

**Remedial Investigation/Feasibility Study
and OU-1 Remediation Work Plan**

C.E. Flushing Site
College Point Boulevard and 40th Road
Queens, New York

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1.0 INTRODUCTION

1.1 BACKGROUND

The objective of this sampling program was to evaluate contamination in the soil and groundwater on a 13.5± acre site located on the northwest corner of College Point Avenue and 40th Road, in Flushing, Queens (see Site Location Map, Figure 1). The site is bound to the north by Roosevelt Avenue, to the east by College Point Boulevard, to the south by 40th Road, and to the west by the Flushing River and the Van Wyck Expressway. The legal definition of the property is Tax Block 5066, Lots 1, 79, and 91.

The site is in a former industrial and manufacturing area in Flushing, Queens. A recent Downtown Flushing Rezoning Resolution, approved August 19, 1998 (Calendar 24), designated the site and the surrounding area for commercial development. Due to its industrial and manufacturing history, the project site has been given an e-designation, requiring a subsurface investigation and, if necessary, site remediation prior to development. This sampling program was intended to address the requirements both of NYSDEC under its Voluntary Cleanup Program and NYCDEP in order to satisfy the requirements of the e-designation.

The site contains a two-story main building with four-story, three-story and one-story additions in the north-central portion of the site, a one-story garage building in the southwest portion of the site, and a small one-story building in the northwest portion of the site. The remainder of the site is paved, with the exception of a small landscaped area at the eastern end of the site and some of the slopes along the site's northern perimeter.

1.2 SITE CHARACTERIZATION

1.2.1 Subsurface Conditions

A subsurface investigation was performed on the site by SESI in 1989. Their report (June 1989) indicated that the site is covered with a layer of miscellaneous fill from grade to an 8 to 11 foot depth. The fill is silty sand with cinders and wood fragments.

On the western portion of the site the fill is underlain by a layer of old river deposits consisting of very soft organic silt and peat. This stratum is about 30 feet thick near the river and thins out towards the east, ending about 200 to 300 feet from College Point Boulevard. The soil beneath the peat layer is dense glacial till. A stiff silty clay stratum was encountered in the deepest borings, about 70 feet below the surface.

Groundwater was present from 3 to 7 feet below the ground surface. The direction of flow is westward, towards the Flushing River. The layer of organic silt and peat has a relatively low permeability and is believed to act as an aquitard, restricting vertical flow between the groundwater in the fill and the groundwater in the glacial till beneath the peat.

1.2.2 Site History

According to the Sanborn insurance maps, the main building on the site was constructed in 1916 with additions constructed in 1928. A 1917 Sanborn Map indicated the main building to be occupied by a plumbers supply store. A series of single family dwellings were indicated on the southeastern portion of the property, and a garage was indicated in the southwestern portion of the property. Two 10,000-gallon fuel oil tanks were indicated to be directly south of the main building.

A 1934 Sanborn Map indicated the main building of the property to be occupied by the New York & Queens Electric Light & Power Company (the precursor to Con Edison). A series of four tanks were indicated directly northwest of the main building, along Roosevelt Avenue. This area was reportedly used for servicing transformers. The garage in the southwestern portion of the property showed additions. Two tanks were indicated directly northwest-adjacent to this building.

A 1951 Sanborn Map indicated the main building on the subject property to be occupied by the Con Edison Company of New York. Con Edison used the facility for the storage and maintenance of equipment, for personnel training, for the storage and servicing vehicles, and for offices. The four tanks to the northwest of the main building were labeled 'oil tanks' on this map. One additional gasoline tank appeared directly northwest-adjacent to the garage building.

A 1980 Sanborn Map indicated all of the single-family dwellings had been demolished, and an auto-repair shop was indicated in their place. Sanborn Maps from 1991, 1992, 1993, 1994 and 1995 did not indicate any significant changes to the subject property.

Con Edison purchased the majority of the property from Atlas Cereal Company, Inc. (acting for Remington Typewriter) in 1923 and later acquired several row houses in the southeastern portion of the property in the 1950s. Con Edison built the College Point Service Station on the property in 1932, directly southeast- adjacent to the garage building. A building plan for this station indicated four 1,080-gallon leaded gasoline underground storage tanks for the station. A 1932 Con Edison map of the site indicated an oil storage pump house, four oil storage tanks, and two transformer vaults along the northern boundary to the site (Roosevelt Avenue); an incinerator, a paint storage house, and a blacksmith shop in the southwest portion of the main building; a gasoline station directly northwest-adjacent to the garage building; and an outdoor transformer directly southeast-adjacent to the garage building. A 1946 Report of Physical Survey indicated the site had historically served as a supply depot for the U.S. Army.

A 1965 Con Edison insurance map of the site indicated four 4,000-gallon tanks of transformer oil to be located to the northwest of the main building, along Roosevelt Avenue, and two 275-gallon kerosene tanks and four 550-gallon gasoline tanks to be located directly northwest- adjacent to the garage building. Two transformer vaults were indicated directly north of the main building, along the Roosevelt Avenue, and a second vault was indicated along College Point Boulevard.

The following table summarizes the description, location and registration status of the tanks based on current NYSDEC PBS database information and an April 24, 1986 Con Edison Memorandum:

TANK DESCRIPTION	APPROXIMATE TANK LOCATION	STATUS
Four 1,080-gallon underground leaded gasoline	Gas station directly southeast-adjacent to the garage building.	Registered
Two 550-gallon underground unleaded gasoline tanks and two 550-gallon underground diesel	Directly northwest-adjacent to the garage building.	Registered
Two 275-gallon aboveground diesel/kerosene	Directly northwest-adjacent to the garage building.	Registered
Four 4,000-gallon aboveground insulating oil	Directly northwest-adjacent to the main building, along Roosevelt Avenue.	Not registered
One 400-gallon aboveground spent motor oil	In the southeast corner of the garage building.	Not registered
Two 275-gallon aboveground #2 heating oil	West-central portion of the property in the one-story storage building.	Registered

The 1986 Con Edison Memo stated there were four aboveground 4,000-gallon storage tanks present on the property in 1986; currently, only three aboveground 4,000-gallon tanks exist in the specified location. The Con Edison tank database indicates that all tanks (8 UST's and 9 AST's) located at the College Point Service Station were closed in-place on 12/21/88.

In summary, according to Sanborn Maps, Con Edison documents and maps, the subject property served as a plumbing supply store circa 1917. New York & Queens Electric Light & Power Company (the precursor to Con Edison) purchased the property from Remington Typewriter in 1923, and continued to acquire much of the remainder of the subject block (row houses in the southeastern portion of the property) in the 1950's. Con Edison used the facility for the storage and maintenance of equipment, for personnel training, for the storage and servicing vehicles, and for offices. The property has historically contained several transformers, a gasoline service station, an incinerator, an equipment repair area, a paint storage house, and a blacksmith. In addition to the above-listed tanks, two 10,000-gallon gasoline tanks may be located directly south of the main building (1917 Sanborn Map).

1.3 PREVIOUS INVESTIGATIONS

Two previous studies have been performed at the site:

1.3.1 1989 SESI Subsurface Investigation

This study (Subsurface Investigation, Former Consolidated Edison Facility, College Point Boulevard and 40th Road, Queens prepared by SESI, June 8, 1989) included soil and groundwater testing (as well as a geotechnical evaluation). The geotechnical evaluation portion of the Subsurface Investigation was summarized above. Soil samples were collected from eight locations and groundwater samples were collected from four locations distributed over the site. All samples were analyzed for metals, PCBs and total petroleum hydrocarbons (TPH). The detected levels of metals in soil samples were generally within typical ranges. Exceptions were location B-2 (near the southeast corner of the main building) where levels of lead (1,610 ppm), mercury (3.16 ppm) and zinc

(1,160 ppm) exceeded typical background ranges. Location B-4 (near the northwest corner of the site) showed elevated levels of copper (4,180 ppm). PCBs were non-detect at 4 out of the eight soil sampling locations and below 1 ppm at one location (B-2). Locations B-4 and MW-3 (west of the garage building) had levels between 1 ppm and 10 ppm in samples approximately 6 feet deep. Location MW-4 (near the transformer oil tanks) had 16 ppm of PCBs also at a depth of 6 feet. Total petroleum hydrocarbon levels were well correlated with PCB levels. TPH levels of 2,000 to 5,500 ppm were associated with the highest 3 detected PCB levels. TPH levels at the other 5 locations were 140 ppm or lower. Groundwater samples showed relatively low levels of VOCs and SVOCs with the exception of MW-3 which also had detectable levels (37 ppb) of PCBs. Metals levels at MW-3 and MW-4 were elevated compared to GA standards but this might be an artifact of suspended solids in the samples.

1.3.2 1999 AKRF Soil Testing

This study (Soil Testing, Former Consolidated Edison Facility, College Point Boulevard and 40th Road, Flushing, New York prepared by AKRF, Inc., December 30, 1999) was intended to follow up on the 1989 SESI study finding of PCBs at locations on the west side of the site. Samples were collected at 25 locations, the majority of which were located in the western portion of the site, where PCBs were previously detected. Sixty-six soil samples were collected from two or three discrete depths at each location using a hydraulically driven sampling probe. Samples were analyzed for PCBs. Six samples met or exceeded the 50,000 ppb total PCB level used by the NYSDEC (and EPA under its TSCA program) to define hazardous waste at the following locations: B-11 (2'-4' and 4'-6'), B-17 (0.5'-2.5' and 8'-10'), B-22 (5'-7') and B-24 (4'-6'). Of the remaining 60 samples, 23 are considered surface samples (less than two feet in depth), and 37 are considered subsurface samples. Of the surface samples, 14 exceeded the 1,000 ppb TAGM recommended soil clean-up objective (RSCO). Of the subsurface samples, two exceeded the 10,000 ppb TAGM RSCO.

2.0 FIELD ACTIVITIES

2.1 SUMMARY

The sampling program comprised:

1. Surface soil samples were collected at four locations in the main building on the site. An approximately five-foot space existed between the concrete floor slab and grade within the main building. Four manholes were opened on the concrete floor slab and surface soil was sampled using a post hole digger. Samples were analyzed for target compound list volatile and semivolatile organic compounds (8260, 8270), PCB/pesticides (8081/8082), target analyte list metals (6010), mercury (7470) and cyanide (9010). Because of occupation and tenants and consequential inaccessibility, no attempt was made to sample soil gas, soil or groundwater in the garage building or the small building on the site, as was indicated in the Protocol.

2. Continuous soil sampling at each of 29 new boring locations down to the top of the peat layer (if present, otherwise to the water table). Every foot of soil was field screened for elevated soil gas levels. Two samples were selected from each boring for laboratory analysis. The samples were selected based on visual observation and field screening. If borings were located in unpaved areas, the top two inches of soil was also collected for analysis. If there was no evidence of contamination, the sample from just below the pavement and the sample from the groundwater interface were selected. The samples were analyzed for target compound list volatile and semivolatile organic compounds (8260, 8270), PCB/pesticides (8081/8082), target analyte list metals (6010), mercury (7470) and cyanide (9010).
3. Installation of twelve new monitoring wells. Together with the two existing monitoring wells (which were redeveloped), this covered the entire site, including both upgradient and downgradient wells. Two other existing monitoring wells were not sampled: one had been destroyed and the other was inaccessible. Groundwater samples were collected from each monitoring well. At the request of the NYS DEC, peat samples were collected from monitoring well borings along the Flushing River. The samples were analyzed for target compound list volatile and semivolatile organic compounds (8260, 8270), PCB/pesticides (8081/8082), target analyte list metals (6010), mercury (7470) and cyanide (9010). Both filtered and unfiltered groundwater samples were analyzed for metals and PCBs.
4. Collection of samples of water and sludge from the three aboveground tanks believed to formerly contain transformer oil.

Severn Trent Laboratories, Inc. performed all analytical work. Severn Trent's laboratory in Newburgh, NY is ELAP-certified by the New York State Department of Health to perform testing meeting the criteria specified in the NYS DEC's Analytical Services Protocol. All deliverables were Category B.

All field activities were performed in accordance with the provisions of the site Health and Safety Plan, which was included with the site Revised Sampling Work Plan II (February 16, 2001).

2.2 SAMPLING LOCATION RATIONALE AND PHASING

Surface soil sample locations within the main building were selected at the request of the NYSDEC. Soil sampling locations were chosen at locations of known/likely contamination, (e.g., UST locations) and to provide coverage of the site. Monitoring wells were installed: near USTs and PCB ASTs; at the upgradient and downgradient ends of the site; and within the central portion of the site.

2.3 SURFACE SOIL SAMPLING

Due to the occupancy and inaccessibility of the garage building and small building near the bulkhead, no attempt was made to sample soil gas, soil, or groundwater in these locations, as indicated in the Protocol. An attempt was made to sample in the unoccupied sections of the main building, however, a space of approximately five feet existed between the concrete slab and grade. Four manholes were opened to access surface soil in the unoccupied portion of the main building. Surface soil was sampled using a post-hole digger at these locations.

To prevent carry-over or cross-contamination of samples, the post-hole digger was thoroughly decontaminated between samples, as specified in Section 2.6.1 of this report. Surface soil samples were analyzed for target compound list volatile and semivolatile organic compounds (8260, 8270), PCB/pesticides (8081/8082), target analyte list metals (6010), mercury (7470), and cyanide (9010).

2.4 SOIL SAMPLING

At all outdoor sampling locations, soil samples was obtained by a steel, 24-inch, split-spoon sampler, which was driven through the subsurface levels ahead of a hollow-stem, 6-1/4"-auger (which bores into the soil) to the desired sampling depth. The split-spoon sampler was driven through the top two feet of soil (below any pavement or flooring where such exists) to obtain the surface sample. The auger was then driven down to a depth of two feet, where a split-spoon sampler was inserted in the hollow stem and driven to a depth of four feet. The first subsurface sample was obtained at four feet. Next, the auger was driven down to four feet and the split-spoon sampler to six feet to obtain the second subsurface sample. This procedure was repeated until the peat layer was reached (if present) or to the groundwater table in the eastern end of the site. Samples were containerized in accordance with EPA analytical protocols.

Organic vapor analysis was performed on soil samples using a Photoionization Detector (OVM Model 580 B or equivalent). The soil sample volume not containerized as described above was placed in a sealed plastic bag and shaken in order to allow any trapped vapor within the pore space to occupy the head space. Then the readout probe of the OVM was inserted into the headspace to get a reading of total organic vapor concentration. The organic vapor reading was recorded to form an organic vapor level profile for each boring.

In general, two samples were selected from each boring for laboratory analysis. The samples were selected based on visual observation and field screening. If there was no evidence of potential contamination, the sample from just below the pavement and the sample from the groundwater interface were selected. Groundwater was encountered at every boring location. Each container was properly sealed, labeled, and placed in a refrigeration unit at a temperature of approximately 4°C for transport to the laboratory. A record of each sample, including notation of any odors, color, or sample matrix, was kept in the sampler's field log book. A chain of custody was maintained throughout the field sampling, transport of samples to the laboratory, and during lab analysis.

Soil samples were analyzed for target compound list volatile and semivolatile organic compounds (8260, 8270), PCB/pesticides (8081/8082), target analyte list metals (6010), mercury (7470), and cyanide (9010). Please see Appendix A for Boring Logs.

2.5 TANK SAMPLING

Brookside Environmental of Baldwin, New York was able to collect small samples of sludge and water from each of the three remaining tanks. Due to the limited quantities recovered, water samples were analyzed for target compound list volatile organic compounds (8260) and PCBs (8082) and sludge samples from two tanks had to be composited to obtain sufficient material to sample only for PCBs.

2.6 GROUNDWATER SAMPLING

Groundwater monitoring wells were installed at the 12 boring locations shown on Figure 2. The monitoring wells consisted of two-inch I.D. PVC casing. At the request of NYSDEC, the bottom of the PVC screen was installed at the top of the peat layer, requiring the screen length to frequently be less than 10 feet (see Appendix A Boring Logs). The slot size was determined based on the grain size of the soils encountered. A filter pack of sand was placed in the annular space around the screens and extended two feet above the screen. Next, the annular area around the well casing was sealed with bentonite pellets for an interval of two feet. A grout, consisting of a cement and bentonite mixture or an anti-shrink mixture, was extended from the bentonite pellet seal to a level two feet below grade. The remaining annular space was then sealed with a concrete cap and well apron (expanding cement).

Wells were developed on the day they were drilled by bailing or pumping. Bailers were 1-5/8" O.D. Teflon, three feet in length, and one was dedicated to each well. Turbidity was measured using a nephelometer, and the well developed until the reading was 50 Nephelometric Turbidity Units (NTU) or less, or until at least 25 well volumes were evacuated.

The wells were not sampled for at least five days after development. Prior to sampling, water levels were measured using an electronic water level indicator. Sample collection was accomplished by using the bailers described above. Samples were not taken until pH, temperature and conductivity measurements stabilized and until the turbidity reading was 10 NTU or less, or until at least 5 well volumes were purged.

The groundwater samples were containerized in accordance with EPA analytical protocols. Each sample was labeled, sealed, and refrigerated at approximately 4°C for shipment to the laboratory.

Groundwater samples were analyzed for target compound list volatile and semivolatile organic compounds (8260, 8270), PCB/pesticides (8081/8082), target analyte list metals (6010), mercury (7470), and cyanide (9010). Both filtered and unfiltered samples were analyzed for metals and PCBs. Free product was sampled from MW-5. This sample was tested for fingerprint analysis (TPH 4-18.1). A locking well cap was installed upon completion of the well. Please see Appendix A for Boring Logs.

At the request of NYSDEC, the peat layer was sampled at wells locations along the Flushing River. Peat samples were analyzed for target compound list volatile and semivolatile organic compounds (8260, 8270), PCB/pesticides (8081/8082), target analyte list metals (6010), mercury (7470), and cyanide (9010).

The well locations and their elevations were surveyed. Using these data and the measured water levels, a water table elevation map was prepared to estimate the direction of groundwater flow on the site (Please see Figure 3).

2.7 QA/QC

2.7.1 Decontamination

If sampling equipment was not dedicated and disposable, it was cleaned before collection of each sample to avoid contamination and cross-contamination of samples. The following procedure was followed:

Step 1: Steam clean or pressure wash equipment.

Step 2: Scrub equipment with a bristle brush using a non-phosphate detergent in hot tap water.

Step 3: Rinse with hot tap water.

Step 4: Rinse with 0.1N nitric acid (HN03). For stainless steel equipment, rinse with 0.1N HCl.

Step 5: Rinse twice with deionized water.

Step 6: Rinse with spectrographic-grade acetone or methanol. Step 7: Air dry.

Step 7: Air dry

Step 8: Double rinse with deionized, distilled water. Step 9: Air dry the equipment.

Step 9: Air dry the

Step 10: Package in clean unused aluminum foil.

2.7.2 Chain of Custody

To ensure the integrity of samples taken, a strict chain of custody record was maintained on each sample. This began after sampling with the entry in the sampler's field log book of the sampling details:

- a) Date and time of sampling;
- b) Sample location (as specific as possible)
- c) The unique sample number, size, and container(s) used;
- d) Sample description;
- e) Weather conditions (if applicable); and
- f) Any additional comments.

In addition, a record was kept of the sample's progress from the sample site to the laboratory where was analyzed. This is the chain-of-custody form. The form included:

- a) The sample number;
- b) The sampler's name;
- c) Date and time of sampling;
- d) Location at which the sample was taken, including the address, if possible;

- e) A description of the sample, as best known;
- f) Signatures of people involved in the chain of possession; and
- g) Inclusive dates of possession of each person in the chain.

The chain-of-custody form accompanied the sample throughout its trip to the laboratory. If the sample(s) are shipped to a laboratory, most shipping agents will refuse to sign or separately carry the chain-of-custody form. In this one case, it is permissible to put the chain-of-custody form into the box with the sample and then seal the box. The recipient of the box, the laboratory's sample custodian, can then attest to the box's arrival still sealed and unopened.

Accompanying the chain-of-custody record, or included in it, was a request to the laboratory for sample analyses. Information required included:

- a) Name of person receiving the sample;
- b) Laboratory sample number;
- c) Date of sample receipt;
- d) Sample allocation; and
- e) Analyses to be performed.

Finally, on arrival at the laboratory, the sample custodian entered the sample in the laboratory's sample log book. The chain-of-custody is kept on file at the laboratory.

2.7.3 Laboratory Testing

Severn Trent Laboratories, Inc. performed all analytical work. Severn Trent's laboratory in Newburgh, NY is ELAP-certified by the New York State Department of Health to perform testing meeting the criteria specified in the NYS DEC's Analytical Services Protocol. The laboratory operates a Quality Assurance/Quality Control (QA/QC) program that consisted of proper laboratory practices (including the required chain-of-custody), an internal quality control program, and external quality control audits by New York State. Category B deliverables were produced for all sampling results.

A trip blank and field blank were included in each batch of soil and groundwater samples, or 1 for each 20 samples, whichever was greater in frequency. Trip blanks were analyzed for volatile organic compounds to check for contamination during transport and sampling procedures. Field blanks were analyzed for volatile organic compounds, semivolatile organic compounds, and metals to check for contamination arising from sample collection.

3.0 RESULTS

3.1 FIELD RESULTS

Boring logs are contained in Appendix A. During the installation of MW-5 on March 27, 2001, soil contamination consistent with evidence of a likely petroleum spill was encountered. Accordingly, a spill was reported to the NYSDEC Spill Hotline. The spill was assigned the number 0013545.

3.2 LABORATORY ANALYTICAL RESULTS

3.2.1 Data Usability Summary Report

A Data Usability Summary Report (DUSR) was prepared in accordance with NYSDEC guidance by Andrew D. Rudko, Ph.D. of AKRF Inc. The DUSR and Dr. Rudko's resume are attached as Appendix B. The only significant change required to the datasets was the rejection of the result for dissolved PCBs in the sample from MW-6 (200 ppb dissolved versus 1 ppb total) which was noted in a letter from the laboratory to be erroneous.

3.2.2 Soil Sampling Results

Soil sampling results are contained in Tables 1a through 6. Full laboratory data packages including Category B Deliverables are available on request. The results are discussed below and summarized in Table 7 (PCBs only, including results of AKRF's previous PCB testing program) and Table 8 (all parameters from this investigation). Since all samples were taken from beneath paving, eliminating the potential for direct contact and any anticipated development of the site will cover the entire site with either impervious surfaces (e.g., building or paving) or at least 2 feet of clean fill (and frequently both as the grade of the site will mostly be raised during site development), comparisons were not made to the 1 ppm TAGM 4046 levels for surface soils as that value is based on a direct contact scenario, which does not currently occur and would not occur during the anticipated development. Also, since groundwater in northern Queens is not (and will not in the future be) used as a source of drinking water, the TAGM 4046 levels based on a scenario of drinking groundwater are also not applicable. Therefore, comparisons were made to the levels set out below. It should be noted that these are not intended to necessarily represent remediation levels or goals, but rather levels which may require remediation.

1. For PCBs: 10 ppm (subsurface TAGM 4046 RSCO) and 50 ppm (TSCA/hazardous waste level).
2. For other organic parameters, the maximum values from TAGM 4046:
 - Total VOCs: 10 ppm
 - Total SVOCs: 500 ppm
 - Individual SVOCs: 50 ppm
 - Total Pesticides: 10 ppm
3. For all metals except lead, since the TAGM 4046 levels are based solely on background (rather than risk-based) levels and any anticipated development of the site will cover the entire site with impervious surfaces comparisons were made to levels potentially indicative of the presence of soils meeting the definition of hazardous waste. With the exception of lead, this was assumed to be 20 times the toxicity characteristic level. This assumes (unrealistically) that the metal is 100% leachable since the TCLP test involves a 20-fold dilution. These levels are:
 - Arsenic < 100 ppm
 - Barium < 2,000 ppm

- Cadmium < 20 ppm
 - Chromium < 100 ppm
 - Mercury < 4 ppm
 - Selenium < 20 ppm
 - Silver < 100 ppm
4. For lead, AKRF's experience is that soil samples with levels below 1,000 ppm do not typically exceed the TCLP threshold. Additionally, in the new 40CFR Part 745 lead standards (see www.epa.gov/fedrgstr/EPA-OX/2001/January/Day-05/t84.pdf), EPA established in 745.65(c) that 400 ppm is the appropriate level for a play area with bare soil on residential property (or other child occupied facility) and a level of 1,200 ppm is the appropriate average level for other (i.e., non-play) areas of bare soil in a yard. Although, these regulations were promulgated to address lead contamination related to paint, there is no data to suggest that this form of lead is more or less hazardous than lead from other sources found in soil. In addition, TAGM 4046 discusses the 400 ppm as being based on earlier EPA guidance (July 14, 1994 EPA Interim Lead Hazard Guidance). As such, given these new regulations, using a lead level of 1,200 ppm for screening would be more than sufficiently conservative as the soil would be under paving or at least two foot below grade, not bare surface soil.

PCBs

Table 7 shows PCB levels below 10 ppm, in the range of 10 - 50 ppm and above 50 ppm, from both the previous sampling (OB- samples) and the current sampling (B- and MW-samples). As noted above, shallow samples (2 feet or less) were not compared to the 1 ppm TAGM RSCO for surface soils as all samples were taken from beneath paving, eliminating the potential for the direct contact scenario on which the 1 ppm RSCO is based.

As can be seen on Figure 2, elevated levels of PCBs were found primarily in the western half of the site and under the main building. Location MW-2 in the eastern half of the site appears to be a relatively localized hotspot as there is no contamination above 10 ppm in surrounding samples. The remaining contamination appears to be located under and to the west of the main building as well as west of the garage with hazardous waste levels concentrated: under the main building (S-2 and S-4); at and downgradient of location MW-5 (where floating product was identified); near the aboveground tanks (MW-12 and OB-11); and in the middle/west (locations MW-9, MW-11, OB22 and OB-24).

VOCs

Detected VOC levels are shown in Table 2b. VOCs were detected at all locations, however only two were elevated with total VOC levels above 10 ppm. At one of these locations (MW-5), the predominant VOC was chlorobenzene and elevated levels of PCBs were also found. At the other (B-4) elevated levels of BTEX were found (as well as SVOCs).

SVOCs

Detected SVOC levels are shown in Table 3b. SVOCs were detected at all locations, however four (B-3, B-4, B-16 or B-17) were elevated with total SVOC levels above 200 ppm (three of which were above the 500 ppm value contained in TAGM 4046). PCBs were not found at elevated levels at any of these four locations. All SVOCs detected were predominantly PAHs. B 16 contained less than 1 ppm of naphthalene, whereas the other three locations had 33 to 580 ppm of naphthalene. Naphthalene is typically associated with petroleum products but less commonly with coal or coal ash.

Pesticides

Detected pesticide levels are shown in Table 4b. Pesticides were detected at most locations, but only one was elevated with total pesticide levels above 10 ppm. Endrin and delta-BHC were detected at location B-7 (with higher concentrations in the deeper of the two samples). PCBs above 50 ppm were detected at both depths at this location.

Metals

Metals levels are shown in Table 5. The only samples exceeding the thresholds set out above (1,200 ppm of lead or 20 times TCLP thresholds for other metals) were for chromium, lead and mercury:

- Chromium levels were elevated (between 113 and 165 ppm) at three of the locations under the main building (S-1, S-2 and S-4). PCBs were above 50 ppm at S-2 and S-4.
- Lead levels of between 1,500 and 1,600 ppm were found at MW-2 (3' - 5') and MW-6 (6' - 8'). Neither of these samples was elevated for other parameters. No other lead samples exceeded 500 ppm.
- Mercury levels of between 4 and 5 ppm were found at B-2 (2' - 4'), B-14 (1' - 3') and MW-8 (1' - 3'). Under the main building S-3 and S-4 had levels of 6.6 and 378 ppm respectively. With the exception of the sample from B-2, PCB levels were also elevated in these samples.

Cyanide

Cyanide levels are shown in Table 6. The highest level detected was 131 ppm at location B-4: VOCs and SVOCs were elevated at this location, but at a shallower depth. The next highest level detected was 6.35 ppm at B-3 where elevated SVOCs were also found. There is no TAGM 4046 level for total cyanide, however EPA's soil screening level based on ingestion of amenable cyanide is 1,600 ppm. Since the level of amenable cyanide in a sample could not be greater (and would generally be much less) than the level of total cyanide, the levels found on site do not appear to represent a significant concern.

3.2.3 Groundwater Sampling Results

Groundwater sampling results are contained in Tables 9a through 13. Full laboratory data packages including Category B Deliverables are available on request. The results are discussed below. Since groundwater in northern Queens is not (and will not in the future

be) used as a source of drinking water, the GA standards (which are based on a scenario of use as drinking water) though technically applicable are not relevant and appropriate for comparison with levels found on the site. It should also be noted that well MW-5 contained approximately one inch of floating product, but was nonetheless sampled with a bailer. The results obtained from this well are therefore probably not representative of actual conditions in the underlying groundwater.

PCBs

Total and dissolved PCB levels are shown in Table 9a with detected values only in Table 9b. PCBs were detected in all wells except SMW-1. The GA standard for PCBs is 0.09 ppb. The highest levels detected were at well MW-5: 15,000 ppb total, 310 ppb dissolved. However, as noted above, these results were for a well containing floating product and therefore are probably not representative of conditions in the underlying groundwater. For the remaining wells, detected dissolved levels (which are generally more representative of actual groundwater conditions, were below 1 ppb at all but 2 locations: MW-9 (17 ppb); and MW-12 (26 ppb). The result for dissolved PCBs in the sample from MW-6 (200 ppb dissolved versus 1 ppb total) was noted to be erroneous by the laboratory and was rejected as discussed above in the Data Usability Summary Report.

VOCs

Detected VOC levels are shown in Table 10b. Volatile organics above GA standards were only detected at MW-5. As noted above, these results were for a well containing floating product and are therefore probably not representative of conditions in the underlying groundwater. The predominant VOC detected was chlorobenzene, also detected in the soil samples from this location.

SVOCs

Detected levels of SVOCs are shown in Table 11b. SVOCs were detected in all wells, and levels above GA standards were found in most wells, but except at MW-5, only for those PAHs with standards of 0.002 ppb. Excluding MW-5, the highest individual SVOCs were detected at 6 ppb. At MW-5, dichlorobenzenes and bis(2-Ethylhexyl) phthalate were also detected at levels above the GA standard as well as higher levels of PAHs. It should be noted that these results were based on unfiltered samples and (as was seen with the metals and PCBs results) the levels dissolved in the groundwater are most probably significantly lower (or perhaps non-detectable). Additionally, as noted above, the results were MW-5 are probably not representative of conditions in the underlying groundwater.

Pesticides

No pesticides were detected in the groundwater samples as shown in Table 9A.

Metals

Total metals levels are shown in Table 12a. There are numerous exceedances of GA standards for total metals, but the levels of dissolved metals are more representative of actual groundwater conditions. Dissolved metals levels are shown in Table 12b with detected levels only shown in Table 12c. Iron, lead, magnesium, manganese, mercury and sodium were detected in at least one sample at levels above the GA standard, but (with the exception of mercury) these are unlikely to be site related, based on the results of the soil sampling. Lead was detected above the GA standard (71 ppb versus the standard of 25 ppb) only at MW-10 (adjacent to the river, highway and the neighboring property). Lead levels in the soil at this location were less than 400 ppm. Mercury was detected above the GA standard (2.4 ppb versus the standard of 0.7 ppb) only at MW-8 (adjacent to the rail lines along the northern property line). Mercury levels in the soil at this location varied from 4.3 ppm in the 1'- 3' sample to 0.027 ppm in the 9' -11' sample.

Cyanide

No cyanide was detected in the groundwater samples as shown in Table 13.

3.2.4 Tank Sampling Results

Table 14 shows the results from the tank samples. The three water samples (T1, T2 and T3) had levels of PCBs from 0.48 to 11 ppb (all estimated values). T2 and T3 had detectable levels of xylene (2 and 12 ppb respectively) and T3 had detectable (but below 1ppb) levels of ethylbenzene and xylene. The sludge sample composited from T1 and T2 and the sample from T3 contained detectable levels of PCBs, but at a level of less than 1 ppb.

3.3 WATER LEVEL MEASUREMENTS

On April 6, 2001 the depth to water from the top of the PVC pipe was measured in all monitoring wells. The elevation of the top of the PVC pipes (excluding MW-5 and MW-8) were subsequently surveyed by Montrose Surveying (a licensed surveying firm). From these values, Figure 3 showing the water table elevation in Queens Borough Datum (2.725 feet above mean sea level) at each well was constructed. The water table elevations varied from +1.88 feet at the eastern end of the site to -0.7 near the main building. This negative value may be due to the presence of several utility pipes set in gravel at this location, perhaps providing a more direct pathway to the river. In general, as would be anticipated, shallow groundwater flow is from east to west.

4.0 SUMMARY AND CONCLUSIONS

4.1 PCBS

Soil contamination above TAGM 4046 RSCOs and state/TSCA hazardous waste levels was found on the western half of the site and under the main building, whereas only one hot-spot was found on the eastern half of the site. In subsequent sections, remedial alternatives for addressing this contamination will be developed and evaluated. PCBs were also found in both filtered and unfiltered groundwater samples. The levels found

were above the GA standard. However, since groundwater is not and will not be used as a drinking water source, the need for groundwater containment/treatment would be based on its potential off-site impacts (to the Flushing River). Since the future groundwater levels would be highly determined by how much (if any) PCB contaminated soil is removed from the site, the need for groundwater control will be determined for each remedial alternative considered. At MW-5 approximately 1 inch of floating product was found; groundwater from this well was found to contain elevated PCBs, VOCs and SVOCs. This area requires remediation, though the need for groundwater treatment will depend on the extent of soil removal and the potential for impact to the river.

4.2 OTHER PARAMETERS

SVOCs were found in soil at elevated levels at four locations (B-3, B-4, B-16 or B-17). PCBs were not found at elevated levels at any of these four locations. All SVOCs detected were predominantly PAHs. B-16 contained less than 1 ppm of naphthalene, and the source is probably coal or coal ash fill and therefore does not require cleanup. B-3, B-4 and B-17 appear to be petroleum-related. At B-4 elevated levels of BTEX were found (potentially indicative of gasoline contamination). PAHs were also elevated in some (unfiltered) groundwater samples. However, except for location MW-5 (where PCB, SVOC and VOC levels were elevated), the levels were 6 ppb or lower and do not warrant remediation.

The only samples potentially exceeding hazardous waste thresholds (i.e., with total soil concentrations more than 20 times the TCLP thresholds) were for chromium, lead and mercury. Elevated chromium levels were found at three of the four locations under the building (two also had elevated PCB levels). Mercury levels of between 4 and 5 ppm were found at three locations as well as higher levels under the main building, however, at all but one of these PCB levels were also elevated. Elevated lead levels were found at two locations. Neither of these samples was elevated for other parameters. Although groundwater levels were frequently above GA standards in both the unfiltered and (to a lesser extent) the filtered samples, the majority of the exceedances did not appear to be site-related (e.g., iron, manganese) and the highest levels of dissolved lead and mercury were less than four times the standard. Since groundwater is not a drinking water source, these levels do not require remediation.

Pesticides were detected at most locations, but only one was elevated with total pesticide levels above 10 ppm. However, at this location (B-7), PCBs above 50 ppm were also detected.

4.3 OPERABLE UNITS

Based on the patterns of contamination and the anticipated phasing of site redevelopment, the remainder of this report is divided into three Operable Units (OUs) as shown on Figure 1:

- OU-1 Eastern Portion of Site (excluding Main Building)
- OU-2 Main Building
- OU-3 Western Half of Site (including Garage and other small buildings)

For OU-1, there follows in Section 5 a development and selection of remedial alternatives. For each of the other Operable Units, there follows in Section 6 an outline of subsequent steps including additional activities needed before a remedy can be selected.

5.0 COMPARISON OF REMEDIAL ALTERNATIVES

Although a Feasibility Study is not required for Voluntary Cleanup Program, this section presents a comparison of various remedial alternatives for addressing contamination at the site.

5.1 DEVELOPMENT OF REMEDIAL ALTERNATIVES

NYSDEC TAGM 4030 presents guidelines for selecting and evaluating remedial alternatives for Inactive Hazardous Waste Sites. However, for Voluntary Cleanup sites, remediation is to be to a level consistent with the safe use of the property for the use which the volunteer intends. Although this site is currently a commercial/industrial facility, it was recently rezoned for commercial use, which under New York City zoning also allows residential development. However, single family residential usage of the site is not intended by the volunteer (and would not be economic); rather any residential use would be in mid-rise or high-rise apartments, above ground level commercial (retail) uses.

Based on the soil and groundwater sampling data discussed above, contamination in OU-1 consists of hot-spots of limited area: PCB-contamination in the vicinity of MW-2; petroleum contamination in the vicinity of B-3/B-4; and potential mercury contamination in the vicinity of B-2. Contamination in OU-2 consists of PCB and metal contamination. Contamination in OU-3 consists primarily of PCBs, with an area of floating product. Additional delineation and sampling under buildings in OU-2/OU-3 is required.

No data was collected relating to Flushing River water or sediments as part of this study. However, the Flushing River is known to have been significantly impacted by discharges from junkyards across the river (see, for example, New York Times, April 26, 2001). Since the volunteer is a non-PRP (a previous owner, not C.E. Flushing, caused the contamination) their obligation is to eliminate to the extent feasible the sources of onsite contamination that cause offsite impacts that are not inconsequential (i.e., they need not chase the contamination plume).

Since the levels of PCBs in the soils (especially in OU-3) exceed criteria for unrestricted future use of the site without some type of remediation, alternatives considered are some combination of:

- treatment/disposal options (e.g. excavate and dispose of soils off-site);
- physical site controls (e.g., cap soils to prevent exposure); and
- institutional measures (e.g., deed restrictions to prevent ground level residential use without additional controls).

5.1.1 Exposure Assessment

In this step, potentially exposed populations and potential exposure pathways are identified for the anticipated future use of the site. Exposure (and therefore the potential for risk) can not occur unless there is contact with a chemical. As such, mere presence of

a medium (i.e., soil / groundwater) impacted by a chemical at a site is not in itself evidence that a risk will exist. The following pathways are incomplete for the site's anticipated future use:

1. on-site soil incidental ingestion, dermal contact or inhalation of particulates - site will be paved; during any construction a Health and Safety Plan (HASP) would be implemented.
2. on-site shallow groundwater ingestion/inhalation - public water is available and water just below the ground surface would not be permitted to be used as a drinking water supply.
3. on-site shallow groundwater dermal contact - public water is available and water just below the ground surface would not likely provide sufficient flow for a non-potable well, e.g., for car washing. The usage of groundwater for any purpose would be incorporated into the site's institutional controls.
4. off-site surface water ingestion/inhalation - the Flushing River is a Class I (secondary contact recreation and fishing) saline waterbody and is not suitable for swimming.
5. off-site surface water dermal contact or sediment incidental ingestion - water is designated only for secondary contact recreation i.e., no swimming.
6. all other off-site pathways - the only other route to carry contamination off-site is via dust generated during construction. However, by the implementation of provisions in a HASP, dust levels would be controlled before leaving the site boundary.

The following pathways are considered potentially complete:

1. off-site ingestion of fish - however, as noted above, the volunteer's obligation is to eliminate to the extent feasible sources of onsite contamination that cause offsite impacts.
2. on-site inhalation of volatile organic chemicals - there is a potential for exposure to subsurface VOCs within the footprint of future site buildings, even when the site is paved, due to cracks and other preferential pathways.

5.1.2 State Standards, Criteria and Guidelines (SCGs)

The relevance and applicability of NYSDEC Recommended Soil Cleanup Objectives (RSCOs), hazardous waste determination and groundwater GA Standards were discussed above. In summary, the RSCOs are based on specific scenarios which do not and will not occur at this site. The hazardous waste determinations are applicable to disposal of wastes generated from this site. Although GA standards are theoretically applicable throughout the state, groundwater could not legally be used as drinking water at this site and therefore meeting GA standards, though desirable, is not necessary to protect human health.

5.2 REMEDIAL ALTERNATIVES CONSIDERED

Given that in-situ treatment of PCBs has not been reliably demonstrated and that ex-situ treatment (e.g., by thermal desorption/destruction) is at least as costly as landfill disposal,

four alternatives (as well as No Action as required by the guidance documents) are considered to address the remediation of PCBs:

1. No Action
2. Excavation and off-site disposal of soils above 10 ppm
3. Excavation and off-site disposal of soils above 25 ppm
4. Excavation and off-site disposal of soils above 50 ppm
5. Containment of soil contamination

To address VOC contamination, although in-situ remedies are widely used and feasible, due to the anticipated limited extent of contamination, excavation and off-site disposal was the only remedial alternative considered appropriate. This would be used, for example, to address the petroleum contamination in the vicinity of B-3 and B-4.

SVOC contamination could be addressed either by excavation and off-site disposal or by site controls (e.g., capping) including institutional measures.

