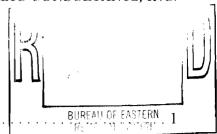
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1.0 INTRODUCTION

MAC CONSULTANTS, INC. (MAC) conducted a subsurface investigation on behalf of Mairoll Inc. to delineate the Old Recharge Basin (ORB) bottom sediment confined and re-buried during closure. An area of buried chromium soil was delineated and a soil gas survey was also performed as part of the investigation. The field work was conducted from June 17 to June 20, 2002. The work was performed in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved "Old Recharge Basin Bottom Sediment Investigation Work Plan, May 2002" (Work Plan).

This delineation was discussed as one of two items the NYSDEC and the New York State Department of Health (NYSDOH) are seeking to support the institutional controls requirement of the closure. The other item is the deed notice NYSDEC has been working on internally with Department legal staff. The purpose of this investigation was to provide NYSDEC with the information that the Department has specifically requested and it is not intended as a pre-construction document. In the event that construction activities are undertaken by any party, it may be necessary for those parties to conduct an independent investigation where construction is to occur, in order to insure compliance with site-specific and general environmental regulations by Federal, State or local agencies.

In summary, the bottom sediment rose to the surface as the higher density sand and gravel fill was placed in the area shown on Figure 1, prepared by Savik & Murray. The sediment was confined by surrounding it with an earthen berm to prevent spreading the sediment over a wider area. The sediment was placed in trenches shown on Figure 1 and were allowed to dry as much as possible before being buried beneath clean sand and gravel fill. The limits of the buried sediment, including the trenches, were staked and surveyed by Savik & Murray, as shown on Figure 1.

When the sediment first rose to the surface of the ORB, MAC collected two soil samples and one

water sample on August 25, 1997. The analytical results indicated elevated concentrations of metals, PCBs and semi-volatile organic compounds (SVOCs). NYSDEC reviewed these results and concurred with the decision to bury the sediments onsite. Since the site may be developed in the future, it was recommended that the area and depth of these sediments below grade be delineated so that if these soils are encountered, they can be properly managed.

2.0 BOTTOM SEDIMENT INVESTIGATION

2.1 Soil Sampling Procedures

A Geoprobe direct-push device was used to bore through the soil and buried bottom sediment and collect discrete soil samples for inspection and laboratory analyses. No composite samples were collected. A four foot long by 2-inch outside diameter soil sampler ("macro core") was driven from grade to the 12 feet below grade. Soil samples were collected continuously at the 0 to 4 foot, 4 to 8 foot, and 8 to 12 foot intervals at each of the designated locations. Soil descriptions from the macro cores were noted on geologic logs by a MAC hydrogeologist. The geologic logs are provided in Appendix A. The boring locations are shown on Figure 1 and described in detail below.

2.1.1 Buried Chromium Soil

Soils containing elevated levels of chromium are buried beneath a berm along the western boundary of the site. Twenty-eight borings were drilled in the vicinity of the buried chromium soil to delineate the presence and depth of total chromium in the soil. The number and spacing of the borings were based upon proposed utilities in the vicinity of the buried chromium soil. The buried chromium soil and soil boring locations are shown on Figure 1. Three soil samples per boring were collected for laboratory analysis at the 0 to 4 foot, 4 to 8 foot, and 8 to 12 foot intervals. Two soil samples were collected from buried chromium borings BC-14 and BC-21 due to Geoprobe refusal at 8.5 feet and 6.5 feet, respectively.

2.1.2 Buried Bottom Sediment

The Work Plan included seventeen borings that would be drilled to delineate the presence and depth of buried bottom sediment. An additional three borings (BS-25, BS-26, BS-27) were drilled to provide further delineation of the buried bottom sediment based on discussions with NYSDEC. The

location of the buried bottom sediment and bottom sediment boring locations are shown on Figure 1. These boring locations were based on 1997 surveyed boundaries of bottom sediment at grade. Soil samples were collected from the macro core which contained obvious bottom sediment material that is easily identified by its dark gray to black color and silty characteristics. If bottom sediment was readily identified, a boring was stopped at the depth the bottom sediment is found, and a sample was collected for laboratory analysis. If no clearly identifiable bottom sediment was found, soil samples were collected from each cored interval to confirm absence of bottom sediment.

Soil samples were not collected from borings BS-1, BS-17, or BS-26 because soil samples collected from these borings did not contain obvious bottom sediment material and these locations are assumed to be within the boundary of the buried bottom sediment. Soil samples were collected from borings BS-25 and BS-27 in substitute for the proposed samples from borings BS-1 and BS-17. Boring BS-25 was drilled an additional four feet and a soil sample was collected at 12 to 16 feet below grade. A soil sample was collected from BS-27 at 8 to 12 feet below grade.

2.1.3 Additional Soil Sampling

The ORB has been sectioned into 13 grids. NYSDEC required one boring to be drilled in each grid (with the exception of grids 1, 4, 5, 6, 7, and 8 that were sampled for buried chromium soil and buried bottom sediment) to determine if the bottom sediment material is present. An additional two borings (BS-28 and BS-29) were drilled in grid 7 to further delineate possible bottom sediment material identified in buried chromium boring BC-5 and buried bottom sediment boring BS-13. The grid locations and additional soil sampling borings are shown on Figure 1. If bottom sediment was readily identified, a boring was stopped at the depth the bottom sediment is found, and a sample was collected for laboratory analysis. If no clearly identifiable bottom sediment was found, soil samples were collected from each cored interval to confirm absence of bottom sediment.

2.1.4 Soil Disposal

Unused soil sample from the cores were placed back in the boring from which it was recovered.

2.1.5 Decontamination

The Geoprobe drill rods and other equipment which came in contact with the soil were cleaned with Alconox and double rinsed between each use.

2.2 Soil Gas Survey

A soil gas survey was performed to address the potential presence of volatile organic compounds (VOCs) in the soil gas. One soil gas sample was collected from each grid as shown on Figure 1. A vehicle-mounted Geoprobe unit was used to perform the soil gas survey at the respective locations.

The probe rods and an expendable drive point were driven to 6 feet below grade. Once the drive point is set at the 6 foot depth, the probe rods were retracted approximately 3 to 4 inches to create a void which will allow the migration of the soil vapor sample into the bottom of the borehole. A clean, ¼" Teflon tubing was then attached to the bottom of the lead probe rod. The line was purged by drawing soil gas / vapor through the tubing using a vacuum pump.

The tubing was then disconnected from the vacuum pump and attached to a Photoionization Detector (PID) to detect the presence of VOC vapors. The PID readings were recorded on geologic logs provided in Appendix A. The Teflon tubing was then fitted to a Summa canister which collected a soil gas sample using negative pressure the canister was placed under by the laboratory.

The probe rods and sample equipment were cleaned with Alconox and double rinsed between each use.

2.3 Laboratory Analysis

Chemtech Laboratories of Mountainside, New Jersey analyzed the samples collected from the Geoprobe borings and soil gas survey locations. A Data Usability Summary Report (DUSR) was prepared under the requirement for the NYSDEC ASP Catagory B deliverables. Chemtech is a ELAP and CLP New York State certified laboratory. The Chemtech Electronic Data is included in Appendix B and the DUSR report is included in Appendix C.

2.3.1 Buried Chromium Soil

Soil samples collected as part of the buried chromium soil investigation were analyzed for total chromium. Additional sample was collected and the ten highest total chromium samples were analyzed for TCLP chromium. Total chromium results are presented in Table 1 and the TCLP chromium results are presented in Table 2.

