

**Apollo Technologies, Inc.
1850 South Cobb Industrial Boulevard SE
Smyrna, GA 30082**

**Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc.
HSI No. 10333**

March 4, 2014

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QUALIFIED GROUNDWATER SCIENTIST CERTIFICATION

I certify that I am qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields as demonstrated by state registration and completion of accredited university courses that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction.



Maureen T. Hoke, P.E.
Vice President



Date: 3/4/2014
Registration No.: 32501
State: Georgia

1. INTRODUCTION

This Voluntary Investigation and Remediation Plan (VIRP) is being submitted to the Georgia Department of Natural Resources, Environmental Protection Division (EPD) on behalf of Apollo Technologies, Inc. (Apollo) to enroll the Apollo facility located in Smyrna, Georgia, in EPD's Voluntary Remediation Program (VRP). The facility is listed as Site No. 10333 on the Georgia Hazardous Site Inventory (HSI), and is currently undergoing corrective action under the Georgia Hazardous Site Response Act (HSRA). A VRP Application and Checklist are included in Appendix A.

1.1. SITE LOCATION AND DESCRIPTION

Apollo's Smyrna facility (The site) consists of six parcels located at the intersection of South Cobb Industrial Boulevard and Martin Court in Smyrna, Georgia. The following addresses are associated with the site/parcels: 1834, 1840, 1850, and 1860 South Cobb Industrial Boulevard, and 4830 Martin Court. The approximate location and general layout of the site are depicted on Figures 1 and 2, respectively. The site is owned by the Callas Family Partnership, L.P. (1850 South Cobb Industrial Boulevard) and AMC Ventures, Inc. (remaining addresses/parcels). A legal description and plat map for the site are included in Appendix B.

2. BACKGROUND

Apollo has operated on the site as a contract formulator and packager of aerosol products since the late 1970s. Apollo acquired the 1850 South Cobb Industrial Boulevard parcel in the late 1970s, and constructed an approximately 20,000 square foot (ft²) production facility. The production facility was expanded to approximately 40,000 ft² in the mid 1980s. In the late 1990s, Apollo acquired the 4830 Martin Court parcel and constructed a warehouse near a pre-existing office building. Together, the pre-existing office building and the warehouse measure approximately 60,000 ft². The remaining parcels have been acquired by Apollo since the late 1990s. An equipment storage building, employee break building, and sales office/warehouse building occupy the 1834, 1840, and 1860 South Cobb Industrial Boulevard parcels, respectively.

A tank farm, used for storage of large quantities of production chemicals, is located adjacent to the production facility. Bulk liquid chemicals are delivered directly to the tank farm from tanker trucks. Smaller quantities of production chemicals are stored in containers of various sizes (totes, drums, etc.) in either the production facility or in the warehouse building.

During production, process chemicals are delivered from the tank farm and/or small quantity containers to a batch mixing room located in the production facility, via a permanent piping system. Once the mixing process has been completed, process chemicals are delivered to the various production lines throughout the production facility utilizing a combination of temporary and permanent piping. Once production is complete, finished products are stocked in the warehouse prior to being shipped offsite for distribution.

As a result of historic operation of the production facility, incidental drips and spills of raw materials may have resulted in an impact to soil and groundwater on, and immediately down-gradient of the site. The original discovery of constituents of concern (COCs) on the site occurred after facility inspections conducted in June and July 1992 by the EPD's Municipal Permitting Program (MPP) and Cobb County representatives. During these inspections, water samples reportedly containing methylene chloride and chlorinated ethane constituents were collected, and hexane was noted to be leaking from a tank and was observed on water surfaces, in the vicinity of the tank farm secondary containment.

The facility was listed on the HSI in 1994 (Site No. 10333) as a result of environmental assessment activities conducted between 1992 and 1994. Investigation and corrective action activities have been ongoing at the site since the initial investigation conducted in 1992, and are discussed in Section 3.0, below.

3. SUMMARY OF PREVIOUS INVESTIGATIONS AND CORRECTIVE ACTIONS

Apollo has engaged various consultants to address onsite soil and groundwater impacts since the original discovery of COCs on the site in 1992. Due to the number of submittals and the duration of assessment and corrective action activities, the following chronological summary provides an overview of the assessment and corrective action activities conducted to date.

- June and July 1992 - Two inspections were conducted by EPD's MPP and Cobb County representatives. During these inspections water samples that had an "organic" odor were collected from a storm drain feature and from an area outside the tank farm's secondary containment structure. The water samples collected reportedly contained methylene chloride and chlorinated ethane constituents.
- July 1992 - EPD's MPP and Cobb County representatives returned to the site and conducted a third inspection. During this inspection, hexane was observed leaking from an above ground storage tank, as well as within and outside the tank farm's secondary containment structure.
- September 1992 - EPD issued a Consent Order requiring that items noted during the June/July 1992 inspections be addressed, to Apollo.
- December 1992 - EPD issued an Administrative Order resulting from the June/July 1992 inspections.
- February 1993 - EPD's MPP returned to the site and collected seven soil samples and ten surface water samples.
- March 1994 - Law Engineering and Environmental Services (LAW) conducted an investigation that included the installation of one groundwater monitoring well (MW-1) and six soil borings. Four of the six soil samples and the one groundwater sample collected contained volatile organic compounds (VOCs) in excess of the laboratory detection limits.
- May/June 1995 - Dobbs Environmental, Inc. (Dobbs) installed two groundwater monitoring wells (MW-2 and MW-3). Monitoring wells MW-1, MW-2, and MW-3 were used to evaluate groundwater flow direction at the site. Based on the estimated flow direction, Dobbs installed two groundwater recovery wells (RW-1 and RW-2) down gradient (south) of the tank farm and storm water catch basin.
- 1995 - Following the installation of groundwater recovery wells RW-1 and RW-2, Dobbs initiated corrective action, consisting of groundwater recovery and treatment using groundwater recovery wells RW-1, RW-2, and groundwater monitoring well MW-3. Groundwater recovery and treatment is currently ongoing. Treatment consists of air stripping for VOC removal, followed by discharge to the Cobb County sewer system. Emissions from the air stripper are treated by vapor phase carbon prior to discharge to the atmosphere.
- October 1997 - Dobbs installed bedrock groundwater monitoring well (DW-1) in the bedrock, between groundwater recovery wells RW-1 and RW-2.
- 1998 - Corrective action, consisting of soil vapor extraction (SVE), was initiated using six extraction wells in the tank farm area. Corrective action utilizing the SVE system is currently ongoing. Recovered vapors are routed through a carbon filter prior to atmospheric discharge.
- September 2004 - Groundwater monitoring well MW-4 was installed on the site, east of groundwater recovery well RW-1.
- 2005 - The groundwater recovery system was expanded to include bedrock groundwater monitoring well DW-1.
- September 2006 - Three groundwater monitoring wells (MW-5, MW-6, and MW-7) were installed to further characterize the groundwater plume. MW-5 was installed on the site east of MW-4. MW-6 was installed off site on the adjacent property to the south. MW-7 was installed on the site west-southwest of RW-2.
- May 2008 - EPD performed an inspection and identified three Areas of Concern (AOC): the former truck unloading area (FTUA), former container storage area (FCSA), and closed batch room sump (CBRS). Subsequently, EPD issued Administrative Order EPD-HW-1760, dated July 6, 2010, which included requirements to investigate the soils in each AOC.

- March 2010 - The groundwater recovery system was expanded to include groundwater monitoring well MW-4.
- 2011 - Two additional groundwater monitoring wells (MW-8 and MW-9) were installed to further characterize the groundwater plume. MW-8 was installed west of MW-7 and MW-9 was installed down gradient (south) of MW-5.
- June 2011 – Peachtree Environmental, Inc. (Peachtree) completed a soil investigation of the FTUA and FCSA that were previously identified as AOCs by EPD. A total of twenty-one soil samples were collected from eight soil borings. The results of the soil investigation were submitted to EPD in a Site Assessment Activities Summary Report, dated September 2011. Due to access limitations, the CBRS was not investigated.
- September and October 2012 - AMEC Environment & Infrastructure, Inc. (AMEC) installed five groundwater monitoring wells (MW-10, MW-11, MW-12, MW-13, and MW-15) during a Phase II Environmental Site Assessment (ESA). Groundwater monitoring wells MW-10, MW-11, and MW-12 were installed to characterize the western edge of the groundwater plume. MW-13 was installed to characterize the groundwater plume down gradient (south) of MW-7. MW-14 was proposed on an offsite location and was not installed. MW-15 was installed to characterize the groundwater plume along the southern property boundary north of MW-6. Additionally, seventy-nine soil samples were collected from twenty-seven soil borings to characterize the extent of impacted soil on the site.
- March 2013 – O'Brien & Gere Engineers, Inc. (O'Brien & Gere) completed a soil investigation in the CBRS. A total of seven soil samples were collected from eleven soil borings. The results of the soil investigation were summarized in a May 8, 2013, letter report.
- June 2013 – A Consolidated Site Assessment/Closure Report (CSACR) was prepared by O'Brien & Gere and submitted to EDP on Apollo's behalf in response to Administrative Order EPD-HW-1760. The CSACR consolidated and summarized previously completed soil investigations conducted by Peachtree, AMEC, and O'Brien & Gere in the FTUA, FCSA, and CBRS.
- October 2013 – EPD issued a comment letter, dated October 2, 2013, in response to the CSACR. On October 25, 2013, O'Brien & Gere completed an additional investigation, which consisted of collecting ten soil samples from three soil borings. The results of this investigation were summarized in a CSACR Amendment, dated November 15, 2013.
- December 2013 – EPD issued a letter withdrawing Administrative Order EPD-HW-1760.

4. RESULTS OF PREVIOUS INVESTIGATIONS

The following sections detail the known extent of contamination at the site based on the analytical results from the various investigations conducted to access soil, groundwater, and surface water at the site.

4.1. SOIL

As described above in Section 3.0, the results of soil investigations conducted by Peachtree, AMEC, and O'Brien & Gere were consolidated and submitted to EPD in the CSACR, dated June 2013, and subsequent Amendment to this report, dated November 15, 2013. The results of soil sampling are summarized on Table 1 and depicted on Figures 3 through 6.

A total of 123 soil samples have been collected from fifty-two soil borings during investigations conducted since 2011. Based on a review of the consolidated data from these investigations, the extent of soil impact has been delineated within the site boundary. Additionally, as depicted on Figures 3 and 6, the extent of soil impacted above applicable Relative Risk Reduction Standards (RRS) is limited to sub-slab soils in the vicinity of the batch room in the main production building.

4.2. OVERBURDEN GROUNDWATER

Semi-annual groundwater monitoring has been conducted at the site since 1995. The results of the most recent groundwater monitoring event, conducted in December 2013, are summarized in Table 2 and detailed in the December 2013 Semi-Annual Groundwater Monitoring Report submitted to EPD on January 24, 2014. The total VOC plume is depicted on Figure 7. The horizontal extent of COCs in the groundwater plume has been delineated in the overburden groundwater to the north, east, and west; however, it appears that the horizontal extent has not yet been fully defined to the south, as low levels of VOC constituents were detected in the southern most (down gradient) groundwater monitoring well, MW-6. Based on the laboratory analytical results from the December 2013 groundwater monitoring event, concentrations of seven VOC constituents: 1,1-dichloroethene, 1,2-dichloroethane, cis-1,2-dichloroethene, acetone, trichloroethene, tetrachloroethene, and vinyl chloride, exceed applicable RRS in at least one monitoring well installed in the in the overburden.

4.3. BEDROCK GROUNDWATER

One bedrock groundwater monitoring well (DW-1) is currently installed at the site. The results of the most recent groundwater monitoring event, conducted in December 2013, are summarized on Table 2. The groundwater analytical results reported for groundwater collected from bedrock groundwater monitoring well DW-1 appear to indicate that the extent of the contaminant plume in the bedrock groundwater has not yet been fully defined. However, it should be noted that bedrock groundwater monitoring well DW-1 is incorporated into the groundwater recovery system, and the active pumping of the groundwater recovery system may have drawn COCs from the overburden groundwater into the bedrock groundwater. Based on the laboratory analytical results from December 2013 groundwater monitoring event, concentrations of five VOC constituents: 1,2-dichloroethane, 1,1-dichloroethene, trichloroethene, tetrachloroethene, and vinyl chloride, exceed applicable RRS in bedrock groundwater.

4.4. SURFACE WATER

A stormwater channel runs along the western and southern site boundaries. The channel is approximately 3 feet wide and varies in depth from approximately 1 inch to as much as 1 foot. The channel originates from a buried pipe flowing from the north (up-gradient of site) to the south near the western site boundary. The channel bends to the east, near the southwestern site boundary, flowing into a buried pipe located in a wooded area along the southern site boundary. This stormwater channel is not depicted on the USGS topographic map (Figure 1).

VOCs have been detected in the stormwater channel during historic sampling events conducted since 2005. Two surface water samples were collected from the channel during the most recent groundwater monitoring event, conducted in December 2013, by O'Brien & Gere. Sample SW-1 was collected from the up-gradient portion of the channel following discharge from the buried pipe along the western site boundary. Sample SW-2 was collected from the down-gradient portion of the channel prior to the water entering the buried pipe along the

southern site boundary. Based on the laboratory analytical results, VOCs were detected at concentrations that exceed laboratory detection limits during the most recent groundwater monitoring event. The analytical results of the most recent groundwater monitoring event are summarized on Table 3.

5. CONSTITUENTS OF CONCERN

As noted in Sections 2.0 and 3.0, environmental assessment activities have been ongoing at the site since 1992. The tables below provide a summary of COCs and the media in which they have been detected at the site to date:

SOIL			
Constituent	Constituent	Constituent	Constituent
1,1,1-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2-dichloroethane (total)
acetone	cis-1,2-dichloroethene	cyclohexane	ethylbenzene
isopropylbenzene	m+p-xylenes	methyl acetate	methylcyclohexane
methylene chloride	o-xylene	tetrachloroethene	toluene
trichloroethene	xylenes (total)	bis(2-ethylhexyl)phthalate	
GROUNDWATER			
Constituent	Constituent	Constituent	Constituent
1,1,1-trichloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene
1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,2-dichloroethane	1,2-dichloroethane
1,3,5-trimethylbenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane
2-butanone	2-hexanone	4-methyl-2-pentanone	acetone
benzene	carbon disulfide	freon-113	chlorobenzene
chloroform	cis-1,2-dichloroethene	cyclohexane	p-isopropyltoluene
ethylbenzene	isopropylbenzene	methylcyclohexane	methylene chloride
tetrachloroethene	toluene	trans-1,2-dichloroethene	trichloroethene
vinyl chloride	m+p-xylenes	o-xylene	xylene (total)
SURFACE WATER			
Constituent	Constituent	Constituent	Constituent
1,1-dichloroethane	1,1-dichloroethene	cis-1,2-dichloroethene	acetone
tetrachloroethene	trichloroethene	vinyl chloride	

5.1. DELINEATION CRITERIA

Per Section 12-8-108 of the Georgia VRP Act, COCs in soil and groundwater will be delineated to default residential cleanup standards. Accordingly, the default residential use (Type 1 RRS) will be used as the delineation criteria. The Type 1 RRS for COCs detected in soil and groundwater are summarized on Table 4.

5.2. CLEANUP CRITERIA

The site, and immediately adjacent properties, are currently used for industrial purposes and planned future use of the site will continue to be industrial in nature. Based on this, non-residential RRS are appropriate. Accordingly, Apollo intends to remediate soil and groundwater to comply with the non-residential RRS (the greater of Type 3 and Type 4 RRS). O'Brien & Gere has calculated Type 3 and Type 4 RRS for the COCs referenced above. The Type 3 and 4 RRS were calculated in accordance with Rule 391-3-19.07 of the Hazardous Site Response Rules. Standard parameters and assumptions for use in calculating RRS were those provided in Table 3 of Appendix III of Rule 391-3-19. Input parameters, references for input parameters, and RRS calculations are provided in tables in Appendix C. Type 3 and Type 4 RRS for COCs are summarized on Table 4.

6. PRELIMINARY CONCEPTUAL SITE MODEL

A preliminary Conceptual Site Model (CSM) has been developed from a review of published literature and using data obtained from the reports of previous investigation activities. The preliminary CSM will be updated and refined, as additional information is collected. The preliminary CSM details the site's surface and subsurface conditions, known or suspected sources of contamination, potential contamination transport mechanisms, the known extent of contamination, and exposure pathways for potential receptors.

6.1. GEOLOGY

The site is located within the Southern Piedmont Geologic Region, and is mapped as being underlain by the Lithonia Gneiss, consisting of biotite-quartz-feldspar gneiss, quartz rich garnetiferous layers, and migmatitic biotite-muscovite, microcline-quartz gneiss. Residual soils present in this area have been formed by in-place chemical and physical weathering of the parent rock types. Weathering is facilitated by fractures, joints, and the presence of less resistant rock types. The typical soil profile in this geologic setting consists of clayey fine sandy silts near the ground surface, transitioning to silty sands that generally become harder with depth to the top of the parent rock. Based on borings advanced at the site, soils consist of clayey, sandy silts near the ground surface, transitioning to silty sands to the top of rock, which is consistent with the typical regional soil profile. Figures 8 through 10 depict cross sections of the subsurface conditions.

According to the portion of United States Geologic Survey (USGS) Topographic Map of Northwest Atlanta, Georgia, presented as Figure 1, the site slopes gently to the south and southeast, toward a drainage swale located southeast of the site that drains to an unnamed tributary of Nickajack Creek, located approximately 1 mile south of the site. Ground surface elevations over the site range from approximately 900 ft above mean sea level (msl) along the northern boundary of the site, to approximately 870 ft above msl at the southeastern corner of the site, with a steep embankment located between the northern and southern portions of the site.

6.2. GROUNDWATER FLOW

In the Piedmont Geologic Region, groundwater generally occurs under water table conditions, and is stored in the overlying mantle of residuum and in the structural features (i.e., joints, fractures, faults) present in the underlying rock. Recharge to the water table occurs primarily through precipitation infiltrating the upper soils and percolating downward, under the influence of gravity, to the groundwater table. Typically, the water table is not a level surface, but a subdued reflection of the land surface. Depth to the water table is variable, and is dependent on many factors, including, but not necessarily limited to: the amount of rainfall, the permeability of the soil, the extent of fracturing in the underlying rock, and the amount of groundwater being pumped in the area. Also, buildings, pavements, and other impervious or low permeability features, may locally restrict recharge to the underlying water table.

Groundwater potentiometric data and maps have been included in numerous previous submittals to EPD. The most recent potentiometric surface map from December 2013 (Figure 11) indicates that overburden groundwater elevations at the site generally decline towards the south-southeast in the overburden, which is consistent with previous monitoring events.

The site is situated on the southern flank of a topographic ridge that trends east to west and slopes generally toward the south and southeast. Thus, groundwater hydraulic gradient appears to generally mimic surface topography, and is oriented in a south-southeasterly direction across the site toward an unnamed tributary of Nickajack Creek, southeast of the site.

6.3. POTENTIAL RECEPTORS AND EXPOSURE PATHWAYS

6.3.1. Land Usage

According to information obtained from the Cobb County GIS Portal online, the property is currently zoned heavy industrial (HI). Properties designated HI are established for heavy industrial uses such as intensive automobile repair and service, heavy manufacturing, chemical manufacturing and storage, petroleum or petrochemical storage, warehousing and storage. The 2013 Cobb County Future Land Use Map depicts the property, and surrounding properties, in an area that has been designated as industrial compatible (IC). Areas

designated as IC can support light industrial, office/warehouse, and distribution uses. Typical land uses for these areas include professional parks and distribution centers. Based on the current zoning and planned future use information, it is reasonable to anticipate that land use at the site, and in the surrounding area, will remain industrial in nature for the foreseeable future.

6.3.2. Water Usage

Based on the information provided by Apollo, potable water is supplied to the site, and surrounding area, by the Cobb County Water System (CCWS). The CCWS withdraws water from the Chattahoochee River at a point located over 2 miles away and up-stream from where the Chattahoochee River meets Nickajack Creek.

The nearest drinking water well is reportedly located greater than 1 mile from the facility. A water well survey will be conducted as part of the proposed investigation plan, to confirm that there are not drinking water wells in the vicinity of the site.

6.3.3. Environmental Receptors

The site is located in a highly developed area and is surrounded by industrial and commercial property. The closest residential development is approximately 750 feet southeast of the assumed down gradient extent of the groundwater contamination plume. The residential area is likely to be hydraulically separated from the groundwater contamination plume by an unnamed tributary of Nickajack Creek, which is the anticipated groundwater discharge point.

Because of the industrially developed nature of the site and adjacent properties, recreational and ecological receptors have not been considered. Further, because the site is located in an industrial area and the contaminated groundwater plume is unlikely to extend beneath residentially developed areas, potential exposures would be limited to non-residential human receptors. Additionally, due to the lack of impacted surface soil on the site, potential exposure to trespassers is unlikely. Potential human receptors include on-site workers, utility workers, and construction workers.

Based on available information, it is unclear if an ecological habitat reconnaissance has been performed. Non-paved portions of the site and the unnamed stream may provide potential habitat for ecological receptors. At this time, ecological receptors have not been considered. However, if deemed necessary based on future information, ecological receptors may be included in the CSM, as it is refined.

6.3.4. Environmental Exposure Pathways

To be considered complete, an exposure pathway must have a contaminant source, a release/transport mechanism, an exposure medium, an exposure route, and a receptor. Based on a review of the available information the following has been defined:

Contaminant Source

- Drips and spills of chemicals

Release/Transport Mechanism

- Drips and spills caused chemicals to be released to soil on the site
- Potential leaching to groundwater
- Potential groundwater infiltration to surface water
- Potential volatilization to soil gas

Exposure Medium

- Subsurface soils
- Groundwater
- Surface water
- Air

Exposure Route

- Oral (ingestion)
- Dermal (absorption)
- Inhalation

Receptors

- On-site worker
- Utility worker
- Construction worker

Based on the current and likely future use of the site, the potentially complete exposure pathways include:

- Inhalation of chemicals volatilized into soil gas (indoor air vapor intrusion) by on-site workers
 - » Inhalation of chemicals, introduced by vapor intrusion, by onsite workers is not currently thought to present unacceptable exposure due to operation of the SVE system and building ventilation systems. However, vapor intrusion modeling will be conducted to further evaluate this potentially complete exposure pathway.
- Ingestion and absorption of subsurface soil by utility or construction worker
 - » The extent of impacted soil is limited to sub-slab soils under the production facility. There is currently no contact with subsurface soil; therefore, ingestion and absorption of subsurface soil by utility or construction workers is not currently thought to present unacceptable exposure. Additionally, if utility or construction work is planned in areas of impacted soil, engineering controls can be put in place to avoid unacceptable exposure to construction workers.

No potentially complete exposure pathways associated with the stormwater channel were identified. Recent monitoring events have identified VOCs in the surface water. Conservatively, surface water in the stormwater channel may potentially be a point of exposure (POE) for groundwater at the site. Additionally, each of the established surface water monitoring points will be designated as a Point of Demonstration (POD) to evaluate the effectiveness of remedial activities and demonstrate protection of human health and the environment.

7. PROPOSED VOLUNTARY INVESTIGATION AND REMEDIATION PLAN

It is Apollo's objective to remove the site from the HSI by remediating contaminated media to comply with non-residential RRS. To meet this objective Apollo proposes to implement the investigation and remediation activities presented in the following sections. A phased approach to remediation is proposed so the remedial strategy can be refined prior to site wide implementation. This should allow for a more efficient and effective remedial program.

7.1. PROPOSED INVESTIGATION ACTIVITIES

7.1.1. Soil

As described in Section 4.1, based on a review of consolidated data from soil investigations conducted by Peachtree, AMEC, and O'Brien & Gere, the extent of soil impacted above the RRS is limited to sub-slab soils in the vicinity of the batch room in the main production facility. Due to access limitations and the difficulty of completing additional investigation activities within the production facility without serious disruption to operation of the facility, no additional soil investigations are proposed in this area at this time. However, Apollo may propose additional investigation in this area if deemed necessary by future performance monitoring, or if site conditions allow access to currently inaccessible areas of concern.

7.1.2. Overburden Groundwater Zone

The installation of up to three additional groundwater monitoring wells in the overburden is proposed. Prior to installation of the proposed wells, a membrane interface probe (MIP) investigation will be conducted to characterize the subsurface distribution of COCs. If the subsurface distribution warrants, the results of the MIP investigation will be used to locate the proposed groundwater monitoring wells. MIP investigation locations are proposed as depicted on Figure 12 and described below:

- The area north of MW-7 between MW-8 and RW-2
- The area between RW-1 and MW-4
- The area between MW-9 and MW-15

7.1.3. Bedrock Groundwater Zone

To further investigate the extent of groundwater plume in the bedrock aquifer, two bedrock groundwater monitoring wells are proposed. The locations of the proposed bedrock groundwater monitoring wells are depicted on Figure 12. These wells will be installed as double cased wells to isolate the impacted overburden groundwater zone from the bedrock groundwater zone. Groundwater analytical data from the two proposed bedrock wells will be used to assess whether the active pumping in DW-1 has drawn COCs from the overburden groundwater zone into the bedrock groundwater zone, and to evaluate the migration of the overburden groundwater plume in the bedrock groundwater zone. Additional bedrock wells may be proposed, as needed, to characterize the extent of contamination in the bedrock groundwater zone.

7.2. PROPOSED PRELIMINARY REMEDIATION ACTIVITIES

7.2.1. Soil

Corrective action, consisting of SVE, has been on-going at the site since 1998. Apollo proposes continued operation of the existing SVE system. Additionally, the potential expansion of the SVE system with vertical and/or horizontal SVE wells in the subsurface beneath the existing production facility building will be investigated. If expansion of the SVE system proves practical, the approach will be refined and documented in the final remediation plan.

Because of the access limitation, large scale excavation of sub-slab soils is not reasonably practical. Also, due to the access limitations and the difficulty of completing remedial activities within the production facility without serious disruption to operation of the facility, traditional soil remediation techniques, including expansion of the SVE system and/or excavation, is likely not reasonably practical. If traditional remediation techniques prove to be impractical, Type 5 RRS could be implemented. Type 5 RRS allow, in instances where application of Type 1

through Type 4 RRS are not practical, the use of engineering controls to control COCs and the associated threats to human health and environment at the site.

7.2.2. Groundwater

Corrective action, consisting of groundwater recovery, has been on-going at the site since 1995. Apollo proposes continued operation of the existing groundwater recovery system. Further, Apollo proposes to evaluate the expansion of the groundwater recovery system to provide additional hydraulic control to limit migration of the groundwater plume. If expansion of the groundwater recovery system proves practical, the approach will be refined and documented in the final remediation plan.

Apollo also proposes the use of *in-situ* chemical oxidation (ISCO) to address high concentrations of COCs in the overburden groundwater zone. ISCO is typically considered a viable remedial technology for chlorinated VOCs and the documented COCs at the site typically respond favorably to ISCO. However, the effective implementation of ISCO is dependent on numerous site-specific conditions. Accordingly, we are proposing a phased approach consisting of initial pilot testing prior to full-scale implementation.

The pilot test will be implemented in an area up-gradient of groundwater monitoring wells MW-1 and MW-3. Prior to the pilot test, a MIP investigation will be conducted to characterize the subsurface distribution of COCs in the pilot test area. The pilot test would involve the injection of permanganate solution into the overburden using direct push technology (DPT). At each injection point, the permanganate solution would be applied to the subsurface coinciding with the impacted zone identified during the MIP investigation.

Once the pilot test is completed, it will be necessary to monitor subsurface conditions to document when the oxidant has dissipated and whether VOC concentrations respond to ISCO. Three forms of monitoring may occur. First, field monitoring of pH, dissolved oxygen (DO), ORP and groundwater color (for potassium permanganate) will be completed to document when the permanganate has dissipated. Second, groundwater samples will be periodically collected to evaluate whether groundwater VOC concentrations respond following the pilot test. These groundwater samples will also be analyzed for selected metals to evaluate whether the oxidant has mobilized metals in the groundwater. Third, subsurface soil samples may be collected to evaluate whether overburden VOC concentrations in soil have been sufficiently reduced by the oxidant injections.

If the results of the pilot test show ISCO is a viable solution for the site, they will be used to develop the plan for site-wide implementation of ISCO as corrective action for impacted groundwater. The details of the site-wide implementation of ISCO will be developed and documented in the final remediation plan. Alternatively, if ISCO is not a viable solution for the site, an addendum to this VIRP will be submitted to EPD, detailing an alternative remedial strategy to be investigated prior to submission of the final remedial plan.