The only soil sample in OU-1 that could potentially exceed metal hazardous waste thresholds was 4.2 ppm of mercury at location B-2 (depth 2 to 4 feet). This sample would be most unlikely to fail the 0.2 mg/1 TCLP threshold since this would require over 95% of the mercury to be leachable. Additionally, EPA's risk-based soil screening levels for mercury are 23 ppm based on residential ingestion of surface soil and 10 ppm for inhalation of volatile mercury in shallow soils. As these scenarios are more conservative than that at B-2 (the soil is more than 2 feet in depth and is and will be paved in a non-residential ground-floor setting) and NYSDEC has allowed cleanup to 23 ppm at similar sites with non-ground floor residential use (e.g., Queens West), no cleanup of this location is warranted. More sampling is necessary to determine the need for metals cleanup in OU-2 and OU-3, but it is anticipated that were remediation to be required of soils exceeding hazardous waste thresholds, excavation and treatment/disposal at a permitted hazardous waste facility would be performed.

5.3 COMPARISON OF REMEDIAL ALTERNATIVES

The purpose of this section is to evaluate the remedial alternatives for mitigating site contamination in accordance with the EPA guidance document, "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA", October 1988 and NYSDEC's Technical and Administrative Guidance Memorandum (TAGM), "Selection of Remedial Actions at Inactive Hazardous Waste Sites", September 1989, as revised May 1990. For OU-1, sufficient data exists to select a remedial alternative. For OU-2 and OU-3, additional steps are required, as described in Section 6.

5.3.1 Excavation and Off-site Disposal Alternatives

The soil in outside areas would be removed using conventional excavation techniques, and the resultant excavation would be backfilled using clean fill. During excavation and backfilling activities, appropriate surface water management measures and a Health And Safety Plan would be implemented. Excavated soil would be stockpiled and representative samples from each stockpile would be collected and analyzed for disposal

characteristics. Following excavation, confirmatory sampling would be conducted to validate that all contaminated soils above the Soil Cleanup Objectives have been removed from the site. The excavated soil would be transported to an appropriate off-site hazardous waste or non-hazardous waste disposal facility, as applicable.

5.3.2 Containment/Capping Alternatives

This technology consists of placing a physical barrier between the contaminated soil and the area where exposure could occur. The cap can consist of a thin low permeability surface (e.g., asphalt or concrete), a thicker surface with greater permeability (e.g., a layer of clean soil) or more highly engineered multi-layered solutions, typically used for capping hazardous waste landfills. This technology requires the capping material to be maintained to prevent exposure. Although capping would not eliminate soil contamination, it can prevent exposure and thus further reduce risk.

5.3.3 Overview of Evaluation Criteria

In accordance with TAGM 4030, the analysis of remedial alternatives consists of evaluating each alternative with respect to the following seven criteria:

Compliance with New York State Standards, Criteria and Guidelines (SCGs)

This criterion is used to determine how each alternative complies with applicable or relevant and appropriate state SCGs. The SCGs also include federal standards which are more stringent than the state SCGs. There are three general categories of SCGs: chemical-specific (e.g. soil clean-up levels); location-specific (e.g. wetlands issues); and action-specific (e.g. standards for disposal of hazardous waste).

Applicable SCGs would be those requirements that would be legally applicable. Examples of applicable requirements would be the disposal requirements for hazardous waste. Relevant and appropriate SCGs are those requirements that, while not always legally applicable, can be applied if the site conditions are similar to those covered by applicable SCGs, and if the use of the requirement is appropriate. For example, if groundwater had the potential to impact surface waters, then surface water standards would be considered to be relevant and appropriate.

Chemical-specific SCGs govern the extent of the site cleanup and provide either actual clean-up levels or a basis for calculating those levels for the chemicals of concern at the site. These SCGs are generally health or risk-based numerical values or methodologies that, when applied to site-specific conditions, result in the establishment of acceptable concentrations of a chemical found in or discharged to the environment. The chemical-specific SCGs for soil are as set out in NYSDEC's Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046), as discussed above. The Federal regulations at 40CFR Part 261 and analogous state regulations (6 NYCRR Part 371) are used to determine whether or not materials meet the definition of hazardous waste. Groundwater quality at the site is governed by state regulations: 6 NYCRR Parts 700-705. The groundwater in this area is not relied upon as a source of drinking water.

Action-specific SCGs are usually technology or activity based limitations that direct the manner in which remedial actions are conducted. New York State solid and hazardous waste regulations including the New York Solid Waste Management Facilities Rule (6 NYCRR Part 360), the New York Waste Transport Permit regulations (6 NYCRR Part 364), and the state hazardous waste regulations (6 NYCRR Part 370-376) might apply to the transportation and disposal of contaminated soil. Where the state standards are more stringent than the federal standards and where the state standards are consistently applied and enforced, the state standards would apply. Occupational Safety and Health Act (OSHA) standards at 29 CFR 1910, 1904, and 1926 apply to hazardous/construction worker safety, and require employers to communicate risks at the workplace to employees. The transport of hazardous wastes or substances off-site are governed by U.S. Department of Transportation (USDOT) regulations (49 CFR 171 through 179) and RCRA transportation regulations (40 CFR 263). These regulations specify that vehicles and operators involved in transporting hazardous waste comply with packaging, labeling, and shipping standards.

Location-specific SCGs are restrictions placed on the concentration of hazardous substances or the conduct of activities solely because of their specific locations. Location-specific SCGs include natural site features, such as floodplains and/or wetlands. Although the Flushing River is a regulated wetland, no additional SCGs would apply as long as health and safety procedures outlined in the Site Remediation Health and Safety Plan are followed. These measures would provide for the appropriate management and disposal of hazardous and contaminated wastes and would prevent any discharge of contaminated and/or hazardous substances into the Flushing River.

Protection of Human Health and the Environment

This criterion provides a final check to assess whether each alternative meets the requirement that it is protective of human health and the environment. The overall assessment of protection is based on a composite of factors assessed under other evaluation criteria, especially long-term effectiveness, short-term effectiveness, and compliance with SCGs.

Short-term Effectiveness

This criterion assesses the impacts during the implementation phase until the remedial response objectives are met. It addresses the protection of the construction workers and the neighboring community and the potential adverse environmental impacts that may result from the implementation of the remedial alternative.

Long-term Effectiveness and Permanence

This criterion addresses the results of a remedial action in terms of its permanence and the quantity and nature of residual waste at the site after response objectives have been met. It focuses on the extent and effectiveness of the controls that may

be required to properly manage the waste remaining on the site to ensure that any exposure to human and environmental receptors is within acceptable levels.

Reduction of Toxicity, Mobility, and Volume

This criterion evaluates the remedial alternative's ability to permanently and significantly reduce toxicity, mobility, or volume of the hazardous waste. It addresses the amount of hazardous materials that would be treated, the degree of expected reduction in toxicity, mobility or volume, and the type and quantity of treatment residuals that would remain following treatment.

Implementability

This criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of various services and materials required during its implementation. The technical feasibility deals with the difficulties and unknowns associated with a remedial technology, the reliability of the technology to meet performance goals, the ease of undertaking additional remedial action, and the ability to monitor the effectiveness of the remedy. The administrative feasibility would address the activities needed to coordinate with other offices and agencies (e.g. obtaining permits for off-site activities or rights-of-way for construction). The availability of services and materials would determine the availability of disposal services, necessary equipment, and skilled personnel.

Cost

The costs for each alternative would include capital costs and operation and maintenance costs. Capital costs consist of direct costs (construction equipment, labor and materials) and indirect costs (engineering and other services that are not part of actual installation activities but are required to complete the installation of remedial alternatives). Operating and maintenance costs consist of annual costs that are post-construction costs necessary to ensure the continued effectiveness of a remedial action.

5.4 COMPARISON OF INDIVIDUAL ALTERNATIVES

An analysis is presented below of each remedial alternative being evaluated. This consists of an evaluation with respect to the seven criteria presented above.

5.4.1 Alternative 1- No Action

SCGs Since contaminated soils would be left at the site, this alternative would not comply with chemical-specific SCGs. Since no action would be undertaken, there would be no action-specific SCGs with which to comply.

Health and the Environment Without removal of any soils, there are no current and only minimal future potential health threats to the users of the site. It is assumed, for the purpose of comparing alternatives, that redevelopment would occur at the site.

Short-term Effectiveness There would be specific short-term health risks that would have to be addressed during construction. There would be no specific short-term risks to the environment, and it is assumed that no mitigation would occur.

Long-term Effectiveness and Permanence Without deed restrictions or other institutional controls, this alternative might not be effective or permanent in the long term. Since no treatment or disposal would take place, the remedy would not be considered permanent or effective.

Reduction of Toxicity, Mobility, and Volume None

Implementability Since no remedy would be implemented, no mitigative efforts would be required. All contaminated soil would be left at the site. No immediate delays would be likely, but some future remedial action might be necessary. Some coordination would be required to waive the SCGs but if allowed, no services or materials would be required, and the time to implement this remedy would be zero.

Cost The assumed cost for no action, would be zero. However, without acceptable resolution of the potential impacts of the contaminated soils, the property might not be developable, and significant delays would likely occur.

5.4.2 Alternatives 2, 3 and 4 - Soil Excavation

SCGs None of these alternatives would meet the TAGM 4046 guidance value of 1 ppm for PCBs in surface soil. Petroleum cleanup (by excavation and off-site disposal) would also not necessarily be to TAGM 4046 levels. However, the redevelopment of the site would preclude exposure to surface soils and therefore these values would not be relevant. If cleanup were to be to 25 ppm or 50 ppm, the subsurface TAGM would also not be met, but the only potential theoretical impact from this would be slightly higher PCB levels migrating via groundwater.

The need for groundwater treatment is not applicable to OU-1, which is upgradient of OU-2 and OU-3 and has lower levels of PCBs (<1ppb/well) in groundwater than OU-2 and OU-3. PCBs were detected in soil in levels exceeding 50 ppm at one hotspot location, and dissolved PCB levels at a monitoring well at this location were just under 1 ppb. However, soil surrounding this well will be removed as part of the remedy for OU-1. The need for groundwater treatment on downgradient areas of the site will be addressed as part of the OU-2 and OU-3 remedy.

Health and the Environment The removal of soils as well as capping and institutional controls would ensure that there are no potential health threats to the future users of the site.

Short-term Effectiveness Well accepted procedures, Dust control techniques, surface water management and health and safety protocols would be implemented during the excavation to protect the health and safety of workers and the neighboring community. The remedy and duration of mitigation would be completed in one to three months.

Long-term Effectiveness and Permanence This remedy is classified as permanent using TAGM 4030, and would leave no untreated waste or treated residual on site. A minimum degree of long-term monitoring would be required to ensure the institutional controls are complied with.

Reduction of Toxicity, Mobility, and Volume The volume of contaminated soil would be reduced by excavation and off-site disposal at a licensed facility.

Implementability This remedial approach could be readily implemented using conventional equipment.

Cost The costs for this alternative would include the excavation, testing, transport, disposal and backfill. The remediation costs for OU-1 are estimated to be on the order of \$300,000 to \$500,000 with higher costs associated with the lower cleanup levels. The costs for OU-2 and OU-3 are anticipated to be considerably higher, but additional sampling is needed to determine remediation costs.

5.4.3 Alternative 5 - Containment

SCGs Contaminated soils with levels above the TAGM 4046 values and TSCA/NYSDEC hazardous waste levels would be left at the site, but the TAGM levels are based on either direct ingestion or impact to potable groundwater, neither of which would occur under the proposed use of the site. The only soils which would be removed under this scenario are petroleum soils with elevated VOC levels (including the floating product in the vicinity of MW-5). As with Alternatives 2, 3 and 4 any residual impact to groundwater would be addressed in the remedy for OU-3.

Health and the Environment Capping and institutional controls would eliminate all other exposure pathways such that no unacceptable risk would remain. A remedy for groundwater might be required as part of the OU-3 remedy.

Short-term Effectiveness Compared to Alternatives 2,3 and 4 the potential for exposure to workers and the community associated with soil removal would be eliminated. A comprehensive health and safety plan would be developed and implemented during site capping and any necessary construction.

Long-term Effectiveness and Permanence Institutional controls would need to be implemented to prevent intrusive activities which would potentially create an exposure pathway.

Reduction of Toxicity, Mobility, and Volume The process of capping would reduce the mobility of the contaminant, by reducing the potential for windblown disturbance during construction and by reducing the infiltration of water. Although the volume of contaminated soil remains unchanged, the potential threat to human health or the environment is reduced, since it would be contained in a controlled manner. Therefore, although no contaminated soil is destroyed or treated, no untreated or concentrated soils results as wastes are land-disposed off-site.

Implementability Capping of contaminated soil would be readily implemented using conventional mechanized equipment suitable for such operations.

Cost For purposes of cost estimation, capping is already proposed as part of site redevelopment, so the only additional costs are those associated with the VOC cleanup, perhaps \$50,000 to \$100,000.

5.5 COMPARATIVE ANALYSIS OF ALTERNATIVES FOR OU-1

The findings of this comparative analysis determines the recommended remediation alternative for OU-1. Table 15 summarizes the five Alternatives based on the evaluation criteria. All alternatives include excavation of VOC-contaminated petroleum soils. The other similarities and differences between the action alternatives are:

Compliance with SCGs None of the alternatives would ensure GA standards are met. Only the most stringent soil removal (Alternative 2) would comply with the subsurface PCB RSCOs in TAGM 4046, but removal of most, if not all the site soils (including those not contaminated with petroleum or PCBs) would be needed for strict compliance with the numerical guidelines in TAGM 4046. The containment alternative (Alternative 5) would leave in place soils which, were they to be excavated, would exceed the hazardous waste thresholds.

Protection of human health and the environment All action alternatives (Alternatives 2 - 5) would provide comparable protection.

Short-term effectiveness Containment (Alternative 5) is preferable, as it reduces the potential for human exposure to contaminated soils during the remediation.

Long-term effectiveness and permanence Excavation (Alternatives 2 - 4) is preferable as it would leave less contaminated soil on site. However, since the site will be capped in any event, containment (Alternative 5), with appropriate institutional controls, is an acceptable remedy.

Reduction of toxicity, mobility or volume The excavation alternatives (Alternatives 2 - 4) would not result in the destruction of the contaminants, rather their relocation to a landfill. The containment alternative (Alternative 5) would reduce the (currently low) mobility of the contaminated soils.

Implementability All alternatives are readily implemented, however, excavation to 10 ppm (Alternative 2) would be more administratively feasible.

Cost Containment (Alternative 5) is preferred as it has considerably lower costs.

5.6 RECOMMENDED ALTERNATIVE FOR OU-1

With appropriate institutional controls either excavation or containment would address the contamination in OU-1. Although neither approach would fully comply with SCGs,

either alternative would protect human health and the environment. However, Alternative 2 (the excavation of PCBs to 10 ppm) is recommended for OU-1 since this is more readily implemented within the timeframe anticipated for the redevelopment of the OU-1 area.

It is noted that for the other operable units, where PCB contamination is more extensive, a containment remedy may be appropriate since the lower cost and reduced potential for impacts to workers and the community may offset the additional difficulty in implementability. However, additional investigation work is required for these operable units, before a recommended remedy can be selected, as described below.

6.0 REMAINING OPERABLE UNITS

6.1 OPERABLE UNIT 2

The results from the four 0 to 6" samples collected under the main axis of the building indicate contamination with PCBs, chromium and mercury. The following additional tasks are recommended for OU-2. Remediation will not likely be possible until the building is demolished.

- Since mercury was found at one location at 378 ppm, an indoor air survey of the main building should be performed to determine if elevated levels are present.
- Additional soil testing both deeper in the locations already tested and in the "wings of the building" is necessary to determine the extent of soil contamination.

6.2 OPERABLE UNIT 3

Widespread PCB contamination was found in OU-3. The following additional tasks are necessary before an overall remediation approach can be selected:

- Well MW-5 was found to have floating product (petroleum containing PCBs). This well should be bailed on a regular basis and a geoprobe or similar subsurface investigation performed to both delineate the extent of floating product and to determine the appropriateness of more sophisticated product recovery systems, which would be installed and operated as an Interim Remedial Measure (IRM). A thorough search of the surrounding area including the garage buildings should be made with a magnetometer to attempt to locate any currently unidentified tanks.
- Soil sampling under the garage building and the smaller building near the bulkhead will ultimately be required. However, it may not be practical to perform this testing until after the buildings are demolished.
- Although the aboveground tanks were reportedly closed in-place on 12/21/88, sediment sample results indicated PCBs and VOCs exists in media within the said tanks. Therefore, the tanks require permanent closure in accordance with 6NYCRR Parts 598.10 and 613.9, following which, a subsurface investigation

would be performed to determine if any release (into or beyond the containment structure) occurred.

TABLES

Table 1a - PCBs in Soil Samples

Dilution	5.00	2.00	20.0	1.00	50.0	1.00	100.	500.	20.0	50.0	20.0	1.00	500.	2000
Method Blank	PCBLK86	PCBLK86	PBLK86	PBLK86	PCBLK86	PCBLK86	PBLK86	PBLK86	PBLK86	PCBLK86	PBLK86	PCBLK86	PBLK86	PCBLK86
Client ID	B-1 (0-2)	B-1 (2-4)	B-2 (0-2)	B-2 (2-4)	B-3 (2-4)	B-3 (4-6)	B-4 (2-3)	B-4 (5-7)	B-5 (1-3)	B-5 (3-5)	B-6 (0-2)	B-6 (4-6)	B-7 (0-2)	B-7 (2-4)
Lab Sample ID	010651A-01	010651A-02	010651A-03	010651A-04	010651A-05	010651A-06	010651A-07	010651A-08	010651A-09	010651A-10	010651A-11	010651A-12	010651A-13	010651A-14
Date Sampled	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/22/01	03/22/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound														
Aroclor-1016	190 U	72 U	750 U	39 U	1900 U	51 U	3600 U	23000 U	680 U	1800 U	700 U	40 U	18000 U	82000 U
Aroclor-1221	380 U	150 U	1500 U	80 U	3900 U	100 U	7200 U	47000 U	1400 U	3800 U	1400 U	82 U	36000 U	170000 U
Aroclor-1232	190 U	72 U	750 U	39 U	1900 U	51 U	3600 U	23000 U	680 U	1800 U	700 U	40 U	18000 U	82000 U
Aroclor-1242	21 J	72 U	750 U	39 U	1900 U	51 U	3600 U	23000 U	680 U	1800 U	700 U	40 U	18000 U	82000 U
Aroclor-1248	190 U	72 U	750 U	39 U	1900 U	51 U	3600 U	23000 U	680 U	1800 U	700 U	40 U	18000 U	82000 U
Aroclor-1254	190 U	72 U	750 U	39 U	1900 U	51 U	3600 U	23000 U	680 U	1800 U	700 U	40 U	18000 U	82000 U
Aroclor-1260	930	420	2000	27 J	1900 U	51 U	4900	23000 U	1800	3200	3700	44	59000	420000

Table 1a - PCBs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	50.0	50.0	50.0	100	20.0	1.00	1.00	10.0	50.0
						PBLK86	PBLK82	PBLK82	PCBLK82	PBLK82	PCBLK82	PCBLK82	PBLK82	PBLK82
						B-10 (0-27)	B-12 (3-57)	B-15 (6-87)	B-15 (4-6)	B-15 (6-87)	B-16 (0-27)	B-16 (0-27D)	B-17 (0-27)	B-17 (2-47)
						010651A-19	010651B-02	010651B-04	010651B-03	010651B-04	010651B-05	010651B-06	010651B-07	010651B-08
						03/22/01	03/21/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01
						ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
200	PBLK86	B-8 (2-47)	010651A-15	03/22/01	ug/Kg	7800 U	1900 U	790 U	4000 U	790 U	37 U	37 U	370 U	1800 U
10.0	PCBLK86	B-8 (4-6)	010651A-16	03/22/01	ug/Kg	390 U	1800 U	1600 U	8000 U	1600 U	76 U	75 U	760 U	3800 U
200	PBLK86	B-9 (0-27)	010651A-17	03/22/01	ug/Kg	8000 U	3800 U	1800 U	8000 U	1600 U	76 U	37 U	370 U	1800 U
1.00	PCBLK86	B-9 (4-6)	010651A-18	03/22/01	ug/Kg	39 U	1800 U	1800 U	4000 U	790 U	37 U	37 U	370 U	1800 U
50.0	PBLK86	B-10 (0-27)	010651A-19	03/22/01	ug/Kg	1700 U	1900 U	1900 U	4000 U	790 U	37 U	37 U	370 U	1800 U
1.00	PCBLK86	B-10 (4-6)	010651A-20	03/22/01	ug/Kg	44 U	1800 U	1800 U	4000 U	790 U	37 U	37 U	370 U	1800 U
50.0	PBLK82	B-12 (1-37)	010651B-01	03/21/01	ug/Kg	1800 U	1900 U	1900 U	4000 U	790 U	37 U	37 U	370 U	1800 U
50.0	PBLK82	B-12 (3-57)	010651B-02	03/21/01	ug/Kg	3800 U	1900 U	1900 U	4000 U	790 U	37 U	37 U	370 U	1800 U
20.0	PBLK82	B-15 (6-87)	010651B-04	03/23/01	ug/Kg	790 U	1600 U	790 U	4000 U	790 U	37 U	37 U	370 U	1800 U
1.00	PCBLK82	B-16 (0-27)	010651B-05	03/23/01	ug/Kg	37 U	4000 U	4000 U	4000 U	790 U	37 U	37 U	370 U	1800 U
1.00	PCBLK82	B-16 (0-27D)	010651B-06	03/23/01	ug/Kg	37 U	8000 U	8000 U	4000 U	790 U	37 U	74	370 U	2700 U
10.0	PBLK82	B-17 (0-27)	010651B-07	03/23/01	ug/Kg	370 U	3100	4500	28000	4500	77	74	630	
50.0	PBLK82	B-17 (2-47)	010651B-08	03/23/01	ug/Kg	5000								
Compound	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260							

Table 1a - PCBs in Soil Samples

Dilution	Method	Client ID	Lab Sample ID	Date Sampled	Units	50.0	200.	1.00	5.00	1.00	2000	2000	200.	100.	2000
						PBLK96	PBLK96	PCBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96
						MW-6 (6-8)	MW-10 (1-3)	MW-6 (12-14)	MW-10 (3-5)	MW-10 (13-15)	MW-5 (2-4)	MW-5 (4-6)	B-11 (3-5)	B-11 (5-7)	MW-11 (1-3)
						010651C-06	010651C-08	010651C-07	010651C-09	010651C-10	010651C-11	010651C-12	010651C-13	010651C-14	010651C-15
						03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/28/01	03/28/01	03/28/01
						ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound															
Aroclor-1016						2000 U	7300 U	57 U	200 U	66 U	82000 U	85000 U	8000 U	4100 U	71000 U
Aroclor-1221						4000 U	15000 U	120 U	410 U	130 U	170000 U	170000 U	16000 U	8200 U	140000 U
Aroclor-1232						2000 U	7300 U	57 U	200 U	66 U	82000 U	85000 U	8000 U	4100 U	71000 U
Aroclor-1242						2000 U	7300 U	57 U	200 U	66 U	82000 U	85000 U	8000 U	4100 U	71000 U
Aroclor-1248						2000 U	7300 U	57 U	200 U	66 U	82000 U	85000 U	8000 U	4100 U	71000 U
Aroclor-1254						2000 U	7300 U	57 U	200 U	66 U	82000 U	85000 U	8000 U	4100 U	71000 U
Aroclor-1260						5800	35000	17 J	970	92	100000	290000	31000	6800	300000

Table 1a - PCBs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	50.0	10.0	5.00	2.00	1.00	2.00	2.00	500.	1000	50
	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK97	PBLK97	PBLK97	PBLK97	PBLK97	PBLK97	PBLK97	PBLK97
	MW-4 (1-3)	MW-3 (1-3)	MW-3 (1-3)	MW-4 (7-9)	FB032801	MW-3 (3-5)	MW-7 (0-2)	MW-7 (4-6)	MW-1 (1-3)	MW-1 (1-3)	MW-1 (5-7)	MW-2 (1-3)	MW-2 (3-5)	MW-2 (3-5)	S-1 (0-6)
	010651C-17	010651C-20	010651C-01	010651C-18	010651C-19	010651D-01	010651D-02	010651D-03	010651D-04	010651D-05	010651D-06	010651D-06	010651D-07	010651D-07	011019A-01
	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/29/01	03/29/01	03/29/01	03/29/01	03/29/01	03/29/01	03/29/01	03/29/01	04/26/01
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	46 U	1800 U	380 U	91 U	1 U	180 U	76 U	38 U	71 U	74 U	19000 U	19000 U	37000 U	37000 U	2000 U
Aroclor-1016	94 U	3700 U	770 U	180 U	2 U	380 U	160 U	76 U	140 U	150 U	39000 U	39000 U	76000 U	76000 U	4000 U
Aroclor-1221	46 U	1800 U	380 U	91 U	1 U	180 U	76 U	38 U	69 J	110	19000 U	19000 U	37000 U	37000 U	2000 U
Aroclor-1232	46 U	1800 U	380 U	91 U	1 U	180 U	76 U	38 U	71 U	74 U	19000 U	19000 U	37000 U	37000 U	2000 U
Aroclor-1242	46 U	1800 U	380 U	91 U	1 U	180 U	76 U	38 U	71 U	74 U	19000 U	19000 U	37000 U	37000 U	2000 U
Aroclor-1248	46 U	1800 U	380 U	91 U	1 U	180 U	76 U	38 U	71 U	74 U	19000 U	19000 U	37000 U	37000 U	2000 U
Aroclor-1254	46 U	1800 U	380 U	91 U	1 U	180 U	76 U	38 U	71 U	74 U	19000 U	19000 U	37000 U	37000 U	2000 U
Aroclor-1260	98	2700	630	240	1 U	210	180	59	150	260	38000	110000	110000	110000	6700

Table 1a - PCBs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1000	50	200	200	200	1
	PBLK63	S-2 (0-6)	PBLK63	S-3 (0-6)	PBLK63	S-4 (0-6)	PBLK63	S-4 (0-6)	PBLK63	PBLK62	
	011019A-02	011019A-03	011019A-04	011019A-05	011019A-06					FB042701	
	04/26/01	04/26/01	04/26/01	04/26/01	04/26/01					011019A-06	
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L						
Compound											
Aroclor-1016	38000 U	2700 U	13000 U	14000 U							1 U
Aroclor-1221	78000 U	5500 U	27000 U	29000 U							2 U
Aroclor-1232	38000 U	2700 U	13000 U	14000 U							1 U
Aroclor-1242	38000 U	2700 U	13000 U	14000 U							1 U
Aroclor-1248	38000 U	2700 U	13000 U	14000 U							1 U
Aroclor-1254	38000 U	2700 U	23000 U	26000 U							1 U
Aroclor-1260	120000	15000	44000	56000							1 U

Table 1b - Detected PCBs in Soil Samples

Dilution	5.00	2.00	20.0	1.00	50.0	100.	500.	20.0	50.0	20.0	1.00	500.	2000	200.	10.0
Method Blank	PCBLK36	PCBLK36	PBLK36	PCBLK36	PCBLK36	PBLK36	PBLK36	PBLK36	PCBLK36	PBLK36	PCBLK36	PBLK36	PCBLK36	PBLK36	PCBLK36
Client ID	B-1 (0-2)	B-1 (2-4)	B-2 (0-2)	B-3 (4-6)	B-3 (2-4)	B-4 (2-3)	B-4 (5-7)	B-5 (1-3)	B-5 (3-5)	B-6 (0-2)	B-6 (4-6)	B-7 (0-2)	B-7 (2-4)	B-8 (2-4)	B-8 (4-6)
Lab Sample ID	010651A-01	010651A-02	010651A-03	010651A-06	010651A-05	010651A-07	010651A-08	010651A-09	010651A-10	010651A-11	010651A-12	010651A-13	010651A-14	010651A-15	010651A-16
Date Sampled	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/22/01	03/22/01	03/22/01	03/22/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1016	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1221	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1232	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1242	21 J	U	U	U	U	U	U	U	U	U	U	U	U	3000 J	74 J
Aroclor-1248	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1254	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1260	930	420	2000	U	U	4900	U	1800	3200	3700	44	59000	420000	24000	740
Total (ppm)	0.951	0.42	2	0.027	4.9	1.8	3.2	3.7	0.044	59	420	27	0.814	*	

Above 10 ppm TAGM
Above TSCA

Table 1b - Detected PCBs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	200.	100.	50.0	20.0	1.00	1.00	1.00	10.0	50.0	1.00	1.00	1.00	200.	500.	
	PBLK86	B-9 (0-2)	B-12 (1-3)	B-12 (1-3)	B-10 (6-8)	B-10 (0-2)	B-9 (4-6)	B-10 (6-8)	B-15 (6-8)	B-16 (0-2)	B-16 (0-2)	B-16 (0-2)	B-17 (0-2)	B-17 (2-4)	B-16 (4-6)	B-16 (0-2)	B-16 (0-2)	B-17 (1-3)	B-12 (5-7)	
	010651A-17	010651A-18	010651A-20	010651A-19	010651A-18	010651A-17	010651B-01	010651B-02	010651B-04	010651B-05	010651B-06	010651B-07	010651B-08	010651B-09	010651B-10	010651B-11	010651B-12	010651B-13	010651B-14	
	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/21/01	03/21/01	03/21/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/26/01	03/26/01	03/26/01
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1016	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1221	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1232	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1242	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1248	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1254	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1260	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total (ppm)	15	0.065	5.8	5.8	0.069	3.1	5	28	4.5	0.077	0.074	0.63	2.7	0.0038	23	79				
Above 10 ppm TAGM																				
Above TSCA																				

Table 1b - Detected PCBs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	100.	100.	200.	10.0	1.00	200.	500.	1.00	5.00	1.00	200.	50.0	1.00	200.	
						PBLK82	PBLK82	PBLK94	PCBLK94	PCBLK94	PBLK94	PBLK94	PCBLK96	PBLK96	PCBLK96	PBLK96	PBLK96	PCBLK96	PBLK96	
						B-13 (1-37)	B-14 (1-37)	MW-8 (1-37)	MW-8 (5-77)	MW-8 (9-117)	MW-9 (1-37)	MW-9 (3-57)	MW-9 (9-117)	MW-12 (9-117)	MW-14 (7-97)	MW-6 (0-27)	MW-6 (6-87)	MW-6 (12-147)	MW-10 (1-37)	
						010651B-14	010651B-15	010651B-16	010651B-17	010651B-18	010651B-19	010651B-20	010651C-01	010651C-02	010651C-03	010651C-04	010651C-06	010651C-07	010651C-08	
						03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/27/01	03/27/01	03/27/01	03/27/01	
						ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	
11000	U	U	U	U	U	20000	20000	38000	860	13 J	23000	130000	210	3100	80	26000	5800	17 J	35000	
11	U	U	U	U	U	11	20	38	0.86	0.013	23	130	0.21	3.1	0.08	26	5.8	0.017	35	
Total (ppm)						*	*	*	*	*	*	**	*	*	*	*	*	*	*	*
Above 10 ppm TAGM																				
Above TSCA																				

Table 1b - Detected PCBs in Soil Samples

Dilution	5.00	1.00	2000	2000	2000	2000	100.	2000	1.00	50.0	2.00	1.00	10.0	5.00	2.00	1.00	2.00
Method Blank	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PBLK96	PCBLK96	PBLK93	PBLK96	PBLK97	PBLK97	PBLK97	PBLK97
Client ID	MW-10 (3-5)	MW-10 (13-15)	MW-5 (2-4)	MW-5 (4-6)	B-11 (3-5)	B-11 (5-7)	B-11 (5-7)	MW-11 (1-3)	MW-11 (11-13)	MW-4 (1-3)	MW-4 (7-9)	FB032801	MW-3 (1-3)	MW-7 (0-2)	MW-7 (4-6)	MW-1 (1-3)	MW-1 (1-3)
Lab Sample ID	010651C-09	010651C-10	010651C-11	010651C-12	010651C-13	010651C-14	010651C-15	010651C-16	010651C-17	010651C-18	010651C-18	010651C-19	010651C-20	010651D-02	010651D-03	010651D-04	010651D-04
Date Sampled	03/27/01	03/27/01	03/27/01	03/27/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/29/01	03/29/01	03/29/01	03/29/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor-1016	970	92	100000	290000	31000	6600	300000	98	2700	240	630	210	180	59	150		
Aroclor-1221	0.97	0.092	100	290	31	6.8	300	0.098	2.7	0.24	0.63	0.21	0.18	0.059	0.219		
Aroclor-1232					*		*										
Aroclor-1242					*		**										
Aroclor-1248					*		**										
Aroclor-1254					*		**										
Aroclor-1260					*		**										
Total (ppm)																	

Above 10 ppm TAGM
Above TSCA

Table 2a - VOCs In Soil Samples

Dilution	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Method Blank	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA	VBLKKA
Client ID	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')	B-9 (4-6')
Lab Sample ID	010651A-17RE	010651A-18	010651A-19	010651A-19RE	010651A-19RE	010651A-20	010651A-20RE	010651A-20RE	010651A-20RE	010651A-20RE	010651A-20RE	010651A-20RE	010651A-20RE	010651B-01	010651B-01RE	010651B-02	010651B-02RE	010651B-03
Date Sampled	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/21/01	03/21/01	03/21/01	03/21/01	03/23/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	12 U	11 U	10 U	10 U	10 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	13 U
Chloromethane	12 U	11 U	10 U	10 U	10 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	13 U
Bromomethane	12 U	11 U	10 U	10 U	10 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	13 U
Vinyl Chloride	12 U	11 U	10 U	10 U	10 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	13 U
Chloroethane	3 JB	6 B	8 B	8 B	8 B	42 B	27 B	27 B	27 B	6 B	6 B	6 B	6 B	6 B	6 B	22 B	10 B	4 JB
Methylene Chloride	52 B	40	30	11 B	11 B	81	39 B	39 B	39 B	19 B	14 B	14 B	14 B	14 B	14 B	10 JB	22 B	100 B
Acetone	0.9 J	1 J	0.9 J	0.9 J	0.9 J	6	7	7	7	22	6	6	6	6	6	6	9	21
Carbon Disulfide	12 U	11 U	10 U	10 U	10 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	13 U
Vinyl Acetate	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
1,1-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
1,1-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
cis-1,2-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
trans-1,2-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Chloroform	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
1,2-Dichloroethane	12 U	11 U	10 U	10 U	10 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	22
2-Butanone	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
1,1,1-Trichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Carbon Tetrachloride	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Bromodichloromethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
1,2-Dichloropropane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
cis-1,3-Dichloropropene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Trichloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Dibromochloromethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
1,1,2-Trichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Benzene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
trans-1,3-Dichloropropene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Bromoform	12 U	11 U	10 U	10 U	10 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	13 U
4-Methyl-2-Pentanone	12 U	11 U	10 U	10 U	10 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	13 U
2-Hexanone	0.7 J	1 J	0.7 J	0.7 J	0.7 J	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Tetrachloroethene	1 J	2 J	2 J	2 J	2 J	3 J	3 J	3 J	3 J	6 B	6 B	6 B	6 B	6 B	6 B	12 B	2 JB	1 J
Toluene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
1,1,2,2-Tetrachloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Chlorobenzene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Ethylbenzene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Styrene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U
Xylene (total)	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	6 U

Table 2a - VOCs in Soil Samples

Dilution	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Method Blank	VBLKOA	VBLKOB	VBLKOA	VBLKOB	VBLKOA	VBLKOB	VBLKOA	VBLKOB	VBLKOA	VBLKOB	VBLKOA	VBLKOB	VBLKOA	VBLKOB	VBLKOA	VBLKOB	VBLKOA	VBLKOB	VBLKOA	VBLKOB
Client ID	MW-12 (5-7)	MW-12 (5-7)DL	B-13 (1-3)	B-13 (1-3)RE	B-13 (1-3)	B-13 (1-3)RE	B-14 (1-3)	B-14 (1-3)	B-14 (1-3)	B-14 (1-3)DL	MW-8 (1-3)	MW-8 (1-3)RE	MW-8 (5-7)	MW-8 (5-7)RE	MW-8 (9-11)	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE
Lab Sample ID	010651B-13	010651B-13DL	010651B-14	010651B-14RE	010651B-15	010651B-15RE	010651B-15	010651B-15	010651B-15	010651B-15DL	010651B-16	010651B-16RE	010651B-17	010651B-17RE	010651B-18	010651B-18RE	010651B-18RE	010651B-18RE	010651B-18RE	010651B-18RE
Date Sampled	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	12 U	48 U	11 U	11 U	10 U	11 U	10 U	10 U	45 U	12 U	11 U	11 U	11 U	11 U	30 U	32 U	32 U	32 U	32 U	32 U
Chloromethane	12 U	48 U	11 U	11 U	10 U	11 U	10 U	10 U	45 U	12 U	11 U	11 U	11 U	11 U	30 U	32 U	32 U	32 U	32 U	32 U
Bromomethane	12 U	48 U	11 U	11 U	10 U	11 U	10 U	10 U	45 U	12 U	11 U	11 U	11 U	11 U	30 U	32 U	32 U	32 U	32 U	32 U
Vinyl Chloride	12 U	48 U	11 U	11 U	10 U	11 U	10 U	10 U	45 U	12 U	11 U	11 U	11 U	11 U	30 U	32 U	32 U	32 U	32 U	32 U
Chloroethane	7 B	34 DB	7 B	22 B	2 JB	22 B	2 JB	2 JB	22 DB	3 JB	12 B	13 B	13 B	11 JB	11 JB	21 B	21 B	21 B	21 B	21 B
Methylene Chloride	180 B	180 DB	24 B	48 B	73 B	48 B	73 B	78 B	170 DB	78 B	82 B	64 B	64 B	160 B	160 B	160 B	160 B	160 B	160 B	160 B
Acetone	11	56 D	8	15	7	15	7	14	93 D	14	3 J	16	16	55	55	34	34	34	34	34
Carbon Disulfide	12 U	48 U	11 U	11 U	10 U	11 U	10 U	10 U	45 U	12 U	11 U	11 U	11 U	30 U	32 U	32 U	32 U	32 U	32 U	32 U
Vinyl Acetate	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,1-Dichloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,1-Dichloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,2-Dichloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
trans-1,2-Dichloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
trans-1,2-Dichloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Chloroform	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,2-Dichloroethane	25 B	35 JDB	11 U	11 U	11 B	11 U	11 B	14	45 U	14	21 B	17	17	44	44	59 B	59 B	59 B	59 B	59 B
2-Butanone	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,1,1-Trichloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Carbon Tetrachloride	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Bromodichloromethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,2-Dichloropropane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
cis-1,3-Dichloropropene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
cis-1,3-Dichloropropene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Trichloroethene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Dibromochloromethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,1,2-Trichloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,1,2-Trichloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Benzene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Benzene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
trans-1,3-Dichloropropene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Bromoforn	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
4-Methyl-2-Pentanone	12 U	48 U	11 U	11 U	10 U	11 U	10 U	10 U	45 U	12 U	11 U	11 U	11 U	30 U	32 U	32 U	32 U	32 U	32 U	32 U
2-Hexanone	12 U	48 U	11 U	11 U	10 U	11 U	10 U	10 U	45 U	12 U	11 U	11 U	11 U	30 U	32 U	32 U	32 U	32 U	32 U	32 U
Tetrachloroethene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Toluene	8 B	10 JDB	5 U	6 U	14 B	6 U	14 B	6 U	20 JDB	4 J	1 J	1 J	1 J	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,1,2,2-Tetrachloroethane	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
1,1,2,2-Tetrachloroethane	260 E	250 D	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Chlorobenzene	10	13 JD	5 U	6 U	15	6 U	15	100 D	100 D	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Ethylbenzene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Styrene	6 U	24 U	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U
Xylene (total)	45	54 D	5 U	6 U	5 U	6 U	5 U	5 U	22 U	6 U	6 U	6 U	6 U	15 U	15 U	16 U	16 U	16 U	16 U	16 U