2.3.2 Buried Bottom Sediment

Soil samples collected as part of the buried bottom sediment investigation were analyzed for VOCs using USEPA Method 8260, SVOCs using USEPA Method 8270, PCBs using Method 8082, and Target Analyte List metals using Method 6010. The soil VOC results are shown in Table 3, SVOCs in Table 4, PCBs in Table 5, and Target Analyte List metals results are shown in Table 6.

2.3.3 Additional Soil Sampling

Soil samples collected as part of the additional soil sampling investigation were analyzed for PCBs using Method 8082. PCB results are shown in Table 5.

2.3.4 Soil Gas

Air samples collected during the soil gas survey were analyzed for VOCs using Method TO + 14. The air analytical results are shown in Table 7.

2.4 Quality Assurance Project Plan

The quality assurance (QA) objective was to develop and implement procedures for sampling, laboratory analyses, field measurements, and reporting that will provide quality data consistent with it's intended use. This section defines the goals for levels of quality control (QC) effort.

2.4.1 Quality Control

Duplicate samples, rinse blanks, and trip blanks were collected and submitted to the analytical laboratory to provide a means to assess the quality of the data resulting from the field sampling program. A field duplicate sample was analyzed for sampling and analytical reproducibility. Trip blank samples were analyzed to assess cross-contamination caused by VOC migration during shipment and storage. QC effort consisted of one duplicate sample for every 20 samples and a trip blank with each shipment of soil samples to the laboratory. Deionized water used for trip blanks was demonstrated analyte-free for parameters of interest by laboratory analysis.

2.4.2 Quality Control Requirements

Field quality control was maintained during all field activities. All field quality control procedures were carried out according to this Quality Assurance Project Plan and were documented in bound ledgers.

2.4.2.1 Field Duplicates

A duplicate sample, Matrix Spike (MS) sample, and a Matrix Spike Duplicate (MSD) sample were collected for every 20 samples collected, a field rinse blank analysis of the decontaminated Geoprobe tools was collected once a day.

2.4.2.2 Trip Blanks

Each sample shipment containing aqueous samples for VOC analysis contained one trip blank for VOC analysis. The trip blank consisted of two 40 ml VOA vials with laboratory grade distilled water, prepared by the laboratory, transported to the field, and shipped with the other samples to the laboratory without being opened.

3.0 LABORATORY RESULTS

3.1 Soil Analytical Results

3.1.1 Chromium

Total chromium results are presented in Table 1 and TCLP chromium results are presented in Table 2. Eighty three samples were collected from the buried chromium borings and analyzed for total chromium. Twenty one samples exceeded eastern U.S.A. background levels. Samples which exceeded eastern U.S.A. background levels were collected from cores retrieved at 4 to 8 feet and 8 to 12 feet below grade. No samples collected from 0 to 4 feet below grade exceeded eastern U.S.A. background levels.

Samples collected from buried chromium borings BC-1, BC-6, and BC-14 exceeded eastern U.S.A. background levels and were beyond the limit of the buried chromium soil as shown on Figure 1.

The ten highest total chromium samples were analyzed for TCLP chromium. Table 2 presents the TCLP chromium results. The ten samples were within United States Environmental Protection Agency (USEPA) leachability standards.

3.1.2 Volatile Organic Compounds

VOC results are shown in Table 3. Forty five soil samples were collected from the bottom sediment borings and analyzed for VOCs. No VOCs were detected except for acetone in samples from BS-4 at 8 to 12 feet below grade, and BS-13 at 4 to 8 and 8 to 12 feet below grade. Acetone is known to be a common laboratory contaminant and the above results were below NYSDEC soil cleanup guidelines.

3.1.3 Semi-Volatile Organic Compounds

SVOC results are shown in Table 4. Forty five soil samples were collected from the bottom sediment borings and analyzed for SVOCs. Thirty eight samples exceeded NYSDEC soil cleanup guidelines for one or more SVOC. Compounds which exceeded NYSDEC soil cleanup guidelines were mainly benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, and benzo(a)pyrene. These compounds are petroleum hydrocarbons that are commonly found in asphalt material, which was encountered in a majority of the borings. The presence and concentration of these compounds in also consistent with soil samples collected by **MAC** in August 1997 and soil samples collected by Eder Associates in October 1992 as part of the Remedial Investigation (RI).

3.1.4 PCBs

PCBs results are shown in Table 5. Sixty seven soil samples were collected from the bottom sediment and additional soil sample borings and analyzed for PCBs. Two samples exceeded NYSDEC soil cleanup guidelines of 10,000 ug/kg for one or more PCB. The presence of PCBs in these soil samples can be associated with the buried bottom sediment material that was encountered in the area where bottom sediment had been buried. None of the surface soil samples (0 to 4 feet below grade) contained PCBs above the 1,000 ug/kg NYSDEC cleanup guidance value for surface soils.

3.1.5 Target Analyte List Metals

Target Analyte List metals results are shown in Table 6. Forty five soil samples were collected from the bottom sediment borings and analyzed for Target Analyte List metals. Ten samples exceeded eastern U.S.A. background levels.

The samples collected from bottom sediment borings BS-25 at 12 to 16 feet below grade and BS-27 at 8 to 12 feet below grade detected elevated concentrations of cadmium, chromium, copper, nickel,

and zinc which exceeded eastern U.S.A. background levels. The 8 to 12 foot sample from BS-4 detected elevated concentrations of cadmium, chromium, and copper above eastern U.S.A. background levels. No samples collected from 0 to 4 feet below grade exceeded U.S.A. background and other samples which exceeded background levels were close to eastern U.S.A. background levels.

3.2 Air Analytical Results

The air analytical results are shown in Table 7. Thirteen air samples were collected from the soil gas survey locations (one in each grid). Tetrachloroethene was detected at over 16 mg/m³ in the soil gas sample collected at SG-1. This sample location is adjacent to the East Farmingdale Fire District where a groundwater monitoring well is located which in known to contain high concentrations of tetrachloroethene. Other soil gas survey samples detected trace amounts of trichloroethene, tetrachloroethene, and 1,2,4-trimethylbenzene.

4.0 CONCLUSIONS

The conclusions of the Bottom Sediment Investigation are summarized below:

- 1. Samples collected from the buried chromium borings did not detect total chromium levels over eastern U.S.A. background levels from samples collected at 0 to 4 feet below grade. Samples collected at 4 to 8 and 8 to 12 feet below grade that exceeded eastern U.S.A. background levels were within the limit of the surveyed buried chromium soil are except for samples collected from buried chromium borings BC-1, BC-6, and BC-14. The ten highest total chromium samples were analyzed for TCLP chromium and results were below USEPA standards for leachable chromium.
- 2. No VOCs were detected in soil samples except for acetone, a common laboratory contaminant, in samples from BS-4 at 8 to 12 feet below grade, and BS-13 at 4 to 8 feet and 8 to 12 feet below grade. Acetone concentrations were below NYSDEC soil cleanup guidelines.
- 3. SVOCs detected in soil samples included benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, and benzo(a)pyrene. These compounds are commonly found in asphalt material, which was encountered in a majority of the borings. The presence and concentration of these compounds in also consistent with soil samples collected in August 1997 and soil samples collected in October 1992 as part of the RI.
- 4. The presence of PCBs detected in soil samples is most likely associated with the buried bottom sediment material. The only two samples containing PCBs above NYSDEC soil cleanup guidelines were at depths of 8 to 12 and 12 to 16 feet below grade respectively within the area where bottom sediments rose to the surface.

