	0	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	0.22 J	ND	0.24 J	ND	5.2 U	SAND, silty, poorly sorted, brownish-tan
	5-6	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, as above
	10-11	5706-82	0	289	13	11	ND	8.5 U	ND	8.5 U	ND	25	**118**	**160**	ND	8.5 U	CLAY, silty, nonplastic, greyish brown, very moist
	16-17	5706-83	41	795	14.7	28	ND	10	ND	6.8 U	25.6	**110**	**233**	**550 J**	ND	6.8	SAND, silty, laminated, iron stained
	20-21	5706-84	0	517	4.4	360 U	ND	360 U	ND	360 U	**65.9**	**170 J**	**460**	**310 J**	5.7	360 U	CLAY, soft, brownish-grey, saturated
	25-26	5706-85	2,621	100	ND	5.8 U	ND	**26**	ND	5.8 U	ND	14	**138**	**490 J**	57.2	130	SAND, very fine grained, clayey to silty, grey
SB22	0-1	5706-87	0	0	16.4	20	ND	4.8 U	ND	4.8 U	ND	0.29 J	ND	4.8 J	ND	4.8 U	SAND, clayey, coarse grained with fine gravel
	5-6	5706-103	0	0	17.9	110	ND	**17**	ND	6.5 U	ND	1.5 J	6	9	ND	6.5 U	SAND, clayey, grading to sandy CLAY, moist
	11-12	5706-88	111	120	450	430 J	ND	**56**	9.7	10	ND	13	42.4	**66**	ND	7.6 U	SAND, clayey to sandy CLAY, yellowish-brown, slightly moist
	16-17	5706-89	327	1,093	806	**2,400**	**329**	380 U	**82.1**	380 U	8.8	**98 J**	**163**	**320 J**	ND	380 U	SAND, silty, very fine grained, brown, moist
	23-24	5706-90	51	196	307	660	ND	220 U	ND	220 U	ND	39 J	26.7	**79 J**	ND	220 U	SAND, medium grained, light brown, clayey layers
	26-27	5706-104	716	54	133	470 J	ND	**260**	ND	24	ND	3 J	8.6	40	ND	7.2 U	SAND, coarse grained, some clay, greyish brown, moist
SB23	0-1	NA	0	13	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, silty, clayey, medium to coarse grained
	5-6	5706-91	0	23	28.1	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U	8	8.6	ND	6.1 U	SAND, silty, yellowish-brown
	9-10	5706-92	0	46	204	120	ND	5.6 U	2	5.6 U	ND	5.6 U	44.1	33	ND	5.6 U	CLAY, silty to clayey SILT, brown, some oily looking
	16-17	5706-93	0	26	14.7	6.5	ND	**83**	4.8	6.4 U	ND	6.4 U	ND	9.1	ND	6.4 U	CLAY, soft, plastic, grey, wet
	23-24	5706-95	65	309	207	8.6 U	ND	**100**	**130**	60	ND	0.46 J	40.1	14	ND	8.6 U	SAND and CLAY layers, fine grained to silty, wet, feels oily
	26-27	5706-94	36	265	173	41	ND	**27**	13.2	5.8 U	ND	0.83 J	11.8	6.6	ND	5.8 U	SAND, fine grained, with silty layers
SB24	0-2	5706-97	0	0	ND	4.6 U	ND	4.6 U	ND	4.6 U	ND	4.6 U	ND	4.6 U	ND	4.6 U	SAND, clayey, yellowish brown, slightly moist
	6-7	5706-148	0	0	60.3	160 J	ND	11	ND	6.8 U	ND	34	ND	1.4 J	ND	6.8 U	SAND, fine grained, yellowish-brown, moist
	9-10	5706-98	0	9	252	370 J	ND	**40**	ND	6.1 U	30.9	34	ND	6.1 J	ND	6.1 U	CLAY, silty, yellowish brown layered
	16-17	5706-99	0	67	260	340	ND	260 U	ND	260 U	33.4	**66 J**	ND	260 U	ND	260 U	SILT to sandy silt, clayey in part, yellowish-brown
	20-21	5706-100	0	135	29	730 J	ND	**390**	ND	13 U	ND	48	ND	29	ND	13 U	SAND/SILT/CLAY laminations, brown to grey, moist
	26-27	5706-101	3	14	66.8	5.9 U	ND	7.4	ND	5.9 U	7.1	0.36 J	ND	0.73 J	ND	5.9 U	SAND, fine grained, with clayey laminations
SB25	13-14	5706-105	79	85	68.9	110	ND	**25**	ND	6.9 U	ND	9.3	25.4	40	ND	6.9 U	SAND, fine to medium grained, light brown
	16-17	5706-106	404	157	218	97	ND	14	3.4	5.4 U	10.5	7.8	**59.6**	25	ND	5.4 U	SAND, fine grained, light brown
	20-22	5706-107	193	648	714	150	**157**	**36**	35.3	6.3 U	**66.3**	32	**392**	**90**	46.6	6.3 U	SAND, as above
		5706-107FD				150		**28**		5.6		17		**63**		5.5 U	
SB26	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, clayey to medium and coarse grained sand
	5-6	5706-109	0	0	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	0.38 J	ND	0.47 J	ND	6.3 U	SAND, medium grained, light brown, some clay
	9-10	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY and SILT, brown, saturated, oily looking
	12-13	5706-110	0	0	ND	8.8 U	ND	8.8 U	ND	8.8 U	ND	0.47 J	ND	8.8 U	ND	8.8 U	CLAY, reddish-brown, soft, plastic, wet
	17-18	NA	0	63	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, with silt/clay laminations, grey, wet
	23-24	5706-111	41	15	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	1.7 J	ND	6.6 U	ND	6.6 U	SAND, fine grained, grey to brownish-grey, wet
SB27	1-2	5706-112	0	30	ND	5 U	ND	5 U	ND	5 U	18.7	3.1 J	ND	5 U	ND	5 U	CLAY and SAND
	7-8	5706-113	4	82	ND	6.3 U	ND	6.3 U	ND	6.3 U	26.5	**80**	ND	6.3 U	ND	6.3 U	SILT, clayey to silty CLAY, brown, slightly moist, some staining
	10-11	5706-114	0	132	ND	6.4 U	ND	6.4 U	ND	6.4 U	**79**	59	ND	6.4 U	ND	6.4 U	CLAY, sandy, brown
	17-18	5706-115	0	171	ND	7 U	ND	7 U	ND	7 U	16	7.2	20.8	17	ND	7 U	SAND, laminated, iron stained, black stain clays at 17.5 ft
	21-22	NA	0	58	ND	NA	ND	NA	ND	NA	2.9	NA	35.8	NA	ND	NA	SAND, with clay layers, brown to grey, moist
	26-27	5706-116	0	29	ND	5.1 U	ND	5.1 U	ND	5.1 U	2.5	0.78 J	3.2	5.1 J	ND	5.1 U	SAND, medium grained, light brown to buff

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB28	0-1	5706-117	0	0	ND	5.1 U	ND	5.1 U	ND	5.1 U	31.5	13	ND	5.1 U	ND	5.1 U	SAND, medium grained, light brown
	8-10	5706-118	74,500	113,000	ND	1,900 U	ND	1,900 U	ND	1,900 U	**865**	**5,800**	ND	1,900 U	ND	1,900 U	SAND, silty, laminated, grey, moist; **strong solvent odor (Stoddard per EPS)**
		5706-118FD				2,000 U		2,000 U		2,000 U		**3,100**		2,000 U		2,000 U	**[Cumene = 7.3/4.6 mg/kg]**
	12-12.3	5706-120	1,000	1,000	ND	6.1 U	ND	6.1 U	ND	6.1 U	8.8	15	ND	6.1 U	ND	6.1 U	SAND, clayey (only 0.3 ft recovery)
	16-18	5706-121	800	5,900	ND	6.9 U	ND	6.9 U	ND	6.9 U	6.7	0.41 J	5.9	7.1	ND	6.9 U	SAND, clayey to CLAY, brownish-grey, wet
		5706-121FD				420 U		420 U		420 U		32 J		420 U		420 U	
	20-21	5706-123	4,700	50,400	ND	340 U	ND	340 U	ND	340 U	**298**	**160 J**	ND	340 U	ND	340 U	CLAY, grey, plastic, wet
	25-26	5706-124	400	500	ND	8.5 U	ND	8.5 U	ND	8.5 U	5.5	0.78 J	ND	8.5 U	ND	8.5 U	CLAY, as above
SB29	0-1	5706-125	0	0	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	0.15 J	ND	5.6 U	ND	5.6 U	SAND, clayey, coarse grained, some gravel
	5-6	5706-126	0	0	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	21	ND	7.1 U	ND	7.1 U	CLAY, brown, saturated at 5.5 ft
	10-11	5706-127	0	0	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	3.2 J	ND	6.3 U	ND	6.3 U	SAND, clayey to sandy CLAY, brown, saturated
	16-17	5706-128	0	0	ND	6.8 U	ND	6.8 U	ND	6.8 U	ND	0.85 J	ND	6.8 U	ND	6.8 U	CLAY, sandy to CLAY, grey, plastic, wet
	20-22	5706-132	0	0	ND	8.5 U	ND	8.5 U	ND	8.5 U	ND	8.5 U	ND	8.5 U	ND	8.5 U	CLAY, plastic, firm, grey
		5706-132FD				8.9 U		8.9 U		8.9 U		0.45 J		8.9 U		8.9 U	
	26-28	5706-129	0	0	ND	6.8 U	ND	6.8 U	ND	6.8 U	ND	6.8 U	9	11	81.3	43	CLAY, silty/sandy in part, grey
		5706-129FD				5.8 U		5.8 U		5.8 U		5.8 U		13		70	
SB30	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, clayey, yellowish-brown, slightly moist
	5-7	5706-135	0	0	ND	7.8 U	ND	7.8 U	ND	7.8 U	6.3	6.1 J	6.7	7.7 J	3.4	7.8 U	SAND very fine to fine grained, silty, laminated
	10-11	5706-134	0	429	ND	11 U	ND	11 U	ND	11 U	ND	11 U	ND	2.8 J	110	62	CLAY, sandy/silty, brownish-grey, soft, wet
	14-16	NA	894	14,800	42.4	NA	ND	NA	7.6	NA	ND	NA	ND	NA	**2,180**	NA	SAND, clayey to sandy CLAY, some grey/black laminations
	18-19	5706-136	3,000	0	ND	9.2 U	ND	9.2 U	ND	9.2 U	ND	9.2 U	ND	9.2 U	96.7	87	SAND, silty, very fine to fine grained
	21-23	5706-137	>1,000,000	689,000	114	1,500 U	ND	1,500 U	**87.4**	1,500 U	**286**	1,500 U	**4,267**	**340 J**	**2,386**	**2,300**	SAND, silty to sandy SILT, brownish-grey, saturated; **strong petroleum odor [Cumene = 1.7/4.6 mg/kg]**
		5706-137FD				3,100 U		3,100 U		3,100 U		3,100 U		**1,100 J**		**5,900**	
	26-27	5706-145	7,100	800	8	5.9 U	ND	5.9 U	ND	5.9 U	ND	5.9 U	44.1	5.7 J	358	**780 J**	SAND, medium grained, grading to silty
SB31	0-1	NA	0	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, sandy with gravel
	4-6	5706-139	0	0	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	0.57 J	ND	5.7 U	ND	5.7 U	SAND, silty, brown, slightly moist
		5706-139FD				6 U		6 U		6 U		0.56 J		6 U		6 U	
	10-12	NA	0	(Broke)	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, clayey, very fine grained, saturated at base
	14-16	5706-141	0	3	ND	6.5 U	ND	6.5 U	ND	6.5 U	ND	6.5 U	ND	6.5 U	ND	6.5 U	CLAY, soft, plastic, brown, laminated with silts and sands
	20-22	NA	0	23	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, soft, plastic, brownish-grey
	27-28	5706-142	0	23	ND	11 U	ND	11 U	ND	11 U	ND	11 U	ND	11 U	ND	11 U	(Not recorded; likely sand)
SB32	4-5	NA	7.5	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, fine grained, silty, light brown, slightly moist
	8-9	5706-143	0	38	ND	6.7 U	ND	10	ND	6.7 U	ND	0.74 J	**91.4**	**80**	51	24	CLAY, soft, some sandy, wet
	14-15	NA	90	26	ND	NA	ND	NA	ND	NA	ND	NA	**79.4**	NA	32.3	NA	SAND, iron stain and black laminations, cross-bedded
	17-18	5706-144	194	3	ND	6.3 U	ND	6.3 U	2	6.3 U	3.5	1.95 J	**47.8**	22	38.2	11	SAND, laminated, grey to light grey (no iron or black laminations)
	22-23	5706-146	465	7	ND	5.8 U	ND	5.8 U	ND	5.8 U	ND	0.84 J	7.4	11	4	6.2	SAND, medium grained, some silty laminations
	25-26	5706-147	229	72	ND	14	ND	8.4	ND	5.9 U	ND	8.2	ND	**100**	ND	41	SAND, medium to coarse grained, with silt laminations
SB33	13-14	5706-149	0	0	ND	12 U	ND	12 U	ND	12 U	ND	12 U	ND	12 J	ND	12 U	CLAY/SAND/SILT, soft, wet, very fine grained, laminated
	17-18	5706-150	0	24	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	SAND, fine to medium grained, layered with silty sand
	20-22	5706-159	0	3	ND	7 U	ND	7 U	ND	7 U	ND	7 U	ND	7 U	ND	7 U	SAND, fine grained, laminated with silt, iron staining
	25-26	5706-151	0	6	ND	6 U	ND	6 U	ND	6 U	ND	6 U	ND	6 U	ND	6 U	SAND, fine grained, salt-and-pepper appearance
SB34	17-18	5706-152	408	95	96	16	ND	6.9	ND	6.8 U	ND	3.3 J	**55.4**	16	ND	6.8 U	SAND, fine grained, silt and clay laminations, moist
		5706-152FD				15 J		6.8 U		6.8 U		3.6 J		17		6.8 U	
	20-21	5706-158	145	544	288	290 U	ND	290 U	15.8	290 U	25.6	**140 J**	**202**	**260 J**	21.6	290 U	SAND, very fine grained to silty, yellowish-brown, slightly moist
	24-25	5706-157	112	62	23.1	14 J	ND	6.5	ND	6.2 U	ND	4.3 J	10.5	20	ND	6.2 U	SAND, medium to fine grained, light brown, very moist to wet

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB35	17-18	5706-156	0	89	235	40 J	ND	9.5	2.5	7 U	18.1	7.8	**79.2**	21	2.6	7 U	SAND, very fine grained, silty laminations, yellowish-brown
	21-22	5706-155	43	67	13	14 J	ND	6.4 U	ND	6.4 U	2.8	3.1 J	3.4	11	ND	6.4 U	SAND, fine grained, light brown, slightly moist
	25-26	5706-154	0	9	ND	7.3 J	ND	6 U	ND	6 U	ND	2.1 J	ND	7.5	ND	6 U	SAND, fine grained, light brown, moist
SB36	14-15	5706-160	0	109	ND	8.2 U	ND	8.2 U	ND	8.2 U	7.9	22	**65.7**	**91**	ND	8.2 U	CLAY, sandy to clayey SAND, brown, some iron stained laminations
	16-17	NA	0	246	ND	NA	ND	NA	ND	NA	ND	NA	**60.5**	NA	71.8	NA	CLAY, soft, plastic, grey; 1-inch sand ~16.5 ft.
	22-23	5706-161	0	73	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	3.7 J	14.3	21	9	8.8	SAND, with clay and silt laminations, brown, saturated
	25-26	5706-162	0	45	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	SAND, medium grained, with clay and silt laminations
SB37	0-1	NA	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, sandy (topsoil), to SAND, coarse, with gravel
	6-7	NA	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, sandy to clayey SAND, brown to grey, some iron staining
	9-10	NA	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, sandy to clayey SAND, laminated, dark grey
	15-16	NA	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, silty/clayey, laminated, brown, iron stained
	19-20	5706-164	0	NA	44.1	NA	ND	NA	ND	NA	26	NA	ND	NA	ND	NA	SAND, laminated light and dark brown, possible carbon layers
SB38	0-1	NA	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, sandy to coarse grained SAND with gravel
	5-6	NA	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, medium grained, carbon burn layers
	10-11	NA	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, laminated with silt
	15-16	NA	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, laminated with silt, light brown, very moist
	19-20	5706-163	0	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	SAND, very fine grained, silty, yellowish-brown, very moist to wet
SB39	0-1	5706-165	0	0	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	SAND, clayey to medium and coarse grained sand, very moist
	6-7	5706-166	20	0	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	1 J	ND	6.3 U	ND	6.3 U	SAND, clayey in part, brown, some iron stained
	10-11	5706-167	0	6,000	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	2.7 J	11.6	14	CLAY to sandy clay, firm, plastic, grey, wet
	13-14	NA	4,193	515,000	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, sandy, soft, some black staining
	16-17	5706-168	7,200	555,000	ND	420 U	ND	420 U	ND	420 U	ND	420 U	ND	420 U	ND	420 U	CLAY, soft, plastic, brownish-grey **[Cumene = 520 µg/kg]**
	20-21	5706-169	234,000	590,000	ND	730 U	ND	730 U	ND	730 U	ND	730 U	ND	730 U	ND	730 U	SAND, very fine grained to silty/clayey, black-grey staining; **petroleum odor [Cumene = 2 mg/kg]**
	26-27	5706-170	222	230	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	0.43 J	ND	5.7 U	CLAY, sandy to clayey SAND, laminated black to grey, soft, wet
SB40	0-1	5706-176	0	36	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	SAND, very fine grained, clayey, firm, dry
	5-6	5706-171	0	16	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	0.26 J	ND	5.7 U	ND	5.7 U	SAND, light brown, medium to coarse grained, silt laminations
	10-11	5706-172	454,000	8,600	ND	400 U	ND	400 U	ND	400 U	ND	400 U	ND	400 U	ND	400 U	CLAY, sandy to clayey SAND, black stained, wet
	16-17	5706-173	0	243	ND	7.1 U	ND	8.3	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	9.9	CLAY, as above
	21-22	NA	0	24	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	CLAY, as above
	25-27	5706-174	44	14	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	CLAY to sandy clay/clayey sand, grey
		5706-174FD				7.4 U		7.4 U		7.4 U		7.4 U		7.4 U		7.4 U	
June 2012 Sampling Event																	
SB41	0-2	5788-1	0	NA	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	SAND, fine-medium grained, light brown to buff, dry
	6-7	5788-2	0	NA	NA	28	NA	7.1 U	NA	7.1 U	NA	7.1 U	NA	7.1 U	NA	7.1 U	CLAY, silty, brown, some layering, wet
	12-13	5788-3	0	NA	NA	87	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	CLAY, brown, some sandy, very moist
	17-18	5788-4	0	NA	NA	75	NA	**17**	NA	7.2 U	NA	7.2 U	NA	12	NA	7.2 U	CLAY, sandy to clayey SAND, wet, slight black staining and **petroleum odor**
	21-23	5788-5	0	NA	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	CLAY, silty to sandy (with depth), medium grey, saturated
	27-28	5788-6	946	NA	NA	6 U	NA	**32**	NA	20	NA	59	NA	21	NA	41	SAND, fine grained, light-medium brown, layered, wet
SB42	3-4	5788-7	457	NA	NA	24	NA	5.9 U	NA	5.9 U	NA	29	NA	**94**	NA	5.9 U	SAND, silty, light brown to buff, medium grained
	6-7	5788-8	595	NA	NA	220	NA	8 U	NA	8 U	NA	**590**	NA	**370**	NA	67	CLAY, medium brown, plastic, moist
	9-10	5788-9	353	NA	NA	310	NA	8 U	NA	8 U	NA	**1,200**	NA	**470**	NA	39	CLAY, medium brown, soft, some silt/sand, saturated
	14-15	5788-10	950	NA	NA	840	NA	14	NA	9.6 U	NA	**2,800**	NA	**760**	NA	15	SAND, clayey to sandy clay, medium brown, moist
	17-18	5788-11	1,498	NA	NA	450	NA	**74**	NA	14	NA	**1,300**	NA	**1,500**	NA	66	SAND, silty to clayey, medium greyish-brown
	23-24	5788-12	976	NA	NA	6.4 U	NA	**67**	NA	8.8	NA	6.4 U	NA	**1,100**	NA	170	CLAY, silty, medium grey, soft, wet
	26-27	5788-13	1,434	NA	NA	7.9 U	NA	**130**	NA	13	NA	7.9 U	NA	**1,900**	NA	**950**	SAND, clayey, very fine grained, medium grey, firm

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB43	0-2	5788-14	12	NA	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	CLAY, silty, some sand, hard, dry
	4-6	5788-15	0	NA	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	SILT, clayey, medium-light brown, moist
	10-11	5788-16	0	NA	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	SAND, silty grading to CLAY and clayey SAND, moist
	15-16	5788-17	436	NA	NA	5.8 U	NA	7.5	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	SILT and laminated silt and sand, more coarse sand with depth, saturated
	19-20	5788-18	435	NA	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	SAND/SILT/CLAY, laminated, medium grey, very moist
	22-23	5788-33	121	NA	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	SILT/CLAY, soft, saturated
	27-28	5788-19	1	NA	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	SAND, very fine grained, laminated with silt at top
SB44	0-2	5788-20	26	NA	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	21	NA	5.6 U	FILL MATERIAL, silts and clays, brick fragments, hard, dry
	7-8	5788-21	102	NA	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	41	NA	18	SILT, clayey, laminated with very fine-grained sand, moist
	11-12	5788-22	343	NA	NA	7 U	NA	7 U	NA	7 U	NA	7 U	NA	40	NA	470	CLAY, sandy in part, light brown, soft, moist
	13-14	5788-23	742	NA	NA	6.8 U	NA	6.8 U	NA	6.8 U	NA	**95**	NA	**670**	NA	350	SAND, clayey to sandy CLAY, increasing sand with depth, some roots, wet
	17-19	5788-24	1,578	NA	NA	6.2 U	NA	**130**	NA	15	NA	**440**	NA	**2,300**	NA	**560**	CLAY, sandy in part, medium-dark grey, burn debris at 18.5 ft, wet
	20-21	5788-25	2,694	NA	NA	5.7 U	NA	**220**	NA	25	NA	5.7 U	NA	15	NA	420	SAND, silty to clayey, light greyish-brown, saturated
	27-28	5788-26	0	NA	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	SAND, very fine grained, dark grey, some silt/clay lams, saturated
SB45	0-2	5788-27	0	NA	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	CLAY, silty, light yellowish-brown, firm dry, (likely fill material)
	5-6	5788-28	0	NA	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	CLAY, light reddish-brown, soft to firm, some silty
	14-15	5788-29	0	NA	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	SAND with clay laminations, increasing sand with depth, cross-bedded
	19-20	5788-30	0	NA	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	SAND, silty interbedded with CLAY, medium grey, saturated
	21-22	5788-31	0	NA	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	CLAY, silty and sandy in part, light yellowish brown (loess?), firm
	27-28	5788-32	0	NA	NA	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U	CLAY, sandy to SAND, clayey, light yellowish-brown (loess?)
December 2012 Sampling Event																	
SB28R	9-10	5872-2	272	NA	100 U	5.5 U	100 U	5.5 U	100 U	5.5 U	**189**	**95**	100 U	5.5 U	100 U	5.5 U	SILT and SAND, clayey, medium brown, moist
	11-12	5872-1	1,025	NA	100 U 100 U	5.2 U	100 U 100 U	5.2 U	100 U 100 U	5.2 U	**1,324** **557**	**160**	100 U 100 U	5.2 U	100 U 100 U	5.2 U	As above
SB46	1-1.5	NA	5	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, clayey/silty, light brown, wet
	6-7	5872-3	6	NA	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	SILT, sandy to CLAY, medium brown, firm, lean, moist
	9	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, silty to very fine grained, light-medium brown, moist
	17-18	NA	34	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, light buff to brown, fine grained, well sorted, loose
	23-24	5872-4	38	NA	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	SAND, buff to light brown, fine grained; dark grey/black laminations at base
SB47	2-3	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT, sandy to clayey, soft, moist to wet
	5-6	5872-5	148	NA	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	31	100 U	5.1 U	100 U	5.1 U	SAND, silty to fine grained, medium to light grey-brown
	9-9.5	NA	55	NA	100 U	NA	100 U	NA	100 U	NA	**133**	NA	100 U	NA	100 U	NA	SAND, silty, medium brown, moist.
	13-14	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT to very fine grained SAND, medium brown, saturated
	18-19	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty, medium brown, firm, moist
	21.5-22.5	5872-6	87	NA	100 U	5.3 U	100 U	5.3 U	100 U	5.3 U	100 U	6.5	100 U	5.3 U	100 U	5.3 U	SAND, very fine grained to silty, light tan-brown to grey, soft, moist
	27-28	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, fine to medium grained, light grey, moist
SB48	3-4	NA	178	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, medium to coarse grained, light grey to brown, slightly moist
	10-11	5872-7	226	NA	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	**302**	18	100 U	5.7 U	100 U	5.7 U	SAND, silty to very fine grained, laminated, moist
	15	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY to clayey silt, medium brown, saturated
	19	NA	31	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, greyish-brown, soft, plastic, moist
	20-21	5872-8	259	NA	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	CLAY, as above
	24-25	NA	39	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty/sandy, greyish-brown, soft
SB49	1.5-2	NA	24	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	GRAVEL and SAND, dark grey grading to reddish-brown
	5-5.5	NA	25	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, very fine grained, silty, medium yellowish-brown, moist
	11-12	NA	32	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, very fine grained, medium greyish-brown
	15-15.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty/sandy, greyish brown and iron stained laminations at base
	18-19	NA	139	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty/sandy grading to very fine grained silty SAND
	20-21	5872-9	329	NA	100 U	5 U	100 U	5.9	100 U	5 U	100 U	5 U	100 U	5 U	100 U	5 U	SAND, light brown, laminated medium and fine grained, slightly moist
	27-28	5872-10	193	NA	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	SAND, black stained, fine grained, moist

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB50	1-1.5	NA	51	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND with GRAVEL and CLAY, reddish-brown
	7-7.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, very fine grained, some silty, greyish-brown, moist
	12-12.5	NA	147	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY to SANDY CLAY, medium greyish-brown, soft, wet
	15-16	NA	42	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, very fine grained, with silty laminations, some iron stain
	19-20	NA	180	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND and CLAYEY SAND, dark grey
	21-22	5872-11	1,589	NA	100 U	28	100 U	4.9 U	100 U	4.9 U	100 U	6.4	100 U	4.9 U	100 U	4.9 U	SAND, fine to medium grained, medium yellowish-brown
	26.5-27.5	5872-12	1,204	NA	779	33	100 U	5.3 U	100 U	5.3 U	133	5.3 U	100 U	5.3 U	100 U	5.3 U	SAND, as above, with black stained smear zone
SB51	1.5-2	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND with GRAVEL and CLAY, dark brown
	10-11	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty to clayey SILT, medium brown, saturated
	15-16	NA	731	NA	178	NA	100 U	NA	100 U	NA	100 U	NA	186	NA	100 U	NA	SAND, light brown, laminated, moist
	20.5-21.5	NA	1,912	NA	**14,519**	NA	**414**	NA	**220**	NA	**230**	NA	**668**	NA	100 U	NA	CLAY, medium greyish-brown, soft, wet
	22-23	5872-13	26,100	NA	**10,985**	4.9 U	**663**	4.9 U	**255**	4.9 U	100 U	4.9 U	**333**	4.9 U	100 U	4.9 U	SAND, fine to medium grained
	26-27	5872-14	10,600	NA	1,617	400	**158**	**69**	100 U	6.3 U	100 U	6.3 U	100 U	31	100 U	24	(Not recorded; likely sand)
SB52	17-17.5	NA	253	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, light brown to buff laminations and layers, loose, moist
	21-22	5872-15	2,614	NA	116	67	100 U	**21**	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	SAND, light brown to buff, some layering becomes fine, well sorted with depth
	26-27	5872-16	5,100	NA	1,203	730	**479**	**270**	100 U	33	100 U	6.3 U	100 U	10	100 U	6.3 U	SAND, with silt, medium grey, very moist
SB53	0.5-1	NA	83	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT (FILL?), crumbly, dry
	16-17	NA	84	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, greenish grey (anoxic) with sewer odor, sandy in part, wet
	22.5-23.5	5872-17	2,487	NA	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	SAND, silty, fine grained, black staining, slightly moist
	26.5-27.5	5872-18	2,015	NA	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	SAND, medium grained, silty in part, black minerals, moist
SB54	2-3	NA	743	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, medium to coarse grained, light brown to buff/tan, moist
	5.5-6.5	5872-19	1,822	NA	100 U	4.9 U	100 U	4.9 U	100 U	4.9 U	**1,023**	45	**440**	19	100 U	4.9 U	SAND, as above, more coarse and gravelly with depth
	9-10	NA	1,371	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	**630**	NA	CLAY, silty in part, dark grey, dense, firm, slightly plastic, moist
	12-12.5	NA	624	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	**549**	NA	CLAY to SILTY CLAY, medium greyish-brown, moist
	16-17	5872-20	673	NA	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	**924**	190	CLAY, medium brownish-grey to dark grey, plastic, silty in part, very moist
	21-22	NA	2,559	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, light brown, some laminations, moist
	26-27	5872-21	638	NA	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	100 U	8.4	100 U	9.2	159	36	SAND, medium brown, some laminations, very moist
SB55	1-2	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, fine to medium grained, light brown, very moist
	5-6	NA	16	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, as above
	10-11	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, medium greyish-brown to medium brownish-grey, some silty, very moist
	15-16	5872-22	79	NA	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	SAND with silt and clay laminations, medium greyish-brown, slightly moist
	19-20	NA	313	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, iron stained laminations
	23-24	NA	1,020	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT, sandy to silty SAND, light brown to buff
	24-25	5872-23	1,225	NA	100 U	9.2	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U	SAND, silty, light brown to buff
SB56	7-7.5	5872-24	5	NA	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	CLAY, dark brown, firm, dense, slightly moist
	11-12	NA	32	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY with sand and silt layers, very moist
	14-15	NA	129	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty in part to SILT, wet to saturated
	18-19	5872-25	578	NA	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	48	SAND, medium grained, layered with silt and clay, dark grey and yellowish-brown layers
	22-23	NA	478	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	127	NA	SAND, very fine grained, dark grey
	26.5-27	NA	55	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	(Not recorded; likely sand)
SB57	0.5-1.5	NA	35	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT, clayey, reddish-brown, blocky texture, crushed rock ~1.5-2 feet, dry
	4.5-5	NA	13	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT, light yellowish-brown, platy texture, dry
	9-10	NA	4	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty to CLAY, medium yellowish-brown, firm, (some soft layers), moist
	14-14.5	NA	5	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty, with roots and iron staining (possibly former land surface)
	19-19.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty, medium yellowish-brown, soft, moist
	19.5-20	5872-26	2	NA	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	CLAY, sandy to clayey SAND, medium brown, soft, wet
	21.5-22	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, sandy, medium yellowish-brown, soft, wet
	26.5-27	NA	9	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty in part, medium yellowish-brown, moist

TABLE B-2
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FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB58	1-2	NA	1	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty, medium brown, blocky to platy texture, friable, dry
	7.5-8	5872-27	2	NA	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	CLAY and SILT, layers, dark brown, firm
	10.5-11	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY and SILT layers, light brown to yellowish-brown, some roots
	12-13	5872-28	13	NA	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	CLAY, sandy to clayey SAND, hard, dry
	17-18	NA	8	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY to silty CLAY, medium yellowish-brown, firm, moist (loess appearance)
	21.5-22	NA	4	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, medium yellowish-brown, soft, wet (loess appearance)
	24-25	NA	29	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, as above
SB59	0.5-1	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	FILL MATERIAL, silty clay with rock/gravel, medium brown, platy to blocky texture, slightly moist
	10-10.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, with silt laminations and some 4-inch clay layers
	11-11.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, as above with iron staining and dark grey laminations
	12-13	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT, clayey, medium greyish-brown, some sand and some iron stained laminations, very moist
	18.5-19	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT, clayey, light grey grading to tan, firm, slightly moist
	21-22	5872-29	0	NA	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	CLAY, medium tannish-brown, some wet (sandy) zones, slightly moist
	26-26.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, as above (sandy zone sampled)
SB60	1.5-2	5872-30	7,022	NA	**9,750**	5.4 U	100 U	5.4 U	100 U	5.4 U	**905**	5.4 U	100 U	5.4 U	100 U	5.4 U	SAND, coarse grained, black staining decreases with depth. Sampled below crushed rock roadbed, and rubbery/polymerized sand
	2.5-3	NA	8,162	NA	127	NA	100 U	NA	100 U	NA	**362**	NA	100 U	NA	100 U	NA	SAND, medium to coarse grained, light brown
	6-6.5	NA	456	NA	157	NA	100 U	NA	100 U	NA	**357**	NA	100 U	NA	100 U	NA	SAND, medium to fine grained, light brown to buff; below 5 feet: silty and black staining
	11.5-12	NA	310	NA	640	NA	100 U	NA	100 U	NA	**1,535**	NA	100 U	NA	100 U	NA	CLAY, medium brown, soft, plastic, very moist
	20-20.5	NA	393	NA	100 U	NA	**1,072**	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, medium brownish-grey
	27-28	5872-31	48	NA	100 U	7.1 U	100 U	9.7	100 U	7.1 U	100 U	7.1 U	100 U	7.1 U	100 U	7.1 U	SAND, very fine grain, grey, loose, saturated
SB61	2.5-3	NA	14	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, fine to medium grained, light brown to buff, moist
	6-7	5872-32	24	NA	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	SAND, medium to coarse grained, poorly sorted, light brown, some silty
	10.5-11	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT to very fine grained SAND, laminated, very moist
	19.5-20	5872-33	213	NA	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	12	100 U	6.9	SAND, laminated, light and dark grey, iron staining at top, wet
	27-28	5872-34	328	NA	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	CLAY, silty to clayey SILT, dark grey, soft, saturated
SB62	1.25-1.5	NA	245	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, coarse grained; thin polymerized layer below rubber membrane
	2.5-3	5872-35	803	NA	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	SAND and SILT, black stained layers
	5-6	5872-36	533	NA	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	SAND, light brown and buff with brown silt laminations, fine grained, black staining at 6 feet
	9.5-10	NA	58	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	202	NA	SILT/SAND/CLAY laminations, dark brown, wet
	15.5-16	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	145	NA	CLAY, medium brown, dense, iron stained laminations
	23-23.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, dark grey
	27-28	5872-37	0	NA	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	CLAY, with SILT and SAND laminations/layers, dark grey
SB63	1.5-2	5872-38	0	NA	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	SAND, medium to coarse grained, light brown to buff
	7.5-8	NA	7	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT and CLAY, dark grey and iron stained
	9-10	5872-39	116	NA	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	CLAY, dark grey to black stain (petroleum?)
	13-14	NA	39	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, silty, to clayey SILT, dark brown, saturated
	23-24	5872-40	186	NA	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	20	SAND, silty, laminated, very fine to fine grained, wet
	27-28	5872-41	734	NA	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	410	99	SAND, medium to coarse grained, saturated
SB64	3-4	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, coarse grained
	4-5	5872-42	132	NA	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	SAND with GRAVEL, coarse grained sand, subangular 3/8-inch gravel, light brown to buff
	10-11	NA	9	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY and silty clay, medium yellowish-brown to grey brown, petroleum odor?
	15-16	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, dark grey, firm to soft

TABLE B-2
COMPARISON OF VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS FROM FIELD SCREENING TO LABORATORY DATA
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	Sample Headspace	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		Lithology/Remarks
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)														
Remedial Action Goal – Site-Specific SSL (Soil-to-GW)					1,780		16		62		65		47		505		
RSL Industrial Soils (0-2 ft bgs)					3.80E+07		1.70E+04		1.00E+06		110,000		6,400		2.00E+06		
MCL Based SSL					70		0.68		2.5		2.3		1.8		21		
Laboratory or Screening Method					ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	
SB65	2.5-3	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, medium to coarse grained, light brown, some black and iron staining
	7-8	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, sandy/silty from 7.5 to 8 feet, moist to wet
	11-12	5872-43	136	NA	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	22	100 U	5.8 U	100 U	5.8 U	SAND, silty grading to very fine grained sand
	15-16	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND to silty sand, laminated, cross-bedded, medium brown, moist
	16-16.5	NA	329	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, fine grained light to medium yellowish-brown, with occasional black stained layers
	19-20	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, very fine grained with silt laminations, medium grey
SB66	0.5-1.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND and Gravel, coarse grained, light brown to buff
	7-8	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	Silt and Sand, clayey, medium brown, moist
	11-11.5	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND/CLAY/SILT, laminated, medium reddish brown, saturated
	13-14	NA	0	NA	233	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SILT, sandy, very fine grained, medium brown
	19-20	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	CLAY, dark grey, soft, plastic, very moist
	23.5-24	NA	0	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	SAND, silty, clayey, dark grey, moist
	27-28	5782-44	4	NA	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	SAND, fine to medium grained, medium to light brown, loose, some laminations, saturated

Notes:

Bold font indicates concentration exceeds Remedial Action Goal

Color coding indicates concentration exceeds 300 µg/kg or Remedial Action Goal, if greater.

Core screening indicates initial screening of the soil core using either a ppbRae or MultiRae Photoionization detector (PID) having a 10.6 lamp. Sample headspace indicates the PID reading of soil loosely placed in a 40-milliliter vial and heated in the sun or using vehicle heater with samples placed on the dashboard.

Samples from soil borings SB-1 through SB-40 (Analytical Services Request [ASR] 5706) were collected in April 2012. Those from SB-41 through SB-45 (ASR 5788) were collected in June 2012. Samples from SB-28R and SB-46 through SB-66 (ASR 5872) were collected in December 2012. A mobile laboratory operated by EPS was used to obtain field results in April 2012. EPA's mobile laboratory was used for field screening in December 2012.

bgs	Below ground surface
DCA	Dichloroethane
DCE	Dichloroethene
ft	Feet
EPA	U.S. Environmental Protection Agency (Region 7 laboratory and mobile laboratory for SB46 through SB66)
EPS	Environmental Priority Service (mobile laboratory used for locations SB1 through SB40)
FD	Field duplicate
J	Estimated value
µg/kg	Micrograms per kilogram
mg/kg	Milligrams per kilogram
ML	Mobile Laboratory (EPS for SB1-SB40; EPA for SB46-SB66
NA	Not applicable
NA/R	Not available; data rejected by EPA Region 7 Laboratory
ND	Not detected
NE	Not established
PCE	Tetrachloroethane
RSL	Regional Screening Level
SB	Soil boring
SSL	Soil screening level
TCA	Trichloroethane
TCE	Trichloroethene
U	Analyte was not detected at or above the reporting limit on table.

Color Coding

1,1,1-TCA or common degradation products 1,1-DCA and 1,1-DCE

PCE

TCE or common degradation product *cis* -1,2-DCE

TABLE B-3
ANALYTICAL RESULTS FOR SOIL SAMPLES
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Volatile Organic Compounds																										SVOC
			Acetone	MEK	MBK	MC	Methyl Acetate	CS_2	Benzene	Cyclo-hexane	Cumene	MCH	Toluene	*m-/p-* Xylenes	1,1,2-TCA	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		*trans* -1,2-DCE	1,4-Dioxane
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)																										
RAL – Site-Specific SSL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,780		16		62		65		47		505		NE	3
RSL Industrial Soils (0-2 ft bgs)			6.3E+08	2.0E+08	1.4E+06	9.6E+05	1.0E+09	3.7E+06	5,400	2.8E+06	1.1E+07	NE	4.5E+07	2.5E+6[a]	5,300	3.8E+07		1.7E+04		1.0E+06		110,000		6,400		2.0E+06		6.9E+05	1.7E+04
MCL Based SSL			NE	NE	NE	NE	NE	NE	2.6	NE	NE	NE	690	NE	1.6	70		0.68		2.5		2.3		1.8		21		29	NE
Laboratory or Screening Method			EPA Region 7 Laboratory													ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	EPA	EPA
April 2012 Sample Results																													
SB01	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	5706-1	17 U	17 U	17 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	ND	8.5 U	ND	8.5 U	ND	8.5 U	0.6	3.8 K	ND	1.7 J	ND	8.5 U	8.5 U	70 U
	10-11	5706-2	31	11 U	11 U	5.7 U	5.9 J	5.7 U	5.9 J	8.2 J	5.7 U	10 J	10	5.7 U	5.7 U	10.9	24	ND	5.7 U	ND	5.7 U	2.1	20	3	13	ND	5.7 U	5.7 U	87 U
		5706-2FD	27	10 U	10 U	5.1 U	5.4 J	5.1 U	5.4 J	5.9 J	5.1 U	7.9 J	8.2	5.1 U	5.1 U		18 J		5.1 U		5.1 U		16		10		5.1 U	5.1 U	NA
	18-19	5706-54	25	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	10 J	8.1	5.6 U	5.6 U	31.1	24 J	ND	5.6 U	ND	5.6 U	**301**	**240 J**	**263**	**110**	47	14	5.6 U	81 U
	23-24	5706-4	27	16 U	16 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.4 J	8.9	8.1 U	9	588	1,400 J	ND	**170**	101	60	**106**	**120**	**2,074**	**1,800 J**	**752**	430 J	12	75 U
	25-26	5706-5	42	17 U	17 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	81.5	390 J	ND	**37**	ND	13	7.1	61	**154**	**690 J**	39.7	120	8.3 U	72 U
	31-32	5706-184	11 U	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	14.6	5.6 U	ND	**290 J**	ND	15	ND	0.89 J	**333**	**79**	**770**	310 J	5.6 U	86 U
SB02	0-2	5706-11	17	12 U	12 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	16.6	6 U	ND	6 U	ND	6 U	ND	2.2 J	ND	NA/R	ND	6 U	6 U	82 U
	5-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.3	NA	ND	NA	ND	NA	6.9	NA	ND	NA	ND	NA	NA	NA
	10-11	5706-12	22	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	6.6	7.2	5.6 U	5.6 U	18.1	27	ND	5.6 U	ND	5.6 U	15.8	63	7.1	21	ND	5.6 U	5.6 U	72 U
	17-18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.1	NA	ND	NA	ND	NA	**90.3**	NA	**158**	NA	3.2	NA	NA	NA
	20-22	5706-13	39	12 U	12 U	6.2 U	6.2 U	6.2 U	6.2 U	6.8	6.2 U	9.6	8.1	6.2 U	6.2 U	267	1,400 J	ND	**17**	21.2	60	**323**	**710 J**	**126**	**220**	4.9	9.4	6.2 U	87 U
		5706-13FD	27	10 U	10 U	5 U	5 U	5 U	5 U	5.6	5 U	7.5	6.7	5 U	5 U		680 J		6.7		24		**390 J**		**110**		5 U	5 U	68 U
	25-26	5706-15	17	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	6	5.7 U	8.5	7.9	5.7 U	5.7 U	73.4	130	ND	5.7 U	ND	7.9	**73.3**	**120**	24.8	46	ND	5.7 U	5.7 U	70 U
SB03	0-2	5706-177	74	13	51	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	ND	6 U	ND	6 U	ND	6 U	ND	2.8 J	ND	6 U	ND	6 U	6 U	71 U
	6-7	5706-178	36	23 U	23 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	ND	11 U	ND	11 U	ND	11 U	35.7	51	**49.1**	44	ND	11 U	11 U	83 U
	9-10	5706-179	870 U	870 U	870 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	ND	430 U	ND	430 U	ND	430 U	**151**	**950**	**246**	**610**	4.2	430 U	430 U	91 U
	17-18	5706-180	730 U	730 U	730 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	117	360 U	ND	360 U	7.8	360 U	45.4	36 J	**940**	**840**	**4,150**	**4,800**	360 U	82 U
		5706-180FD	780 U	780 U	780 U	390 U	390 U	390 U	390 U	390 U	390 U	390 U	390 U	390 U	390 U		390 U		390 U		390 U		**91 J**		**1,200**		**7,000**	390 U	85 U
	22-23	5706-182	570 U	570 U	570 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	6	290 U	ND	290 U	ND	290 U	**175**	**750**	**865**	**560**	**508**	290 U	290 U	72 U
	24-25	5706-183	650 U	650 U	650 U	320 U	320 U	320 U	320 U	320 U	320 U	320 U	320 U	320 U	320 U	14.5	320 U	ND	320 U	ND	320 U	**290**	**580**	**1,415**	**850**	**1,023**	320 U	320 U	78 U
SB04	0-1	5706-185	74	14 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	ND	7 U	ND	7 U	ND	7 U	ND	20	ND	1.4 J	ND	7 U	7 U	70 U
	5-6	5706-186	810 U	810 U	810 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	10.3	400 U	ND	400 U	ND	400 U	**208**	**3,000**	32.6	**170 J**	14.7	400 U	400 U	87 UJ
	10-11	5706-187	840 U	840 U	840 U	420 U	420 U	420 U	420 U	420 U	420 U	420 U	420 U	420 U	420 U	52.7	420 U	ND	420 U	ND	420 U	**869**	**5,700**	**159**	**380 J**	31.2	420 U	420 U	90 U
	17-18	5706-188	800 U	800 U	800 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	12	400 U	ND	400 U	49.6	400 U	**445**	**1,500**	**916**	**840**	**622**	400 U	400 U	88 U
	23-24	5706-189	16	9.9 U	9.9 U	4.9 U	4.9 U	4.9 U	4.9 U	6	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	ND	4.9 U	ND	**47**	ND	7.5	**173**	**480 J**	**184**	**450 J**	145	270 J	16	71 U
	24-26	5706-190	16	13 U	13 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	ND	6.5 U	ND	6.5 U	ND	6.5 U	**152**	37	**146**	32	118	27	6.5 U	74 U
		5706-190FD	18	14 U	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U		6.9 U		6.9 U		6.9 U		29		27		22	6.9 U	76 U
SB05	0.5-1.5	5706-16	41	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	51.5	14	ND	5.6 U	ND	5.6 U	**722**	**270 J**	113	37	ND	5.6 U	5.6 U	660 U
	6-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	103	NA	ND	NA	ND	NA	**1,220**	NA	**433**	NA	48.1	NA	NA	NA
	10-11	5706-17	860 U	860 U	860 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	47.5	430 U	ND	430 U	ND	430 U	**836**	**3,100**	**300**	**400 J**	249	430 U	430 U	87 U
	14-15	5706-50	690 U	690 U	690 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	51.7	340 U	ND	340 U	9.8	340 U	**472**	**3,200**	**808**	**2,100**	412	340 U	340 U	85 U
	17-18	5706-18	810 U	810 U	810 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U	37	410 U	ND	410 U	ND	410 U	**685**	**1,400**	**1,875**	**1,600 J**	**836**	410 U	410 U	90 U
	20-22	5706-19	23	9.2 U	9.2 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.8	4.9	4.6 U	4.6 U	15.8	93	ND	9.5	ND	4.6 U	55.5	25	**213**	**110**	48.3	14	4.6 U	69 U
		5706-19FD	26	9.8 U	9.8 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	9.4	4.9 U	4.9 U	4.9 U		610 J		**69**		24		**130**		**690 J**		100	4.9 U	72 U
	27-28	5706-21	18 U	18 U	18 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	200	65	ND	**39**	28.7	11	11.5	7.5 J	**187**	**60**	279	110	8.8 U	74 U
SB06	1-2	5706-49	20	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	0.3 J	ND	0.29 J	ND	5.2 U	5.2 U	69 U
	5-6	5706-6	71	13	11 U	8.2 J	8.2 J	8.2 J	6 J	9.3 J	5.6 U	12 J	9.2 J	5.6 U	5.6 U	14.7	44 J	ND	5.6 U	ND	5.6 U	ND	0.39 J	ND	2.1 J	ND	5.6 U	5.6 U	80 U
	10-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.4	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	15-16	5706-7	57	34 U	34 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U	26.3	180	ND	**84**	ND	17 U	ND	1.2 J	ND	17 U	ND	17 U	17 U	80 U
	18-19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.8	NA	ND	NA	12.1	NA	ND	NA	ND	NA	ND	NA	NA	NA
	23-24	5706-8	890 U	890 U	890 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	488	450 U	**391**	450 U	**83**	450 U	ND	14 J	31	450 U	12.2	450 U	450 U	91 U
	27-28	5706-9	14	12 U	12 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	196	850 J	ND	**250 J**	3	33	ND	3.9 J	ND	14	ND	6.1 U	6.1 U	75 U
SB07	0.5-1.5	5706-22	59	18	14 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7.6	7 U	ND	7 U	ND	7 U	4	7 U	9.9	0.45 J	3.2	7 U	7 U	68 U
	4-5	5706-51	33	11 U	11 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	6	5.3 U	5.3 U	6.7	5.3 U	ND	5.3 U	ND	5.3 U	2.8	5.3 U	6.5	5.3 U	ND	5.3 U	5.3 U	NA
	8-9	5706-23	35	13 U	13 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	8.8	6.5 U	6.5 U	4	6.5 U	ND	6.5 U	ND	6.5 U	ND	8.8	3.4	0.31 J	ND	6.5 U	6.5 U	86 U
	15-16	5706-10	24	11 U	11 U	5.5 U	5.5 U	5.5 U	5.5 U	7 J	5.5 U	8.8 J	6.7 J	5.5 U	5.5 U	3.4	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	5.5 U	77 U
	20-21	5706-24	18	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	55	240 J	ND	**58**	ND	17	ND	2.4 J	ND	6.5	ND	5.2 U	5.2 U	69 U
	27-28	5706-25	11	11 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	65.1	370 J	ND	**190**	ND	20	ND	1.2 J	ND	7.2	ND	5.4 U	5.4 U	72 U
		5706-25FD	13	12 U	12 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U		350 J		**150**		23		1.8 J		8.4		6 U	6 U	78 U

TABLE B-3
ANALYTICAL RESULTS FOR SOIL SAMPLES
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Volatile Organic Compounds																								SVOC
			Acetone	MEK	MBK	MC	Methyl Acetate	CS_2	Benzene	Cyclo-hexane	Cumene	MCH	Toluene	*m-/p-* Xylenes	1,1,2-TCA	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE	*trans* -1,2-DCE	1,4-Dioxane
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)																								
RAL – Site-Specific SSL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,780		16		62		65		47		505	NE	3
RSL Industrial Soils (0-2 ft bgs)			6.3E+08	2.0E+08	1.4E+06	9.6E+05	1.0E+09	3.7E+06	5,400	2.8E+06	1.1E+07	NE	4.5E+07	2.5E+6[a]	5,300	3.8E+07		1.7E+04		1.0E+06		110,000		6,400		2.0E+06	6.9E+05	1.7E+04
MCL Based SSL			NE	NE	NE	NE	NE	NE	2.6	NE	NE	NE	690	NE	1.6	70		0.68		2.5		2.3		1.8		21	29	NE
Laboratory or Screening Method			EPA Region 7 Laboratory													ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	EPA	EPA
SB08	1-2	5706-52	18	11 U	11 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	ND	5.3 U	ND	5.3 U	ND	5.3 U	ND	1.3 J	ND	1.2 J	ND	5.3 U	5.3 U	69 U
	5-6	5706-27	30	12 U	12 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	7.6	6.2 U	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	6.2 U	74 U
	10-12	5706-28	17	13 U	13 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	6.3 U	81 U
	16-17	5706-29	32	11 U	11 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	6.7	5.5 U	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	5.5 U	69 U
	23-24	5706-30	12	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	58.6	430 J	ND	**120**	ND	26	ND	2.3 J	ND	5.5	ND	5.2 U	5.2 U	72 U
	26-27	5706-31	14	10 U	10 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	24.6	210 J	ND	**37**	ND	11	ND	4.9 J	ND	7.5	ND	5.1 U	5.1 U	70 U
SB09	1-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	5706-32	65	12 U	12 U	6.1 U	6.1 U	6.1 U	6.1 U	7.8	6.1 U	6.1 U	8.8	6.1 U	6.1 U	12.2	15	ND	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U	6.1 U	85 U
	10-11	5706-33	57	13 U	13 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	8.4	6.4 U	6.4 U	30.9	47	ND	6.4 U	ND	6.4 U	ND	6.4 U	ND	6.4 U	ND	6.4 U	6.4 U	87 U
	18-20	5706-34	17	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	19.5	13	ND	5.6 U	4	5.6 U	7.4	0.61 J	6.7	5.6 U	4.8	5.6 U	5.6 U	74 U
	22-24	5706-35	15	9.2 U	9.2 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	1,050	**2,400 J**	**424**	**750 J**	35.7	**140 J**	20.1	5.7	26.3	29	ND	6	4.6 U	74 U
	26-27	5706-36	23	12 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	60	1,740	**3,600 J**	**1,693**	**1,500 J**	**116**	**290 J**	5	13	**74.8**	**160**	21	64	5.8 U	74 U
SB10	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	10-11	5706-37	48	18	NA/R	6.3 U	6.3 U	6.3 U	NA/R	NA/R	NA/R	NA/R	NA/R	NA/R	NA/R	10.5	NA/R	ND	6.3 U	ND	6.3 U	ND	NA/R	ND	NA/R	ND	6.3 U	6.3 U	80 U
	16-17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	22-24	5706-38	27	11	11 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 J	5.3 U	6.9 J	7 J	5.3 U	5.3 U	10.9	31 J	ND	**18**	ND	5.3 U	ND	5.3 U	ND	5.3 U	ND	5.3 U	5.3 U	77 U
		5706-38FD	31	13 U	13 U	6.5 U	6.5 U	6.5 U	6.5 U	8.3 J	6.5 U	11 J	9.5 J	6.5 U	6.5 U		37 J		**22**		6.5 U		6.5 U		6.5 U		6.5 U	6.5 U	83 U
	25-26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.4	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
SB11	0-1	5706-53	26	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	5.2 U	68 U
	5-6	5706-40	36	12 U	12 U	8.4	8.4	8.4	5.8 U	5.8 U	5.8 U	7.3	8.8	5.8 U	5.8 U	13.2	19	ND	5.8 U	ND	5.8 U	ND	1.2 J	ND	5.8 U	ND	5.8 U	5.8 U	79 U
	9-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	47.3	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	16-17	5706-41	27	12 U	12 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	7.3	7.8	5.9 U	5.9 U	56.5	110	ND	14	ND	5.9 U	ND	2.3 J	ND	0.45 J	ND	5.9 U	5.9 U	76 U
	22-23	5706-43	29	12 U	12 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	89.3	170	ND	**54**	ND	6.1 U	ND	1.3 J	ND	2.3 J	ND	6.1 U	6.1 U	84 U
	27-28	5706-42	27	15 U	15 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	10.5	28	ND	**27**	ND	7.6 U	ND	0.43 J	ND	1.8 J	ND	7.6 U	7.6 U	81 U
SB12	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	14-15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	17-18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	20-21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	27-28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
SB13	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	9-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	15-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	20-22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	27-28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
SB14	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	4-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	10-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	13-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	20-21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	27-28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
SB15	0-1	5706-44	14	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	ND	10	ND	5.6 U	ND	5.6 U	ND	0.91 J	ND	1.1 J	ND	5.6 U	5.6 U	68 U
	5-6	5706-45	600 U	600 U	600 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300	330	ND	300 U	**64.3**	300 U	ND	40 J	6.9	300 U	26	300 U	300 U	83 U
	10-11	5706-46	710 U	710 U	710 U	350 U	350 U	350 U	350 U	350 U	350 U	350 U	350 U	350 U	350 U	949	**6,400**	ND	350 U	**424**	**460**	40	**190 J**	**57.5**	**130 J**	156	350 U	350 U	91 U
	17-18	5706-47	800 U	800 U	800 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	877	870	ND	**450**	**400**	400 U	30.5	**87 J**	**157**	**220 J**	36.8	400 U	400 U	90 U
	21-22	5706-55	26	12 U	12 U	6.1 U	6.1 U	6.1 U	6.1 U	7.5	6.1 U	9.7	8.7	6.1 U	6.1 U	320	500 J	ND	**40**	8	19	ND	15	21.8	**54**	9.2	6.1 U	6.1 U	79 U
	27-28	5706-48	11	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	256	280 J	ND	**46**	22.9	24	ND	1.6 J	13.2	16	11.8	5.6 U	5.6 U	78 U

TABLE B-3
ANALYTICAL RESULTS FOR SOIL SAMPLES
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Volatile Organic Compounds																								SVOC
			Acetone	MEK	MBK	MC	Methyl Acetate	CS_2	Benzene	Cyclo-hexane	Cumene	MCH	Toluene	*m-/p-* Xylenes	1,1,2-TCA	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE	*trans* -1,2-DCE	1,4-Dioxane
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)																								
RAL – Site-Specific SSL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,780		16		62		65		47		505	NE	3
RSL Industrial Soils (0-2 ft bgs)			6.3E+08	2.0E+08	1.4E+06	9.6E+05	1.0E+09	3.7E+06	5,400	2.8E+06	1.1E+07	NE	4.5E+07	2.5E+6[a]	5,300	3.8E+07		1.7E+04		1.0E+06		110,000		6,400		2.0E+06	6.9E+05	1.7E+04
MCL Based SSL			NE	NE	NE	NE	NE	NE	2.6	NE	NE	NE	690	NE	1.6	70		0.68		2.5		2.3		1.8		21	29	NE
Laboratory or Screening Method			EPA Region 7 Laboratory													ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	EPA	EPA
SB16	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	5706-56	96	19	13 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	9.6	160	ND	6.4 U	ND	6.4 U	ND	32 J	ND	2.7 J	ND	6.4 U	6.4 U	75 U
	10-11	5706-57	770 U	770 U	770 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	205	990	ND	380 U	ND	380 U	52.1	**480**	8.05	34 J	ND	380 U	380 U	87 U
		5706-57FB	680 U	680 U	680 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U		980		340 U		340 U		**480**		30 J		340 U	340 U	88 U
	15-16	5706-59	22	12 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	6.4	5.8 U	8.9	10	5.8 U	5.8 U	140	240 J	ND	**19**	ND	5.8 U	20.3	**66**	5.05	14	ND	5.8 U	5.8 U	78 U
	20-21	5706-60	31	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	6.9 J	5.7 U	9.3 J	10	5.7 U	5.7 J	209	550 J	ND	**61**	ND	5.7 U	15.1	53	**242**	**54**	3.8	9.1	5.7 U	74 U
	27-28	5706-86	11 U	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	26	22	ND	**22**	ND	5.6 U	ND	0.88 J	10.1	5.6 U	ND	5.6 U	5.6 U	77 U
SB17	0-1	5706-61	19	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.9	5.2 U	5.2 U	101	79	ND	5.2 U	ND	5.2 U	ND	5.2 U	8.2	7.7	ND	5.2 U	5.2 U	680 U
	5-6	5706-62	690 U	690 U	690 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	340 U	650	1,300	ND	340 U	**108**	340 U	ND	340 U	**145**	**240 J**	ND	340 U	340 U	85 U
	10-11	5706-63	740 U	740 U	740 U	370 U	370 U	370 U	370 U	370 U	370 U	370 U	370 U	370 U	370 U	1,520	1,400	**380**	370 U	**144**	370 U	ND	370 U	**307**	**280 J**	ND	370 U	370 U	82 U
	14-15	5706-66	760 U	760 U	760 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	**2,590**	**4,300**	**806**	380 U	**433**	380 U	ND	**130 J**	**601**	**820**	ND	380 U	380 U	86 U
	17-18	5706-67	19	12 U	12 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11	6 U	12	910	710 J	**161**	**64**	10.5	26	ND	11	13.7	21	ND	6 U	6 U	71 U
	20-21	5706-68	570 U	570 U	570 U	280 U	280 U	280 U	280 U	280 U	280 U	280 U	280 U	280 U	280 U	1,150	880	**350**	280 U	**72**	280 U	ND	62 J	**163**	**65 J**	2.5	280 U	280 U	82
	25-26	5706-69	14 U	14 U	14 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	9.8	6.8 U	42	123	930 J	ND	**170**	6.1	24	ND	13	29.2	**52**	ND	6.8 U	6.8 U	120
	29-30	5706-96	11	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	53	**2,450**	1,300 J	**1,210**	**960 J**	**267**	**100**	ND	3.3 J	**67.6**	35	4.9	5.9	5.7 U	120
SB18	0-1	5706-64	21	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	0.26 J	ND	5.2 U	5.2 U	69 U
	6-7	5706-65	23	14 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	173	87	ND	15	13	7 U	ND	7 U	ND	1.4 J	ND	7 U	7 U	86 U
	10-11	5706-70	720 U	720 U	720 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	300	840	**128**	360 U	56.9	360 U	ND	360 U	ND	360 U	ND	360 U	360 U	88 U
	15-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	932	NA	**101**	NA	45.3	NA	ND	NA	ND	NA	ND	NA	NA	NA
	19-20	5706-71	12 U	12 U	12 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	1,076	200	**231**	**100**	**64.3**	13	**74.1**	6.9	45.8	8.8	3.8	6.2 U	6.2 U	76 U
	20-21	5706-72	33	23 U	23 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	50 J	**2,050**	**2,400 J**	**750**	**1,700 J**	55.9	**110**	11.3	27	**85.7**	**140**	5	12 U	12 U	77 U
	27-28	5706-73	12 U	12 U	12 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	22	195	520 J	ND	**320 J**	8.8	18	ND	2.7 J	16.8	22	ND	5.9 U	5.9 U	73 U
SB19	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	5706-74	30	13 U	13 U	7.5	6.7 U	7.5	6.7 U	6.7 U	6.7 U	6.7 U	8.2	6.7 U	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	6.7 U	87 U
	10-11	5706-102	31	13 U	13 U	8.3	6.6 U	8.3	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	24.6	23 J	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	6.6 U	87 U
	15-16	5706-75	16	12 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	7.2	5.8 U	5.8 U	92.2	24	ND	7.6	4.1	5.8 U	ND	5.8 U	ND	0.62 J	ND	5.8 U	5.8 U	84 U
	20-21	5706-76	30	24 U	24 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	28.6	13	ND	**86**	12.6	12 U	ND	12 U	ND	4.6 J	ND	12 U	12 U	92 U
	25-26	5706-77	12 U	12 U	12 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	51.5	55	ND	**28**	ND	6 U	ND	0.75 J	ND	6	ND	6 U	6 U	NA
SB20	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	5706-78	45	11 U	11 U	18	5.6 U	18	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	5.6 U	82 U
	10-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	16-17	5706-79	43	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	5.2 U	75 U
	20-21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	25-26	5706-80	10 U	10 U	10 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	ND	5.1 U	ND	5.1 U	ND	5.1 U	8.4	19	2.15	8.1	ND	5.1 U	5.1 U	72 U
SB21	0-1	5706-81	14	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	0.22 J	ND	0.24 J	ND	5.2 U	5.2 U	70 U
	5-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	10-11	5706-82	17 U	17 U	17 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	13	11	ND	8.5 U	ND	8.5 U	ND	25	**118**	**160**	ND	8.5 U	8.5 U	90 U
	16-17	5706-83	52	14 U	14 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	14.7	28	ND	10	ND	6.8 U	25.6	**110**	**233**	**550 J**	ND	6.8	6.8 U	76 U
	20-21	5706-84	720 U	720 U	720 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	4.4	360 U	ND	360 U	ND	360 U	**65.9**	**170 J**	**460**	**310 J**	5.7	360 U	360 U	86 U
	25-26	5706-85	38	12 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	ND	5.8 U	ND	**26**	ND	5.8 U	ND	14	**138**	**490 J**	57.2	130	8.3	76 U
SB22	0-1	5706-87	9.6	9.6 U	9.6 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	16.4	20	ND	4.8 U	ND	4.8 U	ND	0.29 J	ND	4.8 J	ND	4.8 U	4.8 U	72 U
	5-6	5706-103	22	13 U	13 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	17.9	110	ND	**17**	ND	6.5 U	ND	1.5 J	6	9	ND	6.5 U	6.5 U	86 U
	11-12	5706-88	15	15 U	15 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	8	7.6 U	7.6 U	450	430 J	ND	**56**	9.7	10	ND	13	42.4	**66**	ND	7.6 U	7.6 U	78 U
	16-17	5706-89	760 U	760 U	760 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	806	**2,400**	**329**	380 U	**82.1**	380 U	8.8	**98 J**	**163**	**320 J**	ND	380 U	380 U	81 U
	23-24	5706-90	440 U	440 U	440 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	307	660	ND	220 U	ND	220 U	ND	39 J	26.7	**79 J**	ND	220 U	220 U	69 U
	26-27	5706-104	14 U	14 U	14 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	133	470 J	ND	**260**	ND	24	ND	3 J	8.6	40	ND	7.2 U	7.2 U	85 U
SB23	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	5706-91	12 U	12 U	12 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	28.1	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U	8	8.6	ND	6.1 U	6.1 U	77 U
	9-10	5706-92	11 U	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	204	120	ND	5.6 U	2	5.6 U	ND	5.6 U	44.1	33	ND	5.6 U	5.6 U	76 U
	16-17	5706-93	36	13 U	13 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	14.7	6.5	ND	**83**	4.8	6.4 U	ND	6.4 U	ND	9.1	ND	6.4 U	6.4 U	89 U
	23-24	5706-95	17	17 U	17 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	207	8.6 U	ND	**100**	**130**	60	ND	0.46 J	40.1	14	ND	8.6 U	8.6 U	90 U
	26-27	5706-94	12	12 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	173	41	ND	**27**	13.2	5.8 U	ND	0.83 J	11.8	6.6	ND	5.8 U	5.8 U	78 U

TABLE B-3
ANALYTICAL RESULTS FOR SOIL SAMPLES
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Volatile Organic Compounds																								SVOC
			Acetone	MEK	MBK	MC	Methyl Acetate	CS_2	Benzene	Cyclo-hexane	Cumene	MCH	Toluene	*m-/p-* Xylenes	1,1,2-TCA	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		*trans* -1,2-DCE	1,4-Dioxane
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)																								
RAL – Site-Specific SSL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,780		16		62		65		47		505		NE	3
RSL Industrial Soils (0-2 ft bgs)			6.3E+08	2.0E+08	1.4E+06	9.6E+05	1.0E+09	3.7E+06	5,400	2.8E+06	1.1E+07	NE	4.5E+07	2.5E+6[a]	5,300	3.8E+07		1.7E+04		1.0E+06		110,000		6,400		2.0E+06		6.9E+05	1.7E+04
MCL Based SSL			NE	NE	NE	NE	NE	NE	2.6	NE	NE	NE	690	NE	1.6	70		0.68		2.5		2.3		1.8		21		29	NE
Laboratory or Screening Method			EPA Region 7 Laboratory													ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	EPA	EPA
SB32	4-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	8-9	5706-143	20	13 U	13 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	ND	6.7 U	ND	10	ND	6.7 U	ND	0.74 J	**91.4**	**80**	51	24	6.7 U	87 U
	14-15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	**79.4**	NA	32.3	NA	NA	NA
	17-18	5706-144	17	13 U	13 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	ND	6.3 U	ND	6.3 U	2	6.3 U	3.5	1.95 J	**47.8**	22	38.2	11	6.3 U	71 U
	22-23	5706-146	12 U	12 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	ND	5.8 U	ND	5.8 U	ND	5.8 U	ND	0.84 J	7.4	11	4	6.2	5.8 U	68 U
	25-26	5706-147	30	12 U	12 U	9.8	9.8	9.8	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	ND	14	ND	8.4	ND	5.9 U	ND	8.2	ND	**100**	ND	41	5.9 U	69 U
SB33	13-14	5706-149	23	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	ND	12 U	ND	12 U	ND	12 U	ND	12 U	ND	12 J	ND	12 U	12 U	90 U
	17-18	5706-150	22	14 U	14 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	7.1 U	88 U
	20-22	5706-159	28	14 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7.7 J	7 U	7 U	ND	7 U	ND	7 U	ND	7 U	ND	7 U	ND	7 U	ND	7 U	7 U	78 U
	25-26	5706-151	12 U	12 U	12 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	ND	6 U	ND	6 U	ND	6 U	ND	6 U	ND	6 U	ND	6 U	6 U	69 U
SB34	17-18	5706-152	14 U	14 U	14 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	96	16	ND	6.9	ND	6.8 U	ND	3.3 J	**55.4**	16	ND	6.8 U	6.8 U	73 U
		5706-152FD	14 U	14 U	14 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U		15 J		6.8 U		6.8 U		3.6 J		17		6.8 U	6.8 U	71 U
	20-21	5706-158	570 U	570 U	570 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	288	290 U	ND	290 U	15.8	290 U	25.6	**140 J**	**202**	**260 J**	21.6	290 U	290 U	72 U
	24-25	5706-157	12 U	12 U	12 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	23.1	14 J	ND	6.5	ND	6.2 U	ND	4.3 J	10.5	20	ND	6.2 U	6.2 U	71 U
SB35	17-18	5706-156	14 U	14 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	235	40 J	ND	9.5	2.5	7 U	18.1	7.8	**79.2**	21	2.6	7 U	7 U	76 U
	21-22	5706-155	13 U	13 U	13 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	13	14 J	ND	6.4 U	ND	6.4 U	2.8	3.1 J	3.4	11	ND	6.4 U	6.4 U	72 U
	25-26	5706-154	12 U	12 U	12 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	ND	7.3 J	ND	6 U	ND	6 U	ND	2.1 J	ND	7.5	ND	6 U	6 U	68 U
SB36	14-15	5706-160	20	16 U	16 U	8.2 U	8.2 U	8.2 U	8.2 U	8.2 U	8.2 U	8.2 U	8.2 U	8.2 U	8.2 U	ND	8.2 U	ND	8.2 U	ND	8.2 U	7.9	22	**65.7**	**91**	ND	8.2 U	8.2 U	86 U
	16-17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	**60.5**	NA	71.8	NA	NA	NA
	22-23	5706-161	14	12 U	12 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	7	6.2 U	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	3.7 J	14.3	21	9	8.8	6.2 U	75 U
	25-26	5706-162	11 U	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	8.4	5.7 U	68 U
SB37	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	6-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	9-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	15-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	19-20	5706-164	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44.1	NA	ND	NA	ND	NA	26	NA	ND	NA	ND	NA	NA	71 U
SB38	0-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	5-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	10-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	15-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	19-20	5706-163	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	77 U
SB39	0-1	5706-165	140	27	13 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	6.6 U	77 U
	6-7	5706-166	15	13 U	13 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	1 J	ND	6.3 U	ND	6.3 U	6.3 U	76 U
	10-11	5706-167	14	14 U	14 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	2.7 J	11.6	14	7.1 U	88 U
	13-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	16-17	5706-168	830 U	830 U	830 U	420 U	420 U	420 U	420 U	420 U	520	420 U	420 U	420 U	420 U	ND	420 U	ND	420 U	ND	420 U	ND	420 U	ND	420 U	ND	420 U	420 U	90 UJ
	20-21	5706-169	1,500 U	1,500 U	1,500 U	730 U	730 U	730 U	730 U	730 U	2,000	730 U	730 U	730 U	730 U	ND	730 U	ND	730 U	ND	730 U	ND	730 U	ND	730 U	ND	730 U	730 U	82 U
	26-27	5706-170	11 U	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	0.43 J	ND	5.7 U	5.7 U	75 U
SB40	0-1	5706-176	15	9.4 U	9.4 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	4.7 U	72 U
	5-6	5706-171	20	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	0.26 J	ND	5.7 U	ND	5.7 U	5.7 U	69 U
	10-11	5706-172	800 U	800 U	800 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	400 U	ND	400 U	ND	400 U	ND	400 U	ND	400 U	ND	400 U	ND	400 U	400 U	87 U
	16-17	5706-173	31	14 U	14 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	ND	7.1 U	ND	8.3	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	9.9	7.1 U	91 U
	21-22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA
	25-27	5706-174	27	19 U	19 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	9.3 U	85 U
		5706-174FD	26	15 U	15 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U		7.4 U		7.4 U		7.4 U		7.4 U		7.4 U		7.4 U	7.4 U	92 U

TABLE B-3
ANALYTICAL RESULTS FOR SOIL SAMPLES
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Volatile Organic Compounds																								SVOC
			Acetone	MEK	MBK	MC	Methyl Acetate	CS_2	Benzene	Cyclo-hexane	Cumene	MCH	Toluene	*m-/p-* Xylenes	1,1,2-TCA	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		*trans* -1,2-DCE	1,4-Dioxane
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)																								
RAL – Site-Specific SSL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,780		16		62		65		47		505		NE	3
RSL Industrial Soils (0-2 ft bgs)			6.3E+08	2.0E+08	1.4E+06	9.6E+05	1.0E+09	3.7E+06	5,400	2.8E+06	1.1E+07	NE	4.5E+07	2.5E+6[a]	5,300	3.8E+07		1.7E+04		1.0E+06		110,000		6,400		2.0E+06		6.9E+05	1.7E+04
MCL Based SSL			NE	NE	NE	NE	NE	NE	2.6	NE	NE	NE	690	NE	1.6	70		0.68		2.5		2.3		1.8		21		29	NE
Laboratory or Screening Method			EPA Region 7 Laboratory													ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	EPA	EPA
June 2012 Sample Results																													
SB41	0-2	5788-1	64 U	5.8 U	39 UJ	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	5.8 U	70 U
	6-7	5788-2	210 J	7.1 U	34 UJ	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	NA	28	NA	7.1 U	NA	7.1 U	NA	7.1 U	NA	7.1 U	NA	7.1 U	7.1 U	89 U
	12-13	5788-3	9.6 U	9.6 U	19 UJ	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	NA	87	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	9.6 U	92 U
	17-18	5788-4	7.2 U	7.2 U	12 UJ	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	NA	75	NA	**17**	NA	7.2 U	NA	7.2 U	NA	12	NA	7.2 U	7.2 U	72 U
	21-23	5788-5	100 U	6.1 U	38 UJ	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	6.1 U	89 U
	27-28	5788-6	6 U	6 U	6.2 UJ	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	NA	6 U	NA	**32**	NA	20	NA	59	NA	21	NA	41	6 U	90 U
SB42	3-4	5788-7	100 U	5.9 U	5.9 UJ	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	NA	24	NA	5.9 U	NA	5.9 U	NA	29	NA	**94**	NA	5.9 U	5.9 U	90 U
	6-7	5788-8	430 J	8 U	8 UJ	8 U	8 U	8 U	8 U	8 U	8 U	8 U	11	8 U	8 U	NA	220	NA	8 U	NA	8 U	NA	**590**	NA	**370**	NA	67	8 U	90 U
	9-10	5788-9	8 U	8 U	8 UJ	8 U	8 U	8 U	8 U	8 U	8 U	8 U	8.7	8 U	8 U	NA	310	NA	8 U	NA	8 U	NA	**1,200**	NA	**470**	NA	39	8 U	90 U
	14-15	5788-10	9.6 U	9.6 U	9.6 UJ	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	NA	840	NA	14	NA	9.6 U	NA	**2,800**	NA	**760**	NA	15	9.6 U	87 U
	17-18	5788-11	9 U	9 U	9 UJ	9 U	9 U	9 U	9 U	9 U	9 U	56	9.3	9 U	9 U	NA	450	NA	**74**	NA	14	NA	**1,300**	NA	**1,500**	NA	66	9 U	85 U
	23-24	5788-12	6.4 U	6.4 U	28 UJ	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	NA	6.4 U	NA	**67**	NA	8.8	NA	6.4 U	NA	**1,100**	NA	170	92	92 U
	26-27	5788-13	7.9 U	7.9 U	17 UJ	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U	8.7	7.9 U	7.9 U	NA	7.9 U	NA	**130**	NA	13	NA	7.9 U	NA	**1,900**	NA	**950**	250	88 U
SB43	0-2	5788-14	220 J	56 J	9.6 UJ	5.8 U	5.8 U	5.8	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	5.4 U	100 U
	4-6	5788-15	7.6 U	7.6 U	20 UJ	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	9.5	7.6 U	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	7.6 U	99 U
	10-11	5788-16	150 J	6 U	7.9 UJ	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	6 U	91 U
	15-16	5788-17	5.8 U	5.8 U	5.8 UJ	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	7	5.8 U	NA	5.8 U	NA	7.5	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	5.8 U	88 U
	19-20	5788-18	9.6 U	9.6 U	9.6 UJ	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	9.6 U	89 U
	22-23	5788-33	6.9 U	6.9 U	6.9 UJ	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	6.9 U	88 U
	27-28	5788-19	5.7 U	5.7 U	5.7 UJ	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	5.7 U	90 U
SB44	0-2	5788-20	210 J	5.6 U	5.6 UJ	5.7	5.7	5.7	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	21	NA	5.6 U	5.6 U	85 U
	7-8	5788-21	5.6 U	5.6 U	5.6 UJ	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	41	NA	18	5.6 U	84 U
	11-12	5788-22	230 J	7 U	7 UJ	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	NA	7 U	NA	7 U	NA	7 U	NA	7 U	NA	40	NA	470	16	93 U
	13-14	5788-23	6.8 U	6.8 U	6.8 UJ	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	NA	6.8 U	NA	6.8 U	NA	6.8 U	NA	**95**	NA	**670**	NA	350	6.8 U	95 U
	17-19	5788-24	65 U	6.2 U	6.2 UJ	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	NA	6.2 U	NA	**130**	NA	15	NA	**440**	NA	**2,300**	NA	**560**	40	88 U
	20-21	5788-25	62 U	5.7 U	12 UJ	6.1	6.1	6.1	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	NA	5.7 U	NA	**220**	NA	25	NA	5.7 U	NA	15	NA	420	7.4	86 U
	27-28	5788-26	6.5 U	6.5 U	6.5 UJ	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	6.5 U	84 U
SB45	0-2	5788-27	130 U	5.3 U	5.3 UJ	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	5.3 U	79 U
	5-6	5788-28	6 U	6 U	6 UJ	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	6 U	86 U
	14-15	5788-29	6.2 U	6.2 U	6.2 UJ	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	6.2 U	89 U
	19-20	5788-30	6.3 U	6.3 U	6.3 UJ	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	6.3 U	96 U
	21-22	5788-31	5.5 U	5.5 U	5.5 UJ	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	5.5 U	82 U
	27-28	5788-32	51 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U	5 U	81 U
December 2012 Sample Results																													
SB28R	9-10	5872-2	11 U	11 U	11 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	100 U	5.5 U	100 U	5.5 U	100 U	5.5 U	**189**	**95**	100 U	5.5 U	100 U	5.5 U	5.5 U	NA
	11-12	5872-1	17	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	100 U 100 U	5.2 U	100 U 100 U	5.2 U	100 U 100 U	5.2 U	**1,324** **557**	**160**	100 U 100 U	5.2 U	100 U 100 U	5.2 U	5.2 U	NA
SB46	1-1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	6-7	5872-3	12 U	12 U	12 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	5.9 U	NA
	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	17-18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	23-24	5872-4	12 U	12 U	12 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	6.2 U	NA
SB47	2-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	5-6	5872-5	18	10 U	10 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	31	100 U	5.1 U	100 U	5.1 U	5.1 U	NA
	9-9.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	**133**	NA	100 U	NA	100 U	NA	NA	NA
	13-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	18-19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	21.5-22.5	5872-6	11 U	11 U	11 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	100 U	5.3 U	100 U	5.3 U	100 U	5.3 U	100 U	6.5	100 U	5.3 U	100 U	5.3 U	5.3 U	NA
	27-28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA

TABLE B-3
ANALYTICAL RESULTS FOR SOIL SAMPLES
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Volatile Organic Compounds																								SVOC
			Acetone	MEK	MBK	MC	Methyl Acetate	CS_2	Benzene	Cyclo-hexane	Cumene	MCH	Toluene	*m-/p-* Xylenes	1,1,2-TCA	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE	*trans* -1,2-DCE	1,4-Dioxane
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)																								
RAL – Site-Specific SSL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,780		16		62		65		47		505	NE	3
RSL Industrial Soils (0-2 ft bgs)			6.3E+08	2.0E+08	1.4E+06	9.6E+05	1.0E+09	3.7E+06	5,400	2.8E+06	1.1E+07	NE	4.5E+07	2.5E+6[a]	5,300	3.8E+07		1.7E+04		1.0E+06		110,000		6,400		2.0E+06	6.9E+05	1.7E+04
MCL Based SSL			NE	NE	NE	NE	NE	NE	2.6	NE	NE	NE	690	NE	1.6	70		0.68		2.5		2.3		1.8		21	29	NE
Laboratory or Screening Method			EPA Region 7 Laboratory													ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	EPA	EPA
SB48	3-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	10-11	5872-7	11 U	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	**302**	18	100 U	5.7 U	100 U	5.7 U	5.7 U	NA
	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	20-21	5872-8	14 U	14 U	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	6.9 U	NA
	24-25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
SB49	1.5-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	5-5.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	11-12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	15-15.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	18-19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	20-21	5872-9	10 U	10 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	100 U	5 U	100 U	5.9	100 U	5 U	100 U	5 U	100 U	5 U	100 U	5 U	5 U	NA
	27-28	5872-10	10 U	10 U	10 U	5.1 U	5.1 U	5.1 U	5.1 UJ	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	5.1 U	NA
SB50	1-1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	7-7.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	12-12.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	15-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	19-20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	21-22	5872-11	9.8 U	9.8 U	9.8 U	4.9 U	4.9 U	4.9 U	4.9 UJ	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	100 U	28	100 U	4.9 U	100 U	4.9 U	100 U	6.4	100 U	4.9 U	100 U	4.9 U	4.9 U	NA
	26.5-27.5	5872-12	11 U	11 U	11 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	779	33	100 U	5.3 U	100 U	5.3 U	133	5.3 U	100 U	5.3 U	100 U	5.3 U	5.3 U	NA
SB51	1.5-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	10-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	15-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	178	NA	100 U	NA	100 U	NA	100 U	NA	**186**	NA	100 U	NA	NA	NA
	20.5-21.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**14,519**	NA	**414**	NA	**220**	NA	**230**	NA	**668**	NA	100 U	NA	NA	NA
	22-23	5872-13	9.8 U	9.8 U	9.8 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	**10,985**	4.9 U	**663**	4.9 U	**255**	4.9 U	100 U	4.9 U	**333**	4.9 U	100 U	4.9 U	4.9 U	NA
	26-27	5872-14	13 U	13 U	13 U	11 U	26	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.4	1,617	400	**158**	**69**	100 U	6.3 U	100 U	6.3 U	100 U	31	100 U	24	6.3 U	NA
SB52	17-17.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	21-22	5872-15	11 U	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	116	67	100 U	**21**	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	5.7 U	NA
	26-27	5872-16	13 U	13 U	13 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	12	1,203	730	**479**	**270**	100 U	33	100 U	6.3 U	100 U	10	100 U	6.3 U	6.3 U	NA
SB53	0.5-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	16-17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	22.5-23.5	5872-17	10 U	10 U	10 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	5.2 U	NA
	26.5-27.5	5872-18	11 U	11 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	5.4 U	NA
SB54	2-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	5.5-6.5	5872-19	9.8 U	9.8 U	9.8 U	8.1 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	100 U	4.9 U	100 U	4.9 U	100 U	4.9 U	**1,023**	45	**440**	19	100 U	4.9 U	4.9 U	NA
	9-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	**630**	NA	NA	NA
	12-12.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	**549**	NA	NA	NA
	16-17	5872-20	29	15 U	15 U	9.8 U	7.5 U	7.5 U	7.5 UJ	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	**924**	190	7.5 U	NA
	21-22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	26-27	5872-21	11 U	11 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	100 U	8.4	100 U	9.2	159	36	5.7 U	NA
SB55	1-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	5-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	10-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	15-16	5872-22	11 U	11 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	5.4 U	NA
	19-20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	23-24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	24-25	5872-23	15 U	15 U	15 U	16	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	100 U	9.2	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U	7.6 U	NA
SB56	7-7.5	5872-24	14 U	14 U	14 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	6.8 U	NA
	11-12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	14-15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	18-19	5872-25	13 U	13 U	13 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	48	6.3 U	NA
	22-23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	127	NA	NA	NA
	26.5-27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA

TABLE B-3
ANALYTICAL RESULTS FOR SOIL SAMPLES
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Volatile Organic Compounds																								SVOC
			Acetone	MEK	MBK	MC	Methyl Acetate	CS_2	Benzene	Cyclo-hexane	Cumene	MCH	Toluene	*m-/p-* Xylenes	1,1,2-TCA	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE	*trans* -1,2-DCE	1,4-Dioxane
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)																								
RAL – Site-Specific SSL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,780		16		62		65		47		505	NE	3
RSL Industrial Soils (0-2 ft bgs)			6.3E+08	2.0E+08	1.4E+06	9.6E+05	1.0E+09	3.7E+06	5,400	2.8E+06	1.1E+07	NE	4.5E+07	2.5E+6[a]	5,300	3.8E+07		1.7E+04		1.0E+06		110,000		6,400		2.0E+06	6.9E+05	1.7E+04
MCL Based SSL			NE	NE	NE	NE	NE	NE	2.6	NE	NE	NE	690	NE	1.6	70		0.68		2.5		2.3		1.8		21	29	NE
Laboratory or Screening Method			EPA Region 7 Laboratory													ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	EPA	EPA
SB57	0.5-1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	4.5-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	9-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	14-14.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	19-19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	19.5-20	5872-26	16 U	16 U	16 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	8.1 U	NA
	21.5-22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	26.5-27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
SB58	1-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	7.5-8	5872-27	12 U	12 U	12 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	6.1 U	NA
	10.5-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	12-13	5872-28	11 U	11 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	5.4 U	NA
	17-18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	21.5-22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	24-25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
SB59	0.5-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	10-10.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	11-11.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	12-13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	18.5-19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	21-22	5872-29	11 U	11 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	5.6 U	NA
	26-26.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
SB60	1.5-2	5872-30	11 U	11 U	11 U	5.4 U	5.4 U	5.4 U	5.4 UJ	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	**9,750**	5.4 U	100 U	5.4 U	100 U	5.4 U	**905**	5.4 U	100 U	5.4 U	100 U	5.4 U	5.4 U	NA
	2.5-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	127	NA	100 U	NA	100 U	NA	**362**	NA	100 U	NA	100 U	NA	NA	NA
	6-6.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	157	NA	100 U	NA	100 U	NA	**357**	NA	100 U	NA	100 U	NA	NA	NA
	11.5-12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	640	NA	100 U	NA	100 U	NA	**1,535**	NA	100 U	NA	100 U	NA	NA	NA
	20-20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	**1,072**	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	27-28	5872-31	14 U	14 U	14 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	100 U	7.1 U	100 U	9.7	100 U	7.1 U	100 U	7.1 U	100 U	7.1 U	100 U	7.1 U	7.1 U	NA
SB61	2.5-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	6-7	5872-32	13	11 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	5.4 U	NA
	10.5-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	19.5-20	5872-33	11 U	11 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	12	100 U	6.9	5.4 U	NA
	27-28	5872-34	12 U	12 U	12 U	6.1 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	6 U	NA
SB62	1.25-1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	2.5-3	5872-35	9.5 U	9.5 U	9.5 U	9.8 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	4.7 U	NA
	5-6	5872-36	10 U	10 U	10 U	9.9 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	5.2 U	NA
	9.5-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	202	NA	NA	NA
	15.5-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	145	NA	NA	NA
	23-23.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	27-28	5872-37	12 U	12 U	12 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	5.9 U	NA
SB63	1.5-2	5872-38	9.4 U	9.4 U	9.4 U	11 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	4.7 U	NA
	7.5-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	9-10	5872-39	11 U	11 U	11 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	5.3 U	NA
	13-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	23-24	5872-40	12 U	12 U	12 U	15 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	20	6.1 U	NA
	27-28	5872-41	13 U	13 U	13 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	410	99	6.5 U	NA
SB64	3-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	4-5	5872-42	12 U	12 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	5.8 U	NA
	10-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	15-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA

TABLE B-3
ANALYTICAL RESULTS FOR SOIL SAMPLES
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Volatile Organic Compounds																								SVOC
			Acetone	MEK	MBK	MC	Methyl Acetate	CS_2	Benzene	Cyclo-hexane	Cumene	MCH	Toluene	*m-/p-* Xylenes	1,1,2-TCA	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE		*trans* -1,2-DCE	1,4-Dioxane
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)																								
RAL – Site-Specific SSL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,780		16		62		65		47		505		NE	3
RSL Industrial Soils (0-2 ft bgs)			6.3E+08	2.0E+08	1.4E+06	9.6E+05	1.0E+09	3.7E+06	5,400	2.8E+06	1.1E+07	NE	4.5E+07	2.5E+6[a]	5,300	3.8E+07		1.7E+04		1.0E+06		110,000		6,400		2.0E+06		6.9E+05	1.7E+04
MCL Based SSL			NE	NE	NE	NE	NE	NE	2.6	NE	NE	NE	690	NE	1.6	70		0.68		2.5		2.3		1.8		21		29	NE
Laboratory or Screening Method			EPA Region 7 Laboratory													ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	EPA	EPA
SB65	2.5-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	7-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	11-12	5872-43	12 U	12 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	22	100 U	5.8 U	100 U	5.8 U	5.8 U	NA
	15-16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	16-16.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	19-20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
SB66	0.5-1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	7-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	11-11.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	13-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	233	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	19-20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	23.5-24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	NA	NA
	27-28	5782-44	12 U	12 U	12 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	6 U	NA

Notes:

Bold font indicates concentration exceeds Remedial Action Goal

Color coding indicates concentration exceeds 300 µg/kg or Remedial Action Goal, if greater

Color Coding

	1,1,1-TCA or common degradation products 1,1-DCA and 1,1-DCE
	PCE
	TCE or common degradation product *cis* -1,2-DCE

[a] EPA Industrial soil RSL for *m* -xylenes; the RSL for *p* -xylenes is 2.6E+6

[b] Sample was submitted for analysis for polychlorinated biphenyls (PCB). No PCBs were detected.