7.3. FINAL REMEDIAL PLAN AND COST ESTIMATE SUBMITTAL

A final remedial plan for the site will be prepared and submitted for EPD approval, following the development of an appropriate site wide remedial strategy. The final remedial plan will include a cost estimate for implementation of the selected remedial strategy and associated continuing actions.

8. SCHEDULE AND CONTINUED MONITORING PLAN

The VRP specifically identifies four milestones (task and schedule for completion) that are required in each VIRP. These milestones are identified on the conceptual milestone schedule included in Appendix D. The conceptual milestone schedule will be regularly updated throughout implementation of the VIRP. A proposed schedule for the investigation and remedial activities detailed in this VIRP, assuming an approval date of April 7, 2014, is included in the table below:

Task	Start	Completion
Notice of VIRP Approval	April 7, 2014	April 7, 2014
Evaluation of SVE System	April 14, 2014	May 16, 2014
Supplemental Groundwater Investigation	April 21, 2014	June 6, 2014
ISCO Pilot Test	May 12, 2014	September 12, 2014
Semi-Annual Monitoring Event and Reporting ¹	June 9, 2014	July 28, 2014
Evaluation of Hydraulic Controls	June 23, 2014	August 25, 2014
First Progress Report	September 1, 2014	October 3, 2014

¹ Future monitoring reporting will be incorporated into semi-annual progress reports.

Upon acceptance into the VRP, Apollo will proceed with the investigation and remediation activities presented in this VIRP. A progress report, including an updated CSM, will be submitted within 6 months of acceptance into the VRP. Subsequent semi-annual progress reports will be submitted routinely for the duration of investigation and remediation activities under the VRP. On-going semi-annual groundwater monitoring required under HSRA will continue, and the associated reporting will be incorporated into future semi-annual progress reports under the VRP.

Each semi-annual monitoring event will include the following activities:

- Groundwater monitoring and recovery wells will be gauged.
- Surface water samples will be collected from the two designated sampling locations and submitted for laboratory analysis of VOCs using Method 8260B.
- Groundwater samples will be collected from select groundwater monitoring and recovery wells and submitted for laboratory analysis of VOCs using Method 8260B. The existing network consists of seventeen monitoring and recovery wells. However, Apollo recently requested permission to remove groundwater monitoring wells MW-2 and MW-5 from the sampling plan because historic data has shown an absence of contamination over an extended period. Additional wells may be recommended for removal from the sampling plan as additional data is obtained and evaluated.
- Remediation system performance monitoring (water and air sampling) will be conducted. During performance monitoring, water and air samples will be submitted for laboratory analysis of VOCs using Method 8260B and Method TO-18, respectively.

Each semi-annual progress report may include the following:

- Discussion of groundwater monitoring activities;
- Tabulated analytical data comparing detected concentrations to delineation and cleanup criteria;
- Potentiometric surface maps;
- Graphs depicting COC concentration trends;

- Discussion of remediation system operation;
- Discussion of investigation activities conducted under the VRP;
- Discussion of remedial activities conducted under the VRP;
- Updated CSM and discussion relative to its relationship to future investigation and remedial activities; and
- Schedule for continued VIRP implementation.

Following the completion of required groundwater monitoring, a VRP compliance status report will be submitted to EPD, certifying compliance with cleanup criteria and requesting delisting from the HSI.

9. PRELIMINARY COST ESTIMATE

The VRP allows for the submittal of a Final Cost Estimate once the investigation and remedial strategies have been finalized (up to 30 months after entering the program). The preliminary cost estimate provided in the table below includes the investigation and remedial activities detailed in this VIRP, as well as the cost associated with continuing actions, consisting of 5 years of semi-annual monitoring and progress reports:

Task	Estimated Cost
Evaluation of SVE System	\$15,000
Supplemental Groundwater Investigation	\$75,000
ISCO Pilot Test	\$90,000
Semi-Annual Monitoring Event and Reporting ¹	\$28,000
Evaluation of Hydraulic Controls	\$20,000
1 st Progress Report	\$12,000
5 Years of Semi-Annual Monitoring and Progress Reports (9 events)	\$360,000
Subtotal	\$600,000
15% Contingency	\$90,000
Total	\$690,000

¹ Future monitoring reports will be incorporated into semi-annual progress reports.

The cost estimate will be updated throughout implementation of the VIRP. A final cost estimate will be submitted with the final remedial plan.

10. REPORT LIMITATIONS

The information presented in this report is based, in part, on the information derived from historic reports prepared by others, referenced herein, specifically with respect to background information, historical site conditions, and laboratory data. As O'Brien & Gere has relied on the data compiled by others for the purposes of this report, O'Brien & Gere does not guarantee the accuracy or validity of such information.

11. REFERENCES

- Revised Site Assessment Work Plan, prepared by Peachtree Environmental, Inc., dated May 2011.
- Site Assessment Activities Summary Report, prepared by Peachtree Environmental, Inc., dated September 2011.
- Semi-annual Groundwater Monitoring Report for the Apollo Industries Facility, prepared by Peachtree Environmental, Inc., dated December 2011.
- Report of Phase I Environmental Site Assessment, prepared by AMEC Environmental and Infrastructure, dated April 12, 2012.
- Report of Phase II Environmental Site Assessment, prepared by AMEC Environmental and Infrastructure, Dated November 2012.
- Final Limited Subsurface Investigation – Former Sump Area, Apollo Technologies, Inc. Facility – Smyrna, Georgia prepared by O’Brien & Gere, dated May 8, 2013.
- Consolidated Site Assessment/Closure Report – Smyrna, GA Facility, prepared by O’Brien & Gere, dated June 20, 2013.
- Consolidated Site Assessment/Closure Report Amendment, prepared by O’Brien & Gere, dated November 15, 2013.
- December 2013 Semi-Annual Groundwater Monitoring Report – Smyrna Facility, prepared by O’Brien & Gere, dated January 24, 2014

Tables

**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			FTUA-B1		FTUA-B2			FTUA-B3				
Sample Depth (feet bgs)			0-2	5	0-2	5	10	0-2	5	10	15	
Sample Date			6/25/2011	6/25/2011	6/25/2011	6/25/2011	6/25/2011	6/25/2011	6/25/2011	6/25/2011	6/25/2011	
Chemical Name	RRS	Unit	<i>Volatile Organic compounds (VOCs) per EPA Method 8260B</i>									
1,1,1-Trichloroethane	20,000	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
1,1-Dichloroethane	400,000	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
1,1-Dichloroethene	700	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
1,2-Dichloroethene (Total)	500	µg/kg	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Acetone	400,000	µg/kg	<83	<16	<12	<20	<19	<13	<15	24	<18	
cis-1,2-Dichloroethene	7,000	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	24	<8.5	<8.8	
Cyclohexane	20,000	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	18	<7.7	<8.5	<8.8	
Ethylbenzene	70,000	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
Isopropylbenzene (Cumene)	21,880	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
m+p-Xylenes	1,000,000	µg/kg	<8.3	<1.6	<1.2	<2.0	<1.9	<1.3	<1.5	<1.7	<1.8	
Methyl acetate	NE	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
Methylcyclohexane	NE	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
Methylene chloride (Dichloromethane)	500	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
o-Xylene	1,000,000	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
Tetrachloroethene (PCE)	500	µg/kg	<4.1	<8.1	<6.2	24	<9.7	<6.3	<7.7	<8.5	<8.8	
Toluene	100,000	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
Trichloroethene (TCE)	500	µg/kg	<4.1	<8.1	<6.2	<9.8	<9.7	<6.3	<7.7	<8.5	<8.8	
Xylenes, Total	1,000,000	µg/kg	NR	NR	NR	NR	NR	NR	NR	NR	NR	
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:

RRS - The higher of the Type III and Type IV Non-Residential

Risk Reduction Standards

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NA - Not Analyzed

NR - Not Reported

NE - not established

bgs - below ground surface

* - RRS is associated with soils greater than 2 feet bgs

** - RRS is associated with soils from the ground surface to 2 feet bgs

Data Flags:

< -less than reporting limit

BOLD - greater than reporting limit

BOLD and Highlighted - Exceeds the Applicable Regulatory Standard

J - detected, estimated value

JH - detected, estimated value biased high

**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			FTUA-B4			CSA-B5		CSA-B6			CSA-B7	
Sample Depth (feet bgs)			5	10	15	0-2	15	0-2	10	15	0-2	14
Sample Date			6/25/2011	6/25/2011	6/25/2011	6/25/2011	6/25/2011	9/9/2011	9/9/2011	9/9/2011	9/9/2011	9/9/2011
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B									
1,1,1-Trichloroethane	20,000	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
1,1-Dichloroethane	400,000	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
1,1-Dichloroethene	700	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
1,2-Dichloroethene (Total)	500	µg/kg	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Acetone	400,000	µg/kg	<12	<14	<17	<170	<140	<170	<200	<160	190	<160
cis-1,2-Dichloroethene	7,000	µg/kg	58	<7.1	<8.6	<8.4	<7.0	<8.4	38	<8.0	<8.4	<8.1
Cyclohexane	20,000	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
Ethylbenzene	70,000	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
Isopropylbenzene (Cumene)	21,880	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
m+p-Xylenes	1,000,000	µg/kg	<1.2	<1.4	<1.7	<17	<14	<17	<20	<16	<17	<16
Methyl acetate	NE	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
Methylcyclohexane	NE	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
Methylene chloride (Dichloromethane)	500	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
o-Xylene	1,000,000	µg/kg	<6.1	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
Tetrachloroethene (PCE)	500	µg/kg	<6.1	34	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
Toluene	100,000	µg/kg	7.9	<7.1	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
Trichloroethene (TCE)	500	µg/kg	<6.1	92	<8.6	<8.4	<7.0	<8.4	<9.8	<8.0	<8.4	<8.1
Xylenes, Total	1,000,000	µg/kg	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

RRS - The higher of the Type III and Type IV Non-Residential

Risk Reduction Standards

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NA - Not Analyzed

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J - detected, estimated value

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**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			CSA-B8			MW-12			S-1				
Sample Depth (feet bgs)			0-2	5	10	2.5	12.5	17.5	1	6	11	17	21
Sample Date			9/9/2011	9/9/2011	9/9/2011	10/3/2012	10/3/2012	10/3/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B										
1,1,1-Trichloroethane	20,000	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	< 1,900	< 590	< 2,700	< 4.6	< 2,400
1,1-Dichloroethane	400,000	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	< 1,900	< 590	< 2,700	< 4.6	< 2,400
1,1-Dichloroethene	700	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	< 1,900	< 590	< 2,700	< 4.6	< 2,400
1,2-Dichloroethene (Total)	500	µg/kg	NR	NR	NR	< 5.4	< 5.2	< 5.5	< 1,900	< 590	< 2,700	< 4.6	< 2,400
Acetone	400,000	µg/kg	<200	160	<140	< 110	< 100	< 110	79,000	< 12,000	< 54,000	420 J	< 49,000
cis-1,2-Dichloroethene	7,000	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	< 1,900	< 590	< 2,700	< 4.6	< 2,400
Cyclohexane	20,000	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	< 1,900	< 590	< 2,700	< 4.6	< 2,400
Ethylbenzene	70,000	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	13,000	1,500	3,000	5.6	3,700
Isopropylbenzene (Cumene)	21,880	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	< 1,900	< 590	3,200	< 4.6	< 2,400
m+p-Xylenes	1,000,000	µg/kg	<10	<14	<14	< 5.4	< 5.2	< 5.5	60,000	9,300	12,000	27	15,000
Methyl acetate	NE	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	< 1,900	< 590	< 2,700	< 4.6	< 2,400
Methylcyclohexane	NE	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	3,500	3,700	4,500	8.4	< 2,400
Methylene chloride (Dichloromethane)	500	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	< 7,500	< 2,400	< 11,000	< 18	< 9,800
o-Xylene	1,000,000	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	22,000	8,700	5,900	14	5,400
Tetrachloroethene (PCE)	500	µg/kg	110	160	<7.2	< 5.4	< 5.2	< 5.5	190,000	160,000	110,000	130	68,000
Toluene	100,000	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	66,000	6,100	9,300	23	21,000
Trichloroethene (TCE)	500	µg/kg	<10	<7.1	<7.2	< 5.4	< 5.2	< 5.5	7,600	1,300	< 2,700	5.1	2,600
Xylenes, Total	1,000,000	µg/kg	NR	NR	NR	< 5.4	< 5.2	< 5.5	82,000	18,000	18,000	40	21,000
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	NA	NA	NA	NA	NA	NA	< 1,900	< 350	820	< 1,900	1,400

Notes:

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Risk Reduction Standards

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J - detected, estimated value

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**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			S-2				S-3		S-4		S-5			
Sample Depth (feet bgs)			3	7	11	19	4	7	4	6	4	7.5	12.5	17.5
Sample Date			8/4/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B											
1,1,1-Trichloroethane	20,000	µg/kg	260 J	< 4.3	6.7	20	< 2,200	< 2,300	32,000	180,000	< 6.5 UJ	< 5.3 UJ	< 7.2	< 5.7
1,1-Dichloroethane	400,000	µg/kg	29	< 4.3	< 4.8	< 5.0	< 2,200	< 2,300	< 2,500	< 1,700	< 6.5 UJ	< 5.3 UJ	< 7.2	< 5.7
1,1-Dichloroethene	700	µg/kg	< 4.9	< 4.3	< 4.8	< 5.0	< 2,200	< 2,300	< 2,500	3700	< 6.5 UJ	< 5.3 UJ	< 7.2	< 5.7
1,2-Dichloroethene (Total)	500	µg/kg	370	< 4.3	19	37	< 2,200	< 2,300	< 2,500	< 1,700	< 6.5 UJ	< 5.3 UJ	< 7.2	< 5.7
Acetone	400,000	µg/kg	16,000	< 86	< 96	< 99	1,600,000	940,000	970,000	150,000	150 J	< 110 UJ	< 140	< 110
cis-1,2-Dichloroethene	7,000	µg/kg	370	< 4.3	19	37	< 2,200	< 2,300	< 2,500	< 1,700	< 6.5 UJ	< 5.3 UJ	< 7.2	< 5.7
Cyclohexane	20,000	µg/kg	81	< 4.3	< 4.8	< 5.0	17,000	< 2,300	< 2,500	< 1,700	< 6.5 UJ	< 5.3 UJ	< 7.2	< 5.7
Ethylbenzene	70,000	µg/kg	44	< 4.3	< 4.8	< 5.0	86,000	49,000	< 2,500	18,000	< 6.5	< 5.3	< 7.2	< 5.7
Isopropylbenzene (Cumene)	21,880	µg/kg	< 4.9	< 4.3	< 4.8	< 5.0	3,400	3,000	< 2,500	2,200	< 6.5	< 5.3	< 7.2	< 5.7
m+p-Xylenes	1,000,000	µg/kg	1,400	< 4.3	< 4.8	5.4	260,000	150,000	6,500	69,000	< 6.5	< 5.3	< 7.2	< 5.7
Methyl acetate	NE	µg/kg	< 4.9	< 4.3	< 4.8	< 5.0	< 2,200	10,000	< 2,500	< 1,700	< 6.5 UJ	< 5.3 UJ	< 7.2	< 5.7
Methylcyclohexane	NE	µg/kg	32	< 4.3	< 4.8	< 5.0	3,900	4,900	< 2,500	20,000	< 6.5	< 5.3	< 7.2	< 5.7
Methylene chloride (Dichloromethane)	500	µg/kg	42	< 17	< 19	< 20	< 9,000	< 9,300	24,000	< 6,900	< 6.5 UJ	< 5.3 UJ	< 7.2	< 5.7
o-Xylene	1,000,000	µg/kg	540	< 4.3	< 4.8	< 5.0	50,000	27,000	2,600	18,000	< 6.5	< 5.3	< 7.2	< 5.7
Tetrachloroethene (PCE)	500	µg/kg	2,400	< 4.3	11	38	310,000	370,000	40,000	270,000	< 6.5	< 5.3	< 7.2	< 5.7
Toluene	100,000	µg/kg	400	< 4.3	< 4.8	6.4	79,000	76,000	9,300	71,000	< 6.5	< 5.3	< 7.2	< 5.7
Trichloroethene (TCE)	500	µg/kg	1,000	< 4.3	25	57	180,000	190,000	54,000	230,000	< 6.5	< 5.3	< 7.2	< 5.7
Xylenes, Total	1,000,000	µg/kg	1,900	< 4.3	< 4.8	8.4	310,000	180,000	9,100	87,000	< 6.5	< 5.3	< 7.2	< 5.7
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	< 360	< 360	< 370	< 370	< 9,800	< 8,900	< 18,000	< 17,000	NA	NA	NA	NA

Notes:

RRS - The higher of the Type III and Type IV Non-Residential

Risk Reduction Standards

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NA - Not Analyzed

NR - Not Reported

NE - not established

bgs - below ground surface

* - RRS is associated with soils greater than 2 feet bgs

** - RRS is associated with soils from the ground surface to 2 feet bgs

Data Flags:

< -less than reporting limit

BOLD - greater than reporting limit

BOLD and Highlighted - Exceeds the Applicable Regulatory Standard

J - detected, estimated value

JH - detected, estimated value biased high

**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			S-6				S-7			S-8	S-9	S-10
Sample Depth (feet bgs)			4	7.5	12.5	17.5	2	8	13	3	2	2
Sample Date			9/28/2012	9/28/2012	9/28/2012	9/28/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B									
1,1,1-Trichloroethane	20,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	78	25	< 190	< 6.0	< 1,500	6.4
1,1-Dichloroethane	400,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	< 3.9	< 190	< 6.0	< 1,500	19
1,1-Dichloroethene	700	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	< 3.9	< 190	< 6.0	< 1,500	< 3.2
1,2-Dichloroethene (Total)	500	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	17	7.2	< 190	< 6.0	5,400	65
Acetone	400,000	µg/kg	< 120	< 100	< 130	< 140	83	< 77	< 3,700	< 120	< 30,000	< 63
cis-1,2-Dichloroethene	7,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	17	7.2	< 190	< 6.0	5,400	65
Cyclohexane	20,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	< 3.9	< 190	< 6.0	< 1,500	< 3.2
Ethylbenzene	70,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	10	320	< 6.0	1,900	< 3.2
Isopropylbenzene (Cumene)	21,880	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	< 3.9	< 190	< 6.0	< 1,500	< 3.2
m+p-Xylenes	1,000,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	26	900	< 6.0	9,800	6.4
Methyl acetate	NE	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	< 3.9	< 190	< 6.0	< 1,500	< 3.2
Methylcyclohexane	NE	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	15	< 190	< 6.0	2,700	< 3.2
Methylene chloride (Dichloromethane)	500	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 23	< 15	< 750	< 24	< 6,000	< 13
o-Xylene	1,000,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	23	470	< 6.0	7,400	6.0
Tetrachloroethene (PCE)	500	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	210	2,300	4,700	< 6.0	53,000	6.1
Toluene	100,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	59	270	< 6.0	< 1,500	< 3.2
Trichloroethene (TCE)	500	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	270 J	140	< 190	< 6.0	3,100	9.1
Xylenes, Total	1,000,000	µg/kg	< 6.0	< 5.0	< 6.3	< 6.9	< 3.8	49	1,400	< 6.0	17,000	12
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	< 420	< 390	< 430	< 470	< 9,000	< 1,800	< 3,600	< 2,200	< 9,000	< 3,800

Notes:

RRS - The higher of the Type III and Type IV Non-Residential

Risk Reduction Standards

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NA - Not Analyzed

NR - Not Reported

NE - not established

bgs - below ground surface

* - RRS is associated with soils greater than 2 feet bgs

** - RRS is associated with soils from the ground surface to 2 feet bgs

Data Flags:

< -less than reporting limit

BOLD - greater than reporting limit

BOLD and Highlighted - Exceeds the Applicable Regulatory Standard

J - detected, estimated value

JH - detected, estimated value biased high

**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			S-11					S-12		S-13	S-14
Sample Depth (feet bgs)			2	7	12	17	22	3	6	4	3
Sample Date			8/4/2012	8/4/2012	8/4/2012	8/4/2012	8/4/2012	10/2/2012	10/2/2012	8/4/2012	10/2/2012
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B								
1,1,1-Trichloroethane	20,000	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
1,1-Dichloroethane	400,000	µg/kg	< 3.2	< 3.4	< 3.1	6.1	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
1,1-Dichloroethene	700	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
1,2-Dichloroethene (Total)	500	µg/kg	< 3.2	< 3.4	< 3.1	5.0	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Acetone	400,000	µg/kg	< 64	< 68	< 62	< 67	< 67	< 100	< 64	< 74	< 66 UL
cis-1,2-Dichloroethene	7,000	µg/kg	< 3.2	< 3.4	< 3.1	5.0	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Cyclohexane	20,000	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Ethylbenzene	70,000	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Isopropylbenzene (Cumene)	21,880	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
m+p-Xylenes	1,000,000	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Methyl acetate	NE	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Methylcyclohexane	NE	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Methylene chloride (Dichloromethane)	500	µg/kg	< 13	< 14	< 12	< 13	< 13	< 5.1	< 3.2	< 15	< 3.3 UL
o-Xylene	1,000,000	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Tetrachloroethene (PCE)	500	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Toluene	100,000	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Trichloroethene (TCE)	500	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
Xylenes, Total	1,000,000	µg/kg	< 3.2	< 3.4	< 3.1	< 3.4	< 3.3	< 5.1	< 3.2	< 3.7	< 3.3 UL
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	< 360	< 360	< 370	< 370	< 380	< 360	< 370	< 350	< 340

Notes:

RRS - The higher of the Type III and Type IV Non-Residential

Risk Reduction Standards

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NA - Not Analyzed

NR - Not Reported

NE - not established

bgs - below ground surface

* - RRS is associated with soils greater than 2 feet bgs

** - RRS is associated with soils from the ground surface to 2 feet bgs

Data Flags:

< -less than reporting limit

BOLD - greater than reporting limit

BOLD and Highlighted - Exceeds the Applicable Regulatory Standard

J - detected, estimated value

JH - detected, estimated value biased high

**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			S-15				S-16			
Sample Depth (feet bgs)			7.5	12.5	17.5	22.5	3	7.5	17.5	22.5
Sample Date			10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012
Chemical Name	RRS	Unit	<i>Volatile Organic compounds (VOCs) per EPA Method 8260B</i>							
1,1,1-Trichloroethane	20,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
1,1-Dichloroethane	400,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
1,1-Dichloroethene	700	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
1,2-Dichloroethene (Total)	500	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	56	< 5.0	7.2
Acetone	400,000	µg/kg	< 87	< 83	< 110	< 110	< 89	< 92	< 100	< 110
cis-1,2-Dichloroethene	7,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	56	< 5.0	7.2
Cyclohexane	20,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
Ethylbenzene	70,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
Isopropylbenzene (Cumene)	21,880	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
m+p-Xylenes	1,000,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
Methyl acetate	NE	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
Methylcyclohexane	NE	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
Methylene chloride (Dichloromethane)	500	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
o-Xylene	1,000,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	5.8	< 5.0	< 5.5
Tetrachloroethene (PCE)	500	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	15	< 5.0	< 5.5
Toluene	100,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	< 4.6	< 5.0	< 5.5
Trichloroethene (TCE)	500	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	46	< 5.0	< 5.5
Xylenes, Total	1,000,000	µg/kg	< 4.3	< 4.1	< 5.4	< 5.3	< 4.5	5.8	< 5.0	< 5.5
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	< 390	< 380	< 380	< 400	< 370	< 360	< 410	< 430

Notes:

RRS - The higher of the Type III and Type IV Non-Residential

Risk Reduction Standards

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NA - Not Analyzed

NR - Not Reported

NE - not established

bgs - below ground surface

* - RRS is associated with soils greater than 2 feet bgs

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J - detected, estimated value

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**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			S-17				S-18			
Sample Depth (feet bgs)			4	7.5	12.5	17.5	2	7.5	12.5	17.5
Sample Date			9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012
Chemical Name	RRS	Unit	<i>Volatile Organic compounds (VOCs) per EPA Method 8260B</i>							
1,1,1-Trichloroethane	20,000	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
1,1-Dichloroethane	400,000	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
1,1-Dichloroethene	700	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
1,2-Dichloroethene (Total)	500	µg/kg	< 5.0	< 5.7	< 6.1	6.8	< 2.4	< 6.8	< 5.2	< 5.9
Acetone	400,000	µg/kg	< 100	< 110	< 120	< 99	< 48	< 140	< 100	< 120
cis-1,2-Dichloroethene	7,000	µg/kg	< 5.0	< 5.7	< 6.1	6.8	< 2.4	< 6.8	< 5.2	< 5.9
Cyclohexane	20,000	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
Ethylbenzene	70,000	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	3.5	< 6.8	< 5.2	< 5.9
Isopropylbenzene (Cumene)	21,880	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
m+p-Xylenes	1,000,000	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	66	< 6.8	< 5.2	< 5.9
Methyl acetate	NE	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
Methylcyclohexane	NE	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
Methylene chloride (Dichloromethane)	500	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
o-Xylene	1,000,000	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	4.4	< 6.8	< 5.2	< 5.9
Tetrachloroethene (PCE)	500	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
Toluene	100,000	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
Trichloroethene (TCE)	500	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	< 2.4	< 6.8	< 5.2	< 5.9
Xylenes, Total	1,000,000	µg/kg	< 5.0	< 5.7	< 6.1	< 4.9	70.4	< 6.8	< 5.2	< 5.9
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	NA	NA	NA	NA	< 380	< 410	< 430	< 440

Notes:

- RRS - The higher of the Type III and Type IV Non-Residential Risk Reduction Standards
- µg/kg - micrograms per kilogram
- mg/kg - milligrams per kilogram
- NA - Not Analyzed
- NR - Not Reported
- NE - not established
- bgs - below ground surface
- * - RRS is associated with soils greater than 2 feet bgs
- ** - RRS is associated with soils from the ground surface to 2 feet bgs

Data Flags:

- < -less than reporting limit
- BOLD** - greater than reporting limit
- BOLD and Highlighted** - Exceeds the Applicable Regulatory Standard
- J - detected, estimated value
- JH - detected, estimated value biased high

**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			S-19				S-20			
Sample Depth (feet bgs)			3	7.5	12.5	16	4	7.5	12.5	16
Sample Date			9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B							
1,1,1-Trichloroethane	20,000	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5 UJ	< 4.3	< 5.9	< 5.7	< 4.8
1,1-Dichloroethane	400,000	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5 UJ	< 4.3	< 5.9	< 5.7	< 4.8
1,1-Dichloroethene	700	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5 UJ	< 4.3	< 5.9	< 5.7	< 4.8
1,2-Dichloroethene (Total)	500	µg/kg	22	< 5.5	< 5.6	< 5.5 UJ	< 4.3	< 5.9	< 5.7	< 4.8
Acetone	400,000	µg/kg	< 96	< 110	< 110	< 110 UJ	150	< 120	< 110	< 95
cis-1,2-Dichloroethene	7,000	µg/kg	22	< 5.5	< 5.6	< 5.5 UJ	< 4.3	< 5.9	< 5.7	< 4.8
Cyclohexane	20,000	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5 UJ	< 4.3	< 5.9	< 5.7	< 4.8
Ethylbenzene	70,000	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5	< 4.3	< 5.9	< 5.7	< 4.8
Isopropylbenzene (Cumene)	21,880	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5	< 4.3	< 5.9	< 5.7	< 4.8
m+p-Xylenes	1,000,000	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5	< 4.3	< 5.9	< 5.7	< 4.8
Methyl acetate	NE	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5 UJ	< 4.3	< 5.9	< 5.7	< 4.8
Methylcyclohexane	NE	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5	< 4.3	< 5.9	< 5.7	< 4.8
Methylene chloride (Dichloromethane)	500	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5 UJ	< 4.3	< 5.9	< 5.7	< 4.8
o-Xylene	1,000,000	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5	< 4.3	< 5.9	< 5.7	< 4.8
Tetrachloroethene (PCE)	500	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5	13	< 5.9	< 5.7	< 4.8
Toluene	100,000	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5	< 4.3	< 5.9	< 5.7	< 4.8
Trichloroethene (TCE)	500	µg/kg	6.9	< 5.5	< 5.6	< 5.5	< 4.3	< 5.9	< 5.7	< 4.8
Xylenes, Total	1,000,000	µg/kg	< 4.8	< 5.5	< 5.6	< 5.5	< 4.3	< 5.9	< 5.7	< 4.8
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	< 380	< 420	< 410	< 430	NA	NA	NA	NA

Notes:

RRS - The higher of the Type III and Type IV Non-Residential

Risk Reduction Standards

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NA - Not Analyzed

NR - Not Reported

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bgs - below ground surface

* - RRS is associated with soils greater than 2 feet bgs

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Data Flags:

< -less than reporting limit

BOLD - greater than reporting limit

BOLD and Highlighted - Exceeds the Applicable Regulatory Standard

J - detected, estimated value

JH - detected, estimated value biased high

**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			S-21				S-22			
Sample Depth (feet bgs)			6	8	12.5	17.5	5	7.5	12.5	17.5
Sample Date			9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012	9/28/2012
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B							
1,1,1-Trichloroethane	20,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
1,1-Dichloroethane	400,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
1,1-Dichloroethene	700	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
1,2-Dichloroethene (Total)	500	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	18	< 6.5
Acetone	400,000	µg/kg	< 98	< 120	< 110	< 120	< 100	< 110	< 130	< 130
cis-1,2-Dichloroethene	7,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	18	< 6.5
Cyclohexane	20,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
Ethylbenzene	70,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
Isopropylbenzene (Cumene)	21,880	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
m+p-Xylenes	1,000,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
Methyl acetate	NE	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
Methylcyclohexane	NE	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
Methylene chloride (Dichloromethane)	500	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
o-Xylene	1,000,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
Tetrachloroethene (PCE)	500	µg/kg	74	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
Toluene	100,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
Trichloroethene (TCE)	500	µg/kg	5.0	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	8.5	< 6.5
Xylenes, Total	1,000,000	µg/kg	< 4.9	< 6.0	< 5.3	< 6.0	< 5.0	< 5.6	< 6.6	< 6.5
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

RRS - The higher of the Type III and Type IV Non-Residential

Risk Reduction Standards

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NA - Not Analyzed

NR - Not Reported

NE - not established

bgs - below ground surface

* - RRS is associated with soils greater than 2 feet bgs

** - RRS is associated with soils from the ground surface to 2 feet bgs

Data Flags:

< -less than reporting limit

BOLD - greater than reporting limit

BOLD and Highlighted - Exceeds the Applicable Regulatory Standard

J - detected, estimated value

JH - detected, estimated value biased high

**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location		S-23				S-24	S-25	S-26	S-27	OB-2	OBG-5	
Sample Depth (feet bgs)		3.5	7.5	12.5	17	3	2	3	3	0-3.5	3.5-7	
Sample Date		10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	3/23/2013	3/24/2013	
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B									
1,1,1-Trichloroethane	20,000	µg/kg	< 4.1 UJ	< 4.1 UJ	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	320 J	26,000
1,1-Dichloroethane	400,000	µg/kg	< 4.1 UJ	< 4.1 UJ	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	<530	<11,000
1,1-Dichloroethene	700	µg/kg	8.7 J	11 J	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	<530	<11,000
1,2-Dichloroethene (Total)	500	µg/kg	11 J	20 J	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	NR	NR
Acetone	400,000	µg/kg	< 83 UJ	< 82 UJ	< 120	< 88	< 92	< 85	< 110	< 97	32,000	720,000
cis-1,2-Dichloroethene	7,000	µg/kg	11 J	20 J	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	<530	<11,000
Cyclohexane	20,000	µg/kg	< 4.1 UJ	< 4.1 UJ	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	<1,100	<21,000
Ethylbenzene	70,000	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	280 J	12,000
Isopropylbenzene (Cumene)	21,880	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	<530	<11,000
m+p-Xylenes	1,000,000	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	NR	NR
Methyl acetate	NE	µg/kg	< 4.1 UJ	< 4.1 UJ	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	<1,100	<21,000
Methylcyclohexane	NE	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	<1,100	5,300 J
Methylene chloride (Dichloromethane)	500	µg/kg	< 4.1 UJ	< 4.1 UJ	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 9.7	<530	<11,000
o-Xylene	1,000,000	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	NR	NR
Tetrachloroethene (PCE)	500	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	8,200	220,000
Toluene	100,000	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	2,100	43,000
Trichloroethene (TCE)	500	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	7,100	110,000
Xylenes, Total	1,000,000	µg/kg	< 4.1	< 4.1	< 6.1	< 4.4	< 4.6	< 4.2	< 5.3	< 4.9	1,500	55,000
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	NA	NA	NA	NA	< 340	NA	NA	NA	NA	NA

Notes:

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Risk Reduction Standards

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**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location	OBG-7	OBG-9	OBG-9	OBG-12		OBG-13		
Sample Depth (feet bgs)	0-2	0-2	2-4	0-2	5	0-3.5		
Sample Date	3/25/2013	3/26/2013	3/27/2013	10/25/2013	10/25/2013	10/25/2013		
Chemical Name	RRS	Unit	Volatile Organic compounds (VOCs) per EPA Method 8260B					
1,1,1-Trichloroethane	20,000	µg/kg	4,300 J	23,000 J	510,000	<47,000	<64,000	<25,000
1,1-Dichloroethane	400,000	µg/kg	<11,000	<260,000	<100,000	<47,000	<64,000	<25,000
1,1-Dichloroethene	700	µg/kg	<11,000	<260,000	<100,000	<47,000	<64,000	<25,000
1,2-Dichloroethene (Total)	500	µg/kg	NR	NR	NR	NR	NR	NR
Acetone	400,000	µg/kg	1,000,000	1,600,000 J	610,000 J	1,000,000	3,700,000	3,200,000
cis-1,2-Dichloroethene	7,000	µg/kg	<11,000	<260,000	<100,000	<47,000	<64,000	<25,000
Cyclohexane	20,000	µg/kg	<22,000	<530,000	<210,000	<93,000	<130,000	9,800 J
Ethylbenzene	70,000	µg/kg	4,000 J	<260,000	<100,000	45,000 J	66,000	46,000
Isopropylbenzene (Cumene)	21,880	µg/kg	<11,000	<260,000	<100,000	<47,000	<64,000	<25,000
m+p-Xylenes	1,000,000	µg/kg	NR	NR	NR	NR	NR	NR
Methyl acetate	NE	µg/kg	<22,000	<530,000	<210,000	<93,000	<130,000	<50,000
Methylcyclohexane	NE	µg/kg	<22,000	<530,000	<210,000	<93,000	<130,000	<50,000
Methylene chloride (Dichloromethane)	500	µg/kg	<11,000	120,000 J	<100,000	<47,000	<64,000	<25,000
o-Xylene	1,000,000	µg/kg	NR	NR	NR	NR	NR	NR
Tetrachloroethene (PCE)	500	µg/kg	52,000	5,500,000	2,400,000	1,100,000	1,700,000	270,000
Toluene	100,000	µg/kg	7,600 J	290,000	88,000 J	66,000	90,000	76,000
Trichloroethene (TCE)	500	µg/kg	39,000	4,200,000	1,100,000	210,000	310,000	140,000
Xylenes, Total	1,000,000	µg/kg	19,000	<530,000	<210,000	190,000	300,000	180,000
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	NA	NA	NA	NA	NA	NA

Notes:

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**Table 1 - Summary of Soil Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Sample Location			OBG-14						
Sample Depth (feet bgs)			0-4	5	10	15	20	27	30
Sample Date			10/25/2013	10/25/2013	10/25/2013	10/25/2013	10/25/2013	10/25/2013	10/25/2013
Chemical Name	RRS	Unit	<i>Volatile Organic compounds (VOCs) per EPA Method 8260B</i>						
1,1,1-Trichloroethane	20,000	µg/kg	<190	<450	<5.0	<5.0	<5.2	<210	2.9 J
1,1-Dichloroethane	400,000	µg/kg	<190	<450	<5.0	<5.0	<5.2	<210	1.4 J
1,1-Dichloroethene	700	µg/kg	<190	<450	<5.0	<5.0	<5.2	<210	1.7 J
1,2-Dichloroethene (Total)	500	µg/kg	NR	NR	NR	NR	NR	NR	NR
Acetone	400,000	µg/kg	<1,900	<4500	33 J	21 J	<52	<2,100	32 J
cis-1,2-Dichloroethene	7,000	µg/kg	<190	<450	<5.0	<5.0	2.0	86 J	48
Cyclohexane	20,000	µg/kg	3,200	11,000	<9.9	<9.9	<10	<420	<9.1
Ethylbenzene	70,000	µg/kg	420	1,300	<5.0	<5.0	<5.2	<210	<4.6
Isopropylbenzene (Cumene)	21,880	µg/kg	76 J	240 J	<5.0	<5.0	<5.2	<210	<4.6
m+p-Xylenes	1,000,000	µg/kg	NR	NR	NR	NR	NR	NR	NR
Methyl acetate	NE	µg/kg	<370	<910	<9.9	<9.9	<10	<420	<9.1
Methylcyclohexane	NE	µg/kg	1,800	8,200	<9.9	<9.9	<10	<420	<9.1
Methylene chloride (Dichloromethane)	500	µg/kg	<190	<450	<5.0	<5.0	<5.2	<210	<4.6
o-Xylene	1,000,000	µg/kg	NR	NR	NR	NR	NR	NR	NR
Tetrachloroethene (PCE)	500	µg/kg	<190	<450	<5.0	<5.0	<5.2	370	22
Toluene	100,000	µg/kg	<190	<450	<5.0	<5.0	<5.2	<210	<4.6
Trichloroethene (TCE)	500	µg/kg	<190	<450	<5.0	<5.0	<5.2	83 J	41
Xylenes, Total	1,000,000	µg/kg	2,100	6,500	<9.9	<9.9	<10	<420	<9.1
bis(2-Ethylhexyl)phthalate	50,000	µg/kg	NA	NA	NA	NA	NA	NA	NA

Notes:

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Table 2 - Summary of Groundwater Analytical Data - Volatile Organic Compounds
 Voluntary Investigation and Remediation Plan
 Apollo Technologies, Inc. - Smyrna Facility

Monitoring Well / Sample ID	Sample Date	Analytical Results (ug/L)																																					
		1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,2-Dichloroethane	1,2-Dichloroethene	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	2-Butanone	2-Hexanone	4-Methyl-2-Pentanone	Acetone	Benzene	Carbon Disulfide	Chlorinated Fluorocarbon (Freon 113)	Chlorobenzene	Chloroethane	Chloroform	cis-1,2-Dichloroethylene	Cyclohexane	Cymene (p-isopropyltoluene)	Ethylbenzene	Isopropylbenzene	Methylcyclohexane	Methylene chloride	Tetrachloroethene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (m,p)	o-Xylene	Xylene (total)	
Applicable Regulatory Standards (ug/L)	13600	5	4000	524	NE	NE	5	NE	NE	600	75	10.4	11800	NE	4230	45600	8.7	4000	1000000	140	30000	80	200	17500	NE	700	1050	NE	454	98	5240	161	5	3	10000	10000	10000		
MW-1	7/13/1995	140,000	< 500	1,690	53,816	-	-	1,690	-	-	500	500	-	-	-	< 500	95,204	< 500	< 500	-	< 500	< 500	67 E	-	-	-	78.5 E	< 500	-	141,054	16,293	6,752	-	< 5	< 500	696 T	696 T	-	
	3/22/1996	200,000	-	4,500	13,000	-	-	-	-	-	< 50	< 50	-	-	-	-	55,000	6 J	< 50	-	-	260	15	-	-	-	-	-	160,000	2,300	39,000	-	17	-	-	-	-		
	8/15/1997	500,000	< 25,000	< 25,000	390,000	-	-	< 5	-	-	< 25,000	< 25,000	-	-	-	< 50,000	< 500,000	< 25,000	< 25,000	< 25,000	< 25,000	< 5	< 5	-	-	-	< 25,000	< 25,000	-	390,000	< 25,000	48,000	-	< 5	< 5	< 25000T	< 25000T	-	
	11/27/2000	64,000	-	1,900	7,600	-	-	< 5	-	-	-	-	-	-	-	-	8,100	-	-	-	-	11	< 5	< 5	-	-	-	-	29,000	1,100	29,000	-	410	< 5	-	-	-		
	7/20/2001	74,000	< 5	1,100	6,700	-	-	< 5	-	-	-	-	-	-	-	< 10	< 5	< 5	7.3	-	< 5	< 5	< 5	-	-	-	23	-	-	8,300	1,100	22,000	-	940	< 5	95 T	95 T	-	
	2/5/2002	6,100	< 5	1,800	6,800	-	-	< 5	-	-	-	-	-	-	-	< 10	9,000	< 5	< 5	-	< 5	< 5	< 5	-	-	-	29	-	-	4,300	570	25,000	-	2,600	< 5	120 T	120 T	-	
	7/23/2002	65,000	< 5	750	4,900	-	-	11	-	-	-	-	-	-	-	-	21	2,900	< 5	< 5	-	< 5	< 5	5.2	-	-	27	-	-	16,000	910	20,000	-	670	< 5	110 T	110 T	-	
	12/18/2002	96,000	< 5	1,200	6,400	-	-	< 5	-	-	-	-	-	-	-	-	18	19,000	< 5	< 5	-	< 5	< 5	< 5	-	-	35	-	-	15,000	1,800	26,000	-	1,400	7	130 T	130 T	-	
	6/5/2003	45,000	< 5	550	3,400	-	-	< 5	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	< 5	< 5	-	-	-	31	-	-	3,500	810	15,000	-	2,400	< 5	120 T	120 T	-	
	12/10/2003	73,000	< 2,500	< 2,500	15,000	-	-	< 2,500	-	-	< 2,500	< 2,500	-	-	-	< 5,000	< 10,000	< 2,500	< 2,500	< 5,000	< 2,500	< 5,000	< 2,500	< 2,500	-	-	-	< 2,500	< 2,500	< 2,500	4,800	2,900	25,000	-	< 2,500	< 1,000	< 5,000	< 2,500	-
	6/17/2004	42,000	< 5	320	2,200	-	-	< 5	-	-	< 5	< 5	-	-	-	24	< 20	< 5	< 5	< 10	9	< 10	< 5	-	-	-	33	< 5	< 5	5,900	320	14,000	-	930	< 2	96	42	-	
	1/25/2005	30,000	< 2,500	15,000	< 2,500	-	-	< 2,500	-	-	< 2,500	< 2,500	-	-	-	< 5,000	< 10,000	< 2,500	< 2,500	< 5,000	< 2,500	< 5,000	< 2,500	-	-	-	< 2,500	< 2,500	< 2,500	< 2,500	< 2300	6,900	-	5,000	< 1,000	< 5,000	< 2,500	-	
	12/13/2005	22,000	< 2,500	5,800	2,600	-	-	< 2,500	-	-	< 2,500	< 2,500	-	-	-	< 5,000	480,000	< 2,500	< 2,500	< 5,000	< 2,500	< 5,000	< 2,500	-	-	-	< 2,500	< 2,500	< 2,500	3,400	< 2,500	11,000	-	< 2,500	< 1,000	< 5,000	< 2,500	-	
	7/10/2006	9,300	< 2,500	9,600	< 2,500	-	-	< 2,500	-	-	< 2,500	< 2,500	-	-	-	< 5,000	1,000,000	< 2,500	< 2,500	< 5,000	< 2,500	< 5,000	< 2,500	-	-	-	< 2,500	< 2,500	< 2,500	< 2,500	< 2,500	7,300	-	2,500	< 2,500	< 5,000	< 2,500	-	
	2/14/2007	5,800	< 5	18,000	3,100	-	-	< 5	-	-	< 5	< 5	-	-	-	610	3,900,000	< 5	< 5	< 10	42	< 10	< 5	-	-	-	73	5.4	7	< 5	580	9,300	-	410	970	190	76	-	
	8/6/2007	4,000	< 250	22,000	3,200	-	-	< 250	-	-	< 250	< 250	-	-	-	< 500	12,000,000	< 250	< 250	< 500	< 250	< 500	< 250	-	-	-	< 250	< 250	< 250	7,500	580	9,700	-	< 250	790	< 500	< 250	-	
	2/28/2008	1,600	< 5	18,000	2,000	-	-	< 5	-	-	-	-	-	-	-	830	900,000	-	-	-	43	< 10	< 5	-	-	-	95	< 5	14	< 5	11	5,700	-	16	1,200	270	150	-	
	11/26/2008	2,900	< 250	27,000	6,900	-	-	< 250	-	-	< 250	< 250	-	-	-	570	7,000,000	< 250	< 250	< 500	< 250	< 500	< 250	-	-	-	< 250	< 250	< 250	980	< 250	9,600	-	< 250	6,000	< 500	< 250	-	
	9/10/2009	35,000	< 250	25,000	9,400	-	-	38	-	-	< 250	< 250	-	-	-	< 500	3,200,000	< 250	< 250	170 J	< 250	< 9.9	< 7.6	-	-	-	160 J	< 250	< 250	4,400	< 8.6	12,000	-	54	2,900	220 J	220 J	-	
	3/17/2010	1,700	< 5	36,000	12,000	-	-	< 5	-	-	< 5	< 5	-	-	-	320	2,600,000	< 5	< 5	31	37	17	< 5	120,000	27	-	56	< 5	< 5	65	7.3	6,500	110	< 5	3,600	200	150	-	
	9/16/2010	2,900	< 5	8,500	2,500	-	-	< 5	-	-	< 5	< 5	-	-	-	140	1,200,000	< 5	< 5	< 10	41	< 10	< 5	49,000	23	-	65	< 5	6.5	< 5	6.4	6,300	89	88	4,100	180	150	-	
	4/8/2011	1,400	< 5	9,400	1,500	-	-	9	-	-	< 5	< 5	-	570	12	140	420,000	< 5	< 5	12	24	< 10	< 5	16,000	38	-	64	< 5	6.5	230	< 5	4,900	16	23	2,800	210	140	-	
	4/8/2011 (DUP)	1,300	< 5	13,000	1,400	-	-	8	-	-	< 5	< 5	-	390	12	150	1,600,000	< 5	< 5	< 10	22	< 10	< 5	16,000	28	-	63	< 5	< 5	130	< 5	3,400	13	20	3,000	200	120	-	
	10/21/2011	3,800	< 5	6,800	930	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	82	460,000	< 5	< 5	< 10	10	< 10	< 5	14,000	< 5	-	27	< 5	< 5	490	< 5	2,900	< 5	27	750	73	52	-	
	8/6/2012	4,800	-	1,500	280	-	-	< 5	3,509	-	-	-	9	-	-	32	92,000	-	-	< 10	9.6	< 10	< 5	3,500	-	-	29	-	< 5	190	19	2,600	9.4	110	150	87	58	-	
6/14/2013	240	< 10	560	18	< 10	< 10	< 10	-	< 10	< 10	< 10	-	< 100	< 10	< 100	780	< 10	-	< 10	< 10	< 50	< 50	200	-	< 10	19	< 10	-	< 50	< 10	410	< 10	< 10	92	-	-	93		
12/5/2013	57	< 1	120	3.1	< 1	3.6	< 1	1.3	< 1	< 1	< 100	< 10	< 10	< 10	< 10	260	< 1	< 1	3.6	< 1	< 5	< 5	120	9.3	< 1	6.5	< 1	2.3	< 5	5.1	26	< 1	28	49	-	-	26		
MW-2	7/13/1995	16	< 10	13	< 5	-	7.1 E	-	-	< 10	< 10	-	-	-	< 10	262	< 10	< 10	-	< 10	< 10	< 10	-	-	-	< 10	< 10	-	47	5 E	-	-	< 5	< 10	< 10T	< 10T	-		
	3/22/1996	3	< 10	2	< 5	-	-	-	-	< 10	< 10	-	-	-	< 10	17	< 10	< 10	-	< 10	-	-	-	-	-	-	< 10	< 10	-	9	3	1	-	< 5	-	< 5	< 5	-	
	8/15/1997	< 5	< 5	< 5	< 100	-	-	< 5	-	< 5	< 5	-	-	-	< 10	< 100	< 5	< 5	< 5	< 5	< 5	< 5	-	-	-	< 5	< 5	-	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/27/2000	-	< 5	< 5	< 5	-	-	< 5	-	< 5	< 5	-	-	-	< 10	-	< 5	< 5	< 10	< 5	< 5	< 5	-	-	-	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	7/20/2001	< 5	< 5	< 5	< 5	-	-	< 5	-	< 5	< 5	-	-	-	< 10	< 5	< 5	< 5	-	< 5	< 5	< 5	-																

Table 2 - Summary of Groundwater Analytical Data - Volatile Organic Compounds
 Voluntary Investigation and Remediation Plan
 Apollo Technologies, Inc. - Smyrna Facility

Monitoring Well / Sample ID	Sample Date	Analytical Results (ug/L)																																									
		1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,2-Dichloroethane	1,2-Dichloroethene	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	2-Butanone	2-Hexanone	4-Methyl-2-Pentanone	Acetone	Benzene	Carbon Disulfide	Chlorinated Fluorocarbon (Freon 113)	Chlorobenzene	Chloroethane	Chloroform	cis-1,2-Dichloroethylene	Cyclohexane	Cymene (p-isopropyltoluene)	Ethylbenzene	Isopropylbenzene	Methylcyclohexane	Methylene chloride	Tetrachloroethene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (m,p)	o-Xylene	Xylene (total)					
Applicable Regulatory Standards (ug/L)	13600	5	4000	524	NE	NE	5	NE	NE	600	75	10.4	11800	NE	4230	45600	8.7	4000	1000000	140	30000	80	200	17500	NE	700	1050	NE	454	98	5240	161	5	3	10000	10000	10000						
MW-3	7/13/1995	-	-	-	-	-	-	-	-	< 500	< 500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7/13/1995	203,981	< 500	4,298	24,101	-	-	34,101	-	-	-	-	-	-	< 500	89,065	< 500	< 500	-	< 500	< 500	53.5 E	-	-	-	-	-	< 500	< 500	-	77,212	721	29,809	-	< 5	< 500	171 ET	171 ET	-	-	-		
	3/22/1996	25,000	5	560	4,500	-	-	51	-	-	< 10	< 10	-	-	< 10	46,000	< 10	< 10	-	< 10	< 10	12	8	-	-	-	26	< 10	-	1,000	2,100	3,200	-	790	-	130 T	130 T	-	-	-	-		
	8/15/1997	43,000	< 2,500	3,600	100,000	-	-	< 5	-	-	< 2,500	< 2,500	-	-	-	< 5,000	100,000	< 2,500	< 2,500	-	< 2,500	< 5	< 5	-	-	-	< 2,500	< 2,500	-	110,000	< 2,500	3,100	-	< 5	< 5	< 2500T	< 2500T	-	-	-	-		
	11/27/2000	11,000	-	10,000	42,000	-	-	29	-	-	-	-	-	-	-	-	42,000	-	-	-	-	350	7.5	-	-	-	-	-	-	52,000	560	2,400	-	660	< 5	-	-	-	-	-			
	7/20/2001	34,000	5	25,000	< 5	-	-	72	-	-	-	-	-	-	-	53	< 5	< 5	< 5	-	< 5	1,100	30	-	-	-	79	-	-	130,000	530	6,500	-	1,400	730	380 T	380 T	-	-	-			
	2/5/2002	29,000	< 5	24,000	560,000	-	-	< 5	-	-	-	-	-	-	-	140	560,000	< 5	< 5	-	< 5	1,400	11	-	-	-	72	-	-	160,000	370	4,600	-	1,700	1,400	360 T	360 T	-	-	-			
	7/23/2002	13,000	< 5	33,000	110,000	-	-	74	-	-	-	-	-	-	-	72	110,000	< 5	< 5	-	< 5	2,700	< 5	-	-	-	83	-	-	150,000	230	7,300	-	1,100	1,400	420 T	420 T	-	-	-			
	12/18/2002	3,400	< 5	7,200	83,000	-	-	20	-	-	-	-	-	-	-	24	83,000	< 5	< 5	-	< 5	190	< 5	-	-	-	13	-	-	28,000	80	1,500	-	180	3,600	74 T	74 T	-	-	-			
	6/5/2003	2,900	< 5	7	< 5	-	-	6.9	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	160	6.9	-	-	-	< 5	-	-	1,200	310	180	-	140	130	44 T	44 T	-	-	-			
	12/10/2003	700	< 5	780	< 20	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	< 20	< 5	< 5	< 10	< 5	18	< 5	-	-	-	< 5	< 5	< 5	260	46	41	-	26	570	< 10	< 5	-	-	-			
	6/17/2004	1,400	< 5	1,900	3,100	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	3,100	< 5	< 5	< 10	< 5	310	< 5	-	-	-	< 5	< 5	< 5	2,200	18	180	-	50	190	21	6.4	-	-	-			
	1/25/2005	1,700	< 500	2,500	< 2000	-	-	< 500	-	-	< 500	< 500	-	-	-	< 1,000	< 2000	< 500	< 500	< 1,000	< 500	< 1,000	< 500	-	-	-	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	
	12/13/2005	3,400	< 500	17,000	59,000	-	-	< 500	-	-	< 500	< 500	-	-	-	< 1,000	59,000	< 500	< 500	< 1,000	< 500	1,600	< 500	-	-	-	< 500	< 500	< 500	6,500	< 500	1,200	-	< 500	2,800	< 1,000	< 500	-	-	-			
	7/10/2006	< 5	< 5	8	4,300	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	4,300	< 5	< 5	< 10	< 5	< 10	< 5	-	-	-	< 5	< 5	< 5	9.3	< 5	< 5	-	< 5	< 2	< 10	< 5	-	-	-			
	2/14/2007	1,200	< 5	1,600	2,600	-	-	7.3	-	-	< 5	< 5	-	-	-	< 10	18,000	< 5	< 5	< 10	< 5	210	7.5	-	-	-	< 5	< 5	< 5	440	100	130	-	140	160	15	20	-	-	-			
	8/6/2007	11,000	5	15,000	7,300	-	-	22	-	-	< 5	< 5	-	-	-	34	270,000	< 5	< 5	< 10	< 5	840	< 5	-	-	-	55	< 5	5.2	14,000	250	4,100	-	960	1,500	190	60	-	-	-			
	2/28/2008	970	< 5	2,300	1,500	-	-	7.4	-	-	< 5	< 5	-	-	-	11	85,000	< 5	< 5	< 10	< 5	880	5	-	-	-	17	< 5	< 5	1,900	280	980	-	250	< 2	62	220	-	-	-			
	11/26/2008	7,200	< 100	9,800	8,500	-	-	< 100	-	-	< 100	< 100	-	-	-	< 200	150,000	< 100	< 100	< 200	< 100	1,700	< 100	-	-	-	< 100	< 100	< 100	17,000	270	5,000	-	710	2,400	230	< 100	-	-	-			
	9/10/2009	2,400	< 5	3,200	1,200	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	44,000	0.25 J	< 5	27	< 5	< 10	< 5	-	-	-	14	4.6 J	< 5	280	93	800	-	500	700	55	18	-	-	-			
	3/17/2010	5,300	< 5	5,300	2,500	-	-	11	-	-	< 5	< 5	-	-	-	18	160,000	< 5	< 5	21	< 5	2,000	< 5	3,400	< 5	-	24	< 5	< 5	2,200	130	2,100	< 5	190	1,600	90	27	-	-	-			
	9/17/2010	810	< 5	1,900	2,500	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	19,000	< 5	< 5	< 10	< 5	120	< 5	1,400	< 5	-	7.4	< 5	< 5	27	6.4	250	< 5	7.7	470	40	13	-	-	-				
	4/8/2011	500	< 5	410	130	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	720	< 5	< 5	< 10	< 5	28	< 5	320	< 5	-	< 5	< 5	< 5	5.8	67	< 5	7.4	80	10	5.4	-	-	-					
	10/21/2011	85	< 5	170	21	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	11	86,000	< 5	< 5	< 10	< 5	230	< 5	-	-	-	< 5	< 5	< 5	85	< 5	15	13	5.4	-	-	-						
	10/3/2012	2,500	-	2,300	1,500	-	-	6.1	3205	-	-	-	-	-	-	12	39,000	-	-	44	< 5	240	< 5	3,200	-	-	22	-	6.3	< 5	12	630	5.1	45	870	120	42	-	-	-			
6/14/2013	240	< 50	4,000	240	< 50	< 50	< 50	-	< 50	< 50	< 50	-	< 500	< 500	15,000	< 50	-	< 50	< 50	< 50	270	< 250	1,700	-	< 50	< 50	< 50	-	< 250	< 50	640	< 50	< 50	1,200	-	-	< 150	-	-				
12/5/2013	2,900	< 250	2,900	1,700	< 250	< 250	< 250	-	< 250	< 250	< 2500	< 2500	< 2500	< 2500	49000 J4	< 250	< 250	< 250	< 250	< 1200	< 1200	5,100	< 250	< 250	< 250	< 250	< 250	< 250	< 1200	< 250	< 1200	< 250	< 250	1,600	-	-	< 750	-	-				
MW-4	1/25/2005	3,400	< 500	< 500	< 500	-	-	< 500	-	< 500	< 500	-	-	-	< 1,000	< 500	< 500	< 1,000	< 500	< 1,000	< 500	-	-	-	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500		
	12/13/2005	2,200	< 500	< 500	7,000	-	-	< 500	-	< 500	< 500	-	-	-	< 1,000	7,000	< 500	< 500	< 1,000	< 500	< 1,000	< 500	-	-	-	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	
	7/10/2006	2,000	< 500	< 500	< 500	-	-	< 500	-	< 500	< 500	-	-	-	< 1,000	< 5,000	< 500	< 500	< 1,000	< 500	< 1,000	< 500	-	-	-	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	
	2/14/2007	3,600	8	< 5	18,000	-	-	< 5	-	< 5	< 5	-	-	-	< 10	< 50	< 5	< 5	< 10	< 5	< 10	< 5	-	-	-	&																	