- 5. Samples collected from bottom sediment borings BS-25 at 12 to 16 feet below grade and BS-27 at 8 to 12 feet below grade detected elevated concentrations of cadmium, chromium, copper, nickel, and zinc which exceeded eastern U.S.A. background levels. The 8 to 12 foot sample from BS-4 detected elevated concentrations of cadmium, chromium, and copper above eastern U.S.A. background levels. None of the shallow (0 to 4 feet below grade) soil samples exceeded Eastern U.S.A. background levels.
- 6. Tetrachloroethene was detected at over 16 mg/m³ in the soil gas sample collected at SG-1. This sample location is adjacent to the East Farmingdale Fire District where a groundwater monitoring well is located which in known to contain high concentrations of tetrachloroethene.
- 7. The purpose of this investigation was to provide NYSDEC with the information that the Department has specifically requested and it is not intended as a pre-construction document. In the event that construction activities are undertaken by any party, it may be necessary for those parties to conduct an independent investigation where construction is to occur, in order to insure compliance with site-specific and general environmental regulations by Federal, State or local agencies.

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Table 1
Soil Analytical Results (mg/kg): Total Chromium

Sample ID	BC-1	BC-1	BC-1	BC-2	BC-2	BC-2	BC-3	BC-3	BC-3	Eastern USA
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0 -4 ft	4-8 ft	8-12 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg										
Chromium as Cr	3.7	80.3	115	6.1	5.4	6.6	4.2	3.3	4.5	1.5 - 40

Sample ID	BC-4	BC-4	BC-4	BC-5	BC-5	BC-5	BC-6	BC-6	BC-6	Eastern USA
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0 -4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg										
Chromium as Cr	4.8	4	13.4	9.5	25.2	5.8	5.7	1180	108	1.5 - 40

Sample ID	BC-7	BC-7	BC-7	BC-8	BC-8	BC-8	BC-9	BC-9	BC-9	Eastern USA
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0 -4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg										
Chromium as Cr	3.2	5.8	4.9	2.6	8	16.4	8.3	6	4.6	1.5 - 40

Sample ID	BC-10	BC-10	BC-10	BC-11	BC-11	BC-11	BC-12	BC-12	BC-12	Eastern USA
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg			2004)							
Chromium as Cr	8.2	6.6	6.7	14.9	8.2	2	3.7	4.6	4.4	1.5 - 40

Table 1 (Cont'd)
Soil Analytical Results (mg/kg): Total Chromium

Sample ID	BC-13	BC-13	BC-13	BC-14	BC-14	BC-15	BC-15	BC-15	BC-16	Eastern USA
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg										_
Chromium as Cr	14.5	13.6	6.2	13.5	46.3	8.2	38.2	13	12.7	1.5 - 40

Sample ID	BC-16	BC-16	BC-17	BC-17	BC-17	BC-18	BC-18	BC-18	BC-19	Eastern USA
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg										
Chromium as Cr	209	101	9.7	61	55.7	6.6	5.3	78.8	5.8	1.5 - 40

Sample ID	BC-19	BC-19	BC-20	BC-20	BC-20	BC-21	BC-21	BC-22	BC-22	Eastern USA
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	0-4 ft	4-8 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg										
Chromium as Cr	32.9	87.9	5.8	47.4	72.2	4	16.9	37.8	3.3	1.5 - 40

Sample ID	BC-22	BC-23	BC-23	BC-23	BC-24	BC-24	BC-24	BC-25	BC-25	Eastern USA
Sample Depth	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg										
Chromium as Cr	2.8	13.5	13.8	1.5	5.7	46	5.7	28.4	119	1.5 - 40

Table 1 (Cont'd) Soil Analytical Results (mg/kg): Total Chromium

Sample ID	BC-25	BC-26	BC-26	BC-26	BC-27	BC-27	BC-27	BC-28	BC-28	Eastern USA
Sample Depth	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	Background
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	(mg/kg)
PARAMETER - mg/kg						100				
Chromium as Cr	1210	5.3	52.7	876	5.5	91.1	14.2	15.2	416	1.5 - 40

Sample ID	BC-28	Eastern USA
Sample Depth	8-12 ft	Background
Sample Date	6/17/2002	(mg/kg)
PARAMETER - mg/kg		<u> </u>
Chromium as Cr	74.6	1.5 - 40

Table 2
Soil Analytical Results (ug/l): TCLP Chromium

Sample ID	BC-1	BC-6	BC-6	BC-16	BC-16	BC-19	BC-25	BC-25	BC-26	BC-28	USEPA
Sample Depth	8-12 ft	4-8 ft	8-12 ft	4-8 ft	8-12 ft	8-12 ft	4-8 ft	8-12 ft	8-12 ft	4-8 ft	Groundwater
Sample Date	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/17/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	Standards (ug/l)
PARAMETER - ug/l											
Chromium as Cr	39.4	386	366	64.5	49.6	20.9	26.1	53.2	38.4	39.4	5000

Table 3
Soil Analytical Results (ug/kg)
Volatile Organic Compounds: USEPA Method 8260

PARAMETER - ug/kg	Sample ID	BS-2	BS-2	BS-2	BS-3	BS-3	BS-3	BS-4	BS-4	BS-5	NYSDEC
PARAMETER - ug/kg	Sample Depth	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	8-12 ft	0-4 ft	Soil Cleanup
Chloromethane	Sample Date	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	Guidelines (ug/kg) ¹
Stronomethane	PARAMETER - ug/kg										
Vinyl Chloride	Chloromethane	ND ²	ND	*3							
Chloroethane	Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Methylene Chloride ND 200 Carbon Disulfide ND	Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Acetone	Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1900
Carbon Disulfide ND ND ND ND ND ND ND ND ND 2700 1,1-Dichloroethene ND	Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
1,1-Dichloroethene	Acetone	ND	ND	ND	ND	ND	ND	ND	20	ND	200
1,1-Dichloroethane	Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	2700
Name	1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
cis-1,2-Dichloroethene ND ND<	1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
No. No.	trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,2-Dichloroptiane	cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
2.Butanone	Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,1,1-Trichloroethane	1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
No. No.	2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
Bromodichloromethane ND ND ND ND ND ND ND N	1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
1,2-Dichloropropane ND ND ND ND ND ND ND N	Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
ND ND ND ND ND ND ND ND	Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Trickloroethene	1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
ND	cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,1,2-Trichloroethane	Trichloroethene	ND	ND	1.4	ND	ND	ND	ND	ND	ND	700
ND ND ND ND ND ND ND ND	Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
ND ND ND ND ND ND ND ND	1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
ND ND ND ND ND ND ND ND	Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	60
ND ND ND ND ND ND ND ND	t-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
ND ND ND ND ND ND ND ND	Bromoform				ND	ND			ND	ND	*
Tetrachloroethene	4-Methyl-2-Pentanone										1000
1,1,2,2-Tetrachloroethane	2-Hexanone			ND	ND	ND	ND		ND		
ND ND ND ND ND ND ND ND	Tetrachloroethene	ND		ND	1400						
ND ND ND ND ND ND ND ND	1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Ethyl Benzene	Toluene		ND	ND		ND	ND	ND	ND	ND	1500
ND ND ND ND ND ND ND ND	Chlorobenzene			ND				ND	ND	ND	1700
ND ND ND ND ND ND ND ND	Ethyl Benzene							ND	ND		5500
D-Xylene ND ND ND ND ND ND ND ND ND 1200	Styrene								ND	ND	*
	m/p-Xylenes	ND	ND	ND	ND			ND	ND	ND	1200
	o-Xylene Notes:	ND	ND	ND	ND	ND	ND	ND	ND	ND	1200

- 1. TAGM 4046 guidence values are listed where applicable.
- 2. ND Not Detected
- 3. No TAGM soil guidence value for this compound.