Table 2a - VOCs in Soil Samples

Dilution	VBLKOE MW-7 (4-6) 010651D-03 03/29/01 ug/Kg	VBLKOE MW-1 (1-3) 010651D-04 03/29/01 ug/Kg	VBLKOG MW-1 (1-3)RE 010651D-04RE 03/29/01 ug/Kg	VBLKOE MW-1 (5-7) 010651D-05 03/29/01 ug/Kg	VBLKOG MW-1 (5-7)RE 010651D-05RE 03/29/01 ug/Kg	VBLKOE MW-2 (1-3) 010651D-06 03/29/01 ug/Kg	VBLKOG MW-2 (1-3)RE 010651D-06RE 03/29/01 ug/Kg	VBLKLS MW-2 (3-5) 010651D-07 03/29/01 ug/Kg	VBLKTI TB032901 010651D-08 03/29/01 ug/L	VBLKKH S-1 (0-6) 011019A-01 04/26/01 ug/Kg	VBLKKH S-2 (0-6) 011019A-02 04/26/01 ug/Kg	VBLKKH S-3 (0-6) 011019A-03 04/26/01 ug/Kg	VBLKKH S-4D (0-6) 011019A-04 04/26/01 ug/Kg
Method Blank	11 U	11 U	10 U	11 U	11 U	12 U	11 U	1100 U	10 U	11 U	11 U	17 U	19
Client ID	11 U	11 U	10 U	11 U	11 U	12 U	11 U	1100 U	10 U	11 U	11 U	17 U	19
Lab Sample ID	11 U	11 U	10 U	11 U	11 U	12 U	11 U	1100 U	10 U	11 U	11 U	17 U	19
Date Sampled	7 B	40 B	44 B	6 B	14 B	65 B	73 B	130 JB	8 B	9	9	10	13
Units	16 B	120 B	84 B	110 B	100 B	140 B	130 B	800 J	65	73 B	40 B	52 B	100
Compound	2 J	4 J	5	5	4 J	6	14	1100 U	5 U	6 U	6 U	8 U	0.7
Chloromethane	11 U	11 U	10 U	11 U	11 U	12 U	11 U	1100 U	10 U	11 U	11 U	17 U	19
Bromomethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Vinyl Chloride	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Chloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Methylene Chloride	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Acetone	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Carbon Disulfide	11 U	11 U	10 U	11 U	11 U	12 U	11 U	1100 U	10 U	11 U	11 U	17 U	19
Vinyl Acetate	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
1,1-Dichloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
1,1-Dichloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
cis-1,2-Dichloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
trans-1,2-Dichloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Chloroform	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
1,2-Dichloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
2-Butanone	11 U	19 B	23	28 B	31	19 B	32	1100 U	10 U	11 U	11 U	17 U	12
1,1,1-Trichloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Carbon Tetrachloride	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Bromodichloromethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
1,2-Dichloropropane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
cis-1,3-Dichloropropene	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Trichloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Dibromochloromethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
1,1,2-Trichloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Benzene	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
trans-1,3-Dichloropropene	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Bromoform	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
4-Methyl-2-Pentanone	11 U	11 U	10 U	11 U	11 U	12 U	11 U	1100 U	10 U	11 U	11 U	17 U	19
2-Hexanone	11 U	11 U	10 U	11 U	11 U	12 U	11 U	1100 U	10 U	11 U	11 U	17 U	19
Tetrachloroethene	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Toluene	0.8 J	4 J	4 JB	3 J	4 JB	27	45 B	75 J	5 U	6 U	6 U	8 U	0.9
1,1,2,2-Tetrachloroethane	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Chlorobenzene	6 U	6 U	5 U	5 U	6 U	6 U	6 U	6000	5 U	6 U	6 U	8 U	9
Ethylbenzene	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Styrene	6 U	6 U	5 U	5 U	6 U	6 U	6 U	1100 U	5 U	6 U	6 U	8 U	9
Xylene (total)	6 U	7	6	11	11	36	45	220 J	5 U	6 U	2 J	8 U	9

Table 2a - VOCs in Soil Samples

Dilution	Method Blank	1	1	1
Client ID	S-4 (0-6)	VBLKKNH	VBLKNU	VBLKNU
Lab Sample ID	011019A-05	011019A-05	011019A-06	TB042701
Date Sampled	04/26/01	04/26/01	04/26/01	011019A-07
Units	ug/Kg	ug/L	ug/L	ug/L
Compound				
Chloromethane	14 U	10 U	10 U	10 U
Bromomethane	14 U	10 U	10 U	10 U
Vinyl Chloride	14 U	10 U	10 U	10 U
Chloroethane	14 U	10 U	10 U	10 U
Methylene Chloride	9	2 J	2 J	3 J
Acetone	34 B	2 JB	2 JB	2 JB
Carbon Disulfide	7 U	5 U	5 U	5 U
Vinyl Acetate	14 U	10 U	10 U	10 U
1,1-Dichloroethane	7 U	5 U	5 U	5 U
1,1-Dichloroethane	7 U	5 U	5 U	5 U
cis-1,2-Dichloroethane	7 U	5 U	5 U	5 U
trans-1,2-Dichloroethane	7 U	5 U	5 U	5 U
Chloroform	7 U	5 U	5 U	5 U
1,2-Dichloroethane	7 U	5 U	5 U	5 U
2-Butanone	14 U	2 J	2 J	10 U
1,1,1-Trichloroethane	7 U	5 U	5 U	5 U
Carbon Tetrachloride	7 U	5 U	5 U	5 U
Bromodichloromethane	7 U	5 U	5 U	5 U
1,2-Dichloropropane	7 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	7 U	5 U	5 U	5 U
Trichloroethene	7 U	5 U	5 U	5 U
Dibromochloromethane	7 U	5 U	5 U	5 U
1,1,2-Trichloroethane	7 U	5 U	5 U	5 U
Benzene	7 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	7 U	5 U	5 U	5 U
Bromoform	7 U	5 U	5 U	5 U
4-Methyl-2-Pentanone	14 U	10 U	10 U	10 U
2-Hexanone	14 U	10 U	10 U	10 U
Tetrachloroethene	2 J	5 U	5 U	5 U
Toluene	7 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	7 U	5 U	5 U	5 U
Chlorobenzene	7 U	5 U	5 U	5 U
Ethylbenzene	7 U	5 U	5 U	5 U
Styrene	7 U	5 U	5 U	5 U
Xylylene (total)	7 U	5 U	5 U	5 U

Table 2a - VOCs in Soil Samples

Dilution	1.00	1.00
Method Blank	VBLKLO	VBLKLO
Client ID	FB040601	TB040601
Lab Sample ID	010805A-16	010805A-17
Date Sampled	04/06/01	04/06/01
Units	ug/L	ug/L
Compound	10 U	10 U
Chloromethane	10 U	10 U
Bromomethane	10 U	10 U
Vinyl Chloride	10 U	10 U
Chloroethane	10 U	10 U
Methylene Chloride	0.6 JB	1 JB
Acetone	10 U	1 JB
Carbon Disulfide	5 U	5 U
Vinyl Acetate	10 U	10 U
1,1-Dichloroethane	5 U	5 U
1,1-Dichloroethene	5 U	5 U
cis-1,2-Dichloroethene	5 U	5 U
trans-1,2-Dichloroethene	5 U	5 U
Chloroform	5 U	5 U
1,2-Dichloroethane	5 U	5 U
2-Butanone	2 JB	2 JB
1,1,1-Trichloroethane	5 U	5 U
Carbon Tetrachloride	5 U	5 U
Bromodichloromethane	5 U	5 U
1,2-Dichloropropane	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U
Trichloroethene	5 U	5 U
Dibromochloromethane	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U
Benzene	5 U	5 U
trans-1,3-Dichloropropene	5 U	5 U
Bromoform	5 U	5 U
4-Methyl-2-Pentanone	10 U	10 U
2-Hexanone	10 U	10 U
Tetrachloroethene	5 U	5 U
Toluene	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U
Chlorobenzene	5 U	5 U
Ethylbenzene	5 U	5 U
Styrene	5 U	5 U
Xylene (total)	5 U	5 U

Table 2b - Detected VOCs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00 VBLKK7 B-1 (0-2) 010651A-01 03/21/01	1.00 VBLKK7 B-1 (2-4) 010651A-02 03/21/01	1.00 VBLKK7 B-1 (2-4)RE 010651A-02RE 03/21/01	1.00 VBLKK7 B-2 (0-2) 010651A-03 03/21/01	1.00 VBLKK7 B-2 (0-2)RE 010651A-03RE 03/21/01	1.00 VBLKK7 B-2 (2-4) 010651A-04 03/21/01	1.00 VBLKK7 B-2 (2-4)RE 010651A-04RE 03/21/01	1.00 VBLKK8 B-3 (2-4) 010651A-05 03/21/01	1.00 VBLKK8 B-3 (4-6) 010651A-06 03/21/01	1.00 VBLKNS B-4 (2-3) 010651A-07 03/21/01	1.00 VBLKK7 B-4 (5-7) 010651A-08 03/21/01	1.00 VBLKK8 B-4 (5-7)RE 010651A-08RE 03/21/01	1.00 VBLKK8 B-5 (1-3) 010651A-09 03/21/01
Compound																		
Chloromethane						U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane						U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride						9 B	6 JB	5 B	4 JB	13 B	31 B	8 JB	8 JB	1400 J	21 B	13 JB	8 B	U
Acetone						20 B	63 B	5 JB	16 B	6 JB	36 B	48 B	92 B	U	210 B	96 B	15 B	U
Carbon Disulfide						U	0.7 J	0.4 J	U	0.5 J	0.9 J	0.6 J	U	U	45	16	0.8 J	U
Chloroform						U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone						U	U	U	U	U	U	U	U	3300 J	72	13 J	U	U
Carbon Tetrachloride						U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene						U	U	U	U	U	U	U	U	770 J	12	U	U	U
4-Methyl-2-Pentanone						U	U	U	U	U	U	U	U	1300 J	U	U	U	U
2-Hexanone						U	U	U	U	U	U	U	U	1500 J	U	U	U	U
Tetrachloroethene						0.9 J	0.9 J	2 J	U	1 J	2 J	1 J	2 J	1700 J	4 J	2 J	1 J	U
Toluene						2 J	0.9 J	2 J	0.6 J	5 J	15	22	2 J	1700 J	28	5 J	5 J	1 J
1,1,2,2-Tetrachloroethane						U	U	U	U	U	U	U	U	980 J	U	U	U	U
Chlorobenzene						U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene						U	U	U	U	U	U	U	U	730 J	51	13 J	U	U
Styrene						U	U	U	U	U	U	U	U	1400 J	31	8 J	U	U
Xylene (total)						1 J	U	U	U	U	1 J	61	2 J	6100 J	41	9 J	U	U
Total VOCs (ppm)						0.0329	0.0706	0.0124	0.0206	0.0255	0.0859	0.1616	0.104	19.18	0.515	0.175	0.0248	

Table 2b - Detected VOCs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00 VBLKOB B-16 (0-27)RE 010651B-06RE 03/23/01	1.00 VBLKOA B-17 (0-2) 010651B-07 03/23/01	1.00 VBLKOB B-17 (0-2)RE 010651B-07RE 03/23/01	1.00 VBLKOC B-17 (2-4) 010651B-08 03/23/01	1.00 VBLKOA B-16 (4-6) 010651B-09 03/23/01	1.00 VBLKNQ FB032601 010651B-10 03/26/01	1.00 VBLKNQ TB032601 010651B-11 03/26/01	1.00 VBLKOA MW-12 (1-3) 010651B-12 03/26/01	1.00 VBLKOB MW-12 (1-3)JDL 010651B-12DL 03/26/01	1.00 VBLKOA MW-12 (5-7) 010651B-13 03/26/01	1.00 VBLKOB MW-12 (5-7)DL 010651B-13DL 03/26/01	1.00 VBLKOA B-13 (1-3) 010651B-14 03/26/01	1.00 VBLKOB B-13 (1-3)RE 010651B-14RE 03/26/01	Units	Total VOCs (ppm)
Chloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.047
Bromomethane	9 B	7 B	10 B	37 B	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.061
Methylene Chloride	31 B	21 B	U	81 B	6 B	6 B	16 B	12	5 JB	5	9	42	26 B	67 DB	7 B	34 DB	7 B	22 B	U	0.049
Acetone	7	12	6	39	12	U	U	U	U	U	U	U	300 EB	230 DB	180 B	180 DB	24 B	48 B	U	0.085
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	8	110 D	11	56 D	8	15	U	0.047
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	25 B	35 JDB	10	U	U	0.061
2-Butanone	U	10 B	U	U	U	U	U	U	U	U	U	U	U	56 DB	U	U	U	U	U	0.047
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.047
Benzene	U	4 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.047
4-Methyl-2-Pentanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.047
2-Hexanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.047
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.047
Toluene	U	7 B	U	9 JB	0.9 JB	U	U	U	U	U	U	U	18 B	22 JDB	8 B	10 JDB	U	U	U	0.047
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.047
Chlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.047
Ethylbenzene	U	U	U	95	U	U	U	U	U	U	U	U	U	7 JD	260 E	250 D	U	U	U	0.047
Styrene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	10	13 JD	U	U	U	0.047
Xylene (total)	U	U	U	510	U	U	U	U	U	U	U	U	U	29 D	45	54 D	U	U	U	0.047

Table 2b - Detected VOCs in Soil Samples

Dilution	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Method Blank	VBLKOA	VBLKOB	VBLKOD	VBLKOE	VBLKOD	VBLKOD	VBLKOD	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE	VBLKOE
Client ID	B-14 (1-3)	B-14 (1-3)DL	MW-8 (1-3)	MW-8 (1-3)RE	MW-8 (5-7)	MW-8 (9-11)	MW-8 (9-11)	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE	MW-8 (9-11)RE
Lab Sample ID	010651B-15	010651B-15DL	010651B-16	010651B-16RE	010651B-17	010651B-18	010651B-18	010651B-18RE	010651B-18RE	010651B-18RE	010651B-19	010651B-19	010651B-19RE	010651B-19RE	010651B-20	010651C-01	010651C-02	010651C-02	010651C-02	010651C-02
Date Sampled	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	2 JB	22 DB	3 JB	12 B	13 B	11 JB	11 JB	21 B	21 B	21 B	1 JB	8 B	8 B	6 B	6 B	4 JB	14 JB	14 JB	14 JB	14 JB
Methylene Chloride	73 B	170 DB	78 B	82 B	64 B	160 B	160 B	190 B	190 B	42 B	42 B	56 B	56 B	38 B	38 B	36 B	120 B	120 B	120 B	120 B
Acetone	7	93 D	14	3 J	16	55	55	34	34	6	6	5	5	3 J	3 J	0.9 J	3 J	3 J	3 J	3 J
Carbon Disulfide	U	U	U	9	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	11 B	U	14	21 B	17	44	44	59 B	59 B	13	13	20 B	20 B	12 B	12 B	U	U	U	U	U
2-Butanone	U	U	8	7	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	4 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Hexanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	14 B	20 JDB	U	4 J	1 J	U	U	U	U	16	16	17	17	1 J	1 J	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	15	100 D	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs (ppm)	0.122	0.405	0.128	0.142	0.111	0.27	0.27	0.304	0.304	0.114	0.114	0.1347	0.1347	0.06	0.06	0.0409	0.0409	0.0409	0.0409	0.0409

Table 2b - Detected VOCs in Soil Samples

Dilution	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Method Blank	VBLKCC	VBLKLA	VBLKLA	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB	VBLKKB
Client ID	MW-10 (13-15)RE	MW-5 (2-4)	MW-2 (4-6)	B-11 (3-5)	B-11 (5-7)	B-11 (5-7)RE	B-11 (5-7)RE	B-11 (5-7)RE	MW-11 (1-3)	MW-11 (1-3)	MW-11 (1-3)	MW-11 (1-3)	MW-11 (1-3)	MW-11 (1-3)	MW-4 (1-3)	MW-4 (1-3)	MW-4 (1-3)	MW-4 (1-3)RE	MW-4 (1-3)RE	MW-4 (1-3)RE
Lab Sample ID	010651C-10RE	010651C-11	010651C-12	010651C-13	010651C-14	010651C-14RE	010651C-15	010651C-15RE	010651C-16	010651C-16	010651C-17	010651C-17	010651C-17RE	010651C-18	010651C-18	010651C-18	010651C-18	010651C-18	010651C-18	010651C-18
Date Sampled	03/27/01	03/27/01	03/27/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01	03/28/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	U	130 J	190 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloromethane	U	150 J	160 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	10 B	81 JB	140 JB	5 JB	20 B	21 B	92 B	19 B	10 JB	17 B	36 B	32 B	17 B	19 B	36 B	32 B	17 B	17 B	19 B	19 B
Methylene Chloride	42 B	1100 JB	930 JB	22 B	69 B	55 B	82 B	23 B	13 JB	10 JB	32 B	32 B	10 JB	32 B	32 B	32 B	10 JB	10 JB	10 JB	10 JB
Acetone	8 J	36 J	64 J	0.6 J	1 J	2 J	3 J	0.7 J	U	U	6	6	3 J	2 J	6	6	3 J	3 J	3 J	3 J
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	11 J	U	240 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	24 J	U	U	U	U	1 J	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Hexanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	5 J	2 J	2 J	9	2 J	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	9800	8200	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	U	U	U	U	U	U	11	3 J	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs (ppm)	0.071	11.321	9.924	0.0326	0.092	0.08	0.202	0.0477	0.023	0.033	0.091	0.023	0.033	0.0537	0.091	0.023	0.033	0.033	0.033	0.0537

Table 2b - Detected VOCs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00 VBLKDD MW-4 (7-9)RE 010651C-18RE 03/28/01 ug/Kg	1.00 VBLKTI FB032801 010651C-19 03/28/01 ug/L	1.00 VBLKKB MW-3 (1-3) 010651C-20 03/28/01 ug/Kg	1.00 VBLKOD MW-3 (3-5) 010651D-01 03/28/01 ug/Kg	1.00 VBLKOE MW-7 (0-2) 010651D-02 03/29/01 ug/Kg	1.00 VBLKOG MW-7 (0-2)RE 010651D-02RE 03/29/01 ug/Kg	1.00 VBLKOE MW-7 (4-6) 010651D-03 03/29/01 ug/Kg	1.00 VBLKOG MW-1 (1-3)RE 010651D-04 03/29/01 ug/Kg	1.00 VBLKOE MW-1 (5-7) 010651D-05 03/29/01 ug/Kg	1.00 VBLKOG MW-1 (5-7)RE 010651D-05RE 03/29/01 ug/Kg	1.00 VBLKOE MW-2 (1-3) 010651D-06 03/29/01 ug/Kg	1.00 VBLKOG MW-2 (1-3)RE 010651D-06RE 03/29/01 ug/Kg	
Compound																		
Chloromethane						U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane						U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride						25 B	1 JB	16 B	6 B	14 B	44 B	7 B	40 B	6 B	14 B	65 B	73 B	73 B
Acetone						74 B	U	27 B	12 B	46 B	84 B	16 B	120 B	110 B	100 B	140 B	130 B	130 B
Carbon Disulfide						4 J	U	U	2 J	2 J	5	2 J	4 J	5	4 J	6	14	14
Chloroform						U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone						9 J	U	U	U	10 J	23	U	19 B	28 B	31	19 B	32	32
Carbon Tetrachloride						U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene						U	U	U	U	U	U	U	U	U	U	17	22	22
4-Methyl-2-Pentanone						U	U	U	U	U	U	U	U	U	U	U	U	U
2-Hexanone						U	U	U	U	5 J	U	U	U	U	U	U	U	U
Tetrachloroethene						U	U	U	U	2 J	U	U	U	U	U	U	U	U
Toluene						2 J	U	U	U	2 JB	4 JB	0.8 J	4 J	3 J	4 JB	27	45 B	45 B
1,1,2,2-Tetrachloroethane						U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene						U	U	U	U	U	U	U	U	U	U	68	60	60
Ethylbenzene						U	U	U	U	U	U	U	U	U	U	8	9	9
Styrene						U	U	U	U	0.8 J	U	U	1 J	1 J	1 J	8	U	U
Xylene (total)						U	U	U	U	U	6	U	7	11	11	36	45	45
Total VOCs (ppm)						0.114	0.001	0.043	0.027	0.05	0.081	0.0258	0.195	0.164	0.165	0.386	0.43	0.43

Table 2b - Detected VOCs in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00 VBLKTI TB032901 010651D-08 03/29/01 ug/L	1 VBLKTI S-1 (0-6) 011019A-01 04/26/01 ug/Kg	1 VBLKKH S-2 (0-6) 011019A-02 04/26/01 ug/Kg	1 VBLKKH S-3 (0-6) 011019A-03 04/26/01 ug/Kg	1 VBLKKH S-4D (0-6) 011019A-04 04/26/01 ug/Kg	1 VBLKKH S-4 (0-6) 011019A-05 04/26/01 ug/Kg	1 VBLKNU FB042701 011019A-06 04/26/01 ug/L	1 VBLKNU TB042701 011019A-07 04/26/01 ug/L
Chloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	130 JB	8 B	11	9	10	13	9	100 B	13	9	2	3	U
Acetone	800 J	65	73 B	40 B	52 B	100 B	34 B	U	U	U	2 B	2 B	U
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	170 J	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Hexanone	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	75 J	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	6000	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U	U	U	U	U	U	U
Xyrene (total)	220 J	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs (ppm)	7.395	0.073	0.084	0.049	0.062	0.113	0.043	0.004	0.005				

Table 3a - SVOCs in Soil Samples

Dilution Method Blank Client ID Lab Sample ID Date Sampled Units	1.00 SBLKRS B-1 (0-2) 010651A-01 03/21/01 ug/Kg	10.0 SBLKRS B-1 (2-4) 010651A-02 03/21/01 ug/Kg	5.00 SBLKRS B-2 (0-2) 010651A-03 03/21/01 ug/Kg	1.00 SBLKRS B-3 (4-6) 010651A-06 03/21/01 ug/Kg	200. SBLKRS B-4 (2-3) 010651A-07 03/21/01 ug/Kg	10.0 SBLKRS B-4 (5-7) 010651A-08 03/21/01 ug/Kg	25.0 SBLKRS B-4 (5-7) 010651A-08DL 03/21/01 ug/Kg	1.00 SBLKRS B-5 (1-3) 010651A-09 03/21/01 ug/Kg	1.00 SBLKRS B-5 (3-5) 010651A-10 03/21/01 ug/Kg	1.00 SBLKRS B-6 (0-2) 010651A-11 03/21/01 ug/Kg	1.00 SBLKRS B-6 (4-6) 010651A-12 03/21/01 ug/Kg
Phenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
bis(2-Chloroethyl)ether	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2-Chlorophenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
1,3-Dichlorobenzene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
1,4-Dichlorobenzene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Benzyl alcohol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
1,2-Dichlorobenzene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2-Methylphenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2,2'-oxybis(1-Chloropropane)	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
4-Methylphenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
N-Nitroso-di-n-propylamine	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Hexachloroethane	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Nitrobenzene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Isophorone	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2-Nitrophenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2,4-Dimethylphenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Benzoic acid	1800 U	18000 U	9000 U	84 J	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
bis(2-Chloroethoxy)methane	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2,4-Dichlorophenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
1,2,4-Trichlorobenzene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Naphthalene	120 J	3600 U	79 J	690	580000 U	7200 U	12000 U	200 J	420	700 U	410 U
4-Chloroaniline	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Hexachlorobutadiene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
4-Chloro-3-methylphenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2-Methylnaphthalene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Hexachlorocyclopentadiene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2,4,6-Trichlorophenol	1800 U	18000 U	9000 U	2500 U	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
2,4,5-Trichlorophenol	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
2-Chloronaphthalene	1800 U	18000 U	9000 U	2500 U	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
2-Nitroaniline	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Dimethylphthalate	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Acenaphthylene	180 J	410 J	770 J	220 J	740000 U	2400 U	2500 JD	85 J	68 J	67 J	1800
2,6-Dinitrotoluene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
3-Nitroaniline	1800 U	18000 U	9000 U	2500 U	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
Acenaphthene	170 J	1100 J	360 J	450 J	190000 U	2400 U	3100 JD	88 J	77 J	3400 U	2000 U
2,4-Dinitrophenol	1800 U	18000 U	9000 U	2500 U	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
4-Nitrophenol	1800 U	18000 U	9000 U	2500 U	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
Dibenzofuran	120 J	710 J	100 J	490 J	1400000 U	1600 U	1600 JD	110 J	96 J	700 U	410 U
2,4-Dinitrotoluene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Diethylphthalate	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
4-Chlorophenyl-phenylether	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Fluorene	190 J	2000 J	460 J	880	260000 U	3200 U	3600 JD	120 J	100 J	700 U	410 U
4-Nitroaniline	1800 U	18000 U	9000 U	2500 U	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
4,6-Dinitro-2-methylphenol	1800 U	18000 U	9000 U	2500 U	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
N-Nitrosodiphenylamine (1)	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
4-Bromophenyl-phenylether	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Hexachlorobenzene	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Pentachlorophenol	1800 U	18000 U	9000 U	2500 U	710000 U	23000 U	57000 U	1700 U	1800 U	3400 U	2000 U
Phenanthrene	1700	19000	4200	3700	1000000 U	28000	28000 D	700	650	160 J	440
Anthracene	530	6900	1600 J	1400	340000 U	10000	10000 JD	310 J	310 J	100 J	1500
Carbazole	200 J	570 J	220 J	430 J	150000 U	2200 U	1600 JD	69 J	58 J	700 U	410 U
Di-n-butylphthalate	12 J	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Fluoranthene	2200	29000	9100	3800	880000 U	31000	33000 D	1000	1100	210 J	1300
Pyrene	1800	20000	7900	2700	750000 U	6800	10000 JD	800	670	260 J	980
Butylbenzylphthalate	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
3,3'-Dichlorobenzidine	760 U	7300 U	3700 U	1000 U	2900000 U	9400 U	24000 U	36 J	750 U	1400 U	810 U
Benzo(a)anthracene	1300	16000	8900	1800	410000 U	8500	9200 JD	510	540	160 J	1100
Chrysene	1300	14000	6400	1700	390000 U	7800	8400 JD	540	560	330 J	1100
bis(2-Ethylhexyl)phthalate	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Di-n-octylphthalate	380 U	3600 U	1900 U	520 U	1500000 U	4700 U	12000 U	350 U	380 U	700 U	410 U
Benzo(b)fluoranthene	1300	12000	5400	180 J	260000 U	6500	5200 JD	600	570	280 J	1000
Benzo(k)fluoranthene	680	7300	4000	1100	300000 U	6900	5900 JD	410	550	200 J	1800
Benzo(a)pyrene	1200	13000	6400	200 J	340000 U	6900	6800 JD	500	580	220 J	1600
Indeno(1,2,3-cd)pyrene	650	7700	4000	1400	220000 U	160 J	170 JD	170 J	170 J	700 U	410 U
Dibenz(a,h)anthracene	240 J	2800 J	1800 J	58 J	78000 J	380 J	1000 JD	72 J	72 J	700 U	410 U
Benz(g,h,i)perylene	480	6400	3300	140 J	250000 U	540 J	2100 JD	120 J	120 J	18 J	420

Table 3a - SVOCs in Soil Samples

Dilution	1.00	1.00	8.00	2.00	1.00	5.00	10.0	1.00	2.00	1.00	10.0	1.00	1.00	4.00
Method Blank	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS	SELKRS
Client ID	B-7 (0-2)	B-7 (0-2)RE	B-7 (2-4)	B-8 (2-4)	B-8 (4-6)	B-9 (0-2)	B-9 (0-2)DL	B-9 (4-6)	B-10 (0-2)	B-10 (6-8)	B-12 (1-3)	B-12 (6-8)	B-12 (6-8)	B-15 (4-6)
Lab Sample ID	010651A-13	010651A-13RE	010651A-14	010651A-15	010651A-16	010651A-17	010651A-17DL	010651A-18	010651A-19	010651A-20	010651B-01	010651B-01	010651B-01	010651B-03
Date Sampled	09/22/01	03/22/01	03/22/01	09/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/21/01	03/21/01	03/21/01	03/23/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Phenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
bis(2-Chloroethyl)ether	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2-Chlorophenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
1,3-Dichlorobenzene	28 J	28 J	2200 J	230 J	230 J	2000 J	4000 J	400 U	1400 U	440 U	3900 U	360 U	360 U	920 J
1,4-Dichlorobenzene	190 J	190 J	20000 J	440 J	660	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1600
Benzyl alcohol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
1,2-Dichlorobenzene	360 U	360 U	1100 J	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	56 J
2-Methylphenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2,2'-oxybis(1-Chloropropane)	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
4-Methylphenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
N-Nitroso-di-n-propylamine	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Hexachlorocyclopentadiene	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Nitrobenzene	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Isophorone	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2-Nitrophenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2,4-Dimethylphenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Benzoic acid	1800 U	1800 U	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
bis(2-Chloroethoxy)methane	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2,4-Dichlorophenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
1,2,4-Trichlorobenzene	1700	1700	18000	300 J	230 J	400 J	430 JD	400 U	1400 U	440 U	3900 U	360 U	360 U	790 J
Naphthalene	120 J	110 J	130 J	390 J	18 J	280 J	310 JD	16 J	160 J	100 J	120 J	14 J	58 J	58 J
4-Chloroaniline	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Hexachlorocyclopentadiene	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
4-Chloro-3-methylphenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2-Methylnaphthalene	180 J	180 J	160 J	540 J	30 J	220 J	220 JD	10 J	240 J	170 J	160 J	16 J	84 J	84 J
Hexachlorocyclopentadiene	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2,4,6-Trichlorophenol	1800 U	1800 U	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
2,4,6-Trichlorophenol	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2-Chloronaphthalene	1800 U	1800 U	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
2-Nitroaniline	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Dimethylphthalate	510	480	510	820	14 J	310 J	400 U	13 J	1600	23 J	370 J	20 J	20 J	1500 U
Acenaphthylene	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
2,6-Dinitrotoluene	1800 U	1800 U	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
3-Nitroaniline	65 J	58 J	3300 U	270 J	35 J	2000 U	4000 U	18 J	130	52 J	770 J	29 J	210 J	210 J
Acenaphthene	1800 U	1800 U	15000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
2,4-Dinitrophenol	1800 U	1800 U	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
4-Nitrophenol	1800 U	1800 U	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
Dibenzofuran	53 J	43 J	3300 U	180 J	16 J	80 J	400 U	11 J	45 J	51 J	420 J	24 J	24 J	1500 U
2,4-Dinitrotoluene	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Diethylphthalate	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
4-Chlorophenyl-phenylether	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Fluorene	68 J	54 J	220 J	340 J	44 J	2000 U	4000 U	20 J	120 J	100 J	920 J	43 J	280 J	280 J
4-Nitroaniline	1800 U	1800 U	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
N-Nitrosodiphenylamine (1)	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
4-Bromophenyl-phenylether	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Hexachlorobenzene	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Pentachlorophenol	140 J	160 J	16000 U	3800 U	1900 U	8000 U	20000 U	1900 U	6600 U	2200 U	19000 U	1800 U	1800 U	7200 U
Phenanthrene	440	440	920 J	1600	240 J	440 J	480 JD	170 J	860 J	500	13000	560	560	1200 J
Anthracene	630	630	1200 J	850	65 J	400 J	380 JD	70 J	1400	130 J	3300 J	140 J	480 J	480 J
Carbazole	140 J	140 J	3300 U	150 J	23 J	2000 U	4000 U	11 J	40 J	53 J	950 J	40 J	40 J	1500 U
Di-n-butylphthalate	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Fluoranthene	840	1000	3200 J	3400	240 J	470 J	650 JD	480	1800	460	17000	670	17000	1900
Pyrene	550	550	1800 J	1800	250 J	550 J	550 JD	480	1500	500	11000	710	11000	840 J
Butylbenzylphthalate	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
3,3'-Dichlorobenzidine	720 U	720 U	6500 U	1500 U	120 J	4000 U	8000 U	800 U	2700 U	880 U	7800 U	720 U	720 U	3000 U
Benzo(a)anthracene	420	520	1400 J	1700	120 J	280 J	340 JD	260 J	1000 J	310 J	9200	390	9600	800 J
Chrysene	560	670	1700 J	1800	140 J	460 J	570 JD	410	1700	370 J	9600	430	870 J	870 J
bis(2-Ethylhexyl)phthalate	230 J	200 J	610 J	170 J	300 J	660 J	570 JD	410	1400 U	310 J	3900 U	130 JB	6900 B	6900 B
Di-n-octylphthalate	360 U	360 U	3300 U	770 U	390 U	2000 U	4000 U	400 U	1400 U	440 U	3900 U	360 U	360 U	1500 U
Benzo(b)fluoranthene	860	860	1900 J	1600	100 J	680 J	680 JD	220 J	1100 J	180 J	7500	310 J	7500	750 J
Benzo(k)fluoranthene	560	560	1700 J	2000	84 J	280 J	480 JD	210 J	1000 J	170 J	6200	340 J	980 J	980 J
Benzo(a)pyrene	540	520	1400 J	1400	68 J	280 J	350 JD	260 J	1300 J	180 J	6200	340 J	730 J	730 J
Indeno(1,2,3-cd)pyrene	130 J	58 J	340 J	120 J	62 J	120 J	72 JD	200 J	1300 J	130 J	2200 J	130 J	240 J	110 J
Dibenz(a,h)anthracene	45 J	21 J	170 J	120 J	26 J	2000 U	4000 U	70 J	48 J	61 J	870 J	90 J	38 J	38 J
Benzo(g,h,i)perylene	100 J	56 J	260 J	240 J	65 J	2000 U	4000 U	220 J	110 J	150 J	1700 J	240 J	77 J	77 J

Table 3a - SVOCs in Soil Samples

Dilution	1.00	1.00	1.00	100	1.00	25.0	5.00	8.00	8.00	1.00	8.00	1.00	10.0	1.00
Method Blank	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKTR	SBLKSR	SBLKTR	SBLKSR	SBLKSR
Client ID	B-15 (6-8)	B-16 (6-2)	B-16 (6-2)D	B-16 (6-2)D	B-17 (6-2)	B-17 (6-2)	B-16 (4-6)	MW-12 (1-3)RE	MW-12 (1-3)RE	FB032601	MW-12 (1-3)RE	FB032601	MW-12 (5-7)DL	B-13 (1-3)
Lab Sample ID	010651B-04	010651B-05	010651B-06	010651B-06	010651B-07	010651B-08	010651B-09	010651B-10	010651B-12	010651B-10	010651B-12	010651B-10	010651B-13DL	010651B-14
Date Sampled	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/Kg	ug/L	ug/Kg	ug/L	ug/Kg	ug/Kg
Phenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	12 J
bis(2-Chloroethyl)ether	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2-Chlorophenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
1,3-Dichlorobenzene	320 J	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	11000	11000	10 U	12000	10 U	18000 D	410 U
1,4-Dichlorobenzene	470	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	12000	12000	10 U	20000 E	10 U	23000 D	410 U
Benzyl alcohol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
1,2-Dichlorobenzene	20 J	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	700 J	700 J	10 U	1100	10 U	1100 JD	410 U
2-Methylphenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	28 J
2,2'-oxybis(1-Chloropropane)	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
4-Methylphenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	110 J	110 J	10 U	3200 U	10 U	3600 U	410 U
N-Nitroso-di-n-propylamine	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Hexachloroethane	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Nitrobenzene	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Isophorone	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2-Nitrophenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2,4-Dimethylphenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Benzoic acid	1800 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
bis(2-Chloroethoxy)methane	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2,4-Dichlorophenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
1,2,4-Trichlorobenzene	470	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	17000	17000	10 U	16000	10 U	14000 D	150 J
Naphthalene	52 J	500 J	840 J	840 J	190 J	180000	22 J	480 J	480 J	10 U	590	10 U	690 JD	64 J
4-Chloroaniline	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Hexachlorobutadiene	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
4-Chloro-3-methylphenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2-Methylnaphthalene	70 J	550 J	810 J	810 J	240 J	86000	25 J	630 J	630 J	10 U	680 J	10 U	1100 JD	110 J
Hexachlorocyclopentadiene	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2,4,6-Trichlorophenol	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2,4,5-Trichlorophenol	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
2-Chloronaphthalene	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2-Nitroaniline	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
Dimethylphthalate	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Acenaphthylene	96 J	8700 J	7400 J	7400 J	180 J	22000 J	430 J	870 J	870 J	10 U	850 J	10 U	3600 U	67 J
2,6-Dinitrotoluene	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
3-Nitroaniline	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
Acenaphthene	130 J	3400 J	4700 J	4700 J	28 J	10000 J	170 J	360 J	360 J	10 U	330 J	10 U	260 JD	43 J
2,4-Dinitrophenol	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
4-Nitrophenol	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
Dibenzofuran	35 J	2300 J	3200 J	3200 J	43 J	2100 J	100 J	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
2,4-Dinitrotoluene	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Diethylphthalate	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
4-Chlorophenyl-phenylether	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Fluorene	150 J	4800 J	6800 J	6800 J	40 J	24000	230 J	440 J	440 J	10 U	330 J	10 U	270 JD	30 J
4-Nitroaniline	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
4,6-Dinitro-2-methylphenol	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
N-Nitrosodiphenylamine (1)	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
4-Bromophenyl-phenylether	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Hexachlorobenzene	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Pentachlorophenol	1900 U	180000 U	250000 U	250000 U	1800 U	110000 U	8200 U	15000 U	15000 U	50 U	15000 U	50 U	17000 U	2000 U
Phenanthrene	1200	63000	80000	80000	250 J	82000	3500	1300 J	1300 J	10 U	1300 J	10 U	480 JD	600
Anthracene	480	22000 J	25000 J	25000 J	150 J	22000 J	1100 J	720 J	720 J	10 U	910 J	10 U	3600 U	160 J
Carbazole	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Di-n-butylphthalate	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Fluoranthene	1800	150000	180000	180000	260 J	28000	7200	3200	3200	10 U	3500	10 U	1100 JD	830
Pyrene	1300	130000	260000	260000	260 J	42000	4400	3000 J	3000 J	10 U	3400 E	10 U	1100 JD	480
Butylbenzylphthalate	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
3,3'-Dichlorobenzidine	800 U	1500 J	100000 U	100000 U	730 U	47000 U	3400 U	8300 U	8300 U	10 U	6300 U	10 U	7200 U	830 U
Benzo(a)anthracene	980	130000	25000	25000	230 J	3700	1400 J	1500 J	1500 J	10 U	510	10 U	480 JD	410
Chrysene	1100	82000	120000	120000	360	28000	3600	2700 J	2700 J	10 U	550	10 U	730 JD	480
bis(2-Ethylhexyl)phthalate	120 JB	1600 JB	3500 JB	3500 JB	330 JB	1500 JB	240 JB	330 JB	330 JB	2 JB	240 JB	2 JB	320 IDB	330 JB
Di-n-octylphthalate	400 U	38000 U	51000 U	51000 U	360 U	23000 U	1700 U	3200 U	3200 U	10 U	3200 U	10 U	3600 U	410 U
Benzo(b)fluoranthene	550	63000	100000	100000	390	12000 J	3400	4600	4600	10 U	590	10 U	510 JD	520
Benzo(k)fluoranthene	760	72000	97000	97000	310 J	12000 J	3500	3400	3400	10 U	450	10 U	440 JD	480
Benzo(a)pyrene	750	97000	130000	130000	310 J	22000 J	3700	1800 J	1800 J	10 U	360	10 U	370 JD	420
Indeno(1,2,3-cd)pyrene	92 J	31000 J	73000	73000	37 J	5800 J	790 J	170 J	170 J	10 U	170 J	10 U	160 JD	70 J
Dibenz(a,h)anthracene	36 J	11000 J	22000 J	22000 J	14 J	2500 J	270 J	81 J	81 J	10 U	360 U	10 U	67 JD	28 J
Benzo(g,h,i)perylene	73 J	26000 J	61000	61000	41 J	6600 J	620 J	260 J	260 J	10 U	260 J	10 U	200	