Table 2 - Summary of Groundwater Analytical Data - Volatile Organic Compounds
 Voluntary Investigation and Remediation Plan
 Apollo Technologies, Inc. - Smyrna Facility

Monitoring Well / Sample ID	Sample Date	Analytical Results (ug/L)																																				
		1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,2-Dichloroethane	1,2-Dichloroethene	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	2-Butanone	2-Hexanone	4-Methyl-2-Pentanone	Acetone	Benzene	Carbon Disulfide	Chlorinated Fluorocarbon (Freon 113)	Chlorobenzene	Chloroethane	Chloroform	cis-1,2-Dichloroethylene	Cyclohexane	Cymene (p-isopropyltoluene)	Ethylbenzene	Isopropylbenzene	Methylcyclohexane	Methylene chloride	Tetrachloroethene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (m,p)	o-Xylene	Xylene (total)
Applicable Regulatory Standards (ug/L)	13600	5	4000	524	NE	NE	5	NE	NE	600	75	10.4	11800	NE	4230	45600	8.7	4000	1000000	140	30000	80	200	17500	NE	700	1050	NE	454	98	5240	161	5	3	10000	10000	10000	
DW-1	11/5/1997	3,000	< 250	< 250	1,900	-	-	< 5	-	-	< 250	< 250	-	-	-	< 250	54,000	< 250	< 250	-	< 250	< 5	< 5	-	-	-	< 250	< 250	-	28,000	320	< 250	-	< 5	< 5	250 T	250 T	-
	11/27/2000	780	-	< 5	850	-	-	< 5	-	-	-	-	-	-	-	-	< 5	-	-	-	-	< 5	< 5	-	-	-	-	-	< 5	140	< 5	-	< 5	< 5	-	-	-	
	7/20/2001	490	< 5	11	540	-	-	< 5	-	-	-	-	-	-	-	-	< 5	< 5	< 5	-	< 5	< 5	< 5	-	-	-	< 5	-	< 5	140	< 5	-	8.4	< 5	< 5T	< 5T	-	
	2/5/2002	1,200	< 5	9.2	1,700	-	-	< 5	-	-	-	-	-	-	-	-	< 5	< 5	< 5	-	< 5	< 5	< 5	-	-	-	< 5	-	< 5	300	< 5	-	5.4	< 5	< 5T	< 5T	-	
	7/23/2002	460	< 5	< 5	750	-	-	< 5	-	-	-	-	-	-	-	-	< 5	< 5	< 5	-	< 5	< 5	< 5	-	-	-	< 5	-	< 5	150	< 5	-	< 5	< 5	< 5T	< 5T	-	
	12/18/2002	1,000	< 5	1,600	11	-	-	< 5	-	-	-	-	-	-	-	-	< 5	< 5	< 5	-	< 5	< 5	< 5	-	-	-	< 5	-	< 5	240	< 5	-	< 5	< 5	< 5T	< 5T	-	
	6/5/2003	5,000	< 5	100	11,000	-	-	7.6	-	-	-	-	-	-	-	-	< 5	< 5	< 5	-	< 5	< 5	< 5	-	-	-	< 5	-	< 5	14	2,000	< 5	-	40	< 5	6T	6T	-
	12/10/2003	12,000	< 500	< 500	15,000	-	-	< 500	-	-	< 500	< 500	-	-	-	< 1,000	< 200	< 500	< 500	< 1,000	< 500	< 1,000	< 500	-	-	-	< 500	< 500	< 500	< 500	3,600	< 500	-	< 500	< 200	< 1,000	< 500	-
	6/17/2004	4,200	< 5	120	6,500	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	< 20	< 5	< 5	< 10	< 5	< 10	< 5	-	-	-	< 5	< 5	< 5	1,200	< 5	-	23	< 2	< 10	< 5	-	
	1/25/2005	6,200	< 500	< 500	12,000	-	-	< 500	-	-	< 500	< 500	-	-	-	< 1,000	< 2000	< 500	< 500	< 1,000	< 500	< 1,000	< 500	-	-	-	< 500	< 500	< 500	< 500	2,300	< 500	-	< 500	< 200	< 1,000	< 500	-
	12/13/2005	1,500	< 500	5,800	5,700	-	-	< 500	-	-	< 500	< 500	-	-	-	< 1,000	39,000	< 500	< 500	< 1,000	< 500	< 1,000	< 500	-	-	-	< 500	< 500	< 500	3,600	760	< 500	-	< 500	740	< 1,000	< 500	-
	7/10/2006	610	< 500	12,000	3,900	-	-	< 500	-	-	< 500	< 500	-	-	-	< 1,000	150,000	< 500	< 500	< 1,000	< 500	< 1,000	< 500	-	-	-	< 500	< 500	< 500	6,300	< 500	980	-	< 500	1,700	< 1,000	< 500	-
	2/14/2007	26	< 5	160	60	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	380	< 5	< 5	< 10	< 5	< 10	< 5	-	-	-	< 5	< 5	< 5	31	13	-	13	< 10	< 5	-		
	8/6/2007	550	< 5	7,300	2,300	-	-	9.1	-	-	< 5	< 5	-	-	-	< 10	330,000	< 5	< 5	< 10	< 5	< 5	< 5	-	-	-	< 5	< 5	< 5	3,900	270	950	-	79	820	15	6.2	-
	2/28/2008	490	< 5	7,100	2,300	-	-	15	-	-	-	-	-	-	-	< 10	150,000	-	-	-	-	16,000	< 5	-	-	-	11	< 5	6	2,000	370	1,200	-	130	1,200	40	17	-
	11/26/2008	290	< 5	3,600	1,600	-	-	9.7	-	-	< 5	< 5	-	-	-	< 10	140,000	< 5	< 5	< 10	< 5	1,300	< 5	-	-	-	5.8	< 5	< 5	850	240	660	-	100	770	21	9.2	-
	9/10/2009	360	< 5	3,400	1,200	-	-	7.9	-	-	< 5	< 5	-	-	-	< 10	48,000	< 5	< 5	68	< 5	< 10	< 5	-	-	-	5.8	< 5	< 5	430	230	550	-	120	700	15	8.3	-
	3/17/2010	370	< 5	2,100	1,400	-	-	6.2	-	-	< 5	< 5	-	-	-	< 10	14,000	< 5	< 5	55	< 5	1,700	< 5	190	< 5	-	< 5	< 5	260	280	360	< 5	520	520	< 10	< 5	-	
	9/17/2010	310	< 5	1,400	1,000	-	-	5.8	-	-	< 5	< 5	-	< 50	< 10	< 10	11,000	< 5	< 5	59	< 5	1,000	< 5	160	< 500	-	< 5	< 5	130	340	360	< 5	140	310	11	5	-	
	4/8/2011	350	< 5	1,500	1,100	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	< 10	10,000	< 5	< 5	68	< 5	730	< 5	160	< 5	-	< 5	< 5	120	370	310	< 5	140	290	13	7.2	-	
10/21/2011	240	< 5	780	760	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	< 10	3,500	< 5	< 5	< 10	< 5	630	< 5	97	< 5	-	< 5	< 5	46	300	220	< 5	110	150	15	6.5	-		
10/2/2012	230	-	680	840	-	-	5.4	69	-	-	-	< 150	-	-	< 10	2,500	-	-	76	< 5	1,200	< 5	69	-	-	< 5	< 5	32	260	290	< 5	49	140	9.8	< 5	-		
6/13/2013	250	< 1	530	680	< 1	1	7	-	< 1	< 1	< 1	-	11	-	< 10	770	< 1	-	79	< 1	880	< 5	56	< 1	< 1	5	< 1	24	340	400	1.1	40	110	-	-	26		
12/5/2013	410	< 1	930	1,200	< 1	1.1	9.5	-	< 1	< 1	< 1	< 100	< 10	< 10	< 10	77	< 1	< 1	130	< 1	1,400	< 5	80	1.9	< 1	6.3	< 1	3.2	37	540	490	1	51	180	-	-	30	
12/5/2013 (DUP)	390	< 1	900	1,100	< 1	1	10	-	< 1	< 1	< 1	< 100	< 10	< 10	< 10	83	< 1	< 1	130	< 1	1,400	< 5	85	1.9	< 1	6.3	< 1	3.1	38	540	470	< 1	52	190	-	-	31	
RW-1	7/13/1995	16,249	< 500	4,435	9,113	-	-	9,113	-	-	< 500	< 500	-	-	-	< 500	3,705	< 500	< 500	-	< 500	< 500	62.5 E	-	-	-	< 500	< 500	-	11,604	290 E	< 500	-	< 5	< 500	293 ET	293 ET	-
	3/22/1996	13,000	< 10	2,200	6,400	-	-	1	-	-	< 10	< 10	-	-	-	< 10	120	< 10	< 10	-	< 10	2	-	-	-	< 10	< 10	-	3,800	470	34	-	33	-	30 T	30 T	-	
	8/15/1997	680	< 25	160	< 500	-	-	< 5	-	-	< 25	< 25	-	-	-	< 50	< 500	< 25	< 25	-	< 25	< 5	< 5	-	-	-	< 25	< 25	< 50	130	< 25	-	< 5	< 5	< 25T	< 25T	-	
	11/5/1997	18,000	< 250	4,500	77,000	-	-	< 5	-	-	< 250	< 250	-	-	-	< 500	77,000	< 250	< 250	-	< 250	< 5	< 5	-	-	-	< 250	< 250	-	61,000	1,100	440	-	< 5	< 5	< 250T	< 250T	-
	11/27/2000	11,000	-	8,400	23,000	-	-	32	-	-	-	-	-	-	-	-	23,000	-	-	-	-	720	< 5	-	-	-	-	-	21,000	1,000	770	-	480	1,700	-	-	-	
	7/20/2001	280	< 5	210	< 5	-	-	< 5	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	30	48	-	-	-	< 5	-	100	110	25	-	81	43	5.6 T	5.6 T	-	
	2/5/2002	6,000	< 5	4,100	800	-	-	< 5	-	-	-	-	-	-	-	< 10	800	< 5	< 5	-	< 5	650	< 5	-	-	-	< 5	-	1,200	800	390	-	360	1,000	53 T	53 T	-	
	7/23/2002	10,000	< 5	6,500	< 5	-	-	11	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	7.1	-	-	-	< 5	-	-	610	270	140	-	350	930	40 T	40 T	-	
	12/18/2002	13,000	< 5	6,900	< 5	-	-	11	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	<																	

Table 2 - Summary of Groundwater Analytical Data - Volatile Organic Compounds
 Voluntary Investigation and Remediation Plan
 Apollo Technologies, Inc. - Smyrna Facility

Monitoring Well / Sample ID	Sample Date	Analytical Results (ug/L)																																					
		1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,2-Dichloroethane	1,2-Dichloroethene	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	2-Butanone	2-Hexanone	4-Methyl-2-Pentanone	Acetone	Benzene	Carbon Disulfide	Chlorinated Fluorocarbon (freon 113)	Chlorobenzene	Chloroethane	Chloroform	cis-1,2-Dichloroethylene	Cyclohexane	Cymene (p-isopropyltoluene)	Ethylbenzene	Isopropylbenzene	Methylcyclohexane	Methylene chloride	Tetrachloroethene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (m,p)	o-Xylene	Xylene (total)	
Applicable Regulatory Standards (ug/L)	13600	5	4000	524	NE	NE	5	NE	NE	600	75	10.4	11800	NE	4230	45600	8.7	4000	1000000	140	30000	80	200	17500	NE	700	1050	NE	454	98	5240	161	5	3	10000	10000	10000		
RW-2	7/13/1995	377	< 500	62	< 5	-	-	192	-	-	< 500	< 500	-	-	-	< 500	3,792	< 500	< 500	-	< 500	< 500	< 500	-	-	-	< 500	< 500	-	1,306	335	< 500	-	< 5	< 500	< 500T	< 500T	-	
	3/22/1996	84	< 10	28	44	-	-	-	-	-	< 10	< 10	-	-	-	< 10	760	< 10	< 10	-	< 10	-	-	-	-	-	< 10	< 10	-	370	15	2	-	8	-	< 10T	< 10T	-	
	8/15/1997	170	< 5	20	< 100	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	< 100	< 5	< 5	-	< 5	< 5	< 5	-	-	-	< 5	< 5	-	65	15	< 5	-	< 5	< 5	< 5T	< 5T	-	
	11/5/1997	540	< 25	82	< 500	-	-	< 5	-	-	< 25	< 25	-	-	-	< 25	< 500	< 25	< 25	-	< 25	< 5	< 5	-	-	-	< 25	< 25	-	600	50	< 25	-	< 5	< 5	< 25T	< 25T	-	
	11/27/2000	63	-	7.9	< 5	-	-	< 5	-	-	-	-	-	-	-	-	< 5	-	-	-	-	< 5	7.2	-	-	-	-	-	-	< 5	44	< 5	-	< 5	< 5	-	-	-	
	7/20/2001	25	< 5	< 5	< 5	-	-	< 5	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	< 5	9	-	-	-	< 5	-	-	< 5	21	< 5	-	< 5	< 5	< 5T	< 5T	-	
	2/5/2002	58	< 5	12	< 5	-	-	< 5	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	< 5	19	-	-	-	< 5	-	-	< 5	53	< 5	-	< 5	< 5	< 5T	< 5T	-	
	7/23/2002	33	< 5	24	< 5	-	-	< 5	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	< 5	6.4	-	-	-	< 5	-	-	< 5	35	< 5	-	< 5	< 5	< 5T	< 5T	-	
	12/18/2002	130	< 5	< 5	< 5	-	-	< 5	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	< 5	6.1	19	-	-	-	< 5	-	-	< 5	1,209	< 5	-	5.4	6.2	< 5T	< 5T	-
	6/5/2003	48	< 5	130	< 5	-	-	< 5	-	-	-	-	-	-	-	< 10	< 5	< 5	< 5	-	< 5	< 5	14	-	-	-	< 5	-	-	< 5	110	< 5	-	6.8	< 5	< 5T	< 5T	-	
	12/10/2003	120	< 5	290	210	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	210	< 5	< 5	< 10	< 5	19	19	-	-	-	< 5	< 5	< 5	6.3	200	< 5	-	11	4.5	< 10	< 5	-	
	6/17/2004	160	< 5	230	< 20	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	< 20	< 5	< 5	< 10	< 5	47	11	-	-	-	< 5	< 5	< 5	38	180	< 5	-	41	10	< 10	< 5	-	
	1/25/2005	92	< 5	180	< 20	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	< 20	< 5	< 5	< 10	< 5	33	10	-	-	-	< 5	< 5	< 5	32	87	< 5	-	28	10	< 10	< 5	-	
	12/13/2005	150	< 5	540	< 50	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	< 50	< 5	< 5	< 10	< 500	71	10	-	-	-	< 5	< 5	< 5	15	160	< 5	-	110	44	< 10	< 5	-	
	7/10/2006	59	< 5	180	< 50	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	< 50	< 5	< 5	< 10	< 5	30	< 5	-	-	-	< 5	< 5	< 5	8.5	91	< 5	-	60	7.7	< 10	< 5	-	
	2/14/2007	61	< 5	280	210	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	340	< 5	< 5	< 10	< 5	43	9.1	-	-	-	< 5	< 5	< 5	12	100	< 5	-	75	15	< 10	12	-	
	8/6/2007	77	< 5	220	270	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	600	< 5	< 5	< 10	< 5	26	6.8	-	-	-	< 5	< 5	< 5	< 5	110	< 5	-	110	31	< 10	< 5	-	
	2/28/2008	65	< 5	220	190	-	-	< 5	-	-	-	-	-	-	-	< 10	< 50	< 5	< 5	< 10	< 5	17	7.5	-	-	-	< 5	< 5	< 5	< 5	90	< 5	-	94	21	< 10	< 5	-	
	11/26/2008	69	< 5	140	250	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	990	< 5	< 5	< 10	< 5	21	< 5	-	-	-	< 5	< 5	< 5	274	100	< 5	-	130	29	< 10	< 5	-	
	9/10/2009	43	< 5	93	100	-	-	< 5	-	-	< 5	0.76 J	-	-	-	< 10	< 50	< 5	< 5	< 10	< 5	6.5	-	-	-	-	< 5	< 5	< 5	< 5	69	< 5	-	100	23	< 10	< 5	-	
3/17/2010	< 5	< 5	< 5	< 5	-	-	< 5	-	-	< 5	< 5	-	-	-	< 10	190	< 5	< 5	< 10	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2	< 10	< 5	-		
9/17/2010	95	< 5	37	510	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	< 10	< 50	< 5	< 5	< 10	< 5	10	< 5	6.6	< 5	-	< 5	< 5	< 5	5.8	81	< 5	< 5	7.5	6.7	< 10	< 5	-		
4/8/2011	19	< 5	89	57	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	< 10	77	< 5	< 5	< 10	< 5	< 10	< 5	86	< 5	-	< 5	< 5	< 5	59	< 5	< 5	100	22	< 5	< 5	-			
10/21/2011	12	< 5	81	32	-	-	< 5	-	-	< 5	< 5	-	< 50	< 10	< 10	< 50	< 5	< 5	< 10	< 5	< 10	< 5	120	< 5	-	< 5	< 5	< 5	40	< 5	< 5	60	18	< 5	< 5	-			
10/2/2012	15	-	100	38	-	-	< 5	160	-	-	-	-	-	-	< 10	< 50	-	-	< 10	< 5	41	< 5	160	-	-	< 5	-	< 5	< 5	71	< 5	< 5	110	22	< 5	< 5	-		
6/13/2013	13	< 1	38	16	< 1	< 1	< 1	-	< 1	< 1	< 1	-	< 10	-	< 10	< 50	< 1	-	< 1	< 1	15	< 5	250	-	< 1	< 1	< 1	-	< 5	92	< 5	< 1	130	6.5	-	-	< 3		
12/4/2013	13	< 1	46	30	< 1	< 1	< 1	-	< 1	< 1	< 1	< 100	< 10	< 10	< 10	< 50	< 1	< 1	< 1	< 1	36	< 5	320	< 1	< 1	< 1	< 1	< 1	83	< 5	< 1	130	14	-	-	< 3			

NOTES:
 ug/L - micrograms per liter
 RW - Recovery wells
 DW - Deep wells
 Applicable Regulatory Standards are derived from the higher of the Type III and IV Non-Residential Risk Reduction Standards
 DL - Detection Limit
 NE - Not established
 - not analyzed/not reported
 < - less than reporting limit
Bold - Exceeds the Laboratory Detection Limit
Bold and Highlighted - Exceeds Applicable Regulatory Standard.

**Table 3 - Summary of Surface Water Analytical Data - Volatile Organic Compounds
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Monitoring Well / Sample ID	Sample Date	Analytical Results (ug/L)						
		1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Acetone	Tetrachloroethene	Trichloroethene	Vinyl Chloride
SW-1	1/25/2005	15	<5	<5	<50	<5	<5	<2
	12/13/2005	14	5.5	9.9	<50	8.3	7.5	<2
	7/10/2006	9.3	<5	<5	<50	<5	9.9	<2
	2/14/2007	17	5.1	<5	<50	<5	<5	<2
	8/6/2007	10	<5	<5	<50	<5	<5	<2
	2/28/2008	19	5.9	<5	2,400	<5	<5	<2
	11/26/2008	14	5.7	<5	<50	<5	<5	<2
	9/10/2009	13	<5	<5	<50	<5	<5	<2
	3/16/2010	13	5	<5	<50	<5	<5	<2
	9/16/2010	10	<5	<5	<50	<5	<5	<2
	4/8/2011	14	<5	<5	<50	<5	<5	<2
	10/21/2011	7.8	<5	<5	<50	<5	<5	<2
	10/8/2012	7.5	-	-	-	-	-	-
	6/11/2013	4.8	1	1.1	<50	<1	<1	<1
12/4/2013	8.6	2	2	<50	<1	<1	<1	
SW-2	1/25/2005	6.4	<5	23	<50	5.8	5.3	4.4
	12/13/2005	6.1	<5	6.7	<50	5.3	5	<2
	7/10/2006	6.2	<5	5.4	<50	5.2	8.9	<2
	2/14/2007	6.4	<5	11	<50	7.4	9	<2
	8/6/2007	<5	<5	<5	<50	<5	5.7	<2
	2/28/2008	6.6	<5	5.6	130	7.6	8.8	<2
	11/26/2008	<5	<5	<5	<50	<5	10	<2
	9/10/2009	<5	<5	<5	<50	<5	5.5	<2
	3/16/2010	5.2	<5	5.5	<50	<5	5.8	<2
	9/16/2010	<5	<5	<5	<50	<5	6.2	<2
	4/8/2011	5.2	<5	<5	<50	<5	5.1	<2
	10/21/2011	<5	<5	<5	<50	<5	<5	<2
	10/8/2012	<5	-	-	-	-	-	-
	6/11/2013	2.6	<1	2.6	<50	1.3	5.1	<1
12/4/2013	4.6	1.1	3.3	<50	1.1	5.3	<1	

NOTES:

ug/L - micrograms per liter

- not analyzed/not reported

< - less than reporting limit

Bold - Exceeds the Laboratory Detection Limit

**Table 4 - Summary of Risk Reduction Standards
Voluntary Investigation and Remediation Plan
Apollo Technologies, Inc. - Smyrna Facility**

Constituent	CAS No.	Soil			Groundwater		
		Type 1 RRS (mg/kg)	Type 3 RRS (mg/kg)	Type 4 RRS (mg/kg)	Type 1 RRS (mg/L)	Type 3 RRS (mg/L)	Type 4 RRS (mg/L)
1,1,1-Trichloroethane	71-55-6	2.00E+01	2.00E+01	4.78E+00	2.00E-01	2.00E-01	1.36E+01
1,1,2-Trichloroethane	79-00-5				5.00E-03	5.00E-03	5.83E-04
1,1-Dichloroethane	75-34-3	4.00E+02	4.00E+02	1.14E+00	4.00E+00	4.00E+00	4.64E-02
1,1-Dichloroethene	75-35-4	7.00E-01	7.00E-01	1.88E-01	5.00E-03	5.00E-03	5.24E-01
1,2-Dichloroethane	107-06-2	5.00E-01	5.00E-01	1.42E-03	5.00E-03	5.00E-03	2.86E-03
1,4-Dioxane	123-91-1				DL	DL	1.04E-02
2-Butanone	78-93-3				2.00E+00	2.00E+00	1.18E+01
4-Methyl-2-Pentanone	108-10-1				2.00E+00	2.00E+00	4.23E+00
Acetone	67-64-1	4.00E+02	4.00E+02	9.35E+00	4.00E+00	4.00E+00	4.56E+01
Benzene	71-43-2				5.00E-03	5.00E-03	8.72E-03
Carbon Disulfide	75-15-0				4.00E+00	4.00E+00	1.70E+00
Chlorobenzene	108-90-7				1.00E-01	1.00E-01	1.36E-01
Chloroform	67-66-3				8.00E-02	8.00E-02	3.42E-03
cis-1,2-Dichloroethene	156-59-2	7.00E+00	7.00E+00	6.01E-02	7.00E-02	7.00E-02	2.04E-01
Cyclohexane	110-82-7	2.00E+01	2.00E+01	1.15E+01	0.005 ¹	0.005 ¹	1.75E+01
Ethylbenzene	100-41-4	7.00E+01	7.00E+01	7.85E-01	7.00E-01	7.00E-01	2.91E-02
Freon-113 (Trichloro-1,2,2-trifluoroethane,1,1,2-)	76-13-1				1.00E+03	1.00E+03	8.52E+01
Isopropylbenzene	98-82-8	2.19E+01	2.19E+01	1.72E+00	0.005 ¹	0.005 ¹	1.05E+00
Methylene Chloride	75-09-2	5.00E-01	5.00E-01	1.16E-01	5.00E-03	5.00E-03	4.54E-01
Tetrachloroethene	127-18-4	5.00E-01	5.00E-01	4.46E-02	5.00E-03	5.00E-03	9.81E-02
Toluene	108-88-3	1.00E+02	1.00E+02	3.63E+00	1.00E+00	1.00E+00	5.24E+00
trans-1,2-Dichloroethene	156-60-5				1.00E-01	1.00E-01	1.61E-01
Trichloroethene	79-01-6	5.00E-01	5.00E-01	1.87E-03	5.00E-03	5.00E-03	5.24E-03
Vinyl Chloride	75-01-4				2.00E-03	2.00E-03	3.27E-03
Xylenes (Total)	1330-20-7	1.00E+03	1.00E+03	9.85E+00	1.00E+01	1.00E+01	2.88E-01
1,3-Dichlorobenzene	541-73-1				6.00E-01	6.00E-01	6.00E-01
1,4-Dichlorobenzene	106-46-7				7.50E-02	7.50E-02	5.30E-01
bis(2-ethylhexyl)phthalate	117-81-7	5.00E+01	5.00E+01	4.89E+01			

mg milligrams
kg kilograms
RRS Risk Reduction Standard
CAS Chemical Abstract Service

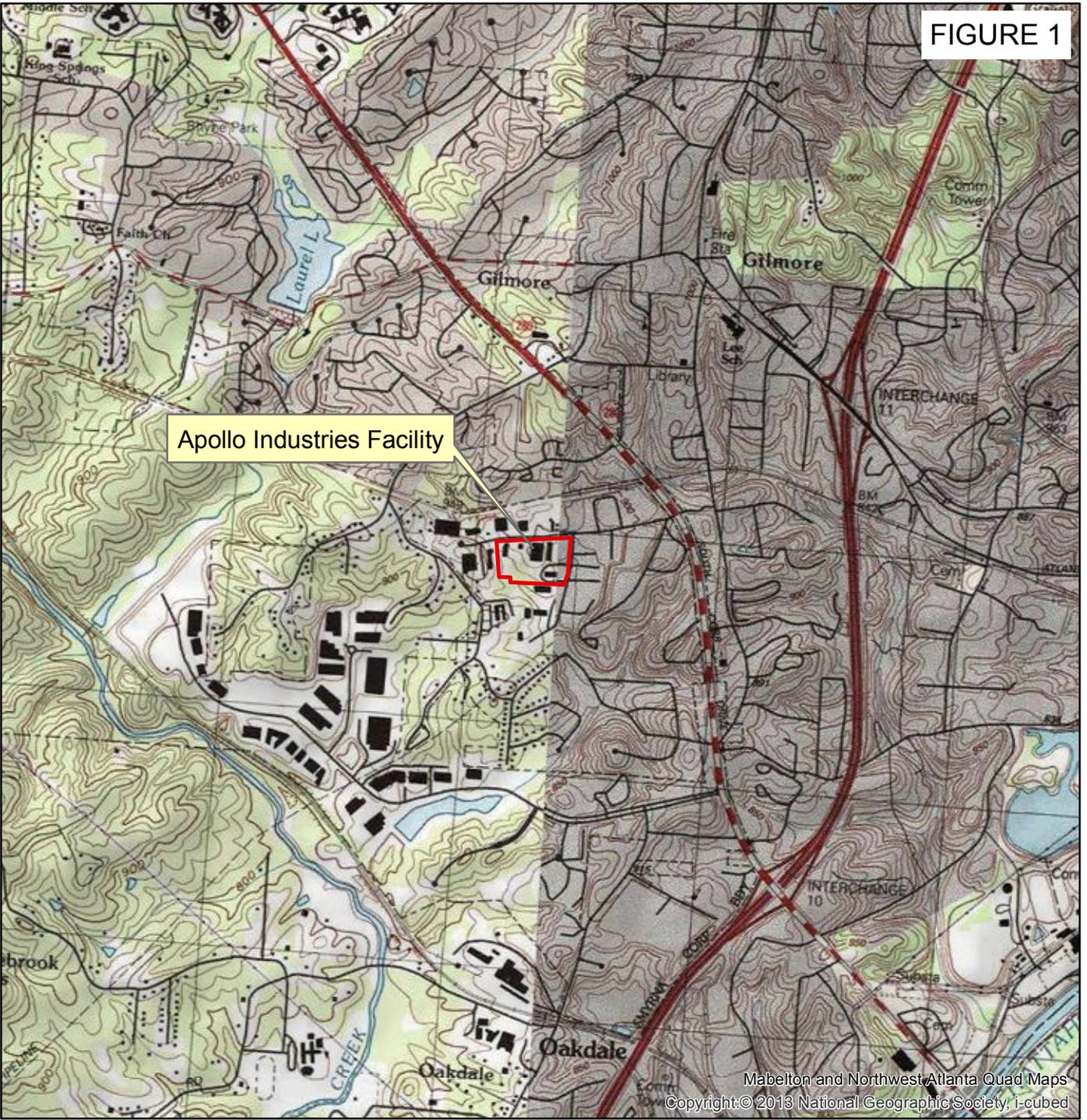
Notes:

¹ Detection limit used for Groundwater Type 1 RRS. Chemical does not have a value in HSRA Appendix III Table 2.