Table 3 (cont'd) Soil Analytical Results (ug/kg)

Volatile Organic Compounds: USEPA Method 8260

Sample ID	BS-5	BS-5	BS-6	BS-6	BS-6	BS-7	BS-7	BS-7	BS-8	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Soil Cleanup
Sample Date	6/20/2002	6/20/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg										
Chloromethane	ND ²	ND	* 3							
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1900
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	2700
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
cis-1,2-Diehloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	2	700
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	60
t-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	1000
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1400
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1500
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1700
Ethyl Benzene	ND	ND	NI)	ND	ND	ND	ND	ND	ND	5500
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
m/p-Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	1200
o-Xylene	.ND	ND	1200							

- 1. TAGM 4046 guidence values are listed where applicable.
- 2. ND Not Detected
- 3. No TAGM soil guidence value for this compound.

Table 3 (cont'd) Soil Analytical Results (ug/kg)

Volatile Organic Compounds: USEPA Method 8260

Sample ID	BS-8	BS-8	BS-9	BS-9	BS-9	BS-10	BS-10	BS-10	BS-11	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Soil Cleanup
Sample Deput	6/19/2002		6/19/2002			6/19/2002			6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg	3/17/2002	5/17/ 2 00 2	5,17, 2 00 2	2. 13. 2002						(48,18)
Chloromethane	ND ²	ND	ND	ND	ND	ND	ND	ND	ND	*3
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1900
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	2700
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	1.8	ND	700
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	60
t-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	1000
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1400
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1500
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1700
Ethyl Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	5500
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
m/p-Xylenes	ND	ND	ND_	ND	ND	ND	ND	ND	ND	1200
o-Xylene Notes:	ND	ND	ND	ND	ND	ND	ND _	ND	ND	1200

- 1. TAGM 4046 guidence values are listed where applicable.
- 2. ND Not Detected
- 3. No TAGM soil guidence value for this compound.

Table 3 (cont'd) Soil Analytical Results (ug/kg) Volatile Organic Compounds: USEPA Method 8260

Sample ID	BS-11	BS-11	BS-12	BS-12	BS-12	BS-13	BS-13	BS-14	BS-14	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/20/2002	6/20/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg		3.00	-							
Chloromethane	ND ²	ND	*3							
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1900
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
Acetone	ND	ND	ND	ND	ND	23	11	ND	ND	200
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	2700
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	700
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	60
t-I,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	1000
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1400
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1500
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1700
Ethyl Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	5500
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
m/p-Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	1200
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1200
Notes:							-			

- 1. TAGM 4046 guidence values are listed where applicable.
- 2. ND Not Detected
- 3. No TAGM soil guidence value for this compound.

Table 3 (cont'd) Soil Analytical Results (ug/kg)

Volatile Organic Compounds: USEPA Method 8260

Sample ID	BS-14	BS-15	BS-15	BS-15	BS-16	BS-16	BS-16	BS-25	BS-27	NYSDEC
Sample Depth	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	12-16 ft	8-12 ft	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ^l
PARAMETER - ug/kg										
Chloromethane	ND^2	ND	*3							
Bromomethane	ND	*								
Vinyl Chloride	ND	200								
Chloroethane	ND	1900								
Methylene Chloride	ND	100								
Acetone	ND	200								
Carbon Disulfide	ND	2700								
1,1-Dichloroethene	ND	100								
1,1-Dichloroethane	ND	200								
trans-1,2-Dichloroethene	ND	300								
cis-1,2-Dichloroethene	ND	*								
Chloroform	ND	300								
1,2-Dichloroethane	ND	100								
2-Butanone	ND	300								
1,1,1-Trichloroethane	ND	800								
Carbon Tetrachloride	ND	600								
Bromodichloromethane	ND	*								
1,2-Dichloropropane	ND	*								
cis-1,3-Dichloropropene	ND	*								
Trichloroethene	ND	700								
Dibromochloromethane	ND	*								
1,1,2-Trichloroethane	ND	*								
Benzene	ND	60								
t-1,3-Dichloropropene	ND	*								
Bromoform	ND	*								
4-Methyl-2-Pentanone	ND	1000								
2-Hexanone	ND	*								
Tetrachloroethene	ND	1400								
1,1,2,2-Tetrachloroethane	ND	600								
Toluene	ND	1500								
Chlorobenzene	ND	1700								
Ethyl Benzene	ND	5500								
Styrene	ND	*								
m/p-Xylenes	ND	1200								
o-Xylene	ND	6	ND	1200						

- 1. TAGM 4046 guidence values are listed where applicable.
- 2. ND Not Detected
- 3. No TAGM soil guidence value for this compound,

Table 4 Soil Analytical Results (ug/kg) Semi-Volatile Organic Compounds: USEPA Method 8270

Sample ID	BS-2	BS-2	BS-2	BS-3	BS-3	BS-3	BS-4	BS-4	BS-5	NYSDEC
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	8-12 ft	0-4 ft	Soil Cleanup
Sample Date	6/20/2002	6/20/2002	6/20/2002		6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg										
Phenol	ND^2	ND	ND	NĐ	ND	ND	ND	ND	ND	30
bis(2-Chloroethyl)ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	7900
1,3-Dichlorobenzene	ND_	ND	ND	ND	ND_	ND	ND_	ND	ND	1600
1,4-Dichlorobenzene 2-Methylphenol	ND	ND	ND_	ND	ND ND	ND	ND ND	ND	ND	8500 100
2,2-oxybis(1-Chloropropane	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	NDND	ND ND	ND ND	*
3+4-Methylphenols	ND	ND ND	ND	ND ND	ND	ND ND	ND	ND	ND	*
n-Nitroso-di-n-propylamine	ND	ND ND	ND	ND	ND	ND	ND	ND_	ND	*
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND_	ND	ND	*
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Isophorone	ND	ND	ND	ND	ND	ND_	ND	ND	ND	4400
2-Nitrophenol	ND	ND_	ND	ND	ND	ND	ND	ND	ND	330
2,4-Dimethylphenol bis(2-Chloroethoxy)methane	ND ND	ND	ND_	ND	ND ND	ND	ND	ND	ND	*
2,4-Dichlorophenol	ND ND	ND ND	ND ND_	ND ND	ND ND	ND ND	ND ND	NDND	ND ND	*
1,2,4-Trichlorobenzene	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	3400
Naphthalene	ND	ND	65	1300	ND	70	290	ND	ND	13000
4-Chloroaniline	ND_	ND	ND	ND	ND	ND	ND	ND	ND	220
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND_	ND_	ND	ND	*
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	240
2-Methylnaphthalene	ND_	ND	ND_	280	_ ND	ND_	140	ND	ND	36400 *
Hexachlorocyclopentadiene 2,4,6-Trichlorophenol	ND ND	ND	ND	<u>ND</u>	ND	ND ND	ND	ND	ND	*
.4,5-Trichlorophenol	ND ND	ND ND	ND_ ND_	ND	NDND	ND	ND ND	ND ND	ND ND	100
2-Chloronaphthalene	ND	ND_	ND ND	ND	ND ND	NDND	ND ND	ND ND	ND	*
2-Nitroaniline	ND ND	ND	ND	ND ND	ND	ND	ND	ND	ND	430
Dimethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND_	ND	2000
Acenaphthylene	ND	ND	ND	1600	ND	ND	300	ND	ND	41000
2,6-Dinitrotoluene	ND	ИО	ND	ND_	ND	ND	ND	ND	ND	1000
3-Nitroaniline Acenaphthene	ND	ND	ND_	ND (20)	ND	ND 160	ND	ND.	ND	500
2,4-Dinitrophenol	NDND	46 ND	110 ND	620 ND	69 ND	160 ND	1000 ND	100 ND	ND ND	50000 200
4-Nitrophenol	ND	ND ND	ND_	ND	ND ND	NDND	ND ND	ND ND	ND ND	100
Dibenzofuran	ND	ND	54	1000	ND	88	470	41	ND	6200
2.4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Diethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	7100
4-Chlorophenyl-phenylether	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Fluorene 4-Nitroaniline	ND	ND	100	1700	70	160	830	80	ND	50000
4,6-Dinitro-2-methylphenol	ND	NDND	ND ND	ND ND	ND	NDND	ND ND	ND	ND	*
n-Nitrosodiphenylamine	ND ND	ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	*
4-Bromophenyl-phenylether	ND	ND	ND_	ND	ND.	ND	ND	ND	ND	*
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	410
Pentachlorophenol	ND	ND	ND	ND.	ND	ND	ND	ND	ND	1000
Phenanthrene Anthracene	1800	420	990	11000	940	1700	5000	700	240	50000
Carbazole	ND	100	240	2200	210	370	1400	160	61	50000 *
Di-n-butylphthalate	ND 130000	61 ND	120 ND	1400 ND	100 ND	190 ND	780 ND	120 ND	ND 68	8100
Fluoranthene	3000	620	1600	13000	1900	2600	4100	1200	440	50000
Pyrene	7400	1000	4600	18000	3000	4800	4500	1000	900	50000
Butylbenzylphthalate	ND	ND	ND	57	ND	510	ND	ND	ND	50000
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Benzo(a)anthracene	1800	400	790	7100	1000	1200	1700	510	280	224
Chrysene Bis(2-ethylhexyl)phthalate	1000	200	490	6800	680	900	1600	410	130	400
Di-n-octyl phthalate	390 ND	49 ND	72 ND	92 <u>9</u>	77	36	66 ND	480	48	50000
Benzo(b)fluoranthene	ND ND	ND 730	2000	96000	110 4 300	ND 3600	ND 4900	ND 710	ND 320	50000 1100
Benzo(k)fluoranthene	ND	290	650	18000	1800	1400	2600	260	88	1100
Renzo(a)pyrene	ND	370	700	51000	930	1400	2600	360	150	61
ndeno(1,2,3-cd)pyrene	ND	ND	ND	98	ND	ND_	ND	ND	ND	3200
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	14
Benzo(g,h,i)perylene	ND	ND	ND.	1700	ND	ND	ND	ND	ND	50000