[c] Samples were also submitted for analysis for PCBs with EPA identification numbers 5706-402 and 402FD. No PCBs were detected,

bgs	Below ground surface
CS_2	Carbon disulfide
DCA	Dichloroethane
DCE	Dichloroethene
ft	Feet
EPA	U.S. Environmental Protection Agency (Region 7 laboratory)
EPS	Environmental Priority Service (mobile laboratory)
FD	Field duplicate
K	Analyte identification acceptable, but may be biased high.
J	Estimated value
MC	Methylene chloride
MCH	Methylcyclohexane
MEK	2-Butanone (methyl ethyl ketone)
MBK	2-Hexanone (methyl n-butyl ketone)
µg/kg	Micrograms per kilogram
ML	Mobile laboratory
NA	Not applicable (not analyzed or obtained)
NA/R	Not available; data rejected by EPA Region 7 Laboratory
ND	Not detected
NE	Not established
PCE	Tetrachloroethane
RAL	Remedial Action Level
RSL	Regional Screening Level
SB	Soil boring
SSL	Soil screening level
TCA	Trichloroethane
TCE	Trichloroethene
U	Analyte was not detected at or above the reporting limit on table.
UJ	Analyte was not detected at or above the reporting limit on table. The reporting limit is an estimate.

TABLE B-4
MAXIMUM CONCENTRATIONS USED FOR ISOCONCENTRATION MAPS
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis*-1,2 DCE	
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)												
Remedial Action Goal				1,780		16		62		65		47		505	
Laboratory or Screening Method				ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA
SB01	0-1	NA	58	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	5706-1	0	ND	8.5 U	ND	8.5 U	ND	8.5 U	0.6	**3.8 K**	ND	**1.7 J**	ND	8.5 U
	10-11	5706-2	0	10.9	24	ND	5.7 U	ND	5.7 U	2.1	20	3	13	ND	5.7 U
		5706-2FD			18 J		5.1 U		5.1 U		16		10		5.1 U
	18-19	5706-54	215	**31.1**	24 J	ND	5.6 U	ND	5.6 U	**301**	240 J	**263**	110	**47**	14
	23-24	5706-4	776	588	**1,400 J**	ND	170	**101**	60	106	**120**	**2,074**	1,800 J	752	430 J
	25-26	5706-5	4,368	81.5	390 J	ND	37	ND	13	7.1	61	154	690 J	39.7	120
	31-32	5706-184	25	14.6	5.6 U	ND	**290 J**	ND	15	ND	0.89 J	333	79	**770**	310 J
SB02	0-2	5706-11	0	16.6	6 U	ND	6 U	ND	6 U	ND	2.2 J	ND	NA/R	ND	6 U
	5-6	NA	0	**19.3**	NA	ND	NA	ND	NA	**6.9**	NA	ND	NA	ND	NA
	10-11	5706-12	0	18.1	**27**	ND	5.6 U	ND	5.6 U	15.8	63	7.1	21	ND	5.6 U
	17-18	NA	300	22.1	NA	ND	NA	ND	NA	**90.3**	NA	**158**	NA	**3.2**	NA
	20-22	5706-13	1,800	267	**1,400 J**	ND	**17**	21.2	**60**	323	**710 J**	126	**220**	4.9	**9.4**
		5706-13FD			680 J		6.7		24		390 J		110		5 U
	25-26	5706-15	1,700	73.4	130	ND	5.7 U	ND	7.9	73.3	120	24.8	46	ND	5.7 U
SB03	0-2	5706-177	0	ND	6 U	ND	6 U	ND	6 U	ND	2.8 J	ND	6 U	ND	6 U
	6-7	5706-178	0	ND	11 U	ND	11 U	ND	11 U	35.7	51	49.1	44	ND	11 U
	9-10	5706-179	0	ND	430 U	ND	430 U	ND	430 U	151	**950**	246	**610**	**4.2**	430 U
	17-18	5706-180	849	**117**	360 U	ND	360 U	**7.8**	360 U	45.4	36 J	940	840	4,150	4,800
		5706-180FD			390 U		390 U		390 U		**91 J**		**1,200**		**7,000**
	22-23	5706-182	448	6	290 U	ND	290 U	ND	290 U	175	**750**	865	560	508	290 U
	24-25	5706-183	309	**14.5**	320 U	ND	320 U	ND	320 U	290	580	**1,415**	850	**1,023**	320 U
SB04	0-1	5706-185	0	ND	7 U	ND	7 U	ND	7 U	ND	20	ND	1.4 J	ND	7 U
	5-6	5706-186	0	**10.3**	400 U	ND	400 U	ND	400 U	208	**3,000**	32.6	**170 J**	**14.7**	400 U
	10-11	5706-187	0	**52.7**	420 U	ND	420 U	ND	420 U	869	**5,700**	159	380 J	31.2	420 U
	17-18	5706-188	156	12	400 U	ND	400 U	**49.6**	400 U	445	1,500	**916**	840	**622**	400 U
	23-24	5706-189	101	ND	4.9 U	ND	**47**	ND	**7.5**	173	**480 J**	184	**450 J**	145	**270 J**
	24-26	5706-190	876	ND	6.5 U	ND	6.5 U	ND	6.5 U	152	37	146	32	118	27
		5706-190FD			6.9 U		6.9 U		6.9 U		29		27		22
SB05	0.5-1.5	5706-16	700	51.5	14	ND	5.6 U	ND	5.6 U	722	270 J	113	37	ND	5.6 U
	6-7	NA	100	**103**	NA	ND	NA	ND	NA	**1,220**	NA	**433**	NA	**48.1**	NA
	10-11	5706-17	0	47.5	430 U	ND	430 U	ND	430 U	836	3,100	300	400 J	249	430 U
	14-15	5706-50	3,063	**51.7**	340 U	ND	340 U	**9.8**	340 U	472	**3,200**	808	**2,100**	412	340 U
	17-18	5706-18	1,823	37	410 U	ND	410 U	ND	410 U	685	1,400	1,875	1,600 J	**836**	410 U
	20-22	5706-19	3,203	15.8	93	ND	9.5	ND	4.6 U	55.5	25	213	110	48.3	14
		5706-19FD			**610 J**		**69**		24		**130**		**690 J**		100
	27-28	5706-21	1,000	200	65	ND	39	**28.7**	11	11.5	7.5 J	187	60	**279**	110
SB06	1-2	5706-49	83	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	0.3 J	ND	0.29 J	ND	5.2 U
	5-6	5706-6	0	14.7	**44 J**	ND	5.6 U	ND	5.6 U	ND	**0.39 J**	ND	**2.1 J**	ND	5.6 U
	10-11	NA	0	13.4	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	15-16	5706-7	0	26.3	**180**	ND	**84**	ND	17 U	ND	**1.2 J**	ND	17 U	ND	17 U
	18-19	NA	1,560	5.8	NA	ND	NA	**12.1**	NA	ND	NA	ND	NA	ND	NA
	23-24	5706-8	700	488	450 U	**391**	450 U	**83**	450 U	ND	**14 J**	31	450 U	**12.2**	450 U
	27-28	5706-9	1,800	196	**850 J**	ND	250 J	3	33	ND	3.9 J	ND	**14**	ND	6.1 U
SB07	0.5-1.5	5706-22	0	7.6	7 U	ND	7 U	ND	7 U	4	7 U	**9.9**	0.45 J	**3.2**	7 U
	4-5	5706-51	3,306	**6.7**	5.3 U	ND	5.3 U	ND	5.3 U	2.8	5.3 U	6.5	5.3 U	ND	5.3 U
	8-9	5706-23	1,636	4	6.5 U	ND	6.5 U	ND	6.5 U	ND	**8.8**	3.4	0.31 J	ND	6.5 U
	15-16	5706-10	618	**3.4**	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U
	20-21	5706-24	0	55	240 J	ND	58	ND	17	ND	2.4 J	ND	6.5	ND	5.2 U
	27-28	5706-25	100	**65.1**	370 J	ND	**190**	ND	20	ND	1.2 J	ND	7.2	ND	5.4 U
		5706-25FD			350 J		150		**23**		**1.8 J**		**8.4**		6 U
SB08	1-2	5706-52	0	ND	5.3 U	ND	5.3 U	ND	5.3 U	ND	**1.3 J**	ND	**1.2 J**	ND	5.3 U
	5-6	5706-27	0	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	6.2 U
	10-12	5706-28	0	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	6.3 U
	16-17	5706-29	0	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U	ND	5.5 U
	23-24	5706-30	1,773	58.6	**430 J**	ND	**120**	ND	**26**	ND	2.3 J	ND	5.5	ND	5.2 U
	26-27	5706-31	725	24.6	210 J	ND	37	ND	11	ND	**4.9 J**	ND	**7.5**	ND	5.1 U
SB09	1-2	NA	646	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	5706-32	78	12.2	**15**	ND	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U
	10-11	5706-33	26	30.9	**47**	ND	6.4 U	ND	6.4 U	ND	6.4 U	ND	6.4 U	ND	6.4 U
	18-20	5706-34	0	19.5	13	ND	5.6 U	**4**	5.6 U	**7.4**	0.61 J	**6.7**	5.6 U	**4.8**	5.6 U
	22-24	5706-35	400	1,050	2,400 J	424	750 J	35.7	140 J	**20.1**	5.7	26.3	29	ND	6
	26-27	5706-36	600	1,740	**3,600 J**	**1,693**	1,500 J	116	**290 J**	5	13	74.8	**160**	21	**64**
SB10	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	10-11	5706-37	0	**10.5**	NA/R	ND	6.3 U	ND	6.3 U	ND	NA/R	ND	NA/R	ND	6.3 U
	16-17	NA	0	9.7	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	22-24	5706-38	0	10.9	31 J	ND	18	ND	5.3 U	ND	5.3 U	ND	5.3 U	ND	5.3 U
		5706-38FD			**37 J**		**22**		6.5 U		6.5 U		6.5 U		6.5 U
	25-26	NA	0	8.4	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
SB11	0-1	5706-53	0	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U
	5-6	5706-40	0	13.2	19	ND	5.8 U	ND	5.8 U	ND	**1.2 J**	ND	5.8 U	ND	5.8 U
	9-10	NA	0	**47.3**	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	16-17	5706-41	0	56.5	**110**	ND	**14**	ND	5.9 U	ND	**2.3 J**	ND	**0.45 J**	ND	5.9 U
	22-23	5706-43	0	89.3	**170**	ND	**54**	ND	6.1 U	ND	**1.3 J**	ND	**2.3 J**	ND	6.1 U
	27-28	5706-42	0	10.5	28	ND	27	ND	7.6 U	ND	0.43 J	ND	1.8 J	ND	7.6 U
SB12	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	14-15	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	17-18	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	20-21	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	27-28	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA

TABLE B-4
MAXIMUM CONCENTRATIONS USED FOR ISOCONCENTRATION MAPS
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis*-1,2 DCE	
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)												
Remedial Action Goal				1,780		16		62		65		47		505	
Laboratory or Screening Method				ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA
SB13	0-1	NA	100	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	9-10	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	15-16	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	20-22	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	27-28	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
SB14	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	4-5	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	10-11	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	13-14	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	20-21	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	27-28	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
SB15	0-1	5706-44	0	ND	10	ND	5.6 U	ND	5.6 U	ND	0.91 J	ND	1.1 J	ND	5.6 U
	5-6	5706-45	0	300	**330**	ND	300 U	**64.3**	300 U	ND	**40 J**	**6.9**	300 U	**26**	300 U
	10-11	5706-46	0	949	**6,400**	ND	350 U	424	**460**	40	**190 J**	57.5	130 J	**156**	350 U
	17-18	5706-47	0	877	870	ND	**450**	400	400 U	30.5	87 J	157	**220 J**	36.8	400 U
	21-22	5706-55	400	320	**500 J**	ND	40	8	19	ND	**15**	21.8	**54**	9.2	6.1 U
	27-28	5706-48	0	256	280 J	ND	**46**	22.9	**24**	ND	1.6 J	13.2	16	**11.8**	5.6 U
SB16	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	5706-56	0	9.6	**160**	ND	6.4 U	ND	6.4 U	ND	**32 J**	ND	**2.7 J**	ND	6.4 U
	10-11	5706-57	0	205	**990**	ND	380 U	ND	380 U	52.1	**480**	8.05	**34 J**	ND	380 U
		5706-57FB			980		340 U		340 U		480		30 J		340 U
	15-16	5706-59	0	140	240 J	ND	**19**	ND	5.8 U	20.3	66	5.05	14	ND	5.8 U
	20-21	5706-60	0	209	**550 J**	ND	**61**	ND	5.7 U	15.1	**53**	**242**	54	3.8	**9.1**
	27-28	5706-86	0	26	22	ND	22	ND	5.6 U	ND	0.88 J	10.1	5.6 U	ND	5.6 U
SB17	0-1	5706-61	200	101	79	ND	5.2 U	ND	5.2 U	ND	5.2 U	8.2	7.7	ND	5.2 U
	5-6	5706-62	100	650	**1,300**	ND	340 U	**108**	340 U	ND	340 U	145	**240 J**	ND	340 U
	10-11	5706-63	500	1,520	1,400	380	370 U	144	370 U	ND	370 U	307	280 J	ND	370 U
	14-15	5706-66	1,400	2,590	**4,300**	**806**	380 U	**433**	380 U	ND	**130 J**	601	**820**	ND	380 U
	17-18	5706-67	3,800	910	710 J	161	64	10.5	26	ND	11	13.7	21	ND	6 U
	20-21	5706-68	2,600	1,150	880	350	280 U	72	280 U	ND	**62 J**	**163**	65 J	2.5	280 U
	25-26	5706-69	1,100	123	930 J	ND	170	6.1	24	ND	13	29.2	52	ND	6.8 U
	29-30	5706-96	288	**2,450**	1,300 J	**1,210**	960 J	**267**	100	ND	3.3 J	67.6	35	4.9	**5.9**
SB18	0-1	5706-64	0	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	0.26 J	ND	5.2 U
	6-7	5706-65	0	**173**	87	ND	**15**	**13**	7 U	ND	7 U	ND	**1.4 J**	ND	7 U
	10-11	5706-70	0	300	840	128	360 U	56.9	360 U	ND	360 U	ND	360 U	ND	360 U
	15-16	NA	0	932	NA	101	NA	45.3	NA	ND	NA	ND	NA	ND	NA
	19-20	5706-71	600	**1,076**	200	**231**	100	**64.3**	13	**74.1**	6.9	**45.8**	8.8	**3.8**	6.2 U
	20-21	5706-72	0	2,050	**2,400 J**	750	**1,700 J**	55.9	**110**	11.3	**27**	85.7	**140**	**5**	12 U
	27-28	5706-73	1,600	195	520 J	ND	320 J	8.8	18	ND	2.7 J	16.8	22	ND	5.9 U
SB19	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	5706-74	0	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U	ND	6.7 U
	10-11	5706-102	0	24.6	23 J	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U
	15-16	5706-75	0	**92.2**	24	ND	**7.6**	**4.1**	5.8 U	ND	5.8 U	ND	**0.62 J**	ND	5.8 U
	20-21	5706-76	0	28.6	13	ND	**86**	**12.6**	12 U	ND	12 U	ND	4.6 J	ND	12 U
	25-26	5706-77	0	51.5	**55**	ND	28	ND	6 U	ND	**0.75 J**	ND	**6**	ND	6 U
SB20	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	5706-78	0	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	5.6 U
	10-11	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	16-17	5706-79	0	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	5.2 U
	20-21	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	25-26	5706-80	0	ND	5.1 U	ND	5.1 U	ND	5.1 U	8.4	**19**	2.15	**8.1**	ND	5.1 U
SB21	0-1	5706-81	0	ND	5.2 U	ND	5.2 U	ND	5.2 U	ND	**0.22 J**	ND	**0.24 J**	ND	5.2 U
	5-6	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	10-11	5706-82	0	13	11	ND	8.5 U	ND	8.5 U	ND	25	118	160	ND	8.5 U
	16-17	5706-83	41	14.7	**28**	ND	**10**	ND	6.8 U	25.6	**110**	233	**550 J**	ND	**6.8**
	20-21	5706-84	0	**4.4**	360 U	ND	360 U	ND	360 U	65.9	**170 J**	460	310 J	5.7	360 U
	25-26	5706-85	2,621	ND	5.8 U	ND	**26**	ND	5.8 U	ND	14	138	**490 J**	57.2	130
SB22	0-1	5706-87	0	16.4	20	ND	4.8 U	ND	4.8 U	ND	0.29 J	ND	4.8 J	ND	4.8 U
	5-6	5706-103	0	17.9	**110**	ND	**17**	ND	6.5 U	ND	**1.5 J**	6	**9**	ND	6.5 U
	11-12	5706-88	111	450	430 J	ND	56	9.7	10	ND	13	42.4	66	ND	7.6 U
	16-17	5706-89	327	806	**2,400**	**329**	380 U	**82.1**	380 U	8.8	**98 J**	163	**320 J**	ND	380 U
	23-24	5706-90	51	307	**660**	ND	220 U	ND	220 U	ND	**39 J**	26.7	**79 J**	ND	220 U
	26-27	5706-104	716	133	470 J	ND	**260**	ND	**24**	ND	3 J	8.6	40	ND	7.2 U
SB23	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	5706-91	0	28.1	6.1 U	ND	6.1 U	ND	6.1 U	ND	6.1 U	8	8.6	ND	6.1 U
	9-10	5706-92	0	**204**	120	ND	5.6 U	**2**	5.6 U	ND	5.6 U	44.1	**33**	ND	5.6 U
	16-17	5706-93	0	**14.7**	6.5	ND	**83**	**4.8**	6.4 U	ND	6.4 U	ND	**9.1**	ND	6.4 U
	23-24	5706-95	65	**207**	8.6 U	ND	**100**	**130**	60	ND	0.46 J	**40.1**	14	ND	8.6 U
	26-27	5706-94	36	173	41	ND	27	13.2	5.8 U	ND	**0.83 J**	11.8	6.6	ND	5.8 U
SB24	0-2	5706-97	0	ND	4.6 U	ND	4.6 U	ND	4.6 U	ND	4.6 U	ND	4.6 U	ND	4.6 U
	6-7	5706-148	0	60.3	160 J	ND	11	ND	6.8 U	ND	34	ND	1.4 J	ND	6.8 U
	9-10	5706-98	0	252	**370 J**	ND	**40**	ND	6.1 U	30.9	**34**	ND	**6.1 J**	ND	6.1 U
	16-17	5706-99	0	260	**340**	ND	260 U	ND	260 U	33.4	**66 J**	ND	260 U	ND	260 U
	20-21	5706-100	0	29	**730 J**	ND	**390**	ND	13 U	ND	**48**	ND	**29**	ND	13 U
	26-27	5706-101	3	66.8	5.9 U	ND	7.4	ND	5.9 U	7.1	0.36 J	ND	0.73 J	ND	5.9 U
SB25	13-14	5706-105	79	68.9	110	ND	**25**	ND	6.9 U	ND	9.3	25.4	40	ND	6.9 U
	16-17	5706-106	404	**218**	97	ND	14	**3.4**	5.4 U	**10.5**	7.8	**59.6**	25	ND	5.4 U
	20-22	5706-107	193	**714**	150	**157**	36	**35.3**	6.3 U	**66.3**	32	**392**	90	**46.6**	6.3 U
		5706-107FD			150		28		5.6		17		63		5.5 U
SB26	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	5706-109	0	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	**0.38 J**	ND	**0.47 J**	ND	6.3 U
	9-10	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	12-13	5706-110	0	ND	8.8 U	ND	8.8 U	ND	8.8 U	ND	**0.47 J**	ND	8.8 U	ND	8.8 U
	17-18	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	23-24	5706-111	41	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	**1.7 J**	ND	6.6 U	ND	6.6 U

TABLE B-4
MAXIMUM CONCENTRATIONS USED FOR ISOCONCENTRATION MAPS
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis*-1,2 DCE	
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)												
Remedial Action Goal				1,780		16		62		65		47		505	
Laboratory or Screening Method				ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA
SB27	1-2	5706-112	0	ND	5 U	ND	5 U	ND	5 U	18.7	3.1 J	ND	5 U	ND	5 U
	7-8	5706-113	4	ND	6.3 U	ND	6.3 U	ND	6.3 U	26.5	**80**	ND	6.3 U	ND	6.3 U
	10-11	5706-114	0	ND	6.4 U	ND	6.4 U	ND	6.4 U	**79**	59	ND	6.4 U	ND	6.4 U
	17-18	5706-115	0	ND	7 U	ND	7 U	ND	7 U	16	7.2	**20.8**	17	ND	7 U
	21-22	NA	0	ND	NA	ND	NA	ND	NA	**2.9**	NA	**35.8**	NA	ND	NA
	26-27	5706-116	0	ND	5.1 U	ND	5.1 U	ND	5.1 U	2.5	0.78 J	3.2	5.1 J	ND	5.1 U
SB28 & 28R	0-1	5706-117	0	ND	5.1 U	ND	5.1 U	ND	5.1 U	31.5	13	ND	5.1 U	ND	5.1 U
	8-10	5706-118	74,500	ND	1,900 U	ND	1,900 U	ND	1,900 U	865	**5,800**	ND	1,900 U	ND	1,900 U
		5706-118FD			2,000 U		2,000 U		2,000 U		3,100		2,000 U		2,000 U
	9-10	5872-2	272	100 U	5.5 U	100 U	5.5 U	100 U	5.5 U	189	95	100 U	5.5 U	100 U	5.5 U
	11-12	5872-1	1,025	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	**1,324**	160	100 U	5.2 U	100 U	5.2 U
				100 U		100 U		100 U		557		100 U		100 U	
	12-12.3	5706-120	1,000	ND	6.1 U	ND	6.1 U	ND	6.1 U	8.8	15	ND	6.1 U	ND	6.1 U
	16-18	5706-121	800	ND	6.9 U	ND	6.9 U	ND	6.9 U	6.7	0.41 J	5.9	**7.1**	ND	6.9 U
		5706-121FD			420 U		420 U		420 U		32 J		420 U		420 U
	20-21	5706-123	4,700	ND	340 U	ND	340 U	ND	340 U	**298**	160 J	ND	340 U	ND	340 U
	25-26	5706-124	400	ND	8.5 U	ND	8.5 U	ND	8.5 U	5.5	0.78 J	ND	8.5 U	ND	8.5 U
SB29	0-1	5706-125	0	ND	5.6 U	ND	5.6 U	ND	5.6 U	ND	0.15 J	ND	5.6 U	ND	5.6 U
	5-6	5706-126	0	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	**21**	ND	7.1 U	ND	7.1 U
	10-11	5706-127	0	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	**3.2 J**	ND	6.3 U	ND	6.3 U
	16-17	5706-128	0	ND	6.8 U	ND	6.8 U	ND	6.8 U	ND	0.85 J	ND	6.8 U	ND	6.8 U
	20-22	5706-132	0	ND	8.5 U	ND	8.5 U	ND	8.5 U	ND	8.5 U	ND	8.5 U	ND	8.5 U
		5706-132FD			8.9 U		8.9 U		8.9 U		0.45 J		8.9 U		8.9 U
	26-28	5706-129	0	ND	6.8 U	ND	6.8 U	ND	6.8 U	ND	6.8 U	9	11	**81.3**	43
		5706-129FD			5.8 U		5.8 U		5.8 U		5.8 U		**13**		70
SB30	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-7	5706-135	0	ND	7.8 U	ND	7.8 U	ND	7.8 U	**6.3**	6.1 J	6.7	**7.7 J**	**3.4**	7.8 U
	10-11	5706-134	0	ND	11 U	ND	11 U	ND	11 U	ND	11 U	ND	**2.8 J**	110	62
	14-16	NA	894	**42.4**	NA	ND	NA	**7.6**	NA	ND	NA	ND	NA	**2,180**	NA
	18-19	5706-136	3,000	ND	9.2 U	ND	9.2 U	ND	9.2 U	ND	9.2 U	ND	9.2 U	96.7	87
	21-23	5706-137	>1,000,000	**114**	1,500 U	ND	1,500 U	**87.4**	1,500 U	**286**	1,500 U	**4,267**	340 J	2,386	2,300
		5706-137FD			3,100 U		3,100 U		3,100 U		3,100 U		1,100 J		**5,900**
	26-27	5706-145	7,100	8	5.9 U	ND	5.9 U	ND	5.9 U	ND	5.9 U	44.1	5.7 J	358	780 J
SB31	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	4-6	5706-139	0	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	**0.57 J**	ND	5.7 U	ND	5.7 U
		5706-139FD			6 U		6 U		6 U		0.56 J		6 U		6 U
	10-12	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	14-16	5706-141	0	ND	6.5 U	ND	6.5 U	ND	6.5 U	ND	6.5 U	ND	6.5 U	ND	6.5 U
	20-22	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	27-28	5706-142	0	ND	11 U	ND	11 U	ND	11 U	ND	11 U	ND	11 U	ND	11 U
SB32	4-5	NA	7.5	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	8-9	5706-143	0	ND	6.7 U	ND	**10**	ND	6.7 U	ND	**0.74 J**	**91.4**	80	**51**	24
	14-15	NA	90	ND	NA	ND	NA	ND	NA	ND	NA	**79.4**	NA	32.3	NA
	17-18	5706-144	194	ND	6.3 U	ND	6.3 U	**2**	6.3 U	**3.5**	1.95 J	47.8	22	**38.2**	11
	22-23	5706-146	465	ND	5.8 U	ND	5.8 U	ND	5.8 U	ND	0.84 J	7.4	11	4	6.2
	25-26	5706-147	229	ND	**14**	ND	**8.4**	ND	5.9 U	ND	**8.2**	ND	**100**	ND	**41**
SB33	13-14	5706-149	0	ND	12 U	ND	12 U	ND	12 U	ND	12 U	ND	**12 J**	ND	12 U
	17-18	5706-150	0	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U
	20-22	5706-159	0	ND	7 U	ND	7 U	ND	7 U	ND	7 U	ND	7 U	ND	7 U
	25-26	5706-151	0	ND	6 U	ND	6 U	ND	6 U	ND	6 U	ND	6 U	ND	6 U
SB34	17-18	5706-152	408	**96**	16	ND	**6.9**	ND	6.8 U	ND	3.3 J	**55.4**	16	ND	6.8 U
		5706-152FD			15 J		6.8 U		6.8 U		**3.6 J**		17		6.8 U
	20-21	5706-158	145	**288**	290 U	ND	290 U	**15.8**	290 U	25.6	**140 J**	202	**260 J**	**21.6**	290 U
	24-25	5706-157	112	23.1	14 J	ND	**6.5**	ND	6.2 U	ND	4.3 J	10.5	20	ND	6.2 U
SB35	17-18	5706-156	0	**235**	40 J	ND	**9.5**	**2.5**	7 U	**18.1**	7.8	**79.2**	21	**2.6**	7 U
	21-22	5706-155	43	13	**14 J**	ND	6.4 U	ND	6.4 U	2.8	**3.1 J**	3.4	**11**	ND	6.4 U
	25-26	5706-154	0	ND	7.3 J	ND	6 U	ND	6 U	ND	2.1 J	ND	7.5	ND	6 U
SB36	14-15	5706-160	0	ND	8.2 U	ND	8.2 U	ND	8.2 U	7.9	**22**	65.7	**91**	ND	8.2 U
	16-17	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	60.5	NA	**71.8**	NA
	22-23	5706-161	0	ND	6.2 U	ND	6.2 U	ND	6.2 U	ND	**3.7 J**	14.3	**21**	**9**	8.8
	25-26	5706-162	0	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U
SB37	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	6-7	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	9-10	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	15-16	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	19-20	5706-164	0	**44.1**	NA	ND	NA	ND	NA	**26**	NA	ND	NA	ND	NA
SB38	0-1	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	5-6	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	10-11	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	15-16	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	19-20	5706-163	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
SB39	0-1	5706-165	0	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U	ND	6.6 U
	6-7	5706-166	20	ND	6.3 U	ND	6.3 U	ND	6.3 U	ND	**1 J**	ND	6.3 U	ND	6.3 U
	10-11	5706-167	0	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	**2.7 J**	11.6	**14**
	13-14	NA	4,193	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	16-17	5706-168	7,200	ND	420 U	ND	420 U	ND	420 U	ND	420 U	ND	420 U	ND	420 U
	20-21	5706-169	234,000	ND	730 U	ND	730 U	ND	730 U	ND	730 U	ND	730 U	ND	730 U
	26-27	5706-170	222	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	**0.43 J**	ND	5.7 U

TABLE B-4
MAXIMUM CONCENTRATIONS USED FOR ISOCONCENTRATION MAPS
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis*-1,2 DCE	
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)												
Remedial Action Goal				1,780		16		62		65		47		505	
Laboratory or Screening Method				ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA
SB40	0-1	5706-176	0	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U	ND	4.7 U
	5-6	5706-171	0	ND	5.7 U	ND	5.7 U	ND	5.7 U	ND	**0.26 J**	ND	5.7 U	ND	5.7 U
	10-11	5706-172	454,000	ND	400 U	ND	400 U	ND	400 U	ND	400 U	ND	400 U	ND	400 U
	16-17	5706-173	0	ND	7.1 U	ND	**8.3**	ND	7.1 U	ND	7.1 U	ND	7.1 U	ND	**9.9**
	21-22	NA	0	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
	25-27	5706-174	44	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U	ND	9.3 U
		5706-174FD			7.4 U		7.4 U		7.4 U		7.4 U		7.4 U		7.4 U
SB41	0-2	5788-1	0	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U
	6-7	5788-2	0	NA	**28**	NA	7.1 U	NA	7.1 U	NA	7.1 U	NA	7.1 U	NA	7.1 U
	12-13	5788-3	0	NA	**87**	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U
	17-18	5788-4	0	NA	75	NA	**17**	NA	7.2 U	NA	7.2 U	NA	**12**	NA	7.2 U
	21-23	5788-5	0	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U	NA	6.1 U
	27-28	5788-6	946	NA	6 U	NA	**32**	NA	**20**	NA	**59**	NA	**21**	NA	**41**
SB42	3-4	5788-7	457	NA	24	NA	5.9 U	NA	5.9 U	NA	29	NA	94	NA	5.9 U
	6-7	5788-8	595	NA	220	NA	8 U	NA	8 U	NA	590	NA	370	NA	**67**
	9-10	5788-9	353	NA	**310**	NA	8 U	NA	8 U	NA	**1,200**	NA	**470**	NA	39
	14-15	5788-10	950	NA	**840**	NA	14	NA	9.6 U	NA	**2,800**	NA	760	NA	15
	17-18	5788-11	1,498	NA	450	NA	**74**	NA	**14**	NA	1,300	NA	**1,500**	NA	**66**
	23-24	5788-12	976	NA	6.4 U	NA	67	NA	8.8	NA	6.4 U	NA	1,100	NA	170
	26-27	5788-13	1,434	NA	7.9 U	NA	**130**	NA	**13**	NA	7.9 U	NA	**1,900**	NA	**950**
SB43	0-2	5788-14	12	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U	NA	5.4 U
	4-6	5788-15	0	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U	NA	7.6 U
	10-11	5788-16	0	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U
	15-16	5788-17	436	NA	5.8 U	NA	7.5	NA	5.8 U	NA	5.8 U	NA	5.8 U	NA	5.8 U
	19-20	5788-18	435	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U	NA	9.6 U
	22-23	5788-33	121	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U	NA	6.9 U
	27-28	5788-19	1	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U	NA	5.7 U
SB44	0-2	5788-20	26	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	21	NA	5.6 U
	7-8	5788-21	102	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	5.6 U	NA	**41**	NA	**18**
	11-12	5788-22	343	NA	7 U	NA	7 U	NA	7 U	NA	7 U	NA	40	NA	470
	13-14	5788-23	742	NA	6.8 U	NA	6.8 U	NA	6.8 U	NA	95	NA	670	NA	350
	17-19	5788-24	1,578	NA	6.2 U	NA	**130**	NA	**15**	NA	**440**	NA	**2,300**	NA	**560**
	20-21	5788-25	2,694	NA	5.7 U	NA	**220**	NA	**25**	NA	5.7 U	NA	**15**	NA	**420**
	27-28	5788-26	0	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U	NA	6.5 U
SB45	0-2	5788-27	0	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U
	5-6	5788-28	0	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U	NA	6 U
	14-15	5788-29	0	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U	NA	6.2 U
	19-20	5788-30	0	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U	NA	6.3 U
	21-22	5788-31	0	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U	NA	5.5 U
	27-28	5788-32	0	NA	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U
SB46	1-1.5	NA	5	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	6-7	5872-3	6	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U
	9	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	17-18	NA	34	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	23-24	5872-4	38	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U	100 U	6.2 U
SB47	2-3	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	5-6	5872-5	148	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	31	100 U	5.1 U	100 U	5.1 U
	9-9.5	NA	55	100 U	NA	100 U	NA	100 U	NA	**133**	NA	100 U	NA	100 U	NA
	13-14	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	18-19	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	21.5-22.5	5872-6	87	100 U	5.3 U	100 U	5.3 U	100 U	5.3 U	100 U	**6.5**	100 U	5.3 U	100 U	5.3 U
	27-28	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
SB48	3-4	NA	178	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	10-11	5872-7	226	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	**302**	18	100 U	5.7 U	100 U	5.7 U
	15	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	19	NA	31	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	20-21	5872-8	259	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U
	24-25	NA	39	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
SB49	1.5-2	NA	24	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	5-5.5	NA	25	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	11-12	NA	32	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	15-15.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	18-19	NA	139	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	20-21	5872-9	329	100 U	5 U	100 U	**5.9**	100 U	5 U	100 U	5 U	100 U	5 U	100 U	5 U
	27-28	5872-10	193	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U	100 U	5.1 U
SB50	1-1.5	NA	51	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	7-7.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	12-12.5	NA	147	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	15-16	NA	42	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	19-20	NA	180	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	21-22	5872-11	1,589	100 U	28	100 U	4.9 U	100 U	4.9 U	100 U	6.4	100 U	4.9 U	100 U	4.9 U
	26.5-27.5	5872-12	1,204	**779**	33	100 U	5.3 U	100 U	5.3 U	**133**	5.3 U	100 U	5.3 U	100 U	5.3 U
SB51	1.5-2	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	10-11	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	15-16	NA	731	**178**	NA	100 U	NA	100 U	NA	100 U	NA	186	NA	100 U	NA
	20.5-21.5	NA	1,912	**14,519**	NA	414	NA	220	NA	**230**	NA	**668**	NA	100 U	NA
	22-23	5872-13	26,100	10,985	4.9 U	**663**	4.9 U	**255**	4.9 U	100 U	4.9 U	333	4.9 U	100 U	4.9 U
	26-27	5872-14	10,600	1,617	400	158	69	100 U	6.3 U	100 U	6.3 U	100 U	31	100 U	**24**

TABLE B-4
MAXIMUM CONCENTRATIONS USED FOR ISOCONCENTRATION MAPS
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis*-1,2 DCE	
			Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)												
Remedial Action Goal				1,780		16		62		65		47		505	
Laboratory or Screening Method				ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA
SB52	17-17.5	NA	253	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	21-22	5872-15	2,614	116	67	100 U	21	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U
	26-27	5872-16	5,100	**1,203**	730	**479**	270	100 U	**33**	100 U	6.3 U	100 U	**10**	100 U	6.3 U
SB53	0.5-1	NA	83	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	16-17	NA	84	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	22.5-23.5	5872-17	2,487	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U
	26.5-27.5	5872-18	2,015	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U
SB54	2-3	NA	743	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	5.5-6.5	5872-19	1,822	100 U	4.9 U	100 U	4.9 U	100 U	4.9 U	**1,023**	45	**440**	19	100 U	4.9 U
	9-10	NA	1,371	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	**630**	NA
	12-12.5	NA	624	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	549	NA
	16-17	5872-20	673	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	**924**	190
	21-22	NA	2,559	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	26-27	5872-21	638	100 U	5.7 U	100 U	5.7 U	100 U	5.7 U	100 U	**8.4**	100 U	**9.2**	**159**	36
SB55	1-2	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	5-6	NA	16	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	10-11	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	15-16	5872-22	79	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U
	19-20	NA	313	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	23-24	NA	1,020	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	24-25	5872-23	1,225	100 U	**9.2**	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U	100 U	7.6 U
SB56	7-7.5	5872-24	5	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U	100 U	6.8 U
	11-12	NA	32	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	14-15	NA	129	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	18-19	5872-25	578	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	6.3 U	100 U	**48**
	22-23	NA	478	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	**127**	NA
	26.5-27	NA	55	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
SB57	0.5-1.5	NA	35	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	4.5-5	NA	13	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	9-10	NA	4	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	14-14.5	NA	5	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	19-19.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	19.5-20	5872-26	2	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U	100 U	8.1 U
	21.5-22	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	26.5-27	NA	9	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
SB58	1-2	NA	1	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	7.5-8	5872-27	2	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U
	10.5-11	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	12-13	5872-28	13	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U
	17-18	NA	8	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	21.5-22	NA	4	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	24-25	NA	29	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
SB59	0.5-1	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	10-10.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	11-11.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	12-13	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	18.5-19	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	21-22	5872-29	0	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U	100 U	5.6 U
	26-26.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
SB60	1.5-2	5872-30	7,022	**9,750**	5.4 U	100 U	5.4 U	100 U	5.4 U	**905**	5.4 U	100 U	5.4 U	100 U	5.4 U
	2.5-3	NA	8,162	127	NA	100 U	NA	100 U	NA	362	NA	100 U	NA	100 U	NA
	6-6.5	NA	456	157	NA	100 U	NA	100 U	NA	357	NA	100 U	NA	100 U	NA
	11.5-12	NA	310	**640**	NA	100 U	NA	100 U	NA	**1,535**	NA	100 U	NA	100 U	NA
	20-20.5	NA	393	100 U	NA	**1,072**	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	27-28	5872-31	48	100 U	7.1 U	100 U	9.7	100 U	7.1 U	100 U	7.1 U	100 U	7.1 U	100 U	7.1 U
SB61	2.5-3	NA	14	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	6-7	5872-32	24	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U
	10.5-11	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	19.5-20	5872-33	213	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	5.4 U	100 U	**12**	100 U	**6.9**
	27-28	5872-34	328	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U
SB62	1.25-1.5	NA	245	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	2.5-3	5872-35	803	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U
	5-6	5872-36	533	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U	100 U	5.2 U
	9.5-10	NA	58	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	202	NA
	15.5-16	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	**145**	NA
	23-23.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	27-28	5872-37	0	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U	100 U	5.9 U
SB63	1.5-2	5872-38	0	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U	100 U	4.7 U
	7.5-8	NA	7	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	9-10	5872-39	116	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U	NA	5.3 U
	13-14	NA	39	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	23-24	5872-40	186	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	6.1 U	100 U	20
	27-28	5872-41	734	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	100 U	6.5 U	**410**	99
SB64	3-4	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	4-5	5872-42	132	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U
	10-11	NA	9	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	15-16	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA

TABLE B-4
MAXIMUM CONCENTRATIONS USED FOR ISOCONCENTRATION MAPS
FORMER GM AC ROCHESTER FACILITY, SIOUX CITY, IOWA

Boring Number	Sample Interval (ft bgs)	EPA Sample Number	Core Screening	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		*cis* -1,2 DCE	
				Concentrations in parts per billion (ppb) or micrograms per kilogram (µg/kg)											
Remedial Action Goal				1,780		16		62		65		47		505	
Laboratory or Screening Method				ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA	ML	EPA
SB65	2.5-3	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	7-8	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	11-12	5872-43	136	100 U	5.8 U	100 U	5.8 U	100 U	5.8 U	100 U	**22**	100 U	5.8 U	100 U	5.8 U
	15-16	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	16-16.5	NA	329	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	19-20	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
SB66	0.5-1.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	7-8	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	11-11.5	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	13-14	NA	0	**233**	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	19-20	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	23.5-24	NA	0	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA
	27-28	5782-44	4	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U	100 U	6 U

Notes:

Yellow coloration separates the depth interval of 10-20 feet bgs from intervals above and below.

Bold font indicates maximum concentration detected for the analyte within each depth interval (0-10, 10-20, and 20-32 feet bgs).

Core screening indicates initial screening of the soil core using either a ppbRae or MultiRae Photoionization detector (PID) having a 10.6 lamp.

Samples from soil borings SB1-40 were collected in April 2012; SB41-45 samples were collected in June 2012, and
SB46-66 samples were collected in December 2012.
Mobile laboratory field results for April 2012 were determined by EPS. Mobile laboratory results in December 2012 were determined by EPA.

bgs	Below ground surface
DCA	Dichloroethane
DCE	Dichloroethene
ft	Feet
EPA	U.S. Environmental Protection Agency (Region 7 laboratory and mobile laboratory for SB46 through SB66)
EPS	Environmental Priority Service (mobile laboratory used for locations SB1 through SB40)
FD	Field duplicate
J	Estimated value
µg/kg	Micrograms per kilogram
mg/kg	Milligrams per kilogram
ML	Mobile Laboratory (EPS for SB1-SB40; EPA for SB46-SB66)
NA	Not applicable
NA/R	Not available; data rejected by EPA Region 7 Laboratory
ND	Not detected
NE	Not established
PCE	Tetrachloroethene
RSL	Regional Screening Level
SB	Soil boring
SSL	Soil screening level
TCA	Trichloroethane
TCE	Trichloroethene
U	Analyte was not detected at or above the reporting limit on table.

APPENDIX C

HISTORICAL AERIAL PHOTOGRAPHS

1955 Aerial Photograph

1960 Aerial Photograph

1966 Aerial Photograph

1973 Aerial Photograph

APPENDIX D

LOGBOOK

KS1263

Outdoor writing products
for Outdoor writing people

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Rite in the Rain

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Rite in the Rain®

ALL-WEATHER

LEVEL

№ 311

START
103 DX 9004 L12 0282.000
GM Rochester
Sioux City, IA

4-9-12

1130 Arrive @ site. Dont see anyone here yet. Called Randy Schademann. He called back & is stuck @ Rock Port & EPA truck has broken down. New vehicle on way & will be up this afternoon.
Jenna Mead & John DeBruin to lunch, & hotel.
1245 Go to Walmart for supplies.
1325 Return to site. Still no one here
1400 Called Randy hes about 1 hr away Ok to look around site. Told him I hadnt seen HGL yet
1405 HGL @ treatment center Go over plans etc.
~1520 Randy Schademann & Susan Fisher arrive.
1540 Head to SB01 location.
1625 Collect SB-01-0 (0-1) Mainly (0.5-1') PID 58 ppm
1640 collect SB-01-5 (5-6') 0 PID
1655 Collect SB01-10 (10-11) Dup 0 PID
1725 Collect SB01-18 (18-19) 215 PID

4-9-12

1740 Collect SB01-23 (23-24')
1750 Collect SB01-25 (25-26')
1810 Depart SB01 to head to treatment center
1825 Depart site

Jenna Mead
4-9-12

Rite in the Rain

4-10-12

0700 JMead, JDeBruhl, EPA + HGL arrive @ site. EPA Randy Schadman + Susan Fisher, HGL Jeff Gadd Jeff Hodge, Stephen Holmes, Matt?
0703 H+S Tailgate
0718 Head to boring
0740 collect SB06-1 (ØPID)
0755 Collect SB06-5 (ØPID)
0811 collect SB06-10 (ØPID)
0812 collect SB06-15 (ØPID)
0825 Collect SB06-18 (1560 PPB)
0845 Collect SB06-23 (0.7 PPM) Switch to Multi Rae Citation meter in ppb mode.
0857 collect SB06-27 (1.8 ppm) Head over to SB02 in CB's car)
0910 collect SB02-1 Ø
0920 Collect SB02-5 Ø
0930 collect SB02-10 Ø
0950 collect SB02-17 (0.3)
1005 Collect SB02-20 (1.8)
1015 collect SB02-25 (1.7 ppm)
1027 Collect SB05-0 (0.7 ppm)
1040 Collect SB05-6 (0.1 ppm)

4-10-12

1055 collect SB05-10 (10-11) (Ø)
1110 Collect SB05-14 (14-15) 3063 ppb
1122 Collect SB05-17 (17-18) 1525 ppb
1138 collect SB05 20 (20-22)
1155 Collect SB05-27 (27-28)
1225 Break for lunch.
1255 Back @ site.
1315 Start @ SB07 ~~0~~ (0.5 - 1.5) 4-10-12 ppm
1330 collect SB07-0 (0.5-1.5)
1340 collect SB07-4 (4-5')
1350 Collect SB07-8 (8-9')
1405 Collect SB~~08~~07-15 (15-16)
1510 collect SB~~08~~07-20 (20-21)
1520 collect SB-~~08~~07-27 (27-28)
1530 Collect SB-08-1 (1-2')
1538 Collect SB-08-5 (5-6')
1547 Collect SB-08-10 (10-11)
1557 Collect SB08-16 (16-17)
1610 Collect SB08-23 23-24
1620 collect SB08-26 (26-27)
1639 ~~1630~~ Collect SB09-1 (1-2)
1640 Collect SB09-5 (5-6)
1650 Collect SB09-10 (10-11)
1710 collect SB09-15 (15-20)

Rite in the Rain

4-10-12

1720 Collect SB09-22 (22-24')
1730 Collect SB09-26 (26-27')
1731 collect rinsate blank of sed sampler.
1815 Depart site

Jenna Mead
4-10-12

4-11-12

0700 START, EPA, HGL, EPS (Geoprobing water locations)
0715 Move to wooded area to do borings before it rains
0750 Collect SB10-0
0755 Collect SB10-5
0800 Collect SB10-10
0812 Collect SB10-16
0822 Collect SB10-22-24 (24') EPA + Mobile lab dup
0832 Collect SB10-25
0853 Something on geoprobe broke. Randy looking for replacement or try to borrow from EPS if possible.
0905 Borrowed from EPS + ordered replacement
~0912 Start SB11
0927 collect SB11-0 (0-1')
0937 Collect SB11-5 (5-6')
0948 Collect SB11-9 (9-10')
1003 Collect SB11-16 (16-17')
1022 Collect SB11-22 (22-23')
1045 Collect SB12-0 (0-1')
1053 Collect SB12-5 (5-6')
1100 Collect SB12 14 (14-15')

Kite in the Rain

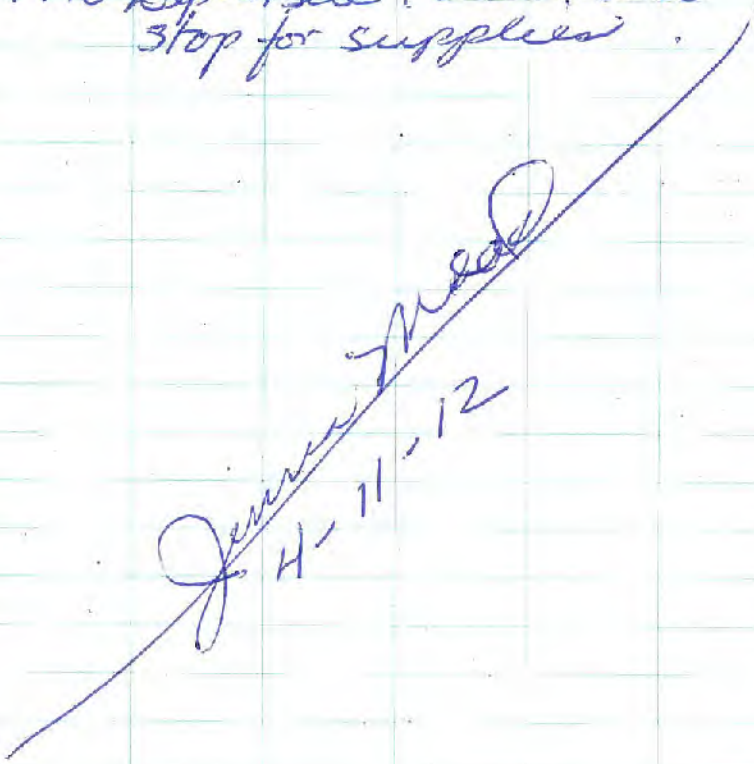
collect SB11-27 5RM 4-18-12

4-11-12

1108 Collect SB12-17 (17-18')
1115 Collect SB12-20 (20-21')
1123 Collect SB12-27 (27-28')
1143 Collect SB13-0 (0-1')
1153 Collect SB13-5 (5-6')
1203 Collect SB13-9 (9-10')
1213 Collect SB13-15 (15-16')
1225 Break for lunch
1305 Back @ site Seneca Guy still here (called just after we left).1
1312 Back @ Staging area for more borings.
1325 Collect SB13-20 (20-22 Dup)
1335 Collect SB13-27 (27-28')
1345 Collect SB14-0 (0-1')
1355 Collect SB14-4 (4-5) (no 5-8 Rec)
1417 Collect SB14-10 (10-11')
1425 Collect SB14-13 (13-14')
1437 Collect SB14-20 (20-21')
1450 Collect SB14-27 (27-28') no 1/4-D
screen liner smashed in sampler. Only knock out some sand for VOCs
1457 Move to NW of paved lot for SB15
1505 Collect SB15-0 (0-1')
1508 Collect SB15-5 (5-6')

4-11-12

1515 Collect SB15-10 (10-11')
1533 Collect SB15-17 (17-18')
1543 Collect SB15-21 (21-22')
1553 Collect SB15-27 (27-28')
1600 Having issues w/ Geoprobe and sand clogging up sampler
1710 Depart site. Will make stop for supplies.



Rite in the Rain

4-12-12

0658 Arrive @ Site

0703 Tailgate H+S, Overview of Chance of Isolated T-storms this afternoon

0712 Move to unload + setup for SB16

0737 Collect SB16-0 (0-1) @PID

0745 Collect SB16-5 (5-6) @PID

Rain starting. Move into EPA trailer

0800 Collect SB16-10 as Duplicate (10-11) @PID

0815 Collect SB16-15 (15-16) @PID

0822 Collect SB16-20 (20-21) @PID

~~0837 Collect SB16-25 (25-26) @PID~~ 4-13-12

0837 Collect SB17-0 (0-1) @PID

0850 Collect SB17-5 (0.1 PID) (5')

0905 Collect SB17-10 (10-11) 0.5

0910 Collect SB17-14 (14-15) 1.4ppm

0920 Collect SB17-20 (20-21) 2.6ppm

0930 Collect SB17-25 (25-26) 1.1 ppm

0945 Photo SB18 ~ 6-7 ft pushed only appearance

0950 Collect SB18-0 (0-1) @

0950 Collect SB18-6 (6-7) @ silty pushed sample

1007 Collect SB18-10 (10-11)

1042 Collect SB18-15 (15-16')

1036 Collect SB18-19 (19-20) (0.6)

collected out of order.

1055 Collect SB18-20 (20-21)

1100 Collect SB18-27 (27-28)

1112 Collect SB19-0 (0-1)

1116 Collect SB19-5 (5-6)

1118 Collect SB19-10 (10-11)

1145 Collect SB19-15 (15-16')

1155 Collect SB19-20 (20-21)

1203 Collect SB19-25 (25-26')

1215-1245 Break for lunch Severe T-storm + rain. (some thunder earlier)

1245 Back @ Site, Screen headspace on SB16, 17

1300 Collect SB20-0 (0-1)

1320 Collect SB20-5 (5-6)

1330 Collect SB20-10 (10-11)

1345 Collect SB20-16 (16-17)

1355 Collect SB20-20 (20-21)

1405 Collect SB20-25 (25-26)

1425 Collect SB21-0 (0-1)

1435 Collect SB21-5 (5-6)

1445 Collect SB21-10 (10-11)

1500 Collect SB21-16 (16-17')

1510 Collect SB21-20 (20-21)

1520 Collect SB21-25 (25-26')

25' PID 2621 ppb

Rite in the Rain

4-12-12

1525 Pulling SB16 24-28' sample. That was stuck in hole this morning
1540 Collect SB16 27-28 (labeled as 28
1550 Packing up for the day.
1635 @ staging area. get stuff for tomorrow.
1640 Departing site.

Jason Mead
4-12-12

4-13-12

0703 @ Site Tailgate H+S
Head back towards hot SB17 to do borings south + west
0750 Collect SB22-0 (0-1)
0757 Collect SB22-5 (5-6)
0805 Collect SB22-11 (11-12)
0815 Collect SB22-16 (16-17)
0835 Collect SB22-23 (23-24)
0840 Collect SB22-26 (26-27)
0855 Collect SB17-29 (29-30)
Went back to SB17 + pushed down to get deeper sample in saturated soil
0905 Collect SB23-0 (0-1) @ PID
0912 Collect SB23-5 (5-6)
0922 Collect SB23-9 (9-10)
0940 Collect SB23-16 (16-17)
1003 Collect SB23-23 (23-24)
1007 Collect SB23-26 (26-27)
Photo SB23 @ 23ft oily looking feels oily - no PID response there but do have below. Cores are 20-24 + 24-28' (Sand is 24-28)

Rite in the Rain

1025 Called SB24-0 (0-2) MSMSD
1033 Collect SB24-6 (6-7)
1050 Collect SB24-9 (9-10)
1105 Collect SB24-16 (16-17)
1110 Collect SB24-20 (20-21)
1115 Collect SB24-26 (26-27)
1147 Collect SB25-13 (13-14)
1151 Collect SB25-16 (16-17)
1206 Collect SB25-20 (20-22)
1230 Rerun to grab lunch come back to set here
1300 Move to next location
1325 Collect SB26-0 (0-1)
1335 Collect SB26-5 (5-6)
Photo SB26 8-12' core getting
1345 called SB26-9 PID reading @ ~10', Note saturated clay/silt mud w/ oily sheen & bubbles ~~of post free product on~~
1353 Collect SB26-12 (12-13)
1405 Collect SB26-17 (17-18)
1420 Collect SB26-23 (23.5-24.25)
1430 Collect SB26-26 (26-27)
1438 Collect SB27-~~0~~1 (~~0~~1-2)
1445 Collect SB27-7 (7-8) 36 ppb

1452 Collect SB27-10 (10-11)
1525 Collect SB27-17 (17-18)
1575 Collect SB17 21 (21-22)
1522 Collect SB27-26 (26-27)
1540 Get headspace PID readings
1550 Packing up for day & going to take samples to MCL.
1605 Departing Site

Jenna Neal
4-13-12

Rite in the Rain

4-14-12

0700 At site. HGL water temp well/ crew left yesterday.

contact: Tom Lindblom, knows a lot: 712-276 8900

JMeas JDeBruine, Randy, Susan, Jeff G. and Mandi (HGL) on site

0715 Head to locations

0747 Collect SB28-0 (0-1)

0803 collect SB28-8 (8-10) very high (74 PPM) solvent odor.

0818 Collect SB28-12 (12-12.3)*

0820 Collect SB28-16 (16-18) Dup.

0825 Collect SB28-20 (20-21)

0847 Collect SB28-25 (25-26)

0900 collect SB29-0 (0-1)

0910 Collect SB29-5 (5-6) MS/MSD

0922 Collect SB29-10 (10-11)

0931 Collect SB29-16 (16-17)

0950 Collect SB29-20 (20-22)

1003 Collect SB29-26 (26-28')

1023 collect SB30-0 (0-1)

1030 Collect SB30-5 (5-7)

1038 Collect SB30-10 (10-11)

1103 Collect SB30-14 (14-16)

JMeas 4-14-12 1135 * VOC only insufficient for 1,4-dioxane

1110 Collect SB30-18 (18-19)

1118 Collect SB30-21 (21-23') strong petro odor >1000 ppm

1120 Collect SB30-26 (26-27)

1140 Collect SB31-0 This boring also sampled for PCBs as well as VOCs + 1,4-Dioxane

1150 Collect SB31-4 (4-6)

1155 Collect SB31-10 (10-12)

1210 " SB31-14 (14-16)

1215 " SB31-20 (20-22)

1218 " SB31-27 (27-28

1247 Collect SB32-4 (4-5')

1253 " SB32-8 (8-9')

1305 " SB32-14 (14-15)

1306 " SB32-17 (17-18)

1315 " SB32-22 (22-23)

1322 " SB32-25 (25-26)

1325 Packing up about to leave Storm front move in.

1350 Departing site.

Jeremy Meyer 4-14-12

Rite in the Rain

4-15-12

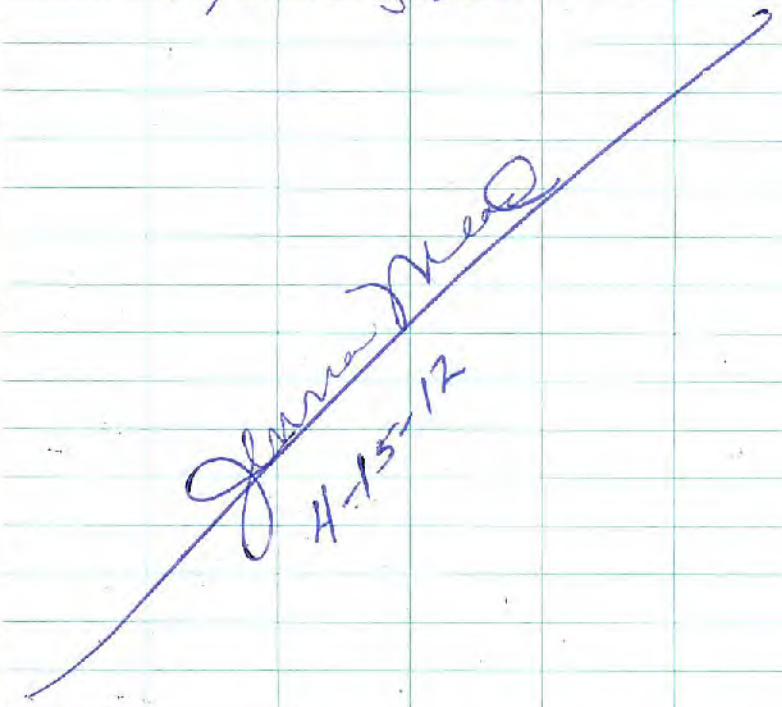
0700 Arrive @ site. Tailgate H+S
0725 Head to SB33 location.
will only log/sample lower part of hole
0750 Collect SB33-13 (13-14ft)
800 Collect SB33-17 (17-18')
0808 Collect SB33-20 (20-22) MS/MD
0815 Collect SB33-25 (25-26)
0837 Collect SB34-17 (17-19)
0855 Collect SB34-20 (20-21)
0900 Collect SB34 ~~25~~ 24 (~~25-26~~ 24-25')
0910 Collect SB35-17 (17-18')
0920 " SB35-21 (21-22)
0930 " SB35-25 (25-26)
Randy + Jon go to field diesel
1000 Move to SB36
1035 Collect SB36-14 (14-15')
1040 Collect SB36-16 (16-17')
1052 Collect SB36-22 (22-23')
1100 Collect SB36-25 (25-26')
1115 Collect SB36-0 (0-1)
1120 Collect SB36-6 (6-6.5')
1125 Collect SB37-9 (9-10)
1130 Collect SB37-15 (15-15.5')

1136 Collect SB37-19 (19-20)
All just collected for Mobile lab only except (19-20') Mobile lab @ 1, 4 isobutane.
1150 Collect SB38-0 (0-1)
1155 Collect SB38-5 (5-6)
1205 Collect SB38-10 (10-11)
1208 Collect SB38-15 ~~15-16~~
~~1210~~ (15-16') all mine Mobil Lab only.
1215 Collect SB38-19 (19-20')
1230 Break for lunch
1300 Back @ site
1305 Move to SB39 North of Stoddard Tank farm pad.
1316 Collect SB39-0 (0-1)
1332 Collect SB39-6 (6-7)
1340 " SB39-10 (10-11)
1408 " ~~SB~~ 39-16 (16-17)
1418 " SB39-20 (20-21)
1400 " SB39-13 (13-14)
1425 " SB39-26 (26-27)
1435 Collect SB40-0 (0-1)
1445 Collect SB40-5 (5-6)

Rite in the Rain

4-15-12

1455 collect 10 (10-11) SB40
1507 Collect SB40 (16-17)
1512 Collect SB40 (21-22)
1522 Collect SB40-25 (25-27)
1545 Return to shed to do headspace on our ½ vials
1600 finished headspace + all departing site.



4-16-12

0659 arrive on site Tailgate H+S. loading. 344 gal
0705 Head to SB4 on south side of RR tracks
0727 collect SB3-0 (0-2) MS/MSD
0740 collect SB3-6 (6-7)
0800 Geoprobe moving to SB1 to do 28-32'
0755 ~~0805~~ collect SB3-9 (9-10)
0805 collect SB3-17 (17-18) 549ppb
0822 Collect SB3-22 (22-23) 448ppb
0832 collect SB3-24 (24-25)
0850 collect SB1-31 (31-32)
0900 collect SB4-0 (0-1)
0912 collect SB4-5 (5-6)
0922 Collect SB4-10 (10-11)
0935 collect SB4-17 (17-18)
0950 Collect SB4-22 (22-23)
0957 collect SB4-24 (24-26')
1015 Randy is still waiting for access from BNSF to do the 3 holes on the north side of the track.
1030 DB headspace for today samples. Jon + Jeff G (HGL)

Rite in the Rain

4-16-12

went to get bentonite & will start plugging & patching holes. EPA cleaning vehicles.

1105 Jon & Jeff back w/bentonite JRM & Jon to plug holes.

1145-1315 lunch

1315 Trying to get more Quikcrete to patch concrete.

1350 Back @ site. Per Randy ~~not sure~~ going to give up on getting DNSF access. May be later event.

1645 Finished plugging & patching geoprobe soil borings.

1700 Depart site. Nancy & Jeff Hodge + ~~Alan Rittler~~ ~~+ Chuck~~ (HGL) here discussing data for meeting tomorrow.

Jenna Meade
4-16-12

4-17-12

0830 Arrive @ site to get over data for 9:00 meeting on handover of capture system to JZ.

0910 System running but not recording data in log per David w/ ORD.

1007 Decide to test low level alarm on BUS to try & pinpoint problem. Nancy & Jen shut system off.

Right now 3.7 gpm → 35.7 ft. can only pump 8 gpm not 10 gpm.

1030 Depart via site for KC

1300 Return to KC.

Jenna Meade
4-17-12

Rite in the Rain.

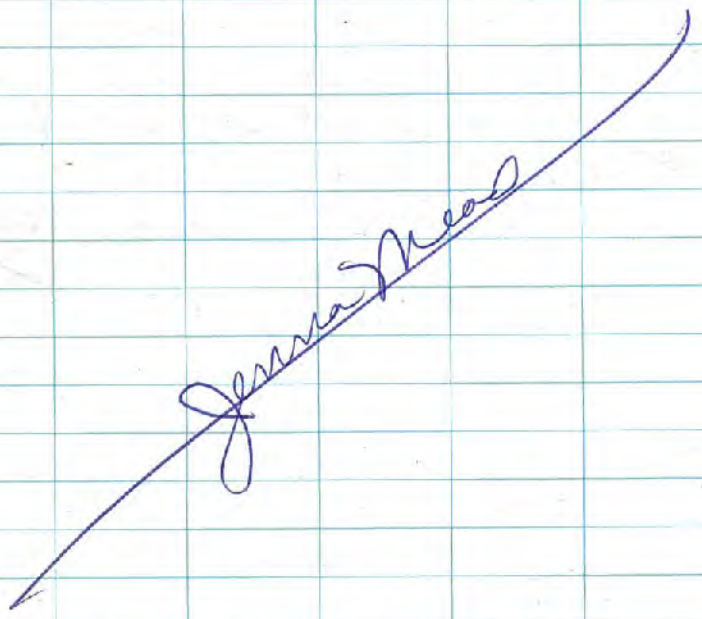
6-25-12

1215 Depart KC office for Sioux City to meet EPA for geoprobe sampling. Tues & Wed + Municipal well sampling. Jenna Mead only STM Trip.

1630 arrive @ Sioux City.

Go to Walmart + buy supplies.

1715 Check in @ hotel



6-26-12

0700 Depart hotel. bump use. arrive @ GM location. Complete Randy Schademann Todd Johnson Susan driving up today. Surface has been repaired. Get GPS locations for ones in parking lots.

SB8 42.4934257
-96.4324

SB19 42.4931
-96.4326

SB26 42.4939
-96.4323

Wrong size end caps sent; may have to change plans from doing geotech samples today.

0750 Move to SB-19, unload. Schademann going in to talk to Bomgaars. while Todd sets up. Will just cap temporarily for today.

0825 collect SB19 2-4 (sand)

0835 collect SB19 8-10 Took top 2' of compressed recovery (~2.6') (clay)

0845 collect SB19 14-16 Bottom 2'

Rite in the Rain

6-26-12

@ ~3' compressed recovery
Silty clay sandy silt mix

0900 Collect SB19-20-22
0910 Collect SB19 26-28' (Sand)
0950 Collect SB26 2-4' Sand
1010 Collect SB 26 14-16' (No 8-10' No sample recovery)
1025 Collect SB26 20-22' silty sand
Redrilling to get 8-10' sample
1035 Collect SB26 26-28' Sand
1120 Collect SB8 2-4
1125 Collect SB8 8-10
1128 Collect SB8 14-16
1135 SB8 20-22
1200 Collect SB8 26-28
1215 Jim to go buy large cooler + grab lunch. EPA to lunch + wait for Susan to start soil sampling
1325 back @ site
1400 collect SB41 0-2 sand @
1407 " SB41 6-7 silty clay @
1412 Collect SB41 12-13 sandy clay @
(uncertain interval 8-16 all pushed together)

1432 Collect SB41 - 17-18'
SB41: 42.49376
- 96.43277
1445 Collect SB41 - 27-28' (946ppb) sand, wet.
1450 Collect SB41 21-23 MS/MSD
1516 Collect SB42 3-4 (457ppb)
1518 Collect SB42 6-7 (595)
1525 Collect SB42 9-10 (353)
1558 Collect SB42 14-15 (950)
1600 Collect SB42 17-18 (1498)
1605 " " 23-24' (976)
1615 " " 26-27
1630 Packing up will do borings on North side of RRT track Tomorrow
1650 Depart site gas up van.

Jason Mead
6-26-12

Rite in the Rain

6-27-12

0700 Depart hotel for ice then site.

0720 at site; EPA hooking up Geoprobe + UTV trailers to take to entrance of railroad access road (North side of track. Going to be very hot today ~ 100°
GPS SB42 42.49413; -96.43174

0730 Randy + Todd taking Geoprobe then Susan + Todd will take UTV Susan will come back + we will finish setting up @ area by propane tank farm by trees.

0815 Geoprobe has arrived in area.

0816 Photos looking W + along RR grade from propane tank area

0827 Todd @ Geoprobe w/ UTV

0855 collect SB43 0-2 (12ppb)

0900 collect SB-43 4-6 ms/msD

0908 collect SB-43 10-11 ± (0)

0930 collect SB-43 15-16 436

0938 " " 19-20

0950 " " 27-28

1008 Collect SB44 0-2 (1452-33) 5788
gm 6/27/12 1825 Pierce sampled at once

0943 collect SB-43 (22-23')

6-27-12

1015 collect SB44 7-8 (102 ppb)

1017 collect SB44 11-12 (343)

1027 collect SB44 13-14 (799)

1035 collect SB44 17-19 (1578)

1047 collect SB44 20-21

1052 collect SB44 27-28

1108 collect SB45 0-2

1115 collect SB45 5-6 14-15

1120 collect SB45 ~~15-16~~

1128 collect SB45 19-20

1140 collect SB45 21-22

1145 collect SB5 27-28

GPS: SB43: 42.49360, -96.43400
SB44: 42.49381, -96.43346
SB45: 42.49392, -96.43300

1220 Breaking for lunch

1300 Go to park to see if I can get photo of outfall, but too far to walk in time

1320 @ water treatment plant on Taylor to meet Brad Pietz + sample treatment plant + wells

1330 collect effluent @ POTW

Rite in the Rain

6-27-12

Per Brad well #3 will be probably another 2 months until back on line. Have pulled well but probbly will replace pump.

wells need to be turned on Brad doesn't know sample points in wells.

1340 Collect influent
1407 Collect MW-6
1415 Collect MW-24
1430 Collect MW-2
1445 Return to treatment center to label samples.

Unable to collect MW-10 as it is in a pit + neither Myself or anyone w/ EPA is confined space trained to allow entry. Per Randy S. ok not to sample for that reason.

Susan + Todd C. are getting water level readings Randy is getting keys ready meeting w/ City + other errands

6-27-12

1535 Collect Field Blank, getting it for 1,4 dioxane as well as VOC

1630 RW 35-30.8 ft
5D - 34ft
6S - 380
7S 34.6
7D 33.8
8S 35.7
8D 34.4
9S 35.3
9D 36.0
10S 38.5
10D 36.6

1635 Will not get all 4S AC well water levels dangerously hot outside. Loading up to depart site Head to hotel to label + pack samples.

1910 Finished packing samples on ice, will load up tomorrow morning. EPA taking a 1' soil core to HQ. START will deliver to EPA lab. Meet Schedama meet w/ city tomorrow @ 0730

Jessica Mead
6-27-12

Rite in the Rain

6-28-12

0650 Depart to resample MW24 as MS MSD

0710 Collect MW-24 ms/msd.

0730 Meeting w/ City WWTP Personnel

0745 Head to Outfall area & Take photos

0830 @ hotel to get sample coolers & label new MW24 samples.

1315 Arrive KC office unpack van & get copies of field sheets.

Jenna Mead 6-28-12

11-26-12

1300 Jenna Mead & Cosmo Canacari arrive @ Site. Check in w/ Bomgaars. Called Ricky Mack w/ City to go over HCS tomorrow @ 0800.

1325 Start marking locations

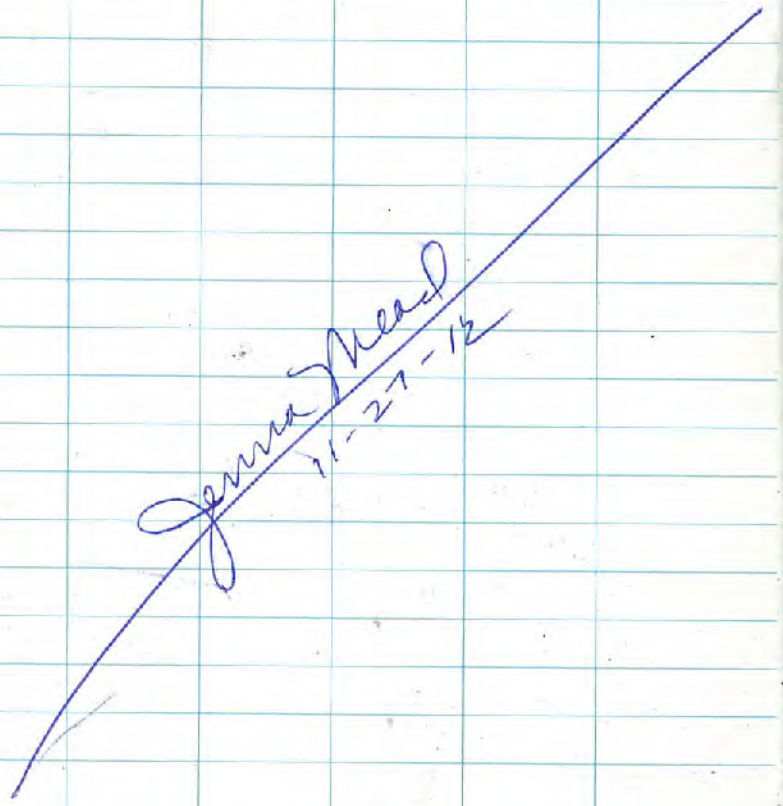
1625 locations marked. Departing site.

Jenna Mead 11-26-12

Rite in the Rain

11-27-12

0745 arrive @ site for 8AM meeting w/ city water dept on HCS.
0800 Meet w/ city go over HCS, flow meter PLC.
0940 Depart site for KC.
1430 Arrive KC office



12-3-12

0800 Depart KC Office. Jenna Mead + Cosmo Caracciolo to meet EPA @ site ~ 1300.
1243 Meet EPA @ site
~~Kenneth~~ Kenneth Ernest Bomgaars consultant is on site so will do locations he collecting splits of clay building
1300 Tailgate H+S
1340 Collect SB46 1.5-2 ft
1400 collect SB46 6-7-8 ft
1412 collect for mobile lab screen only SB46 9ft.
1420 collect SB46 17-18 (34ppb)
1438 collect SB46 23-24 (38ppb)
1455 collect SB47 (5-6) 148ppm (stand at 29). Collected 2-3ft for Lorenzo Sena mobile lab screening (~ 1448)
1505 collect 9-9.5 for ML screen
1520 collect 13-14 for ML screen
1545 collect SB47 21.5-22.5
1550 collect 18-19 for ML SB47

Rite in the Rain

12-3-12

1610 Collect SB48 3-4' (178 ppb)
1615 Having issues w/ Geoprobe. Run samples to Lorenzo & go to gas station
1635 Back. Have samples now.
1648 Collect SB48 (10-11') (226 ppb) no recovery 4-8 ft
1710 Collect SB48 (20-21') 259 ppb
1720 Collect 24-25 for MC screen
1730 Packing up. Last samples to Lorenzo & Jeremy Yaggie with Main. Manuel Ehmaedia is working with Randy S.
1745 Depart Site.