Table 3a - SVOCs in Soil Samples

Dilution Method Blank Client ID Lab Sample ID Date Sampled Units	4.00 SBLKUQ MW-6 (0-2)DBE 010651C-05 03/27/01 ug/Kg	4.00 SBLKUS MW-6 (0-2)DBE 010651C-05RE 03/27/01 ug/Kg	1.00 SBLKUQ MW-6 (6-9)DL 010651C-06 03/27/01 ug/Kg	5.00 SBLKUS MW-6 (6-9)DL 010651C-06DL 03/27/01 ug/Kg	1.00 SBLKUQ MW-6 (12-14) 010651C-07 03/27/01 ug/Kg	2.00 SBLKUS MW-10 (1-3) 010651C-08 03/27/01 ug/Kg	2.00 SBLKUQ MW-10 (1-3)RE 010651C-08RE 03/27/01 ug/Kg	1.00 SBLKUS MW-10 (3-5) 010651C-09 03/27/01 ug/Kg	1.00 SBLKUQ MW-10 (13-15) 010651C-10 03/27/01 ug/Kg	1.00 SBLKUQ MW-5 (2-4) 010651C-11 03/27/01 ug/Kg	10.0 SBLKUS MW-5 (2-4)DL 010651C-11DL 03/27/01 ug/Kg
Phenol	1500 U	1500 U	9 J	1900 U	8 J	740 U	740 U	390 U	20 J	400 U	4000 U
bis(2-Chloroethyl)ether	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2-Chlorophenol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
1,3-Dichlorobenzene	1500 U	1500 U	64 J	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
1,4-Dichlorobenzene	1500 U	1500 U	670	1900 U	570 U	740 U	740 U	390 U	680 U	2100	920 JD
Benzyl alcohol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
1,2-Dichlorobenzene	1500 U	1500 U	45 J	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2-Methylphenol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2,2'-oxybis(1-Chloropropane)	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
4-Methylphenol	1500 U	1500 U	23 J	1900 U	570 U	41 J	41 J	390 U	680 U	400 U	4000 U
N-Nitroso-di-n-propylamine	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Hexachloroethane	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Nitrobenzene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Isophorone	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2-Nitrophenol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2,4-Dimethylphenol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Benzoic acid	7200 U	7200 U	1900 U	9400 U	3600 U	36 J	36 J	1900 U	72 JB	2000 U	20000 U
bis(2-Chloroethoxy)methane	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2,4-Dichlorophenol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
1,2,4-Trichlorobenzene	730 J	770 J	430	420 JD	570 U	39 J	39 J	390 U	680 U	200 J	4000 U
Naphthalene	270 J	270 J	480	400 JD	6 J	110 J	110 J	42 J	7 J	400 U	4000 U
4-Chloroaniline	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Hexachlorobutadiene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
4-Chloro-3-methylphenol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2-Methylnaphthalene	250 J	270 J	170 J	160 JD	5 J	140 J	140 J	48 J	6 J	1100	4000 U
Hexachlorocyclopentadiene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2,4,6-Trichlorophenol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2,4,5-Trichlorophenol	7200 U	7200 U	1900 U	9400 U	3600 U	3600 U	3600 U	1900 U	3300 U	2000 U	20000 U
2-Chloronaphthalene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2-Nitroaniline	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Dimethylphthalate	630 J	430 J	120 J	180 U	12 J	56 J	56 J	26 J	14 J	400 U	4000 U
Acenaphthylene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
2,6-Dinitrotoluene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
3-Nitroaniline	7200 U	7200 U	1900 U	9400 U	3600 U	3600 U	3600 U	1900 U	3300 U	2000 U	20000 U
Acenaphthene	250 J	260 J	260 J	310 JD	570 U	31 J	31 J	17 J	8 J	400 U	4000 U
2,4-Dinitrophenol	7200 U	7200 U	1900 U	9400 U	3600 U	3600 U	3600 U	1900 U	3300 U	2000 U	20000 U
4-Nitrophenol	7200 U	7200 U	1900 U	9400 U	3600 U	3600 U	3600 U	1900 U	3300 U	2000 U	20000 U
Dibenzofuran	320 J	330 J	180 J	220 JD	3 J	26 J	26 J	11 J	680 U	400 U	4000 U
2,4-Dinitrotoluene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Diethylphthalate	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
4-Chlorophenyl-phenylether	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Fluorene	710 J	800 J	230 J	280 JD	4 J	20 J	20 J	7 J	7 J	400 U	4000 U
4-Nitroaniline	7200 U	7200 U	1900 U	9400 U	3600 U	3600 U	3600 U	1900 U	3300 U	2000 U	20000 U
4,6-Dinitro-2-methylphenol	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
N-Nitrosodiphenylamine (1)	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
4-Bromophenyl-phenylether	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Hexachlorobenzene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Pentachlorophenol	3600 U	3800 U	2400	2200 D	19 J	230 J	230 J	280 J	38 J	400 U	590 JD
Phenanthrene	1600	1300 J	700	640 JD	12 J	100 J	95 J	300 J	19 J	400 U	370 JD
Anthracene	520 J	750 J	270 J	390 JD	570 U	33 J	34 J	18 J	16 JB	400 U	4000 U
Carbazole	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Di-n-butylphthalate	4100	2700 D	2400	1400 JD	43 J	390 J	380 J	110 J	1000	400 U	4000 U
Fluoranthene	2000	2000	960 B	1400 JD	46 JB	530	530	89 JB	660 B	400 U	4000 U
Pyrene	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Butylbenzylphthalate	3000 U	3000 U	780 U	3900 U	1100 U	1500 U	1500 U	780 U	1400 U	800 U	8000 U
3,3'-Dichlorobenzidine	2200	2200	1200	1400 JD	27 J	220 J	260 J	40 J	500	500	960 JD
Benzo(e)anthracene	2400	2500	1000	1300 JD	31 J	390 J	400 J	49 J	540	400 U	4000 U
Chrysene	710 JB	800 JB	530 B	780 JDB	920 B	520 JB	520 JB	2800 B	2800 B	16000 EB	32000 DB
bis(2-Ethylhexyl)phthalate	1500 U	1500 U	390 U	1900 U	570 U	740 U	740 U	390 U	680 U	400 U	4000 U
Di-n-octylphthalate	1700	3000	1000	1600 JD	26 J	350 J	800	350 J	450	450	560 JD
Benzo(b)fluoranthene	2000	3500	850	1300 JD	31 J	460 J	420 J	450	440	440	620 JD
Benzo(k)fluoranthene	1700	1900	1200	1400 JD	29 J	280 J	290 J	41 J	490	490	960 JD
Benzo(e)pyrene	280 J	110 JD	1200	110 JD	22 J	740 U	740 U	47 J	680 U	610	170 JD
Indeno(1,2,3-cd)pyrene	140 J	1500 U	390	1900 U	8 J	740 U	740 U	20 J	680 U	220 J	76 JD
Dibenz(a,h)anthracene	200 J	110 J	1300	74 JD	30 J	740 U	740 U	35 J	640	640	150 JD
Benzo(g,h,i)perylene											

Table 3a - SVOCs in Soil Samples

Dilution Method Blank Client ID Lab Sample ID Date Sampled Units	10.0		10.0		10.0		10.0		10.0		2.00		1.00		1.00		1.00	
	SBLKUS	ug/Kg	SBLKUS	ug/Kg	SBLKUS	ug/Kg	SBLKUS	ug/Kg	SBLKUS	ug/Kg	SBLKUS	ug/Kg	SBLKUS	ug/Kg	SBLKUS	ug/Kg	SBLKUS	ug/Kg
Phenol	4500 U	3900 U	4000 U	3600 U	20 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
bis(2-Chloroethyl)ether	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	7 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2-Chlorophenol	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
1,3-Dichlorobenzene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
1,4-Dichlorobenzene	4500 U	3900 U	4000 U	3600 U	230 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Benzyl alcohol	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
1,2-Dichlorobenzene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2-Methylphenol	4500 U	3900 U	4000 U	3600 U	14 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2,2'-oxybis(1-Chloropropane)	4500 U	3900 U	4000 U	3600 U	120 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
4-Methylphenol	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
N-Nitroso-di-n-propylamine	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Hexachloroethane	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Nitrobenzene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Isophorone	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2-Nitrophenol	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2,4-Dimethylphenol	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Benzoic acid	22000 U	19000 U	19000 U	18000 U	220 JB	1800 U	4600 U	56 U	1700 U	1700 U	4600 U	56 U	1700 U	1700 U	1700 U	1700 U	1700 U	1700 U
bis(2-Chloroethoxy)methane	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2,4-Dichlorophenol	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
1,2,4-Trichlorobenzene	850 J	2400 J	2400 J	2600 J	1200	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Naphthalene	190 J	800 J	800 J	890 J	530	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
4-Chloroaniline	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Hexachlorobutadiene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
4-Chloro-3-methylphenol	190 J	350 J	350 J	380 J	220 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2-Methylnaphthalene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Hexachlorocyclopentadiene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2,4,6-Trichlorophenol	22000 U	19000 U	19000 U	18000 U	22000 U	19000 U	18000 U	19000 U	19000 U	19000 U	18000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U
2,4,5-Trichlorophenol	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2-Chloronaphthalene	22000 U	19000 U	19000 U	18000 U	22000 U	19000 U	18000 U	19000 U	19000 U	19000 U	18000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U
2-Nitroaniline	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Dimethylphthalate	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Acephenanthrene	370 J	490 J	490 J	440 J	280 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2,6-Dinitrotoluene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
3-Nitroaniline	22000 U	19000 U	19000 U	18000 U	22000 U	19000 U	18000 U	19000 U	19000 U	19000 U	18000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U
Acephenanthrene	170 J	280 J	280 J	310 J	200 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2,4-Dinitrophenol	22000 U	19000 U	19000 U	18000 U	22000 U	19000 U	18000 U	19000 U	19000 U	19000 U	18000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U
4-Nitrophenol	22000 U	19000 U	19000 U	18000 U	22000 U	19000 U	18000 U	19000 U	19000 U	19000 U	18000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U
Dibenzofuran	140 J	420 J	420 J	490 J	310 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
2,4-Dinitrotoluene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Diethylphthalate	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
4-Chlorophenyl-phenylether	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Fluorene	170 J	1400 J	1400 J	1600 J	860 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
4-Nitroaniline	22000 U	19000 U	19000 U	18000 U	22000 U	19000 U	18000 U	19000 U	19000 U	19000 U	18000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U
4,6-Dinitro-2-methylphenol	22000 U	19000 U	19000 U	18000 U	22000 U	19000 U	18000 U	19000 U	19000 U	19000 U	18000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U
N-Nitrosodiphenylamine (1)	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
4-Bromophenyl-phenylether	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Hexachlorobenzene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Pentachlorophenol	22000 U	19000 U	19000 U	18000 U	22000 U	19000 U	18000 U	19000 U	19000 U	19000 U	18000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U	19000 U
Phenanthrene	1300 J	2300 J	2300 J	2600 J	1400 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Anthracene	940 J	1800 J	1800 J	2000 J	1300 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Carbazole	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Di-n-butylphthalate	1700 J	1400 J	1400 J	1600 J	860 J	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Pyrene	4500 U	3900 U	4000 U	3600 U	820 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Butylbenzylphthalate	9000 U	7800 U	7800 U	7600 U	800 U	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
3,3'-Dichlorobenzidine	1200 J	2700 J	2700 J	3000 J	2100	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Benzo(a)anthracene	1600 J	2600 J	2600 J	3000 J	2100	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Chrysene	1600 J	2600 J	2600 J	3000 J	2100	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
bis(2-Ethylhexyl)phthalate	610 JB	4500 B	4500 B	6400 B	2600 B	370 U	960 U	11 U	360 U	370 U	960 U	11 U	360 U	360 U	360 U	360 U	360 U	360 U
Di																		

Table 3a - SVOCs in Soil Samples

Dilution 1
 Method Blank SBLKZR
 Client ID FB042701
 Lab Sample ID 011019A-06
 Date Sampled 04/26/01
 Units ug/L

Compound	10 U
Phenol	10 U
bis(2-Chloroethyl)ether	10 U
2-Chlorophenol	10 U
1,3-Dichlorobenzene	10 U
1,4-Dichlorobenzene	10 U
Benzyl alcohol	10 U
1,2-Dichlorobenzene	10 U
2-Methylphenol	10 U
2,2'-oxybis(1-Chloropropane)	10 U
4-Methylphenol	10 U
N-Nitroso-di-n-propylamine	10 U
Hexachloroethane	10 U
Nitrobenzene	10 U
Isophorone	10 U
2-Nitrophenol	10 U
2,4-Dimethylphenol	10 U
Benzoic acid	50 U
bis(2-Chloroethoxy)methane	10 U
2,4-Dichlorophenol	10 U
1,2,4-Trichlorobenzene	10 U
Naphthalene	10 U
4-Chloroaniline	10 U
Hexachlorobutadiene	10 U
4-Chloro-3-methylphenol	10 U
2-Methylnaphthalene	10 U
Hexachlorocyclopentadiene	10 U
2,4,6-Trichlorophenol	10 U
2,4,5-Trichlorophenol	50 U
2-Chloronaphthalene	10 U
2-Nitroaniline	50 U
Dimethylphthalate	10 U
Acenaphthylene	10 U
2,6-Dinitrotoluene	10 U
3-Nitroaniline	50 U
Acenaphthene	10 U
2,4-Dinitrophenol	50 U
4-Nitrophenol	50 U
Dibenzofuran	10 U
2,4-Dinitrotoluene	10 U
Diethylphthalate	10 U
4-Chlorophenyl-phenylether	10 U
Fluorene	10 U
4-Nitroaniline	20 U
4,6-Dinitro-2-methylphenol	50 U
N-Nitrosodiphenylamine (1)	10 U
4-Bromophenyl-phenylether	10 U
Hexachlorobenzene	10 U
Pentachlorophenol	50 U
Phenanthrene	10 U
Anthracene	10 U
Carbazole	10 U
Di-n-butylphthalate	10 U
Fluoranthene	10 U
Pyrene	10 U
Butylbenzophthalate	10 U
3,3-Dichlorobenzidine	20 U
Benzo(a)anthracene	10 U
Chrysene	10 U
Di-n-octylphthalate	10 U
bis(2-Ethylhexyl)phthalate	10 U
Benzo(b)fluoranthene	10 U
Benzo(k)fluoranthene	10 U
Benzo(a)pyrene	10 U
Indeno(1,2,3-cd)pyrene	10 U
Dibenz(a,h)anthracene	10 U
Benzo(g,h,i)perylene	10 U

Table 3b- Detected SVOCs in Soil Samples

Dilation Method Blank Client ID Lab Sample ID Date Sampled Units	1.00 SBLKRS B-1 (0-2) 010651A-01 03/21/01 ug/Kg	10.0 SBLKRS B-1 (2-4) 010651A-02 03/21/01 ug/Kg	5.00 SBLKRS B-2 (0-2) 010651A-03 03/21/01 ug/Kg	1.00 SBLKRS B-2 (2-4) 010651A-04 03/21/01 ug/Kg	25.0 SBLKRS B-3 (2-4) 010651A-05 03/21/01 ug/Kg	1.00 SBLKRS B-3 (4-6) 010651A-06 03/21/01 ug/Kg	200 SBLKRS B-4 (2-3) 010651A-07 03/21/01 ug/Kg	10.0 SBLKRS B-4 (5-7) 010651A-08 03/21/01 ug/Kg	25.0 SBLKRS B-4 (5-7)DL 010651A-08DL 03/21/01 ug/Kg	1.00 SBLKRS B-5 (1-3) 010651A-09 03/21/01 ug/Kg	1.00 SBLKRS B-5 (3-5) 010651A-10 03/21/01 ug/Kg	1.00 SBLKRS B-6 (0-2) 010651A-11 03/21/01 ug/Kg	1.00 SBLKRS B-6 (0-2)RE 010651A-11RE 03/21/01 ug/Kg	1.00 SBLKRS B-6 (4-6) 010651A-12 03/21/01 ug/Kg	1.00 SBLKRS B-7 (0-2) 010651A-13 03/22/01 ug/Kg
Compound															
Phenol	U	U	U	U	470 J	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzyl alcohol	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylphenol	U	U	U	U	1000 J	60 J	7500 J	U	U	U	U	U	U	55 J	U
4-Methylphenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4-Dimethylphenol	U	U	U	U	U	84 J	U	U	U	U	U	U	U	U	U
Benzoic acid	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Naphthalene	120 J	U	79 J	26 J	33000	690	560000	7200	7500 JD	200 J	140 J	46 J	46 J	110 J	1700
2-Methylnaphthalene	150 J	U	89 J	27 J	17000	390 J	220000	3900 J	4300 JD	160 J	120 J	54 J	54 J	65 J	190 J
2-Chloronaphthalene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	180 J	410 J	770 J	30 J	6300 J	220 J	74000 J	2400 J	2500 JD	95 J	78 J	69 J	67 J	1800	510
Acenaphthene	170 J	1100 J	360 J	U	14000	14000	190000	2400 J	3100 JD	88 J	77 J	U	U	140 J	65 J
Dibenzofuran	120 J	710 J	100 J	U	13000	490 J	140000 J	1600 J	1600 JD	110 J	95 J	U	U	75 J	53 J
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Fluorene	190 J	2000 J	460 J	U	25000	880	260000	3200 J	3600 JD	120 J	100 J	U	U	84 J	68 J
N-Nitrosodiphenylamine (1)	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	1700	19000	4200	140 J	77000	3700	1000000	28000	28000 D	700	650	160 J	160 J	440	440
Anthracene	530	6900	1600 J	47 J	31000	1400	340000	10000	10000 JD	310 J	310 J	81 J	100 J	1500	640
Carbazole	200 J	570 J	220 J	13 J	12000	430 J	150000	2200 J	1600 JD	69 J	56 J	U	U	97 J	140 J
Dl-n-butylphthalate	12 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Fluoranthene	2200	29000	9100	290 J	62000	3800	880000	31000	33000 D	1000	1100	210 J	250 J	1300	840
Pyrene	1800	20000	7900	260 J	48000	2700	750000	6800	10000 JD	800	670	260 J	210 J	980	780
Butylbenzylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(e)anthracene	1300	16000	6800	190 J	33000	1800	410000	6500	9200 JD	510	540	180 J	160 J	1100	420
Chrysene	1300	14000	6400	240 J	28000	1700	390000	7800	8400 JD	320 J	560	320 J	330 J	1100	590
bis(2-Ethylhexyl)phthalate	120 J	U	270 J	560	U	210 J	U	230 J	U	170 J	320 J	340 J	220 J	230 J	230 J
Dl-n-octylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)fluoranthene	1300	12000	5400	180 J	18000	1200	260000	6500	5200 JD	600	570	280 J	290 J	1800	1000
Benzo(k)fluoranthene	680	7300	4500	200 J	19000	1100	300000	6800	5900 JD	410	550	280 J	200 J	1000	590
Benzo(a)pyrene	1200	13000	6400	200 J	25000	1500	340000	6900	6800 JD	500	580	220 J	220 J	1600	540
Indeno(1,2,3-cd)pyrene	650	7700	4000	140 J	14000	770	220000	950 J	2900 JD	160 J	170 J	U	22 J	520	130 J
Dibenz(o,g,h)anthracene	240 J	2800 J	1600 J	58 J	5200 J	290 J	78000 J	380 J	1000 JD	72 J	72 J	U	U	140 J	45 J
Benzo(g,h,i)perylene	480	6400	3300	140 J	12000	610	250000	540 J	2100 JD	120 J	120 J	66 J	18 J	420	100 J
Total SVOCs (ppm)	14.642	158.89	63.648	2.741	493.97	24.474	6639.5	137.3	146.7	7.1	7.328	2.566	2.467	14.546	9.549
>500 total															
>50 individual															

Table 3b- Detected SVOCs in Soil Samples

Dilution	1.00	8.00	2.00	1.00	5.00	10.0	1.00	2.00	1.00	10.0	1.00	4.00	1.00	100.
Method Blank	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS	SBLKRS
Client ID	B-7 (0-2)RE	B-7 (2-4)	B-8 (2-4)	B-8 (4-6)	B-9 (0-2)	B-9 (0-2)DL	B-9 (4-6)	B-10 (0-2)	B-10 (6-8)	B-12 (1-3)	B-12 (3-5)	B-15 (4-6)	B-15 (6-8)	B-16 (0-2)
Lab Sample ID	010651A-13RE	010651A-14	010651A-15	010651A-16	010651A-17	010651A-17DL	010651A-18	010651A-19	010651A-20	010651B-01	010651B-02	010651B-03	010651B-04	010651B-05
Date Sampled	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/22/01	03/21/01	03/21/01	03/23/01	03/23/01	03/23/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound														
Phenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	28 J	2200 J	230 J	230 J	U	U	U	U	U	U	U	820 J	320 J	U
1,4-Dichlorobenzene	190 J	20000	440 J	660	U	U	U	U	U	U	U	1600	470	U
Benzyl alcohol	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	1100 J	U	U	U	U	U	U	U	U	U	56 J	20 J	U
2-Methylphenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzoic acid	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	1700	18000	300 J	230 J	400 J	430 JD	U	U	U	U	U	790 J	470	U
Naphthalene	110 J	130 J	390 J	18 J	280 J	310 JD	16 J	160 J	100 J	120 J	14 J	58 J	52 J	500 J
2-Methylnaphthalene	160 J	160 J	540 J	30 J	220 J	220 JD	10 J	240 J	170 J	160 J	16 J	94 J	70 J	550 J
2-Chloronaphthalene	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	460	750 J	820	14 J	310 J	U	13 J	1600	23 J	370 J	20 J	210 J	96 J	8700 J
Acenaphthene	59 J	U	270 J	35 J	U	U	18 J	130 J	52 J	770 J	29 J	U	130 J	3400 J
Dibenzofuran	43 J	U	160 J	16 J	90 J	U	11 J	45 J	51 J	420 J	24 J	U	35 J	2300 J
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Fluorene	54 J	220 J	340 J	44 J	U	U	20 J	120 J	100 J	920 J	43 J	280 J	150 J	4800 J
N-Nitrosodiphenylamine (1)	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	160 J	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	440	920 J	1600	240 J	440 J	460 JD	170 J	960 J	500	13000	560	1200 J	1200	63000
Anthracene	630	1200 J	850	65 J	400 J	380 JD	70 J	1400	130 J	3300 J	140 J	480 J	480	22000 J
Carbazole	140 J	U	150 J	23 J	U	U	11 J	40 J	53 J	950 J	40 J	U	U	2400 J
Di-n-butylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Fluoranthene	1000	3200 J	3400	250 J	470 J	650 JD	400	1800	460	17000	670	1900	1800	150000
Pyrene	550	1800 J	1800	240 J	550 J	550 JD	480	1500	500	11000	710	840 J	1300	130000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(e)anthracene	520	1400 J	1700	120 J	280 J	340 JD	260 J	1000 J	310 J	9200	390	800 J	980	93000
Chrysene	670	1700 J	1800	140 J	460 J	570 JD	250 J	1700	370 J	9600	430	870 J	1100	92000
bis(2-Ethylhexyl)phthalate	200 J	610 J	170 J	300 J	660 J	570 JD	410	310 J	990	180 JB	130 JB	6900 B	120 JB	1900 JB
Di-n-octylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(f)fluoranthene	890	1900 J	1900	100 J	680 J	690 JD	220 J	1100 J	190 J	7600	310 J	750 J	550	83000
Benzo(k)fluoranthene	720	1700 J	2000	94 J	290 J	480 JD	210 J	1000 J	170 J	8200	290 J	690 J	760	72000
Benzo(a)pyrene	520	1400 J	1400	98 J	290 J	350 JD	260 J	1300 J	180 J	8200	340 J	730 J	750	97000
Indeno(1,2,3-cd)pyrene	56 J	340 J	280 J	62 J	120 J	72 JD	200 J	130 J	130 J	2200 J	110 J	110 J	92 J	31000 J
Dibenz(a,h)anthracene	21 J	170 J	120 J	26 J	U	U	70 J	49 J	61 J	870 J	90 J	39 J	36 J	11000 J
Benzo(g,h,i)perylene	56 J	260 J	240 J	65 J	U	U	220 J	110 J	150 J	1700 J	240 J	77 J	73 J	26000 J
Total SVOCs (ppm)	9.377	59.16	20.9	3.1	5.94	6.072	3.319	14.694	4.69	95.76	4.768	19.394	11.054	896.05
>500 total														
>50 individual														

Table 3b- Detected SVOCs in Soil Samples

Division	Method ID	Client ID	Lab Sample ID	Date Sampled	Units	100.0	1.00	8.00	8.00	1.00	10.0	1.00	5.00	5.00	1.00	1.00	5.00	5.00	1.00		
						SBLKSR	SBLKTR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	SBLKSR	
						B-16 (0-2D)	FB032601	MW-12 (1-3)	MW-12 (1-3)RE	MW-12 (5-7)	MW-12 (5-7)DL	B-13 (1-3)	B-14 (1-3)	B-14 (1-3)RE	B-14 (1-3)	B-13 (1-3)	B-14 (1-3)	B-14 (1-3)RE	B-14 (1-3)	SBLKXR	
						010651B-06	010651B-10	010651B-09	010651B-12RE	010651B-13	010651B-13DL	010651B-14	010651B-15	010651B-15RE	010651B-16	010651B-14	010651B-15	010651B-15RE	010651B-16	MW-8 (1-3)	
						03/23/01	03/25/01	03/23/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	
						ug/kg	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Phenol						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,3-Dichlorobenzene						5 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,4-Dichlorobenzene						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Benzyl alcohol						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,2-Dichlorobenzene						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
2-Methylphenol						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
4-Methylphenol						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
2,4-Dimethylphenol						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Benzoic acid						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,2,4-Trichlorobenzene						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Naphthalene						840 J	U	22 J	490 J	590	690 JD	150 J	220 J	230 J	230 J	100 J	490 J	510 J	190 J	1600	
2-Methylnaphthalene						810 J	U	25 J	630 J	920	1100 JD	110 J	220 J	240 J	240 J	140 J	220 J	240 J	140 J	1600	
2-Chloronaphthalene						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Acenaphthylene						7400 J	U	430 J	870 J	U	280 JD	67 J	1500 J	2200	380 J	67 J	1500 J	2200	380 J	1600	
Acenaphthene						4700 J	U	360 J	330 J	U	280 JD	43 J	500 J	480 J	130 J	43 J	500 J	480 J	130 J	1600	
Dibenzofuran						3200 J	U	100 J	U	U	U	43 J	280 J	260 J	79 J	43 J	280 J	260 J	79 J	1600	
2,4-Dinitrotoluene						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Diethylphthalate						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Fluorene						6900 J	U	230 J	440 J	U	270 JD	30 J	420 J	340 J	120 J	30 J	420 J	340 J	120 J	1600	
N-Nitrosodiphenylamine (1)						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Pentachlorophenol						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Phenanthrene						80000	U	3500	1200 J	U	460 JD	600	3700	3500	1600	600	3700	3500	1600	1600	
Anthracene						25000 J	U	1100 J	720 J	U	310 JD	160 J	3000	4100	510	160 J	3000	4100	510	1600	
Carbazole						2700 J	U	120 J	U	U	U	52 J	U	430 J	300 J	52 J	U	430 J	300 J	300 J	
Di-n-butylphthalate						U	0.2 J	U	U	U	U	U	U	U	U	U	U	U	U	23 J	
Fluoranthene						180000	U	7200	3200	1100	1300 JD	830	9000	9500	2300	830	9000	9500	2300	2300	
Pyrene						260000	U	4400	3000 J	3400 E	1100 JD	480	5600	4400	2000	480	5600	4400	2000	2000	
Butylbenzylphthalate						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
3,3'-Dichlorobenzidine						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Benzo(a)anthracene						130000	U	3700	1500 J	510	480 JD	410	4400	4300	1600	410	4400	4300	1600	1600	
Chrysene						120000	U	3600	2700 J	550	730 JD	480	5000	5000	1900	480	5000	5000	1900	1900	
bis(2-Ethylhexyl)phthalate						3500 JB	2 JB	240 JB	370 JB	240 JB	320 JDB	330 JB	300 JB	290 JB	190 JB	330 JB	300 JB	290 JB	190 JB	190 JB	
Di-n-octylphthalate						U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Benzo(b)fluoranthene						100000	U	3400	3000 J	590	510 JD	520	4600	7600	2100	520	4600	7600	2100	2100	
Benzo(k)fluoranthene						97000	U	3500	1900 J	450	440 JD	480	4700	7900	1600	480	4700	7900	1600	1600	
Benzo(a)pyrene						130000	U	3700	1600 J	360	370 JD	420	5100	5500	1500	420	5100	5500	1500	1500	
Indeno(1,2,3-cd)pyrene						73000	U	790 J	170 J	U	160 JD	70 J	930 J	500 J	100 J	70 J	930 J	500 J	100 J	100 J	
Dibenzo(a,h)anthracene						22000 J	U	270 J	100 J	U	67 JD	28 J	350 J	170 J	40 J	28 J	350 J	170 J	40 J	40 J	
Benzo(g,h,i)perylene						81000	U	620 J	260 J	U	200 JD	57 J	790 J	430 J	80 J	57 J	790 J	430 J	80 J	80 J	
Total SVOCs (ppm)						1328.05	0.0022	63.44	64.871	65.965	66.767	5.512	51.234	58.175	17.015	5.512	51.234	58.175	17.015	17.015	
>500 total						*															
>50 individual						*															

Table 4a - Pesticides in Soil Samples

Dilution	10.0	10.0	20.0	1.00	50.0	2.00	50.0	500.	10.0	10.0	20.0	1.00	200.	2000	50.0	2.00
Method Blank	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86
Client ID	B-1 (0-2)	B-1 (2-4)	B-2 (0-2)	B-2 (2-4)	B-3 (2-4)	B-3 (4-6)	B-4 (2-3)	B-4 (5-7)	B-5 (3-5)	B-6 (0-2)	B-6 (0-2)	B-7 (0-2)	B-7 (0-2)	B-7 (2-4)	B-8 (2-4)	B-8 (4-6)
Lab Sample ID	010651A-01	010651A-02	010651A-03	010651A-04	010651A-05	010651A-06	010651A-07	010651A-08	010651A-09	010651A-10	010651A-11	010651A-12	010651A-13	010651A-14	010651A-15	010651A-16
Date Sampled	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/22/01	03/22/01	03/22/01	03/22/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	20 U	19 U	39 U	2 U	96 J	5 J	92 U	1200 U	18 U	19 U	36 U	2.1 U	370 U	4200 U	100 U	4 U
alpha-BHC	86 U	82 U	170 U	8.9 U	430 U	23 U	400 U	5300 U	78 U	84 U	160 U	9.2 U	1600 U	19000 U	440 U	18 U
beta-BHC	20 U	19 U	39 U	2 U	98 U	5.3 U	400	1200 U	42	56	36 U	2.1 U	540	6200	350	12
delta-BHC	20 U	19 U	39 U	2 U	98 U	5.3 U	92 U	1200 U	18 U	19 U	36 U	2.1 U	370 U	4200 U	100 U	4 U
gamma-BHC (lindane)	20 U	19 U	27 J	2 U	98 U	5.3 U	92 U	1200 U	18 U	19 U	36 U	2.1 U	370 U	4200 U	100 U	4 U
Heptachlor	20 U	19 U	39 U	2.7	91 J	5.3 U	82 U	1100 J	18 U	19 U	36 U	2.1 U	370 U	4200 U	340	11
Aldrin	20 U	19 U	39 U	2 U	98 U	5.3 U	92 U	1200 U	18 U	19 U	36 U	2.1 U	370 U	4200 U	100 U	4 U
Heptachlor Epoxide	20 U	19 U	39 U	2 U	98 U	5.3 U	92 U	1200 U	18 U	19 U	36 U	2.1 U	370 U	4200 U	100 U	4 U
Endosulfan I	38 U	36 U	75 U	3.9 U	190 U	10 U	180 U	2300 U	34 U	37 U	70 U	4 U	710 U	8200 U	190 U	7.7 U
Dieldrin	38 U	36 U	75 U	3.9 U	190 U	10 U	180 U	2300 U	34 U	37 U	70 U	4 U	710 U	8200 U	190 U	7.7 U
4,4'-DDE	38 U	36 U	75 U	3.9 U	190 U	10 U	180 U	2300 U	34 U	37 U	70 U	4 U	710 U	8200 U	190 U	7.7 U
Endosulfan II	38 U	36 U	75 U	3.9 U	190 U	10 U	180 U	2300 U	34 U	37 U	70 U	4 U	710 U	8200 U	190 U	7.7 U
4,4'-DDD	38 U	36 U	75 U	3.9 U	190 U	10 U	180 U	2300 U	34 U	37 U	70 U	4 U	710 U	8200 U	190 U	7.7 U
Endosulfan Sulfate	38 U	36 U	75 U	3.9 U	190 U	10 U	180 U	2300 U	34 U	37 U	70 U	4 U	710 U	8200 U	190 U	7.7 U
4,4'-DDT	200 U	190 U	390 U	3.9 U	980 U	53 U	920 U	12000 U	180 U	190 U	360 U	21 U	3700 U	42000 U	1000 U	40 U
Methoxychlor	38 U	36 U	75 U	3.9 U	190 U	10 U	180 U	2300 U	34 U	37 U	70 U	4 U	710 U	8200 U	190 U	7.7 U
Endrin ketone	45 U	43 U	89 U	4.6 U	220 U	4.6 J	210 U	2700 U	40 U	44 U	83 U	4.8 U	840 U	9700 U	230 U	9.1 U
alpha-Chlordane	20 U	19 U	250	0.97 J	98 U	5.3 U	92 U	1200 U	18 U	19 U	36 U	2.1 U	370 U	4200 U	100 U	4 U
gamma-Chlordane	20 U	19 U	220	0.86 J	98 U	5.3 U	56 J	1200 U	18 U	19 U	36 U	2.1 U	370 U	4200 U	100 U	4 U
Toxaphene	1300 U	1200 U	2500 U	130 U	6400 U	340 U	5900 U	77000 U	1100 U	1200 U	2300 U	130 U	24000 U	270000 U	6500 U	260 U

Table 4a - Pesticides in Soil Samples

Dilution	20.0	1.00	10.0	10.0	50.0	10.0	20.0	20.0	1.00	10.0	1.00	1.00	100.	100.
Method	PBLK86	PBLK86	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK86	PBLK82	PBLK82
Client ID	B-9 (0-2)	B-10 (6-8)	B-12 (1-3)	B-12 (3-5)	B-15 (4-6)	B-15 (6-8)	B-16 (0-2)	B-16 (0-2D)	B-17 (0-2)	B-17 (2-4)	B-16 (4-6)	FB032601	MW-12 (1-3)	MW-12 (5-7)
Lab Sample ID	010651A-17	010651A-20	010651B-01	010651B-02	010651B-03	010651B-04	010651B-05	010651B-06	010651B-07	010651B-08	010651B-09	010651B-10	010651B-12	010651B-13
Date Sampled	03/22/01	03/22/01	03/21/01	03/21/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/26/01	03/26/01	03/26/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/Kg	ug/Kg
Compound	41 U	2.3 U	18 U	20 U	100 U	20 U	38 U	38 U	1.9 U	43	2 U	0.061 U	190 U	200 U
alpha-BHC	180 U	10 U	80 U	88 U	450 U	89 U	170 U	170 U	8.5 U	30 J	8.6 U	0.061 U	120 J	880 U
beta-BHC	100	2.3 U	18 U	20 U	100 U	20 U	38 U	38 U	1.9 U	19 U	2 U	0.061 U	190 U	200 U
delta-BHC	41 U	2.3 U	18 U	20 U	100 U	20 U	38 U	38 U	1.9 U	19 U	2 U	0.061 U	190 U	200 U
gamma-BHC (Lindane)	41 U	2.3 U	18 U	20 U	100 U	20 U	38 U	38 U	1.9 U	19 U	2 U	0.061 U	190 U	200 U
Heptachlor	41 U	2.3 U	18 U	20 U	100 U	150	17 J	21 J	1.9 U	19 U	2 U	0.061 U	190 U	200 U
Aldrin	41 U	2.4	18 U	20 U	100 U	20 U	18 J	120	1.9 U	19 U	2 U	0.061 U	190 U	200 U
Heptachlor Epoxide	41 U	2.3 U	18 U	20 U	100 U	20 U	38 U	38 U	1.9 U	19 U	2 U	0.061 U	190 U	200 U
Endosulfan I	80 U	4.4 U	35 U	39 U	200 U	39 U	74 U	74 U	3.7 U	37 U	3.8 U	0.12 U	380 U	350 U
Dieldrin	80 U	4.4 U	35 U	39 U	200 U	39 U	74 U	74 U	3.7 U	37 U	3.8 U	0.12 U	380 U	350 U
4,4'-DDE	80 U	4.4 U	35 U	39 U	200 U	39 U	74 U	74 U	3.7 U	37 U	3.8 U	0.12 U	380 U	350 U
Endrin	270	77 J	160	130	670	230	250	250	20	76	3.8 U	0.12 U	770	1800
Endosulfan II	80 U	2.5 J	35 U	39 U	200 U	39 U	74 U	74 U	3.7 U	37 U	3.8 U	0.12 U	380 U	350 U
4,4'-DDD	80 U	4.4 U	35 U	39 U	200 U	39 U	74 U	74 U	3.7 U	37 U	3.8 U	0.12 U	380 U	350 U
Endosulfan Sulfate	80 U	4.4 U	35 U	39 U	200 U	39 U	74 U	74 U	3.7 U	37 U	3.8 U	0.12 U	380 U	350 U
4,4'-DDT	80 U	4.4 U	35 U	39 U	200 U	39 U	74 U	74 U	3.7 U	37 U	3.8 U	0.12 U	380 U	350 U
Methoxychlor	410 U	23 U	180 U	200 U	1000 U	200 U	380 U	380 U	19 U	190 U	20 U	0.81 U	1900 U	2000 U
Endrin ketone	80 U	4.4 U	35 U	39 U	200 U	13 J	74 U	74 U	5	37 U	8	0.12 U	380 U	280 J
Endrin aldehyde	94 U	200 U	41 U	46 U	230 U	46 U	88 U	88 U	4.4 U	44 U	4.5 U	0.12 U	450 U	460 U
alpha-Chlordane	41 U	2.3 U	18 U	20 U	100 U	20 U	38 U	38 U	1.9 U	19 U	2 U	0.061 U	190 U	200 U
gamma-Chlordane	41 U	2.3 U	18 U	20 U	100 U	20 U	38 U	38 U	1.9 U	17 J	2 U	0.061 U	190 U	200 U
Toxaphene	2600 U	150 U	1200 U	1300 U	6600 U	1300 U	2500 U	2500 U	120 U	1200 U	130 U	3 U	13000 U	13000 U

Table 4a - Pesticides in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	20.0	50.0	20.0	2.00	1.00	20.0	100.	1	20	20.0	200	1	1000	1			
						PBLK82	PBLK82	PBLK94	PCBLK94	PCBLK94	PBLK94	PBLK94	BLKID	BLKID	PBLK13	BLKID	BLKID	BLKID	BLKID	BLKID		
						B-13 (1-37)	B-14 (1-37)	MW-8 (1-37)	MW-8 (5-7)	MW-8 (9-11)	MW-9 (1-3)	MW-9 (3-5)	MW-9(9-11)	MW-12(9-11)	MW-6 (0-27D)	MW-6(6-8)	MW-6(12-14)	MW-10(L-3)	MW-10 (3-5)			
						010651B-14	010651B-15	010651B-16	010651B-17	010651B-18	010651B-19	010651B-20	227760-01	227760-02	010651C-05	227760-08	227760-09	227760-10	227760-11			
						03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01		
						ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound																						
alpha-BHC						38 U	100 U	42 U	4.1 U	4.3 U	38 U	200 U	2.7 U	80 U	38 U	410 U	2.9 U	1900 U	2.9 U	1900 U	2.1 U	
beta-BHC						170 U	440 U	190 U	18 U	19 U	170 U	860 U	2.7 U	90 U	170 U	410 U	2.9 U	1900 U	2.9 U	1900 U	2.1 U	
delta-BHC						38 U	100 U	42 U	7.3	4.3 U	38 U	200 U	2.7 U	90 U	38 U	410 U	2.9 U	1900 U	2.9 U	1900 U	2.1 U	
gamma-BHC (Lindane)						38 U	100 U	42 U	4.1 U	4.3 U	38 U	200 U	2.7 U	90 U	38 U	410 U	2.9 U	1900 U	2.9 U	1900 U	2.1 U	
Heptachlor						38 U	100 U	42 U	4.1 U	4.3 U	38 U	200 U	2.7 U	90 U	38 U	410 U	2.9 U	1900 U	2.9 U	1900 U	2.1 U	
Aldrin						38 U	100 U	42 U	4.1 U	4.3 U	38 U	200 U	2.7 U	90 U	38 U	410 U	2.9 U	1900 U	2.9 U	1900 U	2.1 U	
Heptachlor Epoxide						38 U	100 U	42 U	4.1 U	4.3 U	38 U	200 U	2.7 U	90 U	38 U	410 U	2.9 U	1900 U	2.9 U	1900 U	2.1 U	
Endosulfan I						38 U	100 U	42 U	4.1 U	4.3 U	38 U	200 U	2.7 U	90 U	38 U	410 U	2.9 U	1900 U	2.9 U	1900 U	2.1 U	
Dieldrin						73 U	200 U	82 U	8 U	8.4 U	73 U	380 U	5.4 U	180 U	74 U	810 U	5.9 U	3700 U	5.9 U	3700 U	4.1 U	
4,4'-DDE						73 U	200 U	82 U	8 U	8.4 U	73 U	380 U	5.4 U	180 U	74 U	810 U	5.9 U	3700 U	5.9 U	3700 U	4.1 U	
Endrin						150	250	450	16	8.4 U	73 U	2200	5.4 U	180 U	230	810 U	5.9 U	3700 U	5.9 U	3700 U	4.1 U	
Endosulfan II						73 U	200 U	82 U	8 U	8.4 U	73 U	380 U	5.4 U	180 U	74 U	810 U	5.9 U	3700 U	5.9 U	3700 U	4.1 U	
4,4'-DDD						73 U	200 U	82 U	8 U	8.4 U	73 U	380 U	5.4 U	180 U	74 U	810 U	5.9 U	3700 U	5.9 U	3700 U	4.1 U	
Endosulfan Sulfate						73 U	200 U	82 U	8 U	8.4 U	73 U	380 U	5.4 U	180 U	74 U	810 U	5.9 U	3700 U	5.9 U	3700 U	4.1 U	
4,4'-DDT						380 U	1000 U	420 U	41 U	43 U	380 U	2000 U	27 U	900 U	380 U	4100 U	29 U	19000 U	29 U	19000 U	21 U	
Methoxychlor						62 J	26 J	110	8 U	8.4 U	73 U	400	5.4 U	180 U	74 U	810 U	5.9 U	3700 U	5.9 U	3700 U	4.1 U	
Endrin ketone						86 U	230 U	97 U	9.5 U	9.9 U	86 U	450 U	5.4 U	180 U	87 U	810 U	5.9 U	3700 U	5.9 U	3700 U	4.1 U	
alpha-Chlordane						38 U	100 U	42 U	5	4.3 U	38 U	200 U	2.7 U	89 U	38 U	400 U	2.9 U	1900 U	2.9 U	1900 U	2 U	
gamma-Chlordane						38 U	100 U	42 U	4.1 U	4.3 U	27 J	200 U	2.7 U	89 U	38 U	400 U	2.9 U	1900 U	2.9 U	1900 U	2 U	
Toxaphene						2400 U	6500 U	2700 U	270 U	280 U	2400 U	13000 U	130 U	4500 U	2500 U	20000 U	150 U	93000 U	150 U	93000 U	100 U	