Notes:

Notes:

1 TAGM 4046 guidence values are listed where applicable.

2. ND - Not Detected

3. No TAGM soil guidence value for this compound.

Table 4 (cont'd) Soil Analytical Results (ug/kg) Semi-Volatile Organic Compounds: USEPA Method 8270

Sample ID	BS-5	BS-5	BS-6	BS-6	BS-6	BS-7	BS-7	BS-7	BS-8	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Soil Cleanup
Sample Date	6/20/2002	6/20/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg						<u> </u>				
Phenol	ND^2	ND	ND	ND	ND	ND	ND	ND	ND	30
bis(2-Chloroethyl)ether	ND	ND	ND_	ND	ND	ND	ND	ND	ND	*
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	7900
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	1600
1,4-Dichlorobenzene 2-Methylphenol	ND	ND	ND	ND	ND	ND	ND ND	NDND	ND ND	8500 100
2,2-oxybis(1-Chloropropane	ND ND	ND ND	NDND	ND ND	ND ND	ND ND	ND	ND ND	ND	*
3+4-Methylphenols	ND ND	ND	ND	ND ND	ND	ND	ND	ND .	ND ND	*
n-Nitroso-di-n-propylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Hexachloroethane	ND	ND	ND	ND.	ND	ND	ND	ND	ND_	*
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Isophorone	ND	ND	ND	ND	ND	ND	ND	ND	ND	4400
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	330 *
2,4-Dimethylphenol	ND ND	ND	ND_	ND	ND	ND	ND ND	ND	ND	*
bis(2-Chloroethoxy)methane 2,4-Dichlorophenol	ND ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND ND	*
1,2,4-Trichlorobenzene	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	NDND	ND	3400
Naphthalene	ND ND	49	ND ND	ND	ND ND	150	2100	ND	ND	13000
4-Chloroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	220
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
4-Chloro-3-methylphenol	ND	ND	ND	ND	_ND	ND	ND	ND	ND	240
2-Methylnaphthalene	ND	53	ND	ND	ND	85	430	ND	ND	36400
Hexachlorocyclopentadiene	ND	ND	ND_	ND	ND	ND	ND	ND	ND	*
7,4,6-Trichlorophenol	ND	ND	ND_	ND	ND	ИD	ND	ND	ND	*
,4,5-Trichlorophenol 2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	100 *
2-Nitroaniline	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	430
Dimethylphthalate	ND ND	ND ND	ND ND	ND	ND	ND	ND ND	ND	ND	2000
Acenaphthylene	ND	ND _	ND	ND_	ND	ND	210	ND	ND	41000
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1000
3-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	500
Acenaphthene	80	160	ND	97	ND	1000	3200	ND	ND	50000
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
4-Nitrophenol	ND	ND_	ND	ND	ND	ND	ND_	ND	ND	100
Dibenzofuran 2.4-Dinitrotoluene	34	86	ND_	ND_	ND	460	1800	ND ND	ND ND	6200 *
Diethylphthalate	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	7100
4-Chlorophenyl-phenylether	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	*
Fluorene	97	200	ND	83	ND	1100	3400	ND	ND	50000
4-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
4,6-Dinitro-2-methylphenol	ND	ND	ND_	ND	ND	ND	ND	ND	ND	*
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
4-Bromophenyl-phenylether Hexachlorobenzene	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	*
Pentachlorophenol	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	410 1000
Phenanthrene	740	1400	370	840	320	8500	26000	110	740	50000
Anthracene	180	370	74	200	96	2500	7200	ND	ND ND	50000
Carbazole	73	120	39	100	ND	710	3300	ND	ND	*
Di-n-butylphthalate	ND	120	ND	ND	ND	ND	ND	ND	ND	8100
Fluoranthene	1300	1600	340	1200	500	12000	38000	130	1100	50000
Pyrene	1900	2600	500	3900	1000	9900	34000	300	1700	50000
Butylbenzylphthalate 3.3-Dichlorobenzidine	ND	ND	ND	ND	260	ND_	ND	ND	ND	50000
Benzo(a)anthracene	ND	ND 700	ND 210	ND	ND 300	ND	ND	ND	ND	* 224
Chrysene	710 520	790 460	210 120	6 60 390	290 220	6600 5000	19000 17000	64 ND	580 ND	224 400
Bis(2-ethylhexyl)phthalate	51	310	74	40	86	200	20000	ND ND	ND ND	50000
Di-n-octyl phthalate	ND ND	ND ND	ND ND	ND	ND	ND ND	ND	ND	ND	50000
Benzo(b)fluoranthene	990	1600	430	1700	340	44000	160000	ND	ND	1100
Benzo(k)fluoranthene	320	320	230	1000	200	26000	44000	ND	ND	1100
enzo(a)pyrene	580	640	120	690	190	24000	81000	ND	ND	61
ndeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	69	ND	ND	ND	3200
Dibenzo(a,h)anthracene		ND	ND	ND	ND	360	850	ND_	ND	14
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	280	1100	ND	ND	50000

- Notes:
 1. TAGM 4046 guidence values are listed where applicable.
 2. ND Not Detected
 3. No TAGM soil guidence value for this compound.