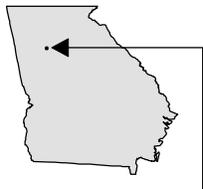
Figures

\\Atlantastyr\projects\Apollo_Tech_18806151262_Smyrna-Gw-Monit\Docs\Reports
Figure 1--Site Location

FIGURE 1



Mabelton and Northwest Atlanta Quad Maps
Copyright:© 2013 National Geographic Society, i-cubed



MAP LOCATION

APOLLO TECHNOLOGIES, INC.
 1850 S. COBB INDUSTRIAL BLVD.
 SMYRNA, COBB COUNTY, GEORGIA

SITE LOCATION MAP

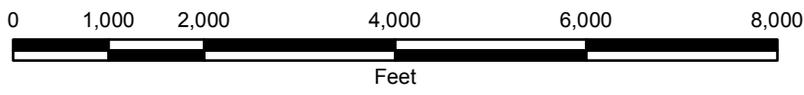


FIGURE 2

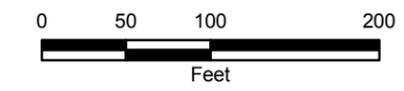


LEGEND

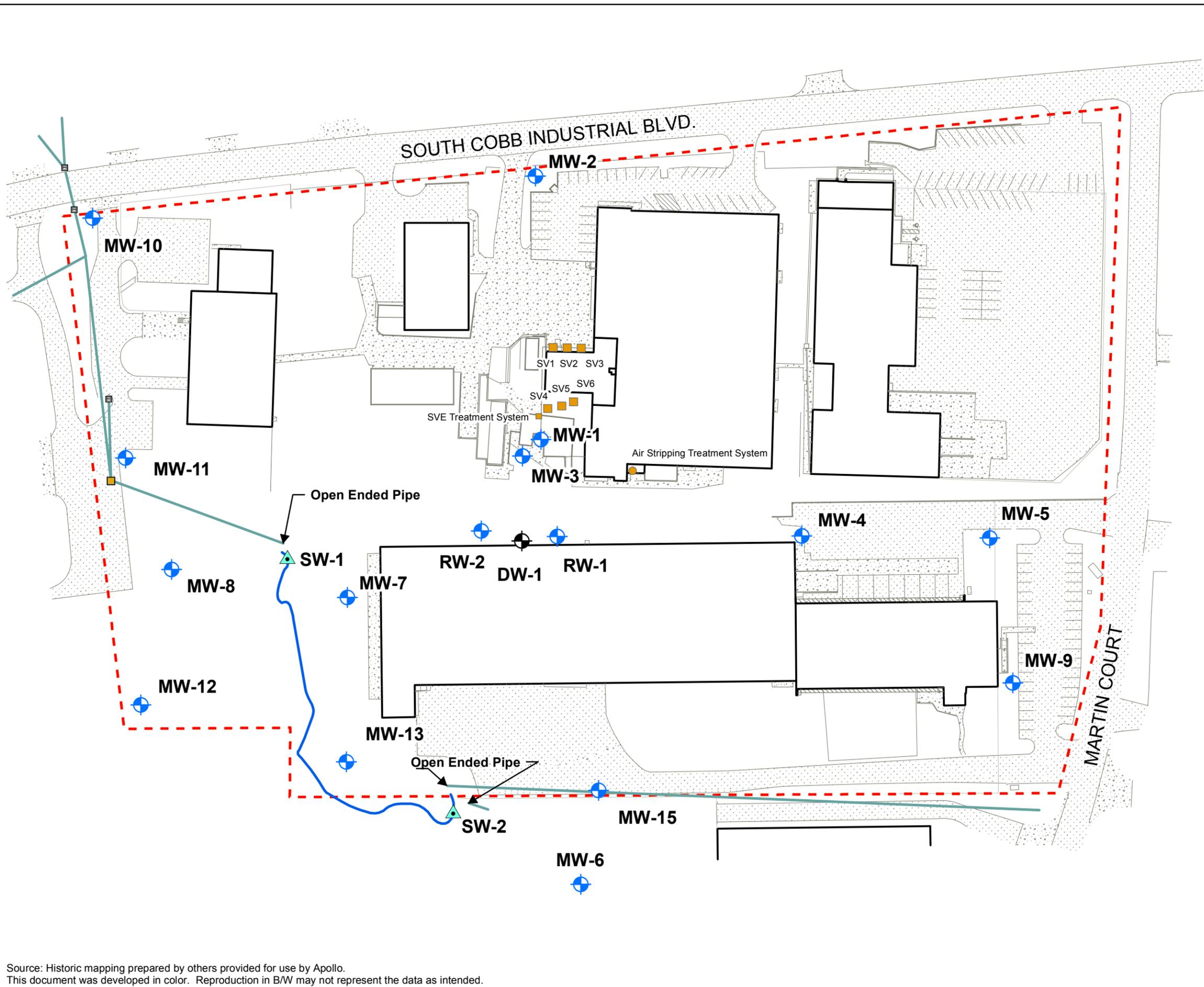
- Deep Monitoring Well
- Shallow Monitoring Well
- Surface Water Sample Location
- Drop Inlet
- Catch Basin
- Stormwater Channel
- Stormwater Pipe
- Remediation System
- Property_Boundary

APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GEORGIA

SITE PLAN

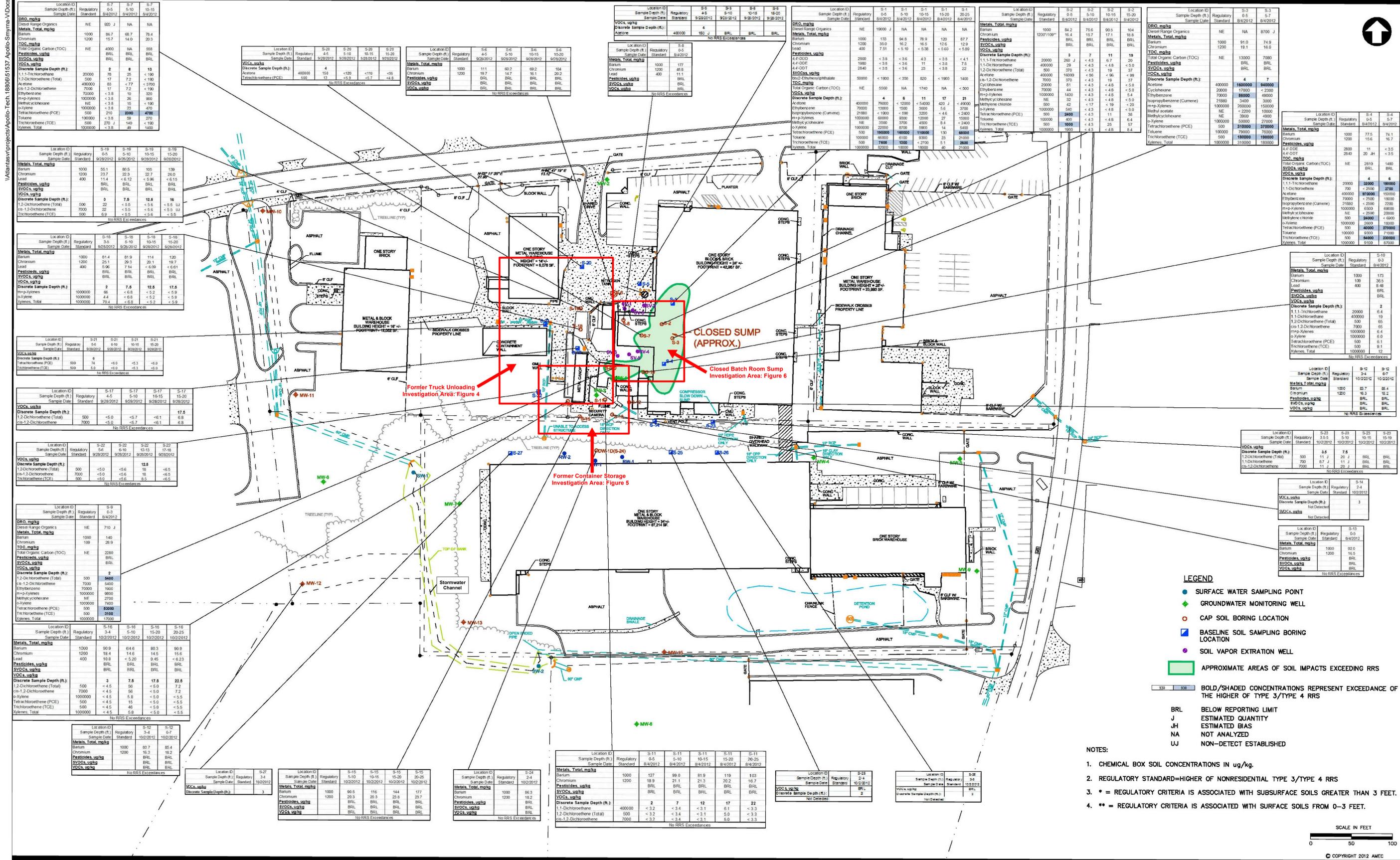


03/04/14
FILE NUM 51537



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SOIL ANALYTICAL RESULTS

APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GEORGIA

SCALE AS SHOWN

FILE NO.
51537
DATE
03/04/14



FIGURE 3

SCALE IN FEET
0 50 100

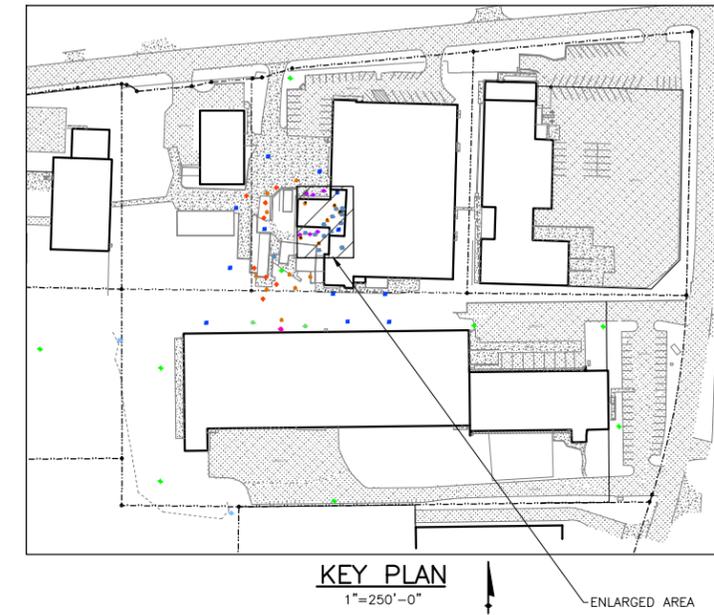
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FIGURE 4

LEGEND

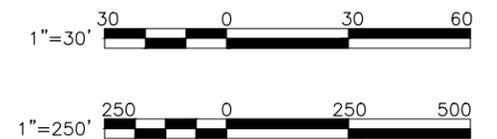
- GROUNDWATER MONITORING WELL
- CAP SOIL BORING LOCATION
- BASELINE SOIL SAMPLING BORING LOCATION
- SOIL ASSESSMENT LOCATION

NOTE:
1. SUBSTANCES NOT LISTED WERE NOT DETECTED.



APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GA

SOIL ANALYTICAL RESULTS
FORMER TRUCK
UNLOADING AREA



FILE NO. 18806-51537-Figure 4.dwg
FEBRUARY 2014



GEPI A AUC(a) BAO(AA) * 3 A A. EQ 8 E

SAMPLE LOCATION FTUA-B4					
Sample Depth (feet bgs)	5	10	15		
Chemical Name	RRS	Unit	6/25/2011	6/25/2011	6/25/2011
cis-1,2-Dichloroethene	7,000	µg/kg	58	<7.1	<8.6
Tetrachloroethene (PCE)	500	µg/kg	<6.1	34	<8.6
Toluene	100,000	µg/kg	7.9	<7.1	<8.6
Trichloroethene (TCE)	500	µg/kg	<6.1	92	<8.6

SAMPLE LOCATION S-20						
Sample Depth (feet bgs)	4	7.5	12.5	16		
Chemical Name	RRS	Unit	9/28/2012	9/28/2012	9/28/2012	9/28/2012
Acetone	400,000	µg/kg	150	<120	<110	<95
Tetrachloroethene (PCE)	500	µg/kg	13	<5.9	<5.7	<4.8

SAMPLE LOCATION FTUA-B1				
Sample Depth (feet bgs)	0-2	5		
Chemical Name	RRS	Unit	6/25/2011	6/25/2011
VOCs	Varies	µg/kg	BRL	BRL

SAMPLE LOCATION S-19					
Sample Depth (feet bgs)	3	7.5	12.5	16	
Chemical Name	RRS	Unit	9/28/2012	9/28/2012	9/28/2012
1,2-Dichloroethene (Total)	500	µg/kg	22	<5.5	<5.6
cis-1,2-Dichloroethene	7,000	µg/kg	22	<5.5	<5.6
Trichloroethene (TCE)	500	µg/kg	6.9	<5.5	<5.6

SAMPLE LOCATION FTUA-B2					
Sample Depth (feet bgs)	0-2	5	10		
Chemical Name	RRS	Unit	6/25/2011	6/25/2011	6/25/2011
Tetrachloroethene (PCE)	500	µg/kg	<6.2	24	<9.7

SAMPLE LOCATION S-18						
Sample Depth (feet bgs)	2	7.5	12.5	17.5		
Chemical Name	RRS	Unit	9/28/2012	9/28/2012	9/28/2012	9/28/2012
Ethylbenzene	70,000	µg/kg	3.5	<6.8	<5.2	<5.9
m+p-Xylenes	1,000,000	µg/kg	66	<6.8	<5.2	<5.9
o-Xylene	1,000,000	µg/kg	4.4	<6.8	<5.2	<5.9
Xylenes, Total	1,000,000	µg/kg	70.4	<6.8	<5.2	<5.9

SAMPLE LOCATION S-17						
Sample Depth (feet bgs)	4	7.5	12.5	17.5		
Chemical Name	RRS	Unit	9/28/2012	9/28/2012	9/28/2012	9/28/2012
1,2-Dichloroethene (Total)	500	µg/kg	<5.0	<5.7	<6.1	6.8
cis-1,2-Dichloroethene	7,000	µg/kg	<5.0	<5.7	<6.1	6.8

SAMPLE LOCATION S-21					
Sample Depth (feet bgs)	6	8	12.5	17.5	
Chemical Name	RRS	Unit	9/28/2012	9/28/2012	9/28/2012
Tetrachloroethene (PCE)	500	µg/kg	74	<6.0	<5.3
Trichloroethene (TCE)	500	µg/kg	5.0	<6.0	<5.3

SAMPLE LOCATION FTUA-B3					
Sample Depth (feet bgs)	0-2	5	10	15	
Chemical Name	RRS	Unit	6/25/2011	6/25/2011	6/25/2011
Acetone	400,000	µg/kg	<13	<15	24
cis-1,2-Dichloroethene	7,000	µg/kg	<6.3	24	<8.5
Cyclohexane	20,000	µg/kg	18	<7.7	<8.5

FIGURE 5

LEGEND

- GROUNDWATER MONITORING WELL
- CAP SOIL BORING LOCATION
- BASELINE SOIL SAMPLING BORING LOCATION
- SOIL ASSESSMENT LOCATION

NOTE:
1. SUBSTANCES NOT LISTED WERE NOT DETECTED.

SAMPLE LOCATION S-16						
Chemical Name	RRS	Unit	10/2/2012	7.5	17.5	22.5
1,2-Dichloroethene (Total)	500	µg/kg	< 4.5	56	< 5.0	7.2
cis-1,2-Dichloroethene	7,000	µg/kg	< 4.5	56	< 5.0	7.2
o-Xylene	1,000,000	µg/kg	< 4.5	5.8	< 5.0	< 5.5
Tetrachloroethene (PCE)	500	µg/kg	< 4.5	15	< 5.0	< 5.5
Trichloroethene (TCE)	500	µg/kg	< 4.5	46	< 5.0	< 5.5
Xylenes, Total	1,000,000	µg/kg	< 4.5	5.8	< 5.0	< 5.5

SAMPLE LOCATION CSA-B5				
Sample Depth (feet bgs)	0-2			
Chemical Name	RRS	Unit	6/25/2011	
VOCs	Varies	µg/kg	BRL	

SAMPLE LOCATION S-11								
Chemical Name	RRS	Unit	8/4/2012	2	7	12	17	22
1,1-Dichloroethane	400,000	µg/kg	< 3.2	< 3.4	< 3.1	6.1	< 3.3	
1,2-Dichloroethene (Total)	500	µg/kg	< 3.2	< 3.4	< 3.1	5.0	< 3.3	
cis-1,2-Dichloroethene	7,000	µg/kg	< 3.2	< 3.4	< 3.1	5.0	< 3.3	

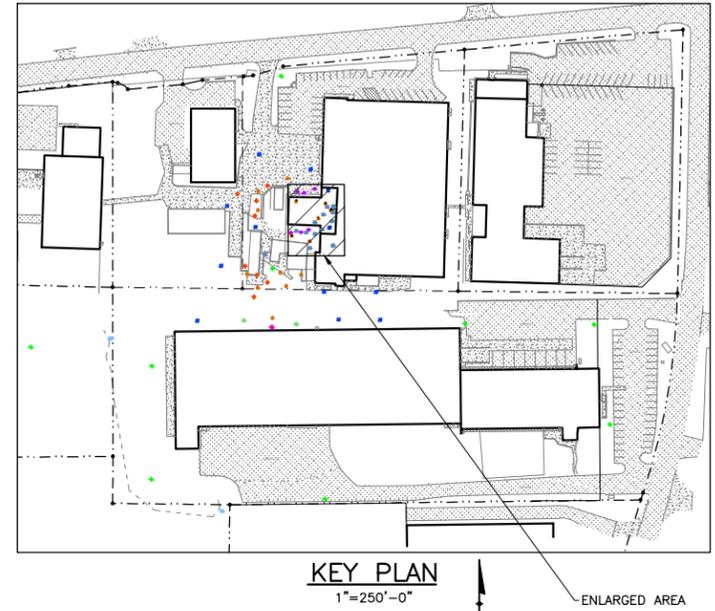
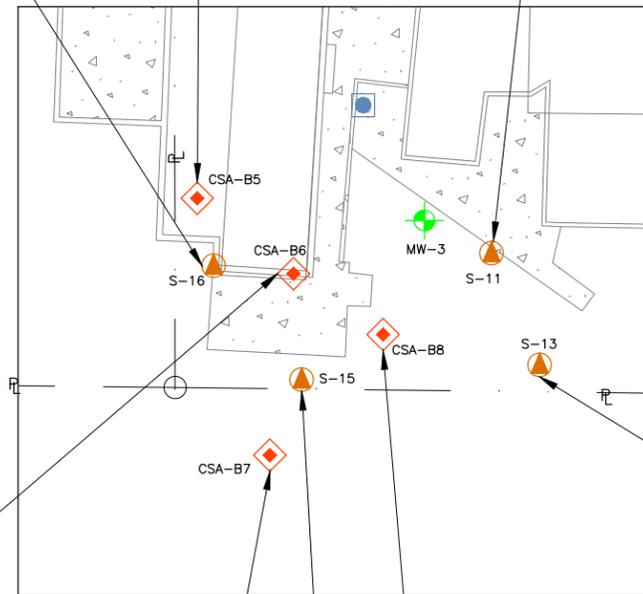
SAMPLE LOCATION S-13				
Sample Depth (feet bgs)	4			
Chemical Name	RRS	Unit	8/4/2012	
VOCs	Varies	µg/kg	BRL	

SAMPLE LOCATION CSA-B6					
Sample Depth (feet bgs)	0-2				
Chemical Name	RRS	Unit	9/9/2011	10	15
cis-1,2-Dichloroethene	7,000	µg/kg	< 8.4	38	< 8.0

SAMPLE LOCATION CSA-B8					
Sample Depth (feet bgs)	0-2				
Chemical Name	RRS	Unit	9/9/2011	5	10
Acetone	400,000	µg/kg	< 200	160	< 140
Tetrachloroethene (PCE)	500	µg/kg	110	160	< 7.2

SAMPLE LOCATION CSA-B7					
Sample Depth (feet bgs)	0-2				
Chemical Name	RRS	Unit	9/9/2011	14	9/9/2011
Acetone	400,000	µg/kg	190	< 160	

SAMPLE LOCATION S-15					
Sample Depth (feet bgs)	7.5				
Chemical Name	RRS	Unit	10/2/2012		
VOCs	Varies	µg/kg	BRL		



APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GA

SOIL ANALYTICAL RESULTS
FORMER CONTAINER
STORAGE AREA



FILE NO. 18806-51537-Figure 05.dwg
FEBRUARY 2014



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FIGURE 6

SAMPLE LOCATION S-2						
Chemical Name	Sample Depth (feet bgs)					
	RRS	Unit	8/4/2012	8/4/2012	8/4/2012	8/4/2012
1,1,1-Trichloroethane	20,000	µg/kg	260 J	< 4.3	6.7	20
1,1-Dichloroethane	400,000	µg/kg	29	< 4.3	< 4.8	< 5.0
1,2-Dichloroethane (Total)	500	µg/kg	370	< 4.3	19	37
Acetone	400,000	µg/kg	16,000	< 86	< 96	< 99
cis-1,2-Dichloroethane	7,000	µg/kg	370	< 4.3	19	37
Cyclohexane	20,000	µg/kg	81	< 4.3	< 4.8	< 5.0
Ethylbenzene	70,000	µg/kg	44	< 4.3	< 4.8	< 5.0
m+p-Xylenes	1,000,000	µg/kg	1,400	< 4.3	< 4.8	5.4
Methylcyclohexane	NE	µg/kg	32	< 4.3	< 4.8	< 5.0
Methylene chloride (Dichloromethane)	500	µg/kg	42	< 17	< 19	< 20
o-Xylene	1,000,000	µg/kg	540	< 4.3	< 4.8	< 5.0
Tetrachloroethene (PCE)	500	µg/kg	2,400	< 4.3	11	38
Toluene	100,000	µg/kg	400	< 4.3	< 4.8	6.4
Trichloroethene (TCE)	500	µg/kg	1,000	< 4.3	25	57
Xylenes, Total	1,000,000	µg/kg	1,900	< 4.3	< 4.8	8.4

SAMPLE LOCATION OBG-7				
Chemical Name	Sample Depth (feet bgs)		3/25/2013	
	RRS	Unit	8/4/2012	8/4/2012
1,1,1-Trichloroethane	20,000	µg/kg	4,300 J	
Acetone	400,000	µg/kg	1,000,000	
Ethylbenzene	70,000	µg/kg	4,000 J	
Tetrachloroethene (PCE)	500	µg/kg	52,000	
Toluene	100,000	µg/kg	7,600 J	
Trichloroethene (TCE)	500	µg/kg	39,000	
Xylenes, Total	1,000,000	µg/kg	19,000	

SAMPLE LOCATION S-7				
Chemical Name	Sample Depth (feet bgs)		8/4/2012	
	RRS	Unit	8/4/2012	8/4/2012
1,1,1-Trichloroethane	20,000	µg/kg	78	25
1,2-Dichloroethane (Total)	500	µg/kg	17	7.2
Acetone	400,000	µg/kg	83	< 77
cis-1,2-Dichloroethane	7,000	µg/kg	17	7.2
Ethylbenzene	70,000	µg/kg	< 3.8	10
m+p-Xylenes	1,000,000	µg/kg	< 3.8	26
Methylcyclohexane	NE	µg/kg	< 3.8	15
o-Xylene	1,000,000	µg/kg	< 3.8	23
Tetrachloroethene (PCE)	500	µg/kg	210	2,300
Toluene	100,000	µg/kg	< 3.8	59
Trichloroethene (TCE)	500	µg/kg	270 J	140
Xylenes, Total	1,000,000	µg/kg	< 3.8	49

SAMPLE LOCATION S-9			
Chemical Name	Sample Depth (feet bgs)		8/4/2012
	RRS	Unit	8/4/2012
1,2-Dichloroethane (Total)	500	µg/kg	5,400
cis-1,2-Dichloroethane	7,000	µg/kg	5,400
Ethylbenzene	70,000	µg/kg	1,900
m+p-Xylenes	1,000,000	µg/kg	9,800
Methylcyclohexane	NE	µg/kg	2,700
o-Xylene	1,000,000	µg/kg	7,400
Tetrachloroethene (PCE)	500	µg/kg	53,000
Trichloroethene (TCE)	500	µg/kg	3,100
Xylenes, Total	1,000,000	µg/kg	17,000

SAMPLE LOCATION OBG-2				
Chemical Name	Sample Depth (feet bgs)		3/23/2013	
	RRS	Unit	8/4/2012	8/4/2012
1,1,1-Trichloroethane	20,000	µg/kg	320 J	
Acetone	400,000	µg/kg	32,000	
Ethylbenzene	70,000	µg/kg	280 J	
Tetrachloroethene (PCE)	500	µg/kg	8,200	
Toluene	100,000	µg/kg	2,100	
Trichloroethene (TCE)	500	µg/kg	7,100	
Xylenes, Total	1,000,000	µg/kg	1,500	

SAMPLE LOCATION S-10			
Chemical Name	Sample Depth (feet bgs)		8/4/2012
	RRS	Unit	8/4/2012
1,1,1-Trichloroethane	20,000	µg/kg	6.4
1,1-Dichloroethane	400,000	µg/kg	19
1,2-Dichloroethane (Total)	500	µg/kg	65
cis-1,2-Dichloroethane	7,000	µg/kg	65
m+p-Xylenes	1,000,000	µg/kg	6.4
o-Xylene	1,000,000	µg/kg	6.0
Tetrachloroethene (PCE)	500	µg/kg	6.1
Trichloroethene (TCE)	500	µg/kg	9.1
Xylenes, Total	1,000,000	µg/kg	12

SAMPLE LOCATION OBG-9				
Chemical Name	Sample Depth (feet bgs)		3/26/2013	3/27/2013
	RRS	Unit	3/26/2013	3/27/2013
1,1,1-Trichloroethane	20,000	µg/kg	23,000 J	510,000
Acetone	400,000	µg/kg	1,600,000 J	610,000 J
Methylene chloride	500	µg/kg	120,000 J	<100,000
Tetrachloroethene (PCE)	500	µg/kg	5,500,000	2,400,000
Toluene	100,000	µg/kg	290,000	88,000 J
Trichloroethene (TCE)	500	µg/kg	4,200,000	1,100,000

SAMPLE LOCATION S-1						
Chemical Name	Sample Depth (feet bgs)				8/4/2012	
	RRS	Unit	8/4/2012	8/4/2012	8/4/2012	8/4/2012
Acetone	400,000	µg/kg	79,000	< 12,000	< 54,000	420 J
Ethylbenzene	70,000	µg/kg	13,000	1,500	3,000	5.6
Isopropylbenzene (Cumene)	21,880	µg/kg	< 1,900	< 590	3,200	< 4.6
m+p-Xylenes	1,000,000	µg/kg	60,000	9,300	12,000	27
Methylcyclohexane	NE	µg/kg	3,500	3,700	4,500	8.4
o-Xylene	1,000,000	µg/kg	22,000	8,700	5,900	14
Tetrachloroethene (PCE)	500	µg/kg	190,000	160,000	110,000	130
Toluene	100,000	µg/kg	66,000	6,100	9,300	23
Trichloroethene (TCE)	500	µg/kg	7,600	1,300	< 2,700	5.1
Xylenes, Total	1,000,000	µg/kg	82,000	18,000	18,000	40

SAMPLE LOCATION OBG-12				
Chemical Name	Sample Depth (feet bgs)		10/25/2013	
	RRS	Unit	10/25/2013	10/25/2013
Acetone	400,000	µg/kg	1,000,000	3,700,000
Ethylbenzene	70,000	µg/kg	45,000 J	66,000
Tetrachloroethene (PCE)	500	µg/kg	1,100,000	1,700,000
Toluene	100,000	µg/kg	66,000	90,000
Trichloroethene (TCE)	500	µg/kg	210,000	310,000
Xylenes, Total	1,000,000	µg/kg	190,000	300,000