Table 4a - Pesticides in Soil Samples

Dilution	50.0	200.	20	200	50	100	100	1
Method Blank	PBLK97	PBLK97	PBLK63	PBLK63	PBLK63	PBLK63	PBLK63	PBLK62
Client ID	MW-2 (1-37)	MW-2 (3-57)	S-1 (0-6)	S-2 (0-6)	S-3 (0-6)	S-4D (0-6)	S-4 (0-6)	FB042701
Lab Sample ID	010651D-06	010651D-07	011019A-01	011019A-02	011019A-03	011019A-04	011019A-05	011019A-06
Date Sampled	03/29/01	03/29/01	37007	37007	37007	37007	37007	37007
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L
Compound								
alpha-BHC	99 U	390 U	41 U	380 U	140 U	340 U	370 U	0.05 U
beta-BHC	440 U	1700 U	180 U	1700 U	620 U	1500 U	1600 U	0.05 U
delta-BHC	310	1000	41 U	390 U	140 U	340 U	370 U	0.05 U
gamma-BHC (Lindane)	99 U	390 U	41 U	390 U	140 U	340 U	370 U	0.05 U
Heptachlor	99 U	390 U	41 U	390 U	140 U	340 U	370 U	0.05 U
Aldrin	1400	3500	41 U	390 U	140 U	340 U	370 U	0.05 U
Heptachlor Epoxide	99 U	390 U	41 U	390 U	140 U	340 U	370 U	0.05 U
Endosulfan I	99 U	390 U	41 U	390 U	140 U	340 U	370 U	0.05 U
Dieldrin	190 U	750 U	79 U	760 U	270 U	660 U	710 U	0.1 U
4,4'-DDE	190 U	750 U	79 U	760 U	270 U	660 U	710 U	0.1 U
Endrin	880	2200	140	2600	270 U	970	1400	0.1 U
Endosulfan II	190 U	750 U	79 U	760 U	270 U	660 U	710 U	0.1 U
4,4'-DDD	190 U	750 U	79 U	760 U	270 U	660 U	710 U	0.1 U
Endosulfan Sulfate	190 U	750 U	79 U	760 U	270 U	660 U	710 U	0.1 U
4,4'-DDT	190 U	750 U	79 U	760 U	270 U	660 U	710 U	0.1 U
Methoxychlor	990 U	3900 U	410 U	3900 U	1400 U	3400 U	3700 U	0.5 U
Endrin ketone	190 U	750 U	79 U	760 U	270 U	660 U	710 U	0.1 U
alpha-Chlordane	230 U	890 U	94 U	900 U	320 U	770 U	840 U	0.1 U
gamma-Chlordane	99 U	390 U	36 J	390 U	68 J	340 U	370 U	0.05 U
Toxaphene	99 U	390 U	23 J	390 U	140 U	240 J	370 U	0.05 U
	6400 U	25000 U	2600 U	25000 U	9100 U	22000 U	24000 U	2.5 U

Table 4b - Detected Pesticides in Soil Samples

Dilution	10.0	10.0	20.0	1.00	50.0	2.00	50.0	10.0	10.0	10.0	20.0	1.00	200.	2000	50.0	2.00
Method Blank	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86	PBLK86
Client ID	B-1 (0-2)	B-1 (2-4)	B-2 (0-2)	B-2 (2-4)	B-3 (2-4)	B-3 (4-6)	B-4 (2-3)	B-4 (5-7)	B-5 (1-3)	B-5 (3-5)	B-6 (0-2)	B-6 (4-6)	B-7 (0-2)	B-7 (2-4)	B-8 (2-4)	B-8 (4-6)
Lab Sample ID	010651A-01	010651A-02	010651A-03	010651A-04	010651A-05	010651A-06	010651A-07	010651A-08	010651A-09	010651A-10	010651A-11	010651A-12	010651A-13	010651A-14	010651A-15	010651A-16
Date Sampled	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/21/01	03/22/01	03/22/01	03/22/01	03/22/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Compound	U	U	U	U	U	5 J	U	U	U	U	U	U	U	U	U	U
alpha-BHC	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
delta-BHC	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Heptachlor	U	U	27 J	U	U	U	U	U	U	U	U	U	U	U	U	U
Aldrin	U	U	U	2.7	91 J	U	U	1100 J	U	U	U	U	U	U	U	U
Heptachlor Epoxide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Endosulfan II	U	U	U	U	U	U	U	U	U	U	51 J	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
alpha-Chlordane	U	U	250	0.97 J	U	4.6 J	U	U	U	U	U	U	U	U	U	U
gamma-Chlordane	U	U	220	0.86 J	U	U	58 J	U	U	U	U	U	U	U	U	U
Total Pest (ppm)	0.024	0.497	0.00453	0.187	0.00986	0.638	6.3	0.042	0.056	0.051	1.54	13.9	1.31	0.042		

Table 4b - Detected Pesticides in Soil Samples

Dilution	20.0	1.00	50.0	1.00	10.0	10.0	20.0	20.0	10.0	10.0	1.00	10.0	1.00	1.00	100.	100.
Method Blank	PBLK86	PBLK86	PBLK86	PBLK86	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK82	PBLK88	PBLK82	PBLK82	PBLK82
Client ID	B-9 (0-2)	B-10 (0-2)	B-10 (6-8)	B-12 (1-3)	B-12 (3-5)	B-15 (4-6)	B-15 (6-8)	B-16 (0-2)	B-16 (0-2)	B-16 (0-2D)	B-17 (0-2)	B-17 (2-4)	B-16 (4-6)	B-17 (1-3)	MW-12 (5-7)	MW-12 (5-7)
Lab Sample ID	010651A-17	010651A-19	010651A-20	010651B-01	010651B-02	010651B-03	010651B-04	010651B-05	010651B-06	010651B-08	010651B-07	010651B-08	010651B-09	010651B-10	010651B-12	010651B-13
Date Sampled	03/22/01	03/22/01	03/22/01	03/21/01	03/21/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/23/01	03/26/01	03/26/01	03/26/01
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/Kg	ug/Kg	ug/Kg
Compound	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
alpha-BHC	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
delta-BHC	100	110	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aldrin	U	U	U	U	U	U	150	17 J	21 J	U	U	U	U	U	U	U
Heptachlor Epoxide	U	U	2.4	U	U	U	U	18 J	120	U	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Endosulfan II	270	77 J	2.5 J	160	130	670	230	250	250	250	20	76	U	U	770	1800
4,4'-DDT	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U	U	U	U	U	U	U	3.8	U	U	2200
Endrin aldehyde	U	U	U	U	U	U	13 J	U	U	U	5	U	8	U	U	280 J
alpha-Chlordane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
gamma-Chlordane	U	U	U	U	U	U	U	U	U	U	1.9	U	U	U	U	U
Total Pest (ppm)	0.37	0.0016	0.187	0.16	0.13	0.729	0.393	0.285	0.391	0.0269	0.166	0.0118	1.99	4.28		

Table 4b - Detected Pesticides in Soil Samples

Dieldrin	20.0	50.0	20.0	20.0	1.00	20.0	100.	1	20	1000	20.0	200	1	1000	1
Method Blank	PBLK32	PBLK32	PBLK94	PBLK94	PCBLK94	PBLK94	PBLK94	BLKID	BLKID	BLKID	PBLK13	BLKID	BLKID	BLKID	BLKID
Client ID	B-13 (1-3)	B-14 (1-3)	MW-8 (1-3)	MW-9 (1-3)	MW-8 (9-11)	MW-9 (1-3)	MW-9 (3-5)	MW-9(9-11)	MW-12(9-11)	MW-6(0-2)	MW-6 (0-2D)	MW-6(6-8)	MW-6(12-14)	MW-10(1-3)	MW-10 (3-5)
Lab Sample ID	010651B-14	010651B-15	010651B-16	010651B-17	010651B-18	010651B-19	010651B-20	227760-01	227760-02	227760-03	010651C-05	227760-08	227760-09	227760-10	227760-11
Date Sampled	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Compound	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
alpha-BHC	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
delta-BHC	U	U	U	7.3	U	U	U	U	U	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aldrin	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Heptachlor Epoxide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4,4'-DDE	150	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Endrin	U	250	U	U	U	U	2200	U	U	U	U	U	U	U	U
Endosulfan II	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Endrin ketone	62 J	26 J	U	U	6.9 J	U	400	U	U	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
alpha-Chlordane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
gamma-Chlordane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Pest (ppm)	0.212	0.276	0.56	0.0283	0.0069	0.027	2.6	0.0078	0.23	0.0078	0.23	0.0078	0.23	0.0078	0.23

Table 4b - Detected Pesticides in Soil Samples

Dilution	50.0	200.	20	200	50	100	100	100	1
Method Blank	PBLK97	PBLK97	PBLK63	PBLK63	PBLK63	PBLK63	PBLK63	PBLK63	PBLK62
Client ID	MW-2 (1-3)	MW-2 (3-5)	S-1 (0-6)	S-2 (0-6)	S-3 (0-6)	S-4D (0-6)	S-4 (0-6)	S-4 (0-6)	FB042701
Lab Sample ID	010651D-06	010651D-07	011019A-01	011019A-02	011019A-03	011019A-04	011019A-05	011019A-06	011019A-06
Date Sampled	03/29/01	03/29/01	37007	37007	37007	37007	37007	37007	37007
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L
Compound									
alpha-BHC	U	U	U	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U	U	U	U
delta-BHC	310	1000	U	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U	U	U	U
Aldrin	1400	3500	U	U	U	U	U	U	U
Heptachlor Epoxide	U	U	U	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U	U	U	U
Endrin	880	2200	140	2600	U	970	1400	U	U
Endosulfan II	U	U	U	U	U	U	U	U	U
4,4'-DDT	U	U	270	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	68 J	U	U	U	U
alpha-Chlordane	U	U	36 J	U	U	U	U	U	U
gamma-Chlordane	U	U	23 J	U	U	240 J	U	U	U
Total Pest (ppm)	2.59	6.7	0.469	2.6	0.068	1.21	1.4		

Table 5 - Metals in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Compound	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	
739 *	0.31 U	4.5	73.3	0.19 B	0.1 B	37400	3.2	1.5 B	47	4620	280	18000	26.7	0.57	4.5 B	163 B	0.084 U	213 B	1.7 U	6.5 B	52.9			
6360 *	0.27 U	2.2	44.5	0.27 B	0.069 B	15000	14.4	5.3 B	15.5	12400	23.5	4550	0.043	0.47	2.9 B	220 B	0.47 U	0.072 U	1.6 U	1.5 U	20.2	26		
813 *	0.29 U	2.7	35.7 B	0.1 B	0.63 B	93600	2.8	1.4 B	201	3540	69.7	56400	95	0.47	2.9 B	220 B	0.5 U	0.078 U	212 B	8.5 B	66.8			
2250 *	0.38 U	15.4	46.2 B	0.32 B	0.076 U	1540	6.7	5 B	24.7	14400	124	868 B	105	0.068	11.8	604 B	0.79 B	0.1 U	1590	2.1 U	11.4 B	30.4		
2920	0.92 BN	4.5	172	0.26 B	0.43 B	39300	7.1	7.4 B	341 N	8500	74.6	19300	93.9	0.22 N	22.3	532 B	1	0.081 U	1140	12.7	184			
7020	1.8 BN	3.7	51.1	0.22 B	0.34 B	2830	18	6.8 B	24.5 N	13600	70.2	2550	159	0.14 N	19.6	1070 B	0.85 U	0.16 B	872 B	2.1 B	22.1	49.8		
9230	1.6 BN	10	142	0.35 B	1.2 B	4370	26	9.4 B	164 N	41700	200	2450	318	0.098 N	57.5	1200 B	1.3	1.5 B	1340	26.8	255			
10400	1.3 BN	7.4	140	0.41 B	1.8	3340	64.1	9 B	103 N	42100	191	3860	274	0.096 N	111	1170 B	0.88 U	0.2 B	1290	56.4	249			
6840	0.95 BN	8.4	41.8 B	0.22 B	0.55 B	18400	12.6	6.8 B	46.1 N	15700	80.5	9480	187	0.13 N	15.3	926 B	0.9 B	1050 B	0.9 U	31.4	58.4			
6700	0.76 UN	11.3	47.8	0.29 B	0.54 B	13600	14.4	7.3 B	38.7 N	16500	93.4	6600	222	0.1 N	16.2	1040 B	0.81 B	1030 B	0.086 U	38.4	62.6			
3630	0.76 UN	22.7	55.4	0.37 B	0.66 B	40300	6.5	5.9 B	59.9 N	12900	53.4	22700	72.4	1 N	12.6	546 B	1.7	1240	0.086 U	31.3	59.6			
2280	0.78 UN	12.2	44.4	0.34 B	0.49 B	41100	7.1	4.5 B	42.6 N	9370	168	23700	55.6	0.63 N	17.8	314 B	0.086 U	1070 B	0.9 B	14.7	95.6			
5750	0.86 UN	12.2	44.4	0.34 B	0.49 B	41100	7.1	4.5 B	42.6 N	9370	168	23700	55.6	0.63 N	17.8	314 B	0.086 U	1070 B	0.9 B	14.7	95.6			
0.86 UN	1.2 B	38.6 B	0.13 B	0.24 B	1140 B	16.6	16.6	5.6 B	18.4 N	16200	3.9	1760	251	0.022 N	0.1 U	1120 B	0.095 U	908 B	1 U	19.1	22.5			
1.5 U	2.4 U	1.4 B	0.1 U	0.3 U	653 B	0.5 U	0.5 U	0.5 U	1.5 B	26.9 B	2.2 U	131 B	0.81 B	0.1 U	1 U	32 U	2.6 U	0.4 U	115 B	8.2 U	0.4 U	4.3 B		

Table 5 - Metals in Soil Samples

Dilation Method Blank Client ID Lab Sample ID Date Sampled	1.00 W041001 MW-3 (1-3) 010651C-20 03/28/01	1.00 W040501 MW-3 (3-5) 010651D-01 03/28/01	1.00 W040501 MW-7 (0-2) 010651D-02 03/29/01	1.00 W040501 MW-7 (4-6) 010651D-03 03/29/01	1.00 W040501 MW-1 (1-3) 010651D-04 03/29/01	1.00 W040501 MW-1 (5-7) 010651D-05 03/29/01	1.00 W040501 MW-2 (1-3) 010651D-06 03/29/01	1.00 W040501 MW-2 (3-5) 010651D-07 03/29/01	1.00 W051101 S-1 (0-6) 011019A-01 04/26/01	1.00 W051101 S-2 (0-6) 011019A-02 04/26/01	1.00 W051101 S-3 (0-6) 011019A-03 04/26/01	1.00 W051101 S-4 (0-6) 011019A-05 04/26/01
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Compound	6800	5850 *	9790 *	5860 *	4130 *	5450 *	1780 *	4950 *	5380	3890	4630	7780
Aluminum	0.32 B	0.3 UN	0.27 UN	0.24 UN	0.83 BN	0.29 UN	1.1 BN	2.8 BN	8.5 U	8.8 U	12 U	16.1 U
Antimony	9.5	10.8	10.3	2.1	11.5	7.4	16.3	10.2	8.4	15.2	21.8	42.6
Arsenic	100	43.7	66.5	57.3	163	82.9	146	330	115	354	134	25.4
Barium	2000	0.36 B	0.46 B	0.43 B	0.4 B	0.27 B	0.29 B	0.23 B	1.1 U	1.1 U	1.5 U	215
Beryllium	20	0.072 B	0.3 B	0.048 U	0.46 B	0.28 B	2.2	4.7	3.1	10.3	3 U	2.1 U
Cadmium	2950	2930	2730	1600	9500	12400	7290	9120	58500	393000	6650	6
Calcium	100	17.8 *	32	21.2	12.8	45	9.8	24.6	113	121	47.3	13600
Chromium	6 B	6.2 B	6.7 B	8.5	5.2 B	5.2 B	2.9 B	6.4 B	7.1	26.1	9.4	141
Cobalt	38.7	44.5	42.4	20.3	78.4	48.2	609	149	78.2	124	248	16.5
Copper	17900 *	21400	15500	17100	11800	14100	9610	36000	36500	187000	37900	881
Iron	64.5	64.8	170	8.4	494	249	393	1570	466	362	521	130000
Lead	2220	2030	2360	2430	4290	6690	3340	2360	4840	3300	3440	921
Magnesium	339	297	364	262	140	167	62.9	412	254	1280	630	8100
Manganese	0.18	0.12	0.22	0.021	0.91	0.84	0.22	0.21	3.1	3.4	6.6	796
Mercury	4	15.7	16.8	16.9	14.4	18	13.6	18.8	20.6	47.9	36.6	378
Nickel	1020	901 B	1170	2050	754 B	1060	199 B	722 B	1490	913	803	94.4
Potassium	0.47 B	0.52 U	0.7 B	0.41 U	0.63 B	0.67 B	0.97 B	0.57 U	10.6 U	11 U	15 U	1440
Selenium	0.071 U	0.1 B	0.4 B	0.064 U	0.33 B	0.18 B	0.98 B	4.5	62.5	9.5	3.1	21.1 U
Silver	226 B	161 B	157 B	308 B	241 B	401 B	104 B	299 B	1610	599	640	32.7
Sodium	1.5 U	1.9 BN	1.5 UN	1.3 UN	1.5 UN	2.6 BN	1.6 UN	3.2 BN	16 U	16.4 U	22.6 U	752
Thallium	22.4	20.2	38.5	23.8	38.2	27.6	16.1	17	15.8	14.5	39.4	31.6 U
Vanadium	59.5	69.8	108	39.7	385	129	176	993	579	912	410	57.3
Zinc												840

Table 6 - Cyanide in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		B-8 (2-4)	010651A-15	03/22/01	mg/Kg	2.77													
		B-8 (4-6)	010651A-16	03/22/01	mg/Kg	0.75	U												
		B-9 (0-2)	010651A-17	03/22/01	mg/Kg	0.58	U												
		B-9 (4-6)	010651A-18	03/22/01	mg/Kg	0.56	U												
		B-10 (0-2)	010651A-19	03/22/01	mg/Kg	3.38													
		B-10 (6-8)	010651A-20	03/22/01	mg/Kg	0.66	U												
		B-12 (1-3)	010651B-01	03/21/01	mg/Kg	0.54	U												
		B-12 (3-5)	010651B-02	03/21/01	mg/Kg	0.57	U												
		B-15 (4-6)	010651B-03	03/23/01	mg/Kg	0.64	U												
		B-15 (6-8)	010651B-04	03/23/01	mg/Kg	0.6	U												
		B-16 (0-2)	010651B-05	03/23/01	mg/Kg	0.57	U												
		B-16 (0-2D)	010651B-06	03/23/01	mg/Kg	0.54	U												
		B-17 (0-2)	010651B-07	03/23/01	mg/Kg	0.55	U												
		B-17 (2-4)	010651B-08	03/23/01	mg/Kg	0.56	U												
Compound																			
Cyanide, Total																			

Table 6 - Cyanide in Soil Samples

Dilation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Method Blank																			
Client ID	B-16 (4-6)	MW-12 (1-3)	MW-12 (5-7)	B-13 (1-3)	B-14 (1-3)	MW-8 (1-3)	MW-8 (5-7)	MW-8 (9-11)	MW-9 (1-3)	MW-9 (3-5)	MW-9 (9-11)	MW-12 (9-11)							
Lab Sample ID	010651B-09	010651B-12	010651B-13	010651B-14	010651B-15	010651B-16	010651B-17	010651B-18	010651B-19	010651B-20	010651C-01	010651C-02							
Date Sampled	03/23/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01	03/26/01							
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg							
Compound																			
Cyanide, Total	0.6 U	0.56 U	0.6 U	0.57 U	0.56 U	0.6 U	0.59 U	1.66 U	0.55 U	0.59 U	0.93 U	1.33 U							

Table 6 - Cyanide in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		B-14 (7-9)	MW-6 (0-2)	MW-6 (0-2D)	MW-6 (6-8)	MW-6 (12-14)	MW-10 (1-3)	MW-10 (3-5)	MW-10 (13-15)	MW-5 (2-4)	MW-5 (4-6)	B-11 (3-5)	B-11 (5-7)	MW-11 (1-3)					
		010651C-03	010651C-04	010651C-05	010651C-06	010651C-07	010651C-08	010651C-09	010651C-10	010651C-11	010651C-12	010651C-13	010651C-14	010651C-15					
		03/26/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/27/01	03/28/01	03/28/01	03/28/01					
		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
Compound																			
Cyanide, Total		0.74 U	0.56 U	0.56 U	0.63 U	0.88 U	0.56 U	0.64 U	1.05 U	0.62 U	0.7 U	0.58 U	0.63 U						

Table 6 - Cyanide in Soil Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1	1	1	1	1	1	1	1	1	1	1	1	1
		MW-11 (11-13)	010651C-16	03/28/01	mg/Kg	1.25 U												
		MW-4 (1-3)	010651C-17	03/28/01	mg/Kg	0.55 U												
		MW-4 (7-9)	010651C-18	03/28/01	mg/Kg	0.85 U												
		FB032801	010651C-19	03/28/01	ug/L	10 U												
		MW-3 (1-3)	010651C-20	03/28/01	mg/Kg	0.5 U												
		MW-3 (3-5)	010651D-01	03/28/01	mg/Kg	0.52 U												
		MW-7 (0-2)	010651D-02	03/29/01	mg/Kg	0.59 U												
		MW-7 (4-6)	010651D-03	03/29/01	mg/Kg	0.54 U												
		MW-1 (1-3)	010651D-04	03/29/01	mg/Kg	0.52 U												
		MW-1 (5-7)	010651D-05	03/29/01	mg/Kg	0.54 U												
		MW-2 (1-3)	010651D-06	03/29/01	mg/Kg	0.58												
		MW-2 (3-5)	010651D-07	03/29/01	mg/Kg	0.6 U												
		S-1 (0-6)	011019A-01	04/26/01	mg/Kg	.86												
		S-2 (0-6)	011019A-02	04/26/01	mg/Kg	.56 U												
Compound	Cyanide, Total																	

Table 6 - Cyanide in Soil Samples

Direction	Method Blank	Method ID	Client ID	Lab Sample ID	Date Sampled	Units	Compound Cyanide, Total
1	S-3 (0-6)	011019A-03	04/26/01	mg/Kg	1.22		
1	S-4D (0-6)	011019A-04	04/26/01	mg/Kg	.96	U	
1	S-4 (0-6)	011019A-05	04/26/01	mg/Kg	.7	U	
1	FB042701	011019A-06	04/26/01	ug/L	10	U	

Table 7 - Summary of PCB Soil Sampling Data

LOCATION	DEPTH (feet)	TOTAL PCBs (ppm)	EXCEEDANCE
OB-1	0.5 to 2.5	0.14	
	10 to 12	nd	
OB-2	0.5 to 2.5	0.31	
	11 to 13	nd	
OB-3	0.5 to 2.5	0.22	
	6 to 8	nd	
OB-4	0.5 to 2.5	0.12	
	6 to 8	nd	
OB-5	0.5 to 2.5	2.7	
	7 to 9	0.12	
OB-6	0.5 to 2.5	nd	
	5 to 7	nd	
OB-7	0.5 to 2.5	1.7	
	5 to 7	nd	
OB-8	1 to 3	6.7	
	5 to 7	nd	
	8 to 10	nd	
OB-9	0.5 to 2.5	0.27	
	4 to 5	nd	
	8 to 10	nd	
OB-10	1 to 3	1.4	
	4 to 6	0.24	
	8 to 10	nd	
OB-11	2 to 4	281	50
	4 to 6	172	50
	8 to 10	0.4	
OB-12	0.5 to 2.5	16.97	10
	8 to 10	1.5	
OB-13	0.5 to 2.5	0.7	
	4 to 6	0.64	
	10 to 12	0.4	
OB-14	1 to 3	10	10
	4 to 6	1.4	
	10 to 12	nd	
OB-15	0.5 to 2.5	3.8	
	4 to 6	nd	
	8 to 10	0.51	
OB-16	0.5 to 2.5	2.9	
	5 to 7	nd	
	7 to 9	nd	
OB-17	0.5 to 2.5	362	50
	4 to 6	48.3	25
	8 to 10	53	50
OB-18	0.5 to 2.5	nd	
	5 to 7	nd	
OB-19	0.5 to 2.5	14	10
	4 to 6	0.84	
	8 to 10	0.084	
OB-20	0.5 to 2.5	nd	
	4 to 6	nd	
	8 to 10	nd	
OB-21	0.5 to 2.5	10	
	4 to 6	16	10
	10 to 12	nd	
OB-22	0.5 to 2.5	14	10
	5 to 7	50	50
	10 to 12	0.7	
OB-23	0.5 to 2.5	16	10
	12 to 14	nd	
OB-24	0.5 to 2.5	7.8	
	4 to 6	84.2	50
	8 to 10	0.12	
OB-25	0.5 to 2.5	16	10
	5 to 7	0.5	
	10 to 12	0.35	

LOCATION	DEPTH (feet)	TOTAL PCBs (ppm)	EXCEEDANCES
B-1	0 to 2	0.951	
	2 to 4	0.42	
B-2	0 to 2	2	
	2 to 4	0.027	
B-3	2 to 4	nd	
	4 to 6	nd	
B-4	2 to 3	4.9	
	5 to 7	nd	
B-5	1 to 3	1.8	
	3 to 5	3.2	
B-6	0 to 2	3.7	
	4 to 6	0.044	
B-7	0 to 2	59	50
	2 to 4	420	50
B-8	2 to 4	27	25
	4 to 6	0.814	
B-9	0 to 2	15	10
	4 to 6	0.065	
B-10	0 to 2	5.8	
	6 to 8	0.069	
B-11	3 to 5	31	25
	5 to 7	6.8	
B-12	1 to 3	3.1	
	3 to 5	5	
B-13	1 to 3	11	10
	B-14	1 to 3	20
7 to 9		0.08	
B-15	4 to 6	28	25
	6 to 8	4.5	
B-16	0 to 2	0.077	
	4 to 6	0.0038	
B-17	0 to 2	0.63	
	2 to 4	2.7	
MW-1	1 to 3	0.219	
	5 to 7	0.37	
MW-2	1 to 3	38	25
	3 to 5	110	50
MW-3	1 to 3	0.63	
	3 to 5	0.21	
MW-4	1 to 3	2.7	
	7 to 9	0.24	
MW-5	2 to 4	100	50
	4 to 6	290	50
MW-6	0 to 2	26	25
	6 to 8	5.8	
	12 to 14	0.017	
MW-7	0 to 2	0.18	
	4 to 6	0.059	
MW-8	1 to 3	38	25
	5 to 7	0.86	
	9 to 11	0.013	
MW-9	1 to 3	23	10
	3 to 5	130	50
	9 to 11	0.21	
MW-10	1 to 3	35	25
	3 to 5	0.97	
	13 to 15	0.092	
MW-11	1 to 3	300	50
	11 to 13	0.098	
MW-12	1 to 3	23	10
	5 to 7	79	50
	9 to 11	3.1	
S-1	0 to 0.5	6.7	
S-2	0 to 0.5	120	50
S-3	0 to 0.5	15	10
S-4	0 to 0.5	82	50

Table 8 - Summary of Exceedances of Soil Screening Levels

LOCATION	DEPTH (feet)	PCB Regulatory Exceedances	Total SVOCs > 500 *	Total VOCs > 10	Total Pest > 10	Hg > 4	Lead > 1200	Chromium > 100
B-1	0 to 2 2 to 4							
B-2	0 to 2 2 to 4					x		
B-3	2 to 4 4 to 6		x					
B-4	2 to 3 5 to 7		x	x				
B-5	1 to 3 3 to 5							
B-6	0 to 2 4 to 6							
B-7	0 to 2 2 to 4	50 50			x			
B-8	2 to 4 4 to 6	25						
B-9	0 to 2 4 to 6	10						
B-10	0 to 2 6 to 8							
B-11	3 to 5 5 to 7	25						
B-12	1 to 3 3 to 5							
B-13	1 to 3	10						
B-14	1 to 3 7 to 9	10				x		
B-15	4 to 6 6 to 8	25						
B-16	0 to 2 4 to 6		x					
B-17	0 to 2 2 to 4		x					
MW-1	1 to 3 5 to 7							
MW-2	1 to 3 3 to 5	25 50					x	
MW-3	1 to 3 3 to 5							
MW-4	1 to 3 7 to 9							
MW-5	2 to 4 4 to 6	50 50		x				
MW-6	0 to 2 6 to 8 12 to 14	25					x	
MW-7	0 to 2 4 to 6							
MW-8	1 to 3 5 to 7 9 to 11	25				x		
MW-9	1 to 3 3 to 5 9 to 11	10 50						
MW-10	1 to 3 3 to 5 13 to 15	25						
MW-11	1 to 3 11 to 13	50						
MW-12	1 to 3 5 to 7 9 to 11	10 50						
S-1	0 to 0.5							x
S-2	0 to 0.5	50						x
S-3	0 to 0.5	10				x		
S-4	0 to 0.5	50				x		x

* or individual SVOCs > 50 mg/kg

Table 10a - VOCs in Groundwater Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00 VBLKLR MW-1 010805A-01 04/06/01 ug/L	1.00 VBLKLR MW-2 010805A-02 04/06/01 ug/L	1.00 VBLKLR MW-3 010805A-03 04/06/01 ug/L	1.00 VBLKLR MW-4 010805A-04 04/06/01 ug/L	20.0 VBLKLR MW-5 010805A-05 04/06/01 ug/L	100. VBLKLR MW-5DL 010805A-05DL 04/06/01 ug/L	1.00 VBLKLR MW-6 010805A-06 04/06/01 ug/L	1.00 VBLKLR MW-7 010805A-07 04/06/01 ug/L	1.00 VBLKLR MW-8 010805A-08 04/06/01 ug/L	1.00 VBLKLR MW-9 010805A-09 04/06/01 ug/L	1.00 VBLKLR MW-10 010805A-10 04/06/01 ug/L	1.00 VBLKLR MW-11 010805A-11 04/06/01 ug/L	1.00 VBLKLT MW-12 010805A-12 04/06/01 ug/L	
Compound																			
Chloromethane						10 U	10 U	10 U	10 U	200 U	1000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane						10 U	10 U	10 U	10 U	200 U	1000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane						10 U	10 U	10 U	10 U	200 U	1000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride						10 U	10 U	10 U	10 U	200 U	1000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane						10 U	10 U	10 U	10 U	200 U	1000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride						0.5 JB	5 U	5 U	3 JB	79 J	63 JDB	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone						7 JB	6 JB	5 JB	3 JB	5 U	180 JD	5 U	2 JB	6 JB	0.6 JB	9 JB	4 JB	3 J	5 U
Carbon Disulfide						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate						10 U	10 U	10 U	10 U	200 U	1000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone						3 JB	10 U	2 JB	10 U	40 JB	140 JDB	10 U	1 JB	2 JB	2 JB	2 JB	10 U	10 U	10 U
1,1,1-Trichloroethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone						10 U	10 U	10 U	10 U	200 U	1000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone						10 U	10 U	10 U	10 U	200 U	1000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene						0.2 J	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene						5 U	5 U	5 U	5 U	3900 0	2000 D	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene						5 U	5 U	5 U	5 U	8 J	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene						5 U	5 U	5 U	5 U	100 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)						0.4 J	5 U	5 U	5 U	11 J	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table 10a - VOCs in Groundwater Samples

Dilution	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Method Blank	VBLKLR	VBLKLO	VBLKLO	VBLKLO	VBLKLO	VBLKLO	VBLKLO	VBLKLO	VBLKLO
Chem ID	MW-12DL	SMW-1	SMW-1D	SMW-4	FBO40601	FBO40601	TB040601	TB040601	TB040601
Lab Sample ID	010805A-12DL	010805A-13	010805A-14	010805A-15	010805A-16	010805A-17	010805A-16	010805A-17	010805A-17
Date Sampled	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Compound	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	1 JDB	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	5 JDB	3 JB	3 JB	2 JB	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	0.8 J	0.6 J	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	0.4 JD	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table 10b - Detected VOCs in Groundwater Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00	1.00	1.00	1.00	100.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
						VBLKLR	VBLKLR	VBLKLR	VBLKLR	VBLKLT	VBLKLR	VBLKLR	VBLKLR	VBLKLR	VBLKLR	VBLKLR	VBLKLR	VBLKLR	VBLKLR	VBLKLR	
						MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11					
						010805A-01	010805A-02	010805A-03	010805A-04	010805A-05	010805A-06	010805A-07	010805A-08	010805A-09	010805A-10	010805A-11					
						04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01					
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L					
GA Std.																					
Compound																					
Methylene Chloride	5					0.5 JB	U	U	U	U	U	U	U	U	U	U	U	U	U	0.5 JB	
Acetone	50					7 JB	6 JB	U	U	U	U	U	U	U	U	U	U	U	U	U	4 JB
2-Butanone	50					3 JB	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	1					U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	5					U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	5					0.2 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	5					U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	5					U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	5					0.4 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
						0.0111	0.006	0.0072	0.003	4.057	2.383	0.003	0.004	0.0086	0.0117	0.0045					

Table 11a - SVOCs in Groundwater Samples

Dilution	Method Blank	1.00	1.00
Client ID	SBLKFR	SBLKFR	SBLKFR
Lab Sample ID	SMW-4	FB040601	FB040601
Date Sampled	010805A-15	010805A-16	010805A-16
Units	04/06/01	04/06/01	04/06/01
	ug/L	ug/L	ug/L
Phenol	0.3 J	13 U	13 U
bis(2-Chloroethyl)ether	11 U	13 U	13 U
2-Chlorophenol	11 U	13 U	13 U
1,3-Dichlorobenzene	11 U	13 U	13 U
1,4-Dichlorobenzene	11 U	13 U	13 U
Benzyl alcohol	11 U	13 U	13 U
1,2-Dichlorobenzene	11 U	13 U	13 U
2-Methylphenol	11 U	13 U	13 U
2,2'-oxybis(1-Chloropropane)	11 U	13 U	13 U
4-Methylphenol	11 U	13 U	13 U
N-Nitroso-di-n-propylamine	11 U	13 U	13 U
Hexachloroethane	11 U	13 U	13 U
Nitrobenzene	11 U	13 U	13 U
Isophorone	11 U	13 U	13 U
2-Nitrophenol	11 U	13 U	13 U
2,4-Dimethylphenol	11 U	13 U	13 U
Benzoic acid	56 U	64 U	64 U
big(2-Chloroethoxy)methane	11 U	13 U	13 U
2,4-Dichlorophenol	11 U	13 U	13 U
1,2,4-Trichlorobenzene	11 U	13 U	13 U
Naphthalene	11 U	13 U	13 U
4-Chloroaniline	11 U	13 U	13 U
Hexachlorobutadiene	11 U	13 U	13 U
4-Chloro-3-methylphenol	11 U	13 U	13 U
2-Methylnaphthalene	11 U	13 U	13 U
Hexachlorocyclopentadiene	11 U	13 U	13 U
2,4,6-Trichlorophenol	56 U	64 U	64 U
2,4,5-Trichlorophenol	11 U	13 U	13 U
2-Chloronaphthalene	56 U	64 U	64 U
2-Nitroaniline	11 U	13 U	13 U
Dimethylphthalate	11 U	13 U	13 U
Acenaphthylene	11 U	13 U	13 U
2,6-Dinitrotoluene	56 U	64 U	64 U
3-Nitroaniline	11 U	13 U	13 U
Acenaphthene	56 U	64 U	64 U
2,4-Dinitrophenol	56 U	64 U	64 U
4-Nitrophenol	11 U	13 U	13 U
Dibenzofuran	11 U	13 U	13 U
2,4-Dinitrotoluene	11 U	13 U	13 U
Diethylphthalate	11 U	13 U	13 U
4-Chlorophenyl-phenylether	11 U	13 U	13 U
Fluorene	11 U	13 U	13 U
4-Nitroaniline	22 U	26 U	26 U
4,6-Dinitro-2-methylphenol	56 U	64 U	64 U
N-Nitrosodiphenylamine (1)	11 U	13 U	13 U
4-Bromophenyl-phenylether	11 U	13 U	13 U
Hexachlorobenzene	11 U	13 U	13 U
Pentachlorophenol	56 U	64 U	64 U
Phenanthrene	11 U	13 U	13 U
Anthracene	0.2 J	13 U	13 U
Carbazole	11 U	13 U	13 U
Di-n-butylphthalate	11 U	13 U	13 U
Fluoranthene	11 U	13 U	13 U
Pyrene	11 U	13 U	13 U
Butylbenzylphthalate	11 U	13 U	13 U
3,3'-Dichlorobenzidine	22 U	26 U	26 U
Benzo(b)anthracene	11 U	13 U	13 U
Chrysene	11 U	13 U	13 U
bis(2-Ethylhexyl)phthalate	0.9 J	0.4 J	0.4 J
Di-n-octylphthalate	11 U	13 U	13 U
Benzo(k)fluoranthene	11 U	13 U	13 U
Benzo(e)fluoranthene	11 U	13 U	13 U
Indeno(1,2,3-cd)pyrene	11 U	13 U	13 U
Dibenz(a,h)anthracene	11 U	13 U	13 U
Benzo(g,h,i)perylene	11 U	13 U	13 U

Table 11b - Detected SVOCs in Groundwater Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00 SBLKFR MW-1	1.00 SBLKFR MW-2	1.00 SBLKFR MW-3	1.00 SBLKFR MW-4	2.00 SBLKFR MW-5	2.00 SBLKFR MW-5RE	1.00 SBLKFR MW-6	1.00 SBLKFR MW-7	1.00 SBLKFR MW-8	1.00 SBLKFR MW-9	1.00 SBLKFR MW-10	1.00 SBLKFR MW-11	1.00 SBLKFR MW-12	
						010805A-01	010805A-02	010805A-03	010805A-04	010805A-05	010805A-05RE	010805A-06	010805A-07	010805A-08	010805A-09	010805A-10	010805A-11	010805A-12	
						04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
GA Std.	1	Phenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	3	1,3-Dichlorobenzene	U	1 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	3	1,4-Dichlorobenzene	U	1 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	3	1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	1	4-Methylphenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	2,4-Dimethylphenol	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	-	Benzoic acid	2 J	2 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	5	1,2,4-Trichlorobenzene	U	0.5 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	10	Naphthalene	U	2 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	-	2-Methylnaphthalene	U	0.6 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	-	Acenaphthylene	U	0.4 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	20	Acenaphthene	U	2 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	-	Dibenzofuran	U	1 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	Diethylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	Fluorene	U	2 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	Phenanthrene	U	9 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	Anthracene	U	3 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	-	Carbazole	U	1 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	Di-n-butylphthalate	U	0.1 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	Fluoranthene	U	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	Pyrene	U	5 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	0.002	Benzo(a)anthracene	U	6 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	0.002	Chrysene	U	0.4 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	5	bis(2-Ethylhexyl)phthalate	U	0.5 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	50	Di-n-octylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	0.002	Benzo(b)fluoranthene	U	4 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	0.002	Benzo(k)fluoranthene	U	4 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	ND	Benzo(a)pyrene	U	6 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	0.002	Indeno(1,2,3-cd)pyrene	U	5 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	5	Dibenzo(a,h)anthracene	U	2 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	-	Benzo(g,h,i)perylene	U	6 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