Table 4 (cont'd) Soil Analytical Results (ug/kg) Semi-Volatile Organic Compounds: USEPA Method 8270

Sample ID	BS-8	BS-8	BS-9	BS-9	BS-9	BS-10	BS-10	BS-10	BS-11	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg	100									
Phenol	ND^2	ND	ND	ND	ND	ND	ND	ND	ND	30
bis(2-Chloroethyl)ether	ND	ND	_ND	ND	ND	ND	ND	. ND	ND	*
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	7900
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1600
1,4-Dichlorobenzene 2-Methylphenol	ND	ND	ND	<u>ND</u>	ND	ND	ND	ND	ND_	8500
2,2-oxybis(1-Chloropropane	ND	ND	ND	ND	ND	ND_	ND	ND	ND	100
3+4-Methylphenols	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	*
n-Nitroso-di-n-propylamine	ND	ND	ND_	ND ND	ND	ND ND	ND	ND ND	ND	*
Hexachloroethane	ND	ND	ND_ND	ND	ND ND	ND	ND ND	ND	ND	*
Nitrobenzene	ND	ND	ND	ND	ND.	ND	ND	ND	ND ND	200
Isophorone	ND	ND	ND	ND	ND	ND	ND	ND	ND	4400
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	330
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
bis(2-Chloroethoxy)methane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	3400
Naphthalene	420	ND	ND_	ND	ND	ND	340	ND	ND	13000
4-Chloroaniline	ND_	ND	ND	ND	ND	ND	ND	ND	ND	220
Hexachlorobutadiene 4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
2-Methylnaphthalene	ND 120	ND	ND	ND	ND	ND	ND	ND	ND	240
Hexachlorocyclopentadiene	120	ND	ND	ND ND	ND	ND_	ND ND	ND	ND	36400
4,6-Trichlorophenol	ND	ND ND	ND ND	ND	ND	ND	ND ND	ND ND	ND	*
,4,5-Trichlorophenol	ND	ND	ND ND	ND ND	ND	ND	ND ND	ND	ND ND	100
2-Chloronaphthalene	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	*
2-Nitroaniline	ND ND	ND_	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	430
Dimethylphthalate	ND	ND	ND	ND	ND	ND	ND ND	ND ND	ND	2000
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND_	ND	ND	41000
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND_	1000
3-Nitroaniline	ND	ND	ND_	ND	ND	ND	ND	ND	ND	500
Acenaphthene	620	ND	ND	ND	ND	110	1300	59	ND	50000
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND_	ND	ND	100
Dibenzofuran 2,4-Dinitrotoluene	340	ND	ND	ND	ND	ND	530	ND	ND	6200
Diethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
4-Chlorophenyl-phenylether	ND	ND	ND	ND	ND	ND	ND	NDND	ND	7100
Fluorene	ND 650	ND	ND	ND	ND	ND_	ND	ND	ND	50000
4-Nitroaniline	ND ND	ND ND	NDND	ND ND	NDND	8L ND	1200 ND	52 ND	ND ND	*
4,6-Dinitro-2-methylphenol	ND ND	ND	ND_	ND	NDND	ND ND	ND	ND	ND_	*
n-Nitrosodiphenylamine	ND	ND	ND_	ND	ND	ND	ND _	ND	ND	*
4-Bromophenyl-phenylether	ND	ND	ND	ND	ND	ND	ND.	ND	ND	*
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	410
Pentachlorophenol	ND	ND.	ND	ND	ND	ND	ND	ND	ND	1000
Phenanthrene Anthracene	4500	ND _	340	100	280	920	_13000_	560	57	50000
Carbazole	1100	ND	74	-ND $ +$	54	190	3200	110	ND	50000
Di-n-butylphthalate	730 ND	ND	<u>52</u>	ND ND	ND	130	2000	51	ND NID	
Fluoranthene	ND 6300	ND 720	ND720	ND 170	ND 420	ND 1700	ND 24000	ND 560	ND 68	8100 50000
Pyrene	6200	1300	2000	520	1100	3500	28000	770	190	50000
Butylbenzylphthalate	ND_	ND_	ND	ND	ND ND	ND_	ND	ND	ND	50000
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Benzo(a)anthracene	3100	390	450	150	210	780	12000	390	47	224
Chrysene	2700	410	360	ND	100	440	12000	410	ND	400
Bis(2-ethylhexyl)phthalate	41	ND	ND	140	84	ND	ND	130	ND	_50000
Di-n-octyl phthalate	ND	ND	ND_	ND.	ND	ND	ND	ND_	ND	50000
Benzo(b)fluoranthene	19000	200	940	520	150	1500	84000	1300	790	1100
'Benzo(k)fluoranthene	7600	300	230	700	ND	640	19000	450	670	1100
enzo(a)pyrene	8500	110	300	ND	51	560	33000	340	ND	61
indeno(1,2,3-cd)pyrene Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND_	ND	ND	ND	3200
Benzo(g,h,i)perylene	ND	ND ND	ND_	ND	ND ND	ND	ND	ND	ND	14
Notac:	ND	_ND	ND	ND	ND	ND	ND	ND	ND	50000

- Notes:
 1. TAGM 4046 guidence values are listed where applicable.
 2. ND Not Detected
 3. No TAGM soil guidence value for this com₁ mund.

Table 4 (cont'd) Soil Analytical Results (ug/kg) Semi-Volatile Organic Compounds: USEPA Method 8270