SAMPLE LOCATION S-3				
Chemical Name	Sample Depth (feet bgs)		8/4/2012	
	RRS	Unit	8/4/2012	8/4/2012
Acetone	400,000	µg/kg	1,600,000	940,000
Cyclohexane	20,000	µg/kg	17,000	< 2,300
Ethylbenzene	70,000	µg/kg	86,000	49,000
Isopropylbenzene (Cumene)	21,880	µg/kg	3,400	3,000
m+p-Xylenes	1,000,000	µg/kg	260,000	150,000
Methyl acetate	NE	µg/kg	< 2,200	10,000
Methylcyclohexane	NE	µg/kg	3,900	4,900
o-Xylene	1,000,000	µg/kg	50,000	27,000
Tetrachloroethene (PCE)	500	µg/kg	310,000	370,000
Toluene	100,000	µg/kg	79,000	76,000
Trichloroethene (TCE)	500	µg/kg	180,000	190,000
Xylenes, Total	1,000,000	µg/kg	310,000	180,000

SAMPLE LOCATION OBG-13			
Chemical Name	Sample Depth (feet bgs)		10/25/2013
	RRS	Unit	10/25/2013
Acetone	400,000	µg/kg	3,200,000
Cyclohexane	20,000	µg/kg	9,800 J
Ethylbenzene	70,000	µg/kg	46,000
Tetrachloroethene (PCE)	500	µg/kg	270,000
Toluene	100,000	µg/kg	76,000
Trichloroethene (TCE)	500	µg/kg	140,000
Xylenes, Total	1,000,000	µg/kg	180,000

SAMPLE LOCATION OBG-5			
Chemical Name	Sample Depth (feet bgs)		3/24/2013
	RRS	Unit	3/24/2013
1,1,1-Trichloroethane	20,000	µg/kg	26,000
Acetone	400,000	µg/kg	720,000
Ethylbenzene	70,000	µg/kg	12,000
Methylcyclohexane	NE	µg/kg	5,300 J
Tetrachloroethene (PCE)	500	µg/kg	220,000
Toluene	100,000	µg/kg	43,000
Trichloroethene (TCE)	500	µg/kg	110,000
Xylenes, Total	1,000,000	µg/kg	55,000

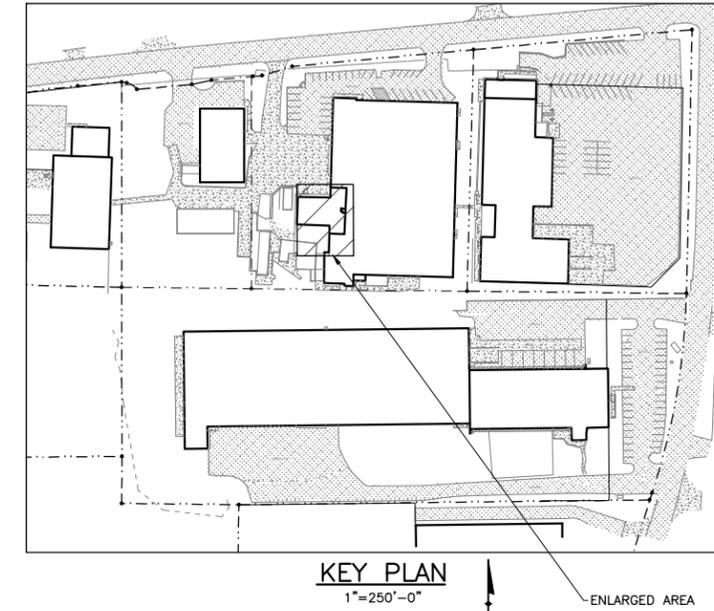
SAMPLE LOCATION S-4				
Chemical Name	Sample Depth (feet bgs)		8/4/2012	
	RRS	Unit	8/4/2012	8/4/2012
1,1,1-Trichloroethane	20,000	µg/kg	32,000	180,000
1,1-Dichloroethane	700	µg/kg	< 2,500	3,700
Acetone	400,000	µg/kg	970,000	150,000
Ethylbenzene	70,000	µg/kg	< 2,500	18,000
Isopropylbenzene (Cumene)	21,880	µg/kg	< 2,500	2,200
m+p-Xylenes	1,000,000	µg/kg	6,500	69,000
Methylcyclohexane	NE	µg/kg	< 2,500	20,000
Methylene chloride (Dichloromethane)	500	µg/kg	24,000	< 6,900
o-Xylene	1,000,000	µg/kg	2,600	18,000
Tetrachloroethene (PCE)	500	µg/kg	40,000	270,000
Toluene	100,000	µg/kg	9,300	71,000
Trichloroethene (TCE)	500	µg/kg	54,000	230,000
Xylenes, Total	1,000,000	µg/kg	9,100	87,000

LEGEND

- GROUNDWATER MONITORING WELL
- CAP SOIL BORING LOCATION
- BASELINE SOIL SAMPLING BORING LOCATION
- SOIL VAPOR EXTRACTION WELL
- SUPPLEMENTAL SOIL BORING LOCATION

NOTE:

1. SUBSTANCES NOT LISTED WERE NOT DETECTED.



APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GA

SOIL ANALYTICAL RESULTS
CLOSED BATCH ROOM SUMP



FILE NO. 18806-51537-Figure 6.dwg
FEBRUARY 2014



ΟΒΡΙΕΝ & ΓΕΡΕ

FIGURE 7



LEGEND

- Monitoring Well
- Catch Basin
- Drop Inlet
- Stormwater Pipe
- Stormwater Channel
- Property_Boundary

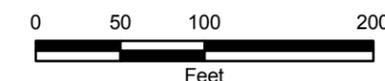
Total VOC Concentrations

- 0.1-10 (µg/L)
- 10-100 (µg/L)
- 100-1,000 (µg/L)
- 1,000-10,000 (µg/L)
- >10,000 (µg/L)

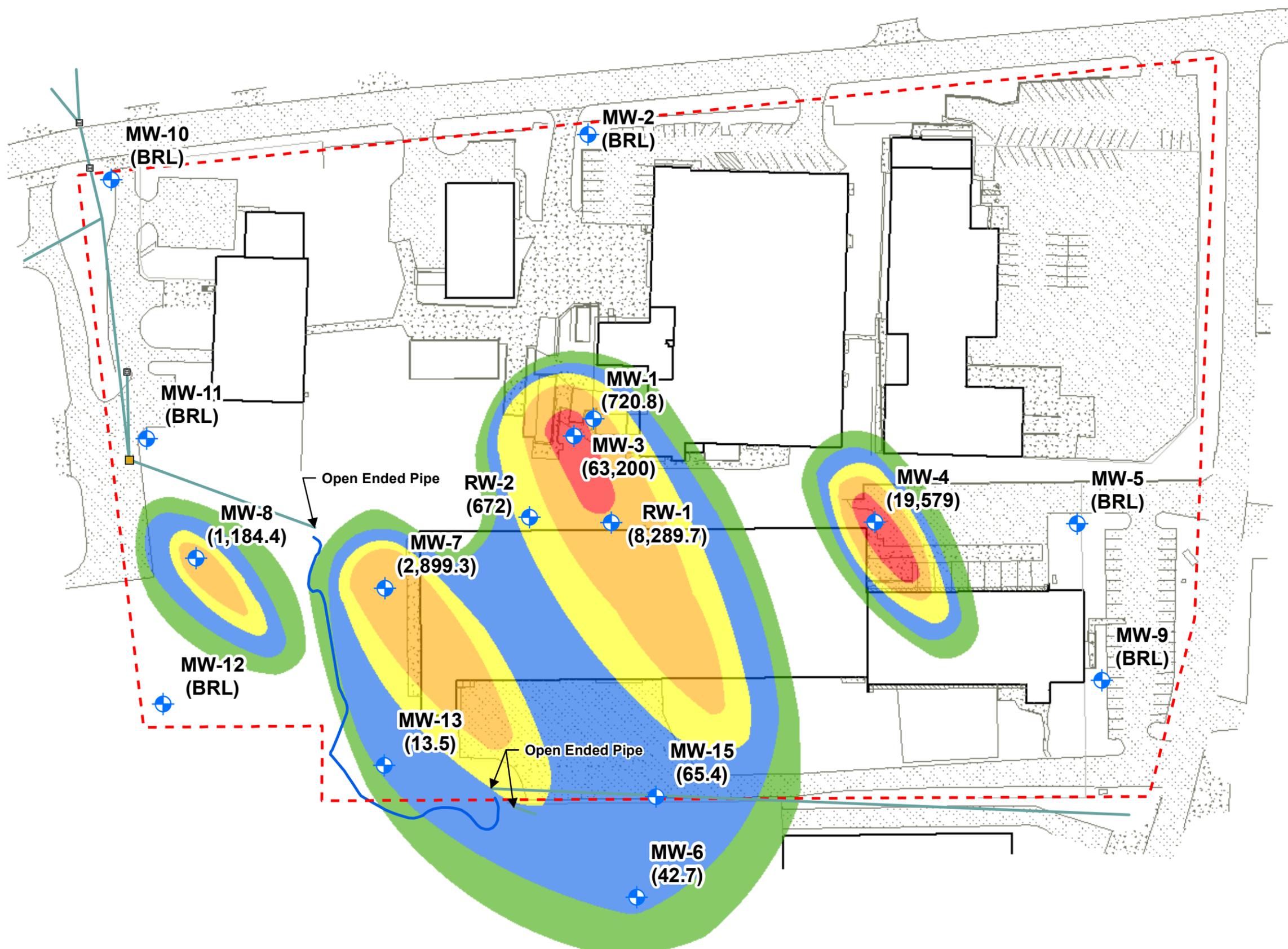
(17,680) Concentration in µg/L
(BRL) Below Reporting Limits

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SMYRNA, COBB COUNTY, GEORGIA

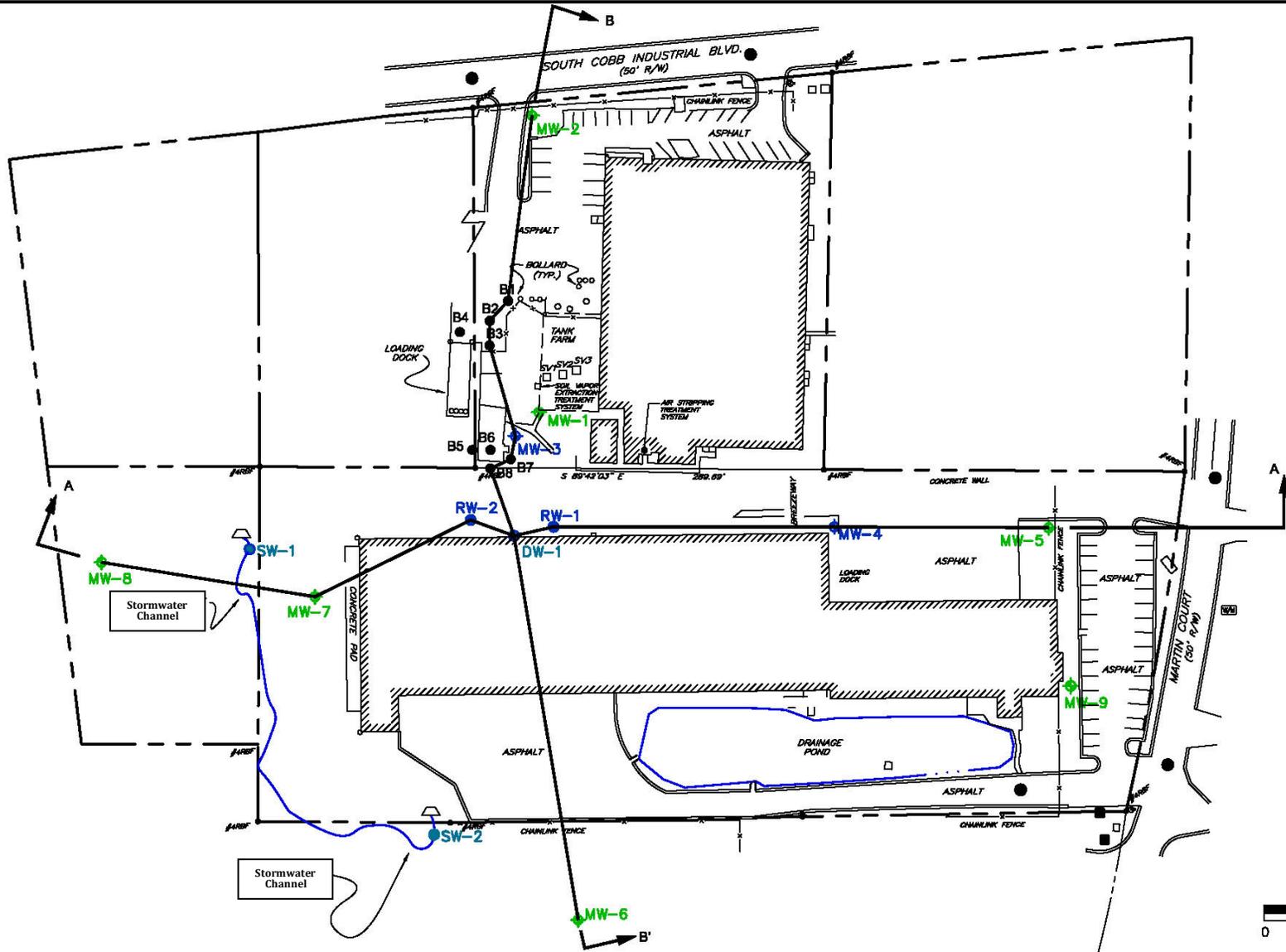
**APPROXIMATE
TOTAL VOC
CONCENTRATION
IN GROUNDWATER
DECEMBER 2013**



03/04/14
FILE NUM 51537



Source: Historic mapping prepared by others provided for use by Apollo.
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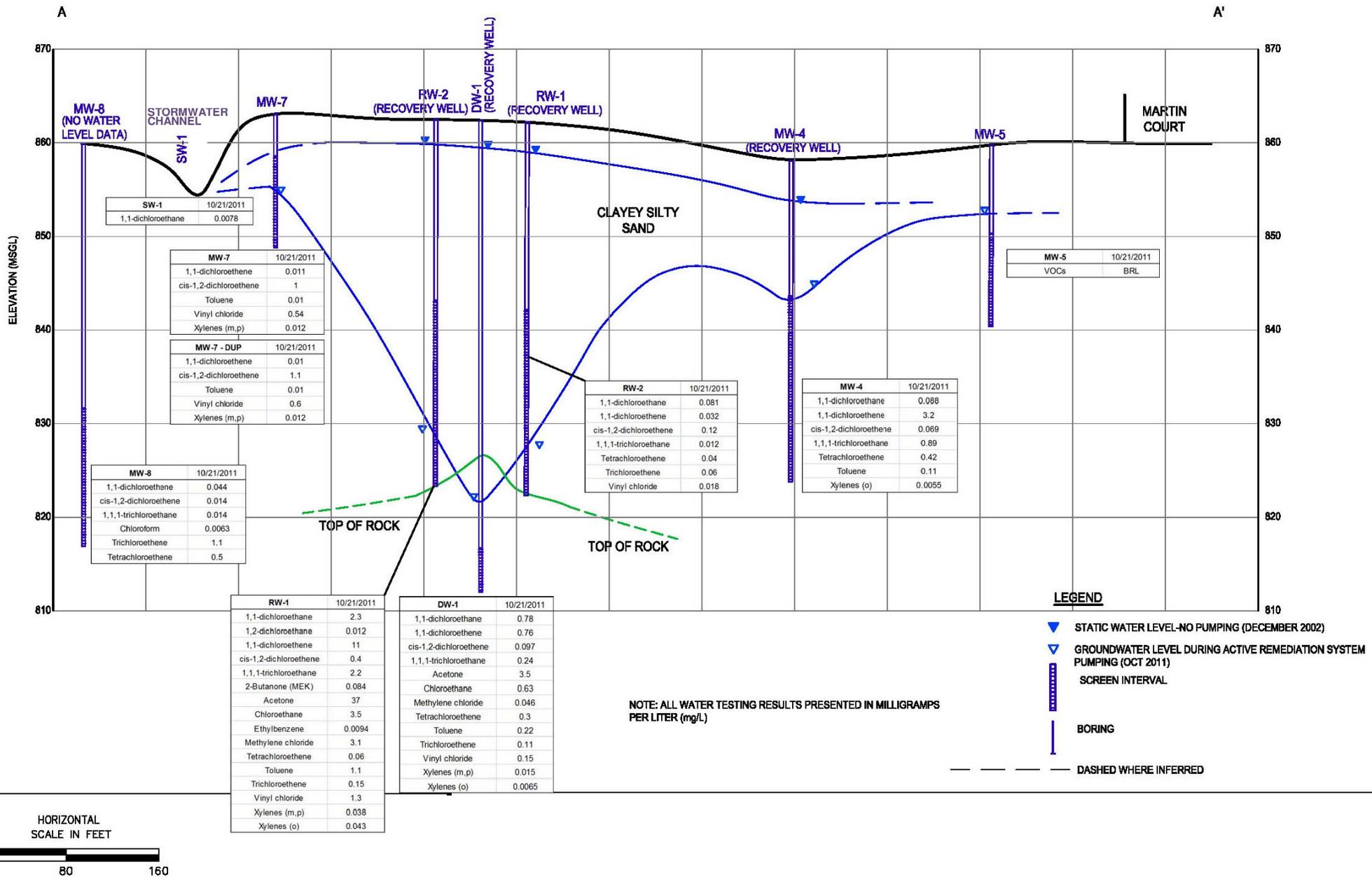
Source: Historic Mapping Prepared by Others Provided for Use by Apollo

FIGURE 8
LOCATION OF CROSS SECTIONS
51537 03/04/14

APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GEORGIA



SCALE AS SHOWN

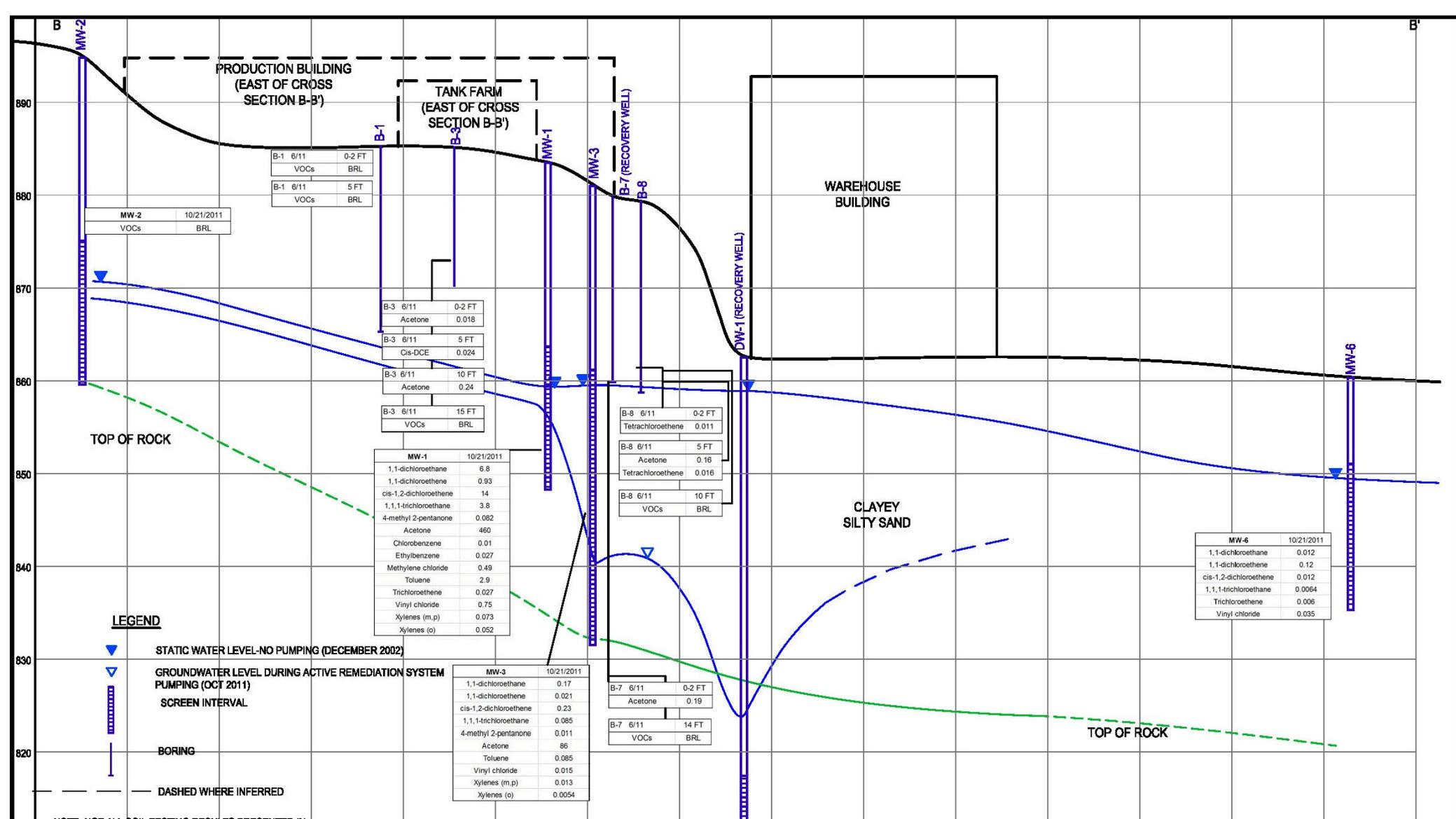


Source: Historic Mapping Prepared by Others Provided for Use by Apollo

FIGURE 9
CROSS SECTION A-A'
 51537 03/04/14

APOLLO TECHNOLOGIES, INC.
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 SMYRNA, COBB COUNTY, GEORGIA

O'BRIEN & GERE
 SCALE AS SHOWN



B-1	6/11	0-2 FT	VOCs	BRL
B-1	6/11	5 FT	VOCs	BRL

MW-2	10/21/2011	VOCs	BRL
------	------------	------	-----

B-3	6/11	0-2 FT	Acetone	0.018
B-3	6/11	5 FT	Cis-DCE	0.024
B-3	6/11	10 FT	Acetone	0.24
B-3	6/11	15 FT	VOCs	BRL

MW-1	10/21/2011	1,1-dichloroethane	6.8
MW-1	10/21/2011	1,1-dichloroethene	0.93
MW-1	10/21/2011	cis-1,2-dichloroethene	14
MW-1	10/21/2011	1,1,1-trichloroethane	3.8
MW-1	10/21/2011	4-methyl 2-pentanone	0.082
MW-1	10/21/2011	Acetone	460
MW-1	10/21/2011	Chlorobenzene	0.01
MW-1	10/21/2011	Ethylbenzene	0.027
MW-1	10/21/2011	Methylene chloride	0.49
MW-1	10/21/2011	Toluene	2.9
MW-1	10/21/2011	Trichloroethene	0.027
MW-1	10/21/2011	Vinyl chloride	0.75
MW-1	10/21/2011	Xylenes (m,p)	0.073
MW-1	10/21/2011	Xylenes (o)	0.052

B-8	6/11	0-2 FT	Tetrachloroethene	0.011
B-8	6/11	5 FT	Acetone	0.16
B-8	6/11	10 FT	Tetrachloroethene	0.016
B-8	6/11		VOCs	BRL

MW-6	10/21/2011	1,1-dichloroethane	0.012
MW-6	10/21/2011	1,1-dichloroethene	0.12
MW-6	10/21/2011	cis-1,2-dichloroethene	0.012
MW-6	10/21/2011	1,1,1-trichloroethane	0.0064
MW-6	10/21/2011	Trichloroethene	0.006
MW-6	10/21/2011	Vinyl chloride	0.035

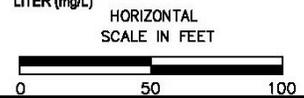
MW-3	10/21/2011	1,1-dichloroethane	0.17
MW-3	10/21/2011	1,1-dichloroethene	0.021
MW-3	10/21/2011	cis-1,2-dichloroethene	0.23
MW-3	10/21/2011	1,1,1-trichloroethane	0.085
MW-3	10/21/2011	4-methyl 2-pentanone	0.011
MW-3	10/21/2011	Acetone	86
MW-3	10/21/2011	Toluene	0.085
MW-3	10/21/2011	Vinyl chloride	0.015
MW-3	10/21/2011	Xylenes (m,p)	0.013
MW-3	10/21/2011	Xylenes (o)	0.0054

B-7	6/11	0-2 FT	Acetone	0.19
B-7	6/11	14 FT	VOCs	BRL

LEGEND

- ▼ STATIC WATER LEVEL-NO PUMPING (DECEMBER 2002)
- ▼ GROUNDWATER LEVEL DURING ACTIVE REMEDIATION SYSTEM PUMPING (OCT 2011)
- ▬ SCREEN INTERVAL
- ▬ BORING
- - - DASHED WHERE INFERRED

NOTE: NOT ALL SOIL TESTING RESULTS PRESENTED IN MILLIGRAMS PER (mg/kg)
ALL WATER TESTING RESULTS PRESENTED IN MILLIGRAMS PER LITER (mg/L)



Source: Historic Mapping Prepared by Others Provided for Use by Apollo

FIGURE 10
CROSS SECTION B-B'
51537 02/21/14

APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GEORGIA

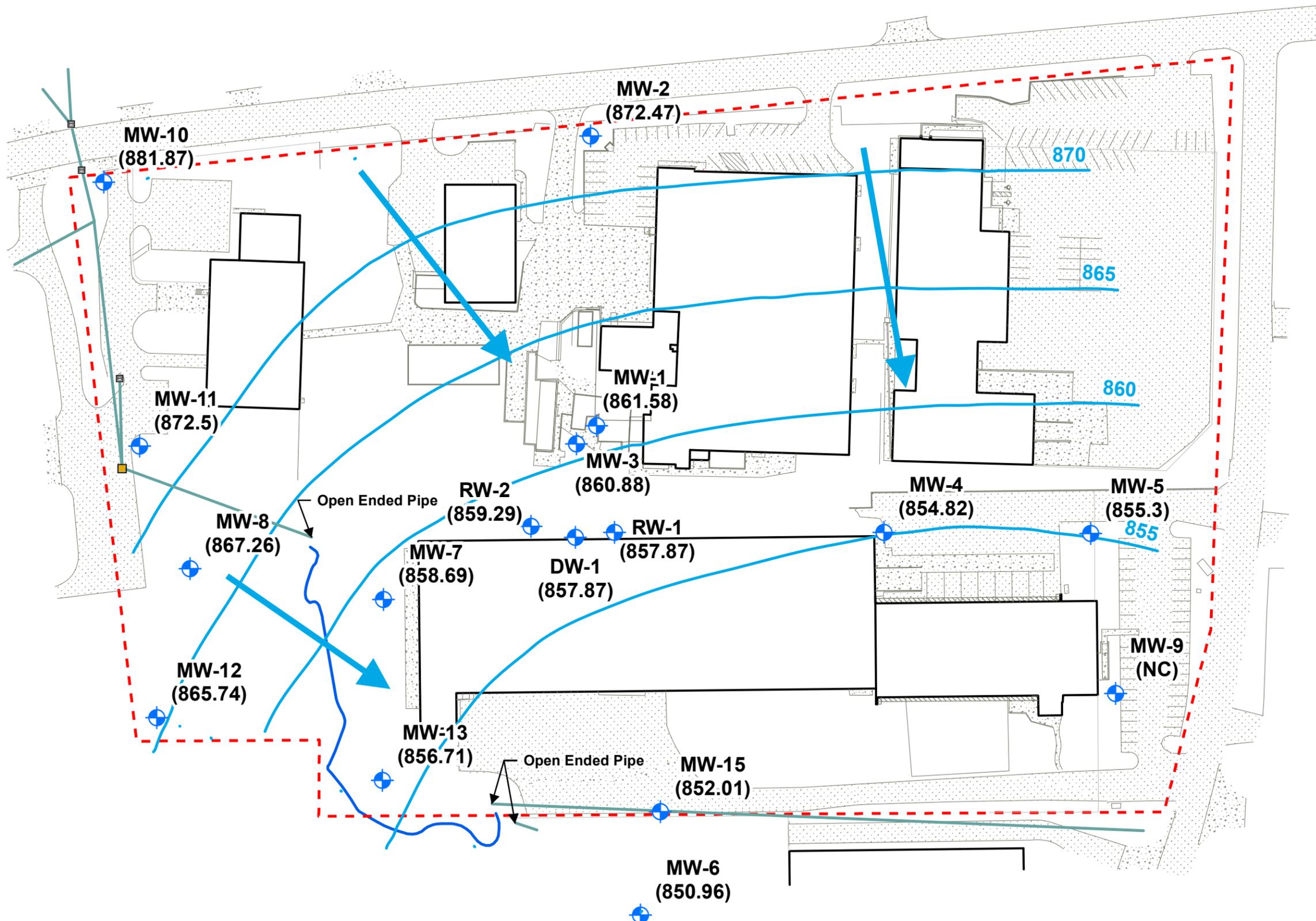
O'BRIEN & GERE
SCALE AS SHOWN

FIGURE 11



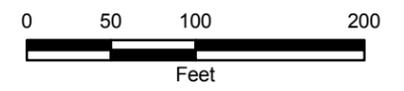
LEGEND

-  Catch Basin
-  Drop Inlet
-  Potentiometric Contour
-  Stormwater Channel
-  Stormwater Pipe
-  Property_Boundary
- (860.1) Groundwater Elevation in feet mean sea level (FMSL)
-  Direction of groundwater flow
- NC Not Calculated



APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GEORGIA

POTENTIOMETRIC SURFACE
DECEMBER 3, 2013



03/04/14
FILE NUM 51537

Source: Historic mapping prepared by others provided for use by Apollo.
This document was developed in color. Reproduction in B/W may not represent the data as intended.