Table 12a - Metals in Groundwater Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	5.00	5.00	5.00	5.00	5.00	10.0	10.0	10.0	10.0	5.00	5.00	10.0	10.0	10.0	5.00	5.00		
						D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	
						MW-1	MW-2	MW-3	MW-3D	MW-3S	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12				
						010805A-01	010805A-02	010805A-03	010805A-03D	010805A-03S	010805A-04	010805A-05	010805A-06	010805A-07	010805A-08	010805A-09	010805A-10	010805A-11	010805A-12				
						04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Total Metals	GA Std.																						
Aluminum	3					46200	44600	14200	15000	20300	4970	36000	101000	60200	128000	59900	148000	1020	51700				
Antimony	25					22.5 U	22.5 U	22.5 U	22.5 U	22.5 U	22.5 U	22.5 U	45 U	22.5 U	45 U	45 U	45 U	22.5 U	22.5 U				
Arsenic	1000					107 N	150 N	47.6 BN	56.9	99.7 N	20.5 UN	46.1 BN	98.6 BN	34.3 BN	2440 N	90.4 BN	170 N	59.4 N	76.1 N				
Barium	3					1240	644 B	240 B	242 B	2110	161 B	515 B	649 B	642 B	3080	457 B	1520 B	301 B	621 B				
Beryllium	5					3.4 B	3.4 B	2.5 U	2.5 U	50	2.5 U	3.1 B	5 U	3.7 B	10.2 B	5 U	5.7 B	2.5 U	7.1 B				
Cadmium	5					4.5 B	4.8 B	4 U	4 U	5.8 B	4 U	4 U	52.3	4 U	227	8 U	8 U	4 U	4 U				
Calcium	300					334000	145000	80300	79400	75200	75200	228000	330000	275000	263000	286000	424000	62400	163000				
Chromium	50					136	151	32.8 B	35.4 B	230	13.8 B	67.7	194	165	1210	144	199	5 U	97.1				
Cobalt	200					40.8 B	52.9 B	14.3 B	14.8 B	496	7.1 B	24.8 B	87 B	107 B	116 B	36.5 B	163 B	7 U	54.8 B				
Copper	300					202	376	109 B	118 B	366	43.4 B	133	14900	191	2940	5070	1130	37.2 B	717				
Iron	300					341000	206000	72500	77100	80700	28100	84700	320000	174000	653000	119000	332000	54400	112000				
Lead	25					4280	991	659	682	712	171	661	6840	64.4	6250	2600	2340	30.6	498				
Magnesium	35000					102000	47000	45200	45000	52400	52400	52800	674000	36600	227000	597000	330000	27400	53600				
Manganese	300					2800	2000	791	790	1280	523	2400	2580	5820	5570	1910	5620	262	1570				
Mercury	0.7					1.1	3.1	5.9	5.7	6.2	0.34	1.6	4.6	0.1 U	23.5	4.6	6.8	0.23	1.8				
Nickel	100					104 B	136 B	32.7 B	34.9 B	519	19.8 B	72.3 B	732	166 B	374 B	136 B	248 B	7.5 U	180 B				
Potassium	10					61100	29800	28400	28100	37000	37000	35600	438000	23800 B	164000	382000	178000	9150 B	31200				
Selenium	50					5 U	5 U	5 U	5 U	22.9 N	5 U	5 U	10 U	5 U	10 U	10 U	10 U	5 U	5 U				
Silver	20000					275000	195000	260000	257000	350000	350000	200000	2560000	409000	1530000	2440000	1450000	83300	246000				
Sodium	0.5					75 UN	75 UN	75 UN	75 U	68.2 N	75 UN	75 UN	150 UN	75 UN	150 UN	150 UN	150 UN	75 UN	75 UN				
Thallium	159 B					182 B	182 B	56.1 B	57 B	531	16.8 B	148 B	264 B	196 B	527	179 B	472 B	5.4 B	203 B				
Vanadium	2000					1970	1810	805	783	1280	141	1410	36800	358	14300	10300	2740	53.8 B	5870				
Zinc																							

Table 12a - Metals in Groundwater Samples

Dilution	5.00	5.00	5.00	5.00	1.00
Method Blank	D041801	D041801	D041801	D041801	D041801
Client ID	SMW-1	SMW-1D	SMW-4	SMW-4	FB040601
Lab Sample ID	010805A-13	010805A-14	010805A-15	010805A-16	010805A-16
Date Sampled	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Total Metals	GA Std.				
Aluminum	8310	740 B	1000	38.4 B	
Antimony	3	22.5 U	22.5 U	4.5 U	
Arsenic	25	20.5 UN	20.5 UN	4.1 UN	
Barium	1000	205 B	73.7 B	4 B	
Beryllium	3	2.5 U	2.5 U	0.5 U	
Cadmium	5	4 U	4 U	0.8 U	
Calcium	235000	228000	73900	27600	
Chromium	50	19.2 B	13.2 B	1 U	
Cobalt	-	10.6 B	7 U	1.4 U	
Copper	200	16 B	714	1.8 U	
Iron	300	13600	5590	16.4 B	
Lead	25	13 U	84.4	2.6 U	
Magnesium	35000	52100	15400 B	3420 B	
Manganese	300	2050	36.7 B	1.5 U	
Mercury	0.7	0.1 U	4.9	0.1 U	
Nickel	100	24.9 B	10.1 B	1.5 U	
Potassium	-	8980 B	5940 B	834 B	
Selenium	10	50 UN	14100 B	10 UN	
Silver	50	5 U	5 U	1 U	
Sodium	20000	335000	241000	4950 B	
Thallium	0.5	75 UN	75 UN	15 UN	
Vanadium	-	22 B	4.5 U	0.9 U	
Zinc	2000	42.5 B	337	5 B	

Table 12b - Dissolved Metals in Groundwater Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	5.00	5.00	5.00	10.0	10.0	10.0	10.0	5.00	5.00	5.00	5.00	5.00	5.00			
						D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801	D041801		
						010805A-01	010805A-02	010805A-03	010805A-04	010805A-05	010805A-06	010805A-07	010805A-08	010805A-09	010805A-10	010805A-11	010805A-12	010805A-13	010805A-14		
						04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	04/06/01	
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Aluminum						102 U	102 U	102 U	102 U	102 U	205 U	205 U	205 U	205 U	1720 B	102 U	291 B	102 U	102 U	102 U	
Antimony						22 U	22 U	22 U	22 U	22 U	44 U	44 U	44 U	44 U	44 U	22 U	22 U	22 U	22 U	22 U	22 U
Arsenic						21 U	21 U	21 U	21 U	21 U	42 U	42 U	42 U	42 U	42 U	21 U	21 U	21 U	21 U	21 U	21 U
Barium						333 B	122 B	91.8 B	94.8 B	70.7 B	73 B	136 B	155 B	158 B	158 B	90.1 B	95.9 B	90.1 B	91.6 B	91.6 B	91.6 B
Beryllium						2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cadmium						4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	9 U	9 U	9 U	9 U	9 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Calcium						283000	123000	83800	89700	203000	282000	256000	83900	205000	205000	651000	128000	227000	227000	225000	225000
Chromium						4 U	4 U	4 U	4 U	4 U	8 U	8 U	8 U	8 U	8 U	4 U	4 U	4 U	4 U	4 U	4 U
Cobalt						8 U	8 U	8 U	8 U	8 U	16 U	16 U	16 U	16 U	16 U	8 U	8 U	8 U	8 U	8 U	8 U
Copper						8 U	8 U	8 U	8 U	8 U	16 U	16 U	16 U	16 U	16 U	8 U	8 U	8 U	8 U	8 U	8 U
Iron						1300	1290	418 B	344 B	406 B	205 U	102 U	205 U	205 U	205 U	4850	469 B	102 U	102 U	102 U	102 U
Lead						10 U	10 U	10 U	10 U	10 U	20 U	20 U	20 U	20 U	71.4	10 U	10 U	10 U	10 U	10 U	10 U
Magnesium						94400	38000	51300	41500	46700	744000	19200 B	13800 B	648000	264000	29500	39500	52700	51800	51800	51800
Manganese						984	784	564	488	1170	364	220	222	763	1160	256	504	88.5	47.5 B	47.5 B	47.5 B
Mercury						0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel						7.7 B	10 B	6.5 U	6.5 U	10.4 B	42.9 B	6.5 U	13 U	13 U	13 U	6.5 U	11.1 B	6.5 U	6.5 U	6.5 U	6.5 U
Potassium						63000	27200	37400	27600	36200	602000	8190 B	16200 B	518000	180000	11100 B	31300	8060 B	7860 B	7860 B	7860 B
Selenium						24.5 UN	24.5 UN	24.5 UN	24.5 UN	24.5 UN	49 UN	24.5 UN	49 UN	49 UN	49 UN	24.5 UN	24.5 UN	24.5 UN	24.5 UN	24.5 UN	24.5 UN
Silver						5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Sodium						313000	214000	341000	243000	260000	3110000	457000	674000	2890000	1580000	92600	349000	378000	373000	373000	373000
Thallium						45.5 U	45.5 U	45.5 U	45.5 U	45.5 U	91 U	45.5 U	91 U	91 U	91 U	45.5 U	45.5 U	45.5 U	45.5 U	45.5 U	45.5 U
Vanadium						5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Zinc						25 U	25 U	25 U	27.5 B	25 U	201	25 U	120 B	101 B	148 B	25 U	39.6 B	25 U	25 U	25 U	25 U

Table 12b - Dissolved Metals in Groundwater Samples

Dilution	5.00	1.00
Method Blank	DO41801	DO41801
Client ID	SMW-4	FB040601
Lab Sample ID	010805A-15	010805A-16
Date Sampled	04/06/01	04/06/01
Units	ug/L	ug/L
Metals, Dissolved		
Aluminum	102 U	20.5 U
Antimony	22 U	4.4 U
Arsenic	21 U	4.2 U
Barium	73.2 B	4.2 B
Beryllium	2.5 U	0.5 U
Cadmium	4.5 U	0.9 U
Calcium	77800	27500
Chromium	4 U	0.8 U
Cobalt	8 U	1.6 U
Copper	20.6 B	1.6 U
Iron	102 U	20.5 U
Lead	10 U	2 U
Magnesium	16400 B	3500 B
Manganese	24.2 B	1 B
Mercury	0.13 B	0.1 U
Nickel	6.5 U	1.3 U
Potassium	17900 B	999 B
Selenium	24.5 UN	4.9 UN
Silver	5 U	1 U
Sodium	269000	5280
Thallium	45.5 U	9.1 U
Vanadium	5 U	1 U
Zinc	206	5 U

Table 12c - Detected Dissolved Metals in Groundwater Samples

Dilution	5.00	1.00
Method Blank	D041801	D041801
Client ID	SMW-4	FB040601
Lab Sample ID	010805A-15	010805A-16
Date Sampled	04/06/01	04/06/01
Units	ug/L	ug/L
Metals, Dissolved	GA Std.	
Aluminum	—	U
Barium	1000	4.2 B
Calcium	—	27500 U
Copper	200	U
Iron	300	U
Lead	25	U
Magnesium	35000	3500 B
Manganese	300	1 B
Mercury	0.7	U
Nickel	100	U
Potassium	—	999 B
Sodium	20000	5280
Zinc	2000	206 U

Table 13 - Cyanide in Groundwater Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 U	MW-1	010805A-01	010805A-01	04/06/01	ug/L														
10 U	MW-2	010805A-02	010805A-02	04/06/01	ug/L														
10 U	MW-3	010805A-03	010805A-03	04/06/01	ug/L														
10 U	MW-4	010805A-04	010805A-04	04/06/01	ug/L														
10 U	MW-5	010805A-05	010805A-05	04/06/01	ug/L														
10 U	MW-6	010805A-06	010805A-06	04/06/01	ug/L														
10 U	MW-7	010805A-07	010805A-07	04/06/01	ug/L														
10 U	MW-8	010805A-08	010805A-08	04/06/01	ug/L														
10 U	MW-9	010805A-09	010805A-09	04/06/01	ug/L														
10 U	MW-10	010805A-10	010805A-10	04/06/01	ug/L														
10 U	MW-11	010805A-11	010805A-11	04/06/01	ug/L														
10 U	MW-12	010805A-12	010805A-12	04/06/01	ug/L														
10 U	MW-13	010805A-13	010805A-13	04/06/01	ug/L														
10 U	MW-14	010805A-14	010805A-14	04/06/01	ug/L														
10 U	MW-15	010805A-15	010805A-15	04/06/01	ug/L														
10 U	MW-16	010805A-16	010805A-16	04/06/01	ug/L														
10 U	Compound Cyanide, Total																		

Table 14 - Tank Samples

Dilution	Method Blank	Client ID	Lab Sample ID	Date Sampled	Units	1.00	1.00	2.00	10.0	10.0	10.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
						PBLK87	PBLK87	PCBLK87	PBLK70	PBLK70	SLUDGE 3	PBLK70	PBLK70	SLUDGE 3	PBLK70	PBLK70	PBLK70	PBLK70	PBLK70		
						T1	T2	T3	011613A-04	011613A-05	06/21/01	06/21/01	06/21/01	06/21/01	06/21/01	06/21/01	06/21/01	06/21/01	06/21/01	06/21/01	
						ug/L	ug/L	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/L	ug/L	ug/L
PCBs																					
Aroclor-1016						6.7	6.7	12.0	680	390	33.0	680	390	33.0	680	390	33.0	1.0	1.0	1.0	1.0
Aroclor-1221						13.0	13.0	25.0	1400	800	67.0	1400	800	67.0	1400	800	67.0	2.0	2.0	2.0	2.0
Aroclor-1232						6.7	6.7	12.0	680	390	33.0	680	390	33.0	680	390	33.0	1.0	1.0	1.0	1.0
Aroclor-1242						6.7	6.7	12.0	680	390	33.0	680	390	33.0	680	390	33.0	1.0	1.0	1.0	1.0
Aroclor-1254						6.7	6.7	12.0	730	320	33.0	730	320	33.0	730	320	33.0	1.0	1.0	1.0	1.0
Aroclor-1260						0.48	2.4	11.0	680	480	33.0	680	480	33.0	680	480	33.0	1.0	1.0	1.0	1.0
VOCs																					
Chloromethane						10	10	10													
Bromomethane						10	10	10													
Vinyl Chloride						10	10	10													
Chloroethane						10	10	10													
Methylene Chloride						2	4	18													
Acetone						10	5	5													
Carbon Disulfide						5	5	5													
Vinyl Acetate						10	10	10													
1,1-Dichloroethene						5	5	5													
1,1-Dichloroethane						5	5	5													
cis-1,2-Dichloroethene						5	5	5													
trans-1,2-Dichloroethene						5	5	5													
Chloroform						5	5	5													
1,2-Dichloroethane						5	5	5													
2-Butanone						10	3	4													
1,1,1-Trichloroethane						5	5	5													
Carbon Tetrachloride						5	5	5													
Bromodichloromethane						5	5	5													
1,2-Dichloropropane						5	5	5													
cis-1,3-Dichloropropene						5	5	5													
Trichloroethene						5	5	5													
Dibromochloromethane						5	5	5													
1,1,2-Trichloroethane						5	5	5													
Benzene						5	5	5													
trans-1,3-Dichloropropene						5	5	5													
Bromoform						5	5	5													
4-Methyl-2-Pentanone						10	10	10													
2-Hexanone						10	10	10													
Tetrachloroethene						5	5	5													
Toluene						5	5	5													
1,1,2,2-Tetrachloroethane						5	5	5													
Chlorobenzene						5	5	5													
Ethylbenzene						5	5	5													
Styrene						5	5	5													
Xylene (total)						5	2	12													



STL Connecticut

ORGANICS APPENDIX

U – Indicates that the compound was analyzed for but not detected.

J – Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B – This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N – Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S – Estimated due to surrogate outliers.

X – Matrix spike compound.

(1) - Cannot be separated

(2) – Decomposes to azobenzene. Measured and calibrated as azobenzene.

A – This flag indicates that a TIC is a suspected aldol condensation product.

E – Indicates that it exceeds calibration curve range.

D – This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C – Confirmed by GC/MS.

T – Compound present in TCLP blank.

P – This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).



INORGANICS APPENDIX

C – Concentration qualifiers

U – Indicates analyte was not detected at method reporting limit.

B- Indicates analyte result between IDL and contract required detection limit (CRDL)

Q – QC qualifiers

E – Reported value is estimated because of the presence of interference

M – Duplicate injection precision not met

N – Spiked sample recovery not within control limits

S – The reported value was determined by the method of standard additions (MSA)

W – Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

*** - Duplicate analysis not within control limit**

+ - Correlation coefficient for MSA is less than 0.995

M – Method codes

P – ICP

A – Flame AA

F – Furnace AA

CV – Cold vapor AA (manual)

C – Cyanide

NR – Not required

NC – Not calculated as per protocols

Table 15: Comparison of Five Remediation Alternatives and TAGM 4030 Evaluation Criteria

	Compliance with NYS SGCs	Protection to Human Health and the Environment	Short-term Effectiveness	Long-term Effectiveness and Permanence	Reduction of Toxicity, Mobility and Volume	Implementability	Cost
Alternative 1: No Action	No action = No compliance regulations	Assumed redevelopment would pose a threat to human health and the environment	Short term health risks / No short term environmental risks	No action is neither effective nor permanent	No action = No reduction	No action is very implementable	\$0 However, the property may not be legally developables
Alternative 2: Excavation and off-site disposal of soils above 10 ppm Alternative 3: Excavation and off-site disposal of soils above 25 ppm Alternative 4: Excavation and off-site disposal of soils above 50 ppm	Actions would not meet TAGM 4046 Guidance Values. However, the redevelopment of the site would preclude exposure to surface soils and, therefore, these values would be irrelevant.	The removal of soils, as well as capping and institutional controls, would ensure that there are no potential health threats to the future users of the site.	Dust control techniques, surface water management and other measures outlined in the HASP would be implemented during the actions to protect the health and safety of workers and the neighboring community.	Actions is classified as permanent using TAGM 4030, and would leave no untreated residual contamination on-site. A minimum degree of long-term monitoring would be required to ensure the actions comply with institutional controls.	The volume of contaminated soil would be reduced by excavation and off-site disposal at a licensed facility.	The remedial approach could be readily implemented using conventional equipment.	\$300,000 - \$500,000 The costs for this alternative would include excavation, testing, transport, disposal and backfill. Higher costs would be associated with lower cleanup levels.
Alternative 5: Containment of soil contamination	The only soils which would be removed under this scenario are petroleum soils with elevated VOC levels (including floating product in the vicinity of MW-5). Any residual impact to groundwater would be addressed in the remedy for OU-3.	Capping and institutional controls would eliminate all other exposure pathways such that no unacceptable risk would remain. A remedy for groundwater might be required as part of the OU-3 remedy.	The potential for exposure to workers and the community associated with soil removal would be eliminated. A comprehensive health and safety plan would be developed and implemented during site capping and any necessary construction.	Institutional controls would need to be implemented to prevent intrusive activities which would potentially create and exposure pathway.	The process of capping would reduce the mobility of the contaminant, by reducing the potential for windblown disturbance during construction and by reducing the infiltration of water. Although the volume of contaminated soil remains unchanged, the potential threat to human health or the environment is reduced, since it would be contained in a controlled manner.	Capping of contaminated soil would be readily implemented using conventional mechanized equipment suitable for such operations.	\$50,000 - \$100,000 For purposes of cost estimation, capping is already proposed as part of the site redevelopment, therefore, the only additional costs are those associated with the VOC cleanup.

FIGURES



Project Site

PROJECT SITE LOCATION MAP

**C.E. Flushing Site
Flushing, New York**

AKRF, Inc.

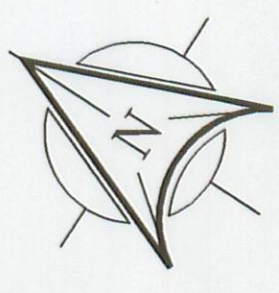
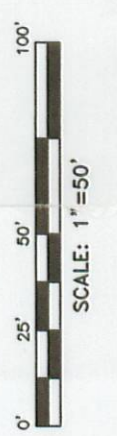
**Environmental Consultants
117 East 29 Street New York, New York 10016**

**DATE
12/09/02**

DRAWING No.

**PROJECT No.
30141**

**FIGURE No.
1**



Legend:

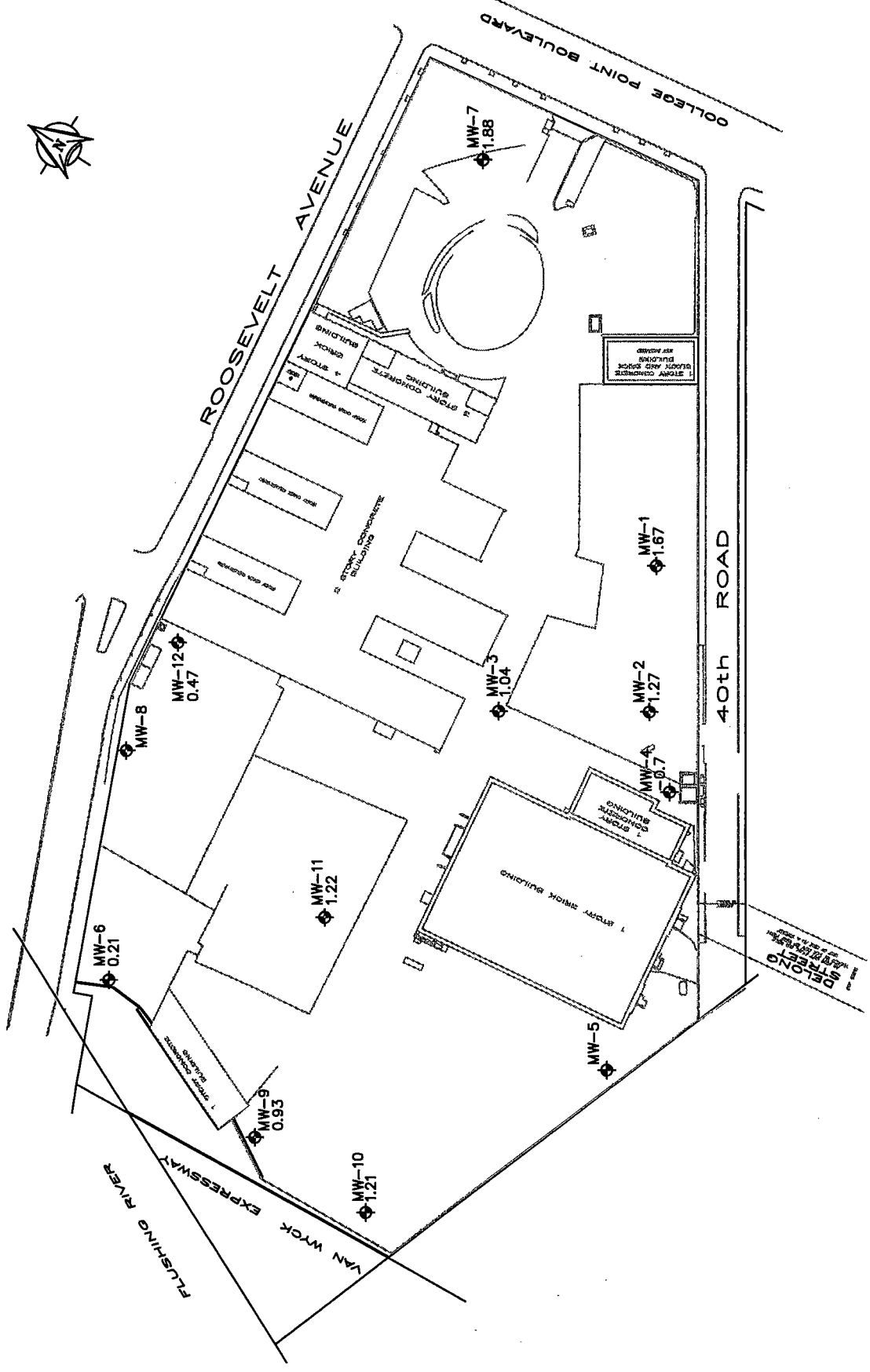
- BORING/MONITORING WELL LOCATION
- BORING LOCATION
- OLD BORING LOCATION
- EXISTING MONITORING WELLS (SESI 1989)
- MANHOLE LOCATION
- MW-9 PCB SOIL SAMPLE LOCATION
Intermediate over PCB concentration
Bottom PCB concentration
- NO EXCEEDANCES (GREEN SYMBOL)

PCB REGULATORY EXCEEDANCES/SAMPLE DEPTH

- No sample collected from this depth interval
- No PCB exceedances
- PCBs Exceeded from 4046 (PCCO >10ppm subfloor)
- PCBs Exceeded from 4046 (HW >50 ppm)
- Regulatory exceedance for one or more other contaminants

Abbreviations:

- S - Total SVOCs > 500 ppm
- V - Total VOCs > 10 ppm
- Hg - Mercury > 4 ppm
- Pb - Lead > 100 ppm
- Cr - Chromium > 100 ppm



APPENDIX A - BORING LOGS

AKRF, Inc.

Environmental Consultants

117 East 29th Street
 New York, N.Y. 10016
 Fax: (212) 213-3191
 Phone: (212) 696-0670

Log of Boring: B-1-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: MA
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
	6" BITUMINOUS CONCRETE (ASPHALT).	-0.6					
1	Black silty SAND, some Gravel, FILL (Ash, Coal Fragments, red Brick Fragments).						
2		-2	*S-1	SS	12"	ND	Dry
3	Yellow silty SAND, FILL (Ash, Cinders, Coal Fragments).						
4		-4	*S-2	SS	10"	ND	Dry
5	Yellow silty SAND, FILL (Ash, Cinders, Coal Fragments).						
6		-6	S-3	SS	6"	ND	Dry
7	No recovery.						
8		-8	S-4		0"		
9	Dark gray sandy SILT.						
10		-10	S-5	SS	18"	ND	Wet
11	End of boring at approximately 10 feet below grade.						
12	Groundwater encountered at approximately 9 feet below grade.						
13	SS - Soil Sample						
14	*Soil sample sent to laboratory. ND-None Detected						
15							
16							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 5 Feet Below Grade

GS Elevation:
 Start Date: 3/21/01
 Start Time: 0920
 Finish Date: 3/21/01
 Finish Time: 0940

AKRF, Inc.

Environmental Consultants

117 East 29th Street
New York, N.Y. 10016
Fax: (212) 213-3191
Phone: (212) 696-0670

Log of Boring: B-2-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
Address: College Point Blvd., Queens, New York
Client: MUSS

Logged By: MA
Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
1	Black silty SAND, FILL (Coal Fragments, Cinders).		*S-1		7"	ND	Dry
2		-2					
3	Black silty SAND, FILL (Coal Fragments, Cinders).		*S-2	SS	7"	ND	Dry
4		-4					
5	No recovery.				0"		
6		-6					
7	Yellowish brown SILT, FILL (Coal Fragments).		S-3	SS	3"	ND	Wet
8		-8					
9	Yellowish brown SILT, FILL (Coal Fragments).		S-4	SS	5"	ND	Wet
10		-10					
11	<i>End of boring at approximately 8 feet below grade.</i>						
12	<i>Groundwater encountered at approximately 10 feet below grade.</i>						
13	SS - Soil Sample						
14	*Soil sample sent to laboratory. ND-None Detected						
15							
16							

Driller: ADT
Drill Method: 3-1/4" Hollow Stem Auger
Sample Method: 2" Split Spoon
Borehole Diameter: 7"
Water Level: Approx. 10 Feet Below Grade

GS Elevation:
Start Date: 3/21/01
Start Time: 0950
Finish Date: 3/21/01
Finish Time: 1005

AKRF, Inc.

Environmental Consultants

117 East 29th Street
 New York, N.Y. 10016
 Fax: (212) 213-3191
 Phone: (212) 696-0670

Log of Boring: B-3-01

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: MA
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
	6" BITUMINOUS CONCRETE (ASPHALT).	-0.5					
1	Auger refusal due to CONCRETE. Augering to 2 feet below grade.		S-1				
2		-2					
3	FILL (Ash, Coal Fragments, Cinders), some black Silty SAND.		*S-2	SS	14"	ND	Dry
4		-4					
5	Dark gray SILT. Peat noted at the tip of the spoon.		*S-3	SS	18"	ND	Wet
6		-6					
7	End of boring at approximately 6 feet below grade.						
8	Groundwater encountered at approximately 5 feet below grade.						
9	SS - Soil Sample						
10	*Soil sample sent to laboratory. ND-None Detected						
11							
12							
13							
14							
15							
16							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 5 Feet Below Grade

GS Elevation:
 Start Date: 3/21/01
 Start Time: 1010
 Finish Date: 3/21/01
 Finish Time: 1035

AKRF, Inc.

Environmental Consultants

117 East 29th Street
 New York, N.Y. 10016
 Fax: (212) 213-3191
 Phone: (212) 696-0670

Log of Boring: B-4-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: MA
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
	6" BITUMINOUS CONCRETE (ASPHALT).	-0.5	*S-1				
1	Auger refusal due to CONCRETE. Augering to 2 feet below grade.	-2					
2	Auger refusal due to CONCRETE. Augering to 3 feet below grade. Auger cuttings were noted as dark black silty SAND, FILL (Ash, Coal Fragments. Odor noted on soil.	-3					
3							
4	Dark black silty SAND, FILL (Ash, Coal Fragments, Cinders).	-5	S-2	SS	12"	ND	Dry
5							
6	Dark black silty SAND, FILL (Ash, Coal Fragments, Cinders).	-7	*S-3	SS	18"	ND	Wet
7							
8	No recovery.	-9	S-4	SS	0"	ND	Wet
9	No recovery.	-9.5	S-5	SS	5"	ND	Wet
10	PEAT.	-11	S-6	SS	18"	ND	Wet
11							
12	End of boring at approximately 11 feet below grade.						
13	Groundwater encountered at approximately 5 feet below grade.						
14	SS - Soil Sample						
15	*Soil sample sent to laboratory.						
16	ND-None Detected						

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 5 Feet Below Grade

GS Elevation:
 Start Date: 3/21/01
 Start Time: 1045
 Finish Date: 3/21/01
 Finish Time: 1100

AKRF, Inc.

Environmental Consultants

117 East 29th Street
 New York, N.Y. 10016
 Fax: (212) 213-3191
 Phone: (212) 696-0670

Log of Boring: B-5-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: MA
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
1	12" BITUMINOUS CONCRETE (ASPHALT).	-1					
2	Auger refusal due to CONCRETE. Augering to 2 feet below grade.	-2					
3	Auger refusal due to CONCRETE. Augering to 3 feet below grade. Auger cuttings were noted as black silty SAND, FILL (Ash, Coal Fragments).	-3	*S-1				
4	Gray SAND and SILT, FILL (Ash, Coal Fragments).	-5	*S-2	SS	0"	ND	Dry
6	Gray SAND and SILT, FILL (Ash, Coal Fragments).	-7	S-3	SS	5"	ND	Wet
8	No recovery.	-9					
10	PEAT.	-11	S-4	SS	12"	ND	Wet
12	End of boring at approximately 11 feet below grade.						
13	Groundwater encountered at approximately 5 feet below grade.						
14	SS - Soil Sample						
15	*Soil sample sent to laboratory.						
15	ND-None Detected						
16							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 5 Feet Below Grade

GS Elevation:
 Start Date: 3/21/01
 Start Time: 1115
 Finish Date: 3/21/01
 Finish Time: 1200

AKRF, Inc.

Environmental Consultants

117 East 29th Street
 New York, N.Y. 10016
 Fax: (212) 213-3191
 Phone: (212) 696-0670

Log of Boring: B-6-01

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: MA
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
	6" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-0.5					
1	Augered to 2 feet below grade.						
2		-2					
3	No recovery.						
4		-4					
5	Black silty SAND, FILL (Wood, Ash, Glass, Coal Fragments).		*S-1	SS	6"	ND	Dry
6		-6					
7	Dark gray SANDY SILT, FILL (Wood).		*S-2	SS	8"	ND	Wet
8		-8					
9	Dark gray sandy SILT, FILL (Wood).		S-3	SS	12"	ND	Wet
10	PEAT.		S-4	SS	10"	ND	Wet
11	End of boring at approximately 10 feet below grade.						
12	Groundwater encountered at approximately 5 feet below grade.						
13	SS - Soil Sample						
14	*Soil sample sent to laboratory. ND-None Detected						
15							
16							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 5 Feet Below Grade

GS Elevation:
 Start Date: 3/21/01
 Start Time: 1310
 Finish Date: 3/21/01
 Finish Time: 1340

AKRF, Inc.

Environmental Consultants

117 East 29th Street
New York, N.Y. 10016
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Phone: (212) 696-0670

Log of Boring: B-7-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
Address: College Point Blvd., Queens, New York
Client: MUSS

Logged By: MA
Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Readings	Moisture
0	Ground Surface	0					
	6" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-0.5					
1	Augered to 2 feet below grade. Auger cuttings noted to be Black SILTY SAND, FILL (Cinders, Ash).						
2		-2					
3	Augered to 2 feet below grade. Auger cuttings noted to be Black silty SAND, FILL (Cinders, Ash).						
4		-4					
5	No recovery.						
6		-6					
7	Black silty SAND, FILL (Coal Fragments).		*S-1	SS	8"	ND	Wet
8		-8					
9	End of boring at approximately 8 feet below grade.						
10	Groundwater encountered at approximately 6 feet below grade.						
11	SS - Soil Sample						
12	*Soil sample sent to laboratory. ND-None Detected						
13							
14							
15							
16							

Driller: ADT
Drill Method: 3-1/4" Hollow Stem Auger
Sample Method: 2" Split Spoon
Borehole Diameter: 7"
Water Level: Approx. 6 Feet Below Grade

GS Elevation:
Start Date: 3/22/01
Start Time: 0900
Finish Date: 3/22/01
Finish Time: 0930

AKRF, Inc.

Environmental Consultants

117 East 29th Street
 New York, N.Y. 10016
 Fax: (212) 213-3191
 Phone: (212) 696-0670

Log of Boring: B-8-01

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: WC
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
1	FILL (Gravel, Cinders, Wood Fragments), coarse SAND.		S-1	SS	10"	ND	Dry
2		-2					
3	FILL (Gravel, Coal Fragments, dense Wood).		*S-2	SS	12"	21.0	Dry
4		-4					
5	Gray silty SAND, some Gravel.		*S-3	SS	12"	ND	Wet
6		-6					
7	Silty SAND, some Gravel, trace dense Wood.		S-4	SS	5"	ND	Dry
8		-8					
9	GRAVEL, some coarse SAND, trace of Peat in the tip of the spoon.		S-5	SS	7"	ND	Dry
10		-10					
11	<i>End of boring at approximately 10 feet below grade.</i>						
12	<i>Groundwater encountered at approximately 6 feet below grade.</i>						
13	SS - Soil Sample						
14	*Soil sample sent to laboratory. ND-None Detected						
15							
16							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 5 Feet Below Grade

GS Elevation:
 Start Date: 3/23/01
 Start Time: 0835
 Finish Date: 3/23/01
 Finish Time: 0900

AKRF, Inc.

Environmental Consultants

117 East 29th Street
New York, N.Y. 10016
Fax: (212) 213-3191
Phone: (212) 696-0670

Log of Boring: B-9-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site

Address: College Point Blvd., Queens, New York

Client: MUSS

Logged By: WC

Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
	5" BITUMINOUS CONCRETE (ASPHALT).	-0.5					
1	FILL (Cinders, coal Fragments), some coarse Sand, trace Rock Fragments.	-2	*S-1	SS	12"	ND	Dry
2							
3	Coarse GRAVEL and brown silty SAND. Slight petroleum odor noted on soil.	-4	S-2	SS	14"	ND	Dry
4							
5	Brownish gray sandy SILT. Petroleum staining noted on soil.	-6	*S-3	SS	12"	ND	Wet
6							
7	SILT and SAND, some coarse Gravel. Petroleum staining noted on soil.	-8	S-4	SS	10"	ND	Wet
8							
9	No recovery.				0"		
10		-10					
11	PEAT, some dark silty SAND.		S-5	SS	24"	ND	Wet
12		-12					
13	End of boring at approximately 12 feet below grade.						
14	Groundwater encountered at approximately 4 feet below grade.						
15	SS - Soil Sample *Soil sample sent to laboratory.						
16	ND-None Detected						

Driller: ADT

Drill Method: 3-1/4" Hollow Stem Auger

Sample Method: 2" Split Spoon

Borehole Diameter: 7"

Water Level: Approx. 5 Feet Below Grade

GS Elevation:

Start Date: 3/23/01

Start Time: 1130

Finish Date: 3/23/01

Finish Time: 1215

AKRF, Inc.

Environmental Consultants

117 East 29th Street
New York, N.Y. 10016
Fax: (212) 213-3191
Phone: (212) 696-0670

Log of Boring: B-10-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site

Address: College Point Blvd., Queens, New York

Client: MUSS

Logged By: WC

Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
	6" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-0.5					
1	Augered to 2 feet below grade. Auger cuttings noted to be SAND and CONCRETE FRAGMENTS.		*S-1	SS	0"	7.0	Dry
2		-2					
3	FILL, (Coarse Sand, Gravel and Concrete Fragments), some gray silty Sand and Rock Fragments. Petroleum sheen noted in the tip of the spoon.		*S-2	SS	18"	1.0	Dry
4		-4					
5	Dense, WOOD FIBERS, some medium Gravel and coarse Sand, trace of gray silty Sand noted in the tip of the spoon. Petroleum sheen noted on the Gravel and Wood.		S-3	SS	10"	ND	Wet
6		-6					
7	Coarse SAND and medium GRAVEL, some dense Wood Fibers and gray dense Silt.		S-4	SS	10"	ND	Wet
8		-8					
9	PEAT and CLAY, some coarse Sand and medium Gravel.		S-5	SS	16"	ND	Wet
10		-10					
11	End of boring at approximately 10 feet below grade.						
12	Groundwater encountered at approximately 4 feet below grade.						
13	SS - Soil Sample						
14	*Soil sample sent to laboratory. ND-None Detected						
15							
16							

Driller: ADT

Drill Method: 3-1/4" Hollow Stem Auger

Sample Method: 2" Split Spoon

Borehole Diameter: 7"

Water Level: Approx. 6 Feet Below Grade

GS Elevation:

Start Date: 3/23/01

Start Time: 0910

Finish Date: 3/23/01

Finish Time: 0950

AKRF, Inc.

Environmental Consultants

117 East 29th Street
New York, N.Y. 10016
Fax: (212) 213-3191
Phone: (212) 696-0670

Log of Boring: B-11-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site

Address: College Point Blvd., Queens, New York

Client: MUSS

Logged By: RS

Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
1	12" BITUMINOUS CONCRETE (ASPHALT).	-1					
2	Top 12": Brown/black SILT and fine SAND, little coarse Gravel, FILL (Coal Fragments, Ash). Middle 5": WOOD. Bottom 4": Bronish/black, fine to medium SAND, trace Gravel. Slight organic odor noted.	-3	S-1	SS	18"	ND	Dry
3							
4	Brown fine to medium SAND, trace coarse Gravel. Slight petroleum odor noted.	-5	*S-2	SS	4"	1.2	Wet
5							
6	Top 6" Brown fine to medium SAND, trace coarse Gravel. Bottom 6": FILL (Ash, Wood).	-7	*S-3	SS	12"	1.4	Wet
7							
8	Brownish gray SILT, little Clay.	-9	S-4	SS	0"	ND	Wet
9							
10	Brownish gray CLAY and brown fibrous PEAT.	-11	S-5	SS	18"	ND	Wet
11							
12	End of boring at approximately 11 feet below grade.						
13	Groundwater encountered at approximately 5 feet below grade.						
14	SS - Soil Sample						
15	*Soil sample sent to laboratory. ND-None Detected						
16							

Driller: ADT

Drill Method: 3-1/4" Hollow Stem Auger

Sample Method: 2" Split Spoon

Borehole Diameter: 7"

Water Level: Approx. 5 Feet Below Grade

GS Elevation:

Start Date: 3/28/01

Start Time: 1125

Finish Date: 3/28/01

Finish Time: 1210

AKRF, Inc.

Environmental Consultants

117 East 29th Street
 New York, N.Y. 10016
 Fax: (212) 213-3191
 Phone: (212) 696-0670

Log of Boring: B-12-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: MA
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Readings	Moisture
0	Ground Surface	0					
1	12" BITUMINOUS CONCRETE (ASPHALT).	-1					
2	Auger refusal. Auger cuttings were noted as black silty SAND, FILL (Ash, Wood, Coal Fragments). Augering to 3 feet below grade.	-3					
4	Reddish brown to yellow silty SAND, FILL (Coal Fragments).	-5	*S-1	SS	14"	ND	Dry
6	FILL (Cinders, Ash, Coal Fragments).	-7	*S-2	SS	6"	ND	Dry
8	No recovery.	-9					
10	PEAT.	-11	S-3	SS	12"	ND	Wet
12	End of boring at approximately 11 feet below grade.						
13	Groundwater encountered at approximately 5 feet below grade.						
14	SS - Soil Sample						
15	*Soil sample sent to laboratory. ND-None Detected						
16							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 5 Feet Below Grade

GS Elevation:
 Start Date: 3/21/01
 Start Time: 1225
 Finish Date: 3/21/01
 Finish Time: 1250

AKRF, Inc.

Environmental Consultants

117 East 29th Street
 New York, N.Y. 10016
 Fax: (212) 213-3191
 Phone: (212) 696-0670

Log of Boring: B-13-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: MA
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
1	12" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-1					
2	Black silty SAND, some Gravel, FILL (Ash, Coal Fragments, Cinders).	-3	*S-1	SS	12"	ND	Dry
4	No recovery. Void encountered between 3 to 5 feet below grade.	-5	*S-2	SS	10"	ND	Dry
6	No recovery.	-7			0"		
8	Black silty SAND, FILL (Ash, Coal Fragments).	-9	S-3	SS	12"	ND	Wet
10	PEAT.	-11	S-4	SS	10"	ND	Wet
12	End of boring at approximately 11 feet below grade.						
13	Groundwater encountered at approximately 5 feet below grade.						
14	SS - Soil Sample						
15	*Soil sample sent to laboratory. ND-None Detected						
16							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 5 Feet Below Grade

GS Elevation:
 Start Date: 3/26/01
 Start Time: 0935
 Finish Date: 3/26/01
 Finish Time: 1015

AKRF, Inc.