Jeremy Meade
12-3-12

12-4-12

0655 Arrive @ site.
0715 Tailgate H+S.
0730 Move to Trailer to set up for today. Will do SB28 & 4 dup samples. Then move to back of bldg by chillers for SB49
0810 collect SB28R 11-12' (1025 ppb) as dup for Mobile lab
0815 collect SB28R 9-10' (278 ppb)
0838 collect SB49 1.5-2 MC only
0843 collect SB49 5-5.5 MC only
0900 collect SB49 15-15.5 MC
0850 collect SB49 11-12
0925 collect SB49 18-19 (139 ppb)
0938 collect SB49 20-21 (329 ppb)
0947 collect SB49 27-28 (575 ppb) blk stn @ water level
1000 collect SB50 1-1.5 (MC only)
1007 Collect SB50 7-7.5 (MC only)
1025 collect SB50 12-12.5 MC only
" collect SB50 15-16 (42 ppb)
1038 collect SB50 19-20 (180 ppb)
1048 " 21-22 (1589 ppb)
1100 " 26.5-27.5 (1294)

Rite in the Rain

12-4-12

11:30-1200 Break for lunch + make calls. Randy ok RR access will be able to do tomorrow

1208 collect SB51 1.5-2 MW

1220 collect SB51 10-11

1230 collect SB51 (15-16') (731 ppb)

1242 collect SB51 (22-23) (26.1 ppm)

1248 collect SB51 (20.5-21.5 ML (7021 ppb)

1255 collect SB51 (26-27) (16.3 ppm)

1300 SB52 Not sampled 0-16 ft.

1305 Collect SB52 17-17.5 for ML

1315 collect SB52 21-22 (2614 ppb)

1325 Collect SB52 26-27 (5700 ppb)

1400 collect SB53 0.5-1 (ML)

1435 Collect SB53 16-17 ft (ML) due Sleeve broke pound sample out

1438 collect SB53 22.5-23.5 ft (2487 ppb)

1500 Collect SB53 (26.5-27.5 ft) 2015 ppb

1510 collect SB54 (2-3) (743 ppb)

1520 collect SB54 (5.5-6.5) (822 ppb)

12-4-12

1530 Collect SB54 9-10 (ML only)

1540 Collect SB54 12-12.5 (ML)

1547 Collect SB54 16-17 (673)

1603 Collect SB54 26-27 (1705)

1555 SB54 21-22 collected for ML ~1555

1615 Collect SB55 1-2' for ML only

1625 Collect SB55 5-6 (79 ppb) collect SB55 5-6 + 10-11 for ML only ~1618 + 1623

1650 Collect SB55 24-25'

1700 Cleaning up + Packing up

1730 Depart site

Jenna Meo 12-4-12

Rite in the Rain

12-5-12

0700 Arrive on site. Tailgate H+S JRM get results from Lorenzo (onsite already) + calibrate pphase. Randy Manuel, + Cosmo Hookup trailer + take geoprobe to North side of RR Tracks. will set up on same spot to collect samples. EPA will bring.

0800 Head to set up. Geoprobe arriving in area.

0830 Start probing @ SB56 across tracks from SB55 for west location for delineation

0900 Collect SB 56 7-7.5'

0908 Collect SB 56 11-12

0925 Collect SB 56 18-19

0915 collect 14-15 for MC

0935 collect SB56 22-23 for MC

1002 Collect SB57 0.5-1.5 for MC

1007 collect SB57 4.5-5 for MC

1012 Collect SB57 9-10 for MC

1017 Collect SB57 14-14.5 for MC

1025 Collect SB57 19.5-20 (2nd) also 19-19.5 for MC

1043 collect SB57 20.5-22 for MC only

1048 Collect SB57 26.5-27 for MC

1054 Collect SB58 1-2' for MC

1100 Collect SB58 7.5-8

1120 Collect SB58 10.5-11 for MC

1130 Collect SB58 12-13'

1135 Collect SB58 17-18' for MC

1148 Collect SB58 21.5-22 for MC

1200 Break for lunch

1230 Back @ site. Discuss HCS w/ Randy

1300-1340 JRM + Cosmo label samples + package for lab while Randy + Manuel to SB59 farthest east we are going on RR north - nothing contam.

1348 Collect SB59 0.5-1 for MC

1410 Randy back to get trailer + go pickup geoprobe. Then to location 12+13 on this side of track.

1420 Collect SB59 (21-22')

1435 Take samples to Lorenzo Randy back w/ geoprobe

Rite in the Rain

Results - SB56 ND shallow
22-23 cis ~137 (will be more) ML
26.5-27.5 ND
Results SB57 4.5-5 = ND
SB57, 5-1.5 also ND
1530 Collect SB60 1.5-2 beneath gravel layer (roadbed)
1540 Collect SB60 2.5-3 for ML.
1548 Collect SB60 6-6.5
1554 Collect SB60 11.5-12 for ML
1603 Collect SB60 20-20.5 for ML
1610 Collect SB60 27-28 (sand)
SB56 PS: 42.493 45
-96.433 63
1625 Collect SB61 2.5-3 for ML
1630 Collect SB61 6-7 as MS/MSD
1635 Collect 10.5-11 for ML
1645 Collect SB61 19.5-20 (213)
1655 Collect SB61 (27-28) for ML
1720 Depart site

Jenna Mead
12-5-12

12-6-12
0955 Arrive @ site
0700 Tailgate H+S; Discuss plume. Have RE+TCE @ SB60 so will go to next location (east also split difference (between SB42 + SB60 or come into Borrgaard @ south of SB60. Also plan to drill some west of SB54 area.
0825 Collect SB62 @ 1.25-1.5' for ML
0830 Collect SB62 2.5-3' (sat) also gave Lorenzo sample of weird stuff @ 1.25' Rubber mat w/ polymerized sand beneath breaks rubbery feel spongy but is sand. had ~69 in SB61
0845 Collect SB62 (5-6) (533 ppb)
0953 Collect SB62 9.5-10 ML
0900 Collect SB62 15.5-16 ML
0910 Collect SB62 23-23.5 ML
Get reading on SB63 for Raney
0930 Collect SB62 (27-28') as MS/MSD
0940 Collect SB63 (1.5-2')

Rite in the Rain

12-6-12

0945 Collect SB63 7.5-8 for MC
0950 Collect SB63 9-10' (110 ppb tvh?)
1000 Collect SB63 13-14' for MC
1007 Collect SB63 23-24' (186 ppb)
1017 Collect SB63 27-28 (734 ppb)
1042 Collect SB64 (3-4') for MC.
1048 Collect SB64 (4-5')
1055 Collect SB64 10-11 for MC
1100 " 15-16 for MC
GPS SB64:
42.49232, 96.43333
GPS SB63 42.49251, -96.43353
1130 City guys coming @ 12:30 will let them watch last hole drilling & sampling & collect water sample.
1230 Collect SB65 2.5-3' for MC
1240 " 7-8 for MC
1250 Collect SB65 11-12 (138
1320 Finished labeling samples. Manoj here w/ City Guys to show them. SB66 South of SB61. Collect for MC samples 0.5-1.5; 7-8, 11-11.5) 13-14, 19-20 between 1320

12-6-12

and 1400
1405 collect SB66 23.5-24 MC
1410 Collect SB66 27-28
1500 JRM goes over HCS w/ City guys again.
1525 Collect Effluent sample for VOCs
1530 City Guys depart - off Jackob Packing up samples to ship FedEx O/N
1600 Take samples to FedEx
1640 GPS SB66
42.49416
-96.43108
1700 Departing site.

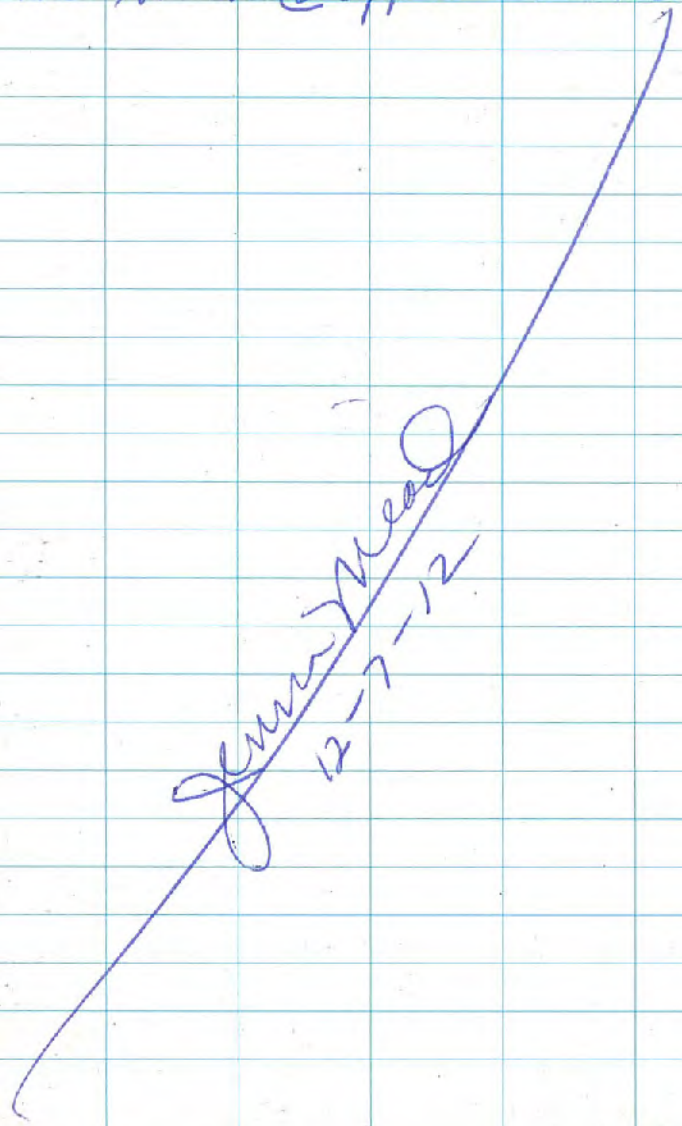
12-6-12

Rite in the Rain

12-7-12

0700 Depart hotel for KC office

1115 Arrive @ office & unload



12-7-12

Rite in the Rain

APPENDIX E

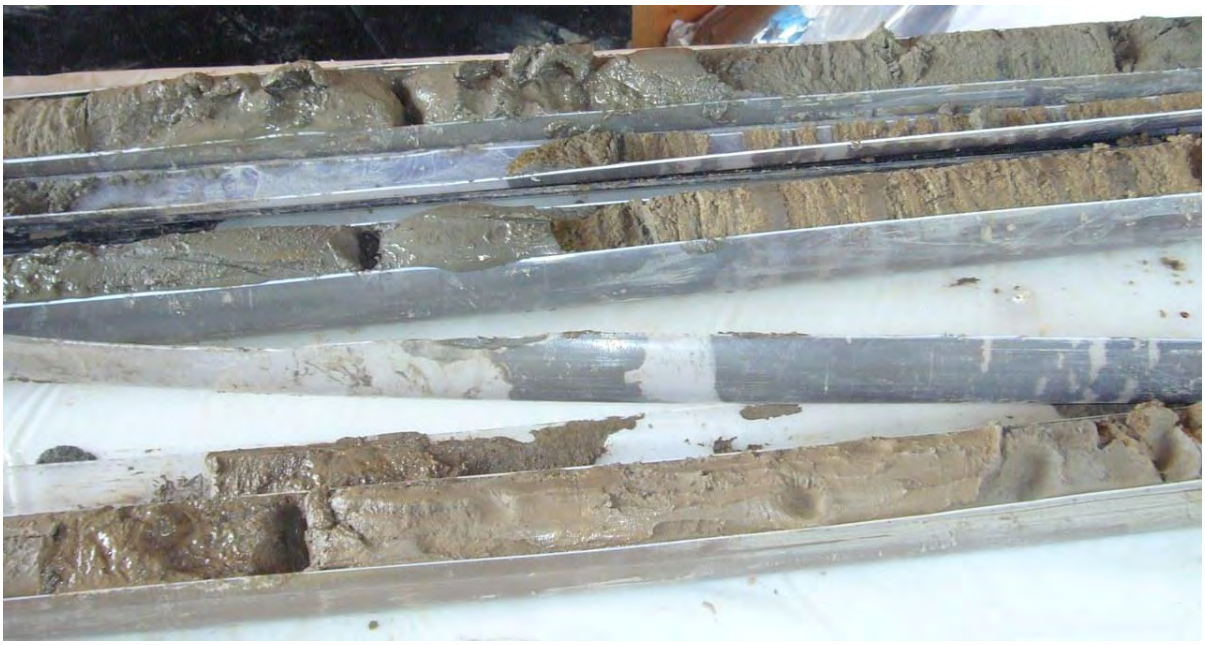
PHOTOLOG

General Motors, AC Rochester Site
Sioux City, Iowa

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: --	DESCRIPTION	This photograph shows collection of soil sample from between 8 and 12 feet below ground surface (bgs) along core from soil boring advanced at SB-15.	1
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/11/12
	PHOTOGRAPHER	Jenna Mead	

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: --	DESCRIPTION	This photograph shows portions (between 12 and 20 ft bgs) along soil cores from borings advanced at SB-20.	2
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/12/12
	PHOTOGRAPHER	Jenna Mead	

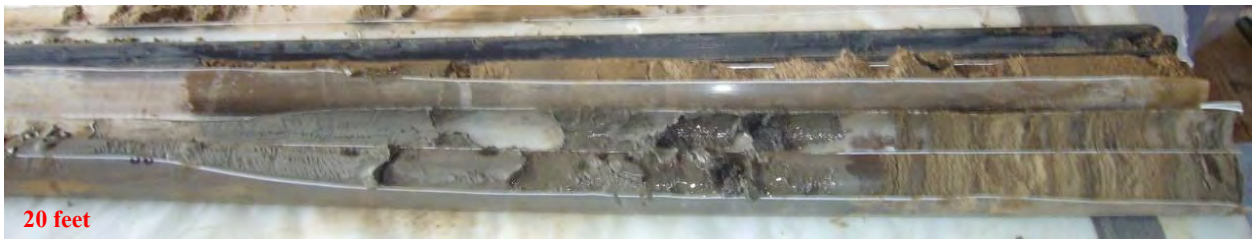
General Motors, AC Rochester Site
Sioux City, Iowa



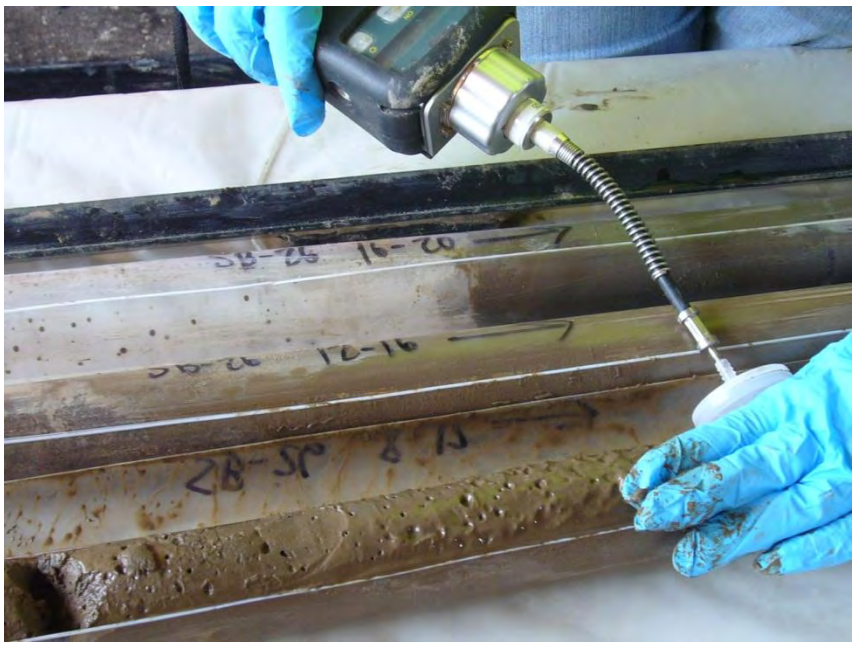
TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: --	DESCRIPTION	This photograph shows enlarged view of portions (12 to 24 feet bgs) along soil cores from borings advanced at SB-20. Note saturated clay layers.	3
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/12/12
	PHOTOGRAPHER	Jenna Mead	

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: -	DESCRIPTION	This photograph shows logging of portions (between 20 and 28 ft bgs) along soil cores from borings advanced at SB-23.	4
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/13/12
	PHOTOGRAPHER	Jenna Mead	

General Motors, AC Rochester Site
Sioux City, Iowa



TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: --	DESCRIPTION	This photograph shows portions (20 to 28 ft bgs) along soil cores from borings advanced at SB-23.	5
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/13/12
	PHOTOGRAPHER	Jenna Mead	



TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: --	DESCRIPTION	This photograph shows initial field screening of SB-26 soil cores using photoionization detector (ppbRAE) .	6
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/13/12
	PHOTOGRAPHER	Jenna Mead	

General Motors, AC Rochester Site
Sioux City, Iowa

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: Northeast	DESCRIPTION	This photograph shows influent piping for the recovery wells and effluent from the hydraulic capture system (HCS).	7
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/17/12
	PHOTOGRAPHER	Jenna Mead	

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: North	DESCRIPTION	This photograph shows electrical panels and programmable logic controller (PLC) for the HCS.	8
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/17/12
	PHOTOGRAPHER	Jenna Mead	

General Motors, AC Rochester Site
Sioux City, Iowa

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: West	DESCRIPTION	This photograph shows the railroad right-of-way at the northern edge of the site from the former propane tank farm area.	9
	CLIENT	Environmental Protection Agency - Region 7	DATE 06/27/12
	PHOTOGRAPHER	Jenna Mead	

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: Northeast	DESCRIPTION	This photograph shows the railroad right-of-way northeast of the former propane tank farm area.	10
	CLIENT	Environmental Protection Agency - Region 7	DATE 06/27/12
	PHOTOGRAPHER	Jenna Mead	

General Motors, AC Rochester Site
Sioux City, Iowa

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: North	DESCRIPTION	This photograph shows soil boring at SB-45. Note drainage area north, along base of bluff.	11
	CLIENT	Environmental Protection Agency - Region 7	DATE 06/27/12
	PHOTOGRAPHER	Susan Fisher	

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: North	DESCRIPTION	This photograph shows soil boring at SB-45.	12
	CLIENT	Environmental Protection Agency - Region 7	DATE 06/27/12
	PHOTOGRAPHER	Susan Fisher	

General Motors, AC Rochester Site
Sioux City, Iowa

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: North	DESCRIPTION	This photograph shows the stormwater outfall from the site to the Missouri River.	13
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/11/12
	PHOTOGRAPHER	Jenna Mead	

TETRA TECH PROJECT NO. X9004.12.0282.000 DIRECTION: South	DESCRIPTION	This photograph shows a view from the stormwater outfall to the Missouri River.	14
	CLIENT	Environmental Protection Agency - Region 7	DATE 04/11/12
	PHOTOGRAPHER	Jenna Mead	

APPENDIX F

BORING LOGS

Boring Log Form

Site Name: GM Rochester Boring Number: SB-01
Date Drilled (Start/Finish): 4-9-12
Drilling Method: Geoprobe 4 ft cores
Drilling Company: EPA Randy Schademann
Elevation: Total Depth: 32
Coordinates:
Depth to Water: Geologist: JMead
Project Number: X9004L120282 Weather: fair 65°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0								
1	X		58					Silty sand, med brn, slt moist fn grd, sand decr above w/ less silt
			0		10YR6/4	1615 ppb		1615 PPB after heating in soil
			0	4				
5			0		2.5Y5/3			Sand clayey @ top then ~3" clean fn grd lt tan sand w/ 6 becomes silty-sand @ 6.5' med brn
6	X							
			9		2.5Y3/2			Clay, soft, moist, med dk brn plastic 5840 PPB
			0	8				
			0					clay, med brn, hard, dense, slt moist to dist @ 10 ft, 8 olive soft, inc
10			0		10YR4/3			
11	X		0					from @ 11 ft
			0	12				471 PPb
			0					clay, med brn plastic, moist
14			0		10YR5/3			Clayey sand, vfg, saturated, med brn from ~13-13.75 then clay, wet, plastic
			0	16				Clay, hard, dense, clumpy
			0					(clay sloughed)
								sand, silty sand, banded shale,
			215		2.5Y4/2			clay, sandy, wet, med grey
				20				3708 ppb
			0					Clay, grey, wet-saturated, sandy,
			30					to
			0					6350
	X	X	776		5Y4/1			Sand, silty, layered, vfg 4840
			40	24				

Boring Log Form

Site Name: GM Rochester | Boring Number: SB-01

Date Drilled (Start/Finish): 4-9-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: | Total Depth:

Coordinates:

Depth to Water: 28' in nearby MW | Geologist: JMed

Project Number: 103D9004L120182 | Weather: fair 65°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
25			6010	24				Sand as above, clayey in part
26	X		3246	25	6.8 PPM			
			4368	26				9010
			330	28				
			0					Sand, loose, fn grn - vfg, brn to greenish grey, some blackstain. 30ft. more silty/clay. Sand fn grn, quartz/calcareous, brownish grey
			0					
	X		25	8	3'2			
				12				
				16				
				20				
				24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB-02
Date Drilled (Start/Finish): 4-4-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: J Mead
Project Number: X9004/120282 Weather: Sun 65°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0					asphalt + base
			0					Sand, silty, moist, fine grad
			0	4				1155 ppb
			0					Sand as above
			0					1501 ppb
			0					Clay, silty, med brn, ~~stiff~~ soft moist
			0	8				become more moist + plastic w/depth
			0					Sand, clayey, vfg, grades to sandy clay
10			0					@ 9 ft. Saturated 10 ft. 536 ppb
11			0					Clay, hard dense, plastic, med brown
			0	12				
			0					Clay, hard dense, red brown, grading to silty clay + some clayey sand lenses.
			0					
			0	16				
17			0		2.5Y4/1			
18			0.3 ppm					clay, sandy, dark grey + reddish brown (reduced) 713 ppb
			0					
			0	20				19 Sand, silty, vfg, moist
20			1.8	ppm				
22			0.2					Sand, fine grad, med brn
			0					~~bottom~~ clayey and dense @
			0.4					23-23.5 5668 ppb
				24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB02

Date Drilled (Start/Finish):

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			1.9 1.7 1.1 0.7	24 28.4 8 12 16 20 24	10YR5/3			Sand Silty, med brn moist 1676 ppb

Boring Log Form

Site Name: 2M Rochelle Boring Number: SB3
Date Drilled (Start/Finish): 4-16-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMeng
Project Number: Weather: Sunny, windy ~50°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0	X		0		7 ppb		0.7	Topsoil, dark, silty, clayey, brown
			0					Sand, med-coarse grained, moist, brown, some fine gravel
			0	4				Increase silt @ 3.75ft
			0					Same as above 0.25ft
6	X		0		282 ppb			4.25' Clay, silty, brown
				8				5.5ft Clay, sandy, soft, wet, red brown
								7.5ft Clay, silty, mottled brown
9	X		0		1448 ppb			Clay, med-yellowish brown, firm, plastic @ Top ft then ~ 9-10ft sandy Clay to Clayey Sand then black from clay, silty, less plastic
			0					
			0	12				
			0					Clay, med-yellowish brown, soft, plastic becomes hard/firm w/ depth
			0					
			100					14.5 Sand, lam, dark gray/black (org) iron stn lams @ very bottom becomes gray w/ some black lam
				16				
			18					
17	X		20 849		16.6 ppm			Clay as above
			31					17ft sandy clay, some lam dark gray w/ black stn (no odor) poss old petroleum stains.
				20				
			57					~~Clayey~~ Sand, med grained, mod brown, then soft saturated clay
22	X		448		46.1 ppm			22ft sand, silty fine grained, lam sand & silt, ~~dark~~ moist, dark brown
			350					
			16	24				
24	X		309	511	98.1 ppm			Sand, silty, dk yellowish brown, lam moist then Clayey Tuff ~ 26ft then hard clay layer then Sand fine med grained, poorly sorted, wet
			39					
			66					
			23					
			24					

Boring Log Form

Site Name: GM Rochester Boring Number: SB4

Date Drilled (Start/Finish): 4-16-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth:

Coordinates:

Depth to Water: Geologist: DMead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0	X		0		10.2 ppb			Topsoil, ~~Silty~~, clay sand
			0					Sand, med-coarse grn, some fn gravel moist, brown
			0	4				
5	X		0		14.22 ppb			Same bkg. 5 Mun clayey sand to sandy clay, med brn moist
			0	8				
			0					Clay, sandy w/ thin sand/silt lenses wet saturated @ ~10 ft
10	X		0		15.60 ppb			Clay, firm, med brn plastic
				12				
			0					Clay, med brn, soft-firm plastic
			0					Sandy @ 14-14.75 ft.
			0	16				
17	X		0		60.12 ppb			Clay, soft, silty sandy saturated Greyish brown
			156					sand, iron stn red & yel lam.
			32					@ 17.5. Mun Reduced brownish grey clayey silt/f sand
				20				
			0					Clay, med brn grey, some sandy. wet & saturated
			0					
23			0					
24	X		101	24	3.2 PPM			Sand, loose stained oil on tops ~~Clayey~~ silt/f sand
	X		84					lam, soft loose sand @ base
			683					
26			156		1.4 PPM			

Boring Log Form

Site Name: GM Rochester Boring Number: SB-05

Date Drilled (Start/Finish): 4-10-12

Drilling Method: Geoprobe

Drilling Company: ERA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMead

Project Number: 90041.120282 Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
05	X		0.7					asphalt 0-0.5 Sample @05-1 Sand, w/ gravel (angular) + shell loose, fill/beach sand, fn grained
			@					
			0.1					
			0.8	4				15,1 PPM (2.3 by multiplier)
			0.9					Sand lt tan to med, dark brown/tan mix
			@					
	X		0.1					clay, silty, dark grey, wet
			@	8	5Y4/1			grades to dark grey (reduced) silty clay, no odor 5786 ppb
			@					clay, sandy, saturated, brown
10			@					
11	X							clay, hard dense, plastic
		X	@	12				9991 ppb
			1740, ppb		PPB Range			
			985					clay, soft-firm, some silty sand,
14			3003					moist to wet @ ~~12~~ for 14ft.
15	X		1160					where it becomes sandy 5780 ppb
				16				
17			636		5Y4/1			clay, dark grey to brown grey
18	X		1823					soft, damp to wet (sandy clay)
			278					@ 17-17.5 + 19-19.5 ~~5786~~ 14 PPM
			268	20				@ 19.5 clay is very soft, plastic, still (reduced)
			3203					clay as above
			288					
			@					some sandy clay 3003 ppb
			@	24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB 5

Date Drilled (Start/Finish): 4-10-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
27 28 X			1000	25 4 8 12 16 20 24				Sample Sleeve Crushed, got some loose sand out from bottom. PID up to ~ 1000 ppb. 3010 ppb after for grab @ top of darker brn stuff sample ~~Shoot~~ Since shaken from bottom (calling it 27 - 28 ft.)

Boring Log Form

Site Name: GM Rochester Boring Number: SB-06
Date Drilled (Start/Finish): 4-10-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMeak
Project Number: 900412020.82 Weather: ~40° Sunny

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			83					asphalt + base
			0					sand, med tan, soft, fn grd. some silt
			0		10YR5/4			
			0					3343 ppb
			0	4				
X			Ø					sand as above
			Ø					clayey silt - silty clay, some sand, med brown,
			Ø					~6.5 ft. clay, sandy, wet — 1180
			Ø	8				~7.7 clay, hard, dense, moist
			Ø					Clayey Silt, wet/med brown, sandy a
X			Ø					10 Sand clayey, med brn, saturated — 3571 ppb
			Ø					grades to sandy clay, less water.
			Ø	12				12.3 clay, med brn, moist, hard, stiff
			Ø					~~Silty~~ Silt, clayey, grading to clay
			Ø		10YR4/2			some sand, med brn, wet
X			Ø					1308 ppb
			Ø	16				
			1413					Clay, med brn silty, wet - saturated
			1500					@ 15-15.5 above iron stained sand
18 X			Ø					18.5
			Ø					Sand, med tan, fn grd. well sorted
			Ø	20				soft. moist — 811 ppb
			Ø					Clay, med brn wet, saturated w silt
			Ø					@ 22.5-23 — 760
23 X			0.7 ppm	24				23'
								sand, med tan, hyper, silty sand w/ fn grd sand.

PPB Rae

Boring Log Form

Site Name: Rochester Com Boring Number: SB06
Date Drilled (Start/Finish): 4-10-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			1 .8 .5 1.6 ppm	24 4 8 12 16 20 24	10YR5/3			sand, med brn, silty, fn grained, moist 40 ppb

Boring Log Form

Site Name: GM Rochester Boring Number: SB07
Date Drilled (Start/Finish): 4-10-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: 90042120282 Weather: Sunny ~50°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0					asphalt + base
			0		10YR5/2			Sand lt-med brown, fn grd loose SLt moist some silty layers, moist-wet @ 3-3.5ft (1)
			0	4				3.5 Silt, clayey, Med brn silty some vfg sand moist
X			3306					clay, sandy, s/ltg, med brn, wet & soft @ ~4.5-5.5 s/ltg oily looking
			81					
			0					
			46					clay, firm, plastic to ~6.5 then more silty after 7
			183	8				(2)
X			1036					Clay, sandy, med ~~redish~~ brn, saturated oily looking 8.25-9.5ft, then firm clay, ~~hard~~ dense stiff, moist,
			1636					
			973					@ 10.75 clay becomes silty-vfg sdy. moist 1218 ppb (3)
			2685	12				
			768					clay, med ~~grey~~ brn, plastic firm, very moist
			603					
			735		10YR4/2			
X			618					15.7-15.9 ft then back to
			1510	16				Sand, iron stn lams w/ brownish vfg sand,
			~~3~~ 84					Sand, w/ iron stn lams med-lt brn
			381 ~~660~~					@ Top (4)
			106 ~~1290~~					
			128	20				clay, silty, dark grey, soft, plastic very moist
X			0					Sand, fn grd, lam, lt-med brn some iron stnd lams 20-20.5 more silty lams 20-21.
			0					
			0					(5)
				24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB07

Date Drilled (Start/Finish): 4-10-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: Mead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
27			0.8					sand, light brown to dark brown, loose, soft
			0.6					inc silt (darker brown) & very moist
			0.1					@ 27-28'
28			0.1	28A				
				8				
				12				
				16				
				20				
				24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB-08
Date Drilled (Start/Finish): 4-10-12
Drilling Method: Geoprobe
Drilling Company: ~~EPA~~
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather: Sunny ~50°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0					asphalt + base
			0					sand, silty med brn, hard, 4" layer @ 0 ft. Then loose, med grd, lt brn sand w/ occ silty lams 3-4 ft
			0	4				
X			0					sand, to silty sand more silty @ top (where sample collected)
X			0					
			0	8				
			0					clay to sandy clay, med brn, wet. Thin sand (clayey) @ 0.25 ft @ ~ 10
X			0					
			0	12				
			0					clay, silty in part, med brown mottled
			0					
			0	16				
X			0					sand, fm grd, med brn silty, moist clay from 17-17.5, dark grey (reduced)
			0					
			0	20				
			0					clay silty to clayey silt, dark grey, saturated
			0					
			713					23
X				24				sand, lt brn, soft loose fm grd slt moist where silty

Boring Log Form

Site Name: GM Rochester Boring Number: SB-08
Date Drilled (Start/Finish): 4-18-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JM
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
26 27 X			~~508~~ ppb 73 @ 485	24ft 4 4-28 8 12 16 20 24				Sand, lt-md brn, fn grd, soft, dry-slt moist, slt silty, damp; 70 PPb

Boring Log Form

Site Name: GM Rochester Boring Number: SB09
Date Drilled (Start/Finish): 4-10-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: 90041120282 Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			185					Asphalt
X			646					Red Sl/Ty sand, ~2-3"; then med brn Sand
			0	4				Sand lt brn loose fn grained sand, lts med brn lams, mc silt,
			0					
X			78					Clay, silty in part, wet from a 5-7. Very some compressed
			0					(0)
			0	8				
			0					Clay, soft, si/ty, med brn wet,
10 X			26					(0)
			0					
			0	12				Clay, med brn, hard dense slt moist
			0					Clay, med brn, plastic, moist,
			0					
			0					Clay w/ iron stn,
			15	16				
			0					Clay, soft plastic
18			0		5Y 4/1			Sand lt med brn, fn grained mc silt w/ depth. (0)
			0		5Y 3/1			
			0	20				
20			0					
								Clay, med grey, wet, sticky, soft plastic (reduced)
22			0.4					
23 X			0					Sand laminated, silty, lt-med brn
			0	24				(0.8 ppm)

Boring Log Form

Site Name: GM Rochester Boring Number: SB 9

Date Drilled (Start/Finish): 4-10-13

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: Mead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
26 27			0 .5 .6	4 8 12 16 20 24				Sand, lt-med brn, fine silt w/ depth ppm

Boring Log Form

Site Name: GM Rochester Boring Number: SB10

Date Drilled (Start/Finish): 4-11-12

Drilling Method: Geoprobe

Drilling Company: EA

Elevation: Total Depth:

Coordinates:

Depth to Water: Geologist: JMead

Project Number: 900-L120282 Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0					Silt, lt yellowish brown, soft, fine sand / some roots large wood
			0					Silt soft moist med brown w/ rock + Tree roots or other wood
			0	4				
			0					Sand, med grained, med-lt brown to lt brn, soft, loose, ~1" clay layer @ ~5ft., dry - slt moist
			0					
			0	8				
			0					Sand as above, 2 thin ~1/2" Clay layers @ ~10 ft, no staining
			0					Clay, sandy, med brn soft, slt moist
			0	12				To 15 Clay, med brn, hard less plastic, silty, trace sand
			0					Clay, med brown, plastic, firm
			0					becoming sandy/silty @ ~15ft
			0	16				Sandy clay - clayey sand med fine to light brown w/ sand content becoming layered @ ~18 ft of more sandy
			0					18.5 ft Silty fine grained, brn, soft loose moist
			0	20				Sand, lt brn, soft, loose fine - very fine well sorted
			0					
			0	24				
			0					Sand lt brn to buff inc silt ~25.5-26' Silt, dry - slt moist
			0					

25

26

28

Boring Log Form

Site Name: GM Rochester Boring Number: SB-11

Date Drilled (Start/Finish): 4-11-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth:

Coordinates:

Depth to Water: Geologist: JMead

Project Number: R90042120282 Weather: Sunny ~45°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0					Sand, med grained, ~~soft~~, lt brn, loose/soft, slt moist, some silty inc fn grvl/dept. (0)
		2.5'	0	4				
X			0					Silt, med brn, soft, slt mo, st (0)
		3ft	0	8				
9 10 X			0				8.5	Silt, clayey to clay to ~8.5 ft then sand, silty, ~~some layers~~ 4mm layers dk silty, sandy occ, clayey. (0)
			0	12				Sand, clayey to silty, sand to ~13.5 ft then, laminated w/ iron deposits to ~14 ft then vfg - silty sand, some x-bdd lams, some roots
		2.5ft	0					
X			0	16				Sand ~~clayey~~ silty, med brn, soft moist (0)
		3ft	0					
			0	20				
X			0					Sand, fgr - v fg silty, slt mo, st, (0)
			0					Sand, clayey - silty, ~~slt~~ laminated, greyish brown, some black stn(?)
			0	24				~22.5 iron stngrs ~1.5" wide then ~~sand, lt tan brn - buff, fg~~ soft to se sand, fn grd, lt med grd, layers, ~~st~~
			0					27 ft then silty/clay lam, med brn w/ iron stngrs, some layers inc clay w/ depth goes to greyish fn grd sand ~27.5-28
X			0					

TD 28' 30 (27') (0)

Boring Log Form

Site Name: GM Rochester Boring Number: SB12
Date Drilled (Start/Finish): 7-11-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0					silt, sandy/clayey loam, med brown, abd roots,
			0					sand ~4" layer, poorly sorted, c/rocks fn-coarse. Abt 4" layer of silt
			0	4				@ 2.5-3 ft ~2" sand fn grd bdd then light-med brn silt clay
			0					silt, sandy, soft lt-med brn, layered slt moist-dry. inc sand vfg w/ depth, roots (
X			0					
			0	8				
								(No Recovery Not sand; just slough)
				12				
			0					sand, silty, vfg, layered lt-med brn, numerous ironstd lams
14 X			0					@ 14-15 ft.
15				16				
			0					sand, silty, vfg, med brn, soft, slt moi, slt, layers to ~17 ft then more silty-clayey + wet
17 X			0					
			0					
				20				
X			0					sand, med grd, lt brn - some silty layers. slt damp. More silty w/ ironstd lams @ 22-22.5 ft then returns to med grd sand w/ thin silty layers
			0					
			0	24				
			0					sand, med grd, med brn some silty layers
			0					
27 X			0					~27 ft sand, silty, fn grained, lt brn, moist

Boring Log Form

Site Name: 6 M Rochester Boring Number: SB13
Date Drilled (Start/Finish): 4-11-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1			0					silt (loess?), lt brn, soft, slt moist
2			0.1		~~10YR5/3~~			
			0.1		2.5Y 5/3			clayey silt, some gray/red poss stain. hard compacted.
			0	4				
3			0					clay, compacted looks like it may be fill along drainageway.
4			0					
			1					6.5' clay dark brn, hard dense
				8				6.5' sand fn grained, soft loose, dry lt brn/buff
								sand as above
								10' clay, med brn, hard dense, mod plasticity, slt moist
				12				
					10YR 3/2			clay as above slt moist
				16	10YR 4/2			clay, silty, very moist med brn
					2.5Y 4/2			clay, silty, med brn, then fn grained silty sands. / cm silt/sand. v. fg. Return to clayey silt - lam then sand/silt lam
				20				
MS MSI								Sand, lt brn - buff, some silty, fn grd.
				24				
								sand as above
								fine silt @ 26.5-27 ft
27								

Boring Log Form

Site Name: GM Rochester Boring Number: SB14
Date Drilled (Start/Finish): 4-11-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X		3	0	4				Sand med grd poorly sorted some silty layers
X		1	0	8				Sand - silty sand, fine grd blackish layer @ ~4.75ft (v. thin ~0.1 inch) no odor
X		3	0	12				sand clay w/ clay layer ~9-9.3ft Sand/silt lams ~10-11 some x bdd, some iron stained slt moist.
X		2	0	16				16-19ft Sand, fn grd, buff-lt brn, soft, loose, dry-SlMoist 12-14' No Recv 14-16'
								12-14ft Sand, SiH lam, abd iron stn/lam @ 14' gointo sand.
X		3	0	20				Sand, fn grd buff-lt brn, occasional silty + iron lams.
				24				sampler smashed in tube Only able to get enough for sample VOC

20

Boring Log Form

Site Name: BM Rochester Boring Number: SB15
Date Drilled (Start/Finish): 4-11-12
Drilling Method: Geoprobe
Drilling Company: ERA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
(1)	X		0					sand, buff-ltbrn, med-coarse grained, occ coarse w/depth, occ fine gravel, dry some silt layers.
			0					
			0	4				
5	X		0					Clay to sandy clay, med brn, moist to wet in clayey sand ~7ft. Then Hard silty clay w/ compacted clay + very small silt stn (?) fragments (1 to 2 ") then sandy silty, with 2"
1 ppm			3					
			0.1	8				
(2) 10	X		0					Clay, soft, plastic, saturated, bubbly Textured, oily looking wet clay, mixed to ~ 11.75 ft then hard dense clay
			0					
			0	12				
			0					Clay, greyish brown, plastic moist occ more sandy/wet ~12.75 - ~13 ft.
			0	16				
(6) 17	X		0					Clay, brownish grey, soft, plastic to 16.75 then sandy clay.
			0	20				
(13) 2'	X		0					Sand - silty sand, buff-ltbrn - med brn dependent on sand, silt clay content - sand, fine grd, buff, soft, loose, dry
			0.4					
			230	24				
								Sand med grd, loose
21	X		0					

Boring Log Form

Site Name: GM Rochester Boring Number: SB-16
Date Drilled (Start/Finish): 4-12-12
Drilling Method: Geoprobe
Drilling Company: ERA
Elevation: Total Depth: 24
Coordinates:
Depth to Water: Geologist: JMead
Project Number: X90041120282 Weather: overcast - rain

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0	4				Sand, fn grd, tan, slt moist, loose occ silty layers @
								~4.5 sand as prev
X				8				Clay, dark reddish brown, sandy, some blacks/dark lam stn
								Clay, med brn, plastic firm ~ 0.5' then sandy clay @
X			0					Silt, med brn, lam at ~10 ft ~10.5 ft Clay, med brn, soft plastic wet with oily produced/bubble appearance to surface
DUP X			0	12				617 ppb
								~11.25 silt lt to med brn lam layers
								Silt to vfg sand, thinly lam xbdd firm, moist, some iron stn layers harder iron stn layer ~ 1/2" @ ~ 15.9 ft. with loose soft sand below.
X			0	16				1140 ppb
								Sand, v fg to silt, lt to med brn, lam to xbdd, firm, moist,
				20				do above 1430 ppb
X			0					Clay layer @ base ~ 23 ft ~23.5' w/ sandy clay/clayey sand
			0	24				Sand fn grd, tan brn (not lam) loose @ ~23.75 Red / med grd, more silt than above, ~~Sandy Clay~~ interbedded ~~24-25~~ pebbles / sand
			126 41					

28 (smelly; Logging inside trailer so colors hard to see) 24-25+ 27-28

Boring Log Form

Site Name: GM Rochester Boring Number: SB-17

Date Drilled (Start/Finish): 4-12-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28' (4-12-12) 28-32 (on 4-13-12)

Coordinates:

Depth to Water: Geologist: TMac

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0.2			1.4 ppb		Asphalt + base
			0					clay w/ fine gravel to ~ 0.5ft;
			0					Sand, fn grained, lt brn, ~~soft~~ dry moist
			0	4				--- @ 3ft becomes med-coarse grd
			0.1			84.36 ppb		Silt to v fg sand, to clayey
			0					Silty clayey, tarty sand, med brn, wet,
			0					oily, perched appearance to ~ 7.5ft
			[illegible]	8				7.5ft clay, silty med brn, hard firm wet/moist
			0					clay, silty, soft, plastic, med brn
10			0.5					oily perched texture
			[illegible]	12		192.6 ppb		silty clay, med brn layered, moist
			0					Silt, ~~little~~ / sandy, ~~clayey~~ silt; med brn
14			1.2			25.2 ppm		to brn, layered / lam
			1.4					> greyish layer, ust coarse iron stained sand
			[illegible]	16				pieces iron stained sand @ base here
			0.2					
17			3.8			96.1 ppb		Sand, fn-grd, layered/lam, soft
			2.2					silty,
				20				clayey layer at base, med grey damp
20			0.8					
			2.6			96.58 ppb		sand as above
			0.2					~ 1 ft of grey clay much @ top,
								moisture was slough but per R.S.
				24				no slough (closed) Sat.
			0.4					Sand as above
25			1.1			15.70 ppb		
			0.8					
			1.0					

Boring Log Form

Site Name: GM Rochester Boring Number: SB17

Date Drilled (Start/Finish): 4-13-12 /

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 32

Coordinates:

Depth to Water: Geologist: J Meade

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
29			ppb 101 288 0 109	28 32	1676 PPb			sand, mod yellow, fn grained, saturated inc silty, poorly sorted, coarse grained @ 27-28'
				12				
				16				
				20				
				24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB18
Date Drilled (Start/Finish): 4-12-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0		0 ppb			Asphalt + base Sand, frg, to ~1.5ft, mod-fn grd to ~2ft, mod-coarse, poorly sorted w/fn gravel to ~3', Mod-fn grd, soft, loose, some clay - silt, Alt moist (buff-lt brn, tan
			0	4				Sand as above to 4.75
X			0		284 ppb			4.75' sand, silty, v frg, med brn,
			0	8				6-6.25 clay, hard, firm, med brn, s/f sand, silty, clayey, plastic, oily, pocketed texture to 7.5ft, clayey silt / silty clay, plastic, soft, v moist, becomes hard, firm @ 8ft.
			0					clay, ~~silty~~, med brn, mud, saturated, soft, plastic, becomes firm @ ~10.5 ft, hard @ 11.5ft, moist
10 X			0	12	482 ppm			
			0					clay, med brn, damp, v moist, firm to ~15 ft, then hard, ~~silty~~ laminated, w/ darker bands + some iron std
15 X			0	16	1400 ppb			silty
			0					Clay, grey brn, saturated, soft (reduced) becomes more grey + less wet w depth
19			0.6					
20 X			0.1	20	645 ppb			19- Sand, iron std @ top, silty layers, fn grd.
X			0		220.2 ppb			Sand, med - fn grd, ~~med~~ reddish brn, poorly sorted, silty, clayey, sand to ~ 20 ft, then mod-well, fn grd (w/depth) some pebble lam / layers
			0	24				
			0					Clay/muck, grey, saturated, thought it was a slough here per Randy S. above, so no sloughing 1ft @ PID
X			1.6	28	0 ppb			

Boring Log Form

Site Name: EM Rodwell Boring Number: SB19

Date Drilled (Start/Finish): 4-12-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth:

Coordinates:

Depth to Water: Geologist: JMeno

Project Number: 9004L12082 Weather: overcast pcc shower 52°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0		0 ppb			asphalt + gravelly clay base
			0					Sand, lt tan brn, med grd, silt layers @ top/bottom ~ 3.5 moist
			0					3.75 vfg sand, silty to clayey sand vfg med brn, moi, st
			0	4				
5	X		0		0			Sand, silty, vfg to sandy silt
			0					5 — clay/silt mucky, soft plastic, slt oily, pickered texture
				8				
			0					as above clay mucky
10	X		0					9.5 clay firm hard moist damp wet @ 10.75 dark, med brn, soft moist
				12	0 ppb			
			0					clay silty sand clay, lt-med brn
			0					
15	X		0					layered sand silty sand @ 15-16
			0	16	0 ppb			
			0					sand, fm grd, lt brn some layering @ 18.5 ft.
			0					
			0	20				
	X		0		0 ppb			~~(Sand?)~~ clay mucky, ~~bottom~~ gray, ~~0~~ ~~sandy bottom~~ reduced, soft-firm, iron stn @ top, fissile
			0					
			0	24				
25	X		0		1062 ppb			Sand, lt brn buff med grd. some layering.
			0					
25			0					

Boring Log Form

Site Name: EMRochester Boring Number: SB-20

Date Drilled (Start/Finish): 4-12-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth:

Coordinates:

Depth to Water: Geologist: JMead

Project Number: XA004L120282 Weather: Overcast, occ showers T-storms

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0	X		0	0	0			Rock gravel & sand @ 0-0.5 Sand, lt brn sand, med grained, loose, moist. Becomes fn grained w/depth
			0	4				
5	X		0		0			Rock gravel/sand/rock @ ~2' @ top Sand, silty soft, lt brn Clay, silty, dk brn/gray more silty @ this clay, moist, firm & clay ~7-7.3 bgs
			0	8				
10	X		0		0			Clay, med brn, dk soft, much v fine sand, pockets of wet, silty look @ ~10'
			0	12				11-12 Clay, firm, plastic,
			0					Clay, med brn, soft, plastic @ ~13' Zone has more saturated clay appearance @ ~14'. Harder clay @ 13" Weathered @ ~15.5'.
			0	16				
16	X		0		6 ppb			~~Clay, soft, plastic, wet sandy loam~~ Sand silty wet ~17' Thin ~17-18' saturated silty loam clay/silt.
			0					18-19' Sand, grey, v moist, silty, some clay, stained
20	X		0	20	19			Clay soft, plastic grey, wet/oily look @ ~20.5-21'
			0					Sand, laminated, silty, lee mud and clay
			0	24				
25	X		0		54 ppb!			Clay & sandy clay 24-25' Silt, med brn & fn-med grained sand/silt/clay
			0					Thin grey sandy clay @ boundary
28			0					

Boring Log Form

Site Name: B&M Rochester Boring Number: SB21
Date Drilled (Start/Finish): 4-12-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 25
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather: Raining/on ~50°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0		0 ppb			Gravel Rock base @ 3" blue gray, poorly sorted silty, orange/brown clay 1.5 ft then lt brn mod. soft, moist
			0					
			0	4				
X			0		0 ppb			same as above
			0					6 — Sand, silty, v.f.g. med brn, gradually to Sandy clay @ ~6.3' then clay @ 7 — clay, med brn, soft plastic v. moist
			0	8				
			0		289 ppb			clay, silty med grey brown, clean very moist
X			0					
			0	12				
			0					clay med grey brown, soft, very plastic, some crystaline, 2 other very narrow (1 mm) filled cracks in clay @ ~15.5-15.75
			0					
			0	16	795 ppb			
16 X			41 ppb					sand, silty fine/layered yellowish orange/brown 16.25 grey brown and/ dark grey brown clay
			0					
				20				
X			0		517 ppb			clay, med brown gray, saturated soft
			0					
			0	24				clay 24-25
X			2621		100 ppb			Sand, med gray silty, v.f.g.

Boring Log Form

Site Name: _____ Boring Number: SB22

Date Drilled (Start/Finish): 4-13-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: _____ Total Depth: 28

Coordinates: _____

Depth to Water: _____ Geologist: JMead

Project Number: _____ Weather: _____

Sample Interval	Interval	Soil Recv.	PID Reading (ppb)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			C					Asphalt coarse clayey sand base, red brn, moist
			C					1ft coarse sand w/fn gravel, 5ft moist grades to med sand w/ 2ft med fine ~3
			C	4				Med coarse again ~ 3.5 (w/ fine gravel)
			C					Sand (w/ gravel) coarse poorly sorted
X			C					5 Sand, clayey grading to sandy clay ~ 5.5 ft. lt yel brown, soft, moist
				8				
			31					Clayey sand & sandy clay, med yel brown silt moist
			0					
			0					
X			109					120 ppb
			111					
			13	12				
			8					
			1394	194				Clay, silty sandy to silty clayey Sand
			41					
				16				
X			327					1093 ppb
			196					Silty sand, vfg, med brn, moist
			361					
			147	20				
			C					Clay med brn grey to grey, saturated
			5k					
			57					
			42					Sand med gr lt brn-buff, banded w/ darker clayey lams ~ 23.5
								196 ppb
				24				
			253					Sand, med gr lt brn to grey-brn w/ moist. faint
			381					
X			116					becomes fine coarse w/ depth clayey ~ 26.5-27 ft.
			20					54 ppb
28								

Boring Log Form

Site Name: GM Rochester Boring Number: SB-23
Date Drilled (Start/Finish): 4-13-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth:
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
					13 ppb			asphalt + base Silty clayey sand
				4				Sand med - coarse grave & dark (carbon?) @ ~ 2.5 ft ~ 1/2" layer, then @ 3.5 vfg sandy silt, silty sd, mod wet
5	X				23 ppb			Silty sand, med yellow brn, inc sand w/ depth
				8			6'	Silt, wet, silt packed only tx 6-6.25-6.5 med brn clay 6.25-6.5 then silt med brn, layered, wet.
9	X				46 ppb			Clay, silty / clayey silt, med brn, oily looking sheen / some pockets of fine to ~10 ft, then plastic clay ~10-10.5 then vfg silty, clayey sand
				12				Clay to clayey silt, med brn, ~3" saturated oily layer ~ 12.25-12.75 then clay, med brn soft plastic wet to ~13.5 then clay, light layers iron stn, inc silt banded w/ depth
16	X			16	26 ppb			
								Clay, med grey, soft plastic, wet silty clay / clayey silt, layered/thin, ~ 18-19 ft. (inc silt layers)
				20				
								Clay grey, soft wet/saturated @
23 24	X		65	24	309 ppb			@ ~ 22.8 sandy layer, fuels oily B.2 sandy layered fg - silty
			4					
26 27	X	27	36		265 ppb			

Boring Log Form

Site Name: BMRochester Boring Number: SB24

Date Drilled (Start/Finish): 4-13-12

Drilling Method:

Drilling Company:

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist:

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppb)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0		0ppb			Sand, clay RR ballast rock @ 0.5 ft
			0					Sand, med gr - fn then back to med ~3.5 ft, lt yel brn, soft, slt mois
			0	4				
			0		0			Sand, fn gr, lt yel brn, fn-m dark silty lam ~5.5 ft slt mois
			0					Clay, silty, dark brn, v moist, blocky like a paleosol for ~0.5 then med tan brown silty clay - clayey silt
			0	8				
9	X		0		9ppb			Clay & slt plastic, med yel brn, moist
			0					~8.25 silty clay to slt, lt yel brown laminated/lenticular, done in clay @ ~10 ft
			0	12				
			0					Silt, sandy, med yel brown, friable, slt moist
			0					~13.5 silty clayey, to ~15 ft then clay, soft, plastic (to 0.5 ft) then back to layered lam silt, clay / silty sand
16	X		0	16	67ppb			
			0					Silty clayey lam to med yel brown. Coarsens to silt, inc sand w depth
			0					
20	X		0	20	135 ppb			
			0					sand, silty, clayey lam, moist yel brn to 20.5 ft then gray (reduced)
		2.5 ft Rec	0					@ ~21.5 ft sand to silty sand, fn grad w/ occ clay layers
			0	24				
			0					clay w/ fn grad sand lam, denser gray w/ mor brn layer (cobbly) to ~26.5 ft
26	X		0		14ppb			Sand, fn, lam w/ clay @ 26.5 ft

Boring Log Form

Site Name: QM Rochester Boring Number: SB-25
Date Drilled (Start/Finish): 4-13-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 24
Coordinates:
Depth to Water: Geologist: J Mead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
				4				Just collecting selected intervals
				8				
X			0 23 79 0 0	12	85 ppb			~~clay, mottled soft rock 12-12.5~~ Sand, fine-med grained brn
X			140 137 304	16	157 ppb			Sand, lt brn, fn grd, inc in clayey layers w/ depth.
X			140 0 193 28 141 0	20	648 ppb			Sand, fn grd lt brn, becomes clayey / layers on 21.5 ft. Small grey reduced layer @ 22 ft. Sand, well grd, loose, not layered at bottom
				24				

Boring Log Form

Site Name: GM Rockwell Boring Number: SB26

Date Drilled (Start/Finish): 4-13-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
								concrete
X			0					~~blacktop~~ base gravel & red clayey sand
			0					sand, ~~fine~~ gravel, yell brn, alt coarse/fine-fm grd
			0	4				some clayey layers, stiff moist
5			0			0 ppb		sand, ~~becomes~~ mdgrd, lt brn
X			0					wire in clay w/depth. some dark gr black bands/lams
			0			0 ppb		clay, sandy to silty (or clayey silt)
			0	8				firm hard clay, plastic 7.5-8, strong
9			0					clay/silt muck, med brn packed bubble
X			0			0 ppb		inserts, saturated, oily sheen
			0					clay becomes firm (hard) med brn
			0	12				
X			0					clay, med red brn, soft, plastic, wet
			0			0 ppb		iron std vert frac @ 13.4
			0					@ 14.4 clay becomes med grey,
				16				
			0					clay, grey brown, soft, wet, plastic
X			0			(3 ppb)		16.5' sand, iron std lam @ top,
								~~dark~~ lam X bdd silt, clay, sand
								yel brn, becomes grey @ 17 ft
				20				@ 17.5 have clay dominated, still lam
			0					clay, saturated, grey, sandy in
			0					part. firm clay 20-23.5
23			0					23.5
X			41	24		15 ppb		sand, grey, lt brn grey, fn grd, wet
			43					sand as above
								25-25.5' clay/silt mud, stiff, wet
26			12					
27 X			14					sand, silty, ~~black~~ yel brn, loose
28								fn - med grd.

Boring Log Form

Site Name: GM Rodeo Boring Number: SB-27.
Date Drilled (Start/Finish):
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1 2	X		Ø Ø Ø	4	30 ppb			Concrete + base. Clay w 3-4" pebbles, moist, reddish brn, Sand, lt brn-buff, med grd, some occ clayey layers
3 4	X		Ø Ø Ø					~~Clay, silty, med brn~~ Silt, clayey to silty clay, med brn, friable, slt moist some darker layers ~ 7-8 (Stn ?) min (lamin)
	X		34 Ø	8	82 ppb			~~sandy silt grading to silty sand~~ Sandy Clay ~ 10 ft, inc in clay & saturation 1 ft. med brn
	X		20 Ø Ø	12	132 ppb			Clay, silty, saturated mushy to ~ 13.5 then firmer plastic med brn, ophy brn @ ~ 15 ft
	X		Ø Ø Ø	16	171 ppb			~~Clay + Sand med brn~~ Sand, med grd ~ 3" then brn clay 3" then Sand, med grd w/ some clay lams ~ 1/4" & 1/2" lams ~ 17.5 sharp soft brn clay w/ blackstn ~ ~~wet~~ moist (wet)
21	X		Ø Ø Ø	20	58 ppb			5' sand fi grd gone vf & brn clay lams brn vfg soft sand Sand w/ clay layers, med brn, v moist grey
			Ø Ø Ø	24				Sand, lt brn grey, very moist - wet. Sand, med grd lt brn-buff
27 28	X		Ø		24 ppb			25'

Boring Log Form

Site Name: GM Rochester
Boring Number: SB-28
Date Drilled (Start/Finish): 4-14-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation:
Total Depth: 28
Coordinates:
Depth to Water:
Geologist: Meaer
Project Number: 900FL120282
Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0			PPB Raw		PPB unless noted			
1			0		0 ppm / 0 ppb!			Asphalt + base. Sand, med grd lt brn to ~.25 ft then ~1 ft lt sandy clay, wet to ~2 ft then sandy clayey, wet, lt brown - med reddish brown.
			0	4				
			0					Clay, sandy, med redbrn, ~0.5 ft then med grd, loose buff - ltbrn sand ~1.5 in and then clay ~1.5" then sand then clay again.
8				8				
			22.7 ppm		> 29	113 ppm		Sand, silty, vfg, lam lt-med grey moist to ~
10			32	10				
			74.5	12				
12			1 ppm			1 ppm		Strong solvent odor
		0.3	1.3 ppm					sandy, clayey
				16				
16			0.8 ppm		6.9 ppm			Sand, clayey, med brown to grey, wet
			0.5					17 clay (sandy), med grey, soft plastic sandy clay @ 17-17.5')
			0.8 ppm					
20				20				
			21		(28 w/ 1.7 lamp)			clay, med grey, wet plastic
			48.7			30.4 ppm		
			1.5		(1.6 w/ 1.7 lamp)			
			1.0	24				
			6.1			0.5 ppm		
			0.4					clay, as above, more silty/sandy @ 26-28
			0.1					
28		0						

Boring Log Form

Site Name: GM Rochester Boring Number: SB29

Date Drilled (Start/Finish): 4-14-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist:

Project Number: Weather: Sunny ~65°

Sample Interval	Interval	Soil Recv.	Core Recv	Field PPM Screening	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
				0		~~10yr 4/2~~	@ppm		covered/asphalt base. Sand, w/clay, coarse grained & some gravel ~ 2-3 ft some fine sand clayey sand - sandy clay layers
				0	4		@ppm		Sand w/gravel, coarse grained, 4.5 Clay becomes saturated ~ 5.5 ft silty, med reddish med brown
				0		10yr 4/2			
				0	8				sand, clayey to sandy clay @ ~ 10 ft med brown, ~~more~~ saturated
				0		0 w/ 10.7 lamp	@ppm		
				0	12				clay, greyish brown grading to brownish grey, silty to sandy layers, some iron stn/salt ~ 13.5-14 ft. saturated soft, silty, clean.
				0	16		@ppb		15.5 Clay dark grey w/ black mottling, firm plastic w/ moist to wet clay sandy ton 16.5 ~~reddish~~ grey clay, med grey, plastic wet soft.
				0					
				0	20				
				0			@ppb		clay, grey plastic from to 22 ft @22-23 ft sandy clay - clayey sand mag grey, wet w/ oily appearance/fe 23.5 but no response w/ 11.7 lamp
				0					clay, silty, med grey wet
				0	24				clay, med grey, grading to silty/sandy clay
				0					@ 27.5 sand/fine grained, clayey

26

Boring Log Form

Site Name: GM Rochester | Boring Number: SB 30

Date Drilled (Start/Finish): 4-14-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: | Total Depth: 28

Coordinates:

Depth to Water: | Geologist: JMead

Project Number: | Weather: Sunny ~65

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0		0 ppb			Concrete/asphalt + base clay, stone & gravel
			0					Sand, clayey, to ~0.75, then med/fg sand, brown, silty, grades from med to fn + back to med gr w/depth, silt in part, poorly sorted, clayey @ 3.5 ft
			0	4				
5 X			0		0 ppb			Sand, vfg, - fn grd, lam, silty/fn sand layers, some salt/clay to ~5 ft, lt reddish brown, clayey to sandy clay @ 7 ft moist
7			0		10YR4/3			~6.5 clay, dark grey, w/ black mottling, sandy/silty but no odor, moist, PID
			0	8				
			0					clay, brownish grey, firm @ 8-9.5 + 11.5-12, plastic, v moist.
10 X			0		429 ppb			@ 9.5-11.5 sandy/silty, soft, wet
			0	12				
			0					clay, firm, plastic, greyish brown
14			83					clayey sand & sandy clay, lam w/ iron
			29					some black/dk gy lams 15.5-16'
16 X			894	16	ppb	14.8 ppm		
			764					Sand, silty, vfg at top then, fin grd
18			2.0 ppm					less silty, 17-18 ft back silty @ 18-19 ft
18 X			3.0 ppm		0 ppb			
				20				
			6.0 ppm					
21 X			>1000 ppm		382 ppm			vfg silty sand, - sand, silt, saturated brownish grey,
			>1000		689			strong petroleum odor
				24				
			10					sand, med grd grading to silty, poorly sorted
			1.5		0.8 ppm			

2' 27 X 28 22 7:1

Boring Log Form

Site Name: GM Rochester | Boring Number: SB-31

Date Drilled (Start/Finish): 4-14-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: | Total Depth: 28

Coordinates:

Depth to Water: | Geologist: JMead

Project Number: | Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
					0 ppb			Concrete, asphalt + gravel. Gravelly, sandy clay to ~1.75ft. Sand fn - med grd, layers lam w/ silt + clay layers
				4				3.75 sand, vfg, silt, med brn, soft, slt moist
X					4 ppb			Sand, silty, vfg soft slt moist
				8				Clay, silty/sandy, med brn, firm some lam + bons to ~7.3', wet @ 8'
				12	broke			Sand, silty, med brn, lam vfg sand + silt/clay to ~10ft then sand, vfg (not lam), clayey, saturated ~11.9 becomes more clay + becoming mottled grey/red brown.
14 X				16	3 ppb			Clay, red brn, soft plastic bec lam silty @ sandy lam but dom clay @ 15-16 ft
				20				No Recovery. (Small amt of med grd sand left in sleeve)
				24	23 ppb			Clay, brownish grey, soft plastic (some reddish brown sandy clay @ top probably fell in hole)
								(Sampled hole for PCBs)

27'

23 ppb

Boring Log Form

Site Name: _____ Boring Number: SB32

Date Drilled (Start/Finish): 4-14-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: _____ Total Depth: 28'

Coordinates: _____

Depth to Water: _____ Geologist: JMead

Project Number: _____ Weather: _____

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0					Cobbles + bare gravel / concrete, grey sand, clayey @ top, cobbles ~~@ top~~ @ 0 ft
			0					Sand, silty fn-med grd ~~brn~~ w/ silt lams, some med grd layers
			0	4				
X			7.5		0 ppb			Sand, fn grained, silty throughout, 37
			1					5.5 Clay, silty soft to ~~6~~ ft Then firm
			0					some hand plastic @ 7.5-8 ft.
			0	8				
X			0		38 ppb			Clay, ~~soft~~ some sandy, becoming firm to hard @ 9-10 ft, wet.
			0					
				12				
			66					Clay - sandy clay @ top / bottom
14			8					
X			90		26 ppb			14
				16				Sand, lam w/ iron + black lams; Xbd.
			156					
17			194		3 ppb			Same as above but ~~brn~~ iron + black lams and ~ 17 ft. then gy - clayey lam / layers
X			68					
				20				
			222					~~clay~~ silty to clayey w/ depth
			65					Sand / ~~silty~~ brownish grey, saturated
22								
X			465		1.7 ppb			21.5 Sand, med grained, some layers lam w/ more silt
				24				21.75 Sand v fg, soft, silty.
			170					
25			229		1.72 ppb			Same med - coarse grained, lam w/ silt inc silt w/ depth
			57					

Boring Log Form

Site Name: GM Rochester Boring Number: SB-33
Date Drilled (Start/Finish): 4-15-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
				4				Not collected above 12ft
				8				
				12				
13	X		0		0 ppb			Clay, med brn, firm plastic v moist 13.25 Clay, sand, soft wet, v 13.4-15 sand vfg, lam layers w/silt & clay
			0					
			0	16				15.5 Clay, brown/grey, v soft, wet, layey sand, sand & silt lams, iron stn @ top; fn grd sand, silt most lam (≤ ¼") abt w/ incr in clay lams ≈ 18 ft. Lgt brown, abd iron stn lams
17	X		0		24 ppb			
			0					
20				20				
MS/MSD	X		0		3 ppb			Sand, fn grd lam w silt, orangish brown (iron stn) ≈ 21.8 ft. Then greyish brown ≈ 22 ft. Clay, sandy/dark grey, wet (Reduced) ≈ 23-24; sand vfg, lam w/silt/clay, wet, dark grey, 23.8 ft Sand, med grd, lt grey, wet
			0					
			0	24				
25	X		0		10 ppb			Sand, fn grained, salt & pepper, sl pl, occasional silty lam, wet, mostly massive sand qtz/dark minerals; incr in silty
			0					

Boring Log Form

Site Name: GM Rochester Boring Number: SB34

Date Drilled (Start/Finish): 4-15-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMcL

Project Number: Weather: overcast damp ~60°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
				4				
				12 8				
				16 16				
17			263					
			189		195 ppb			
			408	26 16				Sand, fn gr, some silt, lam. lt brown, clayey lams below ~18ft down ma moist
20			86		544 ppb			X bdd @ 18.0-18.5ft. fn loose sand @18.75
			145					Sand vfg, silty, lt gy, mst moist, yel brn, ~0.2ft clay/silt lams @ 21ft. Silty sand/laminae clay lams.
			33	24 20				Clay ironstn lams largest bed of clay (0.1 ft) 23.5 sand, fn gr, lt buff brown, alt lam w/ silt
			112		62 ppb			
			22					Sand, med-fn gr, ~~alt lt brn~~, inc silt w/ depth, v moist to wet @ ~~25~~ 24 ft
			22	28 24				lam/layered

Boring Log Form

Site Name: GM Rochester Boring Number: SB35

Date Drilled (Start/Finish): 4-15-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMcC

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
				8				
				12				
				16 18				
17			0		189 ppb			Sand, vfg, silty, brown, dk brn, slt moist, med-dk brn to ~ 8.75, thin sand w/ silt lams,
			0					
			0					
				20 16				
21			29					Sand, fn gr d, brnish-dk brn, slt moist, soft loose to ~ 22 ft thin lam w/ silt or dty silty sand
			43		67 ppb			
			26					
				28				
25			0		9 ppb			Sand brnish dk brn fnd, loose, moist inc silty, clayey ~ 27 ft v wet dk brn brn lam ~ 27 ft
			0					
			0					
				24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB36

Date Drilled (Start/Finish):

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: J Mead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
								0-12 ft not collected/logged
				12-14				Clay, med brn firm plastic w/ some fine Sand, (Sandy) sandy clay - clayey sand, saturated @ 15ft, some iron stained (red) lam + clayey sand
14				12-16	109 ppb			
16				16-17	246 ppb			Clay, grey, soft plastic w/ ~1" sand, orange/brn/red brn, fine grd to med lam 17ft sand, iron std lam @ base/clay, med gr brn biff, lam/fn grd grades to vfg lt brn/buff w/ inc silt
22				20-22	73 ppb			Sand fg - med gr lam lt brn buff w/ silt lam, bec vfg silty sand w/ clay-silt lams between 22-23 ft brn, sandy clay - clayey sand
23				22-24				Mostly brn saturated
				24-26	45 ppb			Clay, sand, silt/layers (mostly clay) grey - grey brown, Sand, med gr salt+pepper med gr, w/ clay/silt lams/layers w/ <1/4" carbon bands @ 26.5ft
				28.20				
				24				

Boring Log Form

Site Name: GM Boring Number: SB 37

Date Drilled (Start/Finish): 4-15-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 20

Coordinates:

Depth to Water: Geologist: mine

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0					3" Clay, topsoil, sandy, red brn, v moist
			0					sand, w/gravel @ top, coarse gd, lt brn buff some clay
				4				
			0					Sand coarse grd, lt brn to red brn, clay
6-6.5			0					5.5 clay, sandy to sandy clay, grey upper 1in above a 1"± iron stn dk brn clayey sand. then ~4' ft dark grey silty clay v fg sand, moist
				8				
9			0					clay, sandy, dark grey, lam, grades to sandy clay - clayey sand @ 9 ft ~9.25 Sth rotten sandy clay brindle 10.5-12 clay, firm, v moist-wet lam, brownish grey.
			0					
			0	12				
			0					clay firm, red brn, grades to sandy clay w/ red iron stn @ ~13.5 ft
			0					13.5 sand, clayey w/ clay embedded @ top: to 14', sand, si/cly to clayey lam/layered lt brn w/ iron std lam
15			0					
15.5			15.5	16				
			0					sand, lam x bd, iron std @ top; yne clay ~18 ft. Then lt to dark brn to black lam (carbon?) particularly 19-20 ft dark iron std
19			0					
20			0	20				
				24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB 38
Date Drilled (Start/Finish): 4-15-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 20
Coordinates:
Depth to Water: Geologist: JMead
Project Number: X9C04L120282.000 Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0								Topsoil + sandy clay to 1 ft. Coarse grd sand w/ some gravel
5				4				Sand, med-grd, carbon burn layer in sand + Topsoil clay layer ~ 6 ft, silty clay sand @ ~7 ft.
10				8				clay, red-brn, dense, iron stn @ base sand layer ~ 8.5-8.75 med plastic 8 ft - Sand, tan, silty to clayey interbed 11.5 - 12, sand, fn-vfg w/ silt tan
15				12				clay w/ iron stn tan, sandy tan layer, med reddish brn w/ some grey tan 14 ft Sand, tan w/ silt & brn v moist-wet.
19				16				Sand vfg, silty layer, iron stn @ 17 ft - silty iron stn & burn layer (carbon) Sand, vfg, silty v. moist-wet some tan, to gel-tan. to brn.
				20				
				24				

Boring Log Form

Site Name: GM Rochester Boring Number: SB39

Date Drilled (Start/Finish): 4-15-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: Mead

Project Number: Weather: partly cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0		0 ppb			Asphalt w red clayey sandy sand, clayey w/ gravel, lt reddish med-coarse grained U.M
			0					Sand, med, lt brn - buff, Augered @ 3.75'
			0	4				
			0					sand, clayey to 4.5 then Sand, med grd, lt buff brown. some layers/lenses
X			20 ppb		0 ppb			
			0	8				Sand clayey & silty, VFg, med brown
			0					Clay, sandy, trans to p.i mn clayey - black
			0					Clay, firm, grey plastic. some sandy clay soft lite,
10 X			0		6.0 ppm			Sandy clay.
			0.2	12				Clay, sand @ top, coarse grd lt brn
13 X			4193 ppb 0.6 ppm		515 ppm			clay, sandy, soft, some black stn
								clay, plastic, brownish grey
16			6.9 3.9 0.7	16				
			7.2 ppm		555 ppm			Clay, brownish grey, soft plastic
				20				
20 X			234 ppm		590 ppm			Sand VFg, silty clayey, blk clayey stn,
			1.1 ppm					Saturated @ 23 ft, @ 20-20.5
			0.1 ppm					Brownish grey, wire & 22.5-23
			0.1	24				not old. 1@ petro odor @ 22.5
			76 ppb		230 ppb			Clay, sandy, soft, wet, Bec lam @
26 X			222 ppb					clay, sandy, lt brn - buff silty clay lams mod @ 26.5 Stiff lam lt brn - buff silty clay lams more @ 27 bottom of material cleaner 27-27.5

Boring Log Form

Site Name: Boring Number: SB40
Date Drilled (Start/Finish): 4-15-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X					36 ppb			Asphalt + base
								Sand, f-m gr, lt brn, clayey, firm
				4				~~Gravel w/ f-m sand w/ gravel~~ ~~to ~~med~~ f~~, loose, dry
X					16 ppb			Sand as above, inc in silt/clay, ~~clay~~ layer w/depth, firm ~~to~~ 5 ft. 6-7 ft
				8				7' Clay, sandy, brnish grey, w/ red ox ~~layers~~. 7.5 Clay, silty, grey, soft, firm, not plastic
								Clay, grn brown, firm, plastic
10	X		9.4 ppm		8.6 ppm			9' Sandy clay, clayey sand, plastic, somewhat blackish 10-11 ft. wet.
				12				Clayey sand - sandy clay saturated soft, to ~ 14 ft then firm plastic
16	X			16	243 ppb			Clay, as above (some blk stn clay poss. slough @ top)
				20				
	X				24 ppb			Clay as above
		2.5'						
				24				
26	X		9 ppb					Clay to sandy clay / clayey sand, moist
					14 ppb			

Boring Log Form

Site Name: GM Rochester Boring Number: SB-41
Date Drilled (Start/Finish): 6-26-12
Drilling Method: Geoprobe
Drilling Company: EPA - Shademann
Elevation: Total Depth: 28
Coordinates: 42.49376, -96.43277 Geologist: JMead
Depth to Water: Weather: ~92° sunny
Project Number: 103DX9004L120282

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			0					Some fm - med grn, roots, dry, lt brn to buff.
			0	4				
			0					Sand, moist, dk brn ~ 4.2 ft thin clay; Clay, sandy, to silty, some thin clay;
			0				6	Clay, silty (becomes wet w/ fine clay ~ 5 ft). wet, some layering med brn
X			0	8				
			7.9					(Run together w/ 12-16)
								(clay)
				12				
X			0					Clay, soft, med brn, v. moist/damp,
			7.0					some sandy clay.
				16				
			0					Clay, sandy wet, becoming clayey sand slight
X			0					ppb rae not pumping(?)
			0					plasticity + Petroleum odor ~ 17 ft.
				20				
			0					Clay, silty, med grey, saturated,
X			0					some sandy; inc in sand w/ depth
			0					~ 23 ft reddish tan sand, silty clay, med grn ~ 25 ft to
			89	24				
			19					sand, lt-med brn, wet, layered
								fm, grd, (reddish tan)
X			946	28				

Boring Log Form

Site Name: GM Rochester Boring Number: ~~La-26-1~~ SB 42

Date Drilled (Start/Finish): 6-26-12

Drilling Method: Geoprobe

Drilling Company:

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JJ Heard

Project Number: Task 282 Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			6					Sand, silty w/ TOpsoil to 1 ft, fine-med gr, lt brn - buff
			143					
X			457	4				
			480					sand as above 6
			61				5	Clay, med brn, moist, plastic
X			595	8				
			265					Clay, med brn, soft, some silty sandy saturated
X			353					
			178	12				
			153					Clay, med brn fine, plastic, moist
			487					Sand, clayey, to sandy clay
X			950	16				
			886					Sand, silty to clayey, med gr-brn,
X			1498					
							18	Clay, silty, soft, wet
			1176	20				
			539					Sand, silty, saturated to ~ 22 ft
			800					then silty Clay, wet, med grey,
X			976	24				soft
			284					Clay to sandy clay, soft, saturated
			1434					
X			953					Clayey sand, firm, vfg, med grey,
				28				

Boring Log Form

Site Name: GM Rochester Boring Number: SB43

Date Drilled (Start/Finish): 6-27-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: _____ Total Depth: 28

Coordinates: _____

Depth to Water: 20 Geologist: JMead

Project Number: _____ Weather: ~90° (going up to 100°)

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			12					clay, silty, hard compact. dry, dk yel brn, sandy silt @ 1.85ft
			0	4				
MS/MSD			0					Silt, clayey, med lt brn; yel-brn grades to clay ~6ft w/ thin silt in 3" layer @ ~7.5-7.8. Moist.
			0					
			0					
			0	8				
			0					
10			0					Silty-clayey sand grading to sandy clay @ 9ft then clay. ~~Sands are soft~~ ~~moist~~ around 11 ft then back to clayey sand, Moist.
11			0	12				
			124					clayey sand to sandy ~~clay~~ silty clay, firm @ 12-12.5 then spongy saturated silt then then then sand becoming more coarse w/ depth yellowish brown
			131					
15			436					
16			2	16				
			57					Sandy silt clay to clayey sand, med grey brown more clayey ~17.5-18.5 then sand, laminated, damp - v moist
			298					
19			435					
20				20				
			39					Sand, silty, vfg, saturated
			121					Silt-clay, soft, saturated, spongy
22								
23			43	24				~23.5 clay becomes firm, sandy vfg
			8					sand, silty vfg, saturated, med grey, some gravely sand ~26' then sand vfg lam w/ silt ~27 ft then vfg sand
			0					
27			1					
28				28				

Boring Log Form

Site Name: GM Rochester Boring Number: SB44
Date Drilled (Start/Finish): 6-27-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: TMead
Project Number: Weather: 90°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			26					Fill, silts + clays, compacted some brick fragments + roots hard, dry, yel brn to dark brn w/ fill type.
			0					
			0	4				
			0					clay, silty in part, dense, firm hard to ~6 ft. then clayey silt + VFg sand lam, moist.
			0					
X			102	8				
			28					clay, lt brn, sandy ~~moist~~ in part, moist - v moist firm ~10-11, then soft, also soft sandy ~9-10
			0					
11 X			343	12				
12 X			378					Sand, clayey to sandy clay, wet to saturated ~13 ft. roots, vFg sand, inc w/depth
13 X			283					
14 X			742					15.5 sand, fng-dlam w/silt clay. lt-med brn. some iron stn lam
			5	16				
			379					clay, sandy, at top becoming more silty clay, w/ depth, trace of burn debris 18.5 ft, med-dk grey wet to saturated.
17 X			1578					
19 X			1172	20				
X			2694					sand, lt grey brown, saturated
			216					
			90	24				
			27					sand, dk grey, saturated VFg, silty to clayey, some lam
			0					
X			0	28				

Boring Log Form

Site Name: GMR Chester Boring Number: SB45
Date Drilled (Start/Finish): 6-27-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0			0					Clay, silty, ltyel brn to dark brn; dry, firm. (likely fill)
2			0	4				
5			0					Clay soft to firm, lt reddish brown, some silty.
6			0	8				
			0					Clay as above
			0	12				
			0					Clay as above to 13 ft then very soft
			0					14 — Sand w/ clay lam ~~fine~~ coarsening, more sandy w/ 4.5-15.5' X-bdd lam
			0	16				
			0					Interbedded thin layers of silty sand & clay, saturated med grey.
			0	20				
			0					Clay, silty sdy in part, firm-hard dense, ltyel brown (looks like loess but clay
			0					
			0	24				Sandy clay to clayey sand. lt yel brn (loess looking)

28

Boring Log Form

Site Name: GM AC Rochester Boring Number: SB28L/Resample

Date Drilled (Start/Finish): 12-4-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: _____ Total Depth: 8-12 only

Coordinates: _____

Depth to Water: _____ Geologist: JMead

Project Number: _____ Weather: _____

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
X			90	4				
				8				
X			272					Silty/Sand, clayey Med brown, moist
			657	12				
			1025					
				16				
				20				
				24				
				28				

Boring Log Form

Site Name: GMAC Rochester Boring Number: SB46

Date Drilled (Start/Finish): 12-3-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: _____ Total Depth: 24'

Coordinates: _____

Depth to Water: ~ Geologist: JMead

Project Number: X9004L120282 Weather: ~ 65° partly cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1.5			0					concrete + gravel base
2	X		5				1ft	sand, clayey, lt brn wet, silty - to ~ 2.5ft
			5				2.5	sand, med grd, lt brn, gravel, moist
				4				
			0					Sand, med grd, lt brn as abv, dry -
			0				6	Silt, med brn, soft, to vfg, sand,
6			6				6.5	clay, med brn, firm, lean, ~~dense~~, moist
7	X		8					
				8				
9			0					clay soft, silty, wet, med brn
	ML		0				9	sand, lt-med brn, vfg, silty, moist
			0					~~Silt~~ to clay, vfg sd, med brn, moist
			0				11.5	sand, fn, med grd, lt brn buff, soft,
			0	12				Sand as above, lt buff brn, fn grd
	NS		0					
			0					
			0					
			0	16				
			28					sand + gravel, dry, reddish brown
	X		0					Sand, lt to off brown, soft, loose, well
			34					sorted fn
			6					
			0	20				
			0					Sand w/ clay + gravel, dark, ~~lt~~ moist
			15					sand, buff lt brn, fn & rnd soft, SW
			0					moist
			17					becoming layered lean w/ silty, @ base
	X		38	24				have lt gry / black lam in w/,
				28				

Boring Log Form

Site Name: GMAC Rochester Boring Number: SB47
Date Drilled (Start/Finish): 12-3-13
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather: Sunny 65

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			0					Concrete & gravel base, grades to coarse sand w/ clay & gravel
MC			0					Silt, soft, sandy to clayey, moist, wet, some clay layers & some sand
			0	4				3.5' Sand, silty, med-coarse grd, poorly sorted, wet
5			109					Sand, silty, med gy brn, grading to fine grd, lt gy brn, more clay w/ depth.
6			148					
			23					
			42	8				
			0					Sand, silty, med brn, moist, becc clayey w/ depth
MC 9 9.5			55					
			13					
			0	12				
			0					Silt, vfg sand, med brn, saturated
MC 13-14			0					
			0					Clay, med brn, soft, plastic, saturated - wet, soft, becoming
			0	16				
			10					Clay, med brn, soft, plastic becoming firm, moist, some intervals of silty w/ depth, from 18-19 ft
MC 18-19			0					
			0					Sand, tan, lt brn, silty, clay lams w/ silt
		wet	0	20				
			0					Sand, vfg, silty, soft, moist, lt brn - tan to grey.
21.5			87					
22.5			15					
			0	24				23 Clay, dark grey (anoxic) becoming sandy/fine @ depth
								Sand, lt grey, fn - med grd, moist, loose, some more silty @ top of weld that came out.
27.28			0	28				Sleeve jammed in sampler, knocked some out of bottom

Boring Log Form

Site Name: GM AC Rochester Boring Number: SB48

Date Drilled (Start/Finish): 12-3-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth:

Coordinates:

Depth to Water: Geologist: JMead

Project Number: 9004L120282 Weather: ~55° sunny

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			27					Asphalt w/ gravel base, sandy ~~clay~~ clay brown-black, Sand, med-coarse gravel ltgy brown loose, slt moist, inc silt @ base
			53					
			178	4				
								No recovery
				8				
			48		4			~~clay, grading to clayey silt, med brn, saturated~~ Sand, silty, vfg, moist, lam
			99					
10			117					
11			226					
			54	12				
			Ø					Clay, grading to clayey silt, med brn, saturated
			Ø					
			Ø					
MW-5			Ø	16				
			Ø					Clay, grey-brn, moist, soft, plastic
			20					
			25					
MW-5			31	20				
			259					Clay as above soft moist plastic
			25					
			Ø					
			Ø	24				
MW-5			39					Clay, silty sandy, soft, grey-brown
			2					
			2					
			5	28				

Boring Log Form

Site Name: GMAC Rochester Boring Number: SB49.