FIGURE 12

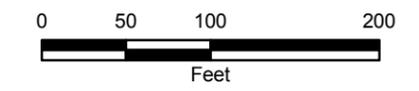


LEGEND

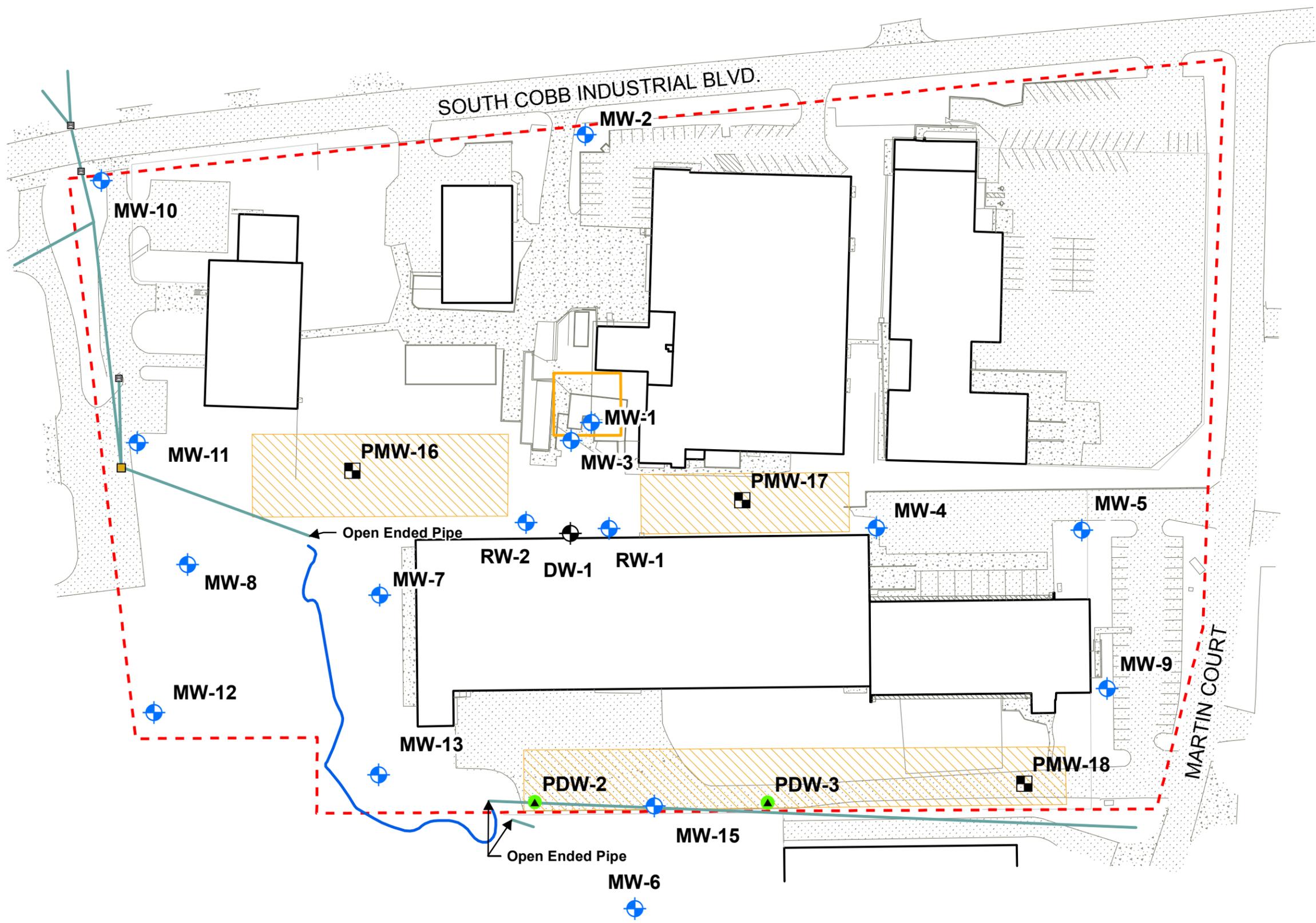
-  Existing Deep Monitoring Well
-  Existing Shallow Monitoring Well
-  Proposed Bedrock Well
-  Proposed Overburden Well
-  Catch Basin
-  Drop Inlet
-  Stormwater Pipe
-  Stormwater Channel
-  ISCO Pilot Test Area
-  Proposed MIP Investigation
-  Property Boundary

APOLLO TECHNOLOGIES, INC.
1850 S. COBB INDUSTRIAL BLVD.
SMYRNA, COBB COUNTY, GEORGIA

CONCEPTUAL INVESTIGATION AND REMEDIATION PLAN



03/04/14
FILE NUM 51537

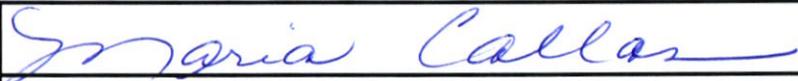


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Appendix A
Voluntary Remediation
Program Application and
Checklist

Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION					
COMPANY NAME	Apollo Industries, Inc. (Callas Family Partnership, L.P. / AMC Ventures, Inc.)				
CONTACT PERSON/TITLE	Maria Callas, Owner				
ADDRESS	1850 South Cobb Industrial Boulevard Smyrna, Cobb County, GA 30082				
PHONE	770-443-0210	FAX	678-241-0020	E-MAIL	mcallas@apolloind.com
GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP					
NAME	Maureen Hoke	GA PE/PG NUMBER	32501		
COMPANY	O'Brien & Gere Engineers, Inc.				
ADDRESS	8200 Roberts Drive, Suite 450 Atlanta, GA 30350				
PHONE	770-781-1700	FAX	770-205-9604	E-MAIL	maureen.hoke@obg.com
APPLICANT'S CERTIFICATION					
<p>In order to be considered a qualifying property for the VRP:</p> <p>(1) The property must have a release of regulated substances into the environment;</p> <p>(2) The property shall not be:</p> <p style="margin-left: 20px;">(A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.</p> <p style="margin-left: 20px;">(B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or</p> <p style="margin-left: 20px;">(C) A facility required to have a permit under Code Section 12-8-66.</p> <p>(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.</p> <p>(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.</p> <p>In order to be considered a participant under the VRP:</p> <p>(1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.</p> <p>(2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.</p> <p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p> <p>I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.</p>					
APPLICANT'S SIGNATURE					
APPLICANT'S NAME/TITLE (PRINT)	MARIA CALLAS COB			DATE	3/5/14 <i>me</i>

QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form)			
HAZARDOUS SITE INVENTORY INFORMATION (if applicable)			
HSI Number	10333	Date HSI Site listed	8-15-1994
HSI Facility Name	Apollo Industries, Inc.	NAICS CODE	339999
PROPERTY INFORMATION			
TAX PARCEL ID	17-0678-00-040, 17-0678-00-130 17-0678-00-050, 17-0678-00-030 17-0619-00-200, 17-0618-00-240	PROPERTY SIZE (ACRES)	12.83
PROPERTY ADDRESS	1850 South Cobb Industrial Boulevard SE		
CITY	Smyrna	COUNTY	Cobb
STATE	GA	ZIPCODE	30082
LATITUDE (decimal format)	33.8368	LONGITUDE (decimal format)	-84.5007
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Maria Callas	PHONE #	770-433-0210
MAILING ADDRESS	1850 South Cobb Industrial Boulevard SE		
CITY	Smyrna	STATE/ZIPCODE	30082
ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)
1.	\$5,000 APPLICATION FEE IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)	Check No. 300164 Dated 5/31/2012	
2.	WARRANTY DEED(S) FOR QUALIFYING PROPERTY.	Appendix B	
3.	TAX PLAT OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).	Appendix B	
4.	ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	Included	
5.	The VRP participant's initial plan and application must include, using all reasonably available current information to the extent known at the time of application, a graphic three-dimensional preliminary conceptual site model (CSM) including a preliminary remediation plan with a table of delineation standards, brief supporting text, charts, and figures (no more than 10 pages, total) that illustrates the site's surface and subsurface setting, the known or suspected source(s) of contamination, how contamination might move within the environment, the potential human health and ecological receptors, and the complete or incomplete exposure pathways that may exist at the site; the preliminary CSM must be updated as the investigation and remediation progresses and an up-to-date CSM must be included in each semi-annual status report submitted to the director by the participant; a PROJECTED	Appendix D	

Appendix B
Legal Description and
Plat Map

South Cobb Industrial Boulevard Property Description

All that tract or parcel of land lying and being in Land Lots 618, 619, 678 and 679 of the 17th District, 3rd Section, Cobb County, Georgia and being more particularly described as follows.

Beginning at a point found at the intersection of a line common to Land Lots 619 and 678 of the 17th District, 3rd Section, Cobb County, Georgia with the south right of way of South Cobb Industrial Boulevard (having a 50' right of way) and thence leaving the said point of beginning and running with the said right of way of South Cobb Industrial Boulevard the following courses and distances:

South 80° 26' 26" East, 7.30 feet to a point; thence,

16.96 feet along the arc of a curve deflecting to the right and having a radius of 21.00 feet and a chord bearing and distance of South 57° 18' 03" East, 16.50 feet to a point; thence,

North 84° 47' 19" East, 74.96 feet to a point; thence,

North 78° 11' 35" East, 27.95 feet to a point; thence,

North 84° 47' 19" East, 56.41 feet to a point; thence,

North 84° 47' 19" East, 13.12 feet to a point; thence,

North 72° 54' 44" East, 42.85 feet to a point; thence,

North 84° 45' 54" East, 548.91 feet to a ½" rebar found at the intersection of the said right of way of South Cobb Industrial Boulevard with the west right of way of Martin Court (having a 50' right of way); thence, running with the said right of way of Martin Court the following courses and distances:

South 01° 12' 40" West, 359.90 feet to a ½" rebar found; thence,

276.73 feet along the arc of a curve deflecting to the right and having a radius of 930.37 feet and a chord bearing and distance of South 09° 46' 45" West, 275.71 feet to a point; thence,

South 18° 27' 33" West, 10.37 feet to a point; thence, leaving the said right of way of Martin Court and running

South 89° 20' 37" West, 561.94 feet to a point; thence,

North 89° 22' 23" West, 160.00 feet to a ½" rebar in concrete found; thence,

North 00° 05' 21" East, 64.16 feet to a ½" rebar found; thence,

South 89° 30' 19" West, 155.86 feet to a point; thence,

North 06° 51' 17" West, 485.05 feet to a point found on the said right of way of South Cobb Industrial Boulevard; thence, running with the said right of way of South Cobb Industrial Boulevard the following courses and distances:

155.46 feet along the arc of a curve deflecting to the right and having a radius of 1121.14 feet and a chord bearing and distance of North 80° 48' 59" East, 155.34 feet to a point; thence,

North 84° 47' 19" East, 60.25 feet to the point of beginning, containing 557,033 square feet or 12.7877 acres of land, more or less.

The herein described tract or parcel of land is subject to all right of ways and easements, both recorded and unrecorded.

Appendix C
Risk Reduction Standard
Calculations and
Associated Data

Type 1 Risk Reduction Standard Calculations for Soil
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Notes	Type 1 RRS (mg/kg)	Soil to Groundwater		Risk Calculations		Cancer Risk Factors			
				HSRA Appendix I Table 1 (mg/kg)	HSRA Appendix III Table 1 x 100 (mg/kg)	Chronic Risk Calculation RAGS Equation 7 (mg/kg)	Cancer Risk Calculation RAGS Equation 6 (mg/kg)	Target Risk	Oral Slope Factor (1/mg/kg- day)	Inhalation (1/mg/kg- day)	Inhalation Unit Risk (ug/m3)-1
								TR	Sfo	Sfi	IUR
1,1,1-Trichloroethane	71-55-6		2.00E+01	5.44E+00	2.00E+01	1.07E+04	Not Applicable	1.0E-04			
1,1-Dichloroethane	75-34-3		4.00E+02	3.00E-02	4.00E+02	1.28E+05	4.21E+02	1.0E-04	5.7E-03	5.6E-03	1.60E-06
1,1-Dichloroethene	75-35-4		7.00E-01	3.60E-01	7.00E-01	2.38E+02	Not Applicable	1.0E-04			
1,2-Dichloroethane	107-06-2		5.00E-01	2.00E-02	5.00E-01	5.02E+01	6.27E+00	1.0E-05	9.1E-02	9.1E-02	2.60E-05
Acetone	67-64-1		4.00E+02	2.74E+00	4.00E+02	1.92E+05	Not Applicable	1.0E-05			
cis-1,2-Dichloroethene	156-59-2		7.00E+00	5.30E-01	7.00E+00	1.28E+03	Not Applicable	1.0E-05			
Cyclohexane	110-82-7		2.00E+01	2.00E+01		1.18E+04	Not Applicable	1.0E-04			
Ethylbenzene	100-41-4		7.00E+01	2.00E+01	7.00E+01	9.08E+03	9.21E+01	1.0E-05	1.1E-02	8.8E-03	2.50E-06
Isopropylbenzene	98-82-8		2.19E+01	2.19E+01		4.35E+03	Not Applicable	1.0E-04			
Methylene Chloride	75-09-2		5.00E-01	8.00E-02	5.00E-01	1.21E+03	3.57E+03	1.0E-05	2.0E-03	3.5E-05	1.00E-08
Tetrachloroethene	127-18-4		5.00E-01	1.80E-01	5.00E-01	1.41E+02	3.15E+02	1.0E-05	2.1E-03	9.1E-04	2.60E-07
Toluene	108-88-3		1.00E+02	1.44E+01	1.00E+02	2.22E+04	Not Applicable	1.0E-05			
Trichloroethene	79-01-6		5.00E-01	1.30E-01	5.00E-01	6.63E+00	1.82E+01	1.0E-05	4.6E-02	1.4E-02	4.10E-06
Xylenes (Total)	1330-20-7		1.00E+03	2.00E+01	1.00E+03	1.08E+03	Not Applicable	1.0E-05			
bis(2-ethylhexyl)phthalate	117-81-7		5.00E+01	5.00E+01	6.00E-01	1.28E+04	1.07E+03	1.0E-05	1.4E-02	8.4E-03	2.40E-06

m meter
cm centimeter
ug micrograms
mg milligrams
kg kilograms
L liter
s second
HSRA Hazardous Sites Response Act
RRS Risk Reduction Standard
CAS Chemical Abstract Service

RAGS Risk Assessment Guidance for Superfund, Volume I--
Human Health evaluation Manual (Part B, Development of Risk
Based Preliminary Remediation Goals) (EPA, December 1991)

Notes:
Toxicity factors and chemical-specific data was obtained from
the USEPA Regional Screening Level (RSL) Table (dated
November 2013).

Type 1 Risk Reduction Standard Calculations for Soil
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Chronic Reference Dose			Effective Diffusivity (cm ² /s)	Molecular Diffusivity (cm ² /s)	Henry's Law Constant (atm-m ³ /mole)	Soil to Water Partition Coefficient (L/kg)	Organic Carbon Partition Coefficient (L/kg)	Target Groundwater Concentration (mg/L)	
		Oral (mg/kg- day)	Inhalation (mg/m ³)	Inhalation (mg/kg-day)							RfDo
1,1,1-Trichloroethane	71-55-6	2.0E+00	5.0E+00	1.43E+00	4.58E-02	6.48E-02	1.72E-02	8.78E-01	4.39E+01	2.00E-01	
1,1-Dichloroethane	75-34-3	2.0E-01			5.92E-02	8.36E-02	5.62E-03	6.36E-01	3.18E+01	4.00E+00	
1,1-Dichloroethene	75-35-4	5.0E-02	2.0E-01	5.71E-02	6.10E-02	8.63E-02	2.61E-02	6.36E-01	3.18E+01	7.00E-03	
1,2-Dichloroethane	107-06-2	6.0E-03	7.0E-03	2.00E-03	6.06E-02	8.57E-02	1.18E-03	7.92E-01	3.96E+01	5.00E-03	
Acetone	67-64-1	9.0E-01	3.1E+01	8.86E+00	7.49E-02	1.06E-01	3.50E-05	4.73E-02	2.36E+00	4.00E+00	
cis-1,2-Dichloroethene	156-59-2	2.0E-03			6.25E-02	8.84E-02	4.08E-03	7.92E-01	3.96E+01	7.00E-02	
Cyclohexane	110-82-7		6.0E+00	1.71E+00	7.11E-02	1.01E-01	4.55E-02	2.92E+00	1.46E+02		
Ethylbenzene	100-41-4	1.0E-01	1.0E+00	2.86E-01	4.84E-02	6.85E-02	7.88E-03	8.92E+00	4.46E+02	7.00E-01	
Isopropylbenzene	98-82-8	1.0E-01	4.0E-01	1.14E-01	4.26E-02	6.03E-02	1.15E-02	1.40E+01	6.98E+02		
Methylene Chloride	75-09-2	6.0E-03	6.0E-01	1.71E-01	7.07E-02	9.99E-02	3.25E-03	4.35E-01	2.17E+01	5.00E-03	
Tetrachloroethene	127-18-4	6.0E-03	4.0E-02	1.14E-02	3.57E-02	5.05E-02	1.77E-02	1.90E+00	9.49E+01	5.00E-03	
Toluene	108-88-3	8.0E-02	5.0E+00	1.43E+00	5.50E-02	7.78E-02	6.64E-03	4.68E+00	2.34E+02	1.00E+00	
Trichloroethene	79-01-6	5.0E-04	2.0E-03	5.71E-04	4.86E-02	6.87E-02	9.85E-03	1.21E+00	6.07E+01	5.00E-03	
Xylenes (Total)	1330-20-7	2.0E-01	1.0E-01	2.86E-02	5.99E-02	8.47E-02	5.18E-03	7.66E+00	3.83E+02	1.00E+01	
bis(2-ethylhexyl)phthalate	117-81-7	2.0E-02			1.23E-02	1.73E-02	2.70E-07	2392	1.20E+05	6.00E-03	

m meter
cm centimeter
ug micrograms
mg milligrams
kg kilograms
L liter
s second
HSRA Hazardous Sites Response Act
RRS Risk Reduction Standard
CAS Chemical Abstract Service

RAGS Risk Assessment Guidance for Superfund, Volume I--
Human Health evaluation Manual (Part B, Development of Risk
Based Preliminary Remediation Goals) (EPA, December 1991)

Notes:
Toxicity factors and chemical-specific data was obtained from
the USEPA Regional Screening Level (RSL) Table (dated
November 2013).

Parameters, Definitions, and Standard Assumptions Used in Type 1 Risk Reduction Calculations for Soil

Factor	Value	Units	Notes
Target Risk for Class A and B non-carcinogens	1.0E-05		
Target Risk for Class C Carcinogens	1.0E-04		
Target Hazard Index	1		
Adult Body Weight	70	kg	
Averaging Time	70	years	Carcinogen (Class C)
Averaging Time (non-carcinogens)	30	years	non-carcinogens (class A and B adult)
Exposure Duration	30	years	
Exposure Frequency	350	days/year	
Daily Water Ingestion Rate	2	L/day	
Soil Ingestion Rate	114	mg/day	
Daily Inhalation Rate	15	m ³ /day	
Particulate Emission Factor	4.63E+09	m ³ /kg	
Water to Air Volatilization Factor	0.5	L/m ³	
Length of Side of Contaminated Area	45	m	
Wind Speed	2.25	m/s	
Diffusion Height	2	m	
Area of Contamination	2.03E+07	cm ²	
Exposure Interval	7.9E+08	s	
Density of Soil Solids	2.65	g/cm ³	
Soil Organic Carbon Fraction	0.02		
Total Soil Porosity	0.35		

cm	centimeter
g	Gram
kg	Kilogram
L	Liter
mg	Milligram
m	Meter
s	Second

Notes:

Unless otherwise noted, values are taken from the Hazardous Sites Response Act Rules, Appendix III, Table 3.

Type 3 Risk Reduction Standard Calculations for Soil
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Notes	Type 3 RRS (mg/kg)	Subsurface Soil Type 3 RRS (mg/kg)	Surface Soil Type 3 RRS (mg/kg)	Risk Based Type 3 RRS (mg/kg)	Soil to Groundwater		Chronic Risk Calculation RAGS Equation 7 (mg/kg)	Cancer Risk Calculation RAGS Equation 6 (mg/kg)
							HSRA Appendix I Table 1 (mg/kg)	HSRA Appendix III Table 1 x 100 (mg/kg)		
1,1,1-Trichloroethane	71-55-6		2.00E+01	2.00E+01	2.00E+01	1.13E+04	5.44E+00	2.00E+01	1.13E+04	Not Applicable
1,1-Dichloroethane	75-34-3		4.00E+02	4.00E+02	4.00E+02	5.36E+02	3.00E-02	4.00E+02	4.09E+05	5.36E+02
1,1-Dichloroethene	75-35-4		7.00E-01	7.00E-01	7.00E-01	2.51E+02	3.60E-01	7.00E-01	2.51E+02	Not Applicable
1,2-Dichloroethane	107-06-2		5.00E-01	5.00E-01	5.00E-01	8.11E+00	2.00E-02	5.00E-01	5.32E+01	8.11E+00
Acetone	67-64-1		4.00E+02	4.00E+02	4.00E+02	2.60E+05	2.74E+00	4.00E+02	2.60E+05	Not Applicable
cis-1,2-Dichloroethene	156-59-2		7.00E+00	7.00E+00	7.00E+00	4.09E+03	5.30E-01	7.00E+00	4.09E+03	Not Applicable
Cyclohexane	110-82-7		2.00E+01	2.00E+01	2.00E+01	2.74E+03	2.00E+01		2.74E+03	Not Applicable
Ethylbenzene	100-41-4		7.00E+01	7.00E+01	7.00E+01	1.22E+02	2.00E+01	7.00E+01	1.05E+04	1.22E+02
Isopropylbenzene	98-82-8		2.19E+01	2.19E+01	2.19E+01	4.79E+03	2.19E+01		4.79E+03	Not Applicable
Methylene Chloride	75-09-2		5.00E-01	5.00E-01	5.00E-01	1.61E+03	8.00E-02	5.00E-01	1.61E+03	6.62E+03
Tetrachloroethene	127-18-4		5.00E-01	5.00E-01	5.00E-01	1.52E+02	1.80E-01	5.00E-01	1.52E+02	4.09E+02
Toluene	108-88-3		1.00E+02	1.00E+02	1.00E+02	3.28E+04	1.44E+01	1.00E+02	3.28E+04	Not Applicable
Trichloroethene	79-01-6		5.00E-01	5.00E-01	5.00E-01	7.06E+00	1.30E-01	5.00E-01	7.06E+00	2.38E+01
Xylenes (Total)	1330-20-7		1.00E+03	1.00E+03	1.00E+03	1.14E+03	2.00E+01	1.00E+03	1.14E+03	Not Applicable
bis(2-ethylhexyl)phthalate	117-81-7		5.00E+01	5.00E+01	5.00E+01	4.09E+03	5.00E+01	6.00E-01	4.09E+04	4.09E+03

cm centimeter
mg milligrams
kg kilograms
L liter
S second
HSRA Hazardous Sites Response Act
RRS Risk Reduction Standard
CAS Chemical Abstract Service
RAGS Risk Assessment Guidance for Superfund, Volume I--
Human Health evaluation Manual (Part B, Development of
Risk Based Preliminary Remediation Goals) (EPA, December
1991)

Notes:
Toxicity factors and chemical-specific data was obtained from
the USEPA Regional Screening Level (RSL) Table (dated
November 2013).

Type 3 Risk Reduction Standard Calculations for Soil
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Soil-to-Air	Alpha Calculation	Kas Calculation	Cancer Slope Factor			Chronic Reference Dose			
		(m3/kg)	(cm3/s)	(g soil/cm3 air)	Target Risk	Oral (1/mg/kg-day)	Inhalation (1/mg/kg-day)	Inhalation Unit Risk (ug/m3)-1	Oral (mg/kg-day)	Inhalation Concentration (mg/m3)	Inhalation (mg/kg-day)
		VF	Alpha	Kas	TR	Sfo	Sfi	IUR	RfDo	RfCi	RfDi
1,1,1-Trichloroethane	71-55-6	1.55E+03	6.43E-03	8.03E-01	1.0E-04				2.0E+00	5.0E+00	1.43E+00
1,1-Dichloroethane	75-34-3	2.11E+03	4.05E-03	3.62E-01	1.0E-04	5.7E-03	5.60E-03	1.6E-06	2.0E-01		
1,1-Dichloroethene	75-35-4	8.62E+02	1.55E-02	1.68E+00	1.0E-04				5.0E-02	2.0E-01	5.71E-02
1,2-Dichloroethane	107-06-2	5.23E+03	7.43E-04	6.11E-02	1.0E-05	9.1E-02	9.10E-02	2.6E-05	6.0E-03	7.0E-03	2.00E-03
Acetone	67-64-1	6.69E+03	4.59E-04	3.04E-02	1.0E-05				9.0E-01	3.1E+01	8.86E+00
cis-1,2-Dichloroethene	156-59-2	2.73E+03	2.57E-03	2.11E-01	1.0E-05				2.0E-03		
Cyclohexane	110-82-7	3.13E+02	4.02E-02	6.40E+00	1.0E-04					6.0E+00	1.71E+00
Ethylbenzene	100-41-4	7.61E+03	3.54E-04	3.62E-02	1.0E-05	1.1E-02	8.75E-03	2.5E-06	1.0E-01	1.0E+00	2.86E-01
Isopropylbenzene	98-82-8	8.40E+03	2.91E-04	3.38E-02	1.0E-04				1.0E-01	4.0E-01	1.14E-01
Methylene Chloride	75-09-2	2.11E+03	4.14E-03	3.07E-01	1.0E-05	2.0E-03	3.50E-05	1.0E-08	6.0E-03	6.0E-01	1.71E-01
Tetrachloroethene	127-18-4	2.64E+03	2.57E-03	3.82E-01	1.0E-05	2.1E-03	9.10E-04	2.6E-07	6.0E-03	4.0E-02	1.14E-02
Toluene	108-88-3	5.62E+03	6.43E-04	5.82E-02	1.0E-05				8.0E-02	5.0E+00	1.43E+00
Trichloroethene	79-01-6	2.44E+03	3.07E-03	3.33E-01	1.0E-05	4.6E-02	1.44E-02	4.1E-06	5.0E-04	2.0E-03	5.71E-04
Xylenes (Total)	1330-20-7	7.83E+03	3.36E-04	2.77E-02	1.0E-05				2.0E-01	1.0E-01	2.86E-02
bis(2-ethylhexyl)phthalate	117-81-7	NA	NA	NA	1.0E-05	1.4E-02	8.40E-03	2.4E-06	2.0E-02		

cm centimeter
mg milligrams
kg kilograms
L liter
S second
HSRA Hazardous Sites Response Act
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Human Health evaluation Manual (Part B, Development of
Risk Based Preliminary Remediation Goals) (EPA, December
1991)

Notes:
Toxicity factors and chemical-specific data was obtained from
the USEPA Regional Screening Level (RSL) Table (dated
November 2013).