Environmental Consultants

117 East 29th Street
New York, N.Y. 10016
Fax: (212) 213-3191
Phone: (212) 696-0670

Log of Boring: B-14-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site

Address: College Point Blvd., Queens, New York

Client: MUSS

Logged By: MA

Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
1	6" CONCRETE/BITUMINOUS CONCRETE (ASPHALT). Augered to 1 foot below grade.	-1					
2	Black silty SAND, FILL (Ash, Wood, Cinders).	-3	*S-1	SS	12"	ND	Dry
3							
4	Black silty SAND, FILL (Ash, Wood, Cinders).	-5	S-2	SS	2"	ND	Dry
5							
6	Black silty SAND, FILL (Ash, Wood, Cinders). Petroleum sheen noted in soil.	-7	S-3	SS	8"	ND	Wet
7							
8	Black silty SAND, FILL (Ash, Wood, Cinders). Petroleum sheen noted in soil.	-9	*S-4	SS	9"	ND	Wet
9							
10	End of boring at approximately 9 feet below grade.						
11	Groundwater encountered at approximately 5 feet below grade.						
12	SS - Soil Sample						
13	*Soil sample sent to laboratory. ND-None Detected						
14							
15							
16							

Driller: ADT

Drill Method: 3-1/4" Hollow Stem Auger

Sample Method: 2" Split Spoon

Borehole Diameter: 7"

Water Level: Approx. 5 Feet Below Grade

GS Elevation:

Start Date: 3/26/01

Start Time: 1045

Finish Date: 3/26/01

Finish Time: 1115

AKRF, Inc.

Environmental Consultants

117 East 29th Street
New York, N.Y. 10016
Fax: (212) 213-3191
Phone: (212) 696-0670

Log of Boring: B-15-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
Address: College Point Blvd., Queens, New York
Client: MUSS

Logged By: WC
Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Rating	Moisture
0	Ground Surface	0					
1	Black silty SAND, FILL (Coal Fragments, Ash).		S-1	SS	12"	ND	Dry
2		-2					
3	FILL (Cinders, Coal Fragments).		S-2	SS	14"	3.0	Dry
4		-4					
5	FILL (Coal Fragments, Ash, Cinders, reddish dense Silt), some gray silty Sand.		*S-3	SS	13"	14.0	Wet
6		-6					
7	Dark silty SAND and GRAVEL, FILL.		*S-4	SS	12"	5.0	Wet
8		-8					
9	FILL (Cobbles, Wood fragments, Coal Fragments).		S-5	SS	5"	ND	Wet
10		-10					
11	PEAT, FILL (Shell Fragments).		S-6	SS	13"	ND	Wet
12		-12					
13	End of boring at approximately 12 feet below grade.						
14	Groundwater encountered at approximately 5 feet below grade.						
15	SS - Soil Sample *Soil sample sent to laboratory.						
16	ND-None Detected						

Driller: ADT
Drill Method: 3-1/4" Hollow Stem Auger
Sample Method: 2" Split Spoon
Borehole Diameter: 7"
Water Level: Approx. 5 Feet Below Grade

GS Elevation:
Start Date: 3/23/01
Start Time: 1340
Finish Date: 3/23/01
Finish Time: 1450

AKRF, Inc.

Environmental Consultants

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 Phone: (212) 696-0670

Log of Boring: B-16-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: WC
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
1	5" BITUMINOUS CONCRETE (ASPHALT). Augered to 2 foot below grade.	-2	*S-1		0"	ND	
3	No recovery.	-4	S-2		0"	ND	
5	Reddish brown sandy SILT.	-6	*S-3	SS	18"	ND	Wet
7	End of boring at approximately 6 feet below grade.						
8	Groundwater encountered at approximately 4 feet below grade.						
9	SS - Soil Sample						
10	*Soil sample sent to laboratory. ND-None Detected						
11							
12							
13							
14							
15							
16							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 4 Feet Below Grade

GS Elevation:
 Start Date: 3/23/01
 Start Time: 1310
 Finish Date: 3/23/01
 Finish Time: 1330

AKRF, Inc.

Environmental Consultants

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Log of Boring: B-17-01

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: WC
 Checked By: MA

Depth	Description	Depth Below Grade	Sample Number	Sample Type	Recovery	OVM Reading	Moisture
0	Ground Surface	0					
	6" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-0.5					
1	CONCRETE FRAGMENTS and coarse SAND. Refusal at 1.5 feet below grade. Augering to 2 feet below grade.	-2			0"		
3	Coarse SAND and GRAVEL, FILL (Concrete and Wood Fragments, Cinders). Slicent odor noted.	-4	*S-1	SS	12"	14.0	Dry
5	Brown/red silty SAND, some Rock fragments and Gravel.	-6	S-2	SS	14"	ND	Wet
7	Brown/red silty SAND, some Rock fragments.	-8	S-3	SS	13"	ND	Wet
9	Brownish silty SAND, FILL (Wood Fragments and Gravel). Some petroleum staining noted on soil.	-10	S-4	SS	19"	ND	Wet
11	No recovery.	-12	S-5	SS	0"	ND	Wet
13	Dark gray SILT, some coarse Sand.	-14	S-6	SS	5"	ND	Wet
15	PEAT and SILT.	-16	*S-7	SS	24"	ND	Wet
16	<i>End of boring at approximately 10 feet below grade.</i>						
17	<i>Groundwater encountered at approximately 6 feet below grade.</i>						
18	SS - Soil Sample						
19	*Soil sample sent to laboratory. ND-None Detected						

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: Approx. 6 Feet Below Grade

GS Elevation:
 Start Date: 3/23/01
 Start Time: 1005
 Finish Date: 3/23/01
 Finish Time: 1115

AKRF, Inc.

Environmental Consultants

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Log of Well: MW-1

Project No: 30141

Project: MUSS Development Site

Address: College Point Blvd., Queens, New York

Client: MUSS

Sheet 1 of 1

Logged By: MA

Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER H2O 2" DIA. SCH. 40 SLOTTED PVC (0.0100") SAND FILTER PACK BOTTOM CAP</p>	
		6" BITUMINOUS CONCRETE (ASPHALT).	-1						
2		Black silty SAND, FILL (Coal Fragments, Wood, Cinders).	-3.02	*S-1	SS	12"	ND		
4		Black silty SAND, FILL (Ash). Petroleum odor noted in spoon.	-5	S-2	SS	8"	ND		
6		FILL (Ash), Black silty SAND.	-7	*S-3	SS	12"	ND		
8		No recovery.	-9	S-4	SS	0"			
10		No recovery.	-11	S-5	SS	0"			
12		PEAT.	-13	S-6	SS	4"	ND		
14		No recovery.	-15						
15		End of boring at approximately 15 feet below grade.							
16		Groundwater encountered at 7 feet below grade.							
17		*Sample sent to laboratory. ND-None Detected							
18									

Driller: ADT

Drill Method: 3-1/4" Hollow Stem Auger

Sample Method: 2" Split Spoon

Borehole Diameter: 7"

Water Level: 7 Feet Below Grade

GS Elevation:

Start Date: 3/29/01

Start Time: 1345

Finish Date: 3/29/01

Finish Time: 1410

Environmental Consultants

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Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: MA
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER H2O 2" DIA. SCH. 40 SLOTTED PVC (0.0100") SAND FILTER PACK BOTTOM CAP</p>	
1		6" BITUMINOUS CONCRETE (ASPHALT).	-1						
2		Black silty SAND, FILL (Coal Fragments, Wood, Cinders). Petroleum odor noted in spoon.	-3.05	S-1	SS	12"	40.0		
3		Black silty SAND, FILL (Coal Fragments, Wood, Cinders). Petroleum odor noted in spoon.	-5	*S-2	SS	14"	88.0		
4		Gray SILT.	-6	S-3	SS	20"	21.0		
5		Light gray SILT, trace Sand.	-7	S-4	SS	7"	21.0		
6		FILL (Ash, Coal Fragments, Cinders). Petroleum sheen noted in spoon.	-9	S-5	SS	10"	7.0		
7		FILL (Ash, Coal Fragments, Cinders). Petroleum sheen noted in spoon.	-11	S-6	SS	4"	ND		
8		CLAY and PEAT.	-13	S-7	SS	8"	ND		
9		End of boring at approximately 13 feet below grade.							
10		Groundwater encountered at 5 feet below grade.							
11		*Sample sent to laboratory.							
12		ND-None Detected							
13									
14									
15									
16									
17									
18									

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 7 Feet Below Grade

GS Elevation:
 Start Date: 3/29/01
 Start Time: 1130
 Finish Date: 3/29/01
 Finish Time: 1215

AKRF, Inc.

Environmental Consultants

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Log of Well: MW-3

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: RS
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER 2" DIA. SCH. 40 SLOTTED PVC (0.0100") H2O SAND FILTER PACK BOTTOM CAP</p>	
1		12" BITUMINOUS CONCRETE (ASPHALT).	-1						
2		Top 2": Black fine to coarse SAND, trace Gravel, FILL (Ash, Coal Fragments). Bottom 10": Brown fine to coarse SAND.	-3	*S-1	SS	16"	0.8		
3		Top 2": Black fine to coarse SAND, trace Gravel, FILL (Ash, Coal Fragments). Bottom 10": Brown fine to coarse SAND.	-5	*S-2	SS	14"	ND		
4		Top 5": Brown fine to coarse SAND and SILT. Bottom 10": Brown fine to coarse SAND. Refusal encountered at @ 3.5 feet; boring location moved @ 10'.	-7	S-3	SS	6"	0.8		
5		FILL (black ASH), some brown fine to coarse SAND.	-9	S-4	SS	10"	0.8		
6		Brown fibrous PEAT and brown SILT.	-11	S-5	SS	18"	0.8		
7			-12						
8									
9									
10									
11									
12									
13		End of boring at approximately 12 feet below grade.							
14		Groundwater encountered at 5 feet below grade.							
15		*Sample sent to laboratory. ND-None Detected							
16									
17									
18									

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 4.2 Feet Below Grade

GS Elevation:
 Start Date: 3/28/01
 Start Time: 1345
 Finish Date: 3/28/01
 Finish Time: 1520

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Log of Well: MW-4

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: RS
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER 2" DIA. SCH. 40 SLOTTED PVC (0.0100") H2O SAND FILTER PACK BOTTOM CAP</p>	
1		12" BITUMINOUS CONCRETE (ASPHALT).	-1						
2		Top 2": Black fine to coarse SAND, trace Gravel, FILL (Ash, Coal Fragments). Bottom 10": Brown fine to coarse SAND.	-3	*S-1	SS	16"	0.8		
3		Top 2": Black fine to coarse SAND, trace Gravel, FILL (Ash, Coal Fragments). Bottom 10": Brown fine to coarse SAND.	-5	S-2	SS	14"	ND		
4		Top 5": Brown fine to coarse SAND and SILT. Bottom 10": Brown fine to coarse SAND. Refusal encountered at @ 3.5 feet; boring location moved @ 10'.	-7	S-3	SS	6"	0.8		
5		FILL (black ASH), some brown fine to coarse SAND.	-9	*S-4	SS	10"	0.8		
6		Brown fibrous PEAT and brown SILT.	-11	S-5	SS	18"	0.8		
7			-12						
8									
9									
10									
11									
12									
13		End of boring at approximately 11 feet below grade.							
14		Groundwater encountered at 4.1 feet below grade.							
15		*Sample sent to laboratory.							
16		ND-None Detected							
17									
18									

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 4.2 Feet Below Grade

GS Elevation:
 Start Date: 3/28/01
 Start Time: 1215
 Finish Date: 3/28/01
 Finish Time: 1330

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Log of Well: MW-5

Project No: 30141

Project: MUSS Development Site

Address: College Point Blvd., Queens, New York

Client: MUSS

Sheet 1 of 1

Logged By: MA

Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER H2O 2" DIA. SCH. 40 SLOTTED PVC (0.0100") SAND FILTER PACK BOTTOM CAP</p>	
		6" BITUMINOUS CONCRETE (ASPHALT).	-0.6						
1		Black silty SAND, FILL (Ash, Cinders, Coal Fragments).	-2	S-1	SS	12"	3.1		
2									
3		Gray SILT, FILL (Coal Fragments). Petroleum product noted in spoon.	-4	*S-2	SS	18"	131		
4									
5		Gray silty SAND, FILL (Shell Fragments, red Brick Fragments).	-6	*S-3	SS	18"	44.0		
6									
7		No recovery.	-8	S-4	SS	0"			
8									
9		PEAT.	-10	S-5	SS	10"	9.3		
10									
11									
12									
13									
14		End of boring at approximately 14 feet below grade.	-14						
15		Groundwater encountered at 5 feet below grade.							
16		*Sample sent to laboratory. ND-None Detected							
17									
18									

Driller: ADT

Drill Method: 3-1/4" Hollow Stem Auger

Sample Method: 2" Split Spoon

Borehole Diameter: 7"

Water Level: 5 Feet Below Grade

GS Elevation:

Start Date: 3/27/01

Start Time: 1350

Finish Date: 3/27/01

Finish Time: 1455

AKRF, Inc.

Environmental Consultants

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Log of Well: MW-6

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: MA
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0						
		4" BITUMINOUS CONCRETE (ASPHALT).	-0.6						LOCKING PROTECTIVE CASING
1		Black silty SAND, FILL (red Brick Fragments, Ash, Cinders).	-2	*S-1	SS	12"	0.8		TOP CAP
2									CONCRETE SEAL
3		Gray silty SAND, FILL (Ash, Coal Fragments, Cinders).	-4	S-2	SS	0"	ND		NATIVE BACKFILL
4									BENTONITE
5		Black silty SAND, FILL (Ash, Coal Fragments, Cinders). Reddish brown Silt noted in the tip of the spoon.	-6	S-3	SS	10"	ND		2" DIA. SCH. 40 BLANK PVC RISER
6									H2O
7		Black silty SAND. Petroleum sheen noted.	-8	*S-4	SS	5"	ND		
8									
9		Black silty SAND. Petroleum sheen noted.	-10	S-5	SS	14"	ND		
10									2" DIA. SCH. 40 SLOTTED PVC (0.0100")
11		Gray SILT, some Shell Fragments.	-12	S-6	SS	10"	ND		SAND FILTER PACK
12									
13		PEAT.	-14	S-7	SS	14"	ND		
14									BOTTOM CAP
15		End of boring at approximately 14 feet below grade.							
16		Groundwater encountered at 6.5 feet below grade.							
17		*Sample sent to laboratory. ND-None Detected							
18									

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 6.5 Feet Below Grade

GS Elevation:
 Start Date: 3/26/01
 Start Time: 1140
 Finish Date: 3/26/01
 Finish Time: 1215

AKRF, Inc.

Environmental Consultants

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Log of Well: MW-7

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: MA
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL NATIVE BACKFILL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER H2O 2" DIA. SCH. 40 SLOTTED PVC (0.0100") SAND FILTER PACK BOTTOM CAP</p>	
1		Reddish brown silty SAND.		S-1	SS	3"	ND		
2			-2						
3		Reddish brown SAND, trace Silt.		*S-2	SS	12"	ND		
4		Reddish brown SAND, trace Silt.	-4						
5		Reddish brown SAND, trace Silt.	-5	S-3	SS	12"	ND		
6		Reddish brown TILL.	-6	*S-4	SS	12"	ND		
7									
8									
9									
10									
11									
12									
13									
14			-14						
15		Reddish brown TILL.		S-5	SS	8"	ND		
16			-16						
17									
18			-18						
19		<i>End of boring at approximately 18 feet below grade.</i>							
20		<i>Groundwater encountered at 6 feet below grade.</i>							
21		<i>*Sample sent to laboratory. ND-None Detected</i>							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 6 Feet Below Grade

GS Elevation:
 Start Date: 3/29/01
 Start Time: 0915
 Finish Date: 3/29/01
 Finish Time: 1110

AKRF, Inc.

Environmental Consultants

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Log of Well: MW-8

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: MA
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL NATIVE BACKFILL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER H2O 2" DIA. SCH. 40 SLOTTED PVC (0.0100") SAND FILTER PACK BOTTOM CAP</p>	
1		7" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-1						
2		Black silty SAND, FILL (red Brick Fragments, Ash, Cinders).	-3	S-1	SS	18"	ND		
4		Gray silty SAND, FILL (Shell Fragments).	-5	S-2	SS	4"	ND		
6		Gray silty SAND, FILL (Shell Fragments).	-7	S-3	SS	2"	ND		
8		No recovery.	-9	S-3	SS	5"	ND		
10		PEAT.	-11	S-4	SS	14"	ND		
15		End of boring at approximately 11 feet below grade.							
16		Groundwater encountered at 6 feet below grade.							
17		*Sample sent to laboratory. ND-None Detected							
18									

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 6 Feet Below Grade

GS Elevation:
 Start Date: 3/26/01
 Start Time: 1140
 Finish Date: 3/26/01
 Finish Time: 1215

AKRF, Inc.

Environmental Consultants

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Log of Well: MW-9

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: MA
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0						
1		6" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-1						
2		Gray silty SAND, FILL (Ash, Wood, Concrete Fragments).	-3	*S-1	SS	18"	ND		
3									
4		Silty SAND, some dense Clay, FILL (Gravel, Wood).	-5	*S-2	SS	4"	ND		
5									
6		Dense CLAY.	-7	S-3	SS	2"	ND		
7									
8		No recovery.	-9			0"			
9									
10		PEAT.	-11	S-4	SS	14"	ND		
11									
12		End of boring at approximately 11 feet below grade.							
13		Groundwater encountered at 3.6 feet below grade.							
14		*Sample sent to laboratory.							
15		ND-None Detected							
16									

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 6 Feet Below Grade

GS Elevation:
 Start Date: 3/26/01
 Start Time: 1335
 Finish Date: 3/26/01
 Finish Time: 1415

AKRF, Inc.

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Log of Well: MW-10

Project No: 30141

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Sheet 1 of 1

Logged By: MA
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE				Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery	OVM Reading		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL NATIVE BACKFILL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER H2O 2" DIA. SCH. 40 SLOTTED PVC (0.0100") SAND FILTER PACK BOTTOM CAP</p>	
1		6" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-1						
2		Black SILTY SAND, FILL (Coal Fragments, Wood, Cinders).		*S-1	SS	18"	9.0		
3			-3.05						
4		No recovery due to refusal on WOOD. Boring location moved approximately 5 feet north.		*S-2	SS	12"	ND		
5			-5						
6		Gray silty SAND, FILL (Shell Fragments, red Brick Fragments).		S-3	SS	10"	ND		
7			-7						
8		Greenish gray SILT.		S-3	SS	7"	ND		
9			-9						
10		No recovery.		S-4	SS	0"	ND		
11			-11						
12		Gray SILT. noted in the tip of the spoon. Peat		S-5	SS	4"	ND		
13			-13						
14		CLAY and PEAT.		*S-6	SS	16"	1.4		
15			-15						
16		End of boring at approximately 15 feet below grade.							
17		Groundwater encountered at 5 feet below grade.							
18		*Sample sent to laboratory. ND-None Detected							

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 5 Feet Below Grade

GS Elevation:
 Start Date: 3/27/01
 Start Time: 1115
 Finish Date: 3/27/01
 Finish Time: 1215

AKRF, Inc.

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Log of Well: MW-11

Project No: 30141

Sheet 1 of 1

Project: MUSS Development Site
 Address: College Point Blvd., Queens, New York
 Client: MUSS

Logged By: RS
 Checked By: MA

SUBSURFACE PROFILE				SAMPLE			Well Data	Remarks
Depth	Symbol	Description	Depth	Number	Type	Recovery		
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER H2O 2" DIA. SCH. 40 SLOTTED PVC (0.0100") SAND FILTER PACK BOTTOM CAP</p>
		12" BITUMINOUS CONCRETE (ASPHALT).	-1					
1		Brown and black fine to coarse SAND and GRAVEL, FILL (Coal Fragments, Ash).		*S-1	SS	12"	ND	
2			-3					
3		Dark brown fine to coarse SAND and SILT, FILL (Ash, Coal Fragments).		S-2	SS	14"	ND	
4			-5					
5		Brown SILT and fine to medium SAND, trace fine Gravel.		S-3	SS	8"	ND	
6			-7					
7		Brown SILT and fine to medium SAND, trace fine Gravel.		S-4	SS	8"	ND	
8			-9					
9		No recovery.		S-5	SS	0"	ND	
10			-11					
11		Brown fibrous PEAT.		*S-6	SS	14"	4.2	
12			-13					
13		End of boring at approximately 13 feet below grade.						
14		Groundwater encountered at 4.5 feet below grade.						
15		*Sample sent to laboratory.						
16		ND-None Detected						
17								
18								

Driller: ADT
 Drill Method: 3-1/4" Hollow Stem Auger
 Sample Method: 2" Split Spoon
 Borehole Diameter: 7"
 Water Level: 4.2 Feet Below Grade

GS Elevation:
 Start Date: 3/28/01
 Start Time: 0950
 Finish Date: 3/28/01
 Finish Time: 1115

AKRF, Inc.

Environmental Consultants

34 South Broadway

White Plains, New York 10601

Fax: (914) 949-7559

Phone: (914) 949-7336

Log of Well: MW-12

Project No: 30141

Project: MUSS Development Site

Address: College Point Blvd., Queens, New York

Client: MUSS

Sheet 1 of 1

Logged By: MA

Checked By: MA

SUBSURFACE PROFILE				SAMPLE			Well Data	Remarks	
Depth	Symbol	Description	Depth	Number	Type	Recovery			OVM Reading
0		Ground Surface	0					<p>LOCKING PROTECTIVE CASING TOP CAP CONCRETE SEAL BENTONITE 2" DIA. SCH. 40 BLANK PVC RISER H2O 2" DIA. SCH. 40 SLOTTED PVC (0.0100") SAND FILTER PACK BOTTOM CAP</p>	
1		6" CONCRETE/BITUMINOUS CONCRETE (ASPHALT).	-1						
2		Black silty SAND, FILL (Coal Fragments, Ash, Cinders).	-3	*S-1	SS	20"	ND		
3									
4		Silty SAND, Clay. Petroleum sheen note in spoon.	-5	*S-2	SS	16"	ND		
5									
6		Dense CLAY.	-7	S-3	SS	10"	ND		
7									
8		PEAT.	-9	S-3	SS	12"	ND		
9									
10		PEAT.	-11	S-4	SS	12"	ND		
11									
12									
13		End of boring at approximately 11 feet below grade.							
14		Groundwater encountered at 6 feet below grade.							
15		*Sample sent to laboratory.							
16		ND-None Detected							
17									
18									

Driller: ADT

Drill Method: 3-1/4" Hollow Stem Auger

Sample Method: 2" Split Spoon

Borehole Diameter: 7"

Water Level: 6 Feet Below Grade

GS Elevation:

Start Date: 3/26/01

Start Time: 0700

Finish Date: 3/26/01

Finish Time: 0820

APPENDIX B - DATA USABILITY SUMMARY REPORT

Andrew D. Rudko, Ph.D.

Education

Cornell University, B.S., Biochemistry, 1965.

Columbia University, Ph.D., Biochemistry, 1972.

Membership in Professional Organizations

National Ground Water Association

Years of Experience

With AKRF: 15.

With other firms: 8.

Andrew D. Rudko, Ph.D., is a vice president and principal of AKRF, Inc. with more than 20 years' experience in environmental analysis and management, with particular emphasis on hazardous materials, environmental site assessments and audits, and soil and groundwater remediation.

Dr. Rudko's current and recent experience includes management of several projects involving Voluntary Cleanup Agreements for assessment and remediation of soil and groundwater contamination problems on major development sites.

- Dr. Rudko directed the assessment and remediation work on a 14-acre parcel in New Rochelle, New York that was being developed by a national retail chain. After extensive review and discussions with DEC, a remediation agreement was developed and approved that became the model for New York State's Voluntary Cleanup Program. AKRF supervised the implementation of the remediation measures, which included removal of underground storage tanks and associated contaminated soil, and construction of an impermeable cap with a gas venting system for areas with lead contamination.
- On another retail site, serious solvent contamination was unexpectedly encountered on a property being developed in Queens, New York. Dr. Rudko managed the design and execution of a testing program, planned a remediation program that would permit development of the site, and assisted in the negotiation of a Voluntary Cleanup Agreement with DEC. Development of the property is now continuing while a groundwater remediation system designed by AKRF Engineering is installed as part of the building construction.
- Another Voluntary Cleanup directed by Dr. Rudko involved the delineation and removal of PCB-contaminated soil from a site in College Point. DEC has issued a release letter following the successful completion of this project.

Dr. Rudko has also directed the site assessment work for many projects:

- He directed the site assessment work on the 90-acre site of the proposed Queens West development project being sponsored by the Empire State Development Corporation, the New York City Public Development Corporation, and the Port Authority of New York and New Jersey. This site comprises more than 10 blocks of industrial property along the East River in Queens. Former uses on the site include oil refineries, paint manufacturers, and railyards. AKRF developed and implemented extensive soil and groundwater testing programs, and developed remediation plans which have been incorporated into four separate Voluntary Cleanup Agreements.
- Dr. Rudko has been managing the assessment and cleanup of the only listed hazardous waste site in Manhattan, a former laundry/dry cleaning plant on Fifth Avenue in Harlem. Remediation has included the removal of contaminated building materials and operation of an innovative sub-slab vapor extraction system. Installation of this system required the development of special techniques for horizontal drilling under the floor of the building.
- For the New York City Department of Environmental Protection, Dr. Rudko directed fast-track site assessments of 17 properties acquired from the Jamaica

Andrew D. Rudko

Water Company. The assessments, all of which were completed within 2 months, included soil and groundwater testing, asbestos and lead paint surveys, and testing of buildings for mercury contamination.

- Dr. Rudko was project director for the site assessment work the firm performed for the New York City School Construction Authority, directing assessments on school sites in the Bronx, Brooklyn, and Queens. Sites included a former gas station, a truck salvage yard, and a former plastics factory. Testing programs were recommended, developed, and implemented for these sites, and remedial actions were recommended where necessary. At the former plastics factory site, the testing program included soil and groundwater sampling, testing of building floors for PCB contamination, and location and removal of old underground gasoline and oil tanks, with screening of surrounding soil for possible petroleum contamination.

Dr. Rudko has also directed numerous property assessments for private parties to identify potential environmental liabilities associated with vacant or occupied properties. Assessments have been performed for major corporations, prominent real estate developers, and leading environmental law firms.

- He directed Phase I environmental assessments for several major commercial properties in the New York City area, including the AT&T building, the Plaza Hotel, One Seaport Plaza, New York Plaza, the former General Electric building, the site of the proposed Trump Riverside South development, and many others.
- Dr. Rudko has been providing environmental consulting services to Home Depot, Inc. and Costco, Inc. in connection with their development of major retail facilities at locations throughout the New York metropolitan area. Many of these locations are former industrial properties that have required remedial actions prior to redevelopment.
- He directed Phase I and Phase II assessments for the New York Times in preparation for the development of its major new printing facility in New York City. Assessments were prepared for three alternative sites: a former railyard in the Bronx later used as an illegal landfill for demolition debris; a site in Queens comprising six industrial properties, several with multiple tenants; and a large city-owned site in Queens.

In addition, he also directed Phase I environmental assessments of several major medical facilities in connection with new financing through bonds issued by the New York State Medical Care Facilities Finance Agency. Facilities include Presbyterian Hospital, Mt. Sinai Medical Center, St. Lukes/Roosevelt Hospital Center, Brooklyn Hospital, and Syosset Hospital.

Dr. Rudko has managed cleanups of many petroleum spills on sites in New York City. Some recent spill cleanup sites include the Tribeca Hotel site being developed by Hartz Mountain Industries in Lower Manhattan, retail sites in Maspeth and Long Island City developed by Forest City Ratner Companies, a site in the Bronx being developed by Triangle Equities for the Department of Motor Vehicles, the Rivergate Apartments on East 34th Street in Manhattan, and a residential development on Sixth Avenue in Manhattan.

Andrew D. Rudko

He has been responsible for assessing impacts on public health for a number of projects involving the use of hazardous chemicals, biohazards, and radioactive materials. These projects include an engineering and physics research center on the

campus of Columbia University, a new laboratory building for biomedical research at Rockefeller University, and the proposed Audubon Research Park in upper Manhattan.

Dr. Rudko's experience includes several projects involving the environmental impacts of solid waste disposal facilities. He designed and managed a testing program to determine whether toxic pollutants were being emitted into the atmosphere from the 2,900-acre Fresh Kills Landfill on Staten Island. He also participated in studies of the environmental impacts of various proposals to dispose of New York City sewage sludge, and of several proposed resource recovery facilities.

Previously, Dr. Rudko was a senior environmental scientist at Parsons Brinckerhoff Quade and Douglas, Inc. He was responsible for environmental analyses for a variety of development, transportation, and solid waste disposal projects throughout the country. These included projects in New York, New Jersey, Maryland, Virginia, Washington, D.C., and Florida.

Data Usability Summary Report

The laboratory analysis is contained in seven data packages:

1. March 21, 23 and 23, 2001 Soil Data - Severn Trent Laboratories report (STL# 7001-0651B) dated April 17, 2001;
2. March 26, 2001 Soil Data – Severn Trent Laboratories report (STL# 7001-0651A) dated April 16, 2001;
3. March 26, 2001 Soil Data – Severn Trent Laboratories report (STL# 7001-1019A) dated May 21, 2001;
4. March 28 and 29, 2001 Soil Data – Severn Trent Laboratories report (STL# 7001-0651D) dated April 19, 2001;
5. March 28 and 29, 2001 Soil Data – Severn Trent Laboratories report (STL# 7001-0651C) dated May 11, 2001;
6. April 6, 2001 Groundwater Data – Severn Trent Laboratories report (STL# 7001-0805A) dated April 27, 2001 (May 25, 2001 letter from STL regarding Sample MW-6); and
7. June 21, 2001 Tank Content Data – Severn Trent Laboratories report (STL #7001-1613A) dated July 23, 2001.

1. STL Report # 7001-0651 B

18 soil samples and one trip and one field blank were analyzed for volatile organic compounds (VOC) by Methods 5030B/8260B, semivolatile organic compounds (SVOCs) by Methods 3550C/8270C, pesticides by Methods 3550B/8081A, polychlorinated biphenyls (PCBs) by Methods 3550B/8082, metals by Methods ICAP 3050B/6010B and Mercury 7471A, and cyanide by Method 9012. The analyses were performed by Severn Trent Laboratories in both Monroe, CT and Newburgh, NY. Both are New York State ELAP-certified laboratories. The NYS DEC ASP Category B data package is complete. All samples were received in good condition and at proper temperature. All required holding times were met. Examination of the raw data confirms the results in the summary tables. The correct data qualifiers were used.

The following minor data quality deficiencies were noted:

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. No analytical problems were encountered and all holding times were met.

Analyte	Method	Reference
Cyanide – Total	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Volatile Organic Compounds – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 2000/2016 Concentrator interfaced with a Hewlett Packard Model 5970A/5971A GC/MS/DS.

The following samples were analyzed twice due to having surrogate recoveries and/or internal standard areas out of criteria limits: B-12 (1-3'), B-12 (3-5'), B-16 (0-2'D), B-17 (0-2'), MW-12 (1-3'), MW-12 (5-7'), B-13 (1-3'), MW-8 (1-3'), MW-8 (9-11'), and MW-9 (1-3'). Both analyses exhibited similar results, therefore proving matrix interference. Both sets of results have been reported.

Sample B-16 (0-2') results exhibited suppression of internal standard areas and surrogate recoveries out of criteria. The FMS/FMSD analyzed on this sample also had similar results. These analyses were reported since matrix interference was proven.

The following samples were analyzed at dilutions due to high target compound concentrations, elevated chromatography, or to prove matrix interference:

MW-12 (1-3')	1:5
MW-12 (5-7')DL	1:4
B-14 (1-3')DL	1:4
B-17 (2-4')	1:5

Some target compound concentrations were over the calibration curve. These compounds were flagged with an "E".

The spike percent recovery of acetone was above the laboratory generated guidelines in the 020ppb_QCS, O3489. The spike percent recoveries of bromomethane and 1,2-dichloropropane were outside the laboratory generated guidelines in the 020ppb_QCS, O3527.

The following spike compound percent recoveries were outside criteria limits in the FMS/FMSD samples: chloromethane, chloroethane, carbon disulfide, 1,1-dichloroethene, 1,2-dichloroethene (total), 1,1,1-trichloroethane, carbon tetrachloride, bromodichloromethane, 1,2-dichloropropane, cis-1,3-dichloropropene, Trichloroethene, tetrachloroethene, toluene, chlorobenzene, styrene, ethylbenzene, xylene (total), methylene chloride, dibromochloromethane and 1,1,2-trichloroethane.

Sample Calculation:

Sample ID – MW-12 (1-3')
Compound – Acetone

$$\frac{(117576)(250)}{(16073)(1.322)(5.13)(0.90)} = 299.6 = 300 \text{ UG/KG}$$

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3050B/6010B; mercury-7471A.

Antimony, copper, and mercury failed the controls for spike recovery analysis of sample B-16 (0-2') resulting in three "N" flags.

No other problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Semi-Volatile Organic Compounds - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3550C/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

Samples MW-9 (3-5'), W-9 (3-5')RE, B-17 (0-2) had one surrogate out of recovery criteria, but within laboratory sample acceptance criteria.

Samples MW-9 (3-5'), MW-12 (1-3'), MW-12 (5-7') and B-14 (1-3') exhibited internal standard area suppression. The samples were re-analyzed with similar results confirming matrix interference. Both analyses are reported. The re-analyses are indicated by the suffix "RE" or "DL".

The original analysis of sample MW-12 (5-7') had results with compounds over the calibration limit and two surrogates out of criteria due to internal standard area suppression. This analysis has been reported as the confirming run for MW-12 (5-7')DL.

The spike recovery for the compounds, bis(2-Chloroethyl)ether and bis(2-chloroethoxy)methane was below recovery limits for SBLKSRFMS. The recovery for 4-methylphenol, bis(2-chloroethoxy)methane, and 2,4,5-trichlorophenol were outside limits for SBLKTRFMS.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

B-15 (4-6')	1:4	B-16 (0-2'),MS,MSD	1:100
B-16 (0-2')	1:100	B-17 (2-4')	1:25
B-16 (4-6')	1:5	MW-12 (1-3'), RE	1:8
B-14 (1-3'), RE	1:5	MW-9 (1-3')	1:10
B-12 (1-3')	1:10	MW-12 (5-7')DL	1:10

Sample Calculation:

Sample ID - B-1 (0-2')

Compound - phenanthrene

$$\frac{(2677305)(40)(1000)(1)}{(764006)(1.038)(2)(30.2)(.90)} = 248 \text{ ug/kg} = 250 \text{ ug/kg}$$

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

The samples, in general, were difficult to analyze due to the presence of sulfur, PCB's and matrix interference.

Samples PCBLK94, MW-8 (9-11') and MW-8 (5-7') required sulfur cleanup prior to analysis.

The LCS, PBLK94QC1, was spiked with 10x too much QC solution. This sample was diluted 1:10 prior to analysis.

Surrogates were diluted out of samples MW-12 (1-3'), B-12 (3-5'), B-16 (0-2'), B-16 (0-2'D), B-16 (0-2')MS1, MW-12 (5-7'), B-14 (1-3'), MW-9 (1-3'), and MW-9 (3-5').

The surrogate, Decachlorobiphenyl, was lost in sample matrix in B-16 (4-6') on the DB-1701 column.

The surrogate percent recovery for Decachlorobiphenyl was above QC limits in MW-8 (9-11') due to sample matrix.

The spike percent recovery for gamma-BHC was below QC limits in B-16 (0-2')MSB1. It was suspected that the spiking solution degraded. New solution has since been re-prepped.

The spike percent recovery for delta-BHC was below QC limits in PBLK88QC1. The spiking solution degraded. New solution has since been re-prepped. This solution is commonly prepped once a month due to the rapid degradation of this compound.

The spiking compounds were diluted out of B-16 (0-2')MS1 and B-16 (0-2')MSD1.

Spike recoveries for Endosulfan II and 4,4'-DDD were elevated in PBLK88QC1 due to coelution on the DB-1701 column.

Results for Endrin were reported in samples B-12 (1-3'), B-12 (3-5'), B-15 (4-6'), B-15 (6-8'), B-17 (0-2'), B-17 (2-4'), MW-12 (1-3'), MW-12 (5-7'), B-14 (1-3'), MW-9 (3-5'), and B-13 (1-3'). However, it was believed to be part of the Aroclor-1260 pattern.

Results for Heptachlor Epoxide were reported from the DB-1701 column in samples B-16 (0-2'), B-16 (0-2')MS1, B-16 (0-2')MSD1, and B-16 (0-2'D) due to sample matrix interference on the RTX-35 column.

Results for Endosulfan II and 4,4'-DDD were reported from the RTX-35 column in LCS, PBLK94QC1, due to coelution on the DB-1701 column.

Results for Endosulfan I and alpha-Chlordane were reported from the DB-1701 column in LCS, PBLK94QC1, due to coelution on the RTX-35 column.

Sample MW-9 (1-3') was analyzed at a 1:20 dilution due to sample matrix. This sample could not be run lower with masking target compounds as well as possibly causing damage to the column and/or detector.

Sample MW-8 (9-11') was analyzed at a 1:2 dilution due to sample matrix. This sample could not be run lower with masking target compounds as well as possibly causing damage to the column and/or detector.

The % breakdown for 4,4'-DDT was outside of QC limits in the IBS standard analyzed at 05:42 on 4/5/01 on the DB-1701 column. The % differences for 4,4'-DDT, Methoxychlor, and Decachlorobiphenyl were below QC limits in the INDA3 standard analyzed at 06:23 on 4/5/01 on the DB-1701 column. These were the end bracketing standards for samples B-17 (0-2'), B-16 (0-2')MSD1, B-16 (0-2')MS1, B-16 (0-2'D), B-12 (1-3'), B-15 (6-8'), and B-16 (0-2'). These samples were run twice with similar results. The sample matrix was the suspected cause. Only one set of data was reported.

The % breakdown for 4,4'-DDT was outside of QC limits in the IBS standard analyzed at 00:19 on 4/17/01 on the RTX-35 column. The % differences for all of the compounds were below QC limits in the INDB3 standard analyzed at 01:33 on 4/17/01 on the RTX-35 column. These were the end bracketing standards for sample B-13 (1-3'). The sample matrix was the suspected cause.

The % differences for Endosulfan I, Dieldrin, and 4,4'-DDT were below QC limits in the INDA3 standard analyzed at 11:30 on 4/13/01 on the RTX-35 column. This was the end bracketing standard for samples B-16 (0-2')MSB1, PBLK94, PCBLK94, PBLK94QC1, B-16 (0-2')MSD1, B-16 (0-2')MS1, B-14 (1-3'), MW-8 (1-3'), MW-8 (5-7'), MW-8 (9-11'), MW-9 (1-3'), and MW-9 (3-5'). The sample matrix was the suspected cause.

The % differences for all of the compounds were below QC limits in the INDA3 standard analyzed at 16:37 on 4/10/01 on the RTX-35 column. This was the end bracketing standard for samples PBLK87, B-12 (1-3'), B-12 (3-5'), B-15 (4-6'), B-15 (6-8'), B-16 (0-2'), B-16 (0-2'D), B-17 (0-2'), B-17 (2-4'), B-16 (4-6'), MW-12 (1-3'), and MW-12 (5-7'). The sample matrix was the suspected cause. These samples also had similar problems on the DB-1701 column.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initiated by the analyst that performed the integration.

Sample Calculation:

Sample ID – MW-8 (9-11')

Compound – 4,4'-DDT

$$\frac{(132151 \text{ area})(10000 \text{ ul})}{(16270546 \text{ area/ng})(30.2 \text{ g})(0.39)(1 \text{ ul})} = 6.9 \text{ ug/Kg}$$

Polychlorinated Biphenyls - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

All samples required acid cleanup prior to analysis.

Samples B-15 (4-6'), B-16 (0-2'), B-16 (0-2')MS2, B-16 (0-2')MSD2, B-16 (0-2'D), B-16 (4-6'), MW-8 (5-7'), and MW-8 (9-11') required sulfur cleanup prior to analysis.

The aroclor patterns present in some of the client's samples appeared to be weathered.

The samples, in general, were difficult to analyze due to the presence of sulfur and matrix interference.

Surrogates were diluted out of samples B-13 (1-3'), B-15 (4-6'), MW-12 (1-3'), MW-12 (5-7'), MW-8 (1-3'), and MW-9 (3-5').

Surrogate recovery for Decachlorobiphenyl was above QC limits in B-16 (0-2'), B-16 (0-2')MS2 and B-16 (0-2')MSD2 due to sample matrix interference.