Date Drilled (Start/Finish): 12-4-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMead

Project Number: Weather: ~35° Sunny

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
ML 1.5 / 2			24 / 20 / 8	4				Concrete parpent & gravel base dark grey gravelly sand & fill, to reddish brn gravelly s. 0 – Silt, med brn, firm, M/ a ~0.2ft sandy pea gravel then Clay @ base
5 / 5.5			20 / 25 / 12 / 2	8				Sand, vfg, silty, med gy brn, moist some fine lam
			6 / 24 / 15					Sand, vfg, a water saturated, sandy, w/ pea silt @ ~9.5ft, saturated, sandy, w/ 1.5 – 10-11 (compressed)
11 / 12			32	12				11 Sand, vfg, med gy brown
			Φ / Φ / Φ / Φ	16				Clay, med brn, Soft, moist plastic – 14 Silt, clayey, med gy brn. – 15 Clay, silty, sandy, grey/brown, lam, amorphous gypsum, limonite stain
15 – 15.5								Clay, silty, sandy, grey/brown, lam, amorphous gypsum, limonite stain
18 / 19 / 20 / 21			Φ / 139 / Φ / 329	20				Clay, silty, sandy, grey/brown to sand, silty, vfg, inc in grain size – 19 sand, buff brown, soft, fg, gyp lam, loose some iron stn, wet moist
			15 / 25	24				Sand, lt brn/lam, med-to gr, wet moist
			57 / 32 / 193 / 149	28				Sand med grd, lt brn – 27 ft black stn 375 ppb opaque grained blow, moist. (Note low WL w/ drought)

Boring Log Form

Site Name: GM ACRochester Boring Number: SB52

Date Drilled (Start/Finish): 12-4-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1-4.5 MC			37 51 17 9	4				Asphalt w/gravel base Sand w/gravel + clay reddish brn 1.5 Sand, lt yellow brn, fn-med grd, poorly sorted, moist
			0 0 0 0					Silt, clayey, wet, med red brn, 6-7 becomes stiff, dense clay ~8-9 ft then grades back to silt ~9 ft sand, grey brown, vfg, silty some layers moist
7-7.5 MC			0	8				
			0 0 0 0 0					Silt + clay, silty clay, clayey silt, some fine sand, med brn, soft, stretches plastic when moved, more clayey
12				12				10.5 ft more grey/brown @ 10.5 ft.
12-12.5			147 35 4					Clay to sandy clay, med grey brown, soft wet, plastic when clayey grey w/ rootlets ~ 14-15 ft
15			42	16				sand, vfg, lam, silty, some iron stn
16			15 121 73					thin clay layer ~ 0.25 ft thick, brown fn-med grd sand, some silt or clay lams.
19			180	20				sand + clayey sand, dark grey,
20			38					
21			1589					Clay, med grey brown, dense, wet
22			1341					Sand, fn-med grd, med brown, bec fine grd @ base.
			476	24				
			0 21					
26.5			212					
27.5			1204 577	28				~27 ft black stn smear zone

Boring Log Form

Site Name: GM AC Rochester **Boring Number:** SB57

Date Drilled (Start/Finish): 12-4-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: **Total Depth:** 28

Coordinates:

Depth to Water: **Geologist:** JMead

Project Number: **Weather:**

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1.5 ML 2			0					Asphalt + gravel base. Sand dark brown w/ gravel + clay
			0					Sand, med buff brown, poorly sorted med-coarse grd w/ gravel, slt moist
			0	4				
			0					Sand as above
			0					Silt
			0					Clayey med red brn to grey brown.
			0	8				Soft, very moist.
			0					Clay, silty to clayey silt, med brown
			0					saturated @ 10-11 ft. b
10			0					
11			0	12				~ 11.5 clay, firm med grey brown
			0					Clay, wet-saturated, med grey (anoxic)
			0					soft plastic, Grades to sandy clay
			731					w/ iron stain @ 16-16.5
15			1912	16				Sand, f brown, lam, moist
16			1021					
			26,100		26.1 ppm on PPB Rae 2 ppm on mult			No recovery
				20				
20.5 21.5			1912					Clay, med gry brn, wet, soft,
			1021					becomes slty sandy @ ~ 21 ft.
22			26,100					then sand fn-med grd.
23				24				
			1911					
			16.1 ppm					
			16.3 ppm					
26			10.6 ppm					
27				28				

Boring Log Form

Site Name: GM AC Rochester Boring Number: SB52

Date Drilled (Start/Finish):

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: logged 16-28ft

Coordinates:

Depth to Water: Geologist: JDmead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
								Not collected
MS 17 MD 9.5			1 253 57 6 0	4	16			Clayey sand, moist Sand, loose, lt brn to buff, some layers at top, more massive Silt & clay, dark grey (reduced) sandy moist Small amount of dark brown clayey/sandy at top
21 22			102 2614 500 530	8	20			Sand, lt brn-buff, some layering less well sorted @ top, becomes finer, softer (well sorted @ 23 ft.) moist
			3075 5781	12	24			Same as above. slt wet/moist
24 27			5100 4413	16	28			becomes more silty to sand becomes med grey; mica present w/ silt, v. wet
				20				
				24				
				28				

Boring Log Form

Site Name: GMAC Rochester Boring Number: SB53
Date Drilled (Start/Finish): 12-4-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: J Mead
Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0.5 MC1			83					Asphalt + gravel base
			15					1ft silt, dry, crumbly fill material (?)
			38					sand, lt brn - buff, med - coarse grain
			9	4				some silt & clay in @ top; moist, poorly sorted, loose, slt moist,
				8				
			~~240~~					~~clay~~ silt, med gy brn, ~~silty~~ clayey, moist
			24					grades to silty clay ~ 9 ft. then
			25					to bloody sety clay ~ 10 ft. occ
			0	12				moist
								No sleeve packer/clay & silty
			0					clay/clayey silt dark brown, plastic,
			0	16				moist
MC			84					(No sleeve) clay, sat'd or odor
			30					anoxic greenish gray sandy
			9					clay - clayey sand, wet.
				20				
			604					Sand, med gd, lt brn, slt moist
			255					silty ~ 22.5 fine silty sand
22.5			1225					22.5 to 23.5. then med-cd buff well
23.5			2487	24				sorted soft loose sand
			681					
			2155					Sand, lt brown, grades to
			1822					lam. inc in grain size, moist
26.5			2015					silty ~ 26-27
27.5				28				med gdd black min ~~wet~~ @ ~~28~~ ~27-28

sat'd @ SS @ south

Boring Log Form

Site Name: GMAC Rochester Boring Number: SB54

Date Drilled (Start/Finish): 12-4-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMcQ

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
2 3			36 442 743 401	4				silty clay loam (fill) sand med - coarse gravel lt bro - buff tan. moist
SS EP			320 1152 1822 675	8				same as above, less more coarse grained gravel, silt, sandy, med brown
WL 9, 10			2294 1371 167 1275	12				clay, silty, part dark grey, slt plastic dense, firm to ~10.5 ft, moist silt, clayey, dark greenish grey, bleeding texture very moist
WL 12, 12.5			624 588 392 401	16				clay + silty clay, med gydn, v moist
16 17			673 577 502 391	20				clay, med grey brown to dark grey, silty in part (plastic when not silt, v moist sand med gyel brn, roots, med grd moist
ML			211 406 2559 996 688	24				sand, lt brn, some lam, moist silt, sandy clayey, blk, stnd.
26 27			2124 1068 1705 638	28				sand, med brn, same lam, v moist grades to salt + pepper sand ~ 27 ft

Boring Log Form

Site Name: GM AC Rochester Boring Number: SB55

Date Drilled (Start/Finish): 12-5-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28'

Coordinates:

Depth to Water: Geologist: JMead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
ML 1 2			0 0 0 0	4				Topsoil, sand + RR slag(?)/ballast Sand, lt brn, f-m - med gne, moist, poorly sorted
ML 5 4			14 0 0 0	8				Sand as above Clay, med gy brn, soft, plastic. clay dark grey-black (cinders) firm
ML 10 11			0 0 0 0 0	12				clay, med grey brown to med brn grey, some silty, very moist. varies from soft to firm (compressed) clay as above
15 10			54 0 0 79	16				Sand/silt/clay, lam, med gy brown, (compressed) slt moist clay/silt mix, saturated, soft to firm, some sandy, some lam med grey,
ML 19 20			0 0 0 313	20	sand			Sand, iron stn @ top, lam Silt - silty sand, lt-med brn buff, Increasing, becomes sand @ ~21.5 ft. fn-md lam. Then increasing silt to become sandy silt - silty sand @ ~23.5
ML 23 24 25			402 150 721 1020 1225 1105 151 527	24 28				Silty sand as above Sand fn-md to coarse w/ depth to 27' Then becomes fn - silty sand, lt brn moist

Boring Log Form

Site Name: GM & C Rochester Boring Number: SB56

Date Drilled (Start/Finish): 12-5-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: 0 Geologist: J Mead

Project Number: Weather: ~30° overcast

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
								(Fill) Ballast ~1ft
			0					Clay, silty/fill moist then ~4' of ltbrn silt then various layers of silty clay, silt, ltbrn, dkbrn clay, clayey med brn silt dry hard
			0					
			0	4				
			0					
			0					silt, medbrn, hard, dry, platy texture (ltbrn); some more clayey layers.
7			0					
7.5	X		5	8				~~clay, dark brown, st moist/ fill~~ dkbrn
			18					Clay + silty clay, med tan-orangish tan, firm, not plastic v moist
			18					
			9					
11								@ ~10.5 becomes wd, more sandy + silty layers
12	X		32	12				clay/silty clay to silt, Saturated ~13-15 ft. Well 12-13 + 15-16
			68					
			55					
14			129					
MW 15	X							
			101	16				
			312					Clay + silt brown/grey, grading to dark grey, saturated @ top wet below
			154					
			441					
18	X		578					~~Sand, silty, clayey, med brn layered w/ silty clay, dk grey @ top grained yel brn/grey Then dark grey again~~
19				20				
			316					Silt grading downward to v fg sand, dark grey, saturated
			325					
			478					
22								~23 ft returns to silt + 2.5 brown
MW 23	X		201	24				soft clay, plastic, all saturated
			143					
			85					
			55					
			25					
				28				

Boring Log Form

Site Name: GM AC Rochester Boring Number: SB57
Date Drilled (Start/Finish): 12-5-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather: cloudy ~ 40°

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0.5 ML 1.5	X		28 35 14 8	4				Clay, silty, dark brn moist Silt clayey, reddish brn, blocky text, layer Crushed rock ~ 1.5-2 ft Silt, med red brn, dry, platy text, firm, then Below silty clay, dry, blocky text ~ 3.5
4.5 ML 5	X		13 9 5 4	8				clay as above to ~ 4.5 Silt, ltyellbrn, platy texture
9 ML 10	X		4 4 2 2	12				Silty Clay + Clay, med yellbrown, firm + soft layers 6-8" each, moist, v moist ~ 10-11 ft.
14 ML 14.5	X		4 4 5 1	16				Clay, silty, med brn, soft-firm wet to ~ 14 ft. Have roots & iron stn poss, old landsurface 14 ft Clay, silty, yellbrn (loess-appearance) firm / dense v moist
19 ML 19.5	X		Ø Ø Ø 2	20				Clay, med yellbrn (loess-appearance) dense, hard to ~ 18.5, Then like silt, soft, moist 19.5 Sandy clay/clay & med brn, wet soft
20 21.5-22	X		Ø Ø 2 Ø	24				clay, sandy & med yellbrn to ~ 22 Then hard, dense clay as above, plastic. Slt moist
26.5-27	X		Ø Ø 9 2	28				clay as above becoming silty ~ 26.5 slightly often more moist

Boring Log Form

Site Name: GMAC Rochester Boring Number: SB58

Date Drilled (Start/Finish):

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth:

Coordinates:

Depth to Water: Geologist: JMenap

Project Number: Weather: ~40 overcast

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1 ML 2			0 1 1 1 0	4				Clay, dark brn, w/some topsoil, compacted Silty clay, blocky - platy texture, dry, friable, med brown
			0 2 1 2	8				Clay, silty, med brn, dry, mes Silt, lt - med yel brn, ~~soft~~ friable, platy ~~b~~ Clay + silt layers, dark brn, firm dark clay ~~and~~ fr 2" silt @ top + 7.5-8ft
7.5 8			0 0					Silt, ltyel brn, dry, friable, platy
10.5 ML MS11			0 0	12				9.5 Silt, clayey, ~~mod~~ lt brn, dry, firm 10.5 clay + silt, brn, some rods, thin clay & silt, ~ 4" layers, 50% moist, Hbrn-yelbrn
12 13			13 6 5 2	16				sandy clay - clayey sand, hard dry clay, med yelbrn, ~~hard~~ firm, sli moist, plastic & compact
17 ML 18			0 8 4 2	20				clay, silty clay, med yel brn, firm, some plastic, moist (loess-appearance)
21.5 ML 22			0 4 2 1	24				clay, med yel brn, firm, moist Softer + wet 21.5-22 then returns to firm, moist clay (loess appearance)
24 ML 25			29 4 0 2	28				Clay as above

Boring Log Form

Site Name: GM AC Rochester Boring Number: SB59
Date Drilled (Start/Finish): 12-5-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather: ~30° partly cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0.5 ML 1			0	4				Fill, silty clay, brick gravel/rock plate to blocky texture slt moist. med brown, Then another 6" of clay then ~4" lt brn silt Then clay brown hard alternating ~6" segments lt brn platy silt + dark brown clay
10 10.5			0	8				Silt, + silty clay med gry brn moist, soft. Becomes sandy ~10ft
11 11.5			0	12				Sand, silty, lamins w/ some thicker (4") clay beds, some iron std lams some sand grey lams.
18.5-19			0	16				Clayey silt, lt brown/grey from slt moist lean grades to tan
14.5 ML 15			0					~14.5-15 ft ~4" of med grey, vfg sand or sandy silt.
2 13 ML			0	20				Silt, clayey med brn grey, w/ some iron stn, sandy v moist. Becomes more clayey/plastic w/depth. somewhat lam.
21 22			0	24				Clay, med tan/brown, hard, slt moist some silty/sandy zones/ ~~more~~ dirt and wet
26 ML 26.5			0	28				clay, as above, ~~same~~ ML sample @ more sandy zone

16-20
20
16-20
12-16
12-16

Boring Log Form

Site Name: GMAC Rodriguez Boring Number: SB60

Date Drilled (Start/Finish):

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMead

Project Number: Weather: ~50° cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1.5 2			35					Topsoil ~ 4" 6" gravel roadbed/ballast crushed rock 2" silt/sand below
2.5-3			2642 7702 8162	4				Sand, coarse grd, black stn, dense w/depth into Rubber piece in cont (old surface)
			45 185 720 945					Below 2.5 ft med - coarse sand lt brn
6 6-6.5			454	8				Sand, med-fn grd, dk brn-buff, loose, moist black stn and inc silt ~ 5 ft
			695 204 156					Clay, med brn, firm ~ 10.5 ft Then soft, nonplastic ~ 10.5 v moist
11.5 11.5-12			310	12				
			283 158 71 43					~~Clay~~ Silt, clayey, grading to clay, med brown, soft, wet (Compacted)
		X		16				No Recovery
20 20-20.5			398 135					Clay, med brn grey grading to dark grey ~ 22 ft.
			89 59	24				
			57 55 90					Clay, firm, wet dark grey, sandy (vfg) silty grades to silt + vfg sand.
27 28			48	28				Saturated vfg sand, grey loose

Boring Log Form

Site Name: @MACRochester Boring Number: SB61

Date Drilled (Start/Finish):

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: KMead

Project Number: Weather: ~40 overcast

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
MC 2.5-3			0					Sand, silty, med brn to - gray brn / Thin lft-brn-buff, fn - med grained, sf
			4					
			14					
			5	4				
			43					Sand, lt brn - buff, some silty, med - coarse grd (poorly sorted)
6-7 MS/MSD			24					
			10	8				
			0					Silt grading to vfg Sand, damp, v moist,
			0					
10.5 MS11			0					
			0	12				
			0					Clay med brn, plastic, MC, sf
			0					- 14' silty clay med brn to ~15' Thin plastic clay as above
			0					
			0	16				
			9					Clay med brn grading to dk gray, v moist to wet w/ depth
			24					
			39					
14.5 20			213	20				19.5 Sand / iron stained top layer / hard dk + lt gray
			12					Silt grading to vfg sand, dk gray,
			12					Saturated, soft mud
			24					@ ~ 22 ft becomes silt + clay, sandy
			5	24				
			0					Silty clay - clayey silt, dark gray,
			2					soft, saturated
			9					
27 28			328	28				

Boring Log Form

Site Name: GM ACRochester Boring Number: SB62
Date Drilled (Start/Finish): 12-6-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: _____ Total Depth: 28
Coordinates: _____
Depth to Water: _____ Geologist: JMead
Project Number: _____ Weather: ~43° C overcast; rained earlier

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1.25-1.5			0					Silt Fill, med red brn, sandy, firm
			24 (@ stn 1.25 ft)					1.25' gravel, black stn coarse sand w/ plastic tube & polymeric sand below
2.5-3			803 @ 2.5 ft stn					(old surface) beaten sfc w/ depth ~2 ft, firm sandy silt, fine blk stn layers ~2.5 ft firm more sand
			680	4				
			594					Silt, sandy, med brn, moist
5			533					4.5' fine sand lam blk/brn bands w/ brn silt lams med grained grading to fine sand 5 ft.
6			449					black stn ~6 ft
			302	8				Sand fine grained below
			52					> sand as above
9.5			58					Clay, silty, dark brn, firm, moist
10.5			4					~9.5 silty sand/clay lams, wet, dk brn, become silty green brn ~10.5
			41	12				same but NOT lam (clay silt mix w/ sand ~10.5 ft - 11.5 11.5 - 12 ft sand, silty
			0					clay/silt, med brn, soft, wet, plastic in part,
			0					clay becomes dense w/ iron stn lams @ ~15 ft
15.5-16			0	16				
			0					Clay, brn grey, soft, wet, plastic
			0					
			0					
			0	20				
			0					Clay, grading from firm, brown/grey to soft, med grey w/ depth to ~23 + dk grey ~23-24.
			0					
23			0					
23.5			0	24				
			0					Clay + silt, dark green
			0					22.5-23 Sand, silty, v fg, saturated, dark green
			0					
27			0					Silt/clay/sand as above, mostly clay
28			0	28				

Boring Log Form

Site Name: GMAC Rochester Boring Number: SB 63

Date Drilled (Start/Finish): 12-6-12

Drilling Method: Geoprobe

Drilling Company: EPA

Elevation: Total Depth: 28

Coordinates:

Depth to Water: Geologist: JMead

Project Number: Weather:

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
1.5 2			0 0 0 0	4				~6" clay & 6" silt fill above brick/frag Sand, med grd, to coarse grd - ltbrn to buff
			29 0 0					Sand as above, ltbrn-buff, med-coarse grd,
ML 7.5 8			7	8				dk grey & iron stn silt & clay ~ 7 ft compaction sleeve:
9.10			98 116 71 0	12				clay, dark grey to black silty (petroleum) ~ 8 to 10 ft (compacted) then dark grey clay, dense, moist, becomes more greenish grey, clayey silt ~ 11 ft
13 ML 14			0 0 39 0	16				Silty Clay - clayey Silt dark brn, saturated to ~ 14 ft then dk brn plastic (becomes compacted in sleeve)
				20				NO Recovery
23 24			0 38 0 186	24				Clay, greyish brown, soft, plastic wet ~ 22.5 ft becomes more silty/silt lam ~ 23 Sand, silty lam, v fg-fn wet
27 28			0 0 393 734	28				clay to silt to sl silty sand to clayey Sand, saturated med grey, Sand, fn-med grd to ~ 26.5 then med-coarse, saturated

Boring Log Form

Site Name: GMAC Roches Boring Number: SB64

Date Drilled (Start/Finish):

Drilling Method:

Drilling Company:

Elevation: Total Depth: 20

Coordinates:

Depth to Water: Geologist: Mead

Project Number: Weather: ~45° partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
			62					asphalt + min gravel base
			0					Sand + silty sand w/ clay (Fill)
			21					~3 ft.
3			0	4				Sand, coarse grd,
ML 4			132					Sand, coarse w/ (upto 3/8") gravel, subangular
5			0					some black minerals, lt brn - buff + iron stn.
			0					
			0	8				Sand + silty sand grading to silty clay med red brn w/ iron stn
			0					Silt - vfg silty sand, red brn, saturated
			0					
10			9					Clay, med brn to dark (std?) grey w/ Red iron stn (possible odor?)
ML 11			0	12				silty clay, med gy/brn to clay - ~~med~~ grey brn
			48					Clay, med reddish brn, firm to ~15.5 ft then becomes soft; silty clay - clayey silt, some lam.
			0					
15			0	16				~~15.5~~ 15.5 - 16 becomes clay dark grey.
ML 16			0					~5" Recovery. Coarse grd reddish
								Clayey sand ~ 0.25' of grey clay
				20				
				24				
				28				

Boring Log Form

Site Name: @MAC Rochester Boring Number: SB6S

Date Drilled (Start/Finish): 12-6-12

Drilling Method: Geoprobe

Drilling Company: ERA

Elevation: _____ Total Depth: 20

Coordinates: _____

Depth to Water: _____ Geologist: JMead

Project Number: _____ Weather: ~45° Overcast

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
2.5			0					Asphalt & gravel base, thin clay above
3 MC			0					Si lt, med brn, + clayey silt, dry
			0					Gmd, med-coarse lt brn, some blackstn some iron w/ gravel (3/8", 1",
			0	4				Coarse sand w/ gravel as above
			0					Sand + si/lty sand, lam., med brn, moist-wet
7 MC			0					Clayey si/lty part (compacted)
			0	8				Sandy silty vfg sand ~7.5-8
			0					Si lt, sandy, vfg, soft v moist, becomes clayey (compacted)
			136					Sandy si/fg radish silty vfg
11			136	12				
12			0					Sandy clay - clayey sand, reddish brn w/ ironstn, soft firm, soft wet
			0					
15			0					18.5 Sand - si/lty sand, lam x bedd, moist
16			0	16				lt-med yellbrn to medbrn@base
			329					Sand fn grd lt-med yellbrn, w/ occ. blackstn layers
16.5			175					ironstn above Dark grey plastic clay
			64					~19 ft Turn have med grey lam vfg sand + si lt,
19.5			0					
20				20				
				24				
				28				

Boring Log Form

Site Name: GMAC Rochester Boring Number: SB 64
Date Drilled (Start/Finish): 12-6-12
Drilling Method: Geoprobe
Drilling Company: EPA
Elevation: Total Depth: 28
Coordinates:
Depth to Water: Geologist: JMead
Project Number: Weather: ~45° overcast

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
0.5 ML 1.5			0					Asphalt w/ gravel base
			0					Sand & gravel coarse grd. lt brn - buff w/ iron stn. Becoming more silty/sandy/depth.
			0	4				
			0					Sand, med grd, lt brn & buff slt moist
			0					Silt, sand, clayey Med brn, moist, becomes more wet w/ depth.
ML 7 8			0	8				
			0					Clay, med red brn firm, some sandy clay/silt in part, becomes laminated w/ depth Saturated @ ~11-12
11 ML 11.5			0	12				
13 ML 14			0					Silt, sandy, vfg, med brn, saturated becomes clayey ~14 ft then clay soft firm, med brn, iron stn. becomes dark grey soft lam clay w/ some iron stn
			0	16				~4" of reddish brn coarse grained sand (from above?) then dark grey clay
			0					
19 IL 20			0	20				
			0					Clay, dark brn grey, soft, v moist, plastic
23.5 24			0	24				23.5 Sand, silty/clayey dark grey moist
			0					Silt, clayey, saturated, grades to silty sand ~2ft thick
			0					
27 28			4	28				Sand, med-lt brn, fine-med grd some lam, saturated, loose

Boring Log Form

Site Name: GM AC Rochester Site **Boring Number:** SB-3
Date Drilled (Start/Finish): 4/16/2012
Drilling Method: Geoprobe
Drilling Company: US Environmental Protection Agency, Region 7
Elevation: **Total Depth:** 28
Coordinates:
Depth to Water: 27 ft **Geologist:** J. Mead
Project Number: X9004L120282.000 **Weather:** Sunny; ~50 degrees

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Sample Headspace PID (ppm)	Lithology	Graphic Log	Description and Remarks
			0		0.007			TOPSOIL and sand, silty/clayey, dark brown.
			0					0.7 ft: SAND - med-coarse grained, some fine gravel, dark brown; moist.
			0					Increase in silt at 3.75 ft.
			0	4				
			0					4.25 ft: CLAY - silty, med brown.
			0					5.5 ft: CLAY - sandy, soft, med reddish brown; wet.
			0		0.282			6.5 ft: CLAY - silty, med brown.
				8				
			0					8 ft: CLAY - med yellowish brown, firm, plastic to 9 ft.
			0		1.448			9-10 ft: CLAY - sandy to clayey sand.
			0					10 ft: CLAY - firm, silty (less plastic).
			0	12				
			0					CLAY - med yellowish brown, soft plastic. Becomes firm/hard with depth.
			0					
			0.1					14.5 ft: SAND - yellow/orange iron stained lams. At 16 ft, becomes greenish grey with some black lams.
				16				
			0.02		16.6			CLAY - as above.
			0.849					17 ft: CLAY - sandy, some dark grey lams with black staining (possibly petroleum); no odor.
				20				
			0.084					SAND - med grained, med brown; saturated.
			0.448					Grades to clay, soft; saturated.
			0.35		46.1			22 ft: SAND - silty, fine grained, laminated sand and silt, yellowish brown; moist.
			0.016	24				
			0.309		72.1			SAND - very fine grained, silty, yellowish brown, laminated; moist.
			0.427					26 ft: SAND - clayey; wet. With hard, thin clay layer.
			0.066					~27 ft: SAND - med grained, poorly sorted; wet. Becomes dark grey at base.
			0.389	28				

Boring Log Form

Site Name: GM AC Rochester Site **Boring Number:** SB-5
Date Drilled (Start/Finish): 4/10/2012
Drilling Method: Geoprobe
Drilling Company: US Environmental Protection Agency, Region 7
Elevation: **Total Depth:** 28
Coordinates:
Depth to Water: **Geologist:** J. Mead
Project Number: X9004L120282.000 **Weather:** Sunny; ~50 degrees

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Sample Headspace PID (ppm)	Lithology	Graphic Log	Description and Remarks
			0.7					0-0.5 ft: Asphalt parking lot.
			0		15.1			SAND - fine grained, loose, fill or beach sand, some angular gravel and shells.
			0.1					
			0.8	4				
			0.9					SAND - lt tan to med dark brown in ~1/4-in bands.
			0					
			0.1		5.186			CLAY - silty, dark grey; wet. Grades to dark grey (reduced) silty clay, no odor. (Munsell Color: 5Y4/1)
			0	8				
			0					CLAY - sandy, brown; saturated.
			0					Clay becomes hard, dense, plastic.
			0		9.991			
			0	12				
			1.74					CLAY - soft to firm, some silty; moist.
			3.063					
			1.16		5.18			CLAY - sandy; wet.
				16				
			0.636					CLAY - dark grey to brownish grey, soft, damp to wet (where sandy from 17-17.5 and 19-19.5 ft). (Munsell Color: 5Y4/1)
			1.823		14			
			0.278					
			0.268	20				19.5 ft: CLAY - very soft, sticky, plastic (reduced).
			3.203		3.003			CLAY - as above, with some sandy clay.
			0.288					
			0					
			0	24				
								SAND - fine grained and light tan at top; darker brown and coarser towards base. Note: Sleeve crushed in sampler. Recovered loose sand shaken from the bottom of sampler; therefore, calling the sample 27-28 ft.
			1	28				

Boring Log Form

Site Name: GM AC Rochester Site **Boring Number:** SB-15
Date Drilled (Start/Finish): 4/11/2012
Drilling Method: Geoprobe
Drilling Company: US Environmental Protection Agency, Region 7
Elevation: **Total Depth:** 28
Coordinates:
Depth to Water: **Geologist:** J. Mead
Project Number: X9004L120282.000 **Weather:** Sunny; ~50 degrees

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Sample Headspace PID (ppm)	Lithology	Graphic Log	Description and Remarks
			0		0			SAND - buff-lt tan, med-coarse grained, increasing coarse with depth, some fine gravel, some silty layers; dry.
			0					
			0					
			0	4				
			0					SAND to sandy CLAY - med brown; moist.
			0		1.1			~ 6.5-7 ft: ~ 2-inch layer of CLAY - silty, hard, compacted with siltstone (?) fragments, then ~2-inch layer of CLAY - sandy, silty; wet.
			0					
				8				
			0					CLAY - soft, plastic; saturated. Has oily-look with bubbly pock-marked texture to clay muck.
			0					
			0		2			
			0	12				11.75 ft: CLAY - hard, dense.
			0					CLAY - greenish brown, plastic; moist. Becomes sandy and wet ~ 12.75-13 ft.
			0					
				16				
			0					CLAY - brownish grey, soft, plastic.
			0		4.6			16.75 ft: CLAY, sandy.
				20				
			0					SAND to SILT, sandy - buff to lt-med brown depending on sand/silt/clay content .
			0.4		1.3			
			0					SAND - fine grained, buff, soft, loose, dry.
				24				
			0					SAND - med grained, loose.
			0					
			0					
			0	28	0.1			

Boring Log Form

Site Name: GM AC Rochester Site **Boring Number:** SB-17
Date Drilled (Start/Finish): 4/11/2012
Drilling Method: Geoprobe
Drilling Company: US Environmental Protection Agency, Region 7
Elevation:
Total Depth: 28 ft (4/12/12); 28-32 ft (4/13/12)
Coordinates:
Depth to Water:
Geologist: J. Mead
Project Number: X9004L120282.000
Weather: Sunny; ~50 degrees

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Sample Headspace PID (ppm)	Lithology	Graphic Log	Description and Remarks
			0.2 0 0 0	4	0.044			Asphalt and base over CLAY with fine gravel. 0.5 ft - SAND - fine grained, lt brown, slightly moist. 3 ft: Sand becomes med to coarse grained.
			0.1 0 0	8	8.436			SILT to SAND, very fine grained, clayey in part. 5 ft: SILT - clayey to very fine grained sandy silty, med brown; wet. Oily pock-marked texture to ~6.5 ft. 6.5 ft: CLAY, silty, med brown, hard, firm; very moist to wet.
			0 0 0.5	12	1.926			CLAY - silty, med brown, soft, plastic. Oily, pock-marked texture; moist. More layered with depth.
			0 1.2 1.4	16	25.2			SILT - layered/laminated, medium to lt brown (sandy). Greyish layer (reduced) just above thin, hard, iron stained (oxidized) sand at base.
			0.2 3.8	20	0.961			SAND - fine grained, layers/lams, soft, silty. Med grey, clayey lam/layer at base; damp.
			0.8 2.6 0.2	24	9.658			SAND - as above. Note: had about 1 ft of grey clay muck at top that was not logged; believed to be slough. May be actual strata as not supposed to be any slough in sampler.
			1.1 1	28	1.52			SAND - As above.
			0.101 0.288 0 0.109	32	1.676			SAND - fine grained, medium yellowish-brown; saturated. Increasingly silty, poorly sorted with depth. Coarse grained at ~31-32 ft.

Boring Log Form

Site Name: GM AC Rochester Site **Boring Number:** SB-22
Date Drilled (Start/Finish): 4/13/2012
Drilling Method: Geoprobe
Drilling Company: US Environmental Protection Agency, Region 7
Elevation: **Total Depth:** 28
Coordinates:
Depth to Water: **Geologist:** J. Mead
Project Number: X9004L120282.000 **Weather:** Sunny; ~50 degrees

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Sample Headspace PID (ppm)	Lithology	Graphic Log	Description and Remarks
			0		0			Asphalt w/coarse-grained sand base, clayey, reddish brown; moist.
			0					1 ft: SAND - coarse grained w/fine gravel; slightly moist. Grades to med grained sand at ~2 ft, then fine sand ~3 ft, and coarse sand w/fine gravel at ~3.5 ft.
			0					
			0	4				
			0					SAND - as above, poorly sorted
			0		0			5 ft: Sand - clayey grading to CLAY, sandy, lt yellowish brown; moist.
				8				
			0.031					SAND - clayey to CLAY, sandy, med yellowish brown; slightly moist.
			0					
			0.111					
			0.013	12	0.12			
			0.194					CLAY - silty/sandy to SAND, silty/clayey
			0.041					
				16				
			0.327		1.093			SAND - silty, very fine grained, med brown; moist
			0.196					
			0.361					
			0.147	20				
			0					CLAY - med brownish grey to grey; saturated
			0.005					
			0.057					SAND - med grained, lt brown to buff. Banded with darker (clayey) lams ~ 23.5 ft.
			0.042	24	0.196			
			0.255					SAND - med yellowish brown to greyish brown, loose. Becomes increasingly coarse with depth.
			0.381					
			0.716		0.054			Clayey ~ 24.5-25 ft; very moist.
			0.01	28				

Boring Log Form

Site Name: GM AC Rochester Site **Boring Number:** SB-36
Date Drilled (Start/Finish): 4/15/2012
Drilling Method: Geoprobe
Drilling Company: US Environmental Protection Agency, Region 7
Elevation: **Total Depth:** 28
Coordinates:
Depth to Water: **Geologist:** J. Mead
Project Number: X9004L120282.000 **Weather:** Overcast, damp ~ 60 degrees

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Sample Headspace PID (ppm)	Lithology	Graphic Log	Description and Remarks
				4				Not collected or logged.
				8				Not collected or logged.
				12				Not collected or logged.
			0					CLAY - med brown, firm; grades to soft sandy clay/clayey sand; saturated.
			0					Some iron stained lams.
			0		0.109			
				16				
			0		0.246			CLAY - grey, soft, plastic; ~1-in fine grained, red brown sand lens ~ 16.5 ft.
			0					17 ft: SAND - iron stained at top, lt brown to buff, fine grained, lams, grades to very fine grained, with increasing silt.
			0					
			0	20				
			0					SAND - fine-med grained, lt brown to buff, silt lams, becomes very fine grained silty sand w/clay/silt lams at ~22-23 ft; then clayey sand-sandy clay, med brown; saturated.
			0					
			0		0.073			
			0	24				
			0					CLAY/SAND/SILT - layers, grey to greyish brown.
			0		0.045			SAND - med grained, salt and pepper appearance, w/clay/silt lams/layers. ~1/4-in burn layer ~ 26.5 ft.
			0					
				28				

Boring Log Form

Site Name: GM AC Rochester Site **Boring Number:** SB-44
Date Drilled (Start/Finish): 6/27/2012
Drilling Method: Geoprobe
Drilling Company: US Environmental Protection Agency, Region 7
Elevation: **Total Depth:** 28
Coordinates:
Depth to Water: 27 ft **Geologist:** J. Mead
Project Number: X9004L120282.000 **Weather:** Sunny; ~90 degrees

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Sample Headspace PID (ppm)	Lithology	Graphic Log	Description and Remarks
			0.026					FILL - silts and clays. Compacted, some brick fragments, roots; hard, dry, yellowish brown to dark brown depending on fill type.
			0					
			0					
			0	4				
			0					CLAY - silty in part, dense, firm, hard to ~6 ft.
			0					
			0					SILT - clayey, w/very fine grained sand, lams; moist.
			0.102	8				
			0.028					CLAY - lt brown, sandy from 9-10 ft; firm and moist-very moist ~10-11 ft; then soft and sandy.
			0					
			0					
			0.343	12				
			0.378					SAND - clayey to CLAY, sandy, roots, very fine grained sand increasing with depth; saturated ~13 ft.
			0.283					
			0.742					~15.5 ft: fine grained sand laminated w/silt and clay, lt to med brown, some iron stained lams.
			0.005	16				
			0.379					CLAY - sandy at top, med-dark grey, becoming sticky clay w/depth. Burned wood debris at ~18.5 ft;
			1.578					
			1.172	20				
			2.694					SAND - silty/clayey, lt greyish brown; saturated.
			0.216					
			0.09	24				
			0.027					SAND, very fine grained, silty to clayey, some lams, dark grey; saturated.
			0					
			0					
			0	28				

APPENDIX G

CHAIN-OF-CUSTODY FORMS AND FIELD SHEETS

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Randy Schademan	General Motors SC	26-27 / 6 / 2012	1 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 OZ BOTTLE	VOA SET (12 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
5788-1				1	1		X				
-2				1	1						
-3				1	1						
-4				1	1						
-5				1	set of 8						MS/MSD
-6				1	1						
-7				1	1						
-8				1	1						
-9				1	1						
-10				1	1						
-11				1	1						
-12				1	1						
-13				1	1						
-14				1	1						
-15				1	set of 10						MS/MSD
-16				1	1						
-17				1	1						
-18				1	1						
-19				1	1						
-20				1	1						
-21				1	1						
-22				1	1						
-23				1	1						
-24				1	1		X				

DESCRIPTION OF SHIPMENT

___ PIECE(S) CONSISTING OF ___ BOX(ES)

X ICE CHEST(S); OTHER ___

MODE OF SHIPMENT

___ COMMERCIAL CARRIER: ___

___ COURIER

X SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Randy Schademan — ☐ SEALED ☒ UNSEALED	6/28/12	1:50	R Diggans — ☐ SEALED ☐ UNSEALED	Relinquished at lab Received at lab
RELINQUISHED BY — ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY — ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY — ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY — ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Randy Schademan	General Motors SC	26-27 / 6 / 2012	2 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	8081 BOTTLE	8270 BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
5788-25				1	1		X				
-26				1	1						
-27				1	1						
-28				1	1						
-29				1	1						
-30				1	1						
-31				1	1						
-32				1	1		X				
-101			1	1	1	X					
-102				1	1						
-103				1	1						
~~-104~~											deleted
-105					1						
-110 FB			1	1	1						
-111 FB					1	X					
-33				1	1		X				
-106					Set of 9						MS/MSD

ASR complete

DESCRIPTION OF SHIPMENT

4 PIECE(S) CONSISTING OF _____ BOX(ES)

4 ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

_____ COMMERCIAL CARRIER: _____

_____ COURIER

X SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Randy Schademan ☐ SEALED ☐ UNSEALED	6/28/12	1:50	RW/Niggaman ☐ SEALED ☐ UNSEALED	Reid at lab
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 1 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-1-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB41-~~02~~(0-2')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 14:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 2 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-2-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB41 (6-7')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 14:07

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 3 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-3-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB41 (12-13')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 14:12

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 4 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-4-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB41 (17-18')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 14:32

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 5 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-5-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB41 (21-23')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 14:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
8 4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments: MS/MSD

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 6 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-6-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: ~~SB41~~ SB41(27-28')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 14:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 7 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-7-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB48 (3-4')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 15:16

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 8 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-8-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB42(6-7')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 15:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 9 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-9-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB42(9-10')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 15:25

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 10 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-10-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB42(14-15')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 15:58

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 11 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-11-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB42 (17-18')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 16:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 12 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-12-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB42 (23-24)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 16:05

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 13 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-13-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB42(26-27)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 16:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 14 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-14-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB43 (0-2)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 0855
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 15 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-15-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB43 (4-6')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 0900

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 16 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-16-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB43 (10-11)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/26/12 09:08

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 17 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-17-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB43 (15-16')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 09:30
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 18 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-18-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB43 (19-20')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 0938
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 19 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-19-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB43(27-28)

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	6/27/12	0950
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 20 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-20-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB44 (0-2')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 1008
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 21 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-21-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB44 (7-8')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 1015

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 22 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-22-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB44(11-12')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 10:17

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14	Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 23 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-23-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB44 (13-14)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 10:27

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14	Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 24 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-24-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB 44 (17-19)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 10:35

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 25 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-25-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB44 (20-21')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 1047

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 26 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-26-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB44 (27-28')

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/27/12	10:52
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 27 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-27-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB45 (0-2')

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/27/12	11:08
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 28 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-28-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB45 (5-6)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 11:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 29 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-29-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: 45 (14-15')

External Sample Number: SB ~~44~~ 45 (14-15')

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	6/27/12	11:20
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 30 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-30-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: 45'

External Sample Number: SB44 (19-20')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 11:28

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 31 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-31-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB 45 (21-22')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 11:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 32 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-32-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB45 (27-28')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 11:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 33 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5788-33-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB43 22-23

External Sample Number: ~~SB44 @ 22-23~~ 6-27

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 0943

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 101 **QC Code:** __ **Matrix:** Water **Tag ID:** 5788-101-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: Water Treatment Plant

External Sample Number: Effuent (Finished Water)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 1330

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 120z amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 102 **QC Code:** __ **Matrix:** Water **Tag ID:** 5788-102-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: Water treatment Plant Raw Water

External Sample Number: Influent

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/27/12	1340
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 103 **QC Code:** __ **Matrix:** Water **Tag ID:** 5788-103-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: MW-6

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 1407

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 105 **QC Code:** __ **Matrix:** Water **Tag ID:** 5788-105-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: ~~MW-2~~ MuniWell2

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 14:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 106 **QC Code:** __ **Matrix:** Water **Tag ID:** 5788-106-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: Muni. Well 24

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/28/12 07:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
9/4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments: MS/MSD

(N/A)

Note:
These are municipal Drinking water wells & PWS Treatment plant for Raw + Finished water for the City of Sioux City, IA

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 110 **QC Code:** __ **Matrix:** Water **Tag ID:** 5788-110-FB

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: Field Blank

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/27/12 15:35

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
1-80 oz amber	4 Deg C	7 Days	1 Semivolatile Organic compounds in water

Sample Comments:
(N/A) also collecting field blank for 1,4-Dioxane

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5788 **Sample Number:** 111 **QC Code:** FB **Matrix:** Water **Tag ID:** 5788-111-FB

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: LDL VOA Trip Blank sample

External Sample Number: _____

		Date	Time(24 hr)
Expected Conc:	(or Circle One: Low Medium High)		
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/27/12	1200
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:
(N/A) Trip blank

Sample Collected By: TT/START

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Randy Schademann	General Motors SC. RA	3-6 / Dec / 2012	1 of

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
5872-1					1		X				
-2					1						
-3					1						
-4					1						
-5					1						
-6					1						
-7					1						
-8					1						
-9					1						
-10					1						
-11					1						
-12					1						
-13					1						
-14					1						
-15					1						
-16					1						
-17					1						
-18					1						
-19					1						
-20					1						
-21					1						
-22					1						
-23					1						
-24					1		X				

DESCRIPTION OF SHIPMENT

2 PIECE(S) CONSISTING OF _____ BOX(ES)

X ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

X COMMERCIAL CARRIER FedEx

_____ COURIER

_____ SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Jenna Mead [X] SEALED [ ] UNSEALED	12/6/12	1630	FedEx [X] SEALED [ ] UNSEALED	Shipping
RELINQUISHED BY [ ] SEALED [ ] UNSEALED	DATE	TIME	RECEIVED BY [ ] SEALED [ ] UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY [ ] SEALED [ ] UNSEALED	DATE	TIME	RECEIVED BY [ ] SEALED [ ] UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Randy Schademann	General Motors S.C. RA	3-6 Dec 2012	2 of

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	BOTTLE	# VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
5872-25					1		X				
-26					1						
-27					1						
-28					1						
-29					1						
-30					1						
-31					1						
-32					set of 3						MS/MSD
-33					1						
-34					1						
-35					1						
-36					1						
-37					1 set of 3						MS/MSD
-39					1						
-40					1						
-41					1						
-42					1						
-43					1						
-44					1						
-45					1		X				
-201					1	X					

ASR complete Emma Mead

DESCRIPTION OF SHIPMENT

2 PIECE(S) CONSISTING OF ____ BOX(ES)

X ICE CHEST(S): OTHER ____

MODE OF SHIPMENT

X COMMERCIAL CARRIER: FedEx

____ COURIER

____ SAMPLER CONVEYED

(SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Emma Mead ☒ SEALED ☐ UNSEALED	12/6/12	1630	FedEx ☒ SEALED ☐ UNSEALED	Shipping
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 1 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-1-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB28R (11-12')

Expected Conc: (or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:** 12/3/12	0810
Longitude: ___ ___ ___	**End:** __/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) Bomgaars

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 2 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-2-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB28R (9-10')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 08:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:

(N/A) Bomgaars

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 3 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-3-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB46 (6-7')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/3/12 14:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) Bongaas

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 4 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-4-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB46 (23 wet -24')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/3/12 1438
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 5 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-5-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB47 (5-6')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/3/12 1455

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 6 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-6-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB47 21.5-22.5

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/3/12 15:45
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bongaard

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 7 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-7-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB48 (10-11')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/3/12 16:48
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 8 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-8-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB48 (20-21')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/3/12 17:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 9 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-9-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB49 (20-21')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 09:38
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 10 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-10-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB49 (27-28')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/9/12 0947

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 11 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-11-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB 50 (21-22')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 10:48
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bonqueo
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 12 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-12-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB50 (26.5-27.5')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 1100

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bongaas

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 13 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-13-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB51 (22-23')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 12:42

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 14 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-14-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB51 (26-27')

		Date	Time(24 hr)
Expected Conc:	(or Circle One: Low Medium High)		
Latitude: ___ ___ ___	**Sample Collection: Start:**	12/4/12	12:55
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 15 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-15-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB52 (21-22')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 13:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 16 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-16-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB52 (26-27')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 13:25

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 17 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-17-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB53 (22.5-23.5')

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	12/4/12	14:38
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bongaarts

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 18 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-18-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB53 (26.5-27.5')

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	12/4/12	15:00
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bongaard
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 19 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-19-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB54 (5.5-6.5')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 15:20
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bongaas
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 20 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-20-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB54 (16-17.5)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/9/12 15:47

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 21 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-21-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB54 (26-27')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 16:03

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Bomgaars

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 22 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-22-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB55 (15-16')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/4/12 16:25

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 23 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-23-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB55(24-25')

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	2/4/12	16:50
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 24 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-24-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB56 (7-7.5')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 07:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 25 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-25-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB56 (18-19')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 09:25

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 26 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-26-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB57 (19.5-20)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 10:25
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 27 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-27-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB58 (7.5-8)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 11:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 28 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-28-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB58 (12-13')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 1130

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 29 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-29-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB59 (21-22')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 2/5/12 14:20
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 30 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-30-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB60 (1.5-2')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 15:30
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF
(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 31 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-31-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB60(27-28')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 16:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 32 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-32-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SBG1 (6-7')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 8/5/12 16:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

	Container	Preservative	Holding Time	Analysis
3	A - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: MS/MSD

(N/A) BNSF

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 33 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-33-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB66 (19.5-20')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 16:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 34 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-34-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB61 (27-28')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/5/12 16:55
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 35 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-35-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB62 (2.5-3')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 8/6/17 0830

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 36 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-36-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB62 (5-6')

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	9/6/17	0845
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSE

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 37 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-37-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB62 (27-28')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/6/17 09:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
8A - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) MS/MSD

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 38 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-38-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB03 (1.5-2')

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	12/6/17	0940
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: BNSF

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 39 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-39-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB63 (9-10')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 10/6/17 0950

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) BNSF

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 40 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-40-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB 63 (23-24')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/6/12 10:07

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) BNSF

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 41 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-41-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB63 (27-28)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/6/17 1017

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) BNSF

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 42 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-42-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB64 (4-5)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/6/17 10:48

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) Bonzaars

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 43 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-43-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB65 (11-12')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/6/12 12:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) Bomgaars

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5872 **Sample Number:** 44 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5872-44-__

Project ID: RS07TZ00 **Project Manager:** Randy Schademann
Project Desc: General Motors S.C. - Removal Support sampling
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: _____

External Sample Number: SB 66 (27-28')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 12/6/12 14:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments:
(N/A) Bengaas

Sample Collected By: TT/START

APPENDIX H

TRANSMITTAL OF SAMPLE ANALYSIS RESULTS FOR ASRS 5706, 5788, & 5872

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: 07/17/2012

Subject: Transmittal of Sample Analysis Results for ASR #: 5706

Project ID: NS07TZRA00

Project Description: General Motors S.C. - Response Action Monitoring

From: Michael F. Davis, Chief
Chemical Analysis and Response Branch, Environmental Services Division

To: Nancy Swyers
SUPR/IANE

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Nancy Swyers Org: SUPR/IANE Phone: 913-551-7703

Project ID: NS07TZRA00

Project Desc: General Motors S.C. - Response Action Monitoring

Location: Sioux City State: Iowa Program: Superfund

Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION Site ID: 07TZ Site OU: 00

GPRA PRC: 303DD2

Purpose: Compliance Monitoring

This is part of a soil/groundwater investigation for the site.

Per THankins 3/12/12: Special account funds are available for contractors only ... not EPA personnel.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FD = Field Duplicate

Units: Specific units in which results are reported.

ug/kg = Micrograms per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.
J = The identification of the analyte is acceptable; the reported value is an estimate.
R = The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.
U = The analyte was not detected at or above the reporting limit.
K = The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.

Project ID: NS07TZRA00 Project Desc: General Motors S.C. - Response Action Monitoring

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	__	Solid	SB-01 (5-6')		04/09/2012	16:40			04/11/2012
2	__	Solid	SB-01 (10-12' bgs)		04/09/2012	16:55			04/11/2012
2	FD	Solid	SB-01 (10-12' bgs)		04/09/2012	16:55			04/11/2012
4	__	Solid	SB-01 (23-24' bgs)		04/09/2012	17:40			04/11/2012
5	__	Solid	SB-01 (25-26)		04/09/2012	17:50			04/11/2012
6	__	Solid	SB-06 (5-6' bgs)		04/10/2012	07:55			04/11/2012
7	__	Solid	SB-06 (15-16' bgs)		04/10/2012	08:12			04/11/2012
8	__	Solid	SB-06 (23-24' bgs)		04/10/2012	08:45			04/11/2012
9	__	Solid	SB-06 (27-28' bgs)		04/10/2012	08:57			04/11/2012
10	__	Solid	SB-07 (15-16)		04/10/2012	14:05			04/11/2012
11	__	Solid	SB-02 (1-2')		04/10/2012	09:10			04/11/2012
12	__	Solid	SB-02 (10-11')		04/10/2012	09:30			04/11/2012
13	__	Solid	SB-02 (20-22' bgs)		04/10/2012	10:05			04/11/2012
13	FD	Solid	SB-02 (20-22' bgs)		04/10/2012	10:05			04/11/2012
15	__	Solid	SB-02 (25-26')		04/10/2012	10:15			04/11/2012
16	__	Solid	SB-05 (0.5-1.5')		04/10/2012	10:27			04/11/2012
17	__	Solid	SB-05 (10-11')		04/10/2012	10:55			04/11/2012
18	__	Solid	SB-05 (17-18')		04/10/2012	11:22			04/12/2012
19	__	Solid	SB-05 (20-22')		04/10/2012	11:38			04/12/2012
19	FD	Solid	SB-05 (20-22')		04/10/2012	11:38			04/12/2012
21	__	Solid	SB-05 (27-28')		04/10/2012	11:55			04/12/2012
22	__	Solid	SB-07 (0.5-1.5')		04/10/2012	13:30			04/12/2012
23	__	Solid	SB-07 (8-9')		04/10/2012	13:50			04/12/2012
24	__	Solid	SB-07 (20-21')		04/10/2012	15:10			04/12/2012
25	__	Solid	SB-07 (27-28')		04/10/2012	15:20			04/12/2012
25	FD	Solid	SB-07 (27-28')		04/10/2012	15:20			04/12/2012
27	__	Solid	SB-08 (5-6')		04/10/2012	15:38			04/12/2012
28	__	Solid	SB-08 (10-12')		04/10/2012	15:47			04/12/2012
29	__	Solid	SB-08 (16-17')		04/10/2012	15:57			04/12/2012
30	__	Solid	SB-08 (23-24')		04/10/2012	16:10			04/12/2012
31	__	Solid	SB-08 (26-27')		04/10/2012	16:20			04/12/2012
32	__	Solid	SB-09 (5-6')		04/10/2012	16:40			04/12/2012
33	__	Solid	SB-09 (10-11')		04/10/2012	16:50			04/12/2012
34	__	Solid	SB-09 (18-20')		04/10/2012	17:10			04/12/2012
35	__	Solid	SB-09 (22-24')		04/10/2012	17:20			04/12/2012
36	__	Solid	SB-09 (26-27')		04/10/2012	17:30			04/12/2012
37	__	Solid	SB-10 (10-11')		04/11/2012	08:00			04/12/2012
38	__	Solid	SB-10 (22-24')		04/11/2012	08:22			04/12/2012
38	FD	Solid	SB-10 (22-24')		04/11/2012	08:22			04/12/2012
40	__	Solid	SB-11 (5-6')		04/11/2012	09:37			04/12/2012
41	__	Solid	SB-11 (16-17')		04/11/2012	10:03			04/12/2012
42	__	Solid	SB-11 (27-28')		04/11/2012	10:35			04/12/2012
43	__	Solid	SB-11 (22-23')		04/11/2012	10:22			04/13/2012
44	__	Solid	SB-15 (0-1')		04/11/2012	15:05			04/13/2012

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
45	__	Solid	SB-15 (5-6')		04/11/2012	15:08			04/13/2012
46	__	Solid	SB-15 (10-11')		04/11/2012	15:15			04/13/2012
47	__	Solid	SB-15 (17-18')		04/11/2012	15:33			04/13/2012
48	__	Solid	SB-15 (27-28')		04/11/2012	15:53			04/13/2012
49	__	Solid	SB-06 (1-2')		04/10/2012	07:40			04/13/2012
50	__	Solid	SB-05 (14-15')		04/10/2012	11:10			04/13/2012
51	__	Solid	SB-07 (4-5')		04/10/2012	13:40			04/13/2012
52	__	Solid	SB-08 (1-2')		04/10/2012	15:30			04/13/2012
53	__	Solid	SB-11 (0-1')		04/10/2012	09:27			04/13/2012
54	__	Solid	SB-01 (18-19')		04/09/2012	17:25			04/13/2012
55	__	Solid	SB-15 (21-22')		04/11/2012	15:43			04/13/2012
56	__	Solid	SB-16 (5-6')		04/12/2012	07:45			04/13/2012
57	__	Solid	SB-16 (10-11')		04/12/2012	08:00			04/13/2012
57	FD	Solid	SB-16 (10-11')		04/12/2012	08:00			04/13/2012
59	__	Solid	SB-16 (15-16')		04/12/2012	08:15			04/13/2012
60	__	Solid	SB-16 (20-21')		04/12/2012	08:22			04/13/2012
61	__	Solid	SB-17 (0-1')		04/12/2012	08:37			04/13/2012
62	__	Solid	SB-17 (5-6')		04/12/2012	08:50			04/13/2012
63	__	Solid	SB-17 (10-11')		04/12/2012	09:05			04/13/2012
64	__	Solid	SB-18 (0-1' bgs)		04/12/2012	09:50			04/13/2012
65	__	Solid	SB-18 (6-7' bgs)		04/12/2012	09:55			04/13/2012
66	__	Solid	SB-17 (14-15')		04/12/2012	09:10			04/13/2012
67	__	Solid	SB-17 (17-18')		04/12/2012	09:18			04/13/2012
68	__	Solid	SB-17 (20-21')		04/12/2012	09:20			04/13/2012
69	__	Solid	SB-17 (25-26')		04/12/2012	09:30			04/13/2012
70	__	Solid	SB-18 (10-11')		04/12/2012	10:07			04/17/2012
71	__	Solid	SB-18 (19-20')		04/12/2012	10:36			04/17/2012
72	__	Solid	SB-18 (20-21')		04/12/2012	10:55			04/17/2012
73	__	Solid	SB-18 (27-28')		04/12/2012	11:00			04/17/2012
74	__	Solid	SB-19 (5-6')		04/12/2012	11:16			04/17/2012
75	__	Solid	SB-19 (15-16')		04/12/2012	11:45			04/17/2012
76	__	Solid	SB-19 (20-21')		04/12/2012	11:55			04/17/2012
77	__	Solid	SB-19 (25-26')		04/12/2012	12:03			04/17/2012
78	__	Solid	SB-20 (5-6')		04/12/2012	13:02			04/17/2012
79	__	Solid	SB-20 (16-17')		04/12/2012	13:45			04/17/2012
80	__	Solid	SB-20 (25-26')		04/12/2012	14:05			04/17/2012
81	__	Solid	SB-21 (0-1')		04/12/2012	14:25			04/17/2012
82	__	Solid	SB-21 (10-11')		04/12/2012	14:45			04/18/2012
83	__	Solid	SB-21 (16-17')		04/12/2012	15:00			04/18/2012
84	__	Solid	SB-21 (20-21')		04/12/2012	15:10			04/18/2012
85	__	Solid	SB-21 (25-26')		04/12/2012	15:20			04/18/2012
86	__	Solid	SB-16 (27-28')		04/12/2012	15:40			04/18/2012
87	__	Solid	SB-22 (0-1')		04/13/2012	07:50			04/18/2012
88	__	Solid	SB-22 (11-12')		04/13/2012	08:05			04/18/2012

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
89	__	Solid	SB-22 (16-17')		04/13/2012	08:15			04/18/2012
90	__	Solid	SB-22 (23-24')		04/13/2012	08:35			04/18/2012
91	__	Solid	SB-23 (5-6')		04/13/2012	09:12			04/18/2012
92	__	Solid	SB-23 (9-10')		04/13/2012	09:22			04/18/2012
93	__	Solid	SB-23 (16-17')		04/13/2012	09:40			04/18/2012
94	__	Solid	SB-23 (26-27')		04/13/2012	10:05			04/18/2012
95	__	Solid	SB-23 (23-24')		04/13/2012	10:03			04/18/2012
96	__	Solid	SB-17 (29-30')		04/13/2012	08:55			04/18/2012
97	__	Solid	SB-24 (0-2')		04/13/2012	10:25			04/17/2012
98	__	Solid	SB-24 (9-10')		04/13/2012	10:50			04/17/2012
99	__	Solid	SB-24 (16-17')		04/13/2012	11:05			04/17/2012
100	__	Solid	SB-24 (20-21')		04/13/2012	11:10			04/17/2012
101	__	Solid	SB-24 (26-27')		04/13/2012	11:15			04/17/2012
102	__	Solid	SB-19 (10-11')		04/12/2012	11:18			04/17/2012
103	__	Solid	SB-22 (5-6')		04/12/2012	07:57			04/17/2012
104	__	Solid	SB-22 (26-27')		04/12/2012	08:40			04/17/2012
105	__	Solid	SB-25 (13-14')		04/13/2012	11:47			04/17/2012
106	__	Solid	SB-25 (16-17')		04/13/2012	11:57			04/17/2012
107	__	Solid	SB-25 (20-22')		04/13/2012	12:06			04/17/2012
107	FD	Solid	SB-25 (20-22')		04/13/2012	12:06			04/17/2012
109	__	Solid	SB-26 (5-6')		04/13/2012	13:35			04/17/2012
110	__	Solid	SB-26 (12-13')		04/13/2012	13:55			04/17/2012
111	__	Solid	SB-26 (23-24')		04/13/2012	14:20			04/17/2012
112	__	Solid	SB-27 (1-2')		04/13/2012	14:38			04/17/2012
113	__	Solid	SB-27 (7-8')		04/13/2012	14:45			04/17/2012
114	__	Solid	SB-27 (10-11')		04/13/2012	14:52			04/17/2012
115	__	Solid	SB-27 (17-18')		04/13/2012	15:05			04/18/2012
116	__	Solid	SB-27 (26-27')		04/13/2012	15:22			04/18/2012
117	__	Solid	SB-28 (0-1')		04/14/2012	07:47			04/17/2012
118	__	Solid	SB-28 (8-10')		04/14/2012	08:03			04/17/2012
118	FD	Solid	SB-28 (8-10')		04/14/2012	08:03			04/17/2012
120	__	Solid	SB-28 (12-12.3')		04/14/2012	08:18			04/17/2012
121	__	Solid	SB-28 (16-18')		04/14/2012	08:20			04/18/2012
121	FD	Solid	SB-28 (16-18')		04/14/2012	08:20			04/18/2012
123	__	Solid	SB-28 (20-21')		04/14/2012	08:25			04/17/2012
124	__	Solid	SB-28 (25-26')		04/14/2012	08:47			04/17/2012
125	__	Solid	SB-29 (0-1')		04/14/2012	09:00			04/17/2012
126	__	Solid	SB-29 (5-6')		04/14/2012	09:10			04/17/2012
127	__	Solid	SB-29 (10-11')		04/14/2012	09:22			04/17/2012
128	__	Solid	SB-29 (16-17')		04/14/2012	09:37			04/17/2012
129	__	Solid	SB-29 (26-28')		04/14/2012	10:03			04/17/2012
129	FD	Solid	SB-29 (26-28')		04/14/2012	10:03			04/17/2012
132	__	Solid	SB-29 (20-22' bgs)		04/14/2012	09:40			04/17/2012
132	FD	Solid	SB-29 (20-22' bgs)		04/14/2012	09:50			04/17/2012

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
134	__	Solid	SB-30 (10-11' bgs)		04/14/2012	10:38			04/17/2012
135	__	Solid	SB-30 (5-7')		04/14/2012	10:30			04/17/2012
136	__	Solid	SB-30 (18-19')		04/14/2012	11:10			04/17/2012
137	__	Solid	SB-30 (21-23')		04/14/2012	11:18			04/17/2012
137	FD	Solid	SB-30 (21-23')		04/14/2012	11:18			04/17/2012
139	__	Solid	SB-31 (4-6')		04/14/2012	11:50			04/17/2012
139	FD	Solid	SB-31 (4-6')		04/14/2012	11:50			04/17/2012
141	__	Solid	SB-31 (14-16')		04/14/2012	12:10			04/17/2012
142	__	Solid	SB-31 (27-28')		04/14/2012	12:18			04/17/2012
143	__	Solid	SB-32 (8-9')		04/14/2012	12:53			04/17/2012
144	__	Solid	SB-32 (17-18')		04/14/2012	13:06			04/17/2012
145	__	Solid	SB-30 (26-27' bgs)		04/14/2012	11:20			04/17/2012
146	__	Solid	SB-32 (22-23')		04/14/2012	13:15			04/17/2012
147	__	Solid	SB-32 (25-26')		04/14/2012	13:22			04/17/2012
148	__	Solid	SB-24 (6-7')		04/13/2012	10:33			04/17/2012
149	__	Solid	SB-33 (13-14')		04/15/2012	07:50			04/18/2012
150	__	Solid	SB-33 (17-18')		04/15/2012	08:00			04/18/2012
151	__	Solid	SB-33 (25-26')		04/15/2012	08:15			04/18/2012
152	__	Solid	SB-34 (17-18')		04/15/2012	08:37			04/18/2012
152	FD	Solid	SB-34 (17-18')		04/15/2012	08:37			04/18/2012
154	__	Solid	SB-35 (25-26' bgs)		04/15/2012	09:30			04/18/2012
155	__	Solid	SB-35 (21-22')		04/15/2012	09:20			04/18/2012
156	__	Solid	SB-35 (17-19' bgs)		04/15/2012	09:10			04/18/2012
157	__	Solid	SB-34 (24-25)		04/15/2012	09:00			04/18/2012
158	__	Solid	SB-34 (20-21' bgs)		04/15/2012	08:55			04/18/2012
159	__	Solid	SB-33 (20-22')		04/15/2012	08:08			04/18/2012
160	__	Solid	SB-36 (14-15')		04/15/2012	10:35			04/18/2012
161	__	Solid	SB-36 (22-23')		04/15/2012	10:52			04/18/2012
162	__	Solid	SB-36 (25-26')		04/15/2012	11:00			04/18/2012
163	__	Solid	SB-38 (19-20')		04/15/2012	12:15			04/18/2012
164	__	Solid	SB-37 (19-20')		04/15/2012				04/18/2012
165	__	Solid	SB-39 (0-1')		04/15/2012	13:18			04/18/2012
166	__	Solid	SB-39 (6-7')		04/15/2012	13:32			04/18/2012
167	__	Solid	SB-39 (10-11')		04/15/2012	13:40			04/18/2012
168	__	Solid	SB-39 (16-17')		04/15/2012	14:08			04/18/2012
169	__	Solid	SB-39 (20-21')		04/15/2012	14:18			04/18/2012
170	__	Solid	SB-39 (26-27')		04/15/2012	14:25			04/18/2012
171	__	Solid	SB-40 (5-6')		04/15/2012	14:45			04/18/2012
172	__	Solid	SB-40 (10-11')		04/15/2012	14:55			04/18/2012
173	__	Solid	SB-40 (16-17')		04/15/2012	15:07			04/18/2012
174	__	Solid	SB-40 (25-27')		04/15/2012	15:22			04/18/2012
174	FD	Solid	SB-40 (25-27')		04/15/2012	15:22			04/18/2012
176	__	Solid	SB-40 (0-1' bgs)		04/15/2012	14:35			04/18/2012
177	__	Solid	SB-03 (0-2')		04/16/2012	07:27			04/18/2012

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Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
178	__	Solid	SB-03 (6-7')		04/16/2012	07:40			04/18/2012
179	__	Solid	SB-03 (9-10')		04/16/2012	07:55			04/18/2012
180	__	Solid	SB-03 (17-18')		04/16/2012	08:05			04/18/2012
180	FD	Solid	SB-03 (17-18')		04/16/2012	08:05			04/18/2012
182	__	Solid	SB-03 (22-23)		04/16/2012	08:22			04/18/2012
183	__	Solid	SB-03 (24-25')		04/16/2012	08:32			04/18/2012
184	__	Solid	SB-01 (31-32)		04/16/2012	08:50			04/18/2012
185	__	Solid	SB-04 (0-1')		04/16/2012	09:00			04/18/2012
186	__	Solid	SB-04 (5-6')		04/16/2012	09:12			04/18/2012
187	__	Solid	SB-04 (10-11')		04/16/2012	09:22			04/18/2012
188	__	Solid	SB-04 (17-18')		04/16/2012	09:35			04/18/2012
189	__	Solid	SB-04 (23-24')		04/16/2012	09:50			04/18/2012
190	__	Solid	SB-04 (24-26')		04/16/2012	09:57			04/18/2012
190	FD	Solid	SB-04 (24-26')		04/16/2012	09:57			04/18/2012
401	__	Solid	SB-31 (10-12' bgs)		04/14/2012	11:55			04/17/2012
402	__	Solid	SB-31 (4-6' bgs)		04/14/2012	11:50			04/17/2012
402	FD	Solid	SB-31 (4-6' bgs)		04/14/2012	11:50			04/17/2012
404	__	Solid	SB-31 (0-1' bgs)		04/14/2012	11:40			04/17/2012

Analysis	Comments About Results For This Analysis

1 PCBs in Soil by GC/EC

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples: 401-__ 402-__ 402-FD 404-__

Comments:
(N/A)

1 Semi-Volatile Organic Compounds in Soil

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples:

1-__	2-__	4-__	5-__	6-__	7-__	8-__
9-__	10-__	11-__	12-__	13-__	13-FD	15-__
16-__	17-__	18-__	19-__	19-FD	21-__	22-__
23-__	24-__	25-__	25-FD	27-__	28-__	29-__
30-__	31-__	32-__	33-__	34-__	35-__	36-__
37-__	38-__	38-FD	40-__	41-__	42-__	43-__
44-__	45-__	46-__	47-__	48-__	49-__	50-__
52-__	53-__	54-__	55-__	56-__	57-__	57-FD
59-__	60-__	61-__	62-__	63-__	64-__	65-__
66-__	67-__	68-__	69-__	70-__	71-__	72-__
73-__	74-__	75-__	76-__	77-__	78-__	79-__
80-__	81-__	82-__	83-__	84-__	85-__	86-__
87-__	88-__	89-__	90-__	91-__	92-__	93-__
94-__	95-__	96-__	97-__	98-__	99-__	100-__
101-__	102-__	103-__	104-__	105-__	106-__	107-__
107-FD	109-__	110-__	111-__	112-__	113-__	114-__
115-__	116-__	117-__	118-__	118-FD	121-__	121-FD
123-__	124-__	125-__	126-__	127-__	128-__	129-__
129-FD	132-__	132-FD	134-__	135-__	136-__	137-__
137-FD	139-__	139-FD	141-__	142-__	143-__	144-__
145-__	146-__	147-__	149-__	150-__	151-__	152-__
152-FD	154-__	155-__	156-__	157-__	158-__	159-__
160-__	161-__	162-__	163-__	164-__	165-__	166-__
167-__	168-__	169-__	170-__	171-__	172-__	173-__
174-__	174-FD	176-__	177-__	178-__	179-__	180-__
180-FD	182-__	183-__	184-__	185-__	186-__	187-__
188-__	189-__	190-__	190-FD			

Comments:
1,4-dioxane was UJ-coded in samples -124, -168, and -186. This analyte was not found in

Analysis Comments About Results For This Analysis

the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recoveries of the surrogate (1,4-dioxane-d8: 35-36% vs 40-150%). The actual reporting limit for this analyte may be higher than the reported value.

1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples:							
	1-__	2-__	2-FD	4-__	5-__	6-__	7-__
	8-__	9-__	10-__	11-__	12-__	13-__	13-FD
	15-__	16-__	17-__	18-__	19-__	19-FD	21-__
	22-__	23-__	24-__	25-__	25-FD	27-__	28-__
	29-__	30-__	31-__	32-__	33-__	34-__	35-__
	36-__	37-__	38-__	38-FD	40-__	41-__	42-__
	43-__	44-__	45-__	46-__	47-__	48-__	49-__
	50-__	51-__	52-__	53-__	54-__	55-__	56-__
	57-__	57-FD	59-__	60-__	61-__	62-__	63-__
	64-__	65-__	66-__	67-__	68-__	69-__	70-__
	71-__	72-__	73-__	74-__	75-__	76-__	77-__
	78-__	79-__	80-__	81-__	82-__	83-__	84-__
	85-__	86-__	87-__	88-__	89-__	90-__	91-__
	92-__	93-__	94-__	95-__	96-__	97-__	98-__
	99-__	100-__	101-__	102-__	103-__	104-__	105-__
	106-__	107-__	107-FD	109-__	110-__	111-__	112-__
	113-__	114-__	115-__	116-__	117-__	118-__	118-FD
	120-__	121-__	121-FD	123-__	124-__	125-__	126-__
	127-__	128-__	129-__	129-FD	132-__	132-FD	134-__
	135-__	136-__	137-__	137-FD	139-__	139-FD	141-__
	142-__	143-__	144-__	145-__	146-__	147-__	148-__
	149-__	150-__	151-__	152-__	152-FD	154-__	155-__
	156-__	157-__	158-__	159-__	160-__	161-__	162-__
	165-__	166-__	167-__	168-__	169-__	170-__	171-__
	172-__	173-__	174-__	174-FD	176-__	177-__	178-__
	179-__	180-__	180-FD	182-__	183-__	184-__	185-__
	186-__	187-__	188-__	189-__	190-__	190-FD	

Comments:

Samples -8, -17, -18, -45, -46, -47, -50, -57, -57FD, -62, -63, -66, -68, -70, -84, -89, -90, -99, -118, -118FD, -121FD, -123, -137, -137FD, -158, -168, -169, -172, -179, -180, -180FD, -182, -183, -186, -187, and -188 were analyzed at medium level, therefore, have elevated reporting limits.

Several samples were reported at low and medium levels, however, all analytes were diluted out in the medium level, therefore, the low level analyses were chosen to report.

Analysis	Comments About Results For This Analysis

Several analytes were detected above the calibration range with no further dilutions, therefore, the result is an estimate and J-coded.

Several samples were reanalyzed due to outliers with most results similar in both samples. The sample with the least amount of data qualification was chosen to report, therefore, samples -7RE and -143RE were reported.

Trichloroethene in sample -18 and toluene in sample -159 were J-coded. Although the analytes in question have been positively identified in the samples, the quantitations are an estimate (J-coded) due to high recoveries of these analytes (trichloroethene: 145% vs 62-137% and toluene: 174% vs 59-139%) in the laboratory matrix spike duplicates. The actual concentrations for these analytes may be lower than the reported values.

Toluene in samples -126 and -159 was J-coded. Although the analyte in question has been positively identified in the samples, the quantitations are an estimate (J-coded) due to poor precision obtained for this analyte (toluene: 29-43% vs 21%) in the laboratory matrix spike and matrix spike duplicate.

The internal standards, 1,4-dichlorobenzene-d4 in samples -2, -2FD, -4, -5, -6, -7, -10, -12, -19FD, -23, -33, -37, -38, -38FD, -54, -56, -60, -72, -83, -85, -126, -128, -132, -143, -148, -150, -159, -160, and -161 and chlorobenzene-d5 in sample -37, had unacceptable low responses indicating that it was not possible to obtain valid results for bromoform, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene in samples -2, -2FD, -4, -5, -6, -7, -10, -12, -19FD, -23, -33, -37, -38, -38FD, -54, -56, -60, -72, -83, -85, -126, -128, -132, -143, -148, -150, -159, -160, and -161 and 1,1,1-trichloroethane, cyclohexane, carbon tetrachloride, benzene, trichloroethene, methylcyclohexane, 1,2-dichloropropane, bromodichloromethane, cis-1,3-dichloropropene, 4-methyl-2-pentanone, toluene, trans-1,3-dichloropropene, 1,1,2-trichloroethane, tetrachloroethene, 2-hexanone, dibromochloromethane, 1,2-dibromoethane, chlorobenzene, ethyl benzene, m,p-xylene, o-xylene, styrene, isopropylbenzene, and 1,1,2,2-tetrachloroethane in sample -37. Results of 'N/A' were reported with R-codes for these analytes.

Bromomethane in samples -8, -17, -18, -45, -46, -47, -50, -57, -57FD, -62, -63, -66, -68, -70, -84, -89, -90, -99, -118, -118FD, -121FD, -123, -137, -137FD, -158, -168, -169, -172, -179, -180, -180FD, -182, -183, -186, -187, and -188 and vinyl chloride in samples -158, -168, -169, -172, -179, -180, -180FD, -182, -183, -186, -187, and -188 were UJ-coded. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications (%D for bromomethane: -25.1-(-36.5)% vs 25% and vinyl chloride: -26% vs 25%). The actual reporting limits for these analytes may be higher than the reported values.

Carbon disulfide in sample -6, 1,1-dichloroethene in samples -35 and -36, 1,1,1-trichloroethane in samples -2FD, -5, -6, -13, -13FD, -38, -38FD, -54, -55, -60, -67, -102, -148, -152FD, -154, -155, -156, and -157, benzene in samples -2, -2FD, and -6, cyclohexane in samples -2, -2FD, -6, -10, -38, -38FD, and -60, methylcyclohexane in samples -2, -2FD, -4, -6, -10, -38, -38FD, -54, and -60, toluene in samples -6, -10, -38, -38FD, and -159, tetrachloroethene in sample -56, 1,1,2-trichloroethane in samples -60 and

Analysis	Comments About Results For This Analysis

-72 were J-coded. Although the analytes in question have been positively identified in the samples, the quantitations are an estimate (J-coded) due to high recoveries of a surrogate analyte (chloroethane-d5: 130-152% vs 61-130%; 1,1-dichloroethene-d2: 152-198% vs 45-132%; 1,2-dichloroethane-d4: 122-149% vs 79-122%; benzene-d6: 125-175% vs 80-121%; 1,2-dichloropropane-d6: 125-163% vs 74-124%; toluene-d8: 123-138% vs 78-121%; trans-1,3-dichloropropene-d4: 142-147% vs 72-130%) in these samples. The actual concentrations for these analytes may be lower than the reported values.

At the request of the Project Manager, tetrachloroethene (PCE) and trichloroethene (TCE) were reported as positive hits even when the values were below the calibration range. Values below the calibration range were J-coded. Samples affected were: -1, -6, -7, -8, -9, -11, -17, -21, -22, -23, -24, -25, -25FD, -30, -31, -34, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -52, -56, -57, -57FD, -61, -62, -63, -64, -65, -66, -68, -73, -75, -76, -77, -81, 84, -86, -87, -89, -90, -94, -95, -96, -98, -99, -101, -103, -104, -109, -110, -111, -112, -116, -121, -121FD, -123, -124, -125, -127, -128, -132FD, -134, -135, -137, -137FD, -139, -139FD, -143, -144, -145, -146, -148, -149, -152, -152FD, -154, -155, -157, -158, -161, -166, -167, -170, -171, -177, -180, -180FD, -184, -185, -186 and -187.