Type 3 Risk Reduction Standard Calculations for Soil
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Effective Diffusivity (cm ² /s)	Molecular Diffusivity (cm ² /s)	Henry's Law Constant (unitless)	Henry's Law Constant (atm-m ³ /mole)	Soil to Water Partition Coefficient (g soil/cm ³)	Soil to Water Partition Coefficient (L/kg)	Organic Carbon Partition Coefficient (L/kg)	Target Groundwater Concentration (mg/L)
		Dei	Dia	Unitless	(atm-m ³ /mole)	K _{dv}	K _d	K _{oc}	C _w
1,1,1-Trichloroethane	71-55-6	4.58E-02	6.48E-02	7.03E-01	1.72E-02	8.78E-01	8.78E-02	4.39E+01	2.00E-01
1,1-Dichloroethane	75-34-3	5.92E-02	8.36E-02	2.30E-01	5.62E-03	6.36E-01	6.36E-02	3.18E+01	4.00E+00
1,1-Dichloroethene	75-35-4	6.10E-02	8.63E-02	1.07E+00	2.61E-02	6.36E-01	6.36E-02	3.18E+01	7.00E-03
1,2-Dichloroethane	107-06-2	6.06E-02	8.57E-02	4.82E-02	1.18E-03	7.92E-01	7.92E-02	3.96E+01	5.00E-03
Acetone	67-64-1	7.49E-02	1.06E-01	1.43E-03	3.50E-05	4.73E-02	4.73E-03	2.36E+00	4.00E+00
cis-1,2-Dichloroethene	156-59-2	6.25E-02	8.84E-02	1.67E-01	4.08E-03	7.92E-01	7.92E-02	3.96E+01	7.00E-02
Cyclohexane	110-82-7	7.11E-02	1.01E-01	1.86E+00	4.55E-01	2.92E+00	2.92E-01	1.46E+02	
Ethylbenzene	100-41-4	4.84E-02	6.85E-02	3.22E-01	7.88E-03	8.92E+00	8.92E-01	4.46E+02	7.00E-01
Isopropylbenzene	98-82-8	4.26E-02	6.03E-02	4.70E-01	1.15E-02	1.40E+01	1.40E+00	6.98E+02	
Methylene Chloride	75-09-2	7.07E-02	9.99E-02	1.33E-01	3.25E-03	4.35E-01	4.35E-02	2.17E+01	5.00E-03
Tetrachloroethene	127-18-4	3.57E-02	5.05E-02	7.24E-01	1.77E-02	1.90E+00	1.90E-01	9.49E+01	5.00E-03
Toluene	108-88-3	5.50E-02	7.78E-02	2.71E-01	6.64E-03	4.68E+00	4.68E-01	2.34E+02	1.00E+00
Trichloroethene	79-01-6	4.86E-02	6.87E-02	4.03E-01	9.85E-03	1.21E+00	1.21E-01	6.07E+01	5.00E-03
Xylenes (Total)	1330-20-7	5.99E-02	8.47E-02	2.12E-01	5.18E-03	7.66E+00	7.66E-01	3.83E+02	1.00E+01
bis(2-ethylhexyl)phthalate	117-81-7	1.23E-02	1.73E-02	1.10E-05	2.70E-07	2.39E+03	2.39E+02	1.20E+05	6.00E-03

cm centimeter
mg milligrams
kg kilograms
L liter
S second

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RRS Risk Reduction Standard
CAS Chemical Abstract Service
RAGS Risk Assessment Guidance for Superfund, Volume I--
Human Health evaluation Manual (Part B, Development of
Risk Based Preliminary Remediation Goals) (EPA, December
1991)

Notes:

Toxicity factors and chemical-specific data was obtained from the USEPA Regional Screening Level (RSL) Table (dated November 2013).

Parameters, Definitions, and Standard Assumptions Used in Type 3 Risk Reduction Calculations for Soil

Factor	Value	Units	Notes
Target Risk for Class A and B carcinogens	1.0E-05		
Target Risk for Class C Carcinogens	1.0E-04		
Target Hazard Index	1		
Adult Body Weight	70	kg	
Averaging Time (carcinogens)	70	years	
Averaging Time (non-carcinogens)	25	years	
Exposure Duration	25	years	
Exposure Frequency	250	days/year	
Daily Water Ingestion Rate	1	L/day	
Soil Ingestion Rate	50	mg/day	
Daily Inhalation Rate	20	m ³ /day	
Particulate Emission Factor	4.63E+09	m ³ /kg	
Water to Air Volatilization Factor	0.5	L/m ³	
Length of Side of Contaminated Area	45	m	
Wind Speed	2.25	m/s	
Diffusion Height	2	m	
Area of Contamination	2.03E+07	cm ²	
Exposure Interval	7.9E+08	s	
Density of Soil Solids	2.65	g/cm ³	
Soil Organic Carbon Fraction	0.02		
Total Soil Porosity	0.35		

cm	centimeter
g	Gram
kg	Kilogram
L	Liter
mg	Milligram
m	Meter
s	Second

Notes:

Unless otherwise noted, values are taken from the Hazardous Sites Response Act Rules, Appendix III, Table 3.

Type 4 Risk Reduction Standard Calculations for Soil
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Notes	Type 4 RRS (mg/kg)	Subsurface Soil Type 4 RRS (mg/kg)	Surface Soil Type 4 RRS (mg/kg)	Type 3 Soil Screening Level (mg/kg)	Type 4 Soil Screening Level (mg/kg)	Groundwater Type 3 RRS (mg/L)	Groundwater Type 4 RRS (mg/L)	Chronic Risk Calculation Equation 7 (mg/kg) RAGS	Cancer Risk Calculation Equation 6 (mg/kg) RAGS
1,1,1-Trichloroethane	71-55-6		4.78E+00	4.78E+00	4.78E+00	7.01E-02	4.78E+00	2.00E-01	1.36E+01	1.13E+04	Not Applicable
1,1-Dichloroethane	75-34-3		1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.32E-02	4.00E+00	4.64E-02	4.09E+05	5.36E+01
1,1-Dichloroethene	75-35-4		1.88E-01	1.88E-01	1.88E-01	2.51E-03	1.88E-01	7.00E-03	5.24E-01	2.51E+02	Not Applicable
1,2-Dichloroethane	107-06-2		1.42E-03	1.42E-03	1.42E-03	1.42E-03	8.10E-04	5.00E-03	2.86E-03	5.32E+01	8.11E+00
Acetone	67-64-1		9.35E+00	9.35E+00	9.35E+00	8.19E-01	9.35E+00	4.00E+00	4.56E+01	2.60E+05	Not Applicable
cis-1,2-Dichloroethene	156-59-2		6.01E-02	6.01E-02	6.01E-02	2.06E-02	6.01E-02	7.00E-02	2.04E-01	4.09E+03	Not Applicable
Cyclohexane	110-82-7		1.15E+01	1.15E+01	1.15E+01	3.29E-03	1.15E+01	5.00E-03	1.75E+01	1.16E+04	Not Applicable
Ethylbenzene	100-41-4		7.85E-01	7.85E-01	7.85E-01	7.85E-01	3.26E-02	7.00E-01	2.91E-02	1.05E+04	1.22E+02
Isopropylbenzene	98-82-8		1.72E+00	1.72E+00	1.72E+00	8.19E-03	1.72E+00	5.00E-03	1.05E+00	4.79E+03	Not Applicable
Methylene Chloride	75-09-2		1.16E-01	1.16E-01	1.16E-01	1.28E-03	1.16E-01	5.00E-03	4.54E-01	1.61E+03	6.62E+03
Tetrachloroethene	127-18-4		4.46E-02	4.46E-02	4.46E-02	2.27E-03	4.46E-02	5.00E-03	9.81E-02	1.52E+02	4.09E+02
Toluene	108-88-3		3.63E+00	3.63E+00	3.63E+00	6.92E-01	3.63E+00	1.00E+00	5.24E+00	3.28E+04	Not Applicable
Trichloroethene	79-01-6		1.87E-03	1.87E-03	1.87E-03	1.79E-03	1.87E-03	5.00E-03	5.24E-03	7.06E+00	2.38E+01
Xylenes (Total)	1330-20-7		9.85E+00	9.85E+00	9.85E+00	9.85E+00	2.83E-01	1.00E+01	2.88E-01	1.14E+03	Not Applicable
bis(2-ethylhexyl)phthalate	117-81-7		4.89E+01	4.89E+01	4.89E+01	3.11E+01	4.89E+01	1.30E-01	2.04E-01	4.09E+04	4.09E+03

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Human Health evaluation Manual (Part B, Development of
Risk Based Preliminary Remediation Goals) (EPA, December
1991)

Notes:
Toxicity factors and chemical-specific data was obtained from
the USEPA Regional Screening Level (RSL) Table (dated
November 2013).
NA - Not Applicable

Type 4 Risk Reduction Standard Calculations for Soil
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Soil-to-Air Volatilization Factor	Alpha Calculation	Kas Calculation	Cancer Slope Factor			Chronic Reference Dose			
		(m3/kg)	(cm3/s)	(g soil/cm3 air)	Target Risk	Oral (1/mg/kg- day)	Inhalation (1/mg/kg- day)	Inhalation Unit Risk (ug/m3)-1	Oral (mg/kg- day)	Inhalation (mg/m3)	Inhalation (mg/kg-day)
		VF	Alpha	Kas	TR	Sfo	Sfi	IUR	RfDo	RfCi	RfDi
1,1,1-Trichloroethane	71-55-6	1.55E+03	6.43E-03	8.03E-01	1.00E-05				2.0E+00	5.0E+00	1.43E+00
1,1-Dichloroethane	75-34-3	2.11E+03	4.05E-03	3.62E-01	1.00E-05	5.7E-03	5.6E-03	1.6E-06	2.0E-01		
1,1-Dichloroethene	75-35-4	8.62E+02	1.55E-02	1.68E+00	1.00E-05				5.0E-02	2.0E-01	5.71E-02
1,2-Dichloroethane	107-06-2	5.23E+03	7.43E-04	6.11E-02	1.00E-05	9.1E-02	9.1E-02	2.6E-05	6.0E-03	7.0E-03	2.00E-03
Acetone	67-64-1	6.69E+03	4.59E-04	3.04E-02	1.00E-05				9.0E-01	3.1E+01	8.86E+00
cis-1,2-Dichloroethene	156-59-2	2.73E+03	2.57E-03	2.11E-01	1.00E-05				2.0E-03		
Cyclohexane	110-82-7	1.32E+03	7.18E-03	1.41E+00	1.00E-05					6.0E+00	1.71E+00
Ethylbenzene	100-41-4	7.61E+03	3.54E-04	3.62E-02	1.00E-05	1.1E-02	8.8E-03	2.5E-06	1.0E-01	1.0E+00	2.86E-01
Isopropylbenzene	98-82-8	8.40E+03	2.91E-04	3.38E-02	1.00E-05				1.0E-01	4.0E-01	1.14E-01
Methylene Chloride	75-09-2	2.11E+03	4.14E-03	3.07E-01	1.00E-05	2.0E-03	3.5E-05	1.0E-08	6.0E-03	6.0E-01	1.71E-01
Tetrachloroethene	127-18-4	2.64E+03	2.57E-03	3.82E-01	1.00E-05	2.1E-03	9.1E-04	2.6E-07	6.0E-03	4.0E-02	1.14E-02
Toluene	108-88-3	5.62E+03	6.43E-04	5.82E-02	1.00E-05				8.0E-02	5.0E+00	1.43E+00
Trichloroethene	79-01-6	2.44E+03	3.07E-03	3.33E-01	1.00E-05	4.6E-02	1.4E-02	4.1E-06	5.0E-04	2.0E-03	5.71E-04
Xylenes (Total)	1330-20-7	7.83E+03	3.36E-04	2.77E-02	1.00E-05				2.0E-01	1.0E-01	2.86E-02
bis(2-ethylhexyl)phthalate	117-81-7	NA	NA	NA	1.00E-05	1.4E-02	8.4E-03	2.4E-06	2.0E-02		

cm centimeter
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Human Health evaluation Manual (Part B, Development of
Risk Based Preliminary Remediation Goals) (EPA, December
1991)

Notes:
Toxicity factors and chemical-specific data was obtained from
the USEPA Regional Screening Level (RSL) Table (dated
November 2013).
NA - Not Applicable

Type 4 Risk Reduction Standard Calculations for Soil
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Effective Diffusivity (cm ² /s)	Molecular Diffusivity (cm ² /s)	Henry's Law Constant (unitless)	Henry's Law Constant (atm-m ³ /mole)	Soil to Water Partition Coefficient (g soil/cm ³ air)	Soil to Water Partition Coefficient (L/kg)	Organic Carbon Partition Coefficient (L/kg)	Target Groundwater Concentration (mg/L)
						K _{dv}	K _d	K _{oc}	MCL
1,1,1-Trichloroethane	71-55-6	4.58E-02	6.48E-02	7.03E-01	1.72E-02	8.78E-01	8.78E-02	4.39E+01	2.00E-01
1,1-Dichloroethane	75-34-3	5.92E-02	8.36E-02	2.30E-01	5.62E-03	6.36E-01	6.36E-02	3.18E+01	4.00E+00
1,1-Dichloroethene	75-35-4	6.10E-02	8.63E-02	1.07E+00	2.61E-02	6.36E-01	6.36E-02	3.18E+01	7.00E-03
1,2-Dichloroethane	107-06-2	6.06E-02	8.57E-02	4.82E-02	1.18E-03	7.92E-01	7.92E-02	3.96E+01	5.00E-03
Acetone	67-64-1	7.49E-02	1.06E-01	1.43E-03	3.50E-05	4.73E-02	4.73E-03	2.36E+00	4.00E+00
cis-1,2-Dichloroethene	156-59-2	6.25E-02	8.84E-02	1.67E-01	4.08E-03	7.92E-01	7.92E-02	3.96E+01	7.00E-02
Cyclohexane	110-82-7	3.22E-02	4.55E-02	1.86E+00	1.01E-01	2.92E+00	2.92E-01	1.46E+02	
Ethylbenzene	100-41-4	4.84E-02	6.85E-02	3.22E-01	7.88E-03	8.92E+00	8.92E-01	4.46E+02	7.00E-01
Isopropylbenzene	98-82-8	4.26E-02	6.03E-02	4.70E-01	1.15E-02	1.40E+01	1.40E+00	6.98E+02	
Methylene Chloride	75-09-2	7.07E-02	9.99E-02	1.33E-01	3.25E-03	4.35E-01	4.35E-02	2.17E+01	5.00E-03
Tetrachloroethene	127-18-4	3.57E-02	5.05E-02	7.24E-01	1.77E-02	1.90E+00	1.90E-01	9.49E+01	5.00E-03
Toluene	108-88-3	5.50E-02	7.78E-02	2.71E-01	6.64E-03	4.68E+00	4.68E-01	2.34E+02	1.00E+00
Trichloroethene	79-01-6	4.86E-02	6.87E-02	4.03E-01	9.85E-03	1.21E+00	1.21E-01	6.07E+01	5.00E-03
Xylenes (Total)	1330-20-7	5.99E-02	8.47E-02	2.12E-01	5.18E-03	7.66E+00	7.66E-01	3.83E+02	1.00E+01
bis(2-ethylhexyl)phthalate	117-81-7	1.23E-02	1.73E-02	1.10E-05	2.70E-07	2.39E+03	2.39E+02	1.20E+05	6.00E-03

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Risk Based Preliminary Remediation Goals) (EPA, December
1991)

Notes:
Toxicity factors and chemical-specific data was obtained from
the USEPA Regional Screening Level (RSL) Table (dated
November 2013).
NA - Not Applicable

Parameters, Definitions, and Standard Assumptions Used in Type 4 Risk Reduction Calculations for Soil

Factor	Value	Units	Notes
Target Risk for Class A and B carcinogens	1.0E-05		
Target Risk for Class C Carcinogens	1.0E-04		
Target Hazard Index	1		
Adult Body Weight	70	kg	
Averaging Time (carcinogen)	70	years	
Averaging Time (non-carcinogen)	25	years	
Exposure Duration	25	years	
Exposure Frequency	250	days/year	
Daily Water Ingestion Rate	1	L/day	
Soil Ingestion Rate	50	mg/day	
Daily Inhalation Rate	20	m ³ /day	
Particulate Emission Factor	4.63E+09	m ³ /kg	
Water to Air Volatilization Factor	0.5	L/m ³	
Length of Side of Contaminated Area	45	m	
Wind Speed	2.25	m/s	
Diffusion Height	2	m	
Area of Contamination	2.03E+07	cm ²	
Exposure Interval	7.9E+08	s	
Density of Soil Solids	2.65	g/cm ³	
Fraction Organic Carbon in Soil	0.002		
Soil Organic Carbon Fraction	0.02		
Total Soil Porosity	0.35		1
Soil Porosity	0.43		
Dilution Attenuation Factor	1		
Water Filled Soil Porosity	0.3		
Air Filled Soil Porosity	0.13		2
Dry Soil Bulk Density	1.5	kg/L	

cm	centimeter
g	Gram
kg	Kilogram
L	Liter
mg	Milligram
m	Meter
s	Second

Notes:

Unless otherwise noted, values are taken from the Hazardous Sites Response Act Rules, Appendix III, Table 3.

1. Value calculated with subtracting ratio of Dry Soil Bulk Density to Density of Solid Soils from 1.
2. Value obtained by subtracting the water filled porosity value from the total porosity value.

Type 4 Risk Reduction Standard Calculations for Groundwater
Apollo Industries, Smyrna, Georgia

Constituent	CAS No.	Notes	Type 4 RRS (mg/L)	Chronic Risk Calculation Equation 2 (mg/L)	Cancer Risk Calculation Equation 1 (mg/L)	Cancer Slope Factor			Chronic Reference Factor			Henry's Law Constant (unitless)	
						Target Risk	Oral (1/mg/kg- day)	Inhalation (1/mg/kg- day)	Inhalation Unit Risk (ug/m3)-1	Oral Dose (mg/kg-day)	Inhalation Concentration (mg/m3)		Inhalation (mg/kg-day)
1,1,1-Trichloroethane	71-55-6		1.36E+01	1.36E+01	Not Applicable	1.0E-05				2.0E+00	5.0E+00	1.43E+00	7.0E-01
1,1,2-Trichloroethane	79-00-5		5.83E-04	5.83E-04	4.64E-03	1.0E-05	5.7E-02	5.60E-02	1.6E-05	4.0E-03	2.0E-04	5.71E-05	3.4E-02
1,1-Dichloroethane	75-34-3		4.64E-02	2.04E+01	4.64E-02	1.0E-05	5.7E-03	5.60E-03	1.6E-06	2.0E-01			2.3E-01
1,1-Dichloroethene	75-35-4		5.24E-01	5.24E-01	Not Applicable	1.0E-05				5.0E-02	2.0E-01	5.71E-02	1.1E+00
1,2-Dichloroethane	107-06-2		2.86E-03	1.98E-02	2.86E-03	1.0E-05	9.1E-02	9.10E-02	2.6E-05	6.0E-03	7.0E-03	2.00E-03	4.8E-02
1,4-Dioxane	123-91-1		1.04E-02	8.52E-02	1.04E-02	1.0E-05	1.0E-01	1.75E-02	5.0E-06	3.0E-02	3.0E-02	8.57E-03	2.0E-04
2-Butanone	78-93-3		1.18E+01	1.18E+01	Not Applicable	1.0E-05				6.0E-01	5.0E+00	1.43E+00	2.3E-03
4-Methyl-2-Pentanone	108-10-1		4.23E+00	4.23E+00	Not Applicable	1.0E-05				8.0E-02	3.0E+00	8.57E-01	5.6E-03
Acetone	67-64-1		4.56E+01	4.56E+01	Not Applicable	1.0E-05				9.0E-01	3.1E+01	8.86E+00	1.4E-03
Benzene	71-43-2		8.72E-03	7.21E-02	8.72E-03	1.0E-05	5.5E-02	2.73E-02	7.8E-06	4.0E-03	3.0E-02	8.57E-03	2.3E-01
Carbon Disulfide	75-15-0		1.70E+00	1.70E+00	Not Applicable	1.0E-05				1.0E-01	7.0E-01	2.00E-01	5.9E-01
Chlorobenzene	108-90-7		1.36E-01	1.36E-01	Not Applicable	1.0E-05				2.0E-02	5.0E-02	1.43E-02	1.3E-01
Chloroform	67-66-3		3.42E-03	2.24E-01	3.42E-03	1.0E-05	3.1E-02	8.05E-02	2.3E-05	1.0E-02	9.8E-02	2.80E-02	1.5E-01
cis-1,2-Dichloroethene	156-59-2		2.04E-01	2.04E-01	Not Applicable	1.0E-05				2.0E-03			1.7E-01
Cyclohexane	110-82-7		1.75E+01	1.75E+01	Not Applicable	1.0E-05					6.0E+00	1.71E+00	6.1E+00
Ethylbenzene	100-41-4		2.91E-02	2.27E+00	2.91E-02	1.0E-05	1.1E-02	8.75E-03	2.5E-06	1.0E-01	1.0E+00	2.86E-01	3.2E-01
Freon-113 (Trichloro-1,2,2-trifluoroethane,1,1,2-)	76-13-1		8.52E+01	8.52E+01	Not Applicable	1.0E-05				3.0E+01	3.0E+01	8.57E+00	2.2E+01
Isopropylbenzene	98-82-8		1.05E+00	1.05E+00	Not Applicable	1.0E-05				1.0E-01	4.0E-01	1.14E-01	4.7E-01
Methylene Chloride	75-09-2		4.54E-01	4.54E-01	1.22E+00	1.0E-05	2.0E-03	3.50E-05	1.0E-08	6.0E-03	6.0E-01	1.71E-01	1.3E-01
Tetrachloroethene	127-18-4		9.81E-02	9.81E-02	2.56E-01	1.0E-05	2.1E-03	9.10E-04	2.6E-07	6.0E-03	4.0E-02	1.14E-02	7.2E-01
Toluene	108-88-3		5.24E+00	5.24E+00	Not Applicable	1.0E-05				8.0E-02	5.0E+00	1.43E+00	2.7E-01
trans-1,2-Dichloroethene	156-60-5		1.61E-01	1.61E-01	Not Applicable	1.0E-05				2.0E-02	6.0E-02	1.71E-02	1.7E-01
Trichloroethene	79-01-6		5.24E-03	5.24E-03	1.51E-02	1.0E-05	4.6E-02	1.44E-02	4.1E-06	5.0E-04	2.0E-03	5.71E-04	4.0E-01
Vinyl Chloride	75-01-4		3.27E-03	1.50E-01	3.27E-03	1.0E-05	7.2E-01	1.54E-02	4.4E-06	3.0E-03	1.0E-01	2.86E-02	1.1E+00
Xylenes (Total)	1330-20-7		2.88E-01	2.88E-01	Not Applicable	1.0E-05				2.0E-01	1.0E-01	2.86E-02	2.1E-01
1,3-Dichlorobenzene	541-73-1	1	6.00E-01	Not Applicable	Not Applicable	1.0E-05							1.25E-01
1,4-Dichlorobenzene	106-46-7		5.30E-01	7.15E+00	5.30E-01	1.0E-05	5.4E-03	3.85E-02	1.1E-05	7.0E-02	8.0E-01	2.29E-01	9.85E-02

mg milligrams
kg kilograms
L liter
HSRA Hazardous Sites Response Act
RRS Risk Reduction Standard
CAS Chemical Abstract Service
RAGS Risk Assessment Guidance for Superfund, Volume I--Human Health evaluation Manual (Part B, Development of Risk Based Preliminary Remediation Goals) (EPA, December 1991)

Notes:
Toxicity factors and chemical-specific data was obtained from the USEPA Regional Screening Level (RSL) Table (dated November 2013).
1. HSRA Appendix III Table 1 value used for Type 2 RRS. Highest of value of Appendix III Table 1, background, and detection limited used as directed by GAEPD

Parameters, Definitions, and Standard Assumptions Used in Type 4 Risk Reduction Calculations for Groundwater

Factor	Value	Units	Notes
Target Risk for Class A and B non-carcinogens	1.0E-05		
Target Risk for Class C Carcinogens	1.0E-04		
Target Hazard Index	1		
Adult Body Weight	70	kg	
Averaging Time (carcinogen)	70	years	
Averaging Time (non-carcinogens)	25	years	
Exposure Duration	25	years	
Exposure Frequency	250	days/year	
Daily Water Ingestion Rate	1	L/day	
Soil Ingestion Rate	50	mg/day	
Daily Inhalation Rate	20	m ³ /day	
Water to Air Volatilization Factor	0.5	L/m ³	

m ³	cubic meters
kg	Kilogram
mg	milligrams
L	Liter

Notes:

Unless otherwise noted, values are taken from the Hazardous Sites Response Act Rules, Appendix III, Table 3.

1. Value calculated with subtracting ratio of Dry Soil Bulk Density to Density of Solid Soils from 1.
2. Value obtained by subtracting the water filled porosity value from the total porosity value.

Appendix D
Conceptual Milestone
Schedule

Conceptual Milestone Schedule
Voluntary Investigation & Remediation Plan
Apollo Technologies, Inc. - Smyrna, Georgia

Task Name	Start	Finish	2014				2015				2016			
			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2		
1. Notice of VIRP Approval	Mon 4/7/14	Mon 4/7/14												
2. Evaluation of SVE System	Mon 4/14/14	Fri 5/16/14												
3. Supplemental Ground Water Investigation	Mon 4/21/14	Fri 6/6/14												
4. ISCO Injection Pilot Study & Monitoring	Mon 5/12/14	Fri 9/12/14												
5. First Semi-annual Monitoring Event & Reporting	Mon 6/9/14	Fri 8/22/14												
6. Evaluation of Hydraulic Controls	Mon 6/23/14	Mon 8/25/14												
7. First Semi-annual Progress Report (Future Progress Reports to be combined with Semi-annual Monitoring Report)	Mon 9/1/14	Fri 10/3/14												
8. Second Semi-annual Monitoring Event & Progress Reporting	Mon 12/8/14	Fri 2/20/15												
9. Milestone 1: Documentation of Completion of Horizontal Delineation (On the VRP Parcel)	Mon 3/16/15	Fri 4/3/15												
10. Third Semi-annual Monitoring Event & Progress Reporting	Mon 6/8/15	Fri 8/21/15												
11. Fourth Semi-annual Monitoring Event & Progress Reporting	Mon 12/7/15	Fri 2/19/16												
12. Milestone 2: Documentation of Completion of Horizontal Delineation (Off-site)	Mon 3/14/16	Fri 4/1/16												
13. Fifth Semi-annual Monitoring Event & Progress Reporting	Mon 6/6/16	Fri 8/19/16												
14. Milestone 3: Submit Updated VIRP with revised CSM, et. al.	Tue 7/5/16	Mon 8/8/16												
15. Sixth Semi-annual Monitoring Event & Progress Reporting	Mon 12/5/16	Fri 2/17/17												
16. Seventh Semi-annual Monitoring Event & Progress Reporting	Mon 6/5/17	Fri 8/18/17												
17. Eighth Semi-annual Monitoring Event & Progress Reporting	Mon 12/4/17	Fri 2/16/18												
19. Ninth Semi-annual Monitoring Event & Progress Reporting	Mon 6/4/18	Fri 8/17/18												
20. Tenth Semi-annual Monitoring Event & Progress Reporting	Mon 12/3/18	Fri 2/15/19												
21: Milestone 4: Compliance Status Report with Requisite Certifications	Mon 1/7/19	Mon 4/1/19												

**Conceptual Milestone Schedule
Voluntary Investigation & Remediation Plan
Apollo Technologies, Inc. - Smyrna, Georgia**

Task Name	2017		2018				2019					
	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
1. Notice of VIRP Approval												
2. Evaluation of SVE System												
3. Supplemental Ground Water Investigation												
4. ISCO Injection Pilot Study & Monitoring												
5. First Semi-annual Monitoring Event & Reporting												
6. Evaluation of Hydraulic Controls												
7. First Semi-annual Progress Report (Future Progress Reports to be combined with Semi-annual Monitoring Report)												
8. Second Semi-annual Monitoring Event & Progress Reporting												
9. Milestone 1: Documentation of Completion of Horizontal Delineation (On the VRP Parcel)												
10. Third Semi-annual Monitoring Event & Progress Reporting												
11. Fourth Semi-annual Monitoring Event & Progress Reporting												
12. Milestone 2: Documentation of Completion of Horizontal Delineation (Off-site)												
13. Fifth Semi-annual Monitoring Event & Progress Reporting												
14. Milestone 3: Submit Updated VIRP with revised CSM, et. al.												
15. Sixth Semi-annual Monitoring Event & Progress Reporting												
16. Seventh Semi-annual Monitoring Event & Progress Reporting												
17. Eighth Semi-annual Monitoring Event & Progress Reporting												
19. Ninth Semi-annual Monitoring Event & Progress Reporting												
20. Tenth Semi-annual Monitoring Event & Progress Reporting												
21: Milestone 4: Compliance Status Report with Requisite Certifications												