The % difference for Aroclor-1260 was below QC limits in the end bracketing standard on the RTX-35 column. This was the end bracketing standard for samples B-14 (1-3'), B-16 (0-2'), B-16 (0-2')MSB2, B-16 (0-2')MS2, B-16 (0-2')MSD2, B-16 (0-2'D), B-17 (0-2'), B-17 (2-4'), MW-12 (1-3'), and MW-12 (5-7'). Samples were run twice with similar results. Only one set of data was reported. All results for these samples were reported from the DB-1701 column.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID - B-12 (3-5')

Compound – Aroclor-1260 peak 24.97, RTX-35 column

$$\frac{(305538 \text{ area})(10000 \text{ ul})(50)}{(1334723 \text{ area/ng})(30.3 \text{ g})(0.84)(1 \text{ ul})} = 4500 \text{ ug/Kg}$$

2. STL Report # 7001-0651 A

20 soil samples were analyzed for volatile organic compounds (VOC) by Methods 5030B/8260B, semivolatile organic compounds (SVOCs) by Methods 3550C/8270C, pesticides by Methods 3550B/8081A, polychlorinated biphenyls (PCBs) by Methods 3550B/8082, metals by Methods ICAP 3050B/6010B and Mercury 7471A, and cyanide by Method 9012. The analyses were performed by Severn Trent Laboratories, Monroe, CT, a New York State ELAP-certified laboratory. The NYS DEC ASP Category B data package is complete. All samples were received in good condition and at proper

temperature. All required holding times were met. Examination of the raw data confirms the results in the summary tables. The correct data qualifiers were used.

The following minor data quality deficiencies were noted:

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. No analytical problems were encountered and all holding times were met.

Analyte	Method	Reference
Cyanide – Total	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Volatile Organic Compounds – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 2000/2016 Concentrator interfaced with a Hewlett Packard Model 5970A/5971A GC/MS/DS.

The following samples were analyzed twice due to having surrogate recoveries and/or internal standard areas out of criteria limits: B-1 (2-4'), B-2 (0-2'), B-2 (2-4'), B-4 (5-7'), B-5 (1-3'), B-6 (0-2'), B-7 (0-2'), B-9 (0-2'), B-10 (0-2'), B-10 (6-8'), and B-9 (4-6'). Both analyses exhibited similar results, therefore proving matrix interference. Both sets of results have been reported with the reanalysis designated by the suffix "RE".

The following samples were analyzed at dilutions due to high target compound concentrations, elevated chromatography, or to prove matrix interference:

B-3 (2-4')	1:2
B-3 (4-6')	1:2
B-4 (5-7')RE	1:2
B-7 (2-4')	1:2
B-8 (2-4')	1:2

Sample B-4 (2-3') was analyzed as a medium level soil due to high target compound concentrations.

The spike percent recovery of 1,2-dichloropropane was below the laboratory generated guidelines in the 020ppb_QCS of 03/28/01 <K4113>. All compounds on the target list in the independent source laboratory quality control samples (020ppb_QCS's) of 03/29/01 <K4133>, 03/30/01 <K4151>, and 04/02/01 <K4176> <N8241> were within laboratory guidelines.

Sample Calculation:

Sample ID – B-1 (0-2')

Compound – Acetone

$$(286108)(250) \quad \underline{\hspace{2cm}} \quad = 20 \text{ UG/KG}$$

$$(1224031)(0.651)(5)(0.89)$$

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3050B/6010B; mercury-7471A.

One “*” flag resulted from duplicate analysis of sample B-10 (6-8’) for aluminum.

No other problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

The samples, in general, were difficult to analyze due to the presence of sulfur, PCB’s and matrix interference

All samples required sulfur cleanup prior to analysis.

Surrogates were diluted out of samples B-4 (2-3’), B-4 (5-7’), B-7 (0-2’), and B-7 (2-4’).

Spike percent recovery for gamma-BHC was below QC limits in B-2 (2-4’)MS1/MSD1.

Results for Endrin were reported in samples B-7 (0-2’), B-7 (2-4’), B-8 (2-4’), B-9 (0-2’), and B-10 (0-2’). However, it was believed to be part of the Aroclor-1260 pattern.

Results for alpha-Chlordane were reported from the DB-1701 column in samples B-2 (2-4’), B-2 (2-4’)MS1, and B-2 (2-4’)MSD1 due to sample matrix interference on the RTX-35 column.

Results for Endrin aldehyde were reported from the RTX-35 column in sample B-3 (4-6’) due to sample matrix interference on the RTX-35 column.

Results for Aldrin were reported from the RTX-35 column in samples B-8 (2-4’) and B-8 (4-6’) due to sample matrix interference on the RTX-35 column.

Results for Heptachlor Epoxide were reported from the RTX-35 column in sample B-9 (4-6’) due to sample matrix interference on the RTX-35 column.

Results for Endosulfan II were reported from the RTX-35 column in sample B-10 (6-8’) due to sample matrix interference on the RTX-35 column.

Results for Endosulfan II 4,4’-DDD were reported from the RTX-35 column in LCS, PBLK86QC1, due to coelution on the DB-1701 column.

Results for Endosulfan I and alpha-Chlordane were reported from the DB-1701 column in LCS, PBLK86QC1, due to coelution on the RTX-35 column.

Samples B-1 (0-2’) and B-1 (2-4’) were analyzed at 1:10 dilutions due to sample matrix. These samples could not be run lower with masking target compounds as well as possibly causing damage to the column and/or detector.

Sample B-3 (2-4’) was analyzed at a 1:50 dilution due to sample matrix. This sample could not be run lower with masking target compounds as well as possibly causing damage to the column and/or detector.

Sample B-3 (4-6') was analyzed at a 1:2 dilution due to sample matrix. This sample could not be run lower with masking target compounds as well as possibly causing damage to the column and/or detector.

Sample B-6 (0-2') was analyzed at a 1:20 dilution due to sample matrix. This sample could not be run lower with masking target compounds as well as possibly causing damage to the column and/or detector.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID – B-2 (0-2')

Compound – alpha-Chlordane

$(486766\text{area})(10000\text{ul})(20) = 250\text{ug/Kg}$

$(14552292\text{area/ng})(30\text{g})(0.88)(1\text{ul})$

Polychlorinated Biphenyls - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

All samples required acid cleanup prior to analysis.

Samples B-1 (0-2'), B-1 (2-4'), B-3 (2-4'), B-3 (4-6'), B-5 (3-5'), B-6 (4-6'), B-7 (2-4'), B-8 (4-6'), B-9 (4-6'), B-10 (6-8'), and PCBLK86 required sulfur cleanup prior to analysis.

The aroclor patterns present in some of the client's samples appeared to be weathered.

The samples, in general, were difficult to analyze due to the presence of sulfur and matrix interference.

Sample B-3 (2-4') was analyzed at a 1:50 dilution due to sample matrix. This sample could not be run lower with masking target compounds as well as possibly causing damage to the column and/or detector.

Sample B-4 (5-7') was analyzed at a 1:500 dilution due to sample matrix. This sample could not be run lower with masking target compounds as well as possibly causing damage to the column and/or detector.

One peak of Aroclor-1242 was outside of retention time windows on the RTX-35 column in B-8 (4-6'), probably due to sample matrix. In the analyst's opinion, this compound was present and therefore reported.

Surrogates were diluted out of samples B-4 (2-3'), B-4 (5-7'), B-7 (0-2'), and B-7 (2-4').

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID - B-9 (0-2')

Compound – Aroclor-1260 peak 18.33, RTX-35 column

$$\frac{(206365 \text{ area})(10000 \text{ ul})(200)}{(1077362 \text{ area/ng})(30.3 \text{ g})(0.82)(1 \text{ ul})} = 15000 \text{ ug/Kg}$$

Semi-Volatile Organic Compounds - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3550C/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

Samples B-4 (5-7'), B-6 (0-2'), B-7 (0-2') and B-9 (0-2') exhibited internal standard area suppression. The samples were re-analyzed with similar results confirming matrix interference. Both analyses are reported. The re-analyses are indicated by the suffix "RE" or "DL".

The spike recovery for the compound, bis(2-chloroethoxy)methane was below recovery limits for SBLKRSFMS.

The spike recovery for the compound, 2,4-dinitrotoluene, was outside recovery limits for B-1(0-2')MS and MSD. The recovery for pyrene was also outside limits for B-1(0-2')MSD and 4-nitrophenol was outside limits for B-1(0-2')MSB.

The %RSD for the compound, pyrene, was outside recovery limits for B01(0-2')MS/MSD.

Samples B-4 (2-3'), B-6 (0-2') and B-10 (0-2') would not concentrate to a final volume of 1 ml, and so were brought to a final volume of 2 mls.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

B-1 (2-4')	1:10	B-2 (0-2')	1:5
B-3 (2-4')	1:25	B-4 (2-3')	1:200
B-4 (5-7')	1:10	B-4 (5-7')DL	1:25
B-7 (2-4')	1:8	B-8 (2-4')	1:2
B-9 (0-2')	1:5	B-9 (0-2')DL	1:10
B-10 (0-2')	1:2		

Sample Calculation:

Sample ID – B-1 (0-2')

Compound - phenanthrene

$$\frac{(756428)(40)(1000)(1)}{(350186)(0.986)(2)(30.0)(.87)} = 1678 \text{ ug/kg} = 1700 \text{ ug/kg}$$

3 STL Report # 7001-1019 A

4 soil samples and one trip and one field blank were analyzed for volatile organic compounds (VOC) by Methods 5030B/8260B, semivolatile organic compounds (SVOCs) by Methods 3550C/8270C, pesticides by Methods 3550B/8081A, polychlorinated biphenyls (PCBs) by Methods 3550B/8082, metals by Methods ICAP 3050B/6010B and Mercury 7471A, and cyanide by Method 9012. The analyses were performed by Severn Trent Laboratories in both Monroe, CT and Newburgh, NY. Both are New York State ELAP-certified laboratories. The NYS DEC ASP Category B data package is complete. All samples were received in good condition and at proper temperature. All required holding times were met. Examination of the raw data confirms the results in the summary tables. The correct data qualifiers were used.

The following minor data quality deficiencies were noted:

Sample Receipt – The samples were received at 11 °C. The client was notified, and the laboratory was instructed to proceed with the analyses.

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. The spike recovery for cyanide analysis did not meet criteria limits; therefore, a post-digestion spike was analyzed. No other analytical problems were encountered and all holding times were met.

Analyte	Method	Reference
Cyanide – Total	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Volatile Organic Compounds – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/5035A/8260B. The instrumentation used was a Tekmar Model 2000/2016 Concentrator/Archon 51 autosampler interfaced with a Hewlett Packard Model 5970A/5971A GC/MS/DS.

Sample Calculation:

Sample ID –S-1 (0-6")
Compound –Acetone

$$\frac{(1111756)(250)}{(1210093)(1.277)(5)(.89)} = 40.4 = 40 \text{ UG/KG.}$$

The spike compound percent recoveries were within the laboratory generated guidelines in the independent source quality control sample (020PPB_QCS) except for 2-butanone (N8534).

The following percent RPD values were outside the laboratory generated guidelines in the FMS/FMSD samples: acetone and 2-hexanone. The percent recovery for the spike compound, vinyl acetate, was outside the laboratory generated guidelines in the FMSB sample.

Semi-Volatile Organic Compounds - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3510C/3541/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

Sample S-2 (0-6") exhibited internal standard area suppression. The sample was re-analyzed with similar results confirming matrix interference. Both analyses are reported. The re-analysis is indicated by the suffix "RE".

The spike recovery for the compound, pentachlorophenol, was above recovery limits for SBLKZRFMS.

Samples S-3(0-6"), S-4D (0-6"), S-4 (0-6"), and the MS/MSD, would not concentrate to a final volume of 0.5 mls, and so were brought to a final volume of 1 ml.

Samples S-4D (0-6"), S-4 (0-6") and the MS/MSD were analyzed at a 1:2 dilution due to the presence of high levels of target compounds.

Sample Calculation:

Sample ID – S-2 (0-6")
Compound - naphthalene

$$\frac{(112588)(40)(500)(1.0)}{(670973)(1.052)(2)(15.2)(.85)} = 120 \text{ ug/kg}$$

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

Surrogates were diluted out of samples S-2 (0-6"), S-4D (0-6"), S-4 (0-6"), S-4 (0-6")MS1, and S-4 (0-6")MSD1.

Spike recoveries and %RPD's could not be calculated in S-4 (0-6")MS1/MSD1 due to sample dilution.

Sample S-2 (0-6") was run at a 1:200 dilution, sample S-3 (0-6") was run at a 1:50 dilution, S-4 (0-6"), S-4D (0-6"), S-4 (0-6")MS1, and S-4 (0-6")MSD1 were run at 1:100 dilutions due to the high presence of Aroclors. These samples could not be run lower with masking target compounds.

Spike percent recovery for gamma-BHC and Endosulfan Sulfate was below QC limits in PBLK63QC1. These compounds were not present in any of the client's samples.

Spike percent recovery for delta-BHC was below QC limits in PBLK62QC1. This compound degrades rapidly in the spiking solution. A new solution has since been re-prepped and the laboratory is now preparing this solution on a bi-weekly basis.

The spike percent recovery for Endosulfan Sulfate was below QC limits in PBLK62QC1.

Results were reported for Endrin in samples S-1 (0-6"), S-2 (0-6"), S-4D (0-6"), S-4 (0-6"), S-4 (0-6")MS1, and S-4 (0-6")MSD1. The analyst believes this peak was part of the Aroclor-1260 pattern.

Results for 4,4'-DDT were reported from the DB-1701 column in sample S-1 (0-6") due to interference from Aroclor-1260 on the RTX-35 column.

Results for alpha-Chlordane and Endosulfan I were reported from the DB-1701 column in PBLK62QC1 and PBLK63QC1 due to coelution on the RTX-35 column.

Results for Endosulfan II and 4,4'-DDD were reported from the RTX-35 column in PBLK63QC1 due to coelution on the DB-1701 column.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initiated by the analyst that performed the integration.

Sample Calculation:

Sample ID - S-1 (0-6")

Compound – Endrin

$$\frac{(132456\text{area})(10000\text{ul})(20)}{(7740714\text{area/ng})(30.4\text{g})(0.82)(1\text{ul})} = 140 \text{ ug/Kg}$$

Polychlorinated Biphenyls - /PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated analyzed without any apparent problems.

All soil samples required acid cleanup prior to analysis.

Surrogates were diluted out of samples S-4D (0-6"), S-4 (0-6"), S-4 (0-6")MS2, S-4 (0-6")MSD2, and S-2 (0-6").

Spike percent recovery and %RPD was outside of QC limits in S-4 (0-6")MS2/MSD2 due to the high presence of Aroclor-1260 in the unspiked sample and sample dilution.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initiated by the analyst that performed the integration.

Sample Calculation:

Sample ID - S-1 (0-6")

Compound – Aroclor-1260 peak 21.50

$$\frac{(387545\text{area})(10000\text{ul})(50)}{(1291849\text{area/ng})(30.4\text{g})(0.82)(1\text{ul})} = 6000 \text{ ug/Kg}$$

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3010A, 3050B/6010B; mercury-7470A, 7471A.

Antimony failed the controls for spike recovery analysis of sample S-4 (0-6) resulting in one "N" flag.

Four "*" flags resulted from duplicate analysis of sample S-4 (0-6) for calcium, lead, magnesium, and vanadium.

No other problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

4. STL Report # 7001-0651 D

7 soil samples and one trip blank were analyzed for volatile organic compounds (VOC) by Methods 5030B/8260B, semivolatile organic compounds (SVOCs) by Methods 3550C/8270C, pesticides by

Methods 3550B/8081A, polychlorinated biphenyls (PCBs) by Methods 3550B/8082, metals by Methods ICAP 3050B/6010B and Mercury 7471A, and cyanide by Method 9012. The analyses were performed by Severn Trent Laboratories in both Monroe, CT and Newburgh, NY. Both are New York State ELAP-certified laboratories. The NYS DEC ASP Category B data package is complete. All samples were received in good condition and at proper temperature. All required holding times were met. Examination of the raw data confirms the results in the summary tables. The correct data qualifiers were used.

The following minor data quality deficiencies were noted:

Sample Receipt – All samples were received in good condition and at proper temperature.

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. No analytical problems were encountered and all holding times were met.

Analyte	Method	Reference
Cyanide – Total	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Volatile Organic Compounds – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 2000/3000 Concentrator/Archon 51/4552 autosampler interfaced with a Hewlett Packard Model 5971A/5972A GC/MS/DS.

The following samples were analyzed twice due to having surrogate recoveries and/or internal standard areas out of criteria limits: MW-7 (0-2'), MW-1 (1-3'), MW-1 (5-7'), and MW-2 (1-3'). Both analyses exhibited similar results, therefore proving matrix interference. Both sets of results have been reported with the reanalysis designated by the suffix "RE".

Sample MW-2 (3-5') was analyzed as a medium level soil due to high target compound concentrations.

The spike percent recoveries of bromomethane and 1,2-dichloropropane were outside the laboratory generated guidelines in the 020ppb_QCS of 04/03/01 <O3527>.

All compounds on the target list in the independent source laboratory quality control samples (020ppb_QCS's) of 04/02/01 <O3506>, 04/03/01 <T3196>, 04/04/01 <L6085>, and 04/05/01 <O3549> were within laboratory guidelines.

Sample Calculation:

Sample ID – MW-3 (3-5')
Compound – Acetone

$$\frac{(52332)(250)}{(190143)(1.322)(5)(0.89)} = 11.7 = 12 \text{ UG/KG}$$

Semi-Volatile Organic Compounds - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3550C/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

Sample MW-2 (1-3') had one surrogate out of recovery criteria, but within laboratory sample acceptance criteria.

Sample MW-2 (3-5') exhibited internal standard area suppression. The sample was re-analyzed with similar results confirming matrix interference. Both analyses are reported. The re-analysis is indicated by the suffix "RE".

Sample MW-2 (1-3') exhibited internal standard area suppression. The sample was re-analyzed at a different dilution with similar results confirming matrix interference. Both analyses are reported. The more dilute analysis is indicated by the suffix "DL".

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

Sample ID	Dilution
MW-2 (3-5')	1:2
MW-2 (3-5')RE	1:2
MW-2 (1-3')DL	1:2

Sample Calculation:

Sample ID – B-11 (5-7')
Compound - naphthalene

$$\frac{41289(40)1000}{1860630(1.061)2(30)0.88} = 15.84 \text{ ug/kg} = 16 \text{ ug/kg}$$

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3050B/6010B; mercury-7471A.

Antimony and thallium failed the controls for spike recovery analysis of sample SS068SS01S resulting in two "N" flags.

One "*" flag resulted from duplicate analysis of sample SS068SS01S for aluminum.

No other problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Pesticides – Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

Surrogates were diluted out of sample MW-2(3-5'). The surrogate, decachlorobiphenyl, was lost in sample matrix in samples MW-7(0-2'), MW-1(1-3'), MW-1(5-7'), and MW-2(3-5') on the RTX-35 column.

Results for endrin were reported in samples MW-2(1-3') and MW-2(3-5'). However, it was believed to be part of the Arclor-1260 pattern.

Results for Endosulfan II and 4,4'-DDD were reported from the RTX-35 column in LCS, PBLK97QC1, due to coelution on the DB-1701 column.

Results for Endosulfan I and alpha-chlordane were reported from the DB-1701 column in LCS, PBLK97QC1, due to coelution on the RTX-35 column.

The % breakdown for 4,4'-DDT was above QC limits in the IBS standard analyzed at 00:19 on 4/17/01 on the RTX-35 column. The % differences for all of the compounds were below QC limits in the INDB3 standard analyzed at 01:33 on 4/17/01 on the RTX-35 column. This was the end standard for all of the samples. The sample matrix was the suspected cause and samples were not re-analyzed. All results were reported from the DB-1701 column, except as noted.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titles "Code". Manual integrations were initiated by the analyst that performed the integration.

Sample calculation:

Sample ID – MW-1 (5-7')

Compound: dieldrin

$$\frac{(107683\text{area})(10000\text{ul})(2)}{(14140295\text{area/ng})(30.1\text{g})(0.89)(1\text{ul})} = 5.7 \text{ ug/Kg}$$

Polychlorinated Biphenyls (PCBs) – PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted, concentrated and analyzed without any apparent problems.

All samples required acid and sulfur cleanup prior to analysis.

Surrogates were diluted out of samples MW-2(1-3') and MW-2(3-5'). Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titles "Code". Manual integrations were initiated by the analyst that performed the integration.

Sample calculation:

Sample ID – MW-2(1-3')

Compound: Archlor-1260 – peak 18.33, RTX-35 column

$$\frac{(21391\text{area})(10000\text{ul})(500)}{(984890\text{area/ng})(30.3\text{g})(0.85)(1\text{ul})} = 42000 \text{ ug/Kg}$$

5. STL Report # 7001-0651 C

19 soil samples and one field blank were analyzed for volatile organic compounds (VOC) by Methods 5030B/8260B, semivolatile organic compounds (SVOCs) by Methods 3550C/8270C, pesticides by Methods 3550B/8081A, polychlorinated biphenyls (PCBs) by Methods 3550B/8082, metals by Methods ICAP 3050B/6010B and Mercury 7471A, and cyanide by Method 9012. The analyses were performed by Severn Trent Laboratories in both Monroe, CT and Newburgh, NY. Both are New York State ELAP-certified laboratories. The NYS DEC ASP Category B data package is complete. All samples were received in good condition and at proper temperature. All required holding times were met. Examination of the raw data confirms the results in the summary tables. The correct data qualifiers were used.

The following minor data quality deficiencies were noted:

Sample Receipt – All samples were received in good condition and at proper temperature.

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. No analytical problems were encountered and all holding times were met.

Analyte	Method	Reference
Cyanide – Total	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Volatile Organic Compounds – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 2000/2016/3000 Concentrator/Archon 51/4552 autosampler interfaced with a Hewlett Packard Model 5970A/5971A/5972A GC/MS/DS.

The following samples were analyzed twice due to having surrogate recoveries and/or internal standard areas out of criteria limits: MW-12 (9-11'), B-14 (7-9'), MW-6 (0-2'D), MW-10 (1-3'), MW-10 (13-15'), B-11 (5-7'), MW-11 (1-3'), MW-4 (1-3'), and MW-4 (7-9'). Both analyses exhibited similar results, therefore proving matrix interference. Both sets of results have been reported with the reanalysis designated by the suffix "RE".

Sample MW-6 (0-2') exhibited surrogate recoveries out of criteria limits. The surrogate recoveries of samples MW-6 (0-2')FMS, MW-6 (0-2')FMSD, and MW-6 (0-2') FMSB were also out of criteria limits, therefore proving matrix interference.

Sample MW-12 (9-11') was analyzed at a 1:2 dilution due to high target compound concentrations.

Samples MW-5 (2-4') and MW-5 (4-6') were analyzed as a medium level soils due to high target compound concentrations.

The spike percent recoveries of chloromethane, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, and 1,1,2,2-tetrachloroethane were above the laboratory generated guidelines in samples MW-6 (0-2') FMS/FMSD.

The spike percent recoveries of 2-butanone, dibromochloromethane, bromoform, 4-methyl-2-pentanone, and 2-hexanone were outside the laboratory generated guidelines in the 020ppb_QCS of 04/05/01 <K4239>.

All compounds on the target list in the independent source laboratory quality control samples (020ppb_QCS's) of 04/02/01 <K4176>, 04/03/01 <K4190> <L6064> <T3196>, and 04/04/01 <K4209> were within laboratory guidelines.

Sample Calculation:

Sample ID – MW-9 (9-11')

Compound – Acetone

$$\frac{(336960)(250)}{(1293383)(0.651)(5)(0.55)} = 36 \text{ UG/KG}$$

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3550C/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

Samples B-11 (5-7'), MW-6 (6-8') and MW-5 (2-4') had one surrogate out of recovery criteria, but within laboratory sample acceptance criteria.

Samples MW-6 (0-2'D), MW-10 (1-3') and B-11 (3-5') exhibited internal standard area suppression. The samples were re-analyzed with similar results confirming matrix interference. Both analyses are reported. The re-analyses are indicated by the suffix "RE".

Samples MW-6 (6-8'), MW-5 (2-4') and B-11 (5-7') exhibited internal standard area suppression. The samples were re-analyzed at a different dilution with similar results confirming matrix interference. Both analyses are reported. The more dilute analyses are indicated by the suffix "DL".

The spike recoveries for the compounds, 2-methylphenol, 2,4,5-trichlorophenol, dimethylphthalate, 2,6-dinitrotoluene, 3-nitroaniline, diethylphthalate and 4-nitroaniline were below recovery limits for SBLKVQFMS.

The spike recovery for the compound, benzoic acid, was above recovery limits for SBLKUQFMS.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

Sample ID	Dilution
MW-12 (9-11')	1:5
MW-14 (7-9')	1:2
MW-6 (0-2')	1:20
MW-6 (0-2')MS	1:20
MW-6 (0-2')MSD	1:20
MW-6 (0-2'D)	1:4
MW-6 (0-2'D)RE	1:4
MW-6 (6-8')DL	1:5
MW-10 (1-3')	1:2
MW-10 (1-3')RE	1:2
MW-5 (2-4')DL	1:10
MW-5 (4-6')	1:10
B-11 (3-5')	1:10
B-11 (3-5')RE	1:10
B-11 (5-7')DL	1:10
MW-11 (1-3')	1:10
MW-4 (7-9')	1:2

Sample Calculation:

Sample ID – B-11 (5-7')
Compound - naphthalene

$$\frac{1175223(40)1000}{2087679(0.856)2(30.2)0.82} = 531 \text{ ug/kg} = 530 \text{ ug/kg}$$

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3010A, 3050B/6010B; mercury-7470A, 7471A.

Two “*” flags resulted from duplicate analysis of sample WM-6 (0-2') for chromium and iron.

No other problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

The surrogate, Decachlorobiphenyl, was just outside of retention time windows in the INDB3 and PIBLK analyzed at 22:15 and 22:52, respectively, on 4/18/2001 on the RTX-35 column. These were the end standards for samples PBLK13, PBLK13QC1, and MW-6 (0-2'). This shift in retention time was taken into consideration when the data was reviewed for target compounds.

Results for Endrin were reported in sample MW-6 (0-2'D). However, it was believed to be part of the Aroclor-1260 pattern.

Results for Endosulfan II and 4,4'-DDD were reported from the RTX-35 column in LCS, PBLK13QC1, due to coelution on the DB-1701 column.

Results for Endosulfan I and alpha-Chlordane were reported from the DB-1701 column in LCS, PBLK13QC1, due to coelution on the RTX-35 column.

Spike percent recoveries for gamma-BHC, Heptachlor Epoxide, Dieldrin, Endrin, 4,4'-DDD, Endosulfan Sulfate, and Methoxychlor were below QC limits in PBLK13QC1. This LCS was associated with samples PBLK13 and MW-6 (0-2'D). The client has been notified and a corrective action is pending.

The % differences for all of the compounds were below QC limits in the INDB3 standard analyzed at 22:15 on 4/18/01 on the RTX-35 column. This was the end standard for all of the samples. The sample matrix was the suspected cause and samples were not re-analyzed. All results were reported from the DB-1701 column, except as noted.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID -- MW-6 (0-2'D)
Compound -- Endrin

$$\frac{(346765\text{area})(10000\text{ul})(20)}{(11203366\text{area/ng})(30.1\text{g})(0.88)(1\text{ul})} = 230\text{ug/Kg}$$

Polychlorinated Biphenyls - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

All samples required acid cleanup prior to analysis.

Samples MW-9 (9-11'), B-14 (7-9'), MW-6 (12-14'), and MW-4 (7-9') required sulfur cleanup prior to analysis.

Surrogates were diluted out of samples MW-6 (0-2'), MW-10 (1-3'), MW-5 (2-4'), MW-5 (4-6'), B-11 (3-5'), B-11 (5-7'), MW-6 (0-2')MS2, MW-6 (0-2')MSD2, and MW-11 (1-3').

Spike percent recoveries for Aroclor-1260 were outside of QC limits due to a high amount of Aroclor-1260 in the unspiked sample.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID - MW-9 (9-11')
Compound - Aroclor-1260 peak 20.32, DB-1701 column

$$\frac{(480356\text{area})(10000\text{ul})}{(1359130\text{area/ng})(30.8\text{g})(0.62)(1\text{ul})} = 185 \text{ ug/Kg}$$

ADDENDUM TO 7001-0615C

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

Results for Endrin were reported in sample MW-6 (0-2'D)RE. However, it was believed to be part of the Aroclor-1260 pattern.

Results for Endosulfan II and 4,4'-DDD were reported from the RTX-35 column in LCS, PBLK40QC1, due to coelution on the DB-1701 column.

Results for Endosulfan I and alpha-Chlordane were reported from the DB-1701 column in LCS, PBLK40QC1, due to coelution on the RTX-35 column.

The spike percent recovery for alpha-BHC was above QC limits in PBLK40QC1. This compound was not present in the client's sample.

Spike percent recoveries for gamma-BHC, Heptachlor Epoxide, Dieldrin, Endrin, 4,4'-DDD, Endosulfan Sulfate, and Methoxychlor were below QC limits in PBLK13QC1. This LCS was associated with samples PBLK13 and MW-6 (0-2'D). This sample was re-extracted outside of hold and reported as an addendum.

The % differences for most of the compounds were below QC limits in the INDB3 standard analyzed at 15:28 on 4/28/01 on the RTX-35 column. This was the end standard for PBLK40 and PBLK40QC1.

The % differences for beta-BHC, delta-BHC, Aldrin, Heptachlor Epoxide, 4,4'-DDE, alpha-Chlordane and gamma-Chlordane were below QC limits in the INDB3 standard analyzed at 20:43 on 4/29/01 on the RTX-35 column. This was the end standard for MW-6 (0-2'D)RE.

The % differences for most of the compounds were below QC limits in the INDA3 standard analyzed at 21:46 on 4/26/01 on the DB-1701 column. This was the end standard for PBLK40, PBLK40QC1, and MW-6 (0-2'D)RE.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

6. STL Report # 7001-0805 A

15 groundwater samples and one trip and one field blank were analyzed for volatile organic compounds (VOC) by Methods 5030B/8260B, semivolatile organic compounds (SVOCs) by Methods 3550C/8270C, pesticides by Methods 3550B/8081A, polychlorinated biphenyls (PCBs) by Methods 3550B/8082, metals by Methods ICAP 3050B/6010B and Mercury 7471A, and cyanide by Method 9012. The analyses were performed by Severn Trent Laboratories in both Monroe, CT and Newburgh, NY. Both are New York State ELAP-certified laboratories. The NYS DEC ASP Category B data package is complete. All samples were received in good condition and at proper temperature. All required holding times were met. Examination of the raw data confirms the results in the summary tables. The correct data qualifiers were used.

Please see attached letter dated May 25, 2001 from Severn Trent Laboratories regarding sample MW-6.

The following minor data quality deficiencies were noted:

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. The spike recovery for cyanide analysis did not meet criteria limits; therefore, a post-digestion spike was analyzed. No other analytical problems were encountered and all holding times were met.

Analyte	Method	Reference
Cyanide – Total	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Petroleum Hydrocarbon Scan - The extract was injected into a Gas Chromatograph equipped with a capillary column and Flame Ionization Detector. Elution patterns were compared with those of gasoline, kerosene, #2 fuel oil, #4 fuel oil and #6 fuel oil.

All samples were extracted, concentrated and analyzed without any apparent problems.

The elution pattern present in sample MW-5 did not match any of the standards the laboratory analyzes for.

Semi-Volatile Organic Compounds - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3510C/3550B/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

Due to limited volume, samples MW-1, MW-2, MW-3, MW-3MS, MW-3MSD and MW-4 were extracted at half-volume. Surrogate and matrix spike additions were adjusted and the samples were brought to half the usual final volume so that the PQLs were not affected.

Samples MW-5 and MW-12 exhibited internal standard area suppression. The samples were re-analyzed with similar results confirming matrix interference. Both analyses are reported. The re-analysis are indicated by the suffix "RE".

Samples MW-12 and MW-12RE had one surrogate out of recovery criteria, but within laboratory sample acceptance criteria.

The spike recovery for the compound, 2,4,5-trichlorophenol, was below recovery limits for SBLKFRFMS.

The spike recovery for the compound, 2,4-dinitrotoluene, was above recovery limits for MW-3MSD.

Sample MW-5 would not concentrate to a final volume of 1 ml, and so was brought to a final volume of 2 mls.

Samples MW-5 and MW-5RE were analyzed at a 1:2 dilution due to the presence of high levels of target compounds.

Sample Calculation:

Sample ID – MW-12
Compound - naphthalene

$$\frac{151835(40)1000}{1589477(1.061)2(1000)} = 1.80 = 2 \text{ ug/L}$$

Volatile Organic Compounds – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 2000 Concentrator/Archon 51 autosampler interfaced with a Hewlett Packard Model 5971A GC/MS/DS.

Sample Calculation:

Sample ID –MW-5DL
Compound –Chlorobenzene

$$\frac{(1511383)(250)(100)}{(3605765)(1.024)(5)} = 2044.7 = 2000 \text{ UG/L.}$$

Sample MW-12 was originally analyzed at a 1:200 dilution with surrogate recoveries within criteria. Then, it was analyzed at a 1:2 dilution with surrogate recoveries within criteria. The sample was then analyzed straight three times with surrogate recoveries out of criteria. The 1:2 and a straight run were reported for this sample. Sample MW-5 was analyzed at a 1:2000 dilution with surrogate recoveries within criteria. The sample was then analyzed at numerous lower dilutions including the appropriate 1:20 dilution with surrogate recoveries out of criteria. The 1:100 dilution was reported even though it was out of the twelve hour calibration clock along with a 1:20 analysis. These samples were analyzed on two different instruments in efforts to get surrogate recoveries within criteria, to no avail.

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3010A/6010B; mercury-7470A.

Because of the high solids present in all the samples in this SDG (except for the field blank) the instrument would shutdown unless the samples were diluted prior to analysis. An elevated PQL was the result of the dilutions necessary to analyze the samples.

Selenium failed the controls for spike recovery analysis of filtered sample MW-3 resulting in one “N” flag. Arsenic, selenium, and thallium failed the controls for spike recovery analysis of total sample MW-3 resulting in three “N” flags.

No other problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Pesticides – Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

**SEVERN
TRENT
SERVICES**

Mr. Mohamed Ahmed
AKRF, Inc - NYC
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May 25, 2001

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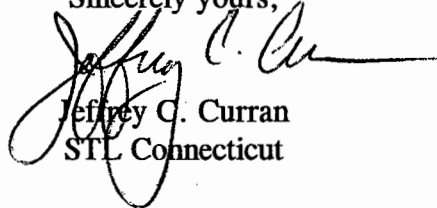
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Dear Mr. Ahmed,

This letter is in response to your inquiry for STL Connecticut report 7001-0805A, for the Muss Flushing Project. Specifically you questioned the total and dissolved PCB results for sample MW-6. In this case the total Aroclor-1260 concentration was reported at 1 ug/L, while the dissolved concentration was reported at 200 ug/L. This was obviously incorrect and the laboratory (in this case STL Newburgh) re-extracted and reanalyzed the sample for total PCB's. The results of this analysis agreed with the first total PCB analysis (1 ug/L). The laboratory feels the dissolved sample was contaminated, probably during the filtration step, and the 200 ug/L result is erroneous.

Please accept our apologies for this error and any inconvenience this may have caused you or AKRF.

Sincerely yours,



Jeffrey C. Curran
STL Connecticut

Sixteen samples were extracted using between 670 and 990 ml of solution. Based on pre-screen results, five samples were diluted between 5 and 2500 times.

The following samples contain surrogate recoveries that are outside of the established control limits on both analytical columns:

Known (Known): fails tetrachloro-m-xylene

MW-5 010805A 05 (227764-05): fails tetrachloro-m-xylene and decachlorobiphenyl

MW-12 010805A 12 (227764012): fails tetrachloro-m-xylene

The percent recovery for heptachlor in the LCS falls outside the established control limits.

The percent recovery for heptachlor and endrin in client ID MW-3 010805A 03MSD (227764-03MSD) falls outside the acceptable limits. The % for all parameters except 4,4-DDT falls outside the acceptable limits.

Polychlorinated Biphenyls (PCB's) - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

Based on pre-screening results, ten samples were diluted between 5 and 5,000 times.

The following samples contain surrogate recoveries that are outside of the established control limits:

MW-2 010805A 02 (227764-02): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-5 010805A 05 (227764-05): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-8 010805A 08 (227764-08): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-9 010805A 09 (227764-09): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-12 010805A 12 (227764-12): fails decachlorobiphenyls on both analytical columns.

SMW-4 010805A 15 (227764-15): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-5 FILTER (227764-21): fails decachlorobiphenyl on both analytical columns.

MW-9 FILTER (227764-25): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-12 FILTER (227764-28): fails decachlorobiphenyl on both analytical columns.

The results of sample number MW-6 for the filtered PCB sample were higher than the result for the total PCB sample. As a result, the total sample was re-extracted to confirm the initial results. The re-extraction / re-analysis of MW-6 gave a result of 5.2 ug/l.

7. STL Report # 7001-1613A

3 liquid and 2 soil samples were analyzed for volatile organic compounds (VOC) by Methods 5030B/8260B and for polychlorinated biphenyls (PCBs) by Methods 3550B/8082. The analyses were performed by Severn Trent Laboratories in Shelton, CT, a New York State ELAP-certified laboratory. The NYS DEC ASP Category B data package is complete. All samples were received in good condition and at proper temperature. All required holding times were met. Examination of the raw data confirms the results in the summary tables. The correct data qualifiers were used.

The following minor data quality deficiencies were noted:

Sixteen samples were extracted using between 670 and 990 ml of solution. Based on pre-screen results, five samples were diluted between 5 and 2500 times.

The following samples contain surrogate recoveries that are outside of the established control limits on both analytical columns:

Known (Known): fails tetrachloro-m-xylene

MW-5 010805A 05 (227764-05): fails tetrachloro-m-xylene and decachlorobiphenyl

MW-12 010805A 12 (227764012): fails tetrachloro-m-xylene

The percent recovery for heptachlor in the LCS falls outside the established control limits.

The percent recovery for heptachlor and endrin in client ID MW-3 010805A 03MSD (227764-03MSD) falls outside the acceptable limits. The % for all parameters except 4,4-DDT falls outside the acceptable limits.

Polychlorinated Biphenyls (PCB's) - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

Based on pre-screening results, ten samples were diluted between 5 and 5,000 times.

The following samples contain surrogate recoveries that are outside of the established control limits:

MW-2 010805A 02 (227764-02): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-5 010805A 05 (227764-05): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-8 010805A 08 (227764-08): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-9 010805A 09 (227764-09): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-12 010805A 12 (227764-12): fails decachlorobiphenyls on both analytical columns.

SMW-4 010805A 15 (227764-15): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-5 FILTER (227764-21): fails decachlorobiphenyl on both analytical columns.

MW-9 FILTER (227764-25): fails tetrachloro-m-xylene and decachlorobiphenyl on both analytical columns.

MW-12 FILTER (227764-28): fails decachlorobiphenyl on both analytical columns.

The results of sample number MW-6 for the filtered PCB sample were higher than the result for the total PCB sample. As a result, the total sample was re-extracted to confirm the initial results. The re-extraction / re-analysis of MW-6 gave a result of 5.2 ug/l.

7. STL Report # 7001-1613A

3 liquid and 2 soil samples were analyzed for volatile organic compounds (VOC) by Methods 5030B/8260B and for polychlorinated biphenyls (PCBs) by Methods 3550B/8082. The analyses were performed by Severn Trent Laboratories in Shelton, CT, a New York State ELAP-certified laboratory. The NYS DEC ASP Category B data package is complete. All samples were received in good condition and at proper temperature. All required holding times were met. Examination of the raw data confirms the results in the summary tables. The correct data qualifiers were used.

The following minor data quality deficiencies were noted:

Sample Receipt – All samples were received in good condition and at proper temperature.

Volatile Organics – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 3000 Concentrator/Archon 452 autosampler interfaced with a Hewlett Packard Model 5972A GC/MS/DS.

Sample Calculation:

Sample ID – T3
Compound – Acetone

$$\frac{(107532)(250)(1)}{(266689)(1.084)(5)} = 18.5 = 18 \text{ UG/L}$$

The spike compound percent recoveries were within the laboratory generated guidelines in the independent source quality control sample (020PPB_QCS)

Polychlorinated Biphenyls (PCB's) – PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

Samples T1, T2 and T3 were received with insufficient volume. The client was contacted. Samples were extracted outside of water holding time.

Sample T3 required acid cleanup prior to analysis.

Samples SLUDGE ½ and SLUDGE 3 required acid and sulfur cleanup prior to analysis.

Surrogate was diluted out of sample SLUDGE 3.

Surrogate recovery for Tetrachloro-m-xylene was below QC limits in sample T2.

Manual integrations were performed if required, and any affected peaks were designated with an “MM” on the area report in the column titled “Code”. Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID – T3
Compound – Archlor-1260 peak 18.27, DB-1701 column

$$\frac{(435366\text{area})(10000\text{ul})(2)}{(4850959\text{area/ng})(160\text{ml})(1\text{ul})} = 11 \text{ ug/L}$$