Analysis/ Analyte	Units	1-__	2-__	2-FD	4-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	70 U	87 U		75 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	17 U	31	27	27
Benzene	ug/kg	8.5 U	5.9 J	5.4 J	8.1 U
Bromochloromethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Bromodichloromethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Bromoform	ug/kg	8.5 U	N/A R	N/A R	N/A R
Bromomethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
2-Butanone	ug/kg	17 U	11 U	10 U	16 U
Carbon Disulfide	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Carbon Tetrachloride	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Chlorobenzene	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Chloroethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Chloroform	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Chloromethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Cyclohexane	ug/kg	8.5 U	8.2 J	5.9 J	8.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	8.5 U	N/A R	N/A R	N/A R
Dibromochloromethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
1,2-Dibromoethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
1,2-Dichlorobenzene	ug/kg	8.5 U	N/A R	N/A R	N/A R
1,3-Dichlorobenzene	ug/kg	8.5 U	N/A R	N/A R	N/A R
1,4-Dichlorobenzene	ug/kg	8.5 U	N/A R	N/A R	N/A R
Dichlorodifluoromethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
1,1-Dichloroethane	ug/kg	8.5 U	5.7 U	5.1 U	170
1,2-Dichloroethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
1,1-Dichloroethene	ug/kg	8.5 U	5.7 U	5.1 U	60
cis-1,2-Dichloroethene	ug/kg	8.5 U	5.7 U	5.1 U	430 J
trans-1,2-Dichloroethene	ug/kg	8.5 U	5.7 U	5.1 U	12
1,2-Dichloropropane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
cis-1,3-Dichloropropene	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
trans-1,3-Dichloropropene	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Ethyl Benzene	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
2-Hexanone	ug/kg	17 U	11 U	10 U	16 U
Isopropylbenzene	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Methyl Acetate	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Methyl tert-butyl ether	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Methylcyclohexane	ug/kg	8.5 U	10 J	7.9 J	8.4 J
Methylene Chloride	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
4-Methyl-2-Pentanone	ug/kg	17 U	11 U	10 U	16 U
Styrene	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
1,1,2,2-Tetrachloroethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Tetrachloroethene	ug/kg	3.8 K	20	16	120
Toluene	ug/kg	8.5 U	10	8.2	8.9
1,2,3-Trichlorobenzene	ug/kg	8.5 U	N/A R	N/A R	N/A R
1,2,4-Trichlorobenzene	ug/kg	8.5 U	N/A R	N/A R	N/A R

Analysis/ Analyte	Units	1-__	2-__	2-FD	4-__
1,1,1-Trichloroethane	ug/kg	8.5 U	24	18 J	1400 J
1,1,2-Trichloroethane	ug/kg	8.5 U	5.7 U	5.1 U	8.9
Trichloroethene	ug/kg	1.7 J	13	10	1800 J
Trichlorofluoromethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
Vinyl Chloride	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
m and/or p-Xylene	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U
o-Xylene	ug/kg	8.5 U	5.7 U	5.1 U	8.1 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	72 U	80 U	80 U	91 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	42	71	57	890 U
Benzene	ug/kg	8.3 U	6.0 J	17 U	450 U
Bromochloromethane	ug/kg	8.3 U	5.6 U	17 U	450 U
Bromodichloromethane	ug/kg	8.3 U	5.6 U	17 U	450 U
Bromoform	ug/kg	N/A R	N/A R	N/A R	450 U
Bromomethane	ug/kg	8.3 U	5.6 U	17 U	450 UJ
2-Butanone	ug/kg	17 U	13	34 U	890 U
Carbon Disulfide	ug/kg	8.3 U	8.2 J	17 U	450 U
Carbon Tetrachloride	ug/kg	8.3 U	5.6 U	17 U	450 U
Chlorobenzene	ug/kg	8.3 U	5.6 U	17 U	450 U
Chloroethane	ug/kg	8.3 U	5.6 U	17 U	450 U
Chloroform	ug/kg	8.3 U	5.6 U	17 U	450 U
Chloromethane	ug/kg	8.3 U	5.6 U	17 U	450 U
Cyclohexane	ug/kg	8.3 U	9.3 J	17 U	450 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A R	N/A R	N/A R	450 U
Dibromochloromethane	ug/kg	8.3 U	5.6 U	17 U	450 U
1,2-Dibromoethane	ug/kg	8.3 U	5.6 U	17 U	450 U
1,2-Dichlorobenzene	ug/kg	N/A R	N/A R	N/A R	450 U
1,3-Dichlorobenzene	ug/kg	N/A R	N/A R	N/A R	450 U
1,4-Dichlorobenzene	ug/kg	N/A R	N/A R	N/A R	450 U
Dichlorodifluoromethane	ug/kg	8.3 U	5.6 U	17 U	450 U
1,1-Dichloroethane	ug/kg	37	5.6 U	84	450 U
1,2-Dichloroethane	ug/kg	8.3 U	5.6 U	17 U	450 U
1,1-Dichloroethene	ug/kg	13	5.6 U	17 U	450 U
cis-1,2-Dichloroethene	ug/kg	120	5.6 U	17 U	450 U
trans-1,2-Dichloroethene	ug/kg	8.3 U	5.6 U	17 U	450 U
1,2-Dichloropropane	ug/kg	8.3 U	5.6 U	17 U	450 U
cis-1,3-Dichloropropene	ug/kg	8.3 U	5.6 U	17 U	450 U
trans-1,3-Dichloropropene	ug/kg	8.3 U	5.6 U	17 U	450 U
Ethyl Benzene	ug/kg	8.3 U	5.6 U	17 U	450 U
2-Hexanone	ug/kg	17 U	11 U	34 U	890 U
Isopropylbenzene	ug/kg	8.3 U	5.6 U	17 U	450 U
Methyl Acetate	ug/kg	8.3 U	5.6 U	17 U	450 U
Methyl tert-butyl ether	ug/kg	8.3 U	5.6 U	17 U	450 U
Methylcyclohexane	ug/kg	8.3 U	12 J	17 U	450 U
Methylene Chloride	ug/kg	8.3 U	5.6 U	17 U	450 U
4-Methyl-2-Pentanone	ug/kg	17 U	11 U	34 U	890 U
Styrene	ug/kg	8.3 U	5.6 U	17 U	450 U
1,1,2,2-Tetrachloroethane	ug/kg	8.3 U	5.6 U	17 U	450 U
Tetrachloroethene	ug/kg	61	0.39 J	1.2 J	14 J
Toluene	ug/kg	8.3 U	9.2 J	17 U	450 U
1,2,3-Trichlorobenzene	ug/kg	N/A R	N/A R	N/A R	450 U
1,2,4-Trichlorobenzene	ug/kg	N/A R	N/A R	N/A R	450 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1,1,1-Trichloroethane	ug/kg	390 J	44 J	180	450 U
1,1,2-Trichloroethane	ug/kg	8.3 U	5.6 U	17 U	450 U
Trichloroethene	ug/kg	690 J	2.1 J	17 U	450 U
Trichlorofluoromethane	ug/kg	8.3 U	5.6 U	17 U	450 U
1,1,2-Trichlorotrifluoroethane	ug/kg	8.3 U	5.6 U	17 U	450 U
Vinyl Chloride	ug/kg	8.3 U	5.6 U	17 U	450 U
m and/or p-Xylene	ug/kg	8.3 U	5.6 U	17 U	450 U
o-Xylene	ug/kg	8.3 U	5.6 U	17 U	450 U

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	75 U	77 U	82 U	72 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	14	24	17	22
Benzene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Bromochloromethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Bromodichloromethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Bromoform	ug/kg	6.1 U	N/A R	6.0 U	N/A R
Bromomethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
2-Butanone	ug/kg	12 U	11 U	12 U	11 U
Carbon Disulfide	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Carbon Tetrachloride	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Chlorobenzene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Chloroethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Chloroform	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Chloromethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Cyclohexane	ug/kg	6.1 U	7.0 J	6.0 U	5.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.1 U	N/A R	6.0 U	N/A R
Dibromochloromethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
1,2-Dibromoethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
1,2-Dichlorobenzene	ug/kg	6.1 U	N/A R	6.0 U	N/A R
1,3-Dichlorobenzene	ug/kg	6.1 U	N/A R	6.0 U	N/A R
1,4-Dichlorobenzene	ug/kg	6.1 U	N/A R	6.0 U	N/A R
Dichlorodifluoromethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
1,1-Dichloroethane	ug/kg	250 J	5.5 U	6.0 U	5.6 U
1,2-Dichloroethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
1,1-Dichloroethene	ug/kg	33	5.5 U	6.0 U	5.6 U
cis-1,2-Dichloroethene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
trans-1,2-Dichloroethene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
1,2-Dichloropropane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
cis-1,3-Dichloropropene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
trans-1,3-Dichloropropene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Ethyl Benzene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
2-Hexanone	ug/kg	12 U	11 U	12 U	11 U
Isopropylbenzene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Methyl Acetate	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Methyl tert-butyl ether	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Methylcyclohexane	ug/kg	6.1 U	8.8 J	6.0 U	6.6
Methylene Chloride	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
4-Methyl-2-Pentanone	ug/kg	12 U	11 U	12 U	11 U
Styrene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
1,1,2,2-Tetrachloroethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Tetrachloroethene	ug/kg	3.9 J	5.5 U	2.2 J	63
Toluene	ug/kg	6.1 U	6.7 J	6.0 U	7.2
1,2,3-Trichlorobenzene	ug/kg	6.1 U	N/A R	6.0 U	N/A R
1,2,4-Trichlorobenzene	ug/kg	6.1 U	N/A R	6.0 U	N/A R

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1,1,1-Trichloroethane	ug/kg	850 J	5.5 U	6.0 U	27
1,1,2-Trichloroethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Trichloroethene	ug/kg	14	5.5 U	N/A R	21
Trichlorofluoromethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
Vinyl Chloride	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
m and/or p-Xylene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U
o-Xylene	ug/kg	6.1 U	5.5 U	6.0 U	5.6 U

Analysis/ Analyte	Units	13-__	13-FD	15-__	16-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	87 U	68 U	70 U	660 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	39	27	17	41
Benzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Bromochloromethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Bromodichloromethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Bromoform	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Bromomethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
2-Butanone	ug/kg	12 U	10 U	11 U	11 U
Carbon Disulfide	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Carbon Tetrachloride	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Chlorobenzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Chloroethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Chloroform	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Chloromethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Cyclohexane	ug/kg	6.8	5.6	6.0	5.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Dibromochloromethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,2-Dibromoethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,2-Dichlorobenzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,3-Dichlorobenzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,4-Dichlorobenzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Dichlorodifluoromethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,1-Dichloroethane	ug/kg	17	6.7	5.7 U	5.6 U
1,2-Dichloroethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,1-Dichloroethene	ug/kg	60	24	7.9	5.6 U
cis-1,2-Dichloroethene	ug/kg	9.4	5.0 U	5.7 U	5.6 U
trans-1,2-Dichloroethene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,2-Dichloropropane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
cis-1,3-Dichloropropene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
trans-1,3-Dichloropropene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Ethyl Benzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
2-Hexanone	ug/kg	12 U	10 U	11 U	11 U
Isopropylbenzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Methyl Acetate	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Methyl tert-butyl ether	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Methylcyclohexane	ug/kg	9.6	7.5	8.5	5.6 U
Methylene Chloride	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
4-Methyl-2-Pentanone	ug/kg	12 U	10 U	11 U	11 U
Styrene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,1,2,2-Tetrachloroethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Tetrachloroethene	ug/kg	710 J	390 J	120	270 J
Toluene	ug/kg	8.1	6.7	7.9	5.6 U
1,2,3-Trichlorobenzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,2,4-Trichlorobenzene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U

Analysis/ Analyte	Units	13-__	13-FD	15-__	16-__
1,1,1-Trichloroethane	ug/kg	1400 J	680 J	130	14
1,1,2-Trichloroethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Trichloroethene	ug/kg	220	110	46	37
Trichlorofluoromethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
Vinyl Chloride	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
m and/or p-Xylene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U
o-Xylene	ug/kg	6.2 U	5.0 U	5.7 U	5.6 U

Analysis/ Analyte	Units	17-__	18-__	19-__	19-FD
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	87 U	90 U	69 U	72 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	860 U	810 U	23	26
Benzene	ug/kg	430 U	410 U	4.6 U	4.9 U
Bromochloromethane	ug/kg	430 U	410 U	4.6 U	4.9 U
Bromodichloromethane	ug/kg	430 U	410 U	4.6 U	4.9 U
Bromoform	ug/kg	430 U	410 U	4.6 U	N/A R
Bromomethane	ug/kg	430 UJ	410 UJ	4.6 U	4.9 U
2-Butanone	ug/kg	860 U	810 U	9.2 U	9.8 U
Carbon Disulfide	ug/kg	430 U	410 U	4.6 U	4.9 U
Carbon Tetrachloride	ug/kg	430 U	410 U	4.6 U	4.9 U
Chlorobenzene	ug/kg	430 U	410 U	4.6 U	4.9 U
Chloroethane	ug/kg	430 U	410 U	4.6 U	4.9 U
Chloroform	ug/kg	430 U	410 U	4.6 U	4.9 U
Chloromethane	ug/kg	430 U	410 U	4.6 U	4.9 U
Cyclohexane	ug/kg	430 U	410 U	4.6 U	4.9 U
1,2-Dibromo-3-Chloropropane	ug/kg	430 U	410 U	4.6 U	N/A R
Dibromochloromethane	ug/kg	430 U	410 U	4.6 U	4.9 U
1,2-Dibromoethane	ug/kg	430 U	410 U	4.6 U	4.9 U
1,2-Dichlorobenzene	ug/kg	430 U	410 U	4.6 U	N/A R
1,3-Dichlorobenzene	ug/kg	430 U	410 U	4.6 U	N/A R
1,4-Dichlorobenzene	ug/kg	430 U	410 U	4.6 U	N/A R
Dichlorodifluoromethane	ug/kg	430 U	410 U	4.6 U	4.9 U
1,1-Dichloroethane	ug/kg	430 U	410 U	9.5	69
1,2-Dichloroethane	ug/kg	430 U	410 U	4.6 U	4.9 U
1,1-Dichloroethene	ug/kg	430 U	410 U	4.6 U	24
cis-1,2-Dichloroethene	ug/kg	430 U	410 U	14	100
trans-1,2-Dichloroethene	ug/kg	430 U	410 U	4.6 U	4.9 U
1,2-Dichloropropane	ug/kg	430 U	410 U	4.6 U	4.9 U
cis-1,3-Dichloropropene	ug/kg	430 U	410 U	4.6 U	4.9 U
trans-1,3-Dichloropropene	ug/kg	430 U	410 U	4.6 U	4.9 U
Ethyl Benzene	ug/kg	430 U	410 U	4.6 U	4.9 U
2-Hexanone	ug/kg	860 U	810 U	9.2 U	9.8 U
Isopropylbenzene	ug/kg	430 U	410 U	4.6 U	4.9 U
Methyl Acetate	ug/kg	430 U	410 U	4.6 U	4.9 U
Methyl tert-butyl ether	ug/kg	430 U	410 U	4.6 U	4.9 U
Methylcyclohexane	ug/kg	430 U	410 U	4.8	9.4
Methylene Chloride	ug/kg	430 U	410 U	4.6 U	4.9 U
4-Methyl-2-Pentanone	ug/kg	860 U	810 U	9.2 U	9.8 U
Styrene	ug/kg	430 U	410 U	4.6 U	4.9 U
1,1,2,2-Tetrachloroethane	ug/kg	430 U	410 U	4.6 U	4.9 U
Tetrachloroethene	ug/kg	3100	1400	25	130
Toluene	ug/kg	430 U	410 U	4.9	4.9 U
1,2,3-Trichlorobenzene	ug/kg	430 U	410 U	4.6 U	N/A R
1,2,4-Trichlorobenzene	ug/kg	430 U	410 U	4.6 U	N/A R

Analysis/ Analyte	Units	17-__	18-__	19-__	19-FD
1,1,1-Trichloroethane	ug/kg	430 U	410 U	93	610 J
1,1,2-Trichloroethane	ug/kg	430 U	410 U	4.6 U	4.9 U
Trichloroethene	ug/kg	400 J	1600 J	110	690 J
Trichlorofluoromethane	ug/kg	430 U	410 U	4.6 U	4.9 U
1,1,2-Trichlorotrifluoroethane	ug/kg	430 U	410 U	4.6 U	4.9 U
Vinyl Chloride	ug/kg	430 U	410 U	4.6 U	4.9 U
m and/or p-Xylene	ug/kg	430 U	410 U	4.6 U	4.9 U
o-Xylene	ug/kg	430 U	410 U	4.6 U	4.9 U

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	74 U	68 U	86 U	69 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	18 U	59	35	18
Benzene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Bromochloromethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Bromodichloromethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Bromoform	ug/kg	8.8 U	7.0 U	N/A R	5.2 U
Bromomethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
2-Butanone	ug/kg	18 U	18	13 U	10 U
Carbon Disulfide	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Carbon Tetrachloride	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Chlorobenzene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Chloroethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Chloroform	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Chloromethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Cyclohexane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	8.8 U	7.0 U	N/A R	5.2 U
Dibromochloromethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
1,2-Dibromoethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
1,2-Dichlorobenzene	ug/kg	8.8 U	7.0 U	N/A R	5.2 U
1,3-Dichlorobenzene	ug/kg	8.8 U	7.0 U	N/A R	5.2 U
1,4-Dichlorobenzene	ug/kg	8.8 U	7.0 U	N/A R	5.2 U
Dichlorodifluoromethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
1,1-Dichloroethane	ug/kg	39	7.0 U	6.5 U	58
1,2-Dichloroethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
1,1-Dichloroethene	ug/kg	11	7.0 U	6.5 U	17
cis-1,2-Dichloroethene	ug/kg	110	7.0 U	6.5 U	5.2 U
trans-1,2-Dichloroethene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
1,2-Dichloropropane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
cis-1,3-Dichloropropene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
trans-1,3-Dichloropropene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Ethyl Benzene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
2-Hexanone	ug/kg	18 U	14 U	13 U	10 U
Isopropylbenzene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Methyl Acetate	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Methyl tert-butyl ether	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Methylcyclohexane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Methylene Chloride	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
4-Methyl-2-Pentanone	ug/kg	18 U	14 U	13 U	10 U
Styrene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
1,1,2,2-Tetrachloroethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Tetrachloroethene	ug/kg	7.5 J	7.0 U	6.5 U	2.4 J
Toluene	ug/kg	8.8 U	7.0 U	8.8	5.2 U
1,2,3-Trichlorobenzene	ug/kg	8.8 U	7.0 U	N/A R	5.2 U
1,2,4-Trichlorobenzene	ug/kg	8.8 U	7.0 U	N/A R	5.2 U

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1,1,1-Trichloroethane	ug/kg	65	7.0 U	6.5 U	240 J
1,1,2-Trichloroethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Trichloroethene	ug/kg	60	0.45 J	0.31 J	6.5
Trichlorofluoromethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
Vinyl Chloride	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
m and/or p-Xylene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U
o-Xylene	ug/kg	8.8 U	7.0 U	6.5 U	5.2 U

Analysis/ Analyte	Units	25-__	25-FD	27-__	28-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	72 U	78 U	74 U	81 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11	13	30	17
Benzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Bromochloromethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Bromodichloromethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Bromoform	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Bromomethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
2-Butanone	ug/kg	11 U	12 U	12 U	13 U
Carbon Disulfide	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Carbon Tetrachloride	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Chlorobenzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Chloroethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Chloroform	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Chloromethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Cyclohexane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Dibromochloromethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,2-Dibromoethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,2-Dichlorobenzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,3-Dichlorobenzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,4-Dichlorobenzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Dichlorodifluoromethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,1-Dichloroethane	ug/kg	190	150	6.2 U	6.3 U
1,2-Dichloroethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,1-Dichloroethene	ug/kg	20	23	6.2 U	6.3 U
cis-1,2-Dichloroethene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
trans-1,2-Dichloroethene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,2-Dichloropropane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
cis-1,3-Dichloropropene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
trans-1,3-Dichloropropene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Ethyl Benzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
2-Hexanone	ug/kg	11 U	12 U	12 U	13 U
Isopropylbenzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Methyl Acetate	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Methyl tert-butyl ether	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Methylcyclohexane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Methylene Chloride	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
4-Methyl-2-Pentanone	ug/kg	11 U	12 U	12 U	13 U
Styrene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,1,2,2-Tetrachloroethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Tetrachloroethene	ug/kg	1.2 J	1.8 J	6.2 U	6.3 U
Toluene	ug/kg	5.4 U	6.0 U	7.6	6.3 U
1,2,3-Trichlorobenzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,2,4-Trichlorobenzene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U

Analysis/ Analyte	Units	25-__	25-FD	27-__	28-__
1,1,1-Trichloroethane	ug/kg	370 J	350 J	6.2 U	6.3 U
1,1,2-Trichloroethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Trichloroethene	ug/kg	7.2	8.4	6.2 U	6.3 U
Trichlorofluoromethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
Vinyl Chloride	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
m and/or p-Xylene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U
o-Xylene	ug/kg	5.4 U	6.0 U	6.2 U	6.3 U

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	69 U	72 U	70 U	85 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	22	12	14	65
Benzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Bromochloromethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Bromodichloromethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Bromoform	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Bromomethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
2-Butanone	ug/kg	11 U	10 U	10 U	12 U
Carbon Disulfide	ug/kg	5.5 U	5.2 U	5.1 U	7.8
Carbon Tetrachloride	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Chlorobenzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Chloroethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Chloroform	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Chloromethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Cyclohexane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Dibromochloromethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,2-Dibromoethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,2-Dichlorobenzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,3-Dichlorobenzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,4-Dichlorobenzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Dichlorodifluoromethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,1-Dichloroethane	ug/kg	5.5 U	120	37	6.1 U
1,2-Dichloroethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,1-Dichloroethene	ug/kg	5.5 U	26	11	6.1 U
cis-1,2-Dichloroethene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
trans-1,2-Dichloroethene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,2-Dichloropropane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
cis-1,3-Dichloropropene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
trans-1,3-Dichloropropene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Ethyl Benzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
2-Hexanone	ug/kg	11 U	10 U	10 U	12 U
Isopropylbenzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Methyl Acetate	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Methyl tert-butyl ether	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Methylcyclohexane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Methylene Chloride	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
4-Methyl-2-Pentanone	ug/kg	11 U	10 U	10 U	12 U
Styrene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,1,2,2-Tetrachloroethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Tetrachloroethene	ug/kg	5.5 U	2.3 J	4.9 J	6.1 U
Toluene	ug/kg	6.7	5.2 U	5.1 U	8.8
1,2,3-Trichlorobenzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,2,4-Trichlorobenzene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
1,1,1-Trichloroethane	ug/kg	5.5 U	430 J	210 J	15
1,1,2-Trichloroethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Trichloroethene	ug/kg	5.5 U	5.5	7.5	6.1 U
Trichlorofluoromethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
Vinyl Chloride	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
m and/or p-Xylene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U
o-Xylene	ug/kg	5.5 U	5.2 U	5.1 U	6.1 U

Analysis/ Analyte	Units	33-__	34-__	35-__	36-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	87 U	74 U	74 U	74 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	57	17	15	23
Benzene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Bromochloromethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Bromodichloromethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Bromoform	ug/kg	N/A R	5.6 U	4.6 U	5.8 U
Bromomethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
2-Butanone	ug/kg	13 U	11 U	9.2 U	12 U
Carbon Disulfide	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Carbon Tetrachloride	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Chlorobenzene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Chloroethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Chloroform	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Chloromethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Cyclohexane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A R	5.6 U	4.6 U	5.8 U
Dibromochloromethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
1,2-Dibromoethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
1,2-Dichlorobenzene	ug/kg	N/A R	5.6 U	4.6 U	5.8 U
1,3-Dichlorobenzene	ug/kg	N/A R	5.6 U	4.6 U	5.8 U
1,4-Dichlorobenzene	ug/kg	N/A R	5.6 U	4.6 U	5.8 U
Dichlorodifluoromethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
1,1-Dichloroethane	ug/kg	6.4 U	5.6 U	750 J	1500 J
1,2-Dichloroethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
1,1-Dichloroethene	ug/kg	6.4 U	5.6 U	140 J	290 J
cis-1,2-Dichloroethene	ug/kg	6.4 U	5.6 U	6.0	64
trans-1,2-Dichloroethene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
1,2-Dichloropropane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
cis-1,3-Dichloropropene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
trans-1,3-Dichloropropene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Ethyl Benzene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
2-Hexanone	ug/kg	13 U	11 U	9.2 U	12 U
Isopropylbenzene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Methyl Acetate	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Methyl tert-butyl ether	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Methylcyclohexane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Methylene Chloride	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
4-Methyl-2-Pentanone	ug/kg	13 U	11 U	9.2 U	12 U
Styrene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
1,1,2,2-Tetrachloroethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Tetrachloroethene	ug/kg	6.4 U	0.61 J	5.7	13
Toluene	ug/kg	8.4	5.6 U	4.6 U	5.8 U
1,2,3-Trichlorobenzene	ug/kg	N/A R	5.6 U	4.6 U	5.8 U
1,2,4-Trichlorobenzene	ug/kg	N/A R	5.6 U	4.6 U	5.8 U

Analysis/ Analyte	Units	33-__	34-__	35-__	36-__
1,1,1-Trichloroethane	ug/kg	47	13	2400 J	3600 J
1,1,2-Trichloroethane	ug/kg	6.4 U	5.6 U	4.6 U	60
Trichloroethene	ug/kg	6.4 U	1.8 J	29	160
Trichlorofluoromethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
Vinyl Chloride	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
m and/or p-Xylene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U
o-Xylene	ug/kg	6.4 U	5.6 U	4.6 U	5.8 U

Analysis/ Analyte	Units	37-__	38-__	38-FD	40-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	80 U	77 U	83 U	79 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	48	27	31	36
Benzene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Bromochloromethane	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
Bromodichloromethane	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Bromoform	ug/kg	N/A R	N/A R	N/A R	5.8 U
Bromomethane	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
2-Butanone	ug/kg	18	11 U	13 U	12 U
Carbon Disulfide	ug/kg	6.3 U	5.3 U	6.5 U	8.4
Carbon Tetrachloride	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Chlorobenzene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Chloroethane	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
Chloroform	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
Chloromethane	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
Cyclohexane	ug/kg	N/A R	5.3 J	8.3 J	5.8 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A R	N/A R	N/A R	5.8 U
Dibromochloromethane	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
1,2-Dibromoethane	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
1,2-Dichlorobenzene	ug/kg	N/A R	N/A R	N/A R	5.8 U
1,3-Dichlorobenzene	ug/kg	N/A R	N/A R	N/A R	5.8 U
1,4-Dichlorobenzene	ug/kg	N/A R	N/A R	N/A R	5.8 U
Dichlorodifluoromethane	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
1,1-Dichloroethane	ug/kg	6.3 U	18	22	5.8 U
1,2-Dichloroethane	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
1,1-Dichloroethene	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
cis-1,2-Dichloroethene	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
trans-1,2-Dichloroethene	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
1,2-Dichloropropane	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
cis-1,3-Dichloropropene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
trans-1,3-Dichloropropene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Ethyl Benzene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
2-Hexanone	ug/kg	N/A R	11 U	13 U	12 U
Isopropylbenzene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Methyl Acetate	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
Methyl tert-butyl ether	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
Methylcyclohexane	ug/kg	N/A R	6.9 J	11 J	7.3
Methylene Chloride	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
4-Methyl-2-Pentanone	ug/kg	N/A R	11 U	13 U	12 U
Styrene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
1,1,2,2-Tetrachloroethane	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Tetrachloroethene	ug/kg	N/A R	5.3 U	6.5 U	1.2 J
Toluene	ug/kg	N/A R	7.0 J	9.5 J	8.8
1,2,3-Trichlorobenzene	ug/kg	N/A R	N/A R	N/A R	5.8 U
1,2,4-Trichlorobenzene	ug/kg	N/A R	N/A R	N/A R	5.8 U

Analysis/ Analyte	Units	37-__	38-__	38-FD	40-__
1,1,1-Trichloroethane	ug/kg	N/A R	31 J	37 J	19
1,1,2-Trichloroethane	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Trichloroethene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
Trichlorofluoromethane	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
Vinyl Chloride	ug/kg	6.3 U	5.3 U	6.5 U	5.8 U
m and/or p-Xylene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U
o-Xylene	ug/kg	N/A R	5.3 U	6.5 U	5.8 U

Analysis/ Analyte	Units	41-__	42-__	43-__	44-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	76 U	81 U	84 U	68 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	27	27	29	14
Benzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Bromochloromethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Bromodichloromethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Bromoform	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Bromomethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
2-Butanone	ug/kg	12 U	15 U	12 U	11 U
Carbon Disulfide	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Carbon Tetrachloride	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Chlorobenzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Chloroethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Chloroform	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Chloromethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Cyclohexane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Dibromochloromethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,2-Dibromoethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,2-Dichlorobenzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,3-Dichlorobenzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,4-Dichlorobenzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Dichlorodifluoromethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,1-Dichloroethane	ug/kg	14	27	54	5.6 U
1,2-Dichloroethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,1-Dichloroethene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
cis-1,2-Dichloroethene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
trans-1,2-Dichloroethene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,2-Dichloropropane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
cis-1,3-Dichloropropene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
trans-1,3-Dichloropropene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Ethyl Benzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
2-Hexanone	ug/kg	12 U	15 U	12 U	11 U
Isopropylbenzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Methyl Acetate	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Methyl tert-butyl ether	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Methylcyclohexane	ug/kg	7.3	7.6 U	6.1 U	5.6 U
Methylene Chloride	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
4-Methyl-2-Pentanone	ug/kg	12 U	15 U	12 U	11 U
Styrene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,1,2,2-Tetrachloroethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Tetrachloroethene	ug/kg	2.3 J	0.43 J	1.3 J	0.91 J
Toluene	ug/kg	7.8	7.6 U	6.1 U	5.6 U
1,2,3-Trichlorobenzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,2,4-Trichlorobenzene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U

Analysis/ Analyte	Units	41-__	42-__	43-__	44-__
1,1,1-Trichloroethane	ug/kg	110	28	170	10
1,1,2-Trichloroethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Trichloroethene	ug/kg	0.45 J	1.8 J	2.3 J	1.1 J
Trichlorofluoromethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
Vinyl Chloride	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
m and/or p-Xylene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U
o-Xylene	ug/kg	5.9 U	7.6 U	6.1 U	5.6 U

Analysis/ Analyte	Units	45-__	46-__	47-__	48-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	83 U	91 U	90 U	78 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	600 U	710 U	800 U	11
Benzene	ug/kg	300 U	350 U	400 U	5.6 U
Bromochloromethane	ug/kg	300 U	350 U	400 U	5.6 U
Bromodichloromethane	ug/kg	300 U	350 U	400 U	5.6 U
Bromoform	ug/kg	300 U	350 U	400 U	5.6 U
Bromomethane	ug/kg	300 UJ	350 UJ	400 UJ	5.6 U
2-Butanone	ug/kg	600 U	710 U	800 U	11 U
Carbon Disulfide	ug/kg	300 U	350 U	400 U	5.6 U
Carbon Tetrachloride	ug/kg	300 U	350 U	400 U	5.6 U
Chlorobenzene	ug/kg	300 U	350 U	400 U	5.6 U
Chloroethane	ug/kg	300 U	350 U	400 U	5.6 U
Chloroform	ug/kg	300 U	350 U	400 U	5.6 U
Chloromethane	ug/kg	300 U	350 U	400 U	5.6 U
Cyclohexane	ug/kg	300 U	350 U	400 U	5.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	300 U	350 U	400 U	5.6 U
Dibromochloromethane	ug/kg	300 U	350 U	400 U	5.6 U
1,2-Dibromoethane	ug/kg	300 U	350 U	400 U	5.6 U
1,2-Dichlorobenzene	ug/kg	300 U	350 U	400 U	5.6 U
1,3-Dichlorobenzene	ug/kg	300 U	350 U	400 U	5.6 U
1,4-Dichlorobenzene	ug/kg	300 U	350 U	400 U	5.6 U
Dichlorodifluoromethane	ug/kg	300 U	350 U	400 U	5.6 U
1,1-Dichloroethane	ug/kg	300 U	350 U	450	46
1,2-Dichloroethane	ug/kg	300 U	350 U	400 U	5.6 U
1,1-Dichloroethene	ug/kg	300 U	460	400 U	24
cis-1,2-Dichloroethene	ug/kg	300 U	350 U	400 U	5.6 U
trans-1,2-Dichloroethene	ug/kg	300 U	350 U	400 U	5.6 U
1,2-Dichloropropane	ug/kg	300 U	350 U	400 U	5.6 U
cis-1,3-Dichloropropene	ug/kg	300 U	350 U	400 U	5.6 U
trans-1,3-Dichloropropene	ug/kg	300 U	350 U	400 U	5.6 U
Ethyl Benzene	ug/kg	300 U	350 U	400 U	5.6 U
2-Hexanone	ug/kg	600 U	710 U	800 U	11 U
Isopropylbenzene	ug/kg	300 U	350 U	400 U	5.6 U
Methyl Acetate	ug/kg	300 U	350 U	400 U	5.6 U
Methyl tert-butyl ether	ug/kg	300 U	350 U	400 U	5.6 U
Methylcyclohexane	ug/kg	300 U	350 U	400 U	5.6 U
Methylene Chloride	ug/kg	300 U	350 U	400 U	5.6 U
4-Methyl-2-Pentanone	ug/kg	600 U	710 U	800 U	11 U
Styrene	ug/kg	300 U	350 U	400 U	5.6 U
1,1,2,2-Tetrachloroethane	ug/kg	300 U	350 U	400 U	5.6 U
Tetrachloroethene	ug/kg	40 J	190 J	87 J	1.6 J
Toluene	ug/kg	300 U	350 U	400 U	5.6 U
1,2,3-Trichlorobenzene	ug/kg	300 U	350 U	400 U	5.6 U
1,2,4-Trichlorobenzene	ug/kg	300 U	350 U	400 U	5.6 U

Analysis/ Analyte	Units	45-__	46-__	47-__	48-__
1,1,1-Trichloroethane	ug/kg	330	6400	870	280 J
1,1,2-Trichloroethane	ug/kg	300 U	350 U	400 U	5.6 U
Trichloroethene	ug/kg	300 U	130 J	220 J	16
Trichlorofluoromethane	ug/kg	300 U	350 U	400 U	5.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	300 U	350 U	400 U	5.6 U
Vinyl Chloride	ug/kg	300 U	350 U	400 U	5.6 U
m and/or p-Xylene	ug/kg	300 U	350 U	400 U	5.6 U
o-Xylene	ug/kg	300 U	350 U	400 U	5.6 U

Analysis/ Analyte	Units	49-__	50-__	51-__	52-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	69 U	85 U		69 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	20	690 U	33	18
Benzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Bromochloromethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Bromodichloromethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Bromoform	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Bromomethane	ug/kg	5.2 U	340 UJ	5.3 U	5.3 U
2-Butanone	ug/kg	10 U	690 U	11 U	11 U
Carbon Disulfide	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Carbon Tetrachloride	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Chlorobenzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Chloroethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Chloroform	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Chloromethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Cyclohexane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Dibromochloromethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,2-Dibromoethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,2-Dichlorobenzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,3-Dichlorobenzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,4-Dichlorobenzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Dichlorodifluoromethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,1-Dichloroethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,2-Dichloroethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,1-Dichloroethene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
cis-1,2-Dichloroethene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
trans-1,2-Dichloroethene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,2-Dichloropropane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
cis-1,3-Dichloropropene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
trans-1,3-Dichloropropene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Ethyl Benzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
2-Hexanone	ug/kg	10 U	690 U	11 U	11 U
Isopropylbenzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Methyl Acetate	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Methyl tert-butyl ether	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Methylcyclohexane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Methylene Chloride	ug/kg	5.2 U	340 U	5.3 U	5.3 U
4-Methyl-2-Pentanone	ug/kg	10 U	690 U	11 U	11 U
Styrene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,1,2,2-Tetrachloroethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Tetrachloroethene	ug/kg	0.30 J	3200	5.3 U	1.3 J
Toluene	ug/kg	5.2 U	340 U	6.0	5.3 U
1,2,3-Trichlorobenzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,2,4-Trichlorobenzene	ug/kg	5.2 U	340 U	5.3 U	5.3 U

Analysis/ Analyte	Units	49-__	50-__	51-__	52-__
1,1,1-Trichloroethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,1,2-Trichloroethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Trichloroethene	ug/kg	0.29 J	2100	5.3 U	1.2 J
Trichlorofluoromethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.2 U	340 U	5.3 U	5.3 U
Vinyl Chloride	ug/kg	5.2 U	340 U	5.3 U	5.3 U
m and/or p-Xylene	ug/kg	5.2 U	340 U	5.3 U	5.3 U
o-Xylene	ug/kg	5.2 U	340 U	5.3 U	5.3 U

Analysis/ Analyte	Units	53-__	54-__	55-__	56-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	68 U	81 U	79 U	75 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	26	25	26	96
Benzene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Bromochloromethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Bromodichloromethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Bromoform	ug/kg	5.2 U	N/A R	6.1 U	N/A R
Bromomethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
2-Butanone	ug/kg	10 U	11 U	12 U	19
Carbon Disulfide	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Carbon Tetrachloride	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Chlorobenzene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Chloroethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Chloroform	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Chloromethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Cyclohexane	ug/kg	5.2 U	5.6 U	7.5	6.4 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.2 U	N/A R	6.1 U	N/A R
Dibromochloromethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
1,2-Dibromoethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
1,2-Dichlorobenzene	ug/kg	5.2 U	N/A R	6.1 U	N/A R
1,3-Dichlorobenzene	ug/kg	5.2 U	N/A R	6.1 U	N/A R
1,4-Dichlorobenzene	ug/kg	5.2 U	N/A R	6.1 U	N/A R
Dichlorodifluoromethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
1,1-Dichloroethane	ug/kg	5.2 U	5.6 U	40	6.4 U
1,2-Dichloroethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
1,1-Dichloroethene	ug/kg	5.2 U	5.6 U	19	6.4 U
cis-1,2-Dichloroethene	ug/kg	5.2 U	14	6.1 U	6.4 U
trans-1,2-Dichloroethene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
1,2-Dichloropropane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
cis-1,3-Dichloropropene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
trans-1,3-Dichloropropene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Ethyl Benzene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
2-Hexanone	ug/kg	10 U	11 U	12 U	13 U
Isopropylbenzene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Methyl Acetate	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Methyl tert-butyl ether	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Methylcyclohexane	ug/kg	5.2 U	10 J	9.7	6.4 U
Methylene Chloride	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
4-Methyl-2-Pentanone	ug/kg	10 U	11 U	12 U	13 U
Styrene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
1,1,2,2-Tetrachloroethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Tetrachloroethene	ug/kg	5.2 U	240 J	15	32 J
Toluene	ug/kg	5.2 U	8.1	8.7	6.4 U
1,2,3-Trichlorobenzene	ug/kg	5.2 U	N/A R	6.1 U	N/A R
1,2,4-Trichlorobenzene	ug/kg	5.2 U	N/A R	6.1 U	N/A R

Analysis/ Analyte	Units	53-__	54-__	55-__	56-__
1,1,1-Trichloroethane	ug/kg	5.2 U	24 J	500 J	160
1,1,2-Trichloroethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Trichloroethene	ug/kg	5.2 U	110	54	2.7 J
Trichlorofluoromethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
Vinyl Chloride	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
m and/or p-Xylene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U
o-Xylene	ug/kg	5.2 U	5.6 U	6.1 U	6.4 U

Analysis/ Analyte	Units	57-__	57-FD	59-__	60-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	87 U	88 U	78 U	74 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	770 U	680 U	22	31
Benzene	ug/kg	380 U	340 U	5.8 U	5.7 U
Bromochloromethane	ug/kg	380 U	340 U	5.8 U	5.7 U
Bromodichloromethane	ug/kg	380 U	340 U	5.8 U	5.7 U
Bromoform	ug/kg	380 U	340 U	5.8 U	N/A R
Bromomethane	ug/kg	380 UJ	340 UJ	5.8 U	5.7 U
2-Butanone	ug/kg	770 U	680 U	12 U	11 U
Carbon Disulfide	ug/kg	380 U	340 U	5.8 U	5.7 U
Carbon Tetrachloride	ug/kg	380 U	340 U	5.8 U	5.7 U
Chlorobenzene	ug/kg	380 U	340 U	5.8 U	5.7 U
Chloroethane	ug/kg	380 U	340 U	5.8 U	5.7 U
Chloroform	ug/kg	380 U	340 U	5.8 U	5.7 U
Chloromethane	ug/kg	380 U	340 U	5.8 U	5.7 U
Cyclohexane	ug/kg	380 U	340 U	6.4	6.9 J
1,2-Dibromo-3-Chloropropane	ug/kg	380 U	340 U	5.8 U	N/A R
Dibromochloromethane	ug/kg	380 U	340 U	5.8 U	5.7 U
1,2-Dibromoethane	ug/kg	380 U	340 U	5.8 U	5.7 U
1,2-Dichlorobenzene	ug/kg	380 U	340 U	5.8 U	N/A R
1,3-Dichlorobenzene	ug/kg	380 U	340 U	5.8 U	N/A R
1,4-Dichlorobenzene	ug/kg	380 U	340 U	5.8 U	N/A R
Dichlorodifluoromethane	ug/kg	380 U	340 U	5.8 U	5.7 U
1,1-Dichloroethane	ug/kg	380 U	340 U	19	61
1,2-Dichloroethane	ug/kg	380 U	340 U	5.8 U	5.7 U
1,1-Dichloroethene	ug/kg	380 U	340 U	5.8 U	5.7 U
cis-1,2-Dichloroethene	ug/kg	380 U	340 U	5.8 U	9.1
trans-1,2-Dichloroethene	ug/kg	380 U	340 U	5.8 U	5.7 U
1,2-Dichloropropane	ug/kg	380 U	340 U	5.8 U	5.7 U
cis-1,3-Dichloropropene	ug/kg	380 U	340 U	5.8 U	5.7 U
trans-1,3-Dichloropropene	ug/kg	380 U	340 U	5.8 U	5.7 U
Ethyl Benzene	ug/kg	380 U	340 U	5.8 U	5.7 U
2-Hexanone	ug/kg	770 U	680 U	12 U	11 U
Isopropylbenzene	ug/kg	380 U	340 U	5.8 U	5.7 U
Methyl Acetate	ug/kg	380 U	340 U	5.8 U	5.7 U
Methyl tert-butyl ether	ug/kg	380 U	340 U	5.8 U	5.7 U
Methylcyclohexane	ug/kg	380 U	340 U	8.9	9.3 J
Methylene Chloride	ug/kg	380 U	340 U	5.8 U	5.7 U
4-Methyl-2-Pentanone	ug/kg	770 U	680 U	12 U	11 U
Styrene	ug/kg	380 U	340 U	5.8 U	5.7 U
1,1,2,2-Tetrachloroethane	ug/kg	380 U	340 U	5.8 U	5.7 U
Tetrachloroethene	ug/kg	480	480	66	53
Toluene	ug/kg	380 U	340 U	10	10
1,2,3-Trichlorobenzene	ug/kg	380 U	340 U	5.8 U	N/A R
1,2,4-Trichlorobenzene	ug/kg	380 U	340 U	5.8 U	N/A R

Analysis/ Analyte	Units	57-__	57-FD	59-__	60-__
1,1,1-Trichloroethane	ug/kg	990	980	240 J	550 J
1,1,2-Trichloroethane	ug/kg	380 U	340 U	5.8 U	5.7 J
Trichloroethene	ug/kg	34 J	30 J	14	54
Trichlorofluoromethane	ug/kg	380 U	340 U	5.8 U	5.7 U
1,1,2-Trichlorotrifluoroethane	ug/kg	380 U	340 U	5.8 U	5.7 U
Vinyl Chloride	ug/kg	380 U	340 U	5.8 U	5.7 U
m and/or p-Xylene	ug/kg	380 U	340 U	5.8 U	5.7 U
o-Xylene	ug/kg	380 U	340 U	5.8 U	5.7 U

Analysis/ Analyte	Units	61-__	62-__	63-__	64-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	680 U	85 U	82 U	69 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	19	690 U	740 U	21
Benzene	ug/kg	5.2 U	340 U	370 U	5.2 U
Bromochloromethane	ug/kg	5.2 U	340 U	370 U	5.2 U
Bromodichloromethane	ug/kg	5.2 U	340 U	370 U	5.2 U
Bromoform	ug/kg	5.2 U	340 U	370 U	5.2 U
Bromomethane	ug/kg	5.2 U	340 UJ	370 UJ	5.2 U
2-Butanone	ug/kg	10 U	690 U	740 U	10 U
Carbon Disulfide	ug/kg	5.2 U	340 U	370 U	5.2 U
Carbon Tetrachloride	ug/kg	5.2 U	340 U	370 U	5.2 U
Chlorobenzene	ug/kg	5.2 U	340 U	370 U	5.2 U
Chloroethane	ug/kg	5.2 U	340 U	370 U	5.2 U
Chloroform	ug/kg	5.2 U	340 U	370 U	5.2 U
Chloromethane	ug/kg	5.2 U	340 U	370 U	5.2 U
Cyclohexane	ug/kg	5.2 U	340 U	370 U	5.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.2 U	340 U	370 U	5.2 U
Dibromochloromethane	ug/kg	5.2 U	340 U	370 U	5.2 U
1,2-Dibromoethane	ug/kg	5.2 U	340 U	370 U	5.2 U
1,2-Dichlorobenzene	ug/kg	5.2 U	340 U	370 U	5.2 U
1,3-Dichlorobenzene	ug/kg	5.2 U	340 U	370 U	5.2 U
1,4-Dichlorobenzene	ug/kg	5.2 U	340 U	370 U	5.2 U
Dichlorodifluoromethane	ug/kg	5.2 U	340 U	370 U	5.2 U
1,1-Dichloroethane	ug/kg	5.2 U	340 U	370 U	5.2 U
1,2-Dichloroethane	ug/kg	5.2 U	340 U	370 U	5.2 U
1,1-Dichloroethene	ug/kg	5.2 U	340 U	370 U	5.2 U
cis-1,2-Dichloroethene	ug/kg	5.2 U	340 U	370 U	5.2 U
trans-1,2-Dichloroethene	ug/kg	5.2 U	340 U	370 U	5.2 U
1,2-Dichloropropane	ug/kg	5.2 U	340 U	370 U	5.2 U
cis-1,3-Dichloropropene	ug/kg	5.2 U	340 U	370 U	5.2 U
trans-1,3-Dichloropropene	ug/kg	5.2 U	340 U	370 U	5.2 U
Ethyl Benzene	ug/kg	5.2 U	340 U	370 U	5.2 U
2-Hexanone	ug/kg	10 U	690 U	740 U	10 U
Isopropylbenzene	ug/kg	5.2 U	340 U	370 U	5.2 U
Methyl Acetate	ug/kg	5.2 U	340 U	370 U	5.2 U
Methyl tert-butyl ether	ug/kg	5.2 U	340 U	370 U	5.2 U
Methylcyclohexane	ug/kg	5.2 U	340 U	370 U	5.2 U
Methylene Chloride	ug/kg	5.2 U	340 U	370 U	5.2 U
4-Methyl-2-Pentanone	ug/kg	10 U	690 U	740 U	10 U
Styrene	ug/kg	5.2 U	340 U	370 U	5.2 U
1,1,2,2-Tetrachloroethane	ug/kg	5.2 U	340 U	370 U	5.2 U
Tetrachloroethene	ug/kg	0.32 J	10 J	23 J	5.2 U
Toluene	ug/kg	5.9	340 U	370 U	5.2 U
1,2,3-Trichlorobenzene	ug/kg	5.2 U	340 U	370 U	5.2 U
1,2,4-Trichlorobenzene	ug/kg	5.2 U	340 U	370 U	5.2 U

Analysis/ Analyte	Units	61-__	62-__	63-__	64-__
1,1,1-Trichloroethane	ug/kg	79	1300	1400	5.2 U
1,1,2-Trichloroethane	ug/kg	5.2 U	340 U	370 U	5.2 U
Trichloroethene	ug/kg	7.7	240 J	280 J	0.26 J
Trichlorofluoromethane	ug/kg	5.2 U	340 U	370 U	5.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.2 U	340 U	370 U	5.2 U
Vinyl Chloride	ug/kg	5.2 U	340 U	370 U	5.2 U
m and/or p-Xylene	ug/kg	5.2 U	340 U	370 U	5.2 U
o-Xylene	ug/kg	5.2 U	340 U	370 U	5.2 U

Analysis/ Analyte	Units	65-__	66-__	67-__	68-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	86 U	85 U	71 U	82
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	23	760 U	19	570 U
Benzene	ug/kg	7.0 U	380 U	6.0 U	280 U
Bromochloromethane	ug/kg	7.0 U	380 U	6.0 U	280 U
Bromodichloromethane	ug/kg	7.0 U	380 U	6.0 U	280 U
Bromoform	ug/kg	7.0 U	380 U	6.0 U	280 U
Bromomethane	ug/kg	7.0 U	380 UJ	6.0 U	280 UJ
2-Butanone	ug/kg	14 U	760 U	12 U	570 U
Carbon Disulfide	ug/kg	7.0 U	380 U	6.0 U	280 U
Carbon Tetrachloride	ug/kg	7.0 U	380 U	6.0 U	280 U
Chlorobenzene	ug/kg	7.0 U	380 U	6.0 U	280 U
Chloroethane	ug/kg	7.0 U	380 U	6.0 U	280 U
Chloroform	ug/kg	7.0 U	380 U	6.0 U	280 U
Chloromethane	ug/kg	7.0 U	380 U	6.0 U	280 U
Cyclohexane	ug/kg	7.0 U	380 U	6.0 U	280 U
1,2-Dibromo-3-Chloropropane	ug/kg	7.0 U	380 U	6.0 U	280 U
Dibromochloromethane	ug/kg	7.0 U	380 U	6.0 U	280 U
1,2-Dibromoethane	ug/kg	7.0 U	380 U	6.0 U	280 U
1,2-Dichlorobenzene	ug/kg	7.0 U	380 U	6.0 U	280 U
1,3-Dichlorobenzene	ug/kg	7.0 U	380 U	6.0 U	280 U
1,4-Dichlorobenzene	ug/kg	7.0 U	380 U	6.0 U	280 U
Dichlorodifluoromethane	ug/kg	7.0 U	380 U	6.0 U	280 U
1,1-Dichloroethane	ug/kg	15	380 U	64	280 U
1,2-Dichloroethane	ug/kg	7.0 U	380 U	6.0 U	280 U
1,1-Dichloroethene	ug/kg	7.0 U	380 U	26	280 U
cis-1,2-Dichloroethene	ug/kg	7.0 U	380 U	6.0 U	280 U
trans-1,2-Dichloroethene	ug/kg	7.0 U	380 U	6.0 U	280 U
1,2-Dichloropropane	ug/kg	7.0 U	380 U	6.0 U	280 U
cis-1,3-Dichloropropene	ug/kg	7.0 U	380 U	6.0 U	280 U
trans-1,3-Dichloropropene	ug/kg	7.0 U	380 U	6.0 U	280 U
Ethyl Benzene	ug/kg	7.0 U	380 U	6.0 U	280 U
2-Hexanone	ug/kg	14 U	760 U	12 U	570 U
Isopropylbenzene	ug/kg	7.0 U	380 U	6.0 U	280 U
Methyl Acetate	ug/kg	7.0 U	380 U	6.0 U	280 U
Methyl tert-butyl ether	ug/kg	7.0 U	380 U	6.0 U	280 U
Methylcyclohexane	ug/kg	7.0 U	380 U	6.0 U	280 U
Methylene Chloride	ug/kg	7.0 U	380 U	6.0 U	280 U
4-Methyl-2-Pentanone	ug/kg	14 U	760 U	12 U	570 U
Styrene	ug/kg	7.0 U	380 U	6.0 U	280 U
1,1,2,2-Tetrachloroethane	ug/kg	7.0 U	380 U	6.0 U	280 U
Tetrachloroethene	ug/kg	7.0 U	130 J	11	62 J
Toluene	ug/kg	7.0 U	380 U	6.0 U	280 U
1,2,3-Trichlorobenzene	ug/kg	7.0 U	380 U	6.0 U	280 U
1,2,4-Trichlorobenzene	ug/kg	7.0 U	380 U	6.0 U	280 U

Analysis/ Analyte	Units	65-__	66-__	67-__	68-__
1,1,1-Trichloroethane	ug/kg	87	4300	710 J	880
1,1,2-Trichloroethane	ug/kg	7.0 U	380 U	12	280 U
Trichloroethene	ug/kg	1.4 J	820	21	65 J
Trichlorofluoromethane	ug/kg	7.0 U	380 U	6.0 U	280 U
1,1,2-Trichlorotrifluoroethane	ug/kg	7.0 U	380 U	6.0 U	280 U
Vinyl Chloride	ug/kg	7.0 U	380 U	6.0 U	280 U
m and/or p-Xylene	ug/kg	7.0 U	380 U	6.0 U	280 U
o-Xylene	ug/kg	7.0 U	380 U	6.0 U	280 U

Analysis/ Analyte	Units	69-__	70-__	71-__	72-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	120	88 U	76 U	77 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	14 U	720 U	12 U	33
Benzene	ug/kg	6.8 U	360 U	6.2 U	12 U
Bromochloromethane	ug/kg	6.8 U	360 U	6.2 U	12 U
Bromodichloromethane	ug/kg	6.8 U	360 U	6.2 U	12 U
Bromoform	ug/kg	6.8 U	360 U	6.2 U	N/A R
Bromomethane	ug/kg	6.8 U	360 UJ	6.2 U	12 U
2-Butanone	ug/kg	14 U	720 U	12 U	23 U
Carbon Disulfide	ug/kg	6.8 U	360 U	6.2 U	12 U
Carbon Tetrachloride	ug/kg	6.8 U	360 U	6.2 U	12 U
Chlorobenzene	ug/kg	6.8 U	360 U	6.2 U	12 U
Chloroethane	ug/kg	6.8 U	360 U	6.2 U	12 U
Chloroform	ug/kg	6.8 U	360 U	6.2 U	12 U
Chloromethane	ug/kg	6.8 U	360 U	6.2 U	12 U
Cyclohexane	ug/kg	6.8 U	360 U	6.2 U	12 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.8 U	360 U	6.2 U	N/A R
Dibromochloromethane	ug/kg	6.8 U	360 U	6.2 U	12 U
1,2-Dibromoethane	ug/kg	6.8 U	360 U	6.2 U	12 U
1,2-Dichlorobenzene	ug/kg	6.8 U	360 U	6.2 U	N/A R
1,3-Dichlorobenzene	ug/kg	6.8 U	360 U	6.2 U	N/A R
1,4-Dichlorobenzene	ug/kg	6.8 U	360 U	6.2 U	N/A R
Dichlorodifluoromethane	ug/kg	6.8 U	360 U	6.2 U	12 U
1,1-Dichloroethane	ug/kg	170	360 U	100	1700 J
1,2-Dichloroethane	ug/kg	6.8 U	360 U	6.2 U	12 U
1,1-Dichloroethene	ug/kg	24	360 U	13	110
cis-1,2-Dichloroethene	ug/kg	6.8 U	360 U	6.2 U	12 U
trans-1,2-Dichloroethene	ug/kg	6.8 U	360 U	6.2 U	12 U
1,2-Dichloropropane	ug/kg	6.8 U	360 U	6.2 U	12 U
cis-1,3-Dichloropropene	ug/kg	6.8 U	360 U	6.2 U	12 U
trans-1,3-Dichloropropene	ug/kg	6.8 U	360 U	6.2 U	12 U
Ethyl Benzene	ug/kg	6.8 U	360 U	6.2 U	12 U
2-Hexanone	ug/kg	14 U	720 U	12 U	23 U
Isopropylbenzene	ug/kg	6.8 U	360 U	6.2 U	12 U
Methyl Acetate	ug/kg	6.8 U	360 U	6.2 U	12 U
Methyl tert-butyl ether	ug/kg	6.8 U	360 U	6.2 U	12 U
Methylcyclohexane	ug/kg	6.8 U	360 U	6.2 U	12 U
Methylene Chloride	ug/kg	6.8 U	360 U	6.2 U	12 U
4-Methyl-2-Pentanone	ug/kg	14 U	720 U	12 U	23 U
Styrene	ug/kg	6.8 U	360 U	6.2 U	12 U
1,1,2,2-Tetrachloroethane	ug/kg	6.8 U	360 U	6.2 U	12 U
Tetrachloroethene	ug/kg	13	360 U	6.9	27
Toluene	ug/kg	9.8	360 U	6.2 U	12 U
1,2,3-Trichlorobenzene	ug/kg	6.8 U	360 U	6.2 U	N/A R
1,2,4-Trichlorobenzene	ug/kg	6.8 U	360 U	6.2 U	N/A R

Analysis/ Analyte	Units	69-__	70-__	71-__	72-__
1,1,1-Trichloroethane	ug/kg	930 J	840	200	2400 J
1,1,2-Trichloroethane	ug/kg	42	360 U	6.2 U	50 J
Trichloroethene	ug/kg	52	360 U	8.8	140
Trichlorofluoromethane	ug/kg	6.8 U	360 U	6.2 U	12 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.8 U	360 U	6.2 U	12 U
Vinyl Chloride	ug/kg	6.8 U	360 U	6.2 U	12 U
m and/or p-Xylene	ug/kg	6.8 U	360 U	6.2 U	12 U
o-Xylene	ug/kg	6.8 U	360 U	6.2 U	12 U

Analysis/ Analyte	Units	73-__	74-__	75-__	76-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	73 U	87 U	84 U	92 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	12 U	30	16	30
Benzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Bromochloromethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Bromodichloromethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Bromoform	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Bromomethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
2-Butanone	ug/kg	12 U	13 U	12 U	24 U
Carbon Disulfide	ug/kg	5.9 U	7.5	5.8 U	12 U
Carbon Tetrachloride	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Chlorobenzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Chloroethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Chloroform	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Chloromethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Cyclohexane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Dibromochloromethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,2-Dibromoethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,2-Dichlorobenzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,3-Dichlorobenzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,4-Dichlorobenzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Dichlorodifluoromethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,1-Dichloroethane	ug/kg	320 J	6.7 U	7.6	86
1,2-Dichloroethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,1-Dichloroethene	ug/kg	18	6.7 U	5.8 U	12 U
cis-1,2-Dichloroethene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
trans-1,2-Dichloroethene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,2-Dichloropropane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
cis-1,3-Dichloropropene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
trans-1,3-Dichloropropene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Ethyl Benzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
2-Hexanone	ug/kg	12 U	13 U	12 U	24 U
Isopropylbenzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Methyl Acetate	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Methyl tert-butyl ether	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Methylcyclohexane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Methylene Chloride	ug/kg	5.9 U	6.7 U	5.8 U	12 U
4-Methyl-2-Pentanone	ug/kg	12 U	13 U	12 U	24 U
Styrene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,1,2,2-Tetrachloroethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Tetrachloroethene	ug/kg	2.7 J	6.7 U	5.8 U	12 U
Toluene	ug/kg	5.9 U	8.2	7.2	12 U
1,2,3-Trichlorobenzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,2,4-Trichlorobenzene	ug/kg	5.9 U	6.7 U	5.8 U	12 U

Analysis/ Analyte	Units	73-__	74-__	75-__	76-__
1,1,1-Trichloroethane	ug/kg	520 J	6.7 U	24	13
1,1,2-Trichloroethane	ug/kg	22	6.7 U	5.8 U	12 U
Trichloroethene	ug/kg	22	6.7 U	0.62 J	4.6 J
Trichlorofluoromethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.9 U	6.7 U	5.8 U	12 U
Vinyl Chloride	ug/kg	5.9 U	6.7 U	5.8 U	12 U
m and/or p-Xylene	ug/kg	5.9 U	6.7 U	5.8 U	12 U
o-Xylene	ug/kg	5.9 U	6.7 U	5.8 U	12 U

Analysis/ Analyte	Units	77-__	78-__	79-__	80-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	68 U	82 U	75 U	72 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	12 U	45	43	10 U
Benzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Bromochloromethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Bromodichloromethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Bromoform	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Bromomethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
2-Butanone	ug/kg	12 U	11 U	10 U	10 U
Carbon Disulfide	ug/kg	6.0 U	18	5.2 U	5.1 U
Carbon Tetrachloride	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Chlorobenzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Chloroethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Chloroform	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Chloromethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Cyclohexane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Dibromochloromethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,2-Dibromoethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,2-Dichlorobenzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,3-Dichlorobenzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,4-Dichlorobenzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Dichlorodifluoromethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,1-Dichloroethane	ug/kg	28	5.6 U	5.2 U	5.1 U
1,2-Dichloroethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,1-Dichloroethene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
cis-1,2-Dichloroethene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
trans-1,2-Dichloroethene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,2-Dichloropropane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
cis-1,3-Dichloropropene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
trans-1,3-Dichloropropene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Ethyl Benzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
2-Hexanone	ug/kg	12 U	11 U	10 U	10 U
Isopropylbenzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Methyl Acetate	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Methyl tert-butyl ether	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Methylcyclohexane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Methylene Chloride	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
4-Methyl-2-Pentanone	ug/kg	12 U	11 U	10 U	10 U
Styrene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,1,2,2-Tetrachloroethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Tetrachloroethene	ug/kg	0.75 J	5.6 U	5.2 U	19
Toluene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,2,3-Trichlorobenzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,2,4-Trichlorobenzene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U

Analysis/ Analyte	Units	77-__	78-__	79-__	80-__
1,1,1-Trichloroethane	ug/kg	55	5.6 U	5.2 U	5.1 U
1,1,2-Trichloroethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Trichloroethene	ug/kg	6.0	5.6 U	5.2 U	8.1
Trichlorofluoromethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
Vinyl Chloride	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
m and/or p-Xylene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U
o-Xylene	ug/kg	6.0 U	5.6 U	5.2 U	5.1 U

Analysis/ Analyte	Units	81-__	82-__	83-__	84-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	70 U	90 U	76 U	86 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	14	17 U	52	720 U
Benzene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Bromochloromethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Bromodichloromethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Bromoform	ug/kg	5.2 U	8.5 U	N/A R	360 U
Bromomethane	ug/kg	5.2 U	8.5 U	6.8 U	360 UJ
2-Butanone	ug/kg	10 U	17 U	14 U	720 U
Carbon Disulfide	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Carbon Tetrachloride	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Chlorobenzene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Chloroethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Chloroform	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Chloromethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Cyclohexane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.2 U	8.5 U	N/A R	360 U
Dibromochloromethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,2-Dibromoethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,2-Dichlorobenzene	ug/kg	5.2 U	8.5 U	N/A R	360 U
1,3-Dichlorobenzene	ug/kg	5.2 U	8.5 U	N/A R	360 U
1,4-Dichlorobenzene	ug/kg	5.2 U	8.5 U	N/A R	360 U
Dichlorodifluoromethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,1-Dichloroethane	ug/kg	5.2 U	8.5 U	10	360 U
1,2-Dichloroethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,1-Dichloroethene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
cis-1,2-Dichloroethene	ug/kg	5.2 U	8.5 U	6.8	360 U
trans-1,2-Dichloroethene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,2-Dichloropropane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
cis-1,3-Dichloropropene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
trans-1,3-Dichloropropene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Ethyl Benzene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
2-Hexanone	ug/kg	10 U	17 U	14 U	720 U
Isopropylbenzene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Methyl Acetate	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Methyl tert-butyl ether	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Methylcyclohexane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Methylene Chloride	ug/kg	5.2 U	8.5 U	6.8 U	360 U
4-Methyl-2-Pentanone	ug/kg	10 U	17 U	14 U	720 U
Styrene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,1,2,2-Tetrachloroethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Tetrachloroethene	ug/kg	0.22 J	25	110	170 J
Toluene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,2,3-Trichlorobenzene	ug/kg	5.2 U	8.5 U	N/A R	360 U
1,2,4-Trichlorobenzene	ug/kg	5.2 U	8.5 U	N/A R	360 U

Analysis/ Analyte	Units	81-__	82-__	83-__	84-__
1,1,1-Trichloroethane	ug/kg	5.2 U	11	28	360 U
1,1,2-Trichloroethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Trichloroethene	ug/kg	0.24 J	160	550 J	310 J
Trichlorofluoromethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.2 U	8.5 U	6.8 U	360 U
Vinyl Chloride	ug/kg	5.2 U	8.5 U	6.8 U	360 U
m and/or p-Xylene	ug/kg	5.2 U	8.5 U	6.8 U	360 U
o-Xylene	ug/kg	5.2 U	8.5 U	6.8 U	360 U

Analysis/ Analyte	Units	85-__	86-__	87-__	88-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	76 U	77 U	72 U	78 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	38	11 U	9.6	15
Benzene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Bromochloromethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Bromodichloromethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Bromoform	ug/kg	N/A R	5.6 U	4.8 U	7.6 U
Bromomethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
2-Butanone	ug/kg	12 U	11 U	9.6 U	15 U
Carbon Disulfide	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Carbon Tetrachloride	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Chlorobenzene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Chloroethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Chloroform	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Chloromethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Cyclohexane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A R	5.6 U	4.8 U	7.6 U
Dibromochloromethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
1,2-Dibromoethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
1,2-Dichlorobenzene	ug/kg	N/A R	5.6 U	4.8 U	7.6 U
1,3-Dichlorobenzene	ug/kg	N/A R	5.6 U	4.8 U	7.6 U
1,4-Dichlorobenzene	ug/kg	N/A R	5.6 U	4.8 U	7.6 U
Dichlorodifluoromethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
1,1-Dichloroethane	ug/kg	26	22	4.8 U	56
1,2-Dichloroethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
1,1-Dichloroethene	ug/kg	5.8 U	5.6 U	4.8 U	10
cis-1,2-Dichloroethene	ug/kg	130	5.6 U	4.8 U	7.6 U
trans-1,2-Dichloroethene	ug/kg	8.3	5.6 U	4.8 U	7.6 U
1,2-Dichloropropane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
cis-1,3-Dichloropropene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
trans-1,3-Dichloropropene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Ethyl Benzene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
2-Hexanone	ug/kg	12 U	11 U	9.6 U	15 U
Isopropylbenzene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Methyl Acetate	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Methyl tert-butyl ether	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Methylcyclohexane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Methylene Chloride	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
4-Methyl-2-Pentanone	ug/kg	12 U	11 U	9.6 U	15 U
Styrene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
1,1,2,2-Tetrachloroethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Tetrachloroethene	ug/kg	14	0.88 J	0.29 J	13
Toluene	ug/kg	5.8 U	5.6 U	4.8 U	8.0
1,2,3-Trichlorobenzene	ug/kg	N/A R	5.6 U	4.8 U	7.6 U
1,2,4-Trichlorobenzene	ug/kg	N/A R	5.6 U	4.8 U	7.6 U

Analysis/ Analyte	Units	85-__	86-__	87-__	88-__
1,1,1-Trichloroethane	ug/kg	5.8 U	22	20	430 J
1,1,2-Trichloroethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Trichloroethene	ug/kg	490 J	5.6 J	4.8 J	66
Trichlorofluoromethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
Vinyl Chloride	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
m and/or p-Xylene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U
o-Xylene	ug/kg	5.8 U	5.6 U	4.8 U	7.6 U

Analysis/ Analyte	Units	89-__	90-__	91-__	92-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	81 U	69 U	77 U	76 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	760 U	440 U	12 U	11 U
Benzene	ug/kg	380 U	220 U	6.1 U	5.6 U
Bromochloromethane	ug/kg	380 U	220 U	6.1 U	5.6 U
Bromodichloromethane	ug/kg	380 U	220 U	6.1 U	5.6 U
Bromoform	ug/kg	380 U	220 U	6.1 U	5.6 U
Bromomethane	ug/kg	380 UJ	220 UJ	6.1 U	5.6 U
2-Butanone	ug/kg	760 U	440 U	12 U	11 U
Carbon Disulfide	ug/kg	380 U	220 U	6.1 U	5.6 U
Carbon Tetrachloride	ug/kg	380 U	220 U	6.1 U	5.6 U
Chlorobenzene	ug/kg	380 U	220 U	6.1 U	5.6 U
Chloroethane	ug/kg	380 U	220 U	6.1 U	5.6 U
Chloroform	ug/kg	380 U	220 U	6.1 U	5.6 U
Chloromethane	ug/kg	380 U	220 U	6.1 U	5.6 U
Cyclohexane	ug/kg	380 U	220 U	6.1 U	5.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	380 U	220 U	6.1 U	5.6 U
Dibromochloromethane	ug/kg	380 U	220 U	6.1 U	5.6 U
1,2-Dibromoethane	ug/kg	380 U	220 U	6.1 U	5.6 U
1,2-Dichlorobenzene	ug/kg	380 U	220 U	6.1 U	5.6 U
1,3-Dichlorobenzene	ug/kg	380 U	220 U	6.1 U	5.6 U
1,4-Dichlorobenzene	ug/kg	380 U	220 U	6.1 U	5.6 U
Dichlorodifluoromethane	ug/kg	380 U	220 U	6.1 U	5.6 U
1,1-Dichloroethane	ug/kg	380 U	220 U	6.1 U	5.6 U
1,2-Dichloroethane	ug/kg	380 U	220 U	6.1 U	5.6 U
1,1-Dichloroethene	ug/kg	380 U	220 U	6.1 U	5.6 U
cis-1,2-Dichloroethene	ug/kg	380 U	220 U	6.1 U	5.6 U
trans-1,2-Dichloroethene	ug/kg	380 U	220 U	6.1 U	5.6 U
1,2-Dichloropropane	ug/kg	380 U	220 U	6.1 U	5.6 U
cis-1,3-Dichloropropene	ug/kg	380 U	220 U	6.1 U	5.6 U
trans-1,3-Dichloropropene	ug/kg	380 U	220 U	6.1 U	5.6 U
Ethyl Benzene	ug/kg	380 U	220 U	6.1 U	5.6 U
2-Hexanone	ug/kg	760 U	440 U	12 U	11 U
Isopropylbenzene	ug/kg	380 U	220 U	6.1 U	5.6 U
Methyl Acetate	ug/kg	380 U	220 U	6.1 U	5.6 U
Methyl tert-butyl ether	ug/kg	380 U	220 U	6.1 U	5.6 U
Methylcyclohexane	ug/kg	380 U	220 U	6.1 U	5.6 U
Methylene Chloride	ug/kg	380 U	220 U	6.1 U	5.6 U
4-Methyl-2-Pentanone	ug/kg	760 U	440 U	12 U	11 U
Styrene	ug/kg	380 U	220 U	6.1 U	5.6 U
1,1,2,2-Tetrachloroethane	ug/kg	380 U	220 U	6.1 U	5.6 U
Tetrachloroethene	ug/kg	98 J	39 J	6.1 U	5.6 U
Toluene	ug/kg	380 U	220 U	6.1 U	5.6 U
1,2,3-Trichlorobenzene	ug/kg	380 U	220 U	6.1 U	5.6 U
1,2,4-Trichlorobenzene	ug/kg	380 U	220 U	6.1 U	5.6 U

Analysis/ Analyte	Units	89-__	90-__	91-__	92-__
1,1,1-Trichloroethane	ug/kg	2400	660	6.1 U	120
1,1,2-Trichloroethane	ug/kg	380 U	220 U	6.1 U	5.6 U
Trichloroethene	ug/kg	320 J	79 J	8.6	33
Trichlorofluoromethane	ug/kg	380 U	220 U	6.1 U	5.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	380 U	220 U	6.1 U	5.6 U
Vinyl Chloride	ug/kg	380 U	220 U	6.1 U	5.6 U
m and/or p-Xylene	ug/kg	380 U	220 U	6.1 U	5.6 U
o-Xylene	ug/kg	380 U	220 U	6.1 U	5.6 U

Analysis/ Analyte	Units	93-__	94-__	95-__	96-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	89 U	78 U	90 U	120
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	36	12	17	11
Benzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Bromochloromethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Bromodichloromethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Bromoform	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Bromomethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
2-Butanone	ug/kg	13 U	12 U	17 U	11 U
Carbon Disulfide	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Carbon Tetrachloride	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Chlorobenzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Chloroethane	ug/kg	6.4 U	5.8 U	25	5.7 U
Chloroform	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Chloromethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Cyclohexane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Dibromochloromethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,2-Dibromoethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,2-Dichlorobenzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,3-Dichlorobenzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,4-Dichlorobenzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Dichlorodifluoromethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,1-Dichloroethane	ug/kg	83	27	100	960 J
1,2-Dichloroethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,1-Dichloroethene	ug/kg	6.4 U	5.8 U	60	100
cis-1,2-Dichloroethene	ug/kg	6.4 U	5.8 U	8.6 U	5.9
trans-1,2-Dichloroethene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,2-Dichloropropane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
cis-1,3-Dichloropropene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
trans-1,3-Dichloropropene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Ethyl Benzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
2-Hexanone	ug/kg	13 U	12 U	17 U	11 U
Isopropylbenzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Methyl Acetate	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Methyl tert-butyl ether	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Methylcyclohexane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Methylene Chloride	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
4-Methyl-2-Pentanone	ug/kg	13 U	12 U	17 U	11 U
Styrene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,1,2,2-Tetrachloroethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Tetrachloroethene	ug/kg	6.4 U	0.83 J	0.46 J	3.3 J
Toluene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,2,3-Trichlorobenzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,2,4-Trichlorobenzene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U

Analysis/ Analyte	Units	93-__	94-__	95-__	96-__
1,1,1-Trichloroethane	ug/kg	6.5	41	8.6 U	1300 J
1,1,2-Trichloroethane	ug/kg	6.4 U	5.8 U	8.6 U	53
Trichloroethene	ug/kg	9.1	6.6	14	35
Trichlorofluoromethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
Vinyl Chloride	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
m and/or p-Xylene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U
o-Xylene	ug/kg	6.4 U	5.8 U	8.6 U	5.7 U

Analysis/ Analyte	Units	97-__	98-__	99-__	100-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	74 U	79 U	74 U	81 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	54	31	530 U	53
Benzene	ug/kg	4.6 U	6.1 U	260 U	13 U
Bromochloromethane	ug/kg	4.6 U	6.1 U	260 U	13 U
Bromodichloromethane	ug/kg	4.6 U	6.1 U	260 U	13 U
Bromoform	ug/kg	4.6 U	6.1 U	260 U	13 U
Bromomethane	ug/kg	4.6 U	6.1 U	260 UJ	13 U
2-Butanone	ug/kg	9.1 U	12 U	530 U	27 U
Carbon Disulfide	ug/kg	4.6 U	6.1 U	260 U	13 U
Carbon Tetrachloride	ug/kg	4.6 U	6.1 U	260 U	13 U
Chlorobenzene	ug/kg	4.6 U	6.1 U	260 U	13 U
Chloroethane	ug/kg	4.6 U	6.1 U	260 U	13 U
Chloroform	ug/kg	4.6 U	6.1 U	260 U	13 U
Chloromethane	ug/kg	4.6 U	6.1 U	260 U	13 U
Cyclohexane	ug/kg	4.6 U	6.1 U	260 U	13 U
1,2-Dibromo-3-Chloropropane	ug/kg	4.6 U	6.1 U	260 U	13 U
Dibromochloromethane	ug/kg	4.6 U	6.1 U	260 U	13 U
1,2-Dibromoethane	ug/kg	4.6 U	6.1 U	260 U	13 U
1,2-Dichlorobenzene	ug/kg	4.6 U	6.1 U	260 U	13 U
1,3-Dichlorobenzene	ug/kg	4.6 U	6.1 U	260 U	13 U
1,4-Dichlorobenzene	ug/kg	4.6 U	6.1 U	260 U	13 U
Dichlorodifluoromethane	ug/kg	4.6 U	6.1 U	260 U	13 U
1,1-Dichloroethane	ug/kg	4.6 U	40	260 U	390
1,2-Dichloroethane	ug/kg	4.6 U	6.1 U	260 U	13 U
1,1-Dichloroethene	ug/kg	4.6 U	6.1 U	260 U	13 U
cis-1,2-Dichloroethene	ug/kg	4.6 U	6.1 U	260 U	13 U
trans-1,2-Dichloroethene	ug/kg	4.6 U	6.1 U	260 U	13 U
1,2-Dichloropropane	ug/kg	4.6 U	6.1 U	260 U	13 U
cis-1,3-Dichloropropene	ug/kg	4.6 U	6.1 U	260 U	13 U
trans-1,3-Dichloropropene	ug/kg	4.6 U	6.1 U	260 U	13 U
Ethyl Benzene	ug/kg	4.6 U	6.1 U	260 U	13 U
2-Hexanone	ug/kg	9.1 U	12 U	530 U	27 U
Isopropylbenzene	ug/kg	4.6 U	6.1 U	260 U	13 U
Methyl Acetate	ug/kg	4.6 U	6.1 U	260 U	13 U
Methyl tert-butyl ether	ug/kg	4.6 U	6.1 U	260 U	13 U
Methylcyclohexane	ug/kg	4.6 U	6.1 U	260 U	13 U
Methylene Chloride	ug/kg	4.6 U	6.1 U	260 U	13 U
4-Methyl-2-Pentanone	ug/kg	9.1 U	12 U	530 U	27 U
Styrene	ug/kg	4.6 U	6.1 U	260 U	13 U
1,1,2,2-Tetrachloroethane	ug/kg	4.6 U	6.1 U	260 U	13 U
Tetrachloroethene	ug/kg	4.6 U	34	66 J	48
Toluene	ug/kg	4.6 U	8.2	260 U	13 U
1,2,3-Trichlorobenzene	ug/kg	4.6 U	6.1 U	260 U	13 U
1,2,4-Trichlorobenzene	ug/kg	4.6 U	6.1 U	260 U	13 U

Analysis/ Analyte	Units	97-__	98-__	99-__	100-__
1,1,1-Trichloroethane	ug/kg	4.6 U	370 J	340	730 J
1,1,2-Trichloroethane	ug/kg	4.6 U	6.1 U	260 U	17
Trichloroethene	ug/kg	4.6 U	6.1 J	260 U	29
Trichlorofluoromethane	ug/kg	4.6 U	6.1 U	260 U	13 U
1,1,2-Trichlorotrifluoroethane	ug/kg	4.6 U	6.1 U	260 U	13 U
Vinyl Chloride	ug/kg	4.6 U	6.1 U	260 U	13 U
m and/or p-Xylene	ug/kg	4.6 U	6.1 U	260 U	13 U
o-Xylene	ug/kg	4.6 U	6.1 U	260 U	13 U

Analysis/ Analyte	Units	101-__	102-__	103-__	104-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	76 U	87 U	86 U	85 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	13	31	22	14 U
Benzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Bromochloromethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Bromodichloromethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Bromoform	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Bromomethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
2-Butanone	ug/kg	12 U	13 U	13 U	14 U
Carbon Disulfide	ug/kg	5.9 U	8.3	6.5 U	7.2 U
Carbon Tetrachloride	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Chlorobenzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Chloroethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Chloroform	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Chloromethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Cyclohexane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Dibromochloromethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,2-Dibromoethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,2-Dichlorobenzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,3-Dichlorobenzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,4-Dichlorobenzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Dichlorodifluoromethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,1-Dichloroethane	ug/kg	7.4	6.6 U	17	260
1,2-Dichloroethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,1-Dichloroethene	ug/kg	5.9 U	6.6 U	6.5 U	24
cis-1,2-Dichloroethene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
trans-1,2-Dichloroethene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,2-Dichloropropane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
cis-1,3-Dichloropropene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
trans-1,3-Dichloropropene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Ethyl Benzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
2-Hexanone	ug/kg	12 U	13 U	13 U	14 U
Isopropylbenzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Methyl Acetate	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Methyl tert-butyl ether	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Methylcyclohexane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Methylene Chloride	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
4-Methyl-2-Pentanone	ug/kg	12 U	13 U	13 U	14 U
Styrene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,1,2,2-Tetrachloroethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Tetrachloroethene	ug/kg	0.36 J	6.6 U	1.5 J	3.0 J
Toluene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,2,3-Trichlorobenzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,2,4-Trichlorobenzene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U

Analysis/ Analyte	Units	101-__	102-__	103-__	104-__
1,1,1-Trichloroethane	ug/kg	5.9 U	23 J	110	470 J
1,1,2-Trichloroethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Trichloroethene	ug/kg	0.73 J	6.6 U	9.0	40
Trichlorofluoromethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
Vinyl Chloride	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
m and/or p-Xylene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U
o-Xylene	ug/kg	5.9 U	6.6 U	6.5 U	7.2 U

Analysis/ Analyte	Units	105-__	106-__	107-__	107-FD
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	74 U	70 U	80 U	74 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	23	29	22	26
Benzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Bromochloromethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Bromodichloromethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Bromoform	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Bromomethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
2-Butanone	ug/kg	14 U	11 U	13 U	11 U
Carbon Disulfide	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Carbon Tetrachloride	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Chlorobenzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Chloroethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Chloroform	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Chloromethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Cyclohexane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Dibromochloromethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,2-Dibromoethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,2-Dichlorobenzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,3-Dichlorobenzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,4-Dichlorobenzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Dichlorodifluoromethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,1-Dichloroethane	ug/kg	25	14	36	28
1,2-Dichloroethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,1-Dichloroethene	ug/kg	6.9 U	5.4 U	6.3 U	5.6
cis-1,2-Dichloroethene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
trans-1,2-Dichloroethene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,2-Dichloropropane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
cis-1,3-Dichloropropene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
trans-1,3-Dichloropropene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Ethyl Benzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
2-Hexanone	ug/kg	14 U	11 U	13 U	11 U
Isopropylbenzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Methyl Acetate	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Methyl tert-butyl ether	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Methylcyclohexane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Methylene Chloride	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
4-Methyl-2-Pentanone	ug/kg	14 U	11 U	13 U	11 U
Styrene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,1,2,2-Tetrachloroethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Tetrachloroethene	ug/kg	9.3	7.8	32	17
Toluene	ug/kg	6.9 U	5.4 U	7.3	5.5 U
1,2,3-Trichlorobenzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,2,4-Trichlorobenzene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U

Analysis/ Analyte	Units	105-__	106-__	107-__	107-FD
1,1,1-Trichloroethane	ug/kg	110	97	150	150
1,1,2-Trichloroethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Trichloroethene	ug/kg	40	25	90	63
Trichlorofluoromethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
Vinyl Chloride	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
m and/or p-Xylene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U
o-Xylene	ug/kg	6.9 U	5.4 U	6.3 U	5.5 U

Analysis/ Analyte	Units	109-__	110-__	111-__	112-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	79 U	93 U	69 U	77 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	33	65	20	18
Benzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Bromochloromethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Bromodichloromethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Bromoform	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Bromomethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
2-Butanone	ug/kg	13 U	18 U	13 U	9.9 U
Carbon Disulfide	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Carbon Tetrachloride	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Chlorobenzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Chloroethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Chloroform	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Chloromethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Cyclohexane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Dibromochloromethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,2-Dibromoethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,2-Dichlorobenzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,3-Dichlorobenzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,4-Dichlorobenzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Dichlorodifluoromethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,1-Dichloroethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,2-Dichloroethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,1-Dichloroethene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
cis-1,2-Dichloroethene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
trans-1,2-Dichloroethene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,2-Dichloropropane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
cis-1,3-Dichloropropene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
trans-1,3-Dichloropropene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Ethyl Benzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
2-Hexanone	ug/kg	13 U	18 U	13 U	9.9 U
Isopropylbenzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Methyl Acetate	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Methyl tert-butyl ether	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Methylcyclohexane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Methylene Chloride	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
4-Methyl-2-Pentanone	ug/kg	13 U	18 U	13 U	9.9 U
Styrene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Tetrachloroethene	ug/kg	0.38 J	0.47 J	1.7 J	3.1 J
Toluene	ug/kg	6.3 U	9.9	6.6 U	5.6
1,2,3-Trichlorobenzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,2,4-Trichlorobenzene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U