Sample ID	BS-11	BS-11	BS-12	BS-12	BS-12	BS-13	BS-13	BS-14	BS-14	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/20/2002	6/20/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg								L	\ \.	
Phenol	ND^2	ND	ND	ND	ND	ND	ND_	ND	ND	30
bis(2-Chloroethyl)ether	ND	ND	ND_	ND_	ND	ND	ND	ND	ND	*
2-Chlorophenol	ND	ND	ND_	ND	ND	ND	ND	ND	ND	800
1,2-Dichlorobenzene	ND	ND	ND_	ND	ND_	ND ND	ND	ND ND	ND ND	7900 1600
1,4-Dichlorobenzene	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND	8500
2-Methylphenol	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	100
2,2-oxybis(1-Chloropropane	ND	*								
3+4-Methylphenols	ND	*								
n-Nitroso-di-n-propylamine	ND	ND	ND	ND	ND	ND_	ND_	ND	ND	*
Hexachloroethane	ND	*								
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND_	ND	ND	200
Isophorone 2-Nitrophenol	ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	<u>4400</u> 330
2,4-Dimethylphenol	ND ND	ND	ND	*						
bis(2-Chloroethoxy)methane	ND	ND	ND_	ND	ND	ND	ND	ND_	ND	*
2,4-Dichlorophenol	ND	ND_	*							
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND_	ND	ND	3400
Naphthalene	90	250	ND	ND	ND	ND	ND	ND	5700	13000
4-Chloroaniline	ND	220								
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND_	ND	ND	ND	*
4-Chloro-3-methylphenol 2-Methylnaphthalene	ND.	ND	ND	ND	ND ND	ND	ND	ND	ND	240
Hexachlorocyclopentadiene	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	1900 ND	36400 *
2,4,6-Trichlorophenol	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	*
4,5-Trichlorophenol	ND	ND	ND_	ND	ND	ND	ND	ND	ND	100
2-Chloronaphthalene	ND	*								
2-Nitroaniline	ND	430								
Dimethylphthalate	ND	2000								
Acenaphthylene	ND_	ND	ND	ND_	ND	ND_	ND	ND	ND	41000
2,6-Dinitrotoluene 3-Nitroaniline	ND	ND	ND	ND_	ND	ND	ND	ND	ND	1000
Acenaphthene	ND 230	ND 420	ND 93	ND ND	ND 99	ND ND	ND ND	ND ND	ND 9500	500 50000
2,4-Dinitrophenol	230 ND	ND	ND	ND ND	ND	ND	ND	ND ND	ND	200
4-Nitrophenol	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	100
Dibenzofuran	110	210	ND	ND	ND	ND	ND	ND	5300	6200
2,4-Dinitrotoluene	ND	ND	ND	ND .	ND	ND	ND	ND	ND	*
Diethylphthalate	ND	ND	ND	ND	ND	ND_	ND	ND	ND	7100
4-Chlorophenyl-phenylether Fluorene	ND	ND	ND	ND	ND	ND_	ND	ND	ND	*
4-Nitroaniline	200	460 ND	80 ND	ND	100 ND	ND	ND	ND	9800 ND	5000 <u></u>
4,6-Dinitro-2-methylphenol	NDND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	*
n-Nitrosodiphenylamine	ND	ND	ND.	ND ND	ND	ND	ND	ND	ND	*
4-Bromophenyl-phenylether	ND	*								
Hexachlorobenzene	ND	410								
Pentachlorophenol	ND	ND	ND_	ND	ND	ND_	ND	ND	ND	1000
Phenanthrene Anthracene	2000	4700	940	ND	1100	110	ND	2800	57000	50000
Carbazole	390 220	1100 440	210 130	ND	250 110	ND ND	ND ND	420	20000 9900	50000 *
Di-n-butylphthalate	ND ND	ND ND	ND ND	ND ND	ND	NDND	ND ND	180 ND	ND	8100
Fluoranthene	2400	6800	2200	ND	1700	210	35	6700	78000	50000
Pyrene	6400	10000	4000	68	3900	270	67	5300	55000	50000
Butylbenzylphthalate	ND	120	ND	ND	ND	ND_	ND	ND	ND	50000
3,3-Dichlorobenzidine	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	*
Benzo(a)anthracene	1200	3200	1000	ND	710	93	ND	2400	36000	224
Chrysene Bis(2-ethylhexyl)phthalate	610	2500	620	ND	490	80	ND	2400	31000	400
Di-n-octyl phthalate	160	560 ND	ND	ND	ND ND	220	ND	ND ND	ND	50000 50000
Benzo(b)fluoranthene	ND 5400	ND 17000	ND 3100	ND 300	760	ND 130_	ND ND	ND 2400	ND 120000	1100
Benzo(k)fluoranthene	1100	8400	1000	340	1400	ND_	ND ND	3000	100000	1100
'enzo(a)pyrene	_ND	5000	800	ND ND	ND	60	ND	2700	97000	61
omo(u)p) tone										
ndeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	NDI	ND	930	3200
ndeno(1,2,3-cd)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene	ND ND ND	930 1600 2100	3200 14 50000							

- Notes:
 1. TAGM 4046 guidence values are listed where applicable.
 2. ND Not Detected
 3. No TAGM soil guidence value for this compound.

Table 4 (cont'd) Soil Analytical Results (ug/kg) Semi-Volatile Organic Compounds: USEPA Method 8270

Sample ID	BS-14	BS-15	BS-15	BS-15	BS-16	BS-16	BS-16	BS-25	BS-27	NYSDEC
Sample Depth	8-12 ft	0-4 ft	4-8 ft 6/19/2002	8-12 ft 6/19/2002	0-4 ft 6/19/2002	4-8 ft 6/19/2002	8-12 ft 6/19/2002	12-16 ft 6/19/2002	8-12 ft 6/19/2002	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	Guidelines (ng/kg) ¹
PARAMETER - ug/kg) II) 2		ND	<u></u>	ND	ND	ND	ND	ND	30
Phenol bis(2-Chloroethyl)ether	ND ²	ND								*
2-Chlorophenol	ND	ND	ND	ND.	ND	ND	ND	ND ND	ND	800
1,2-Dichlorobenzene	ND	ND_	ND_	ND	ND	ND	ND	ND	NDND	7900
1,3-Dichlorobenzene	ND ND	NDND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	1600
1,4-Dichlorobenzene	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND	ND ND	ND	8500
2-Methylphenol	ND	ND ND	ND	ND	ND ND	ND	ND	ND	ND	100
2,2-oxybis(1-Chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
3+4-Methylphenols	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
n-Nitroso-di-n-propylamine	ND	ND	ND_	ND	ND	ND	ND	ND	ND	*
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Nitrobenzene	ND_	ND_	ND	ND	ND	ND	ND	ND	ND	200
Isophorone	ND	ND	ND.	ND	ND	ND	ND	ND	ND	4400
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND_	ND	ND	330
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
bis(2-Chloroethoxy)methane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	3400
Naphthalene 4-Chloroaniline	ND	ND	ND_	ND	ND	520	ND_	ND	ND	13000
Hexachlorobutadiene	ND	ND	ND_	ND ND	ND	ND	ND	ND	ND	<u>220</u>
4-Chloro-3-methylphenol	ND ND	ND ND	ND ND	ND	ND ND	ND ND	NDND	ND ND	ND ND	240
2-Methylnaphthalene	ND ND	ND ND	ND ND	550	ND	ND ND	ND	ND ND	ND	36400
Hexachlorocyclopentadiene	ND ND	ND ND	ND	ND	ND	ND ND	ND ND	ND	ND ND	*
2,4,6-Trichlorophenol	ND ND	ND	ND	ND	ND	ND ND	ND ND	ND ND	ND ND	*
4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND_	ND ND	ND_	ND	100
Z-Chloronaphthalene	ND	NDND	ND	ND	ND	ND	ND	ND	ND	*
2-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	430
Dimethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	2000
Acenaphthylene	ND	ND	1500	ND	ND	ND	ND	ND	ND	41000
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1000
3-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	_500
Acenaphthene	62	ND	ND	1000	420	2900	280	ND	ND	50000
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND_	100
Dibenzofuran 2,4-Dinitrotoluene	ND	ND	ND	300	ND	940	ND	ND	ND	<u>6200</u> *
Diethylphthalate	ND	ND	ND	ND	ND ND	ND ND	ND	ND	ND	
4-Chlorophenyl-phenylether	ND ND	ND	ND_	ND	ND	ND	ND ND	ND	ND	7100
Fluorene	ND 59	ND ND	ND	ND 1500	ND370	ND 2100	ND 340	ND ND	ND ND	50000
4-Nitroaniline	ND	ND	ND ND	ND	ND	ND_	ND.	ND ND	ND	*
4,6-Dinitro-2-methylphenol	ND	ND	ND.	ND	ND	ND	ND	ND	ND	*
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
4-Bromophenyl-phenylether	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	410
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	1000
Phenanthrene	530	1600	1300	8400	4100	60000	6100	1300	710	50000
Anthracene Carbazole	100	370	370	2100	890	6200	910	ND	690	50000
Di-n-butylphthalate	57	ND	ND	200	450	2300	460	ND	410	*
Fluoranthene	ND 720	ND	ND 2500	ND	ND 7200	ND	ND	ND 2000	ND	8100
Pyrene	720 1600	3000 3800	3500 7600	5400 14000	7200 9300	69000 67000	8900 8400	3000	5500 6100	50000 50000
Butylbenzylphthalate	710	ND	ND	ND	ND	ND	ND	2600 ND	ND	50000
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND ND	ND	ND	ND ND	ND	*
Benzo(a)anthracene	290	1500	2900	2400	3200	13000	3200	1100	2100	224
Chrysene	150	960	2300	1500	2000	12000	3100	1600	2100	400
Bis(2-ethylhexyl)phthalate	36	ND	ND	190	ND	ND	ND	8300	3100	50000
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	50000
Benzo(b)fluoranthene	1300	1600	6300	3500	6000	8000	2800	2300	5900	1100
Benzo(k)fluoranthene	200	ND	8000	ND	2200	14000	3400	1300	3700	1100
enzo(a)pyrene	ND	860	5200	1500	3000	8900	2600	700	1300	61
ideno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	900_	ND	ND	ND	3200
Dibenzo(a,h)anthracene	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	14
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	6700	ND	ND	ND	50000

Notes:

1. TAGM 4046 guidence values are listed where applicable.
2. NID - Not Detected
3. No TAGM soil guidence e value for this compound.