Analysis/ Analyte	Units	109-__	110-__	111-__	112-__
1,1,1-Trichloroethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,1,2-Trichloroethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Trichloroethene	ug/kg	0.47 J	8.8 U	1.2 J	5.0 U
Trichlorofluoromethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
Vinyl Chloride	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
m and/or p-Xylene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U
o-Xylene	ug/kg	6.3 U	8.8 U	6.6 U	5.0 U

Analysis/ Analyte	Units	113-__	114-__	115-__	116-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	78 U	85 U	86 U	70 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	48	42	34	10 U
Benzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Bromochloromethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Bromodichloromethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Bromoform	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Bromomethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
2-Butanone	ug/kg	13 U	13 U	14 U	10 U
Carbon Disulfide	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Carbon Tetrachloride	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Chlorobenzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Chloroethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Chloroform	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Chloromethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Cyclohexane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Dibromochloromethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,2-Dibromoethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,2-Dichlorobenzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,3-Dichlorobenzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,4-Dichlorobenzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Dichlorodifluoromethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,1-Dichloroethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,2-Dichloroethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,1-Dichloroethene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
cis-1,2-Dichloroethene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
trans-1,2-Dichloroethene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,2-Dichloropropane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
cis-1,3-Dichloropropene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
trans-1,3-Dichloropropene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Ethyl Benzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
2-Hexanone	ug/kg	13 U	13 U	14 U	10 U
Isopropylbenzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Methyl Acetate	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Methyl tert-butyl ether	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Methylcyclohexane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Methylene Chloride	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
4-Methyl-2-Pentanone	ug/kg	13 U	13 U	14 U	10 U
Styrene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,1,2,2-Tetrachloroethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Tetrachloroethene	ug/kg	80	59	7.2	0.78 J
Toluene	ug/kg	8.6	6.5	7.0 U	5.1 U
1,2,3-Trichlorobenzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,2,4-Trichlorobenzene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U

Analysis/ Analyte	Units	113-__	114-__	115-__	116-__
1,1,1-Trichloroethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,1,2-Trichloroethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Trichloroethene	ug/kg	6.3 U	6.4 U	17	5.1 J
Trichlorofluoromethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
Vinyl Chloride	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
m and/or p-Xylene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U
o-Xylene	ug/kg	6.3 U	6.4 U	7.0 U	5.1 U

Analysis/ Analyte	Units	117-__	118-__	118-FD	120-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	69 U	75 U	83 U	
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	270	3800 U	4100 U	14
Benzene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Bromochloromethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Bromodichloromethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Bromoform	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Bromomethane	ug/kg	5.1 U	1900 UJ	2000 UJ	6.1 U
2-Butanone	ug/kg	51	3800 U	4100 U	12 U
Carbon Disulfide	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Carbon Tetrachloride	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Chlorobenzene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Chloroethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Chloroform	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Chloromethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Cyclohexane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Dibromochloromethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,2-Dibromoethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,2-Dichlorobenzene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,3-Dichlorobenzene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,4-Dichlorobenzene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Dichlorodifluoromethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,1-Dichloroethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,2-Dichloroethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,1-Dichloroethene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
cis-1,2-Dichloroethene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
trans-1,2-Dichloroethene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,2-Dichloropropane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
cis-1,3-Dichloropropene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
trans-1,3-Dichloropropene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Ethyl Benzene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
2-Hexanone	ug/kg	10 U	3800 U	4100 U	12 U
Isopropylbenzene	ug/kg	5.1 U	7300	4600	6.1 U
Methyl Acetate	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Methyl tert-butyl ether	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Methylcyclohexane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Methylene Chloride	ug/kg	5.1 U	1900 U	2000 U	6.1 U
4-Methyl-2-Pentanone	ug/kg	10 U	3800 U	4100 U	12 U
Styrene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,1,2,2-Tetrachloroethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Tetrachloroethene	ug/kg	13	5800	3100	15
Toluene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,2,3-Trichlorobenzene	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,2,4-Trichlorobenzene	ug/kg	5.1 U	1900 U	2000 U	6.1 U

Analysis/ Analyte	Units	117-__	118-__	118-FD	120-__
1,1,1-Trichloroethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,1,2-Trichloroethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Trichloroethene	ug/kg	5.1 U	1900 U	2000 U	6.1 J
Trichlorofluoromethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.1 U	1900 U	2000 U	6.1 U
Vinyl Chloride	ug/kg	5.1 U	1900 U	2000 U	6.1 U
m and/or p-Xylene	ug/kg	5.1 U	2500	2000 U	6.1 U
o-Xylene	ug/kg	5.1 U	1900 U	2000 U	6.1 U

Analysis/ Analyte	Units	121-__	121-FD	123-__	124-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	91 U	87 U	78 U	82 UJ
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	28	830 U	690 U	63
Benzene	ug/kg	6.9 U	420 U	340 U	8.5 U
Bromochloromethane	ug/kg	6.9 U	420 U	340 U	8.5 U
Bromodichloromethane	ug/kg	6.9 U	420 U	340 U	8.5 U
Bromoform	ug/kg	6.9 U	420 U	340 U	8.5 U
Bromomethane	ug/kg	6.9 U	420 UJ	340 UJ	8.5 U
2-Butanone	ug/kg	14 U	830 U	690 U	17 U
Carbon Disulfide	ug/kg	6.9 U	420 U	340 U	8.5 U
Carbon Tetrachloride	ug/kg	6.9 U	420 U	340 U	8.5 U
Chlorobenzene	ug/kg	6.9 U	420 U	340 U	8.5 U
Chloroethane	ug/kg	6.9 U	420 U	340 U	8.5 U
Chloroform	ug/kg	6.9 U	420 U	340 U	8.5 U
Chloromethane	ug/kg	6.9 U	420 U	340 U	8.5 U
Cyclohexane	ug/kg	6.9 U	420 U	340 U	8.5 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.9 U	420 U	340 U	8.5 U
Dibromochloromethane	ug/kg	6.9 U	420 U	340 U	8.5 U
1,2-Dibromoethane	ug/kg	6.9 U	420 U	340 U	8.5 U
1,2-Dichlorobenzene	ug/kg	6.9 U	420 U	340 U	8.5 U
1,3-Dichlorobenzene	ug/kg	6.9 U	420 U	340 U	8.5 U
1,4-Dichlorobenzene	ug/kg	6.9 U	420 U	340 U	8.5 U
Dichlorodifluoromethane	ug/kg	6.9 U	420 U	340 U	8.5 U
1,1-Dichloroethane	ug/kg	6.9 U	420 U	340 U	8.5 U
1,2-Dichloroethane	ug/kg	6.9 U	420 U	340 U	8.5 U
1,1-Dichloroethene	ug/kg	6.9 U	420 U	340 U	8.5 U
cis-1,2-Dichloroethene	ug/kg	6.9 U	420 U	340 U	8.5 U
trans-1,2-Dichloroethene	ug/kg	6.9 U	420 U	340 U	8.5 U
1,2-Dichloropropane	ug/kg	6.9 U	420 U	340 U	8.5 U
cis-1,3-Dichloropropene	ug/kg	6.9 U	420 U	340 U	8.5 U
trans-1,3-Dichloropropene	ug/kg	6.9 U	420 U	340 U	8.5 U
Ethyl Benzene	ug/kg	6.9 U	420 U	340 U	8.5 U
2-Hexanone	ug/kg	14 U	830 U	690 U	17 U
Isopropylbenzene	ug/kg	6.9 U	420 U	340 U	8.5 U
Methyl Acetate	ug/kg	6.9 U	420 U	340 U	8.5 U
Methyl tert-butyl ether	ug/kg	6.9 U	420 U	340 U	8.5 U
Methylcyclohexane	ug/kg	6.9 U	420 U	340 U	8.5 U
Methylene Chloride	ug/kg	6.9 U	420 U	340 U	8.5 U
4-Methyl-2-Pentanone	ug/kg	14 U	830 U	690 U	17 U
Styrene	ug/kg	6.9 U	420 U	340 U	8.5 U
1,1,2,2-Tetrachloroethane	ug/kg	6.9 U	420 U	340 U	8.5 U
Tetrachloroethene	ug/kg	0.41 J	32 J	160 J	0.78 J
Toluene	ug/kg	6.9 U	420 U	340 U	8.5 U
1,2,3-Trichlorobenzene	ug/kg	6.9 U	420 U	340 U	8.5 U
1,2,4-Trichlorobenzene	ug/kg	6.9 U	420 U	340 U	8.5 U

Analysis/ Analyte	Units	121-__	121-FD	123-__	124-__
1,1,1-Trichloroethane	ug/kg	6.9 U	420 U	340 U	8.5 U
1,1,2-Trichloroethane	ug/kg	6.9 U	420 U	340 U	8.5 U
Trichloroethene	ug/kg	7.1	420 U	340 U	8.5 U
Trichlorofluoromethane	ug/kg	6.9 U	420 U	340 U	8.5 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.9 U	420 U	340 U	8.5 U
Vinyl Chloride	ug/kg	6.9 U	420 U	340 U	8.5 U
m and/or p-Xylene	ug/kg	6.9 U	420 U	340 U	8.5 U
o-Xylene	ug/kg	6.9 U	420 U	340 U	8.5 U

Analysis/ Analyte	Units	125-__	126-__	127-__	128-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	82 U	86 U	88 U	93 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	24	76	17	37
Benzene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Bromochloromethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Bromodichloromethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Bromoform	ug/kg	5.6 U	N/A R	6.3 U	N/A R
Bromomethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
2-Butanone	ug/kg	11 U	14 U	13 U	14 U
Carbon Disulfide	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Carbon Tetrachloride	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Chlorobenzene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Chloroethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Chloroform	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Chloromethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Cyclohexane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.6 U	N/A R	6.3 U	N/A R
Dibromochloromethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,2-Dibromoethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,2-Dichlorobenzene	ug/kg	5.6 U	N/A R	6.3 U	N/A R
1,3-Dichlorobenzene	ug/kg	5.6 U	N/A R	6.3 U	N/A R
1,4-Dichlorobenzene	ug/kg	5.6 U	N/A R	6.3 U	N/A R
Dichlorodifluoromethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,1-Dichloroethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,2-Dichloroethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,1-Dichloroethene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
cis-1,2-Dichloroethene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
trans-1,2-Dichloroethene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,2-Dichloropropane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
cis-1,3-Dichloropropene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
trans-1,3-Dichloropropene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Ethyl Benzene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
2-Hexanone	ug/kg	11 U	14 U	13 U	14 U
Isopropylbenzene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Methyl Acetate	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Methyl tert-butyl ether	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Methylcyclohexane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Methylene Chloride	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
4-Methyl-2-Pentanone	ug/kg	11 U	14 U	13 U	14 U
Styrene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,1,2,2-Tetrachloroethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Tetrachloroethene	ug/kg	1.5 J	21	3.2 J	0.85 J
Toluene	ug/kg	5.6 U	8.4 J	6.3 U	6.8 U
1,2,3-Trichlorobenzene	ug/kg	5.6 U	N/A R	6.3 U	N/A R
1,2,4-Trichlorobenzene	ug/kg	5.6 U	N/A R	6.3 U	N/A R

Analysis/ Analyte	Units	125-__	126-__	127-__	128-__
1,1,1-Trichloroethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,1,2-Trichloroethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Trichloroethene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Trichlorofluoromethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
Vinyl Chloride	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
m and/or p-Xylene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U
o-Xylene	ug/kg	5.6 U	7.1 U	6.3 U	6.8 U

Analysis/ Analyte	Units	129-__	129-FD	132-__	132-FD
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	94 U	83 U	92 U	91 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	21	21	37	38
Benzene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Bromochloromethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Bromodichloromethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Bromoform	ug/kg	6.8 U	5.8 U	N/A R	8.9 U
Bromomethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
2-Butanone	ug/kg	14 U	12 U	17 U	18 U
Carbon Disulfide	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Carbon Tetrachloride	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Chlorobenzene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Chloroethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Chloroform	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Chloromethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Cyclohexane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.8 U	5.8 U	N/A R	8.9 U
Dibromochloromethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,2-Dibromoethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,2-Dichlorobenzene	ug/kg	6.8 U	5.8 U	N/A R	8.9 U
1,3-Dichlorobenzene	ug/kg	6.8 U	5.8 U	N/A R	8.9 U
1,4-Dichlorobenzene	ug/kg	6.8 U	5.8 U	N/A R	8.9 U
Dichlorodifluoromethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,1-Dichloroethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,2-Dichloroethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,1-Dichloroethene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
cis-1,2-Dichloroethene	ug/kg	43	70	8.5 U	8.9 U
trans-1,2-Dichloroethene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,2-Dichloropropane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
cis-1,3-Dichloropropene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
trans-1,3-Dichloropropene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Ethyl Benzene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
2-Hexanone	ug/kg	14 U	12 U	17 U	18 U
Isopropylbenzene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Methyl Acetate	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Methyl tert-butyl ether	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Methylcyclohexane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Methylene Chloride	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
4-Methyl-2-Pentanone	ug/kg	14 U	12 U	17 U	18 U
Styrene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,1,2,2-Tetrachloroethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Tetrachloroethene	ug/kg	6.8 U	5.8 U	8.5 U	0.45 J
Toluene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,2,3-Trichlorobenzene	ug/kg	6.8 U	5.8 U	N/A R	8.9 U
1,2,4-Trichlorobenzene	ug/kg	6.8 U	5.8 U	N/A R	8.9 U

Analysis/ Analyte	Units	129-__	129-FD	132-__	132-FD
1,1,1-Trichloroethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,1,2-Trichloroethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Trichloroethene	ug/kg	11	13	8.5 U	8.9 U
Trichlorofluoromethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
Vinyl Chloride	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
m and/or p-Xylene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U
o-Xylene	ug/kg	6.8 U	5.8 U	8.5 U	8.9 U

Analysis/ Analyte	Units	134-__	135-__	136-__	137-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	89 U	88 U	70 U	84 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	29	56	32	3000 U
Benzene	ug/kg	11 U	7.8 U	9.2 U	1500 U
Bromochloromethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Bromodichloromethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Bromoform	ug/kg	11 U	7.8 U	9.2 U	1500 U
Bromomethane	ug/kg	11 U	7.8 U	9.2 U	1500 UJ
2-Butanone	ug/kg	22 U	16 U	18 U	3000 U
Carbon Disulfide	ug/kg	11 U	7.8 U	9.2 U	1500 U
Carbon Tetrachloride	ug/kg	11 U	7.8 U	9.2 U	1500 U
Chlorobenzene	ug/kg	11 U	7.8 U	9.2 U	1500 U
Chloroethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Chloroform	ug/kg	11 U	7.8 U	9.2 U	1500 U
Chloromethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Cyclohexane	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,2-Dibromo-3-Chloropropane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Dibromochloromethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,2-Dibromoethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,2-Dichlorobenzene	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,3-Dichlorobenzene	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,4-Dichlorobenzene	ug/kg	11 U	7.8 U	9.2 U	1500 U
Dichlorodifluoromethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,1-Dichloroethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,2-Dichloroethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,1-Dichloroethene	ug/kg	11 U	7.8 U	9.2 U	1500 U
cis-1,2-Dichloroethene	ug/kg	62	7.8 U	87	2300
trans-1,2-Dichloroethene	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,2-Dichloropropane	ug/kg	11 U	7.8 U	9.2 U	1500 U
cis-1,3-Dichloropropene	ug/kg	11 U	7.8 U	9.2 U	1500 U
trans-1,3-Dichloropropene	ug/kg	11 U	7.8 U	9.2 U	1500 U
Ethyl Benzene	ug/kg	11 U	7.8 U	9.2 U	1500 U
2-Hexanone	ug/kg	22 U	16 U	18 U	3000 U
Isopropylbenzene	ug/kg	11 U	7.8 U	9.2 U	1700
Methyl Acetate	ug/kg	11 U	7.8 U	9.2 U	1500 U
Methyl tert-butyl ether	ug/kg	11 U	7.8 U	9.2 U	1500 U
Methylcyclohexane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Methylene Chloride	ug/kg	11 U	7.8 U	9.2 U	1500 U
4-Methyl-2-Pentanone	ug/kg	22 U	16 U	18 U	3000 U
Styrene	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,1,2,2-Tetrachloroethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Tetrachloroethene	ug/kg	11 U	6.1 J	9.2 U	1500 U
Toluene	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,2,3-Trichlorobenzene	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,2,4-Trichlorobenzene	ug/kg	11 U	7.8 U	9.2 U	1500 U

Analysis/ Analyte	Units	134-__	135-__	136-__	137-__
1,1,1-Trichloroethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,1,2-Trichloroethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Trichloroethene	ug/kg	2.8 J	7.7 J	9.2 U	340 J
Trichlorofluoromethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
1,1,2-Trichlorotrifluoroethane	ug/kg	11 U	7.8 U	9.2 U	1500 U
Vinyl Chloride	ug/kg	11 U	7.8 U	9.2 U	1500 U
m and/or p-Xylene	ug/kg	11 U	7.8 U	9.2 U	1500 U
o-Xylene	ug/kg	11 U	7.8 U	9.2 U	1500 U

Analysis/ Analyte	Units	137-FD	139-__	139-FD	141-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	84 U	73 U	75 U	92 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	6300 U	25	19	21
Benzene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Bromochloromethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Bromodichloromethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Bromoform	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Bromomethane	ug/kg	3100 UJ	5.7 U	6.0 U	6.5 U
2-Butanone	ug/kg	6300 U	11 U	12 U	13 U
Carbon Disulfide	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Carbon Tetrachloride	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Chlorobenzene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Chloroethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Chloroform	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Chloromethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Cyclohexane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,2-Dibromo-3-Chloropropane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Dibromochloromethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,2-Dibromoethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,2-Dichlorobenzene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,3-Dichlorobenzene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,4-Dichlorobenzene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Dichlorodifluoromethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,1-Dichloroethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,2-Dichloroethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,1-Dichloroethene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
cis-1,2-Dichloroethene	ug/kg	5900	5.7 U	6.0 U	6.5 U
trans-1,2-Dichloroethene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,2-Dichloropropane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
cis-1,3-Dichloropropene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
trans-1,3-Dichloropropene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Ethyl Benzene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
2-Hexanone	ug/kg	6300 U	11 U	12 U	13 U
Isopropylbenzene	ug/kg	4600	5.7 U	6.0 U	6.5 U
Methyl Acetate	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Methyl tert-butyl ether	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Methylcyclohexane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Methylene Chloride	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
4-Methyl-2-Pentanone	ug/kg	6300 U	11 U	12 U	13 U
Styrene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,1,2,2-Tetrachloroethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Tetrachloroethene	ug/kg	3100 U	0.57 J	0.56 J	6.5 U
Toluene	ug/kg	3100 U	5.7	6.0 U	6.5 U
1,2,3-Trichlorobenzene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,2,4-Trichlorobenzene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U

Analysis/ Analyte	Units	137-FD	139-__	139-FD	141-__
1,1,1-Trichloroethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,1,2-Trichloroethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Trichloroethene	ug/kg	1100 J	5.7 U	6.0 U	6.5 U
Trichlorofluoromethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
1,1,2-Trichlorotrifluoroethane	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
Vinyl Chloride	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
m and/or p-Xylene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U
o-Xylene	ug/kg	3100 U	5.7 U	6.0 U	6.5 U

Analysis/ Analyte	Units	142-__	143-__	144-__	145-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	92 U	87 U	71 U	74 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	30	20	17	14
Benzene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Bromochloromethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Bromodichloromethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Bromoform	ug/kg	11 U	N/A R	6.3 U	5.9 U
Bromomethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
2-Butanone	ug/kg	22 U	13 U	13 U	12 U
Carbon Disulfide	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Carbon Tetrachloride	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Chlorobenzene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Chloroethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Chloroform	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Chloromethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Cyclohexane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,2-Dibromo-3-Chloropropane	ug/kg	11 U	N/A R	6.3 U	5.9 U
Dibromochloromethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,2-Dibromoethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,2-Dichlorobenzene	ug/kg	11 U	N/A R	6.3 U	5.9 U
1,3-Dichlorobenzene	ug/kg	11 U	N/A R	6.3 U	5.9 U
1,4-Dichlorobenzene	ug/kg	11 U	N/A R	6.3 U	5.9 U
Dichlorodifluoromethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,1-Dichloroethane	ug/kg	11 U	10	6.3 U	5.9 U
1,2-Dichloroethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,1-Dichloroethene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
cis-1,2-Dichloroethene	ug/kg	11 U	24	11	780 J
trans-1,2-Dichloroethene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,2-Dichloropropane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
cis-1,3-Dichloropropene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
trans-1,3-Dichloropropene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Ethyl Benzene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
2-Hexanone	ug/kg	22 U	13 U	13 U	12 U
Isopropylbenzene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Methyl Acetate	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Methyl tert-butyl ether	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Methylcyclohexane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Methylene Chloride	ug/kg	11 U	6.7 U	6.3 U	5.9 U
4-Methyl-2-Pentanone	ug/kg	22 U	13 U	13 U	12 U
Styrene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,1,2,2-Tetrachloroethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Tetrachloroethene	ug/kg	11 U	0.74 J	1.9 J	5.9 U
Toluene	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,2,3-Trichlorobenzene	ug/kg	11 U	N/A R	6.3 U	5.9 U
1,2,4-Trichlorobenzene	ug/kg	11 U	N/A R	6.3 U	5.9 U

Analysis/ Analyte	Units	142-__	143-__	144-__	145-__
1,1,1-Trichloroethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,1,2-Trichloroethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Trichloroethene	ug/kg	11 U	80	22	5.7 J
Trichlorofluoromethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
1,1,2-Trichlorotrifluoroethane	ug/kg	11 U	6.7 U	6.3 U	5.9 U
Vinyl Chloride	ug/kg	11 U	6.7 U	6.3 U	5.9 U
m and/or p-Xylene	ug/kg	11 U	6.7 U	6.3 U	11
o-Xylene	ug/kg	11 U	6.7 U	6.3 U	5.9 U

Analysis/ Analyte	Units	146-__	147-__	148-__	149-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	68 U	69 U		90 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	12 U	30	120	23
Benzene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Bromochloromethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Bromodichloromethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Bromoform	ug/kg	5.8 U	5.9 U	N/A R	12 U
Bromomethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
2-Butanone	ug/kg	12 U	12 U	14 U	23 U
Carbon Disulfide	ug/kg	5.8 U	9.8	6.8 U	12 U
Carbon Tetrachloride	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Chlorobenzene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Chloroethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Chloroform	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Chloromethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Cyclohexane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.8 U	5.9 U	N/A R	12 U
Dibromochloromethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
1,2-Dibromoethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
1,2-Dichlorobenzene	ug/kg	5.8 U	5.9 U	N/A R	12 U
1,3-Dichlorobenzene	ug/kg	5.8 U	5.9 U	N/A R	12 U
1,4-Dichlorobenzene	ug/kg	5.8 U	5.9 U	N/A R	12 U
Dichlorodifluoromethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
1,1-Dichloroethane	ug/kg	5.8 U	8.4	11	12 U
1,2-Dichloroethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
1,1-Dichloroethene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
cis-1,2-Dichloroethene	ug/kg	6.2	41	6.8 U	12 U
trans-1,2-Dichloroethene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
1,2-Dichloropropane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
cis-1,3-Dichloropropene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
trans-1,3-Dichloropropene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Ethyl Benzene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
2-Hexanone	ug/kg	12 U	12 U	14 U	23 U
Isopropylbenzene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Methyl Acetate	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Methyl tert-butyl ether	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Methylcyclohexane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Methylene Chloride	ug/kg	5.8 U	5.9 U	6.8 U	12 U
4-Methyl-2-Pentanone	ug/kg	12 U	12 U	14 U	23 U
Styrene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
1,1,2,2-Tetrachloroethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Tetrachloroethene	ug/kg	0.84 J	8.2	34	12 U
Toluene	ug/kg	5.8 U	5.9 U	7.4	12 U
1,2,3-Trichlorobenzene	ug/kg	5.8 U	5.9 U	N/A R	12 U
1,2,4-Trichlorobenzene	ug/kg	5.8 U	5.9 U	N/A R	12 U

Analysis/ Analyte	Units	146-__	147-__	148-__	149-__
1,1,1-Trichloroethane	ug/kg	5.8 U	14	160 J	12 U
1,1,2-Trichloroethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Trichloroethene	ug/kg	11	100	1.4 J	12 J
Trichlorofluoromethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.8 U	5.9 U	6.8 U	12 U
Vinyl Chloride	ug/kg	5.8 U	5.9 U	6.8 U	12 U
m and/or p-Xylene	ug/kg	5.8 U	5.9 U	6.8 U	12 U
o-Xylene	ug/kg	5.8 U	5.9 U	6.8 U	12 U

Analysis/ Analyte	Units	150-__	151-__	152-__	152-FD
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	88 U	69 U	73 U	71 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	22	12 U	14 U	14 U
Benzene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Bromochloromethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Bromodichloromethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Bromoform	ug/kg	N/A R	6.0 U	6.8 U	6.8 U
Bromomethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
2-Butanone	ug/kg	14 U	12 U	14 U	14 U
Carbon Disulfide	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Carbon Tetrachloride	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Chlorobenzene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Chloroethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Chloroform	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Chloromethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Cyclohexane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A R	6.0 U	6.8 U	6.8 U
Dibromochloromethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,2-Dibromoethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,2-Dichlorobenzene	ug/kg	N/A R	6.0 U	6.8 U	6.8 U
1,3-Dichlorobenzene	ug/kg	N/A R	6.0 U	6.8 U	6.8 U
1,4-Dichlorobenzene	ug/kg	N/A R	6.0 U	6.8 U	6.8 U
Dichlorodifluoromethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,1-Dichloroethane	ug/kg	7.1 U	6.0 U	6.9	6.8 U
1,2-Dichloroethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,1-Dichloroethene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
cis-1,2-Dichloroethene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
trans-1,2-Dichloroethene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,2-Dichloropropane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
cis-1,3-Dichloropropene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
trans-1,3-Dichloropropene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Ethyl Benzene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
2-Hexanone	ug/kg	14 U	12 U	14 U	14 U
Isopropylbenzene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Methyl Acetate	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Methyl tert-butyl ether	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Methylcyclohexane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Methylene Chloride	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
4-Methyl-2-Pentanone	ug/kg	14 U	12 U	14 U	14 U
Styrene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,1,2,2-Tetrachloroethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Tetrachloroethene	ug/kg	7.1 U	6.0 U	3.3 J	3.6 J
Toluene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,2,3-Trichlorobenzene	ug/kg	N/A R	6.0 U	6.8 U	6.8 U
1,2,4-Trichlorobenzene	ug/kg	N/A R	6.0 U	6.8 U	6.8 U

Analysis/ Analyte	Units	150-__	151-__	152-__	152-FD
1,1,1-Trichloroethane	ug/kg	7.1 U	6.0 U	16	15 J
1,1,2-Trichloroethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Trichloroethene	ug/kg	7.1 U	6.0 U	16	17
Trichlorofluoromethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
1,1,2-Trichlorotrifluoroethane	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
Vinyl Chloride	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
m and/or p-Xylene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U
o-Xylene	ug/kg	7.1 U	6.0 U	6.8 U	6.8 U

Analysis/ Analyte	Units	154-__	155-__	156-__	157-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	68 U	72 U	76 U	71 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	12 U	13 U	14 U	12 U
Benzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Bromochloromethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Bromodichloromethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Bromoform	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Bromomethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
2-Butanone	ug/kg	12 U	13 U	14 U	12 U
Carbon Disulfide	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Carbon Tetrachloride	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Chlorobenzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Chloroethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Chloroform	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Chloromethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Cyclohexane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Dibromochloromethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,2-Dibromoethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,2-Dichlorobenzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,3-Dichlorobenzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,4-Dichlorobenzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Dichlorodifluoromethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,1-Dichloroethane	ug/kg	6.0 U	6.4 U	9.5	6.5
1,2-Dichloroethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,1-Dichloroethene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
cis-1,2-Dichloroethene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
trans-1,2-Dichloroethene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,2-Dichloropropane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
cis-1,3-Dichloropropene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
trans-1,3-Dichloropropene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Ethyl Benzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
2-Hexanone	ug/kg	12 U	13 U	14 U	12 U
Isopropylbenzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Methyl Acetate	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Methyl tert-butyl ether	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Methylcyclohexane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Methylene Chloride	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
4-Methyl-2-Pentanone	ug/kg	12 U	13 U	14 U	12 U
Styrene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,1,2,2-Tetrachloroethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Tetrachloroethene	ug/kg	2.1 J	3.1 J	7.8	4.3 J
Toluene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,2,3-Trichlorobenzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,2,4-Trichlorobenzene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U

Analysis/ Analyte	Units	154-__	155-__	156-__	157-__
1,1,1-Trichloroethane	ug/kg	7.3 J	14 J	40 J	14 J
1,1,2-Trichloroethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Trichloroethene	ug/kg	7.5	11	21	20
Trichlorofluoromethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
Vinyl Chloride	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
m and/or p-Xylene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U
o-Xylene	ug/kg	6.0 U	6.4 U	7.0 U	6.2 U

Analysis/ Analyte	Units	158-__	159-__	160-__	161-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	72 U	78 U	86 U	75 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	570 U	28	20	14
Benzene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Bromochloromethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Bromodichloromethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Bromoform	ug/kg	290 U	N/A R	N/A R	N/A R
Bromomethane	ug/kg	290 UJ	7.0 U	8.2 U	6.2 U
2-Butanone	ug/kg	570 U	14 U	16 U	12 U
Carbon Disulfide	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Carbon Tetrachloride	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Chlorobenzene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Chloroethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Chloroform	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Chloromethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Cyclohexane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	290 U	N/A R	N/A R	N/A R
Dibromochloromethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,2-Dibromoethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,2-Dichlorobenzene	ug/kg	290 U	N/A R	N/A R	N/A R
1,3-Dichlorobenzene	ug/kg	290 U	N/A R	N/A R	N/A R
1,4-Dichlorobenzene	ug/kg	290 U	N/A R	N/A R	N/A R
Dichlorodifluoromethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,1-Dichloroethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,2-Dichloroethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,1-Dichloroethene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
cis-1,2-Dichloroethene	ug/kg	290 U	7.0 U	8.2 U	8.8
trans-1,2-Dichloroethene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,2-Dichloropropane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
cis-1,3-Dichloropropene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
trans-1,3-Dichloropropene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Ethyl Benzene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
2-Hexanone	ug/kg	570 U	14 U	16 U	12 U
Isopropylbenzene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Methyl Acetate	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Methyl tert-butyl ether	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Methylcyclohexane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Methylene Chloride	ug/kg	290 U	7.0 U	8.2 U	6.2 U
4-Methyl-2-Pentanone	ug/kg	570 U	14 U	16 U	12 U
Styrene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,1,2,2-Tetrachloroethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Tetrachloroethene	ug/kg	140 J	7.0 U	22	3.7 J
Toluene	ug/kg	290 U	7.7 J	8.2 U	7.0
1,2,3-Trichlorobenzene	ug/kg	290 U	N/A R	N/A R	N/A R
1,2,4-Trichlorobenzene	ug/kg	290 U	N/A R	N/A R	N/A R

Analysis/ Analyte	Units	158-__	159-__	160-__	161-__
1,1,1-Trichloroethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,1,2-Trichloroethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Trichloroethene	ug/kg	260 J	7.0 U	91	21
Trichlorofluoromethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	290 U	7.0 U	8.2 U	6.2 U
Vinyl Chloride	ug/kg	290 UJ	7.0 U	8.2 U	6.2 U
m and/or p-Xylene	ug/kg	290 U	7.0 U	8.2 U	6.2 U
o-Xylene	ug/kg	290 U	7.0 U	8.2 U	6.2 U

Analysis/ Analyte	Units	162-__	163-__	164-__	165-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	68 U	77 U	71 U	77 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U			140
Benzene	ug/kg	5.7 U			6.6 U
Bromochloromethane	ug/kg	5.7 U			6.6 U
Bromodichloromethane	ug/kg	5.7 U			6.6 U
Bromoform	ug/kg	5.7 U			6.6 U
Bromomethane	ug/kg	5.7 U			6.6 U
2-Butanone	ug/kg	11 U			27
Carbon Disulfide	ug/kg	5.7 U			6.6 U
Carbon Tetrachloride	ug/kg	5.7 U			6.6 U
Chlorobenzene	ug/kg	5.7 U			6.6 U
Chloroethane	ug/kg	5.7 U			6.6 U
Chloroform	ug/kg	5.7 U			6.6 U
Chloromethane	ug/kg	5.7 U			6.6 U
Cyclohexane	ug/kg	5.7 U			6.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.7 U			6.6 U
Dibromochloromethane	ug/kg	5.7 U			6.6 U
1,2-Dibromoethane	ug/kg	5.7 U			6.6 U
1,2-Dichlorobenzene	ug/kg	5.7 U			6.6 U
1,3-Dichlorobenzene	ug/kg	5.7 U			6.6 U
1,4-Dichlorobenzene	ug/kg	5.7 U			6.6 U
Dichlorodifluoromethane	ug/kg	5.7 U			6.6 U
1,1-Dichloroethane	ug/kg	5.7 U			6.6 U
1,2-Dichloroethane	ug/kg	5.7 U			6.6 U
1,1-Dichloroethene	ug/kg	5.7 U			6.6 U
cis-1,2-Dichloroethene	ug/kg	8.4			6.6 U
trans-1,2-Dichloroethene	ug/kg	5.7 U			6.6 U
1,2-Dichloropropane	ug/kg	5.7 U			6.6 U
cis-1,3-Dichloropropene	ug/kg	5.7 U			6.6 U
trans-1,3-Dichloropropene	ug/kg	5.7 U			6.6 U
Ethyl Benzene	ug/kg	5.7 U			6.6 U
2-Hexanone	ug/kg	11 U			13 U
Isopropylbenzene	ug/kg	5.7 U			6.6 U
Methyl Acetate	ug/kg	5.7 U			6.6 U
Methyl tert-butyl ether	ug/kg	5.7 U			6.6 U
Methylcyclohexane	ug/kg	5.7 U			6.6 U
Methylene Chloride	ug/kg	5.7 U			6.6 U
4-Methyl-2-Pentanone	ug/kg	11 U			13 U
Styrene	ug/kg	5.7 U			6.6 U
1,1,2,2-Tetrachloroethane	ug/kg	5.7 U			6.6 U
Tetrachloroethene	ug/kg	5.7 U			6.6 U
Toluene	ug/kg	5.7 U			6.6 U
1,2,3-Trichlorobenzene	ug/kg	5.7 U			6.6 U
1,2,4-Trichlorobenzene	ug/kg	5.7 U			6.6 U

Analysis/ Analyte	Units	162-__	163-__	164-__	165-__
1,1,1-Trichloroethane	ug/kg	5.7 U			6.6 U
1,1,2-Trichloroethane	ug/kg	5.7 U			6.6 U
Trichloroethene	ug/kg	1.1			6.6 U
Trichlorofluoromethane	ug/kg	5.7 U			6.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.7 U			6.6 U
Vinyl Chloride	ug/kg	5.7 U			6.6 U
m and/or p-Xylene	ug/kg	5.7 U			6.6 U
o-Xylene	ug/kg	5.7 U			6.6 U

Analysis/ Analyte	Units	166-__	167-__	168-__	169-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	76 U	88 U	90 UJ	82 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	15	14	830 U	1500 U
Benzene	ug/kg	6.3 U	7.1 U	420 U	730 U
Bromochloromethane	ug/kg	6.3 U	7.1 U	420 U	730 U
Bromodichloromethane	ug/kg	6.3 U	7.1 U	420 U	730 U
Bromoform	ug/kg	6.3 U	7.1 U	420 U	730 U
Bromomethane	ug/kg	6.3 U	7.1 U	420 UJ	730 UJ
2-Butanone	ug/kg	13 U	14 U	830 U	1500 U
Carbon Disulfide	ug/kg	6.3 U	7.1 U	420 U	730 U
Carbon Tetrachloride	ug/kg	6.3 U	7.1 U	420 U	730 U
Chlorobenzene	ug/kg	6.3 U	7.1 U	420 U	730 U
Chloroethane	ug/kg	6.3 U	7.1 U	420 U	730 U
Chloroform	ug/kg	6.3 U	7.1 U	420 U	730 U
Chloromethane	ug/kg	6.3 U	7.1 U	420 U	730 U
Cyclohexane	ug/kg	6.3 U	7.1 U	420 U	730 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.3 U	7.1 U	420 U	730 U
Dibromochloromethane	ug/kg	6.3 U	7.1 U	420 U	730 U
1,2-Dibromoethane	ug/kg	6.3 U	7.1 U	420 U	730 U
1,2-Dichlorobenzene	ug/kg	6.3 U	7.1 U	420 U	730 U
1,3-Dichlorobenzene	ug/kg	6.3 U	7.1 U	420 U	730 U
1,4-Dichlorobenzene	ug/kg	6.3 U	7.1 U	420 U	730 U
Dichlorodifluoromethane	ug/kg	6.3 U	7.1 U	420 U	730 U
1,1-Dichloroethane	ug/kg	6.3 U	7.1 U	420 U	730 U
1,2-Dichloroethane	ug/kg	6.3 U	7.1 U	420 U	730 U
1,1-Dichloroethene	ug/kg	6.3 U	7.1 U	420 U	730 U
cis-1,2-Dichloroethene	ug/kg	6.3 U	14	420 U	730 U
trans-1,2-Dichloroethene	ug/kg	6.3 U	7.1 U	420 U	730 U
1,2-Dichloropropane	ug/kg	6.3 U	7.1 U	420 U	730 U
cis-1,3-Dichloropropene	ug/kg	6.3 U	7.1 U	420 U	730 U
trans-1,3-Dichloropropene	ug/kg	6.3 U	7.1 U	420 U	730 U
Ethyl Benzene	ug/kg	6.3 U	7.1 U	420 U	730 U
2-Hexanone	ug/kg	13 U	14 U	830 U	1500 U
Isopropylbenzene	ug/kg	6.3 U	7.1 U	520	2000
Methyl Acetate	ug/kg	6.3 U	7.1 U	420 U	730 U
Methyl tert-butyl ether	ug/kg	6.3 U	7.1 U	420 U	730 U
Methylcyclohexane	ug/kg	6.3 U	7.1 U	420 U	730 U
Methylene Chloride	ug/kg	6.3 U	7.1 U	420 U	730 U
4-Methyl-2-Pentanone	ug/kg	13 U	14 U	830 U	1500 U
Styrene	ug/kg	6.3 U	7.1 U	420 U	730 U
1,1,2,2-Tetrachloroethane	ug/kg	6.3 U	7.1 U	420 U	730 U
Tetrachloroethene	ug/kg	1.0 J	7.1 U	420 U	730 U
Toluene	ug/kg	6.3 U	7.1 U	420 U	730 U
1,2,3-Trichlorobenzene	ug/kg	6.3 U	7.1 U	420 U	730 U
1,2,4-Trichlorobenzene	ug/kg	6.3 U	7.1 U	420 U	730 U

Analysis/ Analyte	Units	166-__	167-__	168-__	169-__
1,1,1-Trichloroethane	ug/kg	6.3 U	7.1 U	420 U	730 U
1,1,2-Trichloroethane	ug/kg	6.3 U	7.1 U	420 U	730 U
Trichloroethene	ug/kg	6.3 U	2.7 J	420 U	730 U
Trichlorofluoromethane	ug/kg	6.3 U	7.1 U	420 U	730 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.3 U	7.1 U	420 U	730 U
Vinyl Chloride	ug/kg	6.3 U	7.1 U	420 UJ	730 UJ
m and/or p-Xylene	ug/kg	6.3 U	7.1 U	420 U	730 U
o-Xylene	ug/kg	6.3 U	7.1 U	420 U	730 U

Analysis/ Analyte	Units	170-__	171-__	172-__	173-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	75 U	69 U	87 U	91 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U	20	800 U	31
Benzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Bromochloromethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Bromodichloromethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Bromoform	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Bromomethane	ug/kg	5.7 U	5.7 U	400 UJ	7.1 U
2-Butanone	ug/kg	11 U	11 U	800 U	14 U
Carbon Disulfide	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Carbon Tetrachloride	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Chlorobenzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Chloroethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Chloroform	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Chloromethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Cyclohexane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Dibromochloromethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,2-Dibromoethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,2-Dichlorobenzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,3-Dichlorobenzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,4-Dichlorobenzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Dichlorodifluoromethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,1-Dichloroethane	ug/kg	5.7 U	5.7 U	400 U	8.3
1,2-Dichloroethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,1-Dichloroethene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
cis-1,2-Dichloroethene	ug/kg	5.7 U	5.7 U	400 U	9.9
trans-1,2-Dichloroethene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,2-Dichloropropane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
cis-1,3-Dichloropropene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
trans-1,3-Dichloropropene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Ethyl Benzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
2-Hexanone	ug/kg	11 U	11 U	800 U	14 U
Isopropylbenzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Methyl Acetate	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Methyl tert-butyl ether	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Methylcyclohexane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Methylene Chloride	ug/kg	5.7 U	5.7 U	400 U	7.1 U
4-Methyl-2-Pentanone	ug/kg	11 U	11 U	800 U	14 U
Styrene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,1,2,2-Tetrachloroethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Tetrachloroethene	ug/kg	5.7 U	0.26 J	400 U	7.1 U
Toluene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,2,3-Trichlorobenzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,2,4-Trichlorobenzene	ug/kg	5.7 U	5.7 U	400 U	7.1 U

Analysis/ Analyte	Units	170-__	171-__	172-__	173-__
1,1,1-Trichloroethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,1,2-Trichloroethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Trichloroethene	ug/kg	0.43 J	5.7 U	400 U	7.1 U
Trichlorofluoromethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.7 U	5.7 U	400 U	7.1 U
Vinyl Chloride	ug/kg	5.7 U	5.7 U	400 UJ	7.1 U
m and/or p-Xylene	ug/kg	5.7 U	5.7 U	400 U	7.1 U
o-Xylene	ug/kg	5.7 U	5.7 U	400 U	7.1 U

Analysis/ Analyte	Units	174-__	174-FD	176-__	177-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	85 U	92 U	72 U	71 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	27	26	15	74
Benzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Bromochloromethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Bromodichloromethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Bromoform	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Bromomethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
2-Butanone	ug/kg	19 U	15 U	9.4 U	13
Carbon Disulfide	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Carbon Tetrachloride	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Chlorobenzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Chloroethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Chloroform	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Chloromethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Cyclohexane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Dibromochloromethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,2-Dibromoethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,2-Dichlorobenzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,3-Dichlorobenzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,4-Dichlorobenzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Dichlorodifluoromethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,1-Dichloroethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,2-Dichloroethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,1-Dichloroethene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
cis-1,2-Dichloroethene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
trans-1,2-Dichloroethene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,2-Dichloropropane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
cis-1,3-Dichloropropene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
trans-1,3-Dichloropropene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Ethyl Benzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
2-Hexanone	ug/kg	19 U	15 U	9.4 U	51
Isopropylbenzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Methyl Acetate	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Methyl tert-butyl ether	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Methylcyclohexane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Methylene Chloride	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
4-Methyl-2-Pentanone	ug/kg	19 U	15 U	9.4 U	12 U
Styrene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,1,2,2-Tetrachloroethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Tetrachloroethene	ug/kg	9.3 U	7.4 U	4.7 U	2.8 J
Toluene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,2,3-Trichlorobenzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,2,4-Trichlorobenzene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U

Analysis/ Analyte	Units	174-__	174-FD	176-__	177-__
1,1,1-Trichloroethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,1,2-Trichloroethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Trichloroethene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Trichlorofluoromethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
Vinyl Chloride	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
m and/or p-Xylene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U
o-Xylene	ug/kg	9.3 U	7.4 U	4.7 U	6.0 U

Analysis/ Analyte	Units	178-__	179-__	180-__	180-FD
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	83 U	91 U	82 U	85 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	36	870 U	730 U	780 U
Benzene	ug/kg	11 U	430 U	360 U	390 U
Bromochloromethane	ug/kg	11 U	430 U	360 U	390 U
Bromodichloromethane	ug/kg	11 U	430 U	360 U	390 U
Bromoform	ug/kg	11 U	430 U	360 U	390 U
Bromomethane	ug/kg	11 U	430 UJ	360 UJ	390 UJ
2-Butanone	ug/kg	23 U	870 U	730 U	780 U
Carbon Disulfide	ug/kg	11 U	430 U	360 U	390 U
Carbon Tetrachloride	ug/kg	11 U	430 U	360 U	390 U
Chlorobenzene	ug/kg	11 U	430 U	360 U	390 U
Chloroethane	ug/kg	11 U	430 U	360 U	390 U
Chloroform	ug/kg	11 U	430 U	360 U	390 U
Chloromethane	ug/kg	11 U	430 U	360 U	390 U
Cyclohexane	ug/kg	11 U	430 U	360 U	390 U
1,2-Dibromo-3-Chloropropane	ug/kg	11 U	430 U	360 U	390 U
Dibromochloromethane	ug/kg	11 U	430 U	360 U	390 U
1,2-Dibromoethane	ug/kg	11 U	430 U	360 U	390 U
1,2-Dichlorobenzene	ug/kg	11 U	430 U	360 U	390 U
1,3-Dichlorobenzene	ug/kg	11 U	430 U	360 U	390 U
1,4-Dichlorobenzene	ug/kg	11 U	430 U	360 U	390 U
Dichlorodifluoromethane	ug/kg	11 U	430 U	360 U	390 U
1,1-Dichloroethane	ug/kg	11 U	430 U	360 U	390 U
1,2-Dichloroethane	ug/kg	11 U	430 U	360 U	390 U
1,1-Dichloroethene	ug/kg	11 U	430 U	360 U	390 U
cis-1,2-Dichloroethene	ug/kg	11 U	430 U	4800	7000
trans-1,2-Dichloroethene	ug/kg	11 U	430 U	360 U	390 U
1,2-Dichloropropane	ug/kg	11 U	430 U	360 U	390 U
cis-1,3-Dichloropropene	ug/kg	11 U	430 U	360 U	390 U
trans-1,3-Dichloropropene	ug/kg	11 U	430 U	360 U	390 U
Ethyl Benzene	ug/kg	11 U	430 U	360 U	390 U
2-Hexanone	ug/kg	23 U	870 U	730 U	780 U
Isopropylbenzene	ug/kg	11 U	430 U	360 U	390 U
Methyl Acetate	ug/kg	11 U	430 U	360 U	390 U
Methyl tert-butyl ether	ug/kg	11 U	430 U	360 U	390 U
Methylcyclohexane	ug/kg	11 U	430 U	360 U	390 U
Methylene Chloride	ug/kg	11 U	430 U	360 U	390 U
4-Methyl-2-Pentanone	ug/kg	23 U	870 U	730 U	780 U
Styrene	ug/kg	11 U	430 U	360 U	390 U
1,1,2,2-Tetrachloroethane	ug/kg	11 U	430 U	360 U	390 U
Tetrachloroethene	ug/kg	51	950	36 J	91 J
Toluene	ug/kg	11 U	430 U	360 U	390 U
1,2,3-Trichlorobenzene	ug/kg	11 U	430 U	360 U	390 U
1,2,4-Trichlorobenzene	ug/kg	11 U	430 U	360 U	390 U

Analysis/ Analyte	Units	178-__	179-__	180-__	180-FD
1,1,1-Trichloroethane	ug/kg	11 U	430 U	360 U	390 U
1,1,2-Trichloroethane	ug/kg	11 U	430 U	360 U	390 U
Trichloroethene	ug/kg	44	610	840	1200
Trichlorofluoromethane	ug/kg	11 U	430 U	360 U	390 U
1,1,2-Trichlorotrifluoroethane	ug/kg	11 U	430 U	360 U	390 U
Vinyl Chloride	ug/kg	11 U	430 UJ	360 UJ	390 UJ
m and/or p-Xylene	ug/kg	11 U	430 U	360 U	390 U
o-Xylene	ug/kg	11 U	430 U	360 U	390 U

Analysis/ Analyte	Units	182-__	183-__	184-__	185-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	72 U	78 U	86 U	70 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	570 U	650 U	11 U	74
Benzene	ug/kg	290 U	320 U	5.6 U	7.0 U
Bromochloromethane	ug/kg	290 U	320 U	5.6 U	7.0 U
Bromodichloromethane	ug/kg	290 U	320 U	5.6 U	7.0 U
Bromoform	ug/kg	290 U	320 U	5.6 U	7.0 U
Bromomethane	ug/kg	290 UJ	320 UJ	5.6 U	7.0 U
2-Butanone	ug/kg	570 U	650 U	11 U	14 U
Carbon Disulfide	ug/kg	290 U	320 U	5.6 U	7.0 U
Carbon Tetrachloride	ug/kg	290 U	320 U	5.6 U	7.0 U
Chlorobenzene	ug/kg	290 U	320 U	5.6 U	7.0 U
Chloroethane	ug/kg	290 U	320 U	5.6 U	7.0 U
Chloroform	ug/kg	290 U	320 U	5.6 U	7.0 U
Chloromethane	ug/kg	290 U	320 U	5.6 U	7.0 U
Cyclohexane	ug/kg	290 U	320 U	5.6 U	7.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	290 U	320 U	5.6 U	7.0 U
Dibromochloromethane	ug/kg	290 U	320 U	5.6 U	7.0 U
1,2-Dibromoethane	ug/kg	290 U	320 U	5.6 U	7.0 U
1,2-Dichlorobenzene	ug/kg	290 U	320 U	5.6 U	7.0 U
1,3-Dichlorobenzene	ug/kg	290 U	320 U	5.6 U	7.0 U
1,4-Dichlorobenzene	ug/kg	290 U	320 U	5.6 U	7.0 U
Dichlorodifluoromethane	ug/kg	290 U	320 U	5.6 U	7.0 U
1,1-Dichloroethane	ug/kg	290 U	320 U	290 J	7.0 U
1,2-Dichloroethane	ug/kg	290 U	320 U	5.6 U	7.0 U
1,1-Dichloroethene	ug/kg	290 U	320 U	15	7.0 U
cis-1,2-Dichloroethene	ug/kg	290 U	320 U	310 J	7.0 U
trans-1,2-Dichloroethene	ug/kg	290 U	320 U	5.6 U	7.0 U
1,2-Dichloropropane	ug/kg	290 U	320 U	5.6 U	7.0 U
cis-1,3-Dichloropropene	ug/kg	290 U	320 U	5.6 U	7.0 U
trans-1,3-Dichloropropene	ug/kg	290 U	320 U	5.6 U	7.0 U
Ethyl Benzene	ug/kg	290 U	320 U	5.6 U	7.0 U
2-Hexanone	ug/kg	570 U	650 U	11 U	14 U
Isopropylbenzene	ug/kg	290 U	320 U	5.6 U	7.0 U
Methyl Acetate	ug/kg	290 U	320 U	5.6 U	7.0 U
Methyl tert-butyl ether	ug/kg	290 U	320 U	5.6 U	7.0 U
Methylcyclohexane	ug/kg	290 U	320 U	5.6 U	7.0 U
Methylene Chloride	ug/kg	290 U	320 U	5.6 U	7.0 U
4-Methyl-2-Pentanone	ug/kg	570 U	650 U	11 U	14 U
Styrene	ug/kg	290 U	320 U	5.6 U	7.0 U
1,1,2,2-Tetrachloroethane	ug/kg	290 U	320 U	5.6 U	7.0 U
Tetrachloroethene	ug/kg	750	580	0.89 J	20
Toluene	ug/kg	290 U	320 U	5.6 U	7.0 U
1,2,3-Trichlorobenzene	ug/kg	290 U	320 U	5.6 U	7.0 U
1,2,4-Trichlorobenzene	ug/kg	290 U	320 U	5.6 U	7.0 U

Analysis/ Analyte	Units	182-__	183-__	184-__	185-__
1,1,1-Trichloroethane	ug/kg	290 U	320 U	5.6 U	7.0 U
1,1,2-Trichloroethane	ug/kg	290 U	320 U	5.6 U	7.0 U
Trichloroethene	ug/kg	560	850	79	1.4 J
Trichlorofluoromethane	ug/kg	290 U	320 U	5.6 U	7.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	290 U	320 U	5.6 U	7.0 U
Vinyl Chloride	ug/kg	290 UJ	320 UJ	5.6 U	7.0 U
m and/or p-Xylene	ug/kg	290 U	320 U	5.6 U	7.0 U
o-Xylene	ug/kg	290 U	320 U	5.6 U	7.0 U

Analysis/ Analyte	Units	186-__	187-__	188-__	189-__
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	87 UJ	90 U	88 U	71 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	810 U	840 U	800 U	16
Benzene	ug/kg	400 U	420 U	400 U	4.9 U
Bromochloromethane	ug/kg	400 U	420 U	400 U	4.9 U
Bromodichloromethane	ug/kg	400 U	420 U	400 U	4.9 U
Bromoform	ug/kg	400 U	420 U	400 U	4.9 U
Bromomethane	ug/kg	400 UJ	420 UJ	400 UJ	4.9 U
2-Butanone	ug/kg	810 U	840 U	800 U	9.9 U
Carbon Disulfide	ug/kg	400 U	420 U	400 U	4.9 U
Carbon Tetrachloride	ug/kg	400 U	420 U	400 U	4.9 U
Chlorobenzene	ug/kg	400 U	420 U	400 U	4.9 U
Chloroethane	ug/kg	400 U	420 U	400 U	4.9 U
Chloroform	ug/kg	400 U	420 U	400 U	4.9 U
Chloromethane	ug/kg	400 U	420 U	400 U	4.9 U
Cyclohexane	ug/kg	400 U	420 U	400 U	4.9 U
1,2-Dibromo-3-Chloropropane	ug/kg	400 U	420 U	400 U	4.9 U
Dibromochloromethane	ug/kg	400 U	420 U	400 U	4.9 U
1,2-Dibromoethane	ug/kg	400 U	420 U	400 U	4.9 U
1,2-Dichlorobenzene	ug/kg	400 U	420 U	400 U	4.9 U
1,3-Dichlorobenzene	ug/kg	400 U	420 U	400 U	4.9 U
1,4-Dichlorobenzene	ug/kg	400 U	420 U	400 U	4.9 U
Dichlorodifluoromethane	ug/kg	400 U	420 U	400 U	4.9 U
1,1-Dichloroethane	ug/kg	400 U	420 U	400 U	47
1,2-Dichloroethane	ug/kg	400 U	420 U	400 U	4.9 U
1,1-Dichloroethene	ug/kg	400 U	420 U	400 U	7.5
cis-1,2-Dichloroethene	ug/kg	400 U	420 U	400 U	270 J
trans-1,2-Dichloroethene	ug/kg	400 U	420 U	400 U	16
1,2-Dichloropropane	ug/kg	400 U	420 U	400 U	4.9 U
cis-1,3-Dichloropropene	ug/kg	400 U	420 U	400 U	4.9 U
trans-1,3-Dichloropropene	ug/kg	400 U	420 U	400 U	4.9 U
Ethyl Benzene	ug/kg	400 U	420 U	400 U	4.9 U
2-Hexanone	ug/kg	810 U	840 U	800 U	9.9 U
Isopropylbenzene	ug/kg	400 U	420 U	400 U	4.9 U
Methyl Acetate	ug/kg	400 U	420 U	400 U	4.9 U
Methyl tert-butyl ether	ug/kg	400 U	420 U	400 U	4.9 U
Methylcyclohexane	ug/kg	400 U	420 U	400 U	6.0
Methylene Chloride	ug/kg	400 U	420 U	400 U	4.9 U
4-Methyl-2-Pentanone	ug/kg	810 U	840 U	800 U	9.9 U
Styrene	ug/kg	400 U	420 U	400 U	4.9 U
1,1,2,2-Tetrachloroethane	ug/kg	400 U	420 U	400 U	4.9 U
Tetrachloroethene	ug/kg	3000	5700	1500	480 J
Toluene	ug/kg	400 U	420 U	400 U	4.9 U
1,2,3-Trichlorobenzene	ug/kg	400 U	420 U	400 U	4.9 U
1,2,4-Trichlorobenzene	ug/kg	400 U	420 U	400 U	4.9 U

Analysis/ Analyte	Units	186-__	187-__	188-__	189-__
1,1,1-Trichloroethane	ug/kg	400 U	420 U	400 U	4.9 U
1,1,2-Trichloroethane	ug/kg	400 U	420 U	400 U	4.9 U
Trichloroethene	ug/kg	170 J	380 J	840	450 J
Trichlorofluoromethane	ug/kg	400 U	420 U	400 U	4.9 U
1,1,2-Trichlorotrifluoroethane	ug/kg	400 U	420 U	400 U	4.9 U
Vinyl Chloride	ug/kg	400 UJ	420 UJ	400 UJ	4.9 U
m and/or p-Xylene	ug/kg	400 U	420 U	400 U	4.9 U
o-Xylene	ug/kg	400 U	420 U	400 U	4.9 U

Analysis/ Analyte	Units	190-__	190-FD	401-__	402-__
1 PCBs in Soil by GC/EC					
Aroclor 1016	ug/kg			42 U	41 U
Aroclor 1221	ug/kg			42 U	41 U
Aroclor 1232	ug/kg			42 U	41 U
Aroclor 1242	ug/kg			42 U	41 U
Aroclor 1248	ug/kg			42 U	41 U
Aroclor 1254	ug/kg			42 U	41 U
Aroclor 1260	ug/kg			42 U	41 U
Aroclor 1262	ug/kg			42 U	41 U
Aroclor 1268	ug/kg			42 U	41 U
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	74 U	76 U		
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	16	18		
Benzene	ug/kg	6.5 U	6.9 U		
Bromochloromethane	ug/kg	6.5 U	6.9 U		
Bromodichloromethane	ug/kg	6.5 U	6.9 U		
Bromoform	ug/kg	6.5 U	6.9 U		
Bromomethane	ug/kg	6.5 U	6.9 U		
2-Butanone	ug/kg	13 U	14 U		
Carbon Disulfide	ug/kg	6.5 U	6.9 U		
Carbon Tetrachloride	ug/kg	6.5 U	6.9 U		
Chlorobenzene	ug/kg	6.5 U	6.9 U		
Chloroethane	ug/kg	6.5 U	6.9 U		
Chloroform	ug/kg	6.5 U	6.9 U		
Chloromethane	ug/kg	6.5 U	6.9 U		
Cyclohexane	ug/kg	6.5 U	6.9 U		
1,2-Dibromo-3-Chloropropane	ug/kg	6.5 U	6.9 U		
Dibromochloromethane	ug/kg	6.5 U	6.9 U		
1,2-Dibromoethane	ug/kg	6.5 U	6.9 U		
1,2-Dichlorobenzene	ug/kg	6.5 U	6.9 U		
1,3-Dichlorobenzene	ug/kg	6.5 U	6.9 U		
1,4-Dichlorobenzene	ug/kg	6.5 U	6.9 U		
Dichlorodifluoromethane	ug/kg	6.5 U	6.9 U		
1,1-Dichloroethane	ug/kg	6.5 U	6.9 U		
1,2-Dichloroethane	ug/kg	6.5 U	6.9 U		
1,1-Dichloroethene	ug/kg	6.5 U	6.9 U		
cis-1,2-Dichloroethene	ug/kg	27	22		
trans-1,2-Dichloroethene	ug/kg	6.5 U	6.9 U		
1,2-Dichloropropane	ug/kg	6.5 U	6.9 U		
cis-1,3-Dichloropropene	ug/kg	6.5 U	6.9 U		
trans-1,3-Dichloropropene	ug/kg	6.5 U	6.9 U		
Ethyl Benzene	ug/kg	6.5 U	6.9 U		
2-Hexanone	ug/kg	13 U	14 U		
Isopropylbenzene	ug/kg	6.5 U	6.9 U		
Methyl Acetate	ug/kg	6.5 U	6.9 U		

Analysis/ Analyte	Units	190-__	190-FD	401-__	402-__
Methyl tert-butyl ether	ug/kg	6.5 U	6.9 U		
Methylcyclohexane	ug/kg	6.5 U	6.9 U		
Methylene Chloride	ug/kg	6.5 U	6.9 U		
4-Methyl-2-Pentanone	ug/kg	13 U	14 U		
Styrene	ug/kg	6.5 U	6.9 U		
1,1,2,2-Tetrachloroethane	ug/kg	6.5 U	6.9 U		
Tetrachloroethene	ug/kg	37	29		
Toluene	ug/kg	6.5 U	6.9 U		
1,2,3-Trichlorobenzene	ug/kg	6.5 U	6.9 U		
1,2,4-Trichlorobenzene	ug/kg	6.5 U	6.9 U		
1,1,1-Trichloroethane	ug/kg	6.5 U	6.9 U		
1,1,2-Trichloroethane	ug/kg	6.5 U	6.9 U		
Trichloroethene	ug/kg	32	27		
Trichlorofluoromethane	ug/kg	6.5 U	6.9 U		
1,1,2-Trichlorotrifluoroethane	ug/kg	6.5 U	6.9 U		
Vinyl Chloride	ug/kg	6.5 U	6.9 U		
m and/or p-Xylene	ug/kg	6.5 U	6.9 U		
o-Xylene	ug/kg	6.5 U	6.9 U		

Analysis/ Analyte	Units	402-FD	404-__
1 PCBs in Soil by GC/EC			
Aroclor 1016	ug/kg	37 U	34 U
Aroclor 1221	ug/kg	37 U	34 U
Aroclor 1232	ug/kg	37 U	34 U
Aroclor 1242	ug/kg	37 U	34 U
Aroclor 1248	ug/kg	37 U	34 U
Aroclor 1254	ug/kg	37 U	34 U
Aroclor 1260	ug/kg	37 U	34 U
Aroclor 1262	ug/kg	37 U	34 U
Aroclor 1268	ug/kg	37 U	34 U

United States Environmental Protection Agency
Region VII
901 N. 5th Street
Kansas City, KS 66101

Date: __/__/____

Subject: Data Disposition/Sample Release for ASR #: 5706

Project ID: NS07TZRA00

Project Description: General Motors S.C. - Response Action Monitoring

From: Nancy Swyers
SUPR/IANE

To: Kaye Dollmann
ENSV/CARB

I have received and reviewed the Transmittal of Sample Analysis Results for the above-referenced Analytical Services Request(ASR) and have indicated my findings below by checking one of the boxes for Data Disposition.

I understand all samples will be disposed upon receipt of this form, unless samples are requested to be held. If I do not return this form all samples will be disposed of on _____.

☐ "RELEASED" - Read-only to all Region 7 employees and contractors that have R7LIMS "Customer" account. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Project Manager Accessible" - Available on the LAN in R7LIMS for my use only. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Archived" - THIS DATA IS OF A SENSITIVE NATURE. Any future reports must be requested through the laboratory. All samples may be disposed of upon receipt of the form if not requested to be held.

☐ Hold Samples - I have determined that the samples need to be held until _____, after which time they will be disposed of in accordance with applicable regulations.
The reason for the hold is:

- ☐ Samples are associated with a legal proceeding.
- ☐ Question/Concern with data - possible reanalysis requested.
- ☐ Other:_____

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: 07/27/2012

Subject: Transmittal of Sample Analysis Results for ASR #: 5788

Project ID: RS07TZ00

Project Description: General Motors S.C. - Removal Support sampling

From: Michael F. Davis, Chief
Chemical Analysis and Response Branch, Environmental Services Division

To: Randy Schademann
SUPR/ERNB

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Randy Schademann Org: SUPR/ERNB Phone: 913-551-7331

Project ID: RS07TZ00

Project Desc: General Motors S.C. - Removal Support sampling

Location: Sioux City State: Iowa Program: Superfund

Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION Site ID: 07TZ Site OU: 00

GPRA PRC: 303DC6

Purpose: Site Cleanup Support

Per THankins email (5/21/12): Using the special account for General Motors .... only for contracts.
This one is NOT open for EPA time.
Per THankins email (5/21/12): EPA should charge site-specifically (fund code T) ... however, we are not using the special account funds for our time.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FB = Field Blank

Units: Specific units in which results are reported.

ug/L = Micrograms per Liter
ug/kg = Micrograms per Kilogram
% = Percent

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.
J = The identification of the analyte is acceptable; the reported value is an estimate.
U = The analyte was not detected at or above the reporting limit.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

Project ID: RS07TZ00 Project Desc: General Motors S.C. - Removal Support sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	__	Solid	SB-41 (0-2')		06/26/2012	14:00			06/28/2012
2	__	Solid	SB-41 (6-7')		06/26/2012	14:07			06/28/2012
3	__	Solid	SB-41 (12-13')		06/26/2012	14:12			06/28/2012
4	__	Solid	SB-41 (17-18')		06/26/2012	14:32			06/28/2012
5	__	Solid	SB-41 (21-23')		06/26/2012	14:50			06/28/2012
6	__	Solid	SB-41 (27-28')		06/26/2012	14:45			06/28/2012
7	__	Solid	SB-42 (3-4')		06/26/2012	15:16			06/28/2012
8	__	Solid	SB-42 (6-7')		06/26/2012	15:18			06/28/2012
9	__	Solid	SB-42 (9-10')		06/26/2012	15:25			06/28/2012
10	__	Solid	SB-42 (14-15')		06/26/2012	15:58			06/28/2012
11	__	Solid	SB-42 (17-18')		06/26/2012	16:00			06/28/2012
12	__	Solid	SB-42 (23-24')		06/26/2012	16:05			06/28/2012
13	__	Solid	SB-42 (26-27)		06/26/2012	16:15			06/28/2012
14	__	Solid	SB-43 (0-2)		06/27/2012	08:55			06/28/2012
15	__	Solid	SB-43 (4-6')		06/26/2012	09:00			06/28/2012
16	__	Solid	SB-43 (10-11)		06/26/2012	09:08			06/28/2012
17	__	Solid	SB-43 (15-16')		06/27/2012	09:30			06/28/2012
18	__	Solid	SB-43 (19-20')		06/27/2012	09:38			06/28/2012
19	__	Solid	SB-43 (27-28)		06/27/2012	09:50			06/28/2012
20	__	Solid	SB-44 (0-2')		06/27/2012	10:08			06/28/2012
21	__	Solid	SB-44 (7-8)		06/27/2012	10:15			06/28/2012
22	__	Solid	SB-44 (11-12')		06/27/2012	10:17			06/28/2012
23	__	Solid	SB-44 (13-14)		06/27/2012	10:27			06/28/2012
24	__	Solid	SB-44 (17-19)		06/27/2012	10:35			06/28/2012
25	__	Solid	SB-44 (20-21')		06/27/2012	10:47			06/28/2012
26	__	Solid	SB-44 (27-28')		06/27/2012	10:52			06/28/2012
27	__	Solid	SB-45 (0-2')		06/27/2012	11:08			06/28/2012
28	__	Solid	SB-45 (5-6)		06/27/2012	11:15			06/28/2012
29	__	Solid	SB-45 (14-15')		06/27/2012	11:20			06/28/2012
30	__	Solid	SB-45 (19-20')		06/27/2012	11:28			06/28/2012
31	__	Solid	SB-45 (21-22')		06/27/2012	11:40			06/28/2012
32	__	Solid	SB-45 (27-28')		06/27/2012	11:45			06/28/2012
33	__	Solid	SB-54 (22-23)		06/27/2012	09:43			06/28/2012
101	__	Water	Effluent (Finished water) - Water Treatment Plant		06/27/2012	13:30			06/28/2012
102	__	Water	Influent (Raw water) - Water Treatment Plant		06/27/2012	13:40			06/28/2012
103	__	Water	Municipal well - 6		06/27/2012	14:07			06/28/2012
105	__	Water	Municipal well - 2		06/27/2012	14:30			06/28/2012
106	__	Water	Municipal well - 24		06/28/2012	07:10			06/28/2012
110	FB	Water	Field Blank sample		06/27/2012	15:35			06/28/2012
111	FB	Water	LDL VOA Trip Blank sample		06/27/2012	12:00			06/28/2012

Analysis	Comments About Results For This Analysis

1 Percent Solid

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3142.9F

Basis: N/A

Samples:							
	1-__	2-__	3-__	4-__	5-__	6-__	7-__
	8-__	9-__	10-__	11-__	12-__	13-__	14-__
	15-__	16-__	17-__	18-__	19-__	20-__	21-__
	22-__	23-__	24-__	25-__	26-__	27-__	28-__
	29-__	30-__	31-__	32-__	33-__		

Comments:

1 Semi-Volatile Organic Compounds in Soil

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples:							
	1-__	2-__	3-__	4-__	5-__	6-__	7-__
	8-__	9-__	10-__	11-__	12-__	13-__	14-__
	15-__	16-__	17-__	18-__	19-__	20-__	21-__
	22-__	23-__	24-__	25-__	26-__	27-__	28-__
	29-__	30-__	31-__	32-__	33-__		

Comments:
(N/A)

1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3230.16E

Basis: Dry

Samples:							
	1-__	2-__	3-__	4-__	5-__	6-__	7-__
	8-__	9-__	10-__	11-__	12-__	13-__	14-__
	15-__	16-__	17-__	18-__	19-__	20-__	21-__
	22-__	23-__	24-__	25-__	26-__	27-__	28-__
	29-__	30-__	31-__	32-__	33-__		

Comments:
2-Hexanone was UJ-coded in samples 1-33. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) since it did not meet DOP requirements for this analyte. The actual reporting limit for this analyte may be higher than the reported value.

Reporting limits were adjusted to reflect the percent soil and the weight of each sample.

Analysis	Comments About Results For This Analysis

Naphthalene (142%, 70%-130%) was J-coded in sample 5. Although the analyte in question has been positively identified in the samples, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the second source calibration verification sample. The actual concentration for this analyte may be lower than the reported value.

Acetone (-35.5%) was J-coded in samples 2 and 8. Although the analyte in question has been positively identified in the samples, the quantitation is an estimate (J-coded) due to the continuing calibration check not meeting accuracy specifications. The actual concentration for this analyte may be lower than the reported value.

Acetone (-58.9%) was J-coded in samples 16, 20, and 22. 2-Butanone (-56.2%) was J-coded in sample 14. Naphthalene (-47.6%) was J-coded in sample 5. Although the analytes in question have been positively identified in the samples, the quantitation is an estimate (J-coded) due to the continuing calibration check not meeting accuracy specifications. The actual concentration for these analytes may be lower than the reported value.

Slight Acetone (15), 2-Butanone (4.7), 4-Methyl-2-Pentanone (13), 2-Hexanone (24), Naphthalene (17), and 1,2,3-Trichlorobenzene (3.0) contamination was found in the laboratory method blank. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. 4-Methyl-2-Pentanone were affected in samples 15,1, and 2. Acetone was affected in samples 1, and 7. 2-Hexanone was affected in samples 15, 1-4, and 6. Naphthalene was affected in sample 1.

Slight Acetone (15), 4-Methyl-2-Pentanone (4.7), and 2-Hexanone (11) contamination was found in the laboratory method blank. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. 4-Methyl-2-Pentanone was affected in samples 5 and 12. Acetone was affected in samples 5,27, 32, and 24. 2-Hexanone was affected in samples 5, 12-14, and 16.

Slight Acetone (15), 4-Methyl-2-Pentanone (12), 2-Hexanone (21), Naphthalene (13), and 1,2,3-Trichlorobenzene (2.1) contamination was found in the laboratory method blank. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Acetone and 2-Hexanone were affected in sample 25.

Acetone (135%, 65%-128%) was J-coded in samples 2 and 8. Although the analyte in question has been positively identified in the samples, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory control sample. The actual concentration for this analyte may be lower than the reported value.

Analysis Comments About Results For This Analysis

Acetone (159%, 65%-128%) was J-coded in samples 16, 20 and 22. Naphthalene (148%, 64%-125%) was J-coded in sample 5. 2-Butanone (156%, 67%-126%) was J-coded in sample 14. Although the analytes in question have been positively identified in the samples, the quantitation is an estimate (J-coded) due to high recovery of these analytes in the laboratory control sample. The actual concentration for these analytes may be lower than the reported value.

2-Hexanone (162%, 25%-158%)was J-coded in sample 5. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be lower than the reported value.

Bromomethane (50%, 53%-143%) and Ethyl Benzene (77%, 78%-123%) were UJ-coded in sample 5. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value.

2-Hexanone (192% & 194%, 25%-158%) and 4-Methyl-2-Pentanone (173% & 175%, 33%-161%) were J-coded in sample 15. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be lower than the reported value.

Bromomethane (46%, 53%-143%) was UJ-coded in sample 15. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

1 Semi-Volatile Organic Compounds in Water

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 101-__ 110-FB

Comments:
(N/A)

1 VOCs in Water by GC/MS for Low Detection Limits

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3230.13E

Samples: 101-__ 102-__ 103-__ 105-__ 106-__ 110-FB 111-FB

Comments:
Styrene (20.63%) was UJ-coded in samples 110-FB, 111-FB, 106, 101, 102, 103, and 105. This analyte was not found in the samples at or above the reporting limit, however, the

Analysis	Comments About Results For This Analysis

reporting limit is an estimate (UJ-coded) due to the initial instrument calibration curve not meeting linearity specifications. The actual reporting limit may be higher than the reported value.

Acetone (69%, 70%-130%) and 2-Hexanone (67%, 70%-130%) were UJ-coded in samples 110-FB, 111-FB, 106, 101, 102, 103, and 105. These analytes were not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the second source verification standard not meeting QC limits. The actual reporting limit may be higher than the reported value.

Dichlorodifluoromethane (+20.4%), 1,2-Dibromo-3-Chloropropane (+30.8%), Naphthalene (+22.5%), and 1,2,3-Trichlorobenzene (+24.1%) were UJ-coded in samples 110-FB, 111-FB, 106, 101, 102, 103, and 105. These analytes were not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for these analytes may be higher than the reported value.

1,2-Dibromo-3-Chloropropane (68%, 69%-120%) was UJ-coded in samples 110-FB, 111-FB, 106, 101, 102, 103, and 105. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory control sample. The actual reporting limit for this analyte may be higher than the reported value.

1,2-Dibromo-3-Chloropropane (66% & 66%, 69%-116%), and 1,2,3-Trichlorobenzene (67%, 73%-121%) were UJ-coded in sample 106. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value.

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 Percent Solid					
Solids, percent	%	97.4	75.5	74.7	74.8
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	70 U	89 U	92 U	72 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	64 U	210 J	9.6 U	7.2 U
Benzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Bromodichloromethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Bromoform	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Bromomethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
2-Butanone	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Carbon Disulfide	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Carbon Tetrachloride	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Chlorobenzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Chloroethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Chloroform	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Chloromethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Cyclohexane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Dibromochloromethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,2-Dibromoethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,2-Dichlorobenzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,3-Dichlorobenzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,4-Dichlorobenzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Dichlorodifluoromethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,1-Dichloroethane	ug/kg	5.8 U	7.1 U	9.6 U	17
1,2-Dichloroethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,1-Dichloroethene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
cis-1,2-Dichloroethene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
trans-1,2-Dichloroethene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,2-Dichloropropane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
cis-1,3-Dichloropropene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
trans-1,3-Dichloropropene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Ethyl Benzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
2-Hexanone	ug/kg	39 UJ	34 UJ	19 UJ	12 UJ
Isopropylbenzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Methyl Acetate	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Methyl tert-butyl ether	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Methylcyclohexane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Methylene Chloride	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
4-Methyl-2-Pentanone	ug/kg	20 U	9.2 U	9.6 U	7.2 U
Naphthalene	ug/kg	18 U	14 U	19 U	14 U
Styrene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,1,2,2-Tetrachloroethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Tetrachloroethene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Toluene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1,2,3-Trichlorobenzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,2,4-Trichlorobenzene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,1,1-Trichloroethane	ug/kg	5.8 U	28	87	75
1,1,2-Trichloroethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Trichloroethene	ug/kg	5.8 U	7.1 U	9.6 U	12
Trichlorofluoromethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
Vinyl Chloride	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
m and/or p-Xylene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U
o-Xylene	ug/kg	5.8 U	7.1 U	9.6 U	7.2 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 Percent Solid					
Solids, percent	%	75.4	78.9	93.7	74.5
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	89 U	90 U	90 U	90 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	100 U	6.0 U	100 U	430 J
Benzene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Bromodichloromethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Bromoform	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Bromomethane	ug/kg	6.1 UJ	6.0 U	5.9 U	8.0 U
2-Butanone	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Carbon Disulfide	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Carbon Tetrachloride	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Chlorobenzene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Chloroethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Chloroform	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Chloromethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Cyclohexane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Dibromochloromethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,2-Dibromoethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,2-Dichlorobenzene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,3-Dichlorobenzene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,4-Dichlorobenzene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Dichlorodifluoromethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,1-Dichloroethane	ug/kg	6.1 U	32	5.9 U	8.0 U
1,2-Dichloroethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,1-Dichloroethene	ug/kg	6.1 U	20	5.9 U	8.0 U
cis-1,2-Dichloroethene	ug/kg	6.1 U	41	5.9 U	67
trans-1,2-Dichloroethene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,2-Dichloropropane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
cis-1,3-Dichloropropene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
trans-1,3-Dichloropropene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Ethyl Benzene	ug/kg	6.1 UJ	6.0 U	5.9 U	8.0 U
2-Hexanone	ug/kg	38 UJ	6.2 UJ	5.9 UJ	8.0 UJ
Isopropylbenzene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Methyl Acetate	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Methyl tert-butyl ether	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Methylcyclohexane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Methylene Chloride	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
4-Methyl-2-Pentanone	ug/kg	17 U	6.0 U	5.9 U	8.0 U
Naphthalene	ug/kg	15 J	12 U	12 U	580 J
Styrene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,1,2,2-Tetrachloroethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Tetrachloroethene	ug/kg	6.1 U	59	29	590
Toluene	ug/kg	6.1 U	6.0 U	5.9 U	11

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1,2,3-Trichlorobenzene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,2,4-Trichlorobenzene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,1,1-Trichloroethane	ug/kg	6.1 U	6.0 U	24	220
1,1,2-Trichloroethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Trichloroethene	ug/kg	6.1 U	21	94	370
Trichlorofluoromethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
Vinyl Chloride	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
m and/or p-Xylene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U
o-Xylene	ug/kg	6.1 U	6.0 U	5.9 U	8.0 U

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1 Percent Solid					
Solids, percent	%	74.5	74.0	77.0	73.5
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	90 U	87 U	85 U	92 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Benzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Bromodichloromethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Bromoform	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Bromomethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
2-Butanone	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Carbon Disulfide	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Carbon Tetrachloride	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Chlorobenzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Chloroethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Chloroform	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Chloromethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Cyclohexane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,2-Dibromo-3-Chloropropane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Dibromochloromethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,2-Dibromoethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,2-Dichlorobenzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,3-Dichlorobenzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,4-Dichlorobenzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Dichlorodifluoromethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,1-Dichloroethane	ug/kg	8.0 U	14	74	67
1,2-Dichloroethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,1-Dichloroethene	ug/kg	8.0 U	9.6 U	14	8.8
cis-1,2-Dichloroethene	ug/kg	39	15	66	170
trans-1,2-Dichloroethene	ug/kg	8.0 U	9.6 U	9.0 U	92
1,2-Dichloropropane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
cis-1,3-Dichloropropene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
trans-1,3-Dichloropropene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Ethyl Benzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
2-Hexanone	ug/kg	8.0 UJ	9.6 UJ	9.0 UJ	28 UJ
Isopropylbenzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Methyl Acetate	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Methyl tert-butyl ether	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Methylcyclohexane	ug/kg	8.0 U	9.6 U	56	6.4 U
Methylene Chloride	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
4-Methyl-2-Pentanone	ug/kg	8.0 U	9.6 U	9.0 U	11 U
Naphthalene	ug/kg	16 U	19 U	18 U	13 U
Styrene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,1,2,2-Tetrachloroethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Tetrachloroethene	ug/kg	1200	2800	1300	6.4 U
Toluene	ug/kg	8.7	9.6 U	9.3	6.4 U

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1,2,3-Trichlorobenzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,2,4-Trichlorobenzene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,1,1-Trichloroethane	ug/kg	310	840	450	6.4 U
1,1,2-Trichloroethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Trichloroethene	ug/kg	470	760	1500	1100
Trichlorofluoromethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
1,1,2-Trichlorotrifluoroethane	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
Vinyl Chloride	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
m and/or p-Xylene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U
o-Xylene	ug/kg	8.0 U	9.6 U	9.0 U	6.4 U

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1 Percent Solid					
Solids, percent	%	75.5	88.3	82.9	78.5
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	88 U	100 U	99 U	91 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	7.9 U	220 J	7.6 U	150 J
Benzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Bromodichloromethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Bromoform	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Bromomethane	ug/kg	7.9 U	5.4 U	7.6 UJ	6.0 U
2-Butanone	ug/kg	7.9 U	56 J	7.6 U	6.0 U
Carbon Disulfide	ug/kg	7.9 U	5.8	7.6 U	6.0 U
Carbon Tetrachloride	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Chlorobenzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Chloroethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Chloroform	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Chloromethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Cyclohexane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Dibromochloromethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,2-Dibromoethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,2-Dichlorobenzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,3-Dichlorobenzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,4-Dichlorobenzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Dichlorodifluoromethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,1-Dichloroethane	ug/kg	130	5.4 U	7.6 U	6.0 U
1,2-Dichloroethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,1-Dichloroethene	ug/kg	13	5.4 U	7.6 U	6.0 U
cis-1,2-Dichloroethene	ug/kg	950	5.4 U	7.6 U	6.0 U
trans-1,2-Dichloroethene	ug/kg	250	5.4 U	7.6 U	6.0 U
1,2-Dichloropropane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
cis-1,3-Dichloropropene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
trans-1,3-Dichloropropene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Ethyl Benzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
2-Hexanone	ug/kg	17 UJ	9.6 UJ	20 UJ	7.9 UJ
Isopropylbenzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Methyl Acetate	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Methyl tert-butyl ether	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Methylcyclohexane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Methylene Chloride	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
4-Methyl-2-Pentanone	ug/kg	7.9 U	5.4 U	8.6 UJ	6.0 U
Naphthalene	ug/kg	16 U	11 U	15 U	12 U
Styrene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,1,2,2-Tetrachloroethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Tetrachloroethene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Toluene	ug/kg	8.7	5.4 U	9.5	6.0 U

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1,2,3-Trichlorobenzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,2,4-Trichlorobenzene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,1,1-Trichloroethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,1,2-Trichloroethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Trichloroethene	ug/kg	1900	5.4 U	7.6 U	6.0 U
Trichlorofluoromethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
Vinyl Chloride	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
m and/or p-Xylene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U
o-Xylene	ug/kg	7.9 U	5.4 U	7.6 U	6.0 U

Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
1 Percent Solid					
Solids, percent	%	77.5	80.0	76.6	83.1
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	88 U	89 U	90 U	85 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	5.8 U	9.6 U	5.7 U	210 J
Benzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Bromodichloromethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Bromoform	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Bromomethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
2-Butanone	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Carbon Disulfide	ug/kg	5.8 U	9.6 U	5.7 U	5.7
Carbon Tetrachloride	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Chlorobenzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Chloroethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Chloroform	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Chloromethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Cyclohexane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Dibromochloromethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,2-Dibromoethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,2-Dichlorobenzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,3-Dichlorobenzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,4-Dichlorobenzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Dichlorodifluoromethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,1-Dichloroethane	ug/kg	7.5	9.6 U	5.7 U	5.6 U
1,2-Dichloroethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,1-Dichloroethene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
cis-1,2-Dichloroethene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
trans-1,2-Dichloroethene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,2-Dichloropropane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
cis-1,3-Dichloropropene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
trans-1,3-Dichloropropene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Ethyl Benzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
2-Hexanone	ug/kg	5.8 UJ	9.6 UJ	5.7 UJ	5.6 UJ
Isopropylbenzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Methyl Acetate	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Methyl tert-butyl ether	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Methylcyclohexane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Methylene Chloride	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
4-Methyl-2-Pentanone	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Naphthalene	ug/kg	12 U	19 U	11 U	11 U
Styrene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,1,2,2-Tetrachloroethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Tetrachloroethene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Toluene	ug/kg	7.0	9.6 U	5.7 U	5.6 U

Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
1,2,3-Trichlorobenzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,2,4-Trichlorobenzene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,1,1-Trichloroethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,1,2-Trichloroethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Trichloroethene	ug/kg	5.8 U	9.6 U	5.7 U	21
Trichlorofluoromethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
Vinyl Chloride	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
m and/or p-Xylene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U
o-Xylene	ug/kg	5.8 U	9.6 U	5.7 U	5.6 U

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1 Percent Solid					
Solids, percent	%	77.4	74.7	70.7	72.8
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	84 U	93 U	95 U	88 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	5.6 U	230 J	6.8 U	65 U
Benzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Bromodichloromethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Bromoform	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Bromomethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
2-Butanone	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Carbon Disulfide	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Carbon Tetrachloride	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Chlorobenzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Chloroethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Chloroform	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Chloromethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Cyclohexane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Dibromochloromethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,2-Dibromoethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,2-Dichlorobenzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,3-Dichlorobenzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,4-Dichlorobenzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Dichlorodifluoromethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,1-Dichloroethane	ug/kg	5.6 U	7.0 U	6.8 U	130
1,2-Dichloroethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,1-Dichloroethene	ug/kg	5.6 U	7.0 U	6.8 U	15
cis-1,2-Dichloroethene	ug/kg	18	470	350	560
trans-1,2-Dichloroethene	ug/kg	5.6 U	16	6.8 U	40
1,2-Dichloropropane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
cis-1,3-Dichloropropene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
trans-1,3-Dichloropropene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Ethyl Benzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
2-Hexanone	ug/kg	5.6 UJ	7.0 UJ	6.8 UJ	6.2 UJ
Isopropylbenzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Methyl Acetate	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Methyl tert-butyl ether	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Methylcyclohexane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Methylene Chloride	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
4-Methyl-2-Pentanone	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Naphthalene	ug/kg	11 U	14 U	14 U	12 U
Styrene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,1,2,2-Tetrachloroethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Tetrachloroethene	ug/kg	5.6 U	7.0 U	95	440
Toluene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1,2,3-Trichlorobenzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,2,4-Trichlorobenzene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,1,1-Trichloroethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,1,2-Trichloroethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Trichloroethene	ug/kg	41	40	670	2300
Trichlorofluoromethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
Vinyl Chloride	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
m and/or p-Xylene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U
o-Xylene	ug/kg	5.6 U	7.0 U	6.8 U	6.2 U

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
1 Percent Solid					
Solids, percent	%	72.8	73.6	81.7	76.7
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	86 U	84 U	79 U	86 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	62 U	6.5 U	130 U	6.0 U
Benzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Bromodichloromethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Bromoform	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Bromomethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
2-Butanone	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Carbon Disulfide	ug/kg	6.1	6.5 U	5.3 U	6.0 U
Carbon Tetrachloride	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Chlorobenzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Chloroethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Chloroform	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Chloromethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Cyclohexane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Dibromochloromethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,2-Dibromoethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,2-Dichlorobenzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,3-Dichlorobenzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,4-Dichlorobenzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Dichlorodifluoromethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,1-Dichloroethane	ug/kg	220	6.5 U	5.3 U	6.0 U
1,2-Dichloroethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,1-Dichloroethene	ug/kg	25	6.5 U	5.3 U	6.0 U
cis-1,2-Dichloroethene	ug/kg	420	6.5 U	5.3 U	6.0 U
trans-1,2-Dichloroethene	ug/kg	7.4	6.5 U	5.3 U	6.0 U
1,2-Dichloropropane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
cis-1,3-Dichloropropene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
trans-1,3-Dichloropropene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Ethyl Benzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
2-Hexanone	ug/kg	12 UJ	6.5 UJ	5.3 UJ	6.0 UJ
Isopropylbenzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Methyl Acetate	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Methyl tert-butyl ether	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Methylcyclohexane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Methylene Chloride	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
4-Methyl-2-Pentanone	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Naphthalene	ug/kg	11 U	13 U	11 U	12 U
Styrene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,1,2,2-Tetrachloroethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Tetrachloroethene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Toluene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
1,2,3-Trichlorobenzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,2,4-Trichlorobenzene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,1,1-Trichloroethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,1,2-Trichloroethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Trichloroethene	ug/kg	15	6.5 U	5.3 U	6.0 U
Trichlorofluoromethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
Vinyl Chloride	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
m and/or p-Xylene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U
o-Xylene	ug/kg	5.7 U	6.5 U	5.3 U	6.0 U

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
1 Percent Solid					
Solids, percent	%	74.7	73.2	81.1	84.7
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	89 U	96 U	82 U	81 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	6.2 U	6.3 U	5.5 U	51 U
Benzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Bromodichloromethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Bromoform	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Bromomethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
2-Butanone	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Carbon Disulfide	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Carbon Tetrachloride	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Chlorobenzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Chloroethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Chloroform	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Chloromethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Cyclohexane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Dibromochloromethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,2-Dibromoethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,2-Dichlorobenzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,3-Dichlorobenzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,4-Dichlorobenzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Dichlorodifluoromethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,1-Dichloroethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,2-Dichloroethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,1-Dichloroethene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
cis-1,2-Dichloroethene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
trans-1,2-Dichloroethene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,2-Dichloropropane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
cis-1,3-Dichloropropene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
trans-1,3-Dichloropropene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Ethyl Benzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
2-Hexanone	ug/kg	6.2 UJ	6.3 UJ	5.5 UJ	5.0 UJ
Isopropylbenzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Methyl Acetate	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Methyl tert-butyl ether	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Methylcyclohexane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Methylene Chloride	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
4-Methyl-2-Pentanone	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Naphthalene	ug/kg	12 U	13 U	11 U	10 U
Styrene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Tetrachloroethene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Toluene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
1,2,3-Trichlorobenzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,2,4-Trichlorobenzene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,1,1-Trichloroethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,1,2-Trichloroethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Trichloroethene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Trichlorofluoromethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
Vinyl Chloride	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
m and/or p-Xylene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U
o-Xylene	ug/kg	6.2 U	6.3 U	5.5 U	5.0 U

Analysis/ Analyte	Units	33-__	101-__	102-__	103-__
1 Percent Solid					
Solids, percent	%	70.6			
1 Semi-Volatile Organic Compounds in Soil					
1,4-Dioxane	ug/kg	88 U			
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	6.9 U			
Benzene	ug/kg	6.9 U			
Bromodichloromethane	ug/kg	6.9 U			
Bromoform	ug/kg	6.9 U			
Bromomethane	ug/kg	6.9 U			
2-Butanone	ug/kg	6.9 U			
Carbon Disulfide	ug/kg	6.9 U			
Carbon Tetrachloride	ug/kg	6.9 U			
Chlorobenzene	ug/kg	6.9 U			
Chloroethane	ug/kg	6.9 U			
Chloroform	ug/kg	6.9 U			
Chloromethane	ug/kg	6.9 U			
Cyclohexane	ug/kg	6.9 U			
1,2-Dibromo-3-Chloropropane	ug/kg	6.9 U			
Dibromochloromethane	ug/kg	6.9 U			
1,2-Dibromoethane	ug/kg	6.9 U			
1,2-Dichlorobenzene	ug/kg	6.9 U			
1,3-Dichlorobenzene	ug/kg	6.9 U			
1,4-Dichlorobenzene	ug/kg	6.9 U			
Dichlorodifluoromethane	ug/kg	6.9 U			
1,1-Dichloroethane	ug/kg	6.9 U			
1,2-Dichloroethane	ug/kg	6.9 U			
1,1-Dichloroethene	ug/kg	6.9 U			
cis-1,2-Dichloroethene	ug/kg	6.9 U			
trans-1,2-Dichloroethene	ug/kg	6.9 U			
1,2-Dichloropropane	ug/kg	6.9 U			
cis-1,3-Dichloropropene	ug/kg	6.9 U			
trans-1,3-Dichloropropene	ug/kg	6.9 U			
Ethyl Benzene	ug/kg	6.9 U			
2-Hexanone	ug/kg	6.9 UJ			
Isopropylbenzene	ug/kg	6.9 U			
Methyl Acetate	ug/kg	6.9 U			
Methyl tert-butyl ether	ug/kg	6.9 U			
Methylcyclohexane	ug/kg	6.9 U			
Methylene Chloride	ug/kg	6.9 U			
4-Methyl-2-Pentanone	ug/kg	6.9 U			
Naphthalene	ug/kg	14 U			
Styrene	ug/kg	6.9 U			
1,1,2,2-Tetrachloroethane	ug/kg	6.9 U			
Tetrachloroethene	ug/kg	6.9 U			
Toluene	ug/kg	6.9 U			

Analysis/ Analyte	Units	33-__	101-__	102-__	103-__
1,2,3-Trichlorobenzene	ug/kg	6.9 U			
1,2,4-Trichlorobenzene	ug/kg	6.9 U			
1,1,1-Trichloroethane	ug/kg	6.9 U			
1,1,2-Trichloroethane	ug/kg	6.9 U			
Trichloroethene	ug/kg	6.9 U			
Trichlorofluoromethane	ug/kg	6.9 U			
1,1,2-Trichlorotrifluoroethane	ug/kg	6.9 U			
Vinyl Chloride	ug/kg	6.9 U			
m and/or p-Xylene	ug/kg	6.9 U			
o-Xylene	ug/kg	6.9 U			
1 Semi-Volatile Organic Compounds in Water					
1,4-Dioxane	ug/L		2.0 U		
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L		5.0 UJ	5.0 UJ	5.0 UJ
Benzene	ug/L		1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L		9.4	1.0 U	1.0 U
Bromoform	ug/L		1.0 U	1.0 U	1.0 U
Bromomethane	ug/L		1.0 U	1.0 U	1.0 U
2-Butanone	ug/L		5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L		1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L		1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
Chloroethane	ug/L		1.0 U	1.0 U	1.0 U
Chloroform	ug/L		9.5	1.0 U	1.0 U
Chloromethane	ug/L		1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L		1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L		5.0 UJ	5.0 UJ	5.0 UJ
Dibromochloromethane	ug/L		5.7	1.0 U	1.0 U
1,2-Dibromoethane	ug/L		1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L		1.0 UJ	1.0 UJ	1.0 UJ
1,1-Dichloroethane	ug/L		1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L		1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L		1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L		1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L		1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L		1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L		1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L		1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L		1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L		5.0 UJ	5.0 UJ	5.0 UJ
Isopropylbenzene	ug/L		1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L		5.0 U	5.0 U	5.0 U

Analysis/ Analyte	Units	33-__	101-__	102-__	103-__
Methyl tert-butyl ether	ug/L		1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L		1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L		1.0 U	1.0 U	1.0 U
4-Methyl-2-Pentanone	ug/L		5.0 U	5.0 U	5.0 U
Naphthalene	ug/L		2.0 UJ	2.0 UJ	2.0 UJ
Styrene	ug/L		1.0 UJ	1.0 UJ	1.0 UJ
1,1,2,2-Tetrachloroethane	ug/L		1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L		1.0 U	1.0 U	1.0 U
Toluene	ug/L		1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L		1.0 UJ	1.0 UJ	1.0 UJ
1,2,4-Trichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L		1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L		1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L		1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L		1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L		1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L		1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L		2.0 U	2.0 U	2.0 U
o-Xylene	ug/L		1.0 U	1.0 U	1.0 U

Analysis/ Analyte	Units	105-__	106-__	110-FB	111-FB
1 Semi-Volatile Organic Compounds in Water					
1,4-Dioxane	ug/L			2.0 U	
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Styrene	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

Analysis/ Analyte	Units	105-__	106-__	110-FB	111-FB
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

United States Environmental Protection Agency
Region VII
901 N. 5th Street
Kansas City, KS 66101

Date: __/__/____

Subject: Data Disposition/Sample Release for ASR #: 5788

Project ID: RS07TZ00

Project Description: General Motors S.C. - Removal Support sampling

From: Randy Schademann
SUPR/ERNB

To: Kaye Dollmann
ENSV/CARB

I have received and reviewed the Transmittal of Sample Analysis Results for the above-referenced Analytical Services Request(ASR) and have indicated my findings below by checking one of the boxes for Data Disposition.

I understand all samples will be disposed upon receipt of this form, unless samples are requested to be held. If I do not return this form all samples will be disposed of on _____.

☐ "RELEASED" - Read-only to all Region 7 employees and contractors that have R7LIMS "Customer" account. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Project Manager Accessible" - Available on the LAN in R7LIMS for my use only. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Archived" - THIS DATA IS OF A SENSITIVE NATURE. Any future reports must be requested through the laboratory. All samples may be disposed of upon receipt of the form if not requested to be held.

☐ Hold Samples - I have determined that the samples need to be held until _____, after which time they will be disposed of in accordance with applicable regulations.
The reason for the hold is:

- ☐ Samples are associated with a legal proceeding.
- ☐ Question/Concern with data - possible reanalysis requested.
- ☐ Other:_____

United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101

Date: 01/04/2013

Subject: Transmittal of Sample Analysis Results for ASR #: 5872

Project ID: RS07TZ00

Project Description: General Motors S.C. - Removal Support sampling

From: Michael F. Davis, Chief
Chemical Analysis and Response Branch, Environmental Services Division

To: Randy Schademann
SUPR/ERNB

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Randy Schademann Org: SUPR/ERNB Phone: 913-551-7331

Project ID: RS07TZ00

Project Desc: General Motors S.C. - Removal Support sampling

Location: Sioux City State: Iowa Program: Superfund

Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION

Site ID: 07TZ Site OU: 00

GPRA PRC: 303DC6

Purpose: Site Cleanup Support

Removal Support sampling.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample

Units: Specific units in which results are reported.

ug/L = Micrograms per Liter
ug/kg = Micrograms per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.
U = The analyte was not detected at or above the reporting limit.
J = The identification of the analyte is acceptable; the reported value is an estimate.

Project ID: RS07TZ00 Project Desc: General Motors S.C. - Removal Support sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	__	Solid	SB-28R (11-12') Bomgaars		12/04/2012	08:10			12/07/2012
2	__	Solid	SB-29R (9-10') Bomgaars		12/04/2012	08:15			12/07/2012
3	__	Solid	SB-46 (6-7') Bomgaars		12/03/2012	14:00			12/07/2012
4	__	Solid	SB-46 (23-24') Bomgaars		12/03/2012	14:38			12/07/2012
5	__	Solid	SB-47 (5-6') Bomgaars		12/03/2012	14:55			12/07/2012
6	__	Solid	SB-47 (21.5-22.5') Bomgaars		12/03/2012	15:45			12/07/2012
7	__	Solid	SB-48 (10-11') Bomgaars		12/03/2012	16:48			12/07/2012
8	__	Solid	SB-48 (20-21') Bomgaars		12/03/2012	17:10			12/07/2012
9	__	Solid	SB-49 (20-21') Bomgaars		12/04/2012	09:38			12/07/2012
10	__	Solid	SB-49 (27-28') Bomgaars		12/04/2012	09:47			12/07/2012
11	__	Solid	SB-50 (21-22') Bomgaars		12/04/2012	10:48			12/07/2012
12	__	Solid	SB-50 (26.5-27.5') Bomgaars		12/04/2012	11:00			12/07/2012
13	__	Solid	SB-51 (22-23') Bomgaars		12/04/2012	12:42			12/07/2012
14	__	Solid	SB-51 (26-27') Bomgaars		12/04/2012	12:55			12/07/2012
15	__	Solid	SB-52 (21-22') Bomgaars		12/04/2012	13:15			12/07/2012
16	__	Solid	SB-52 (26-27') Bomgaars		12/04/2012	13:25			12/07/2012
17	__	Solid	SB-53 (22.5-23.5') Bomgaars		12/04/2012	14:38			12/07/2012
18	__	Solid	SB-53 (26.5-27.5') Bomgaars		12/04/2012	15:00			12/07/2012
19	__	Solid	SB-54 (5.5-6.5') Bomgaars		12/04/2012	15:20			12/07/2012
20	__	Solid	SB-54 (16-17') Bomgaars		12/04/2012	15:47			12/07/2012
21	__	Solid	SB-54 (26-27') Bomgaars		12/04/2012	16:03			12/07/2012
22	__	Solid	SB-55 (15-16')		12/04/2012	16:25			12/07/2012
23	__	Solid	SB-55 (24-25')		12/04/2012	16:50			12/07/2012
24	__	Solid	SB-56 (7-7.5') BNSF		12/05/2012	09:00			12/07/2012
25	__	Solid	SB-56 (18-19') BNSF		12/05/2012	09:25			12/07/2012
26	__	Solid	SB-57 (19.5-20') BNSF		12/05/2012	10:25			12/07/2012
27	__	Solid	SB-58 (7.5-8') BNSF		12/05/2012	11:00			12/07/2012
28	__	Solid	SB-58 (12-13') BNSF		12/05/2012	11:30			12/07/2012
29	__	Solid	SB-59 (21-22') BNSF		12/05/2012	14:20			12/07/2012
30	__	Solid	SB-60 (1.5-2') BNSF		12/05/2012	15:30			12/07/2012
31	__	Solid	SB-60 (27-28') BNSF		12/05/2012	16:10			12/07/2012
32	__	Solid	SB-61 (6-7') BNSF		12/05/2012	16:30			12/07/2012
33	__	Solid	SB-61 (19.5-20') BNSF		12/05/2012	16:45			12/07/2012
34	__	Solid	SB-61 (27-28') BNSF		12/05/2012	16:55			12/07/2012
35	__	Solid	SB-62 (2.5-3') BNSF		12/06/2012	08:30			12/07/2012
36	__	Solid	SB-62 (5-6') BNSF		12/06/2012	08:45			12/07/2012
37	__	Solid	SB-62 (27-28')		12/06/2012	09:30			12/07/2012
38	__	Solid	SB-63 (1.5-2') BNSF		12/06/2012	09:40			12/07/2012
39	__	Solid	SB-63 (9-10') BNSF		12/06/2012	09:50			12/07/2012
40	__	Solid	SB-63 (23-24') BNSF		12/06/2012	10:07			12/07/2012
41	__	Solid	SB-63 (27-28') BNSF		12/06/2012	10:17			12/07/2012
42	__	Solid	SB-64 (4-5') Bomgaars		12/06/2012	10:48			12/07/2012
43	__	Solid	SB-65 (11-12') Bomgaars		12/06/2012	12:50			12/07/2012
44	__	Solid	SB-66 (27-28') Bomgaars		12/06/2012	14:10			12/07/2012

Project ID: RS07TZ00 Project Desc: General Motors S.C. - Removal Support sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
201 - __		Water	Effluent		12/06/2012	15:25			12/07/2012

Analysis	Comments About Results For This Analysis

1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples:

1-__	2-__	3-__	4-__	5-__	6-__	7-__
8-__	9-__	10-__	11-__	12-__	13-__	14-__
15-__	16-__	17-__	18-__	19-__	20-__	21-__
22-__	23-__	24-__	25-__	26-__	27-__	28-__
29-__	30-__	31-__	32-__	33-__	34-__	35-__
36-__	37-__	38-__	39-__	40-__	41-__	42-__
43-__	44-__					

Comments:
Slight methylene chloride contamination was found in the laboratory method blanks. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: methylene chloride in -14, -19, -20, -34, -35, -36, -38, and -40.

Benzene was UJ-coded in samples -10, -11, -20, and -30. This analyte was not found in the samples at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to low recovery of the surrogate analyte (benzene-d6: 78-79% vs 80-121%). The actual reporting limits for this analyte may be higher than the reported values.

Bromomethane was UJ-coded in samples -23, -24, and -25. This analyte was not found in the samples at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications (bromomethane: -26.5% vs +/-25%). The actual reporting limit for this analyte may be higher than the reported value.

1 VOCs in Water by GC/MS for Low Detection Limits

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 201-__

Comments:
Trans-1,2-dichloroethene was J-coded in sample -201. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of a surrogate analyte (1,1-dichloroethene-d2: 174% vs 55-104%) in this sample. The actual concentration for this analyte may be lower than the reported value.

Trichloroethene was J-coded in sample -201. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike (trichloroethene: 60% vs 71-120%).

Analysis	Comments About Results For This Analysis

The actual concentration for this analyte may be higher than the reported value.

1,1-dichloroethene and trichloroethene were J-coded in sample -201. Although the analytes in question have been positively identified in the sample, the quantitations are an estimate (J-coded) due to poor precision obtained for these analytes (1,1-dichloroethene (15%) and trichloroethene (15%-19%) vs 14% in the laboratory matrix spike and matrix spike duplicate.

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	17	11 U	12 U	12 U
Benzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Bromochloromethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Bromodichloromethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Bromoform	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Bromomethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
2-Butanone	ug/kg	10 U	11 U	12 U	12 U
Carbon Disulfide	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Carbon Tetrachloride	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Chlorobenzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Chloroethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Chloroform	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Chloromethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Cyclohexane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Dibromochloromethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,2-Dibromoethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,2-Dichlorobenzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,3-Dichlorobenzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,4-Dichlorobenzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Dichlorodifluoromethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,1-Dichloroethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,2-Dichloroethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,1-Dichloroethene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
cis-1,2-Dichloroethene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
trans-1,2-Dichloroethene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,2-Dichloropropane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
cis-1,3-Dichloropropene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
trans-1,3-Dichloropropene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Ethyl Benzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
2-Hexanone	ug/kg	10 U	11 U	12 U	12 U
Isopropylbenzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Methyl Acetate	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Methyl tert-butyl ether	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Methylcyclohexane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Methylene Chloride	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
4-Methyl-2-Pentanone	ug/kg	10 U	11 U	12 U	12 U
Styrene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,1,2,2-Tetrachloroethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Tetrachloroethene	ug/kg	160	95	5.9 U	6.2 U
Toluene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,2,3-Trichlorobenzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,2,4-Trichlorobenzene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,1,1-Trichloroethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,1,2-Trichloroethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
Trichloroethene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Trichlorofluoromethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
Vinyl Chloride	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
m and/or p-Xylene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U
o-Xylene	ug/kg	5.2 U	5.5 U	5.9 U	6.2 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	18	11 U	11 U	14 U
Benzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Bromochloromethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Bromodichloromethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Bromoform	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Bromomethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
2-Butanone	ug/kg	10 U	11 U	11 U	14 U
Carbon Disulfide	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Carbon Tetrachloride	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Chlorobenzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Chloroethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Chloroform	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Chloromethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Cyclohexane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Dibromochloromethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,2-Dibromoethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,2-Dichlorobenzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,3-Dichlorobenzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,4-Dichlorobenzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Dichlorodifluoromethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,1-Dichloroethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,2-Dichloroethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,1-Dichloroethene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
cis-1,2-Dichloroethene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
trans-1,2-Dichloroethene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,2-Dichloropropane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
cis-1,3-Dichloropropene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
trans-1,3-Dichloropropene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Ethyl Benzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
2-Hexanone	ug/kg	10 U	11 U	11 U	14 U
Isopropylbenzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Methyl Acetate	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Methyl tert-butyl ether	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Methylcyclohexane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Methylene Chloride	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
4-Methyl-2-Pentanone	ug/kg	10 U	11 U	11 U	14 U
Styrene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,1,2,2-Tetrachloroethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Tetrachloroethene	ug/kg	31	6.5	18	6.9 U
Toluene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,2,3-Trichlorobenzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,2,4-Trichlorobenzene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,1,1-Trichloroethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,1,2-Trichloroethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
Trichloroethene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Trichlorofluoromethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
Vinyl Chloride	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
m and/or p-Xylene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U
o-Xylene	ug/kg	5.1 U	5.3 U	5.7 U	6.9 U

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	10 U	10 U	9.8 U	11 U
Benzene	ug/kg	5.0 U	5.1 UJ	4.9 UJ	5.3 U
Bromochloromethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Bromodichloromethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Bromoform	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Bromomethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
2-Butanone	ug/kg	10 U	10 U	9.8 U	11 U
Carbon Disulfide	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Carbon Tetrachloride	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Chlorobenzene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Chloroethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Chloroform	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Chloromethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Cyclohexane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Dibromochloromethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,2-Dibromoethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,2-Dichlorobenzene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,3-Dichlorobenzene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,4-Dichlorobenzene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Dichlorodifluoromethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,1-Dichloroethane	ug/kg	5.9	5.1 U	4.9 U	5.3 U
1,2-Dichloroethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,1-Dichloroethene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
cis-1,2-Dichloroethene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
trans-1,2-Dichloroethene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,2-Dichloropropane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
cis-1,3-Dichloropropene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
trans-1,3-Dichloropropene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Ethyl Benzene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
2-Hexanone	ug/kg	10 U	10 U	9.8 U	11 U
Isopropylbenzene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Methyl Acetate	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Methyl tert-butyl ether	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Methylcyclohexane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Methylene Chloride	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
4-Methyl-2-Pentanone	ug/kg	10 U	10 U	9.8 U	11 U
Styrene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,1,2,2-Tetrachloroethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Tetrachloroethene	ug/kg	5.0 U	5.1 U	6.4	5.3 U
Toluene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,2,3-Trichlorobenzene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,2,4-Trichlorobenzene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,1,1-Trichloroethane	ug/kg	5.0 U	5.1 U	28	33
1,1,2-Trichloroethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
Trichloroethene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Trichlorofluoromethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
Vinyl Chloride	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
m and/or p-Xylene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U
o-Xylene	ug/kg	5.0 U	5.1 U	4.9 U	5.3 U

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	9.8 U	13 U	11 U	13 U
Benzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Bromochloromethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Bromodichloromethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Bromoform	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Bromomethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
2-Butanone	ug/kg	9.8 U	13 U	11 U	13 U
Carbon Disulfide	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Carbon Tetrachloride	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Chlorobenzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Chloroethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Chloroform	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Chloromethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Cyclohexane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,2-Dibromo-3-Chloropropane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Dibromochloromethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,2-Dibromoethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,2-Dichlorobenzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,3-Dichlorobenzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,4-Dichlorobenzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Dichlorodifluoromethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,1-Dichloroethane	ug/kg	4.9 U	69	21	270
1,2-Dichloroethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,1-Dichloroethene	ug/kg	4.9 U	6.3 U	5.7 U	33
cis-1,2-Dichloroethene	ug/kg	4.9 U	24	5.7 U	6.3 U
trans-1,2-Dichloroethene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,2-Dichloropropane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
cis-1,3-Dichloropropene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
trans-1,3-Dichloropropene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Ethyl Benzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
2-Hexanone	ug/kg	9.8 U	13 U	11 U	13 U
Isopropylbenzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Methyl Acetate	ug/kg	4.9 U	26	5.7 U	6.3 U
Methyl tert-butyl ether	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Methylcyclohexane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Methylene Chloride	ug/kg	4.9 U	11 U	5.7 U	6.3 U
4-Methyl-2-Pentanone	ug/kg	9.8 U	13 U	11 U	13 U
Styrene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,1,2,2-Tetrachloroethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Tetrachloroethene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Toluene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,2,3-Trichlorobenzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,2,4-Trichlorobenzene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,1,1-Trichloroethane	ug/kg	4.9 U	400	67	730
1,1,2-Trichloroethane	ug/kg	4.9 U	6.4	5.7 U	12

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
Trichloroethene	ug/kg	4.9 U	31	5.7 U	10
Trichlorofluoromethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
1,1,2-Trichlorotrifluoroethane	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
Vinyl Chloride	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
m and/or p-Xylene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U
o-Xylene	ug/kg	4.9 U	6.3 U	5.7 U	6.3 U

Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	10 U	11 U	9.8 U	29
Benzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 UJ
Bromochloromethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Bromodichloromethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Bromoform	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Bromomethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
2-Butanone	ug/kg	10 U	11 U	9.8 U	15 U
Carbon Disulfide	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Carbon Tetrachloride	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Chlorobenzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Chloroethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Chloroform	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Chloromethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Cyclohexane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Dibromochloromethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,2-Dibromoethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,2-Dichlorobenzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,3-Dichlorobenzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,4-Dichlorobenzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Dichlorodifluoromethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,1-Dichloroethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,2-Dichloroethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,1-Dichloroethene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
cis-1,2-Dichloroethene	ug/kg	5.2 U	5.4 U	4.9 U	190
trans-1,2-Dichloroethene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,2-Dichloropropane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
cis-1,3-Dichloropropene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
trans-1,3-Dichloropropene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Ethyl Benzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
2-Hexanone	ug/kg	10 U	11 U	9.8 U	15 U
Isopropylbenzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Methyl Acetate	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Methyl tert-butyl ether	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Methylcyclohexane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Methylene Chloride	ug/kg	5.2 U	5.4 U	8.1 U	9.8 U
4-Methyl-2-Pentanone	ug/kg	10 U	11 U	9.8 U	15 U
Styrene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,1,2,2-Tetrachloroethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Tetrachloroethene	ug/kg	5.2 U	5.4 U	45	7.5 U
Toluene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,2,3-Trichlorobenzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,2,4-Trichlorobenzene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,1,1-Trichloroethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,1,2-Trichloroethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U

Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
Trichloroethene	ug/kg	5.2 U	5.4 U	19	7.5 U
Trichlorofluoromethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
Vinyl Chloride	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
m and/or p-Xylene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U
o-Xylene	ug/kg	5.2 U	5.4 U	4.9 U	7.5 U

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U	11 U	15 U	14 U
Benzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Bromochloromethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Bromodichloromethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Bromoform	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Bromomethane	ug/kg	5.7 U	5.4 U	7.6 UJ	6.8 UJ
2-Butanone	ug/kg	11 U	11 U	15 U	14 U
Carbon Disulfide	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Carbon Tetrachloride	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Chlorobenzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Chloroethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Chloroform	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Chloromethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Cyclohexane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Dibromochloromethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,2-Dibromoethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,2-Dichlorobenzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,3-Dichlorobenzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,4-Dichlorobenzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Dichlorodifluoromethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,1-Dichloroethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,2-Dichloroethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,1-Dichloroethene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
cis-1,2-Dichloroethene	ug/kg	36	5.4 U	7.6 U	6.8 U
trans-1,2-Dichloroethene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,2-Dichloropropane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
cis-1,3-Dichloropropene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
trans-1,3-Dichloropropene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Ethyl Benzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
2-Hexanone	ug/kg	11 U	11 U	15 U	14 U
Isopropylbenzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Methyl Acetate	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Methyl tert-butyl ether	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Methylcyclohexane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Methylene Chloride	ug/kg	5.7 U	5.4 U	16	6.8 U
4-Methyl-2-Pentanone	ug/kg	11 U	11 U	15 U	14 U
Styrene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,1,2,2-Tetrachloroethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Tetrachloroethene	ug/kg	8.4	5.4 U	7.6 U	6.8 U
Toluene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,2,3-Trichlorobenzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,2,4-Trichlorobenzene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,1,1-Trichloroethane	ug/kg	5.7 U	5.4 U	9.2	6.8 U
1,1,2-Trichloroethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
Trichloroethene	ug/kg	9.2	5.4 U	7.6 U	6.8 U
Trichlorofluoromethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
Vinyl Chloride	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
m and/or p-Xylene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U
o-Xylene	ug/kg	5.7 U	5.4 U	7.6 U	6.8 U

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	13 U	16 U	12 U	11 U
Benzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Bromochloromethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Bromodichloromethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Bromoform	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Bromomethane	ug/kg	6.3 UJ	8.1 U	6.1 U	5.4 U
2-Butanone	ug/kg	13 U	16 U	12 U	11 U
Carbon Disulfide	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Carbon Tetrachloride	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Chlorobenzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Chloroethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Chloroform	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Chloromethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Cyclohexane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Dibromochloromethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,2-Dibromoethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,2-Dichlorobenzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,3-Dichlorobenzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,4-Dichlorobenzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Dichlorodifluoromethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,1-Dichloroethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,2-Dichloroethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,1-Dichloroethene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
cis-1,2-Dichloroethene	ug/kg	48	8.1 U	6.1 U	5.4 U
trans-1,2-Dichloroethene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,2-Dichloropropane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
cis-1,3-Dichloropropene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
trans-1,3-Dichloropropene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Ethyl Benzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
2-Hexanone	ug/kg	13 U	16 U	12 U	11 U
Isopropylbenzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Methyl Acetate	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Methyl tert-butyl ether	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Methylcyclohexane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Methylene Chloride	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
4-Methyl-2-Pentanone	ug/kg	13 U	16 U	12 U	11 U
Styrene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,1,2,2-Tetrachloroethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Tetrachloroethene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Toluene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,2,3-Trichlorobenzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,2,4-Trichlorobenzene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,1,1-Trichloroethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,1,2-Trichloroethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
Trichloroethene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Trichlorofluoromethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
Vinyl Chloride	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
m and/or p-Xylene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U
o-Xylene	ug/kg	6.3 U	8.1 U	6.1 U	5.4 U

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U	11 U	14 U	13
Benzene	ug/kg	5.6 U	5.4 UJ	7.1 U	5.4 U
Bromochloromethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Bromodichloromethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Bromoform	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Bromomethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
2-Butanone	ug/kg	11 U	11 U	14 U	11 U
Carbon Disulfide	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Carbon Tetrachloride	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Chlorobenzene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Chloroethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Chloroform	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Chloromethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Cyclohexane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Dibromochloromethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,2-Dibromoethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,2-Dichlorobenzene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,3-Dichlorobenzene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,4-Dichlorobenzene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Dichlorodifluoromethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,1-Dichloroethane	ug/kg	5.6 U	5.4 U	9.7	5.4 U
1,2-Dichloroethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,1-Dichloroethene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
cis-1,2-Dichloroethene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
trans-1,2-Dichloroethene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,2-Dichloropropane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
cis-1,3-Dichloropropene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
trans-1,3-Dichloropropene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Ethyl Benzene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
2-Hexanone	ug/kg	11 U	11 U	14 U	11 U
Isopropylbenzene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Methyl Acetate	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Methyl tert-butyl ether	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Methylcyclohexane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Methylene Chloride	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
4-Methyl-2-Pentanone	ug/kg	11 U	11 U	14 U	11 U
Styrene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,1,2,2-Tetrachloroethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Tetrachloroethene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Toluene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,2,3-Trichlorobenzene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,2,4-Trichlorobenzene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,1,1-Trichloroethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,1,2-Trichloroethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
Trichloroethene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Trichlorofluoromethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
Vinyl Chloride	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
m and/or p-Xylene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U
o-Xylene	ug/kg	5.6 U	5.4 U	7.1 U	5.4 U

Analysis/ Analyte	Units	33-__	34-__	35-__	36-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U	12 U	9.5 U	10 U
Benzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Bromochloromethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Bromodichloromethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Bromoform	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Bromomethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
2-Butanone	ug/kg	11 U	12 U	9.5 U	10 U
Carbon Disulfide	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Carbon Tetrachloride	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Chlorobenzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Chloroethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Chloroform	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Chloromethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Cyclohexane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Dibromochloromethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,2-Dibromoethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,2-Dichlorobenzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,3-Dichlorobenzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,4-Dichlorobenzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Dichlorodifluoromethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,1-Dichloroethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,2-Dichloroethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,1-Dichloroethene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
cis-1,2-Dichloroethene	ug/kg	6.9	6.0 U	4.7 U	5.2 U
trans-1,2-Dichloroethene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,2-Dichloropropane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
cis-1,3-Dichloropropene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
trans-1,3-Dichloropropene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Ethyl Benzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
2-Hexanone	ug/kg	11 U	12 U	9.5 U	10 U
Isopropylbenzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Methyl Acetate	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Methyl tert-butyl ether	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Methylcyclohexane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Methylene Chloride	ug/kg	5.4 U	6.1 U	9.8 U	9.9 U
4-Methyl-2-Pentanone	ug/kg	11 U	12 U	9.5 U	10 U
Styrene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,1,2,2-Tetrachloroethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Tetrachloroethene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Toluene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,2,3-Trichlorobenzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,2,4-Trichlorobenzene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,1,1-Trichloroethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,1,2-Trichloroethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U

Analysis/ Analyte	Units	33-__	34-__	35-__	36-__
Trichloroethene	ug/kg	12	6.0 U	4.7 U	5.2 U
Trichlorofluoromethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
Vinyl Chloride	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
m and/or p-Xylene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U
o-Xylene	ug/kg	5.4 U	6.0 U	4.7 U	5.2 U

Analysis/ Analyte	Units	37-__	38-__	39-__	40-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	12 U	9.4 U	11 U	12 U
Benzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Bromochloromethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Bromodichloromethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Bromoform	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Bromomethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
2-Butanone	ug/kg	12 U	9.4 U	11 U	12 U
Carbon Disulfide	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Carbon Tetrachloride	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Chlorobenzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Chloroethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Chloroform	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Chloromethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Cyclohexane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Dibromochloromethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,2-Dibromoethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,2-Dichlorobenzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,3-Dichlorobenzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,4-Dichlorobenzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Dichlorodifluoromethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,1-Dichloroethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,2-Dichloroethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,1-Dichloroethene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
cis-1,2-Dichloroethene	ug/kg	5.9 U	4.7 U	5.3 U	20
trans-1,2-Dichloroethene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,2-Dichloropropane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
cis-1,3-Dichloropropene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
trans-1,3-Dichloropropene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Ethyl Benzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
2-Hexanone	ug/kg	12 U	9.4 U	11 U	12 U
Isopropylbenzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Methyl Acetate	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Methyl tert-butyl ether	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Methylcyclohexane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Methylene Chloride	ug/kg	5.9 U	11 U	5.3 U	15 U
4-Methyl-2-Pentanone	ug/kg	12 U	9.4 U	11 U	12 U
Styrene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,1,2,2-Tetrachloroethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Tetrachloroethene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Toluene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,2,3-Trichlorobenzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,2,4-Trichlorobenzene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,1,1-Trichloroethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,1,2-Trichloroethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U

Analysis/ Analyte	Units	37-__	38-__	39-__	40-__
Trichloroethene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Trichlorofluoromethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
Vinyl Chloride	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
m and/or p-Xylene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U
o-Xylene	ug/kg	5.9 U	4.7 U	5.3 U	6.1 U

Analysis/ Analyte	Units	41-__	42-__	43-__	44-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	13 U	12 U	12 U	12 U
Benzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Bromochloromethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Bromodichloromethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Bromoform	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Bromomethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
2-Butanone	ug/kg	13 U	12 U	12 U	12 U
Carbon Disulfide	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Carbon Tetrachloride	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Chlorobenzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Chloroethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Chloroform	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Chloromethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Cyclohexane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Dibromochloromethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,2-Dibromoethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,2-Dichlorobenzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,3-Dichlorobenzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,4-Dichlorobenzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Dichlorodifluoromethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,1-Dichloroethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,2-Dichloroethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,1-Dichloroethene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
cis-1,2-Dichloroethene	ug/kg	99	5.8 U	5.8 U	6.0 U
trans-1,2-Dichloroethene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,2-Dichloropropane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
cis-1,3-Dichloropropene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
trans-1,3-Dichloropropene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Ethyl Benzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
2-Hexanone	ug/kg	13 U	12 U	12 U	12 U
Isopropylbenzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Methyl Acetate	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Methyl tert-butyl ether	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Methylcyclohexane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Methylene Chloride	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
4-Methyl-2-Pentanone	ug/kg	13 U	12 U	12 U	12 U
Styrene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,1,2,2-Tetrachloroethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Tetrachloroethene	ug/kg	6.5 U	5.8 U	22	6.0 U
Toluene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,2,3-Trichlorobenzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,2,4-Trichlorobenzene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,1,1-Trichloroethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,1,2-Trichloroethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U

Analysis/ Analyte	Units	41-__	42-__	43-__	44-__
Trichloroethene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Trichlorofluoromethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
Vinyl Chloride	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
m and/or p-Xylene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U
o-Xylene	ug/kg	6.5 U	5.8 U	5.8 U	6.0 U

Analysis/ Analyte	Units	201-__
1 VOCs in Water by GC/MS for Low Detection Limits		
Acetone	ug/L	5.0 U
Benzene	ug/L	0.50 U
Bromochloromethane	ug/L	0.50 U
Bromodichloromethane	ug/L	0.50 U
Bromoform	ug/L	0.50 U
Bromomethane	ug/L	0.50 U
2-Butanone	ug/L	5.0 U
Carbon Disulfide	ug/L	0.50 U
Carbon Tetrachloride	ug/L	0.50 U
Chlorobenzene	ug/L	0.50 U
Chloroethane	ug/L	0.50 U
Chloroform	ug/L	0.50 U
Chloromethane	ug/L	0.50 U
Cyclohexane	ug/L	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	0.50 U
Dibromochloromethane	ug/L	0.50 U
1,2-Dibromoethane	ug/L	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U
1,1-Dichloroethane	ug/L	190
1,2-Dichloroethane	ug/L	1.2
1,1-Dichloroethene	ug/L	23 J
cis-1,2-Dichloroethene	ug/L	82
trans-1,2-Dichloroethene	ug/L	2.9 J
1,2-Dichloropropane	ug/L	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U
Ethyl Benzene	ug/L	0.50 U
2-Hexanone	ug/L	5.0 U
Isopropylbenzene	ug/L	0.50 U
Methyl Acetate	ug/L	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U
Methylcyclohexane	ug/L	0.50 U
Methylene Chloride	ug/L	0.50 U
4-Methyl-2-Pentanone	ug/L	5.0 U
Styrene	ug/L	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U
Tetrachloroethene	ug/L	0.57
Toluene	ug/L	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U
1,1,1-Trichloroethane	ug/L	2.2
1,1,2-Trichloroethane	ug/L	1.7

Analysis/ Analyte	Units	201-__
Trichloroethene	ug/L	20 J
Trichlorofluoromethane	ug/L	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U
Vinyl Chloride	ug/L	2.4
m and/or p-Xylene	ug/L	0.50 U
o-Xylene	ug/L	0.50 U

United States Environmental Protection Agency
Region VII
300 Minnesota Avenue
Kansas City, KS 66101

Date: __/__/____

Subject: Data Disposition/Sample Release for ASR #: 5872

Project ID: RS07TZ00

Project Description: General Motors S.C. - Removal Support sampling

From: Randy Schademann
SUPR/ERNB

To: Alisha Claycamp
ENSV/CARB

I have received and reviewed the Transmittal of Sample Analysis Results for the above-referenced Analytical Services Request(ASR) and have indicated my findings below by checking one of the boxes for Data Disposition.

I understand all samples will be disposed upon receipt of this form, unless samples are requested to be held. If I do not return this form all samples will be disposed of on _____.

☐ "RELEASED" - Read-only to all Region 7 employees and contractors that have R7LIMS "Customer" account. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Project Manager Accessible" - Available on the LAN in R7LIMS for my use only. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Archived" - THIS DATA IS OF A SENSITIVE NATURE. Any future reports must be requested through the laboratory. All samples may be disposed of upon receipt of the form if not requested to be held.

☐ Hold Samples - I have determined that the samples need to be held until _____, after which time they will be disposed of in accordance with applicable regulations.
The reason for the hold is:

- ☐ Samples are associated with a legal proceeding.
- ☐ Question/Concern with data - possible reanalysis requested.
- ☐ Other:_____

ATTACHMENT 1

HYDROGEOLOGIC, INC. – GEOTECHNICAL DATA TRANSMITTAL

Summary of Laboratory Testing

Alpha-Omega Geotech, Inc.
1701 State Avenue
Kansas City, KS 66102
Office: (913) 371-0000 Fax: (913) 371-6710
Website: www.aogeotech.com

PROJECT NAME: GM/ AC Site SSL Tests
PROJECT NUMBER: 12-284T
PROJECT LOCATION:
DATE: 6/30/2012

Boring Number	Sample Number	Depth or Elevation	Description	Natural Moisture (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	USCS Class.	% Passing No. 200	Unconfined Compression PSF	%e	% Swell	Remarks
SB-19		2'-4'	Brown poorly graded sand with silt	5.7	97.8				SP-SM	5.5				
SB-19		8'-10'	Brown silt	34.7	84.7				ML	96.7				
SB-19		14'-16'	Brown, mottled grayish brown silt	24.7	93.1				ML	98.5				
SB-19		20'-22'	Gray silt with sand	32.3	86.2				ML	82.1				
SB-19		26'-28'	Brown poorly graded sand	7.7	95.8				SP	4.1				
SB-26		2'-4'	Brown and grayish brown poorly graded sand	3.1	98.8				SP	0.5				
SB-26		8'-10'	Brown silt	29.3	87.1				ML	96.7				
SB-26		14'-16'	Brown, mottled gray and reddish brown silt	25.5	93.5				ML	87.3				
SB-26		20'-22'	Grayish brown sandy silt	34.8	85.5				ML	69.2				
SB-26		26'-'28	Grayish brown poorly graded sand with silt	23.4	91.5				SP-SM	8.6				

Summary of Laboratory Testing

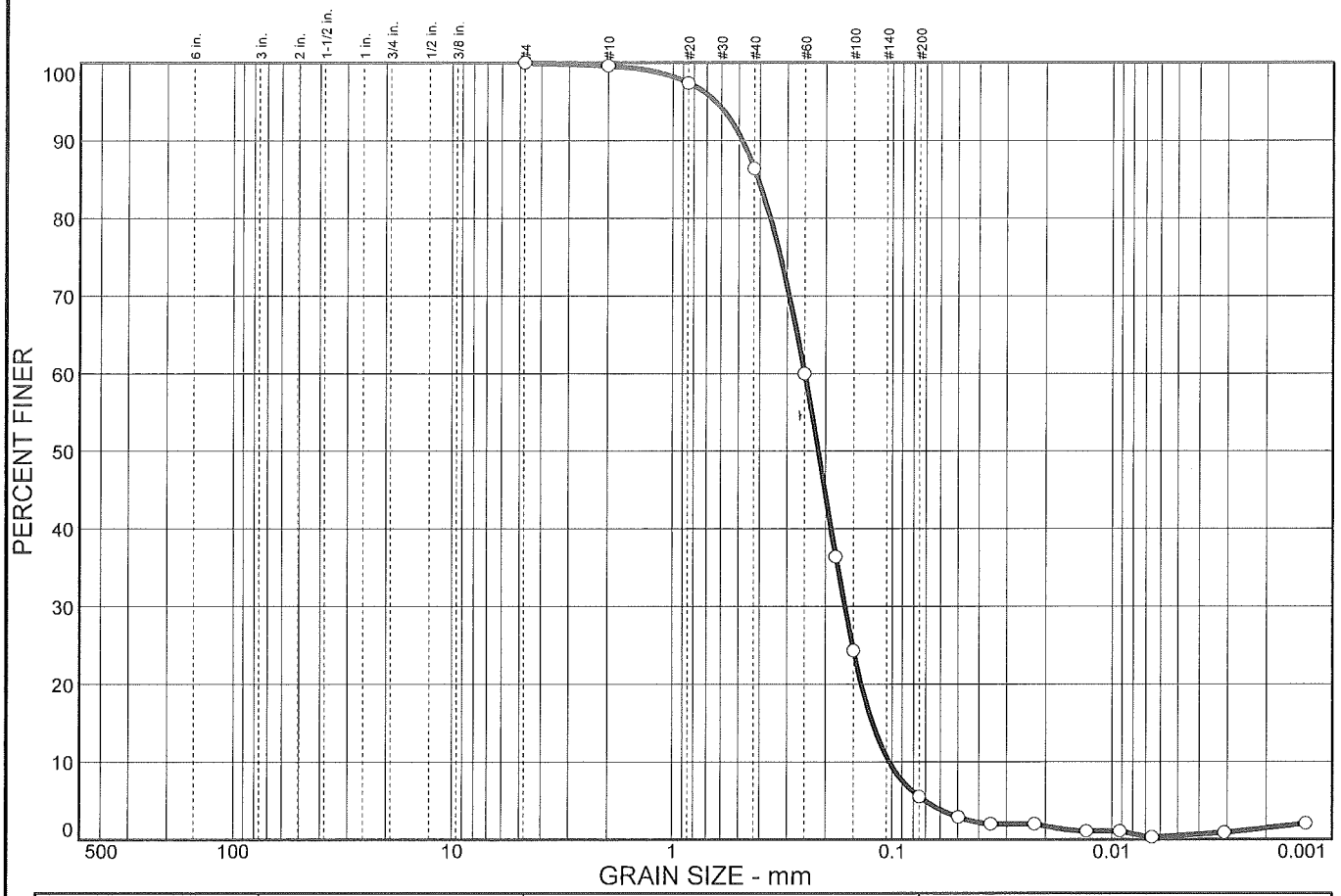
SLT 22205

Alpha-Omega Geotech, Inc.
1701 State Avenue
Kansas City, KS 66102
Office: (913) 371-0000 Fax: (913) 371-6710
Website: www.aogeotech.com

PROJECT NAME: GM/ AC Site SSL Tests
PROJECT NUMBER: 12-284T
PROJECT LOCATION:
DATE: 6/30/2012

Boring Number	Sample Number	Depth or Elevation	Description	Natural Moisture (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	USCS Class.	% Passing No. 200	Unconfined Compression PSF	%e	% Swell	Remarks
SB-8		2'-4'	Brown and reddish brown poorly graded sand	3.9	91.1				SP	3.2				
SB-8		8'-10'	Brown silt with sand	29.7	89.6				ML	71.9				
SB-8		14'-16'	Brownish gray, mottled reddish brown silt	30.3	84.7				ML	98.3				
SB-8		20'-22'	Gray, mottled reddish brown with silt with sand	25.0	95.0				ML	76.0				
SB-8		26'-28'	Brown poorly graded sand	7.0	95.2				SP	4.2				

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.4	13.2	80.9	5.0	0.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.6		
#20	97.4		
#40	86.4		
#60	60.0		
#80	36.4		
#100	24.3		
#200	5.5		

* (no specification provided)

Material Description

Brown poorly graded sand with silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.408 D_{60}= 0.250 D_{50}= 0.217
D_{30}= 0.164 D_{15}= 0.123 D_{10}= 0.103
C_u= 2.43 C_c= 1.05

Classification

USCS= SP-SM AASHTO=

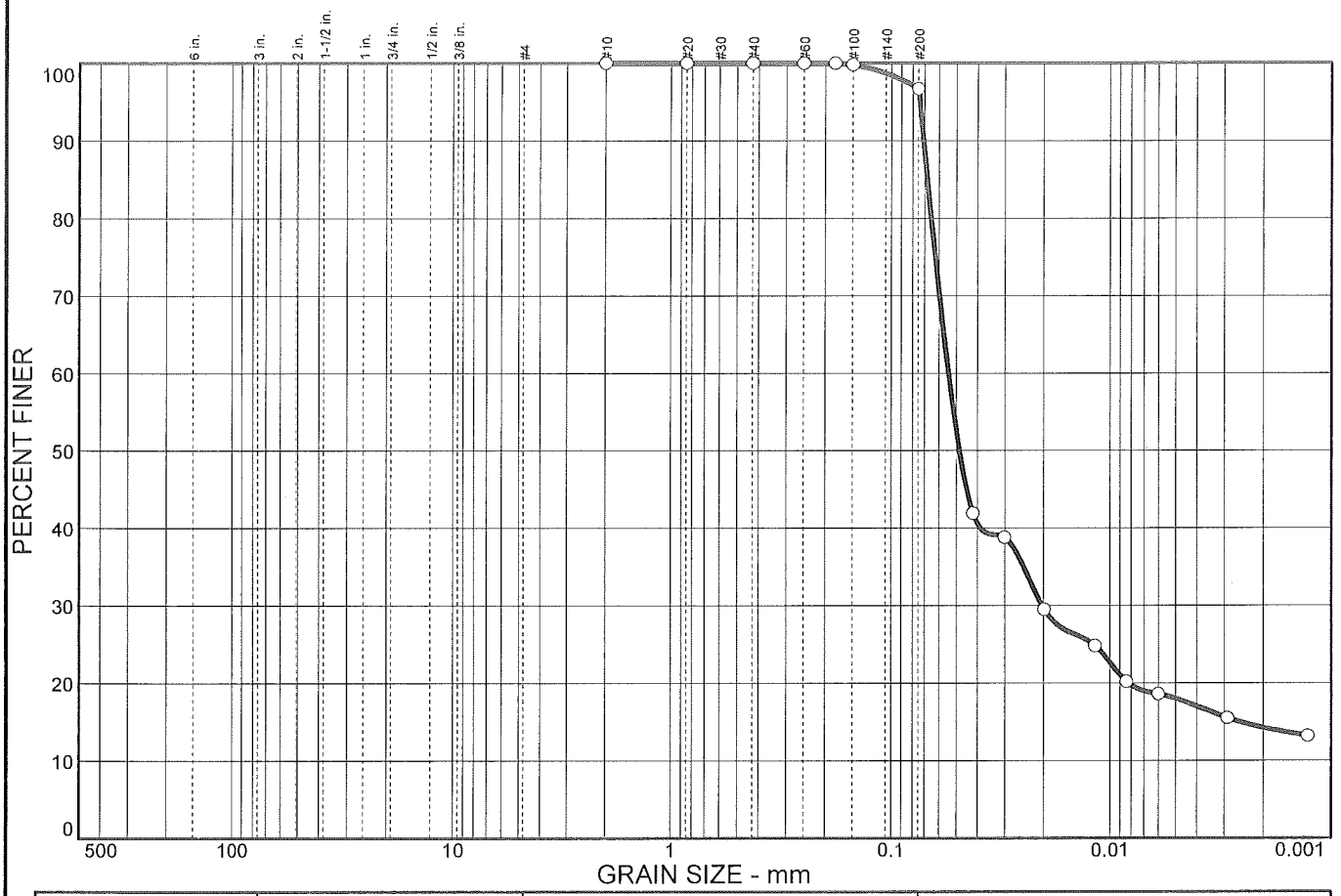
Remarks

Sample No.: SB-19 **Source of Sample:** SB-19 **Date:** 7/2/2012
Location: **Elev./Depth:** 2'-4'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.0	3.3	78.7	18.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	100.0		
#60	100.0		
#80	100.0		
#100	99.8		
#200	96.7		

* (no specification provided)

Material Description

Brown silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0681 D_{60}= 0.0544 D_{50}= 0.0485
D_{30}= 0.0203 D_{15}= 0.0026 D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

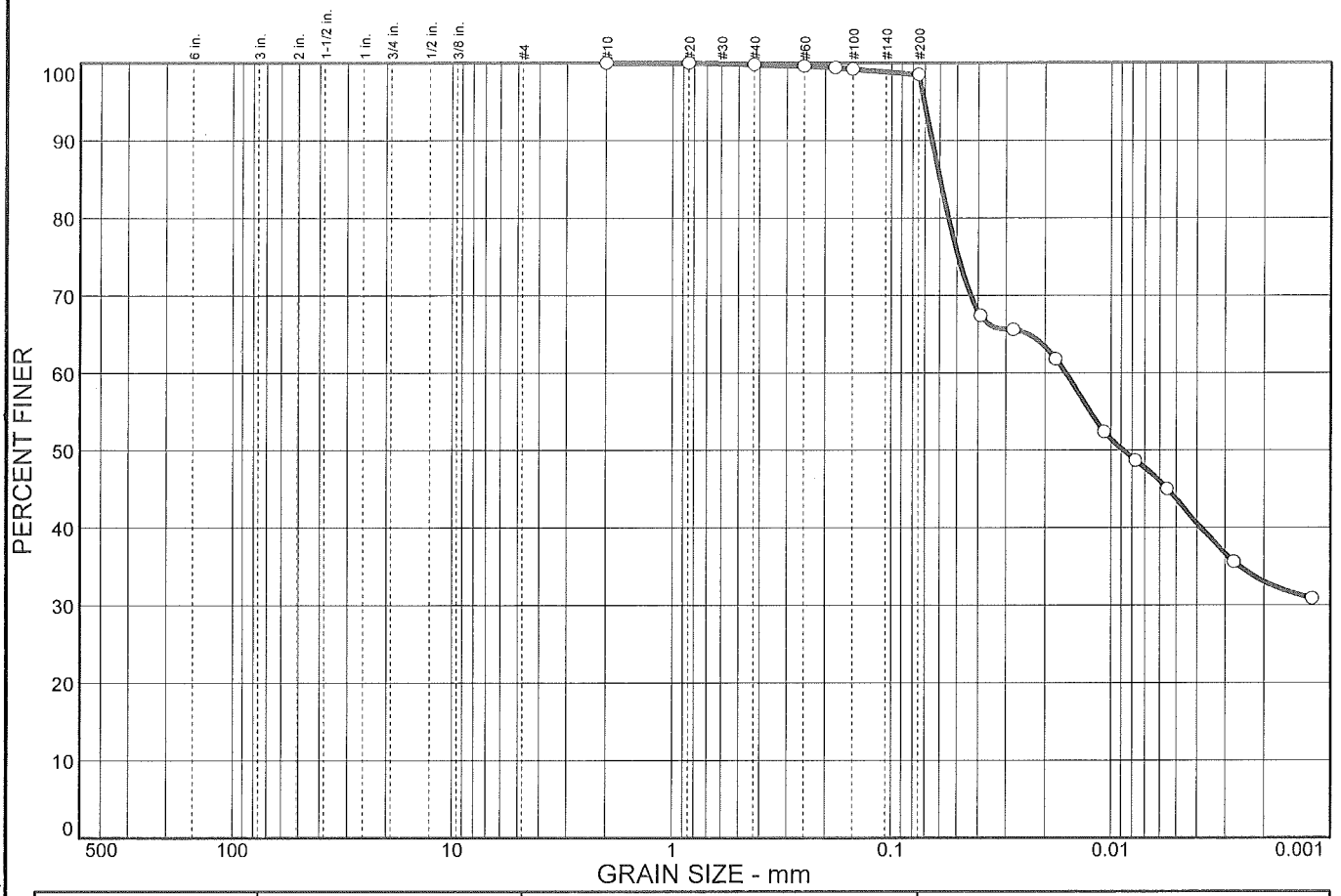
Remarks

Sample No.: SB-19 **Source of Sample:** SB-19 **Date:** 7/3/2012
Location: **Elev./Depth:** 8'-10

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	1.3	54.8	43.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	99.8		
#60	99.6		
#80	99.4		
#100	99.2		
#200	98.5		

* (no specification provided)

Material Description

Brown, mottled grayish brown silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0600 D_{60}= 0.0161 D_{50}= 0.0088
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

Remarks

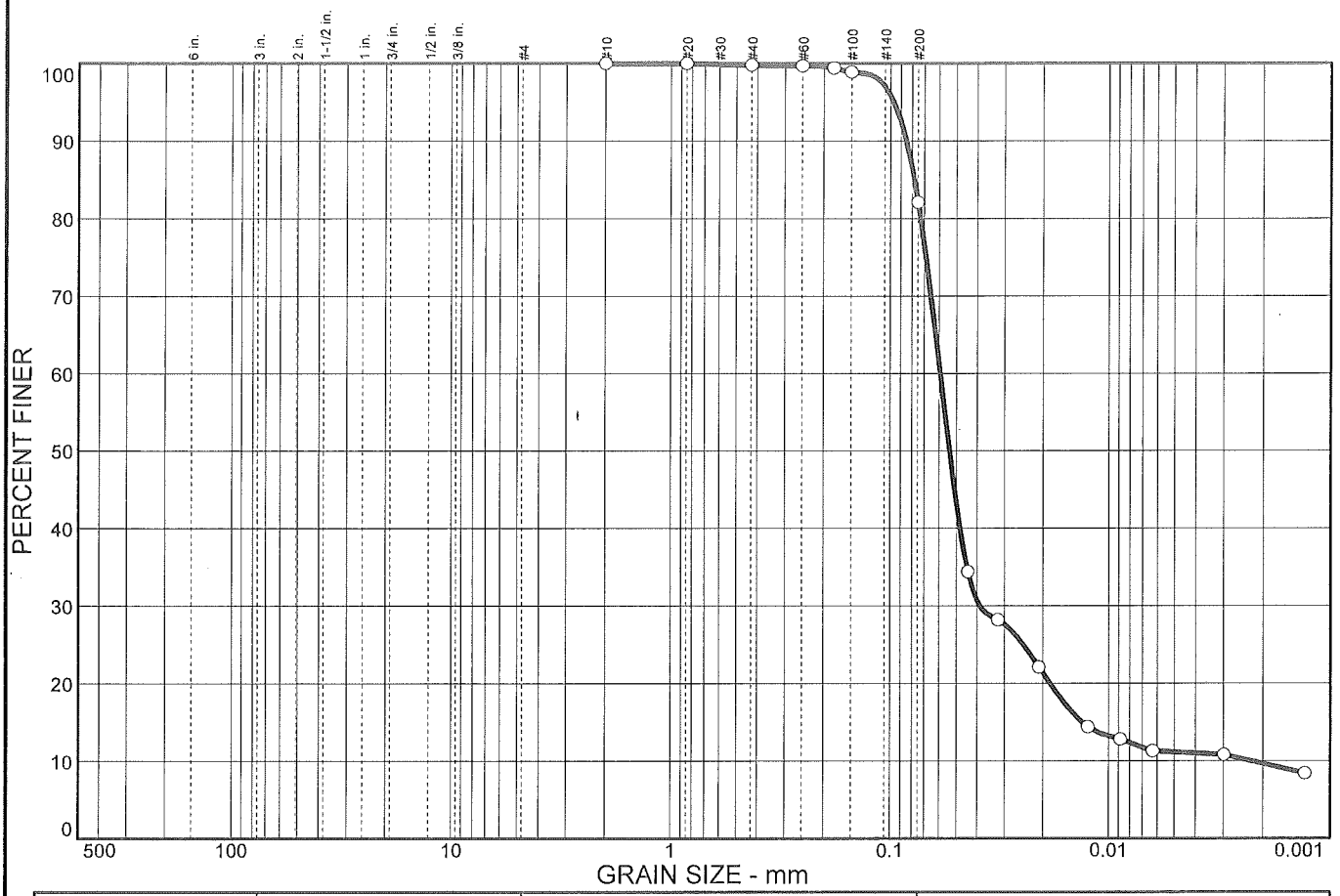
Sample No.: SB-19 **Source of Sample:** SB-19 **Date:** 7/3/2012
Location: **Elev./Depth:** 14'-16'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests

Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	17.7	71.0	11.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	99.8		
#60	99.7		
#80	99.4		
#100	98.9		
#200	82.1		

* (no specification provided)

Material Description

Gray silt with sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0781 D_{60}= 0.0595 D_{50}= 0.0539
D_{30}= 0.0388 D_{15}= 0.0132 D_{10}= 0.0023
C_u= 26.34 C_c= 11.23

Classification

USCS= ML AASHTO=

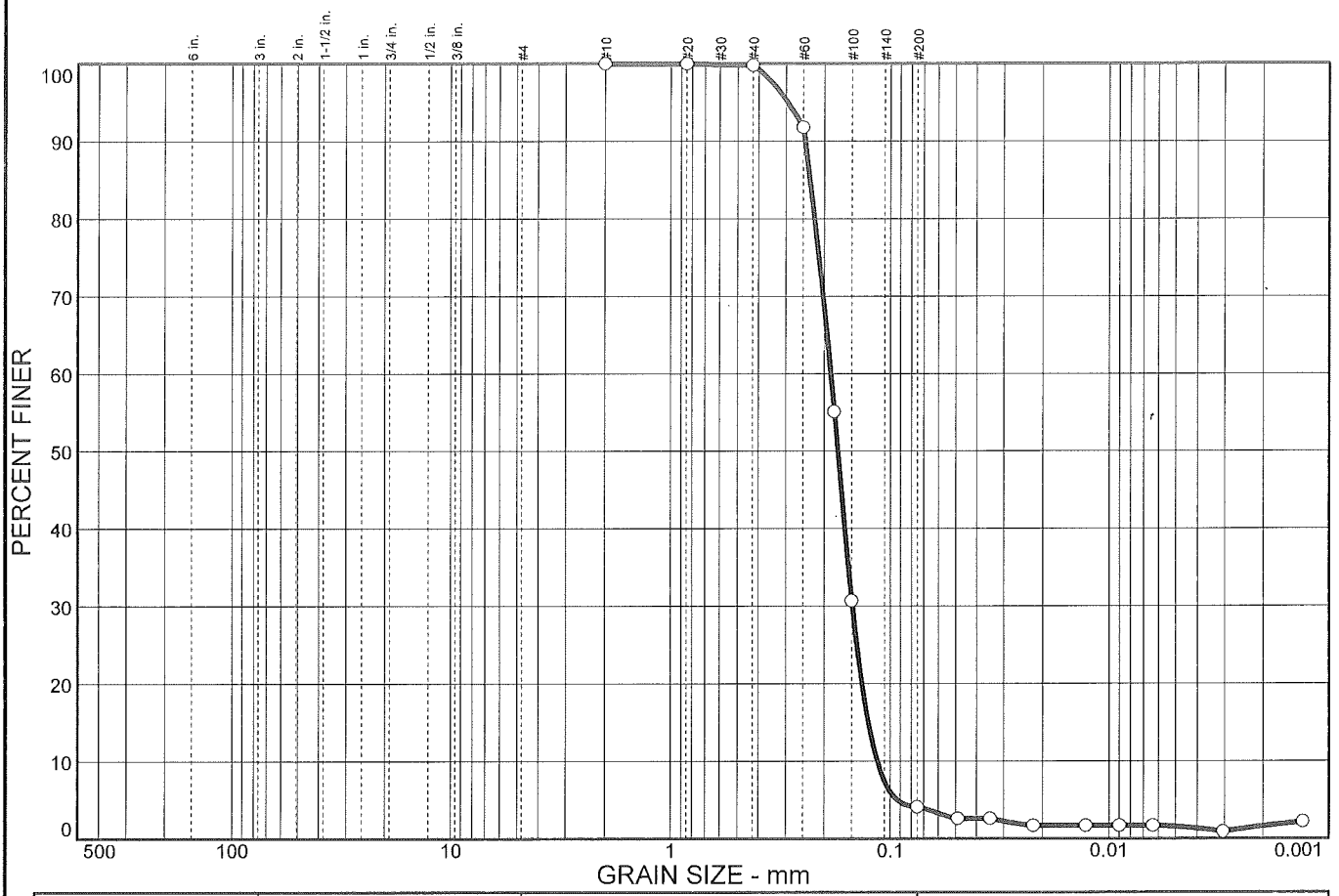
Remarks

Sample No.: SB-19 **Source of Sample:** SB-19 **Date:** 7/2/2012
Location: **Elev./Depth:** 20'-22'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	95.7	2.5	1.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	99.8		
#60	91.8		
#80	55.1		
#100	30.7		
#200	4.1		

* (no specification provided)

Material Description

Brown poorly graded sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.234 D_{60}= 0.187 D_{50}= 0.173
D_{30}= 0.149 D_{15}= 0.126 D_{10}= 0.114
C_u= 1.63 C_c= 1.04

Classification

USCS= SP AASHTO=

Remarks

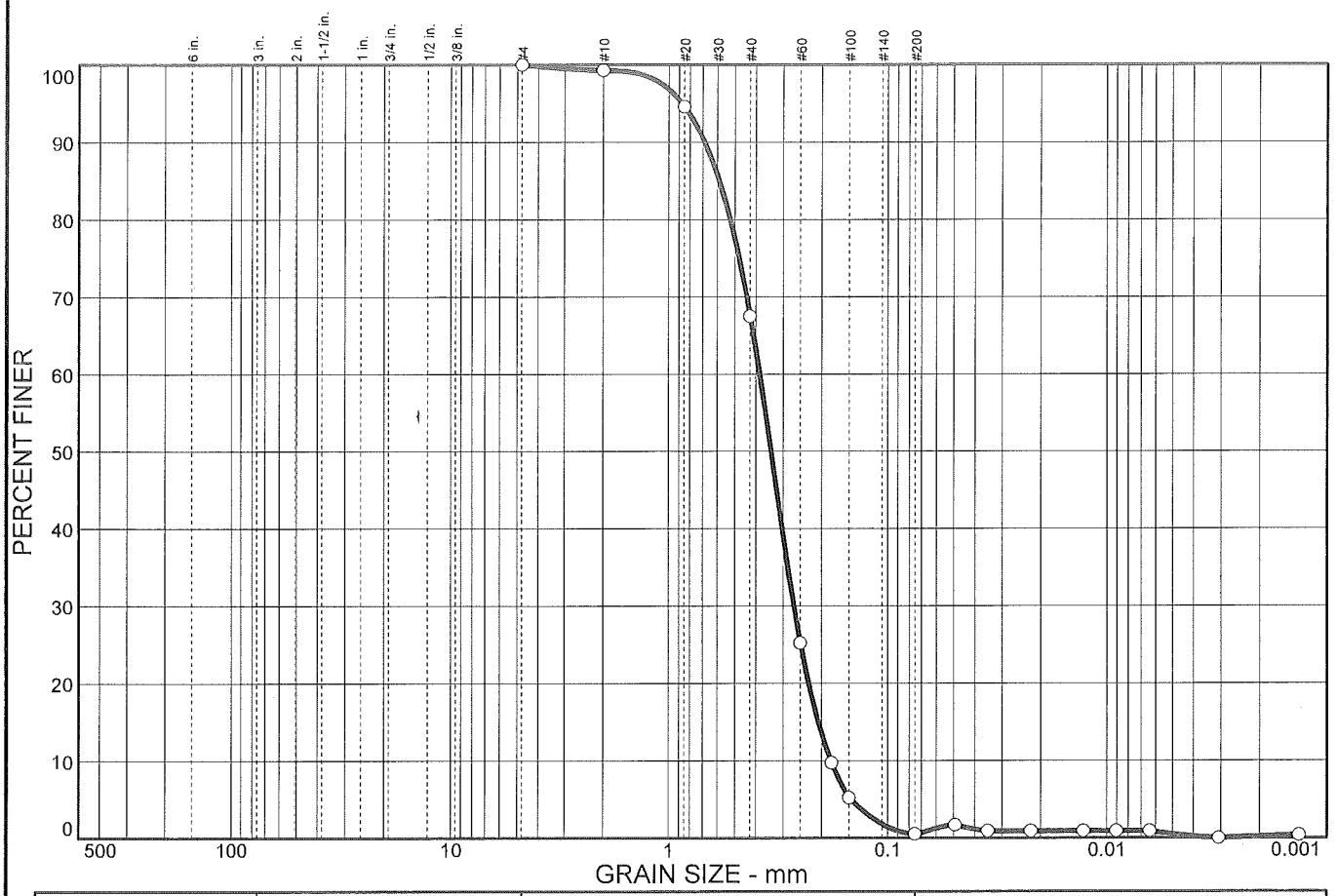
Sample No.: SB-19 **Source of Sample:** SB-19 **Date:** 7/3/2012
Location: **Elev./Depth:** 26'-28'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests

Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.7	31.8	67.0		0.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.3		
#20	94.6		
#40	67.5		
#60	25.2		
#80	9.7		
#100	5.2		
#200	0.5		

* (no specification provided)

Material Description

Brown and grayish brown poorly graded sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.589 D_{60}= 0.385 D_{50}= 0.341
D_{30}= 0.268 D_{15}= 0.208 D_{10}= 0.182
C_u= 2.12 C_c= 1.02

Classification

USCS= SP AASHTO=

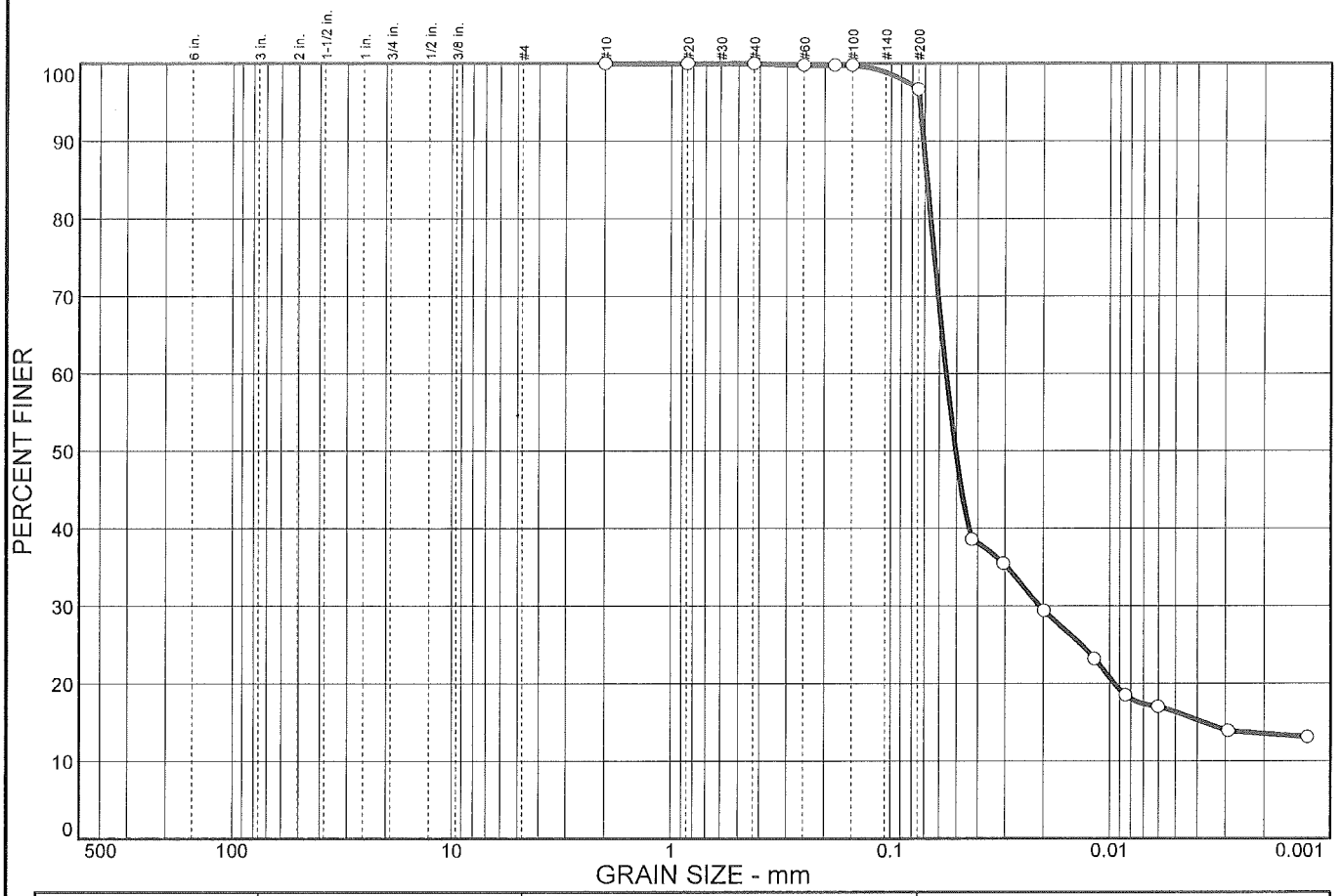
Remarks

Sample No.: SB-26 **Source of Sample:** SB-26 **Date:** 7/3/2012
Location: **Elev./Depth:** 2'-4'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.0	3.3	80.4	16.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	100.0		
#60	99.8		
#80	99.8		
#100	99.8		
#200	96.7		

* (no specification provided)

Material Description

Brown silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0686 D_{60}= 0.0559 D_{50}= 0.0505
D_{30}= 0.0208 D_{15}= 0.0038 D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

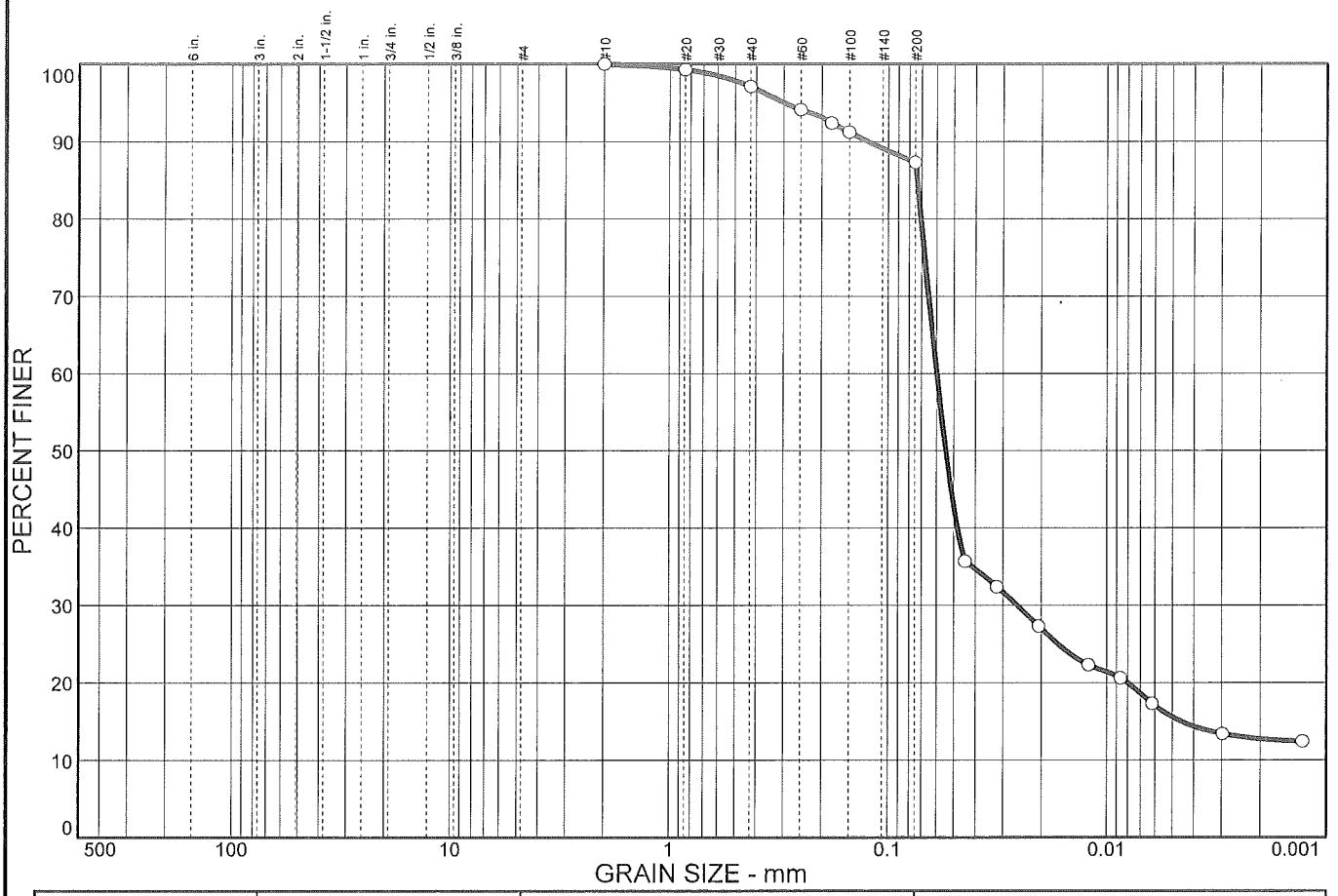
Remarks

Sample No.: SB-26 **Source of Sample:** SB-26 **Date:** 7/3/2012
Location: **Elev./Depth:** 8'-10'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	2.9	9.8	71.7	15.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.3		
#40	97.1		
#60	94.1		
#80	92.4		
#100	91.2		
#200	87.3		

* (no specification provided)

Material Description

Brown, mottled gray and reddish brown silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0737 D_{60}= 0.0600 D_{50}= 0.0545
D_{30}= 0.0259 D_{15}= 0.0046 D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

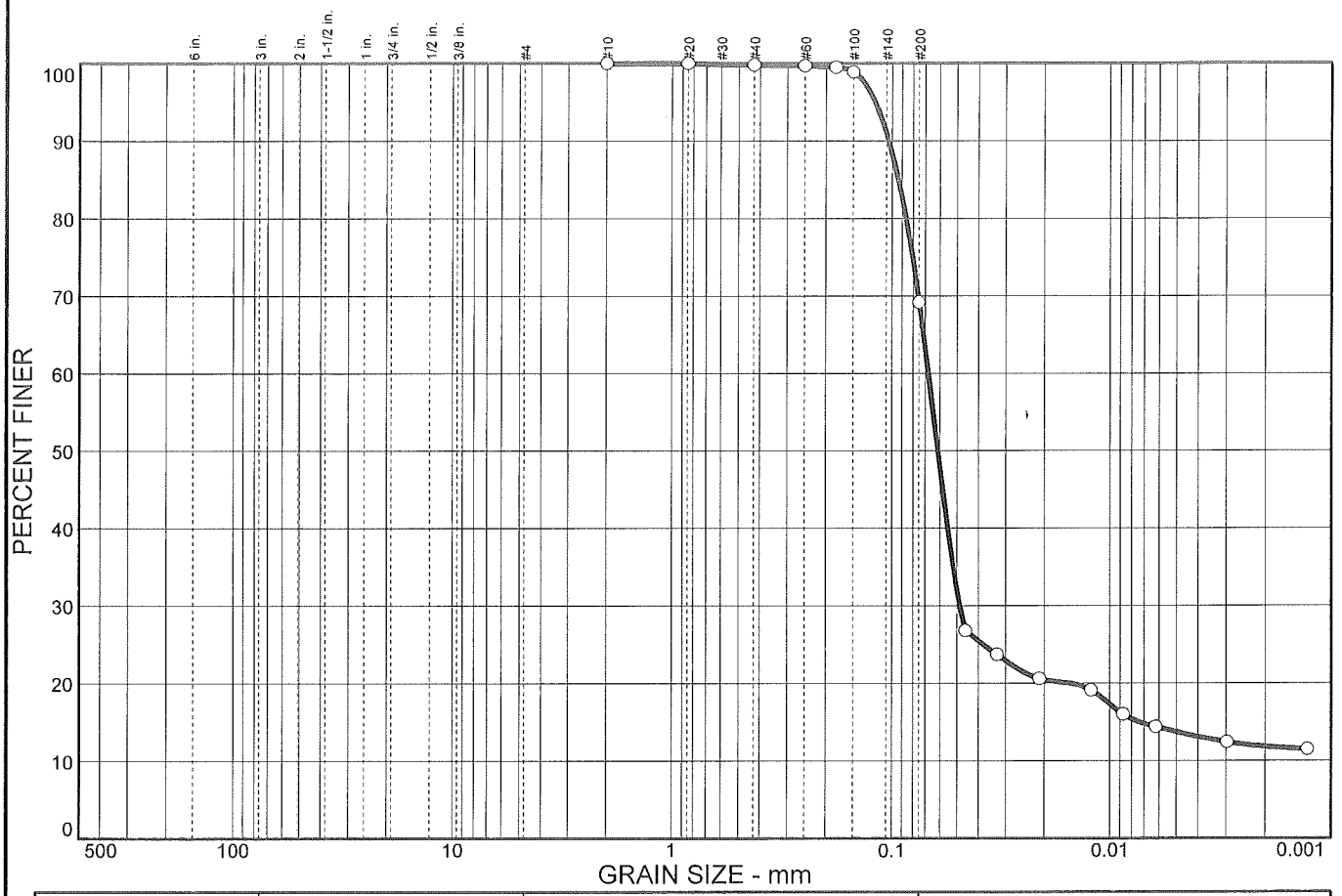
Remarks

Sample No.: SB-26 **Source of Sample:** SB-26 **Date:** 7/2/2012
Location: **Elev./Depth:** 14'-16'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	30.6	55.5	13.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	99.8		
#60	99.7		
#80	99.5		
#100	98.9		
#200	69.2		

* (no specification provided)

Material Description

Grayish brown sandy silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0936 D_{60}= 0.0680 D_{50}= 0.0615
D_{30}= 0.0486 D_{15}= 0.0074 D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

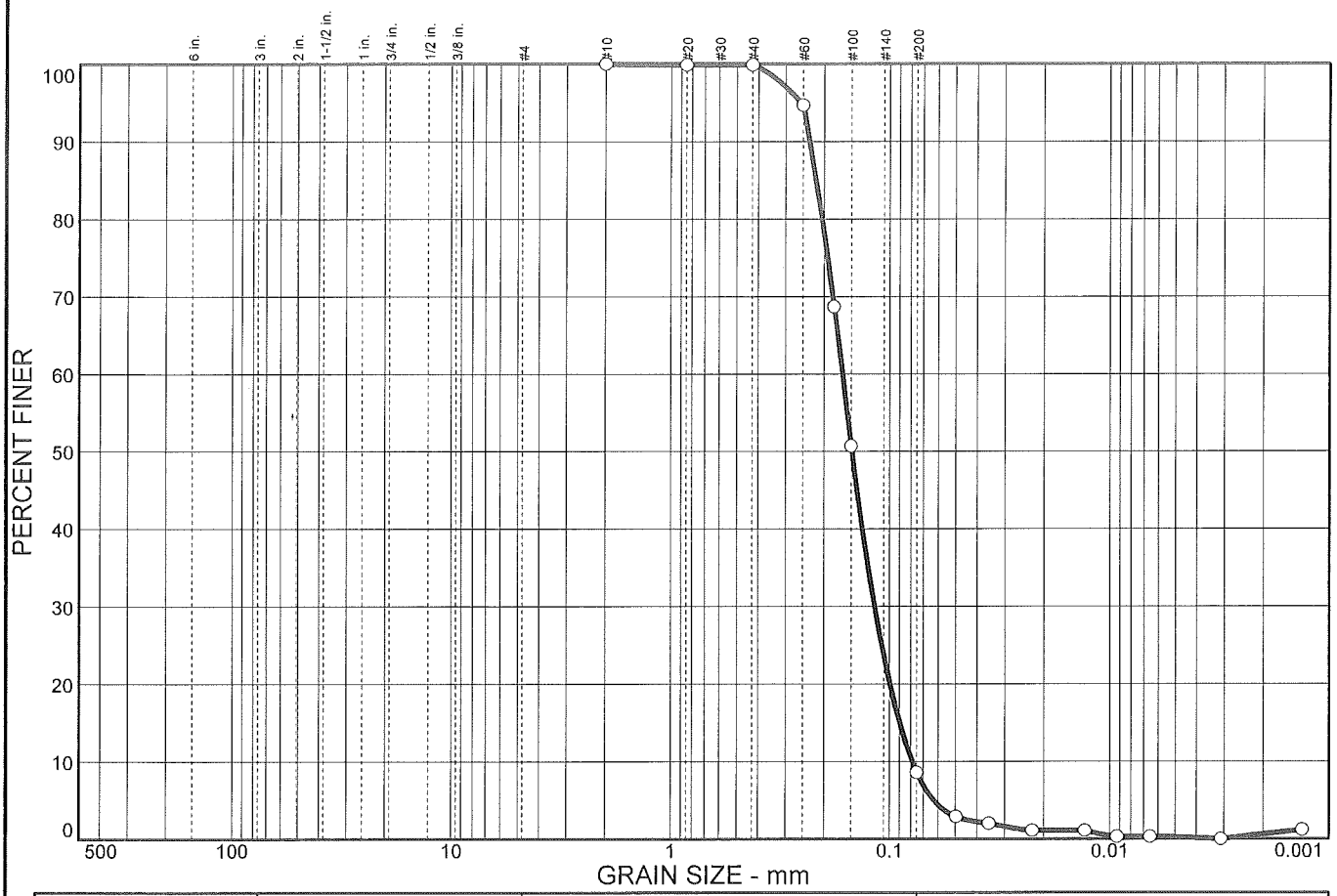
Remarks

Sample No.: SB-26 **Source of Sample:** SB-26 **Date:** 7/2/2012
Location: **Elev./Depth:** 20'-22'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.1	91.3	8.4	0.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.9		
#40	99.9		
#60	94.7		
#80	68.7		
#100	50.7		
#200	8.6		

* (no specification provided)

Material Description

Grayish brown poorly graded sand with silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.219 D_{60}= 0.165 D_{50}= 0.149
D_{30}= 0.117 D_{15}= 0.0897 D_{10}= 0.0786
C_u= 2.10 C_c= 1.05

Classification

USCS= SP-SM AASHTO=

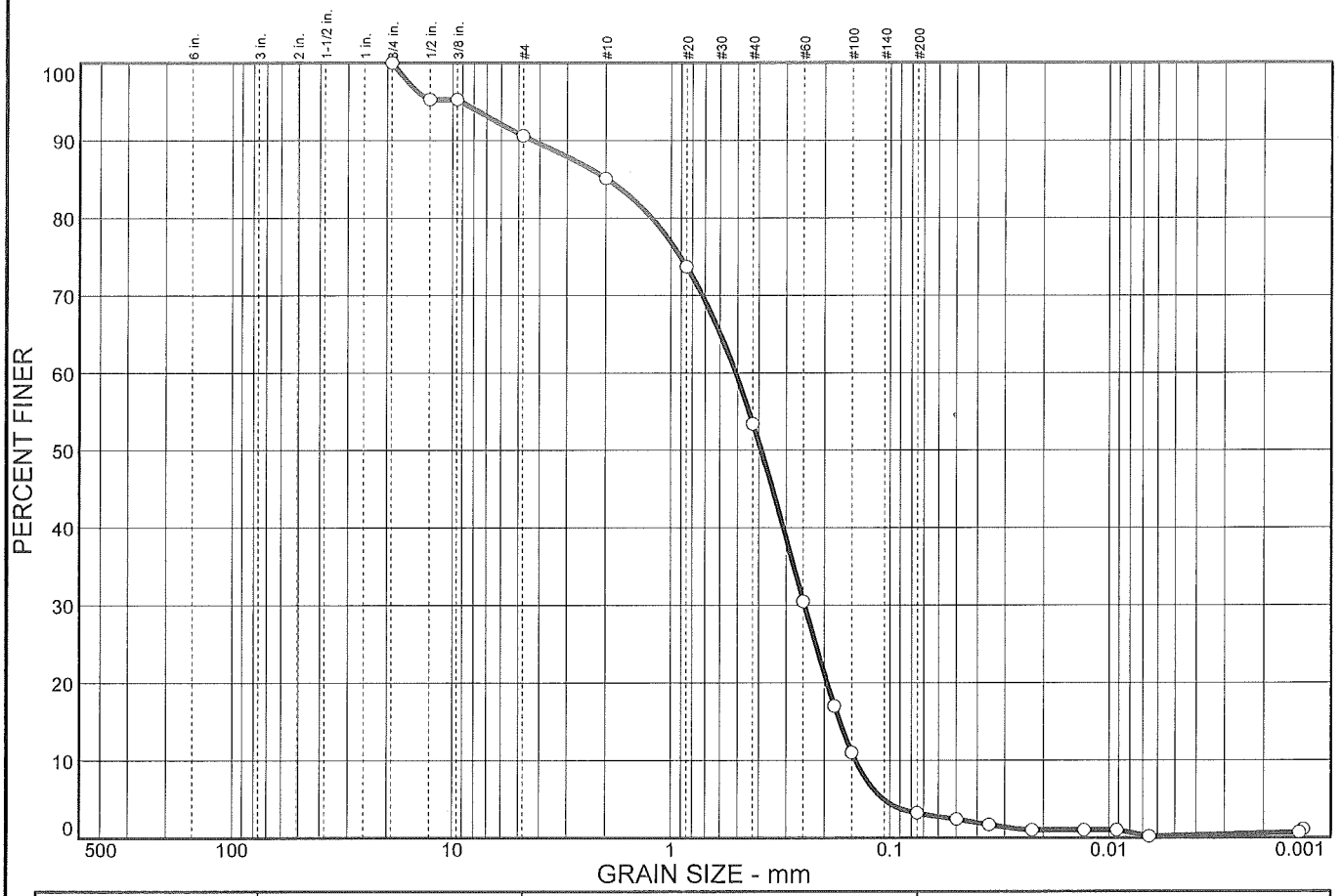
Remarks

Sample No.: SB-26 **Source of Sample:** SB-26 **Date:** 7/2/2012
Location: **Elev./Depth:** 26'-28'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	9.4	5.5	31.7	50.2	2.9	0.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75 in.	100.0		
.5 in.	95.3		
.375 in.	95.3		
#4	90.6		
#10	85.1		
#20	73.7		
#40	53.4		
#60	30.5		
#80	17.0		
#100	11.0		
#200	3.2		

* (no specification provided)

Material Description

Brown and reddish brown poorly graded sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 1.98 D_{60}= 0.510 D_{50}= 0.390
D_{30}= 0.247 D_{15}= 0.170 D_{10}= 0.144
C_u= 3.53 C_c= 0.83

Classification

USCS= SP AASHTO=

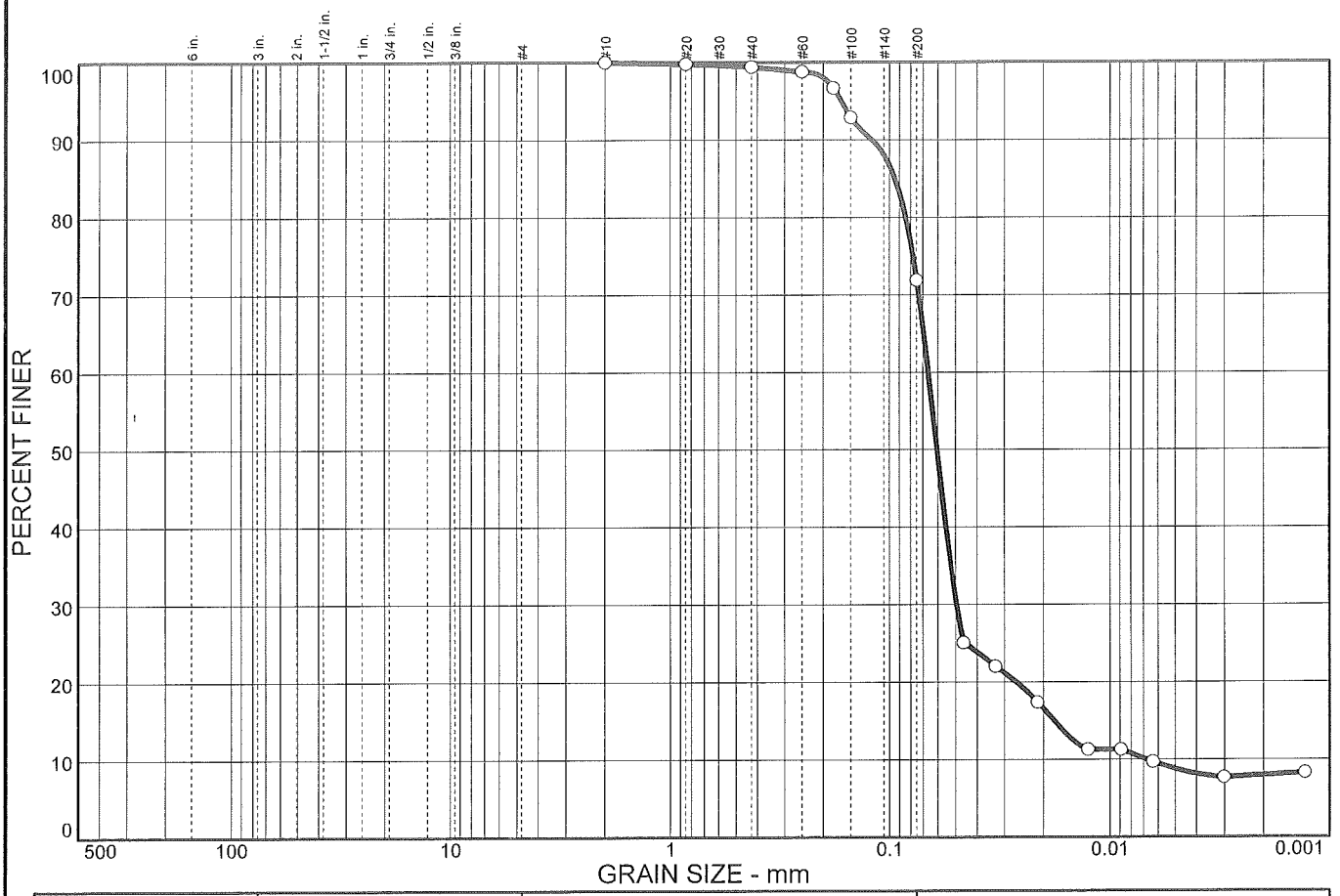
Remarks

Sample No.: SB-8 **Source of Sample:** SB-8 **Date:** 7/2/2012
Location: **Elev./Depth:** 2'-4'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.6	27.5	63.1	8.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.8		
#40	99.4		
#60	98.8		
#80	96.7		
#100	92.9		
#200	71.9		

* (no specification provided)

Material Description

Brown silt with sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0943 D_{60}= 0.0664 D_{50}= 0.0607
D_{30}= 0.0496 D_{15}= 0.0179 D_{10}= 0.0068
C_u= 9.82 C_c= 5.48

Classification

USCS= ML AASHTO=

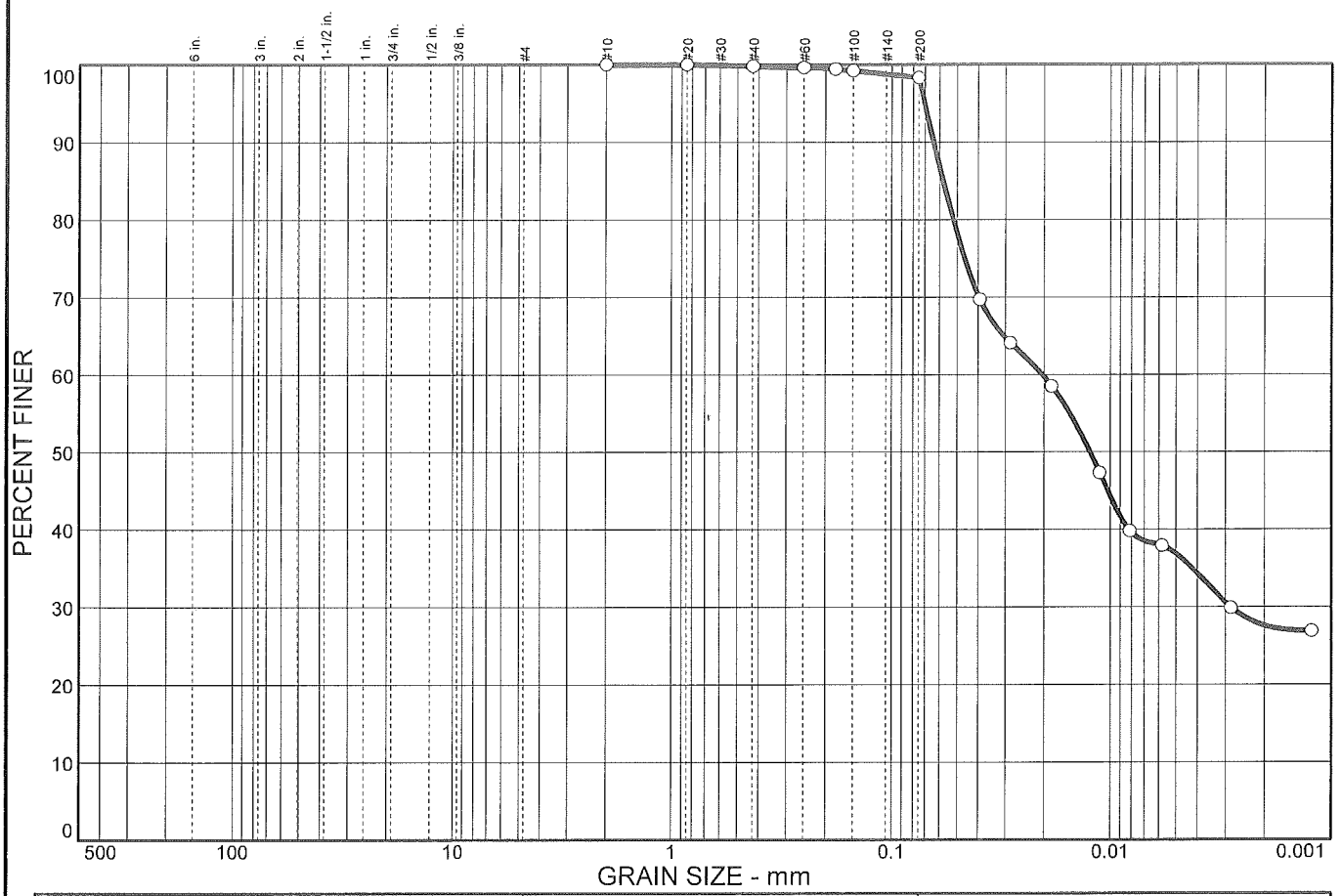
Remarks

Sample No.: SB-8 **Source of Sample:** SB-8 **Date:** 7/2/2012
Location: **Elev./Depth:** 8'-10'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	1.5	61.4	36.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	99.8		
#60	99.6		
#80	99.4		
#100	99.2		
#200	98.3		

* (no specification provided)

Material Description

Brownish gray, mottled reddish brown silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0579 D_{60}= 0.0204 D_{50}= 0.0124
D_{30}= 0.0029 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

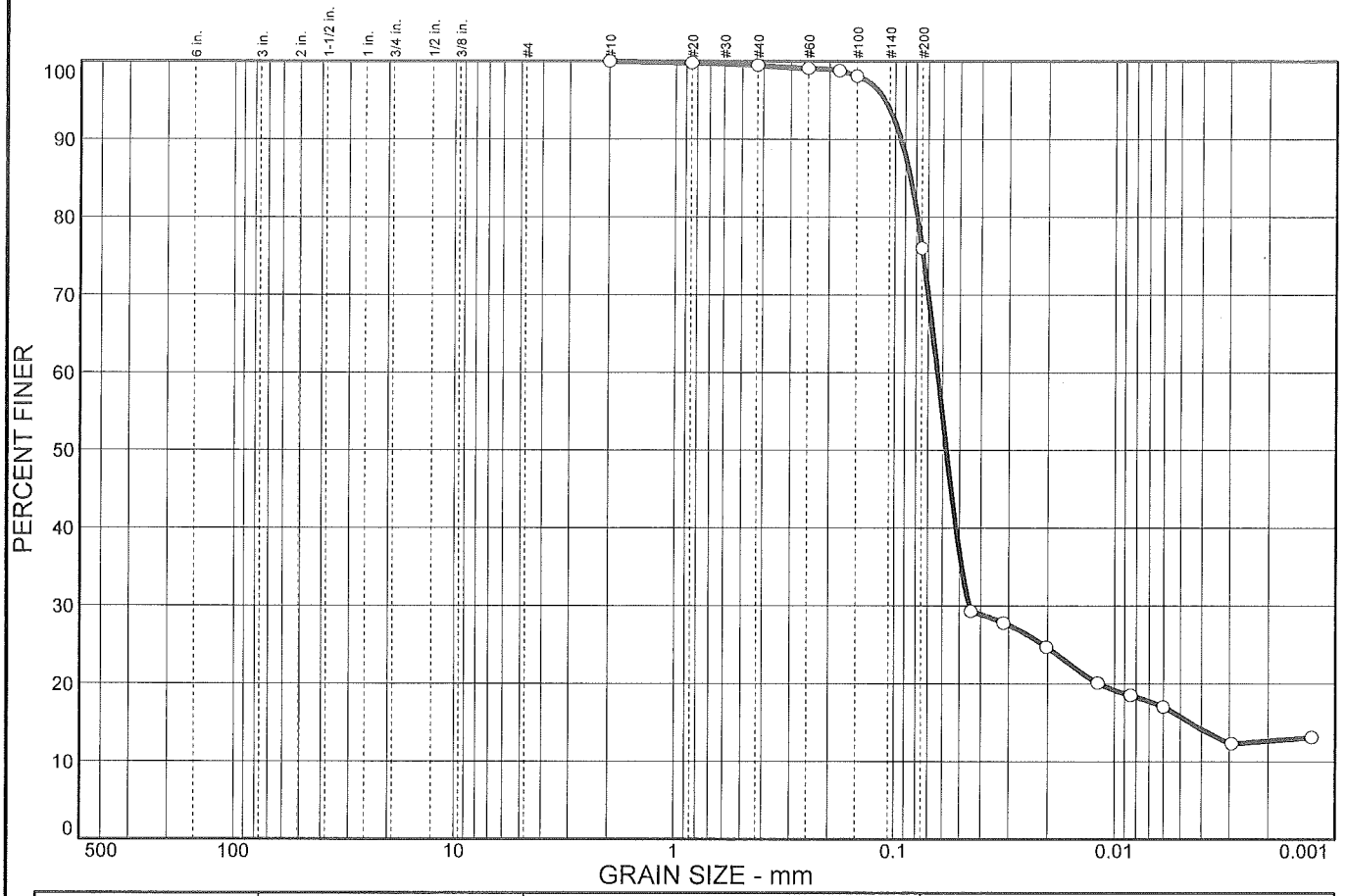
Remarks

Sample No.: SB-8 **Source of Sample:** SB-8 **Date:** 7/2/2012
Location: **Elev./Depth:** 14'-16'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.5	23.5	60.2	15.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.8		
#40	99.5		
#60	99.1		
#80	98.8		
#100	98.1		
#200	76.0		

* (no specification provided)

Material Description

Gray, mottled reddish brown silt with sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.0852 D_{60}= 0.0635 D_{50}= 0.0577
D_{30}= 0.0450 D_{15}= 0.0045 D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

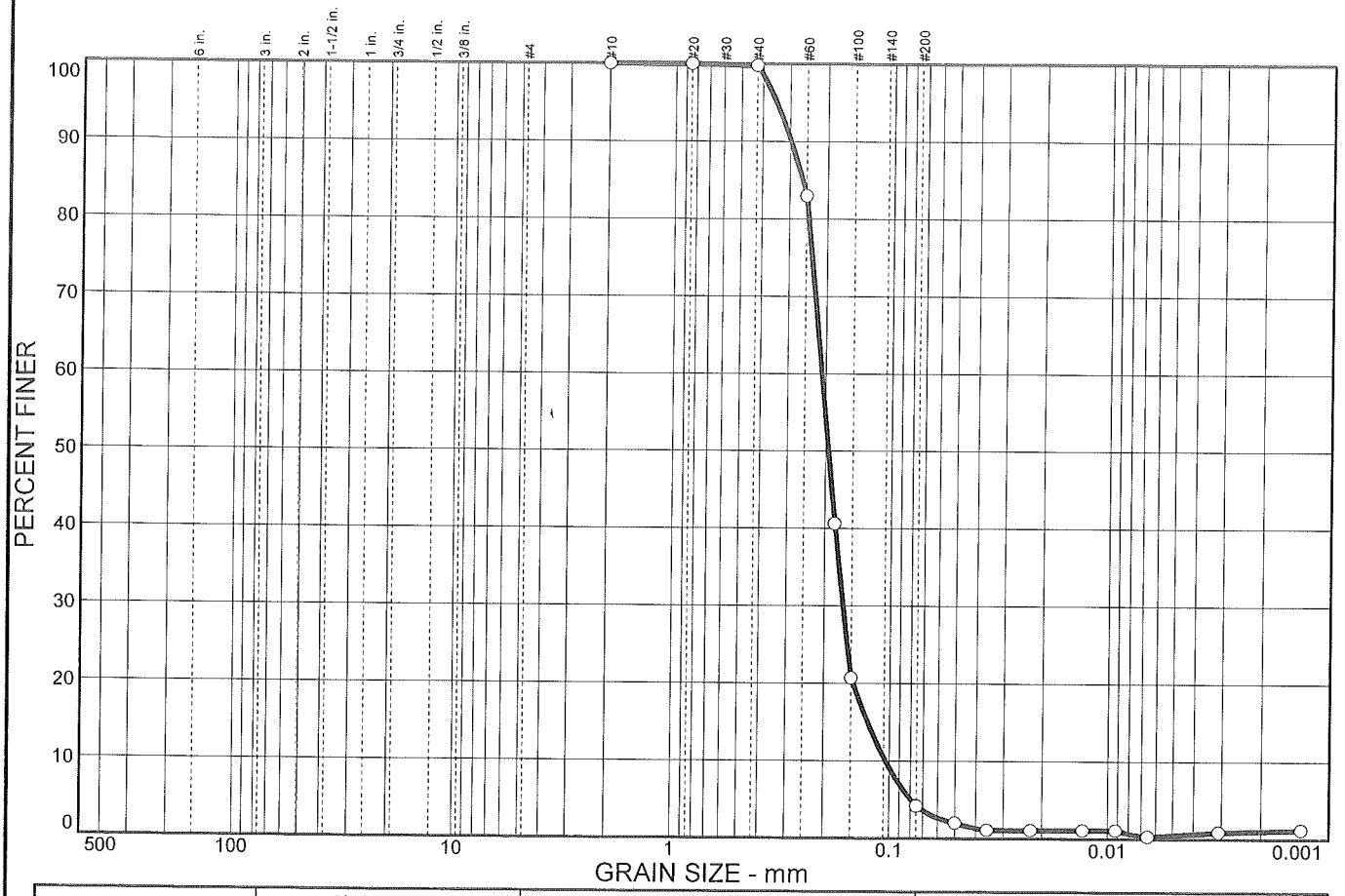
Remarks

Sample No.: SB-8 **Source of Sample:** SB-8 **Date:** 7/3/2012
Location: **Elev./Depth:** 20'-22'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

ASTM D422



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	95.6	3.7	0.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	99.8		
#60	83.0		
#80	40.6		
#100	20.7		
#200	4.2		

* (no specification provided)

Material Description

Brown poorly graded sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.262 D_{60}= 0.210 D_{50}= 0.194
D_{30}= 0.165 D_{15}= 0.126 D_{10}= 0.104
C_u= 2.01 C_c= 1.24

Classification

USCS= SP AASHTO=

Remarks

Sample No.: SB-8 **Source of Sample:** SB-8 **Date:** 7/2/2012
Location: **Elev./Depth:** 26'-28'

Alpha-Omega Geotech, Inc.

Client: HGL
Project: GM/ AC Site SSL Tests
Project No: 12-284T **Figure** 1 of 1

SOIL ANALYSIS REPORT

CLIENT:	ALPHA-OMEGA GEOTECH INC 1701 STATE AVE KANSAS CITY, KS 66102
15271	

Servi-Tech Laboratories
www.servitechlabs.com
1816 E. Wyatt Earp
PO Box 1397
Dodge City, KS 67801
800.557.7509
620.227.7123
Fax 620.227.2047

LAB NO:	53195 - 53209
INVOICE NO:	168665
DATE RECEIVED:	07/13/2012
DATE REPORTED:	07/23/2012

SOIL ANALYSIS RESULTS FOR GM/AC SITE SSL TESTS **FIELD IDENTIFICATION:** 12-284T

METHOD USED:			1:1 Water-Soil				WB (Titr.)														
Lab Number	Sample ID	Sample Depth	Soil pH	Buffer pH	Sol. Salts mmho/cm	Excess Lime	% Organic Matter			Phosphorus ppm P	Potassium ppm K	Sulfur ppm	Sulfur lb. S/A	Calcium ppm Ca	Magnesium ppm Mg	Sodium ppm Na	Zinc ppm Zn	Iron ppm Fe	Manganese ppm Mn	Copper ppm Cu	Boron ppm B
53195	SB19	24 - 48	8.3			Hi	<0.2														
53196	SB19	96-120	8.0			Hi	0.9														
53197	SB19	168-192	8.0			Hi	1.0														
53198	SB19	240-264	8.0			Hi	1.2														
53199	SB19	312-336	8.6			Hi	<0.2														
53200	SB26	24 - 48	8.6			Hi	<0.2														
53201	SB26	180-192	8.2			Hi	1.2														
53202	SB26	240-264	8.2			Hi	1.2														
53203	SB26	312-336	8.5			Hi	<0.2														
53204	SB26	96-120	8.3			Hi	0.9														
53205	SB8	24 - 48	8.6			Hi	<0.2														
53206	SB8	96-120	8.1			Hi	0.5														
53207	SB8	180-192	8.0			Hi	1.2														
53208	SB8	240-264	8.1			Hi	0.9														
53209	SB8	312-336	8.4			Hi	<0.2														

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Randy Royle, Laboratory Manager

SOIL ANALYSIS REPORT

CLIENT:	ALPHA-OMEGA GEOTECH INC 1701 STATE AVE KANSAS CITY, KS 66102
15271	

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www.servitechlabs.com
1816 E. Wyatt Earp
PO Box 1397
Dodge City, KS 67801
800.557.7509
620.227.7123
Fax 620.227.2047

LAB NO:	53195 - 53209
INVOICE NO:	168665
DATE RECEIVED:	07/13/2012
DATE REPORTED:	07/23/2012

SOIL ANALYSIS RESULTS FOR GM/AC SITE SSL TESTS **FIELD IDENTIFICATION:** 12-284T

METHOD USED: WB (Titr.)

Lab Number	Sample ID	Sample Depth	Organic Carbon %
53195	SB19	24 - 48	<0.1
53196	SB19	96-120	0.5
53197	SB19	168-192	0.6
53198	SB19	240-264	0.7
53199	SB19	312-336	<0.1
53200	SB26	24 - 48	<0.1
53201	SB26	180-192	0.7
53202	SB26	240-264	0.7
53203	SB26	312-336	<0.1
53204	SB26	96-120	0.5
53205	SB8	24 - 48	<0.1
53206	SB8	96-120	0.3
53207	SB8	180-192	0.7
53208	SB8	240-264	0.5
53209	SB8	312-336	0.1

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Randy Royle, Laboratory Manager

SOIL ANALYSIS REPORT

CLIENT: 15271	ALPHA-OMEGA GEOTECH INC 1701 STATE AVE KANSAS CITY, KS 66102

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LAB NO:	53195 - 53209
INVOICE NO:	168665
DATE RECEIVED:	07/13/2012
DATE REPORTED:	07/23/2012

SOIL ANALYSIS RESULTS FOR GM/AC SITE SSL TESTS **FIELD IDENTIFICATION:** 12-284T

FERTILIZER RECOMMENDATIONS: POUNDS ACTUAL NUTRIENT PER ACRE

Lab Number	Sample ID	Crop To Be Grown	Yield Goal	Lime, ECC Tons/A to raise pH to:			N	P_2O_5	K_2O	Zn	S	Mn	Cu	MgO	B	Ca	Cl	Cation Exchange Capacity					
				6.0	6.5	7.0												CEC	%H	%K	%Ca	%Mg	%Na
53195	SB19																						
53196	SB19																						
53197	SB19																						
53198	SB19																						
53199	SB19																						
53200	SB26																						
53201	SB26																						
53202	SB26																						
53203	SB26																						
53204	SB26																						
53205	SB8																						
53206	SB8																						
53207	SB8																						
53208	SB8																						
53209	SB8																						

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Randy Royle, Laboratory Manager

ATTACHMENT 2

HYDROGEOLOGIC, INC. – SITE-SPECIFIC SCREENING LEVELS

HGL
HydroGeoLogic, Inc
Kansas City Operations
Exceeding Expectations

July 23, 2012

Mr. Jim Seiler
AES Project Officer
U.S. Environmental Protection Agency, Region 7
901 North 5th Street
Kansas City, KS 66101

RE: Site-Specific Soil Screening Levels, Former General Motors Corporation/AC Rochester Facility (GM/AC) Site, Sioux City, Iowa
U.S. EPA Region 7 AES Contract No. EP-S7-05-05; Task Order No. 0051
EPA Task Order Project Officer: Nancy Swyers, P.E.

Dear Mr. Seiler:

HydroGeoLogic, Inc. (HGL) is pleased to submit two hard copies and three electronic copies of site-specific soil screening levels (SSLs) requested by the U.S. Environmental Protection Agency (EPA) task order project officer (TOPO) for the Former GM/AC Site, Sioux City, Iowa. The following items are provided:

Attachment 1 – Tables:

1. Site-Specific Protection of Groundwater SSL Calculations and Input Parameters
2. Summary of Site-Specific SSLs and Generic Regional Screening Level SSLs for Protection of Groundwater (April 2012)

As summarized on Table 1, the site-specific SSLs at a dilution attenuation factor of 20 (DAF 20) were calculated using data from soil samples collected in the source areas on site; select default values; and known physical properties for the contaminants of concern (COCs). The COCs consist of the principal contaminants detected in soil and/or groundwater at the site. Table 2 compares the calculated SSLs to the generic values for each COC, which are the EPA Regional Screening Levels, Protection of Groundwater values, April 2012.

Should you have any questions or comments, please contact us at 913-317-8860.

Sincerely,

Jeff Hodge
HGL Task Order Manager

W. Alan Rittgers

Alan Rittgers, P.G.
AES Program Manager

Enclosures

6340 Glenwood, Suite 200, Building #7, Overland Park, KS 66202
Phone: (913) 317-8860 Fax: (913) 317-8868
www.hgl.com

Table 1
Site-Specific Protection of Groundwater SSL Calculations and Input Parameters
Former GM/AC Site
Sioux City, Iowa

COCs for Subsurface Soil	Cw	Kd	Koc	foc	θw	θa	Pb	η	H'	SSL DAF 1	SSL DAF 20	Rounded
	µg/L	L/kg	L/kg	unitless	cm^3 water/cm^3 soil	cm^3 air/cm^3 soil	g/cm^3	unitless	unitless	µg/kg	µg/kg	µg/kg
1,4-Dioxane	0.67	1.05E-02	2.633	0.004	0.265	0.183	1.46	0.448	1.96E-04	0.1	2.57	2.6
1,1,1-Trichloroethane	200	1.76E-01	43.89	0.004	0.265	0.183	1.46	0.448	7.03E-01	89.0	1779.06	1780
Tetrachloroethene (PCE)	5	3.80E-01	94.94	0.004	0.265	0.183	1.46	0.448	7.24E-01	3.3	65	65
1,1-Dichloroethane	2.4	1.27E-01	31.82	0.004	0.265	0.183	1.46	0.448	2.30E-01	0.8	16	16
1,1-Dichloroethene	7	1.27E-01	31.82	0.004	0.265	0.183	1.46	0.448	1.07	3.1	62	62
cis-1,2-Dichloroethene	70	1.58E-01	39.6	0.004	0.265	0.183	1.46	0.448	1.67E-01	25.2	505	505
Vinyl chloride	2	8.69E-02	21.73	0.004	0.265	0.183	1.46	0.448	1.14	0.8	16	16
Trichloroethene (TCE)	5	2.43E-01	60.7	0.004	0.265	0.183	1.46	0.448	4.03E-01	2.4	47	47

SSL = Cw[Kd+((θw+θa*H')/Pb)]
Formula from Page 29 of the USEPA Soil Screening Guidance, 1996

Cw = Contaminant concentration in water = EPA MCL (if available); otherwise the EPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, Tapwater, April 2012
Kd = Distribution coefficient = Koc*foc
Koc = organic carbon partition coefficient = chemical specific, obtained from the EPA RSL table, April 2012
foc = fraction organic carbon; average determined from organic carbon analysis of on-site soil samples.
θw = water-filled soil porosity = midpoint loam value obained from USACE, 2002. U.S. Army Corps of Engineers, Soil Vapor Extraction and Bioventing, Engineer Manual, EM 1110-1-4001. June. Loam soil texture determined from particle size analysis of on-site soil samples.
θa = air-filled soil porosity = η - θw
ρb = dry soil bulk density (g/cc); average determined from bulk density analysis of on-site soil samples.
η = total soil porosity = 1 - (ρb/soil particle density), where soil particle density = 2.65 g/cm^3. Soil particle density obtained from United States Environmental Protection Agency, 1996. Soil Screening Guidance, Users Guide, Attachment A - Conceptual Site Model Summary, EPA540/R-96/018.
H' = Henry's Law constant = chemical specific, obtained from the EPA RSL table, April 2012

COC = contaminant of concern
µg/L = micrograms per liter
L/kg = liters per kilogram
cm^3 water/cm^3 soil = cubic centimeters of water per cubic centimeters of soil
cm^3 air/cm^3 soil = cubic centimeters of air per cubic centimeters of soil
g/cm^3 = grams per cubic centimeter
µg/kg = micrograms per kilogram

Table 2
Summary of Site-Specific SSLs and Generic Regional Screening Levels for Protection of Groundwater
Former GM/AC Site
Sioux City, Iowa

COC	Site-Specific Soil-to-GW SSL (DAF=20)[a]	USEPA Soil-to-GW SSL (DAF=20)[b]
	µg/kg	
1,4-Dioxane	3	2.8
1,1,1-Trichloroethane	1780	1400
Tetrachloroethene (PCE)	65	46
1,1-Dichloroethane	16	13.6
1,1-Dichloroethene	62	50
cis-1,2-Dichloroethene	505	420
Vinyl chloride	16	13.8
Trichloroethene (TCE)	47	36

Notes:

[a] Values were calculated using site-specific soil information and the soil screening level (SSL) formula from USEPA Soil Screening Guidance, 1996. The Henry's law constant (H') and the organic carbon sorption coefficient (K_{oc}) are from USEPA Regional Screening Level (RSL) April 2012 Tables. The resulting SSL was mulitplied by a dilution-attenuation factor (DAF) of 20.

[b] Values obtained from the USEPA Regional Screening Level Summary Table, April 2012. MCL-based SSLs were used where available; otherwise risk-based SSLs were used.

COC = contaminant of concern
GW = groundwater
µg/kg = micrograms per kilogram
SSL = soil screening level
USEPA = United States Environmental Protection Agency

ATTACHMENT 3

HYDROGEOLOGIC, INC. – FIELD SHEETS FOR APRIL 2012 SAMPLING EVENT

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ITY LEADER(Print): Cy Swyers

NAME OF SURVEY OR ACTIVITY: NSOTTZRA00

DATE OF COLLECTION: 9-10 (DAY) 4 (MONTH) 2012 (YEAR)

SHEET: 1 of 1

ENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8oz BOTTLE	4 VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
26-1				1	1		X				
-2				1	1						
-2FD				1	1						
-4				1	1						
-5				1	1						
-6				1	1						
-7				1	1						
-8				1	1						
-9				1	1						
-10				1	2						extra Volume for ms/msd
-11				1	1						
-12				1	1						
-13				1	1						
-13-FD				1	1						Field Duplicate
-15				1	1						
-16				1	1						
-17				1	1						

4/10/12

ASE not complete

RIPTION OF SHIPMENT

___ PIECE(S) CONSISTING OF _____ BOX(ES)

X ICE CHEST(S). OTHER _____

MODE OF SHIPMENT

___ COMMERCIAL CARRIER _____

___ COURIER

X SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

ONNEL CUSTODY RECORD

QUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
ALED UNSEALED X	4-11-12	0830	SEALED UNSEALED	
QUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
ALED UNSEALED			SEALED UNSEALED	
QUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
ALED UNSEALED			SEALED UNSEALED	

9262 (Revised 5/85)

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Swyers	NSØ7T7RAØØ	10-11 / 4 / 2012	1 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 oz. BOTTLE	4 VOA SET (3 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER				MS 4/13						
~~5706-17~~				1	1						MS 4/10/12
5706-18				1	1						
-19				1	1						
-19-FD				1	1						
-21				1	1						
-22				1	1						
-23				1	1						
-24				1	1						Vial #5 from 4 VOA set broken
-25				1	1						
-25-FD				1	1						
-27				1	1						
-28				1	1						
-29				1	1						
-30				1	1						
-31				1	1						
-32				1	1						
-33				1	1						
-34				1	3						Extra volume for MS/MSD
-35				1	1						
-36				1	1						
-37				1	1						
-38				1	1						
-38-FD				1	1						Field Duplicate
-40				1	1						

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
____ PIECE(S) CONSISTING OF ____ BOX(ES)	X COMMERCIAL CARRIER: FedEx
X ICE CHEST(S): OTHER ____	____ COURIER
	____ SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
X SEALED ☐ UNSEALED	4-11-12	1800	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	

*U.S GPO: 2002-756-917/4005

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Swyers	NS07TZRA00	13-11 / 4 / 2012	2 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 oz. BOTTLE	VOA SET (3 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER				HB 41013						
5706-41				1	1		↓				
-42				1	1						

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

X ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

X COMMERCIAL CARRIER. FedEx

____ COURIER

____ SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
X SEALED ☐ UNSEALED	4-11-12	1800	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	

*U.S. GPO: 2002-756-917/40055

42 unique samples 6 FD 3 ms/msd

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Sawyers	NSØ7TZRAPØ	11-12 / 4 / 2012	1 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 oz BOTTLE	4 VOA SET (8 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER				DC 4/12/12						
5706-43				1	1						
-44				1	1						
-45				1	1						
-46				1	1						
-47				1	1						
-48				1	1						
-49				1	1						
-50				1	1						
-51					1						
-52				1	1						
-53				1	1						
-54				1	1						
-55				1	1						
-56				1	1						
-57				1	1						
-57-FD				1	1						
-64				1	2						
-65				1	1						
-59				1	1						
-60				1	1						
-61				1	1						
-62				1	1						
-63				1	1						
-66				1	1						

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

X ICE CHEST(S): OTHER ____

MODE OF SHIPMENT

X COMMERCIAL CARRIER FedEx

____ COURIER

____ SAMPLER CONVEYED

(SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Mark Stutz X SEALED UNSEALED	4/12/12	1800	SEALED UNSEALED	
RELINQUISHED BY SEALED UNSEALED	DATE	TIME	RECEIVED BY SEALED UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY SEALED UNSEALED	DATE	TIME	RECEIVED BY SEALED UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Sawyers	NS07TZRA00	11-12 / 4 / 2012	2 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 OZ BOTTLE	4 VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER				HB 4/12/12						
5706-67				1	1						
-68				1	1						
-69				1	1						

Chain Relinquished 4/12/12 ASR not complete

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

X ICE CHEST(S): OTHER ____

MODE OF SHIPMENT

X COMMERCIAL CARRIER: FedEx

____ COURIER

____ SAMPLER CONVEYED

____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Mark Rel X SEALED ☐ UNSEALED	4/12/12	1800	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO. 2002-756-917/40055

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Sawyers	NSØ7TZRAØØ	12-14 / 4 / 2012	1 of 4

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 oz BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER				MS 4/23/12						
5706-70				1	1						
-71				1	1						
-72				1	1						
-73				1	1						
-74				1	1						
-75				1	1						
-76				1	1						
-77				1	1						
-78				1	1						
-79				1	1						
-80				1	1						
-81				1	1						
-82				1	1						
-83				1	1						
-84				1	1						
-85				1	1						
-86				1	1						
-87				1	1						
-88				1	1						
-89				1	1						
-90				1	1						
-91				1	1						
-92				1	1						
-93				1	1						

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

X ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

X COMMERCIAL CARRIER: Fed Ex

____ COURIER

____ SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] ☒ SEALED ☐ UNSEALED	4-16-12	1800	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Sawyers	NS07TZRA00	12-14 / 4 / 2012	2 of 4

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 OZ BOTTLE	4 VOA SET (3 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER MB 4/13/12										
5706-94				1	1						
-95				1	1						
-96				1	1						
-97				1	2						Extra volume for MS/MSD
-98				1	1						
-99				1	1						
-100				1	1						
-101				1	1						
-102				1	1						
-103				1	1						
-104				1	1						
-105				1	1						
-106				1	1						
-107				1	1						
-107-FD				1	1						Field Duplicate
-109				1	1						
-110				1	1						
-111				1	1						
-112				1	1						
-113				1	1						
-114				1	1						
-115				1	1						
-116				1	1						
-117				1	1						

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

X ICE CHEST(S). OTHER ____

MODE OF SHIPMENT

X COMMERCIAL CARRIER FedEx

____ COURIER

____ SAMPLER CONVEYED ____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
X SEALED ☐ UNSEALED	4-16-12	800	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	

*U.S. GPO: 2002-756-917/40053

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Sayers	NSQ7TZRA00	12-14 / 4 / 2012	3 of 4

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8oz BOTTLE	4 VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER (NS 4 VOAs)										
5706-118				1	1						
-118-FD				1	1						
-120					1						
-121				1	1						
-121-FD				1	1						
-123				1	1						
-401				1							
-402				1							
-402FD				1							
-404				1							
-124				1	1						
-125				1	1						
-126				1	2						Extra volume for MS/MSD
-127				1	1						
-128				1	1						
-129				1	1						
-129-FD				1	1						
-132				1	1						
-132-FD				1	1						
-134				1	1						
-135				1	2						Extra volume for MS/MSD
-136				1	1						
-137				1	1						
-137-FD				1	1						Field Duplicate

DESCRIPTION OF SHIPMENT

_____ PIECE(S) CONSISTING OF _____ BOX(ES)

X ICE CHEST(S). OTHER _____

MODE OF SHIPMENT

X COMMERCIAL CARRIER FedEx

_____ COURIER

_____ SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] ☒ SEALED ☐ UNSEALED	4-16-12	1800	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Swyers	NSØ7TZRAØØ	12-14 / 4 / 2012	4 of 4

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 OZ BOTTLE	4 VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER				Mc 4/16/12						
5706-145				1	1						
-139				1	1						
-139-FD				1	1						
-141				1	1						
-142				1	1						
-143				1	1						
-144				1	1						
-146				1	1						
-147				1	1						
-148					1		↓				

Mark Rubb 4/16/12
ASK not complete

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

X ICE CHEST(S): OTHER ____

MODE OF SHIPMENT

X COMMERCIAL CARRIER: Fed Ex

____ COURIER

____ SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) ____

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Mark Rubb X SEALED ☐ UNSEALED	4/16/12	1800	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO. 2002-756-917/40053

13

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Sievers	NSJ7TZBADD	11 / 4 / 2012	1 of 3

MS 4/16/12

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 oz BOTTLE	4 VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER MS 4/15/12										
5706-145				1	1	X					
-139				1	1						
-139-FD				1	1						
-141				1	1						
-142				1	1						
-143				1	1						
-144				1	1						
-146				1	1						
-147				1	1						
-148					1						MS 4/16/12
-149				1	1						
-154				1	1						
-155				1	1						
-150				1	1						
-156				1	1						
-157				1	1						
-151				1	1						
-158				1	1						
-152				1	1						
-152-FD				1	1						
-159				1	2						Extra volume for MS/MSD
-160				1	1						
-161				1	1						
-162	X 4/16/12			1	1	SR					

DESCRIPTION OF SHIPMENT ~~ASR Not Complete~~ 4/17/12

____ PIECE(S) CONSISTING OF ____ BOX(ES)

X ICE CHEST(S). OTHER _____

MODE OF SHIPMENT

X COMMERCIAL CARRIER: ~~Fed Ex~~ MS 4/16/12

____ COURIER

X SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED	4/18/12	0920	RDWiggins ☐ SEALED ☐ UNSEALED	Rec'd at Lab
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Sawyers	NS07TZRA00	4 / 4 / 2012	2 of 3

MG 4/16/12

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8oz BOTTLE	4 VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER MG 4/15/12										
5706-163				1			X				
-164				1							
-165				1	1						
-166				1	1						
-167				1	1						
-168				1	1						
-169				1	1						
-170				1	1						
-171				1	1						
-162				1	1						
-172				1	1						
-173				1	1						
-174				1	1						
-174-FD				1	1						
-176				1	1						
-177				1	2						Extra volume for MS/MSD
-178				1	1						
-179				1	1						
-180				1	1						
-180-FD				1	1						Field Duplicate
-182				1	1						
-183				1	1						
-184				1	1						
-185				1	1						

DESCRIPTION OF SHIPMENT

___ PIECE(S) CONSISTING OF ___ BOX(ES)

X ICE CHEST(S); OTHER ___

MODE OF SHIPMENT

X COMMERCIAL CARRIER MG 4/16/12

___ COURIER

X SAMPLER CONVEYED

(SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☒ UNSEALED	4/18/12	0920	RD Wiggans ☐ SEALED ☐ UNSEALED	Rec'd at lab
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

*U.S. GPO: 2002-756-917/400

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Nancy Swyers	NS07TZRA04	15-16 / 4 / 2012	3 of 3

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	8 OZ BOTTLE	4 VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER				NG-4/16/12						
5706-186				1	1						
-187				1	1						
-188				1	1						
-189				1	1						
-190				1	1						
-190-FD				1	1		↓				

Mark Rec'd 4/16/12 ADR Complete

DESCRIPTION OF SHIPMENT

___ PIECE(S) CONSISTING OF ___ BOX(ES)

X ICE CHEST(S); OTHER ___

MODE OF SHIPMENT

___ COMMERCIAL CARRIER: ___

___ COURIER

X SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) ___

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
SEALED / UNSEALED X	4/18/12	0920	R D Wiggam SEALED / UNSEALED	Rec'd at lab
RELINQUISHED BY: SEALED / UNSEALED	DATE	TIME	RECEIVED BY: SEALED / UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY: SEALED / UNSEALED	DATE	TIME	RECEIVED BY: SEALED / UNSEALED	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

*U.S. GPO: 2002-756-917/40053

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 1 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-1-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB01: 5-6'

External Sample Number: SB01-05

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/9/12	16:40
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 2 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-2-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: ~~SB01-10:10~~ SB01:10-12ft bgs
4/10/12

External Sample Number: SB01-10

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/9/12	16:55
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~3~~ 2 4/10/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~3~~ 2 -__ 4/10/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: Duplicate of 5706-2

External Sample Number: Duplicate of 5706-2

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/9/12	16:55
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
~~1 - 8 oz glass~~	~~4 Deg C~~	~~14 Days~~	~~1 Semi-Volatile Organic Compounds in Soil~~ 4/10/12

Sample Comments:

(N/A)

Duplicate of 5706-2

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 4 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-4-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB01: 23-24 ft bgs

External Sample Number: SB01-23

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/9/12 17:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 5 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-5-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB01: 25-26

External Sample Number: SB01-25

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/9/12 17:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 6 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-6-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB06: 5-6 Ft bgs

External Sample Number: SB06-05

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 0755

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 7 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-7-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB06; 15-16 ft BGS

External Sample Number: SB06-15

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 08:12

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 8 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-8-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB06: 23-24 ft bgs

External Sample Number: SB06-23

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 0845

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 9 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-9-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB06: 27-28 ft bgs

External Sample Number: SB06-27

Expected Conc: (or Circle One: Low (Medium) High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/10/12	08:57
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 10 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-10-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB07-15-16

External Sample Number: SB07-15

Expected Conc: (or Circle One: Low Medium High (Unk)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 14:05

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A) Extra Volume for ms/msD

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 11 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-11-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB02: 1-2'

External Sample Number: SB02-1

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 09:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's In Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 12 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-12-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB02 : 10 - 11'

External Sample Number: SB02 - 10

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 09:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 13 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-13-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB02: 20-22 ft bgs

External Sample Number: _____

Expected Conc: (or Circle One: Low (Medium) High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/10/12	10:05
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~14~~ 13 4/11/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~14~~ 13 4/11/12-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB02: 20-22 ft bgs

External Sample Number: Duplicate of 5706-13

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 10:05
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A) Duplicate of 5706-13

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 15 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-15-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB02 : 25 - 26'

External Sample Number: SB02 - 25

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 10:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 16 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-16-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB05 : 0.5 - 1.5'

External Sample Number: SB05 - 0

Expected Conc: (or Circle One: Low Medium (High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 10:27

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 17 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-17-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB05-10-11'

External Sample Number: SB05-10

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 10:55
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 18 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-18-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB05-17-18'

External Sample Number: SB05-17

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 11:22

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 19 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-19-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB05 - 20 - 22'

External Sample Number: SB05 - 20

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 11:38

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~20~~ 19 ME 4/10/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~20~~ 2 -__ ME 4/10/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: Duplicate of 5706-19

External Sample Number: Duplicate of 5706-19

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/10/12	11:38
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 21 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-21-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB05-27-28'

External Sample Number: SB05-27

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 11:55

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 22 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-22-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB07:0.5 - 1.5'

External Sample Number: SB07 - 0

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 13:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 23 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-23-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB07 : 8 - 9'

External Sample Number: SB07 - 8

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 13:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 24 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-24-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB07: 20 - 21'

External Sample Number: SB07-20

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 15:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

	Container	Preservative	Holding Time	Analysis
3	4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
	1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Vial #5 broken from 4 VOA set

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 25 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-25-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB07 : 27 - 28'

External Sample Number: SB07-27

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/10/12	15:20
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~26~~ 25 MC 4/10/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~26~~ 25 MC 4/10/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: Duplicate of 5706-25

External Sample Number: Duplicate of 5706-25

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/10/12	15:20
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 27 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-27-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB08: 5-6'

External Sample Number: SB08-5

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 15:38

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 28 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-28-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB08: 10 - 12'

External Sample Number: SB08-10

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 15:47

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 29 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-29-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB08: 16 - 17'

External Sample Number: SB08 -16

Expected Conc: (or Circle One) Low Medium High **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 15:57

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 30 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-30-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SBΦ8 : 23 - 24'

External Sample Number: SBΦ8 - 23

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 16:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 31 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-31-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB08 : 26 - 27'

External Sample Number: SB08 - 26

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 16:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 32 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-32-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB09: 5-6'

External Sample Number: SB09-5

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/10/12	16:40
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 33 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-33-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB09 : 10 - 11'

External Sample Number: SB09 - 10

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 16:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 34 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-34-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB09: 18 - 20'

External Sample Number: SB09 - 18

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 17:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
12 4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Extra volume for MS/MSD

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 35 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-35-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB09 : 22 - 24'

External Sample Number: SB09 - 22

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 17:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 36 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-36-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB09: 26 - 27'

External Sample Number: SB09-26

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 17:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 37 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-37-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB10: 10-11'

External Sample Number: SB10-10

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/11/12	08:00
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 38 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-38-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB10: 22 - 24'

External Sample Number: SB10 - 22

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/11/12	08:22
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~39~~ 38 NG 4/11/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~39~~ 38 NG 4/11/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: Field Duplicate of 5706-38

External Sample Number: Duplicate of 5706-38

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/11/12	08:22
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 40 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-40-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB11: 5-6'

External Sample Number: SB11-5

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/11/12	09:37
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 41 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-41-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB11 : 16 - 17'

External Sample Number: SB11 - 16

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/11/12	10:03
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 42 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-42-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB11 : 27 - 28'

External Sample Number: SB11 - 27

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/11/12 10:35

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 43 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-43-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB11: 22 - 23

External Sample Number: SB11 - 22

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/11/12 10:22

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 44 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-44-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB15: 0-1'

External Sample Number: SB15-0

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/11/12	15:05
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 45 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-45-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB15: 5-6'

External Sample Number: SB15 - 5

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/11/12 15:08

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 46 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-46-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB15: 10-11'

External Sample Number: SB15-10

Expected Conc: (or Circle One: Low Medium (High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/11/12	15:15
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C; H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's In Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 47 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-47-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB15: 17-18'

External Sample Number: SB15-17

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/11/12 15:33

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 48 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-48-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB15 : ~~21 — 22'~~ MD 4/13/12 27 - 28'

External Sample Number: SB15 - 27

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/11/12 15:53
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 49 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-49-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB06:1-2'

External Sample Number: SB06-1

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 07:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 50 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-50-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB05: 14-15'

External Sample Number: SB05-14

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 11:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 51 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-51-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB07 : 4-5'

External Sample Number: SB07-4

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 13:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
~~1 - 8 oz glass~~	~~4 Deg C~~	~~14 Days~~	~~1 Semi-Volatile Organic Compounds in Soil~~ MG 4/12/12

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 52 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-52-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB08 : 1-2'

External Sample Number: SB08-1

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 15:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 53 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-53-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB11: 0-1'

External Sample Number: SB11-0

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/10/12 09:27

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 54 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-54-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: ~~SB18 : SB1 MS 4/12/12 18 - 19' MS 4/12/12~~ SBD1 : 18 - 19'

External Sample Number: SB18 - 18

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/9/12 17:25

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 55 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-55-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB15: 21 - 22'

External Sample Number: SB15-21

Expected Conc: (or Circle One: Low (Medium) High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/11/12	15:43
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 56 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-56-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB16: 5-6'

External Sample Number: SB16-5

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 07:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 57 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-57-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB16: 10-11'

External Sample Number: SB16-10

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 08:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~58~~ 57 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~58~~ 57-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: Duplicate of 5706-57

External Sample Number: Duplicate of 5706-57

Expected Conc: (or Circle One: Low (Medium) High)

	Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:** 4/12/12	08:00
Longitude: ___ ___ ___	**End:** __/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 59 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-59-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB16: 15-16'

External Sample Number: SB16-15

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 08:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 60 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-60-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB16 : 20 - 21'

External Sample Number: SB16 - 20

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 08:22

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 61 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-61-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB17: 0-1'

External Sample Number: SB17-0

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 08:37

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 62 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-62-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB17 : 5 - 6'

External Sample Number: SB17-5

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 08:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 63 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-63-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB17 : 10 - 11'

External Sample Number: SB17 - 10

Expected Conc: (or Circle One: Low ~~Medium~~ High) MS 4/12/12

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/12/12	09:05
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 64 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-64-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB18: 0-1 ft bgs

External Sample Number: SB18-0

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 09:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
8 cx 4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A) Extra Volume for MS/MSD

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 65 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-65-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB18: 6-7 ft bgs

External Sample Number: SB18-06

Expected Conc: (or Circle One: Low (Medium) High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/12/12	09:55
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 66 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-66-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB17: 14-15'

External Sample Number: SB17-14

Expected Conc: (or Circle One: Low Medium (High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/12/12	09:10 HG 4/12/12
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 67 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-67-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB17: 17 - 18'

External Sample Number: SB17-17

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 09:18

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 68 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-68-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB17: 20 - 21'

External Sample Number: SB17-20

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 09:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 69 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-69-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB17 : 25 - 26'

External Sample Number: SB17-25

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 09:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's In Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds In Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 70 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-70-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB18:10-11'

External Sample Number: SB18-10

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 10:07

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 71 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-71-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB18: 19-20'

External Sample Number: SB18-19

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 10:36

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 72 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-72-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB18 : 20 - 21'

External Sample Number: SB18-20

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 10:55

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 73 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-73-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB18: 27 -28'

External Sample Number: SB18-27

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 11:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 74 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-74-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB19: 5-6'

External Sample Number: SB19-5

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 11:16

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 75 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-75-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB19: 15-16'

External Sample Number: SB19-15

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 11:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 76 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-76-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB19: 20 - 21'

External Sample Number: SB19-20

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 11:55

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 77 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-77-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB19:25-26'

External Sample Number: SB19-25

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 12:03

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 78 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-78-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB20: 5-6'

External Sample Number: SB20-S

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 13:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 79 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-79-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB20: 16 - 17'

External Sample Number: SB20 -16

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 13:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 80 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-80-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB20 : 25-26'

External Sample Number: SB20-25

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 14:05

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 81 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-81-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB21:0-1'

External Sample Number: SB21-0

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 14:25

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 82 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-82-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB21: 10-11'

External Sample Number: SB21-10

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 14:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 83 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-83-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB21:16-17'

External Sample Number: SB21-16

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 15:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 84 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-84-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB21: 20 - 21'

External Sample Number: SB21 - 20

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 15:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 85 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-85-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB21: 25-26'

External Sample Number: SB21-25

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 15:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 86 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-86-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB16 : 27 - 28'

External Sample Number: SB16-27

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 15:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 87 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-87-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB22:0-1

External Sample Number: SB22-0

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 07:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 88 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-88-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB22: 11 - 12'

External Sample Number: SB22 - 11

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 08:05

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 89 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-89-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB22: 16-17'

External Sample Number: SB22-16

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 08:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 90 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-90-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB22: 23-24'

External Sample Number: SB22-23

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 08:35

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 91 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-91-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB23:5-6'

External Sample Number: SB 23-5

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 09:12

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's In Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 92 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-92-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB23:9-10'

External Sample Number: SB23-9

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 09:22

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 93 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-93-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB23: 16 - 17'

External Sample Number: SB23-16

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 09:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 94 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-94-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB23: 26 - 27'

External Sample Number: SB23-26

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 10:05

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 95 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-95-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB23: 23-24'

External Sample Number: SB23-23

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 10:03
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 96 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-96-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB17: 29-30'

External Sample Number: SB17-29

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 08:55

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Seml-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 97 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-97-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB24: 0-2'

External Sample Number: SB24-0

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 10:25
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
8 4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
MS 4/13 1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

* Extra volume for MS/MSD *

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 98 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-98-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB24: 9 - 10'

External Sample Number: SB24-9

Expected Conc: (or Circle One: Low (Medium) High)

Latitude: ___ ___ ___

Longitude: ___ ___ ___

		Date	Time(24 hr)
Sample Collection:	**Start:**	4/13/12	10:50 ~~11:05~~ MB 4/13/12
	End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 99 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-99-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB24:16-17'

External Sample Number: SB24-16

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 11:05
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 100 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-100-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB24: 20-21'

External Sample Number: SB24-20

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/13/12	11:10
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 101 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-101-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB24 : 26 - 27'

External Sample Number: SB24-26

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/13/12	11 : 15
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 102 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-102-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB19: 10 - 11'

External Sample Number: SB19-10

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 11:18

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 103 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-103-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB22: 5-6'

External Sample Number: SB22-5

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/12 07:57

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 104 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-104-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB22: 26-27'

External Sample Number: SB22-26

Expected Conc: (or Circle One: Low (Medium) High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/12/12	08:40
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 105 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-105-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB25: 13 - 14'

External Sample Number: SB25 - 13

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 11:47

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 106 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-106-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB25: 16-17'

External Sample Number: SB25-16

Expected Conc: (or Circle One: Low (Medium) High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/13/12	11:57
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 107 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-107-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB25 : 20 - 22'

External Sample Number: SB25 - 20

Expected Conc: (or Circle One: Low Medium (High))

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/13/12	12:06
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~108~~ 107 MB 4/13/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~108~~ 107 MB 4/13/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB25: 20-22'

External Sample Number: Duplicate of 5706-107

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 12:06

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Duplicate of 5706 - 107

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 109 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-109-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB26:5-6'

External Sample Number: SB26-5

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 13:35

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 110 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-110-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB26: 12-13'

External Sample Number: SB26-12

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 13:55

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 111 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-111-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB26: 23 - 24'

External Sample Number: SB26 - 23

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 14:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 112 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-112-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB27:1-2'

External Sample Number: SB27-1

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 14:38

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 113 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-113-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB27: 7-8'

External Sample Number: SB27-7

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/13/12	14:45
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 114 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-114-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB27:10-11'

External Sample Number: SB27-10

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

		Date	Time(24 hr)
Sample Collection:	**Start:**	4/13/12	14:52
	End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 115 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-115-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB27: 17 - 18'

External Sample Number: SB27-17

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 15:05

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 116 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-116-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB27: 26-27'

External Sample Number: SB27-26

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 15:22

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 117 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-117-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB28: 0-1'

External Sample Number: SB28-0

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/14/12	07:47
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 118 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-118-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB28 : 8 - 10'

External Sample Number: SB28 - 8

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 08:03

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
~~1 - 8 oz glass~~	~~4 Deg C~~	~~14 Days~~	~~1 Semi-Volatile Organic Compounds in Soil~~ MG 4/14/12
1 8oz glass	4 Deg C	14 Days	1 Semi Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

~~VOCs only, insufficient sample volume for 1,4-Dioxane~~ MG 4/14/12

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~119~~ 118 NB 4/14/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~119~~ 118 NB 4/14/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB28 : 8-10'

External Sample Number: Duplicate of 5706-118

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 08:03

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 120 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-120-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB28:12-12.3'

External Sample Number: SB28-12

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 08:18
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
~~1 - 8 oz glass~~	~~4 Deg C~~	~~14 Days~~	~~1 Semi-Volatile Organic Compounds in Soil~~ NG 4/14/12

Sample Comments:

(N/A)

VOCs only; insufficient sample volume for 1,4-Dioxane

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 121 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-121-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB28:16-18'

External Sample Number: SB28-16

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 08:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~122~~ 121 MS 4/14/12 **QC Code:** ~~FD~~ **Matrix:** Solid **Tag ID:** 5706-~~122~~ 121 MS 4/14/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB28: 16-18'

External Sample Number: Duplicate of 5706-121

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 08:20
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Duplicate of 5706-121

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 123 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-123-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB28 : 20 - 21'

External Sample Number: SB28 - 20

Expected Conc: (or Circle One: Low (Medium) High)

	Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:** 4/14/12	08:25
Longitude: ___ ___ ___	**End:** __/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 124 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-124-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB28:25-26'

External Sample Number: SB28-25

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/14/12	08:47
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 125 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-125-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB29:Φ-1'

External Sample Number: SB29-Φ

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/14/12	09:00
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 126 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-126-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB29:5-6'

External Sample Number: SB29-5

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 09:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
8 HE 4/14/12 4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Extra volume for MS/MSD

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 127 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-127-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB29 : 10 - 11'

External Sample Number: SB29 - 10

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 09:22
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 128 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-128-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB29: 16 - 17'

External Sample Number: SB29 - 16

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 09:37

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 129 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-129-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB29 : 26 - 28'

External Sample Number: SB29-26

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 10:03

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~130~~ 129 MG 4/14/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~130~~ 129 MG 4/14/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB29: 26 - 28'

External Sample Number: ~~SB29~~ MG 4/14/12 Duplicate of 5706-129

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/14/12	10:03
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Duplicate of ~~56~~ MG 4/14/12 5706-129

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 132 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-132-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB29: 20-22 Ft bgs

External Sample Number: SB29-20

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 11/14/12 09:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds In Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~133~~ 132 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~133~~ 132-__

4/14 4/14

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB29: 20-22 ft bgs

External Sample Number: SDuplicate of 5706-13

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** __/__/__ __:__

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A) Field Duplicate

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 134 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-134-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB30: 10-11 ft bgs

External Sample Number: SB30-10

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 11/14/12 10:38

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 135 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-135-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB30:5-7'

External Sample Number: SB30-5

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 10:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 136 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-136-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB30 : 18 – 19'

External Sample Number: SB30-18

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 11:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 137 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-137-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB30: 21 - 23'

External Sample Number: SB30-21

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 11:18

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~138~~ 137 thru 146 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~138~~ 137

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB30: 21 - 23'

External Sample Number: Duplicate of 5706-137

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 11:18
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 139 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-139-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB31: 4 - 6'

External Sample Number: SB31-4

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 11:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~140~~ 139 MB 4/15/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~140~~ 139 MB 4/15/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB31 : 4 - 6'

External Sample Number: ~~SB31 4 MB 4/15/12~~ Duplicate of 5706-139

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/4/12 11:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 141 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-141-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB31: 14 – 16'

External Sample Number: SB31-14

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/14/12	12:10
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 142 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-142-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB31: 27 - 28'

External Sample Number: SB31-27

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/14/12	12:18
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 143 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-143-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB32: 8-9'

External Sample Number: SB32-8

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 12:53

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 144 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-144-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB32:17-18'

External Sample Number: SB32-17

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 13:06

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 145 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-145-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB30: 26-27' bgs

External Sample Number: SB30-26

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 11/14/12 1120

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 146 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-146-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB32 : 22 - 23'

External Sample Number: SB32 - 22

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/14/12	13:15
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 147 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-147-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB32: 25 - 26'

External Sample Number: SB32 - 25

Expected Conc: (or Circle One: (Low) Medium High)

	Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:** 4/14/12	13:22
Longitude: ___ ___ ___	**End:** __/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 148 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-148-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB24:6-7'

External Sample Number: SB24-6

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/12 10:33

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
~~1 - 8 oz glass~~	~~4 Deg C~~	14 Days	~~1 Semi-Volatile Organic Compounds in Soil~~ NG 4/15/12

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 149 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-149-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB33 : 13 - 14

External Sample Number: SB33-13

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4 /15/12 07:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 150 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-150-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB33: 17-18'

External Sample Number: SB33-17

Expected Conc: (or Circle One) Low Medium High **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 08:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds In Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 151 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-151-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB33 : 25 - 26'

External Sample Number: SB33 - 25

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 08:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 152 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-152-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB34:- 17 - 18'

External Sample Number: SB34 - 17

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 08:37

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~153~~ 152 MG 4/13/12 **QC Code:** ~~ED~~ **Matrix:** Solid **Tag ID:** 5706-~~153~~ 152 MG 4/15/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB34: 17 - 18'

External Sample Number: ~~SB34-17~~ Duplicate of 5706-152 MG 4/15/12

Expected Conc: (or Circle One: Low (Medium) High)

	Date	Time(24 hr)
Latitude: ___ ___ ___ **Sample Collection: Start:**	4/15/12	08:37
Longitude: ___ ___ ___ **End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 154 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-154-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB35:25-26ft bgs

External Sample Number: SB35-25

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 09:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 155 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-155-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB35:21-22 ft

External Sample Number: SB35-21

Expected Conc: (or Circle One: ~~Low~~ Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 09:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 156 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-156-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB35:17-19 ft bgs

External Sample Number: SB35-17

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 09:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 157 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-157-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB34:24-25

External Sample Number: SB34-24

Expected Conc: (or Circle One: Low (Medium) High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/15/12	09:00
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 158 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-158-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB34-20-21 ft bgs

External Sample Number: SB34-20

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 08:55

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 159 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-159-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB33: 20 - 22'

External Sample Number: SB33-20

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 08:08

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

	Container	Preservative	Holding Time	Analysis
8	4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
	1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

* Extra volume for MS/MSD

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 160 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-160-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB36: 14-15'

External Sample Number: SB36-14

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 10:35

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 161 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-161-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB36: 22 - 23'

External Sample Number: SB36-22

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 10:52

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 162 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-162-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB36: 25-26'

External Sample Number: SB36-25

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 11:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 163 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-163-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB38 : 19 - 20'

External Sample Number: SB38-19

Expected Conc: (or Circle One: Low Medium High (Unk)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 12:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
~~4 - 40ml VOA vials (soil VOA 5035)~~ MG 4/15/12	~~4 Deg C, H2O + sodium bisulfate (in 2 vials)~~ MG 4/15/12	~~14 Days~~ MG 4/15/12	~~1 VOC's in Soil at Low Levels by GC/MS Closed System Purge-and-Trap~~ MG 4/15/12
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 164 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-164-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB37: 19 - 20'

External Sample Number: SB37-19

Expected Conc: (or Circle One: Low Medium High (Unk)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 11:63
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
~~4 - 40mL VOA vials (soil VOA 5035)~~	~~4 Deg C, H2O + sodium bisulfate (in 2 vials)~~	~~14 Days~~	~~1 VOC's in Soil at Low Levels by GC/MS Closed System Purge and Trap~~ MG 4/15/12 MG 4/15
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 165 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-165-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB39 : 0 - 1'

External Sample Number: SB39 - 0

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 13:18

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 166 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-166-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB39 : 6 - 7'

External Sample Number: SB39 - 6

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 13:32

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 167 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-167-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB39 : 10 - 11'

External Sample Number: SB39 - 10

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 13:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 168 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-168-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB39:16-17'

External Sample Number: SB39-16

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 14:08

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 169 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-169-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB39: 20-21'

External Sample Number: SB39-20

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/15/12	14:18
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 170 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-170-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB39: 26 - 27'

External Sample Number: SB39 - 26

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 14:25

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 171 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-171-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB40:5-6'

External Sample Number: SB40-5

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 14:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 172 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-172-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB40: 10-11'

External Sample Number: SB40-10

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 14:55

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 173 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-173-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB40 : 16 - 17'

External Sample Number: SB40 -16

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 15:07

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 174 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-174-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB40 : 25 - 27'

External Sample Number: SB40 - 25

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/15/12 15:22

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~175~~ 174 (MB 4/16/12) **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~175~~ 174 (MB 4/16/12)

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB44: 25-27'

External Sample Number: Duplicate of 5706-174

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/15/12	15:22
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 176 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-176-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB40: 0-1 ft bgs

External Sample Number: SB40-0

Expected Conc: (or Circle One: (Low) Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/15/12	14:35
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 177 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-177-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB03:0-2

External Sample Number: SB03-0

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 07:27

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

* Extra volume for MS/MSD

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 178 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-178-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB03: 6-7'

External Sample Number: SB03-6

Expected Conc: (or Circle One: Low (Medium) High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/16/12	07:40
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 179 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-179-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB03: 9-10'

External Sample Number: SB03-9

Expected Conc: (or Circle One: Low (Medium) High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/16/12	07:55
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 180 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-180-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB03-17-18'

External Sample Number: SB03-17

Expected Conc: (or Circle One: Low Medium (High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/16/12	08:05 ~~08:40~~ NO 4/16/12
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~181~~ 180 MG 4/16/12 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~181~~ 180 MG 4/16/12

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB03: 17 -18'

External Sample Number: Duplicate of 5706-180

Expected Conc: (or Circle One: Low Medium (High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/16/12	08:05 ~~08:10~~ MG 4/16/12
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 182 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-182-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB03: 22-23

External Sample Number: SB03-22

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 08:22

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 183 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-183-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB03: 24-25'

External Sample Number: SB03-24

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 08:32

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 184 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-184-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB01:31-32

External Sample Number: SB01-31

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 08:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 185 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-185-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB04: 0-1'

External Sample Number: SB04-0

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 09:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 186 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-186-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB04: 5-6'

External Sample Number: SB04-5

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 09:12

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 187 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-187-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB04: 10-11'

External Sample Number: SB04-10

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 09:22

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 188 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-188-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB04: 17-18'

External Sample Number: SB04-17

Expected Conc: (or Circle One: Low Medium (High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	4/16/12	09:35
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 189 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-189-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB04:23-24'

External Sample Number: SB04-23

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 09:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 190 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-190-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB04: 24 - 26'

External Sample Number: SB04-24

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 09:57

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~191~~ 190 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~191~~ 190

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: SB04 : 24-26'

External Sample Number: Duplicate of 5706-190

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/16/12 09:57

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 401 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-401-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: PCBs only SB31: 10-12 Ft bgs

External Sample Number: SB31-10

Expected Conc: (or Circle One: Low Medium High (Unk)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 11:55

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 402 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-402-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: PCBs only SB31: 4 to 6 Ft bgs

External Sample Number: SB31-4

Expected Conc: (or Circle One: Low Medium High (unk)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/4/12 11:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** ~~403~~ 402 **QC Code:** FD **Matrix:** Solid **Tag ID:** 5706-~~403~~ 402-__

4/9/14 4/9/14

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: PCBs only SB31: 4-6 ft bgs

External Sample Number: Duplicate of 5706-402

Expected Conc: (or Circle One: Low Medium High (Unk)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/14 11:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC

Sample Comments:

(N/A)

Sample Collected By: HGL

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5706 **Sample Number:** 404 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5706-404-__

Project ID: NS07TZRA00 **Project Manager:** Nancy Swyers
Project Desc: General Motors S.C. - Response Action Monitoring
City: Sioux City **State:** Iowa
Program: Superfund
Site Name: GENERAL MOTORS S.C. - SITE EVALUATION/DISPOSITION **Site ID:** 07TZ **Site OU:** 00

Location Desc: PCBs only SB31: 0-1 ft bgs

External Sample Number: SB31-0

Expected Conc: (or Circle One: Low Medium High (Unk)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/14/12 11:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC

Sample Comments:

(N/A) Beneath ashphalt

Sample Collected By: HGL