Table 5
Soil Analytical Results (ug/kg)
PCBs: USEPA Method 8082

Sample ID	BS-2	BS-2	BS-2	BS-3	BS-3	BS-3	BS-4	BS-4	BS-5	NYSDEC
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	8-12 ft	0-4 ft	Soil Cleanup
Sample Date	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg										
Aroclor-1016	ND^2	ND	ND _	10,000						
Aroclor-1221	ND	10,000								
Aroclor-1232	ND	ND _	ND _	10,000						
Aroclor-1242	ND	10,000								
Aroclor-1248	ND	ND	ND	ND	780	ND	ND	5900	ND	10,000
Aroclor-1254	ND	ND	ND	ND	530	ND	ND	2500	120	10,000
Aroclor-1260	300	ND	65	2100	270	50	23	ND	33	10,000

Sample ID	BS-5	BS-5	BS-6	BS-6	BS-6	BS-7	BS-7	BS-7	BS-8	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Soil Cleanup
Sample Date	6/20/2002	6/20/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg										
Aroclor-1016	ND	10,000								
Aroclor-1221	ND	ND _	10,000							
Aroclor-1232	ND	10,000								
Aroclor-1242	ND	ND	ND _	ND	ND	ND	1600	ND	ND	10,000
Aroclor-1248	ND	10,000								
Aroclor-1254	ND	120	ND	ND	ND	820	ND	ND	ND	10,000
Aroclor-1260	15	ND	ND	ND	180	ND	ND	ND_	ND	10,000

- 1. TAGM 4046 guidence values
- 2. ND Not Detected

Table 5 (cont'd) Soil Analytical Results (ug/kg) PCBs: USEPA Method 8082

Sample ID	BS-8	BS-8	BS- 9	BS-9	BS- 9	BS-10	BS-1 0	BS-1 0	BS-11	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0 -4 ft	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg										
Aroclor-1016	ND^2	ND	ND	ND	ND	ND	ND	ND	ND	10,000
Aroclor-1221	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000
Aroclor-1232	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000
Aroclor-1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000
Aroclor-1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000
Aroclor-1254	74	ND	ND	ND	ND	ND	660	ND	110	10,000
Aroclor-1260	ND	ND	ND	38	_40	140	310	120	ND	10,000

Sample ID	BS-11	BS-11	BS-12	BS-12	BS-12	BS-13	BS-13	BS-14	BS-14	NYSDEC
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/20/2002	6/20/2002	6/19/2002	6/19/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg										
Aroclor-1016	ND	10,000								
Aroclor-1221	ND	10,000								
Aroclor-1232	ND	10,000								
Aroclor-1242	ND	10,000								
Aroclor-1248	ND	ND	ND	ND	ND	3400	2600	ND	ND	10,000
Aroclor-1254	120	ND	ND	ND	380	1600	1400	ND	ND	10,000
Aroclor-1260	110	ND	ND	260	150	ND	ND	450	58	10,000

- 1. TAGM 4046 guidence values
- 2. ND Not Detected

Table 5 (cont'd)
Soil Analytical Results (ug/kg)
PCBs: USEPA Method 8082

Sample ID	BS-14	BS-15	BS-15	BS-15	BS-16	BS-16	BS-16	BS-18	BS-18	NYSDEC
Sample Depth	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/18/2002	6/18/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg										
Aroclor-1016	ND^2	ND	10,000							
Aroclor-1221	ND	10,000								
Aroclor-1232	ND	10,000								
Aroclor-1242	ND	10,000								
Aroclor-1248	ND	10,000								
Aroclor-1254	ND	10,000								
Aroclor-1260	57	220	ND	340	490	92	120	ND	46	10,000

Sample ID	BS-19	BS-19	BS-19	BS-20	BS-20	BS-20	BS-21	BS-21	BS-21	NYSDEC
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	Soil Cleanup
Sample Date	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg										
Aroclor-1016	ND	10,000								
Aroclor-1221	ND	10,000								
Aroclor-1232	ND	10,000								
Aroclor-1242	ND	10,000								
Aroclor-1248	ND	10,000								
Aroclor-1254	130	ND	ND	ND	280	1400	680	ND	3200	10,000
Aroclor-1260	ND	150	68	ND	ND	ND	ND	47	ND	10,000

- 1. TAGM 4046 guidence values
- 2. ND Not Detected

Table 5 (cont'd)
Soil Analytical Results (ug/kg)
PCBs: USEPA Method 8082

Sample ID	BS-22	BS-22	BS-22	BS-23	BS-23	BS-23	BS-24	BS-24	BS-24	NYSDEC
Sample Depth	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	Soil Cleanup
Sample Date	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	6/18/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg								no.		
Aroclor-1016	ND^2	ND	10,000							
Aroclor-1221	ND	10,000								
Aroclor-1232	ND	10,000								
Aroclor-1242	ND	10,000								
Aroclor-1248	ND	ND	ND	ND	80	ND	ND	ND	ND	10,000
Aroclor-1254	ND	ND	ND	ND	ND	170	ND	160	ND	10,000
Aroclor-1260	37	22	ND	130	ND	ND	72	ND	80	10,000

				 	
Sample ID	BS-25	BS-27	BS-28	BS-29	NYSDEC
Sample Depth	12-16 ft	8-12 ft	8-12 ft	8-12 ft	Soil Cleanup
Sample Date	6/19/2002	6/19/2002	6/20/2002	6/20/2002	Guidelines (ug/kg) ¹
PARAMETER - ug/kg					
Aroclor-1016	ND	ND	ND	ND	10,000
Aroclor-1221	ND	ND	ND	ND	10,000
Aroclor-1232	ND	ND	ND	ND	10,000
Aroclor-1242	ND	ND	ND	ND	10,000
Aroclor-1248	37000	260000	ND	ND	10,000
Aroclor-1254	22000	110000	ND	ND	10,000
Aroclor-1260	ND	ND	ND	18	10,000

- 1. TAGM 4046 guidence values
- 2. ND Not Detected

Table 6
Soil Analytical Results (mg/kg)
Target Analyte List Metals: USEPA Method 6010

DG 2	DG 2	DC 2	DC 2	DC 2	DC 2	DC 4	DC 4	DC 5	Eastorn LICA
									Eastern USA
									Background
6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	(mg/kg)
							<u></u>		
4970	6230	6440	8540	3650	4620	5360	8950	4810	33000
ND¹	ND	ND	ND	ND	0.57	ND	ND	ND	*2
3.8	4.1	3.7	6	2.4	3.4	3.7	5.6	6	3 - 12 ** ³
31.5	27.7	29.4	41.2	31.3	24.2	20.7	47.9	18.4	15 - 600
0.2	0.28	0.26	0.32	0.17	0.24	0.24	0.5	0.2	0 - 1.75
0.06	ND	0.1	ND	ND	ND	ND	8.5	ND_	0.1 - 1
10400	16000	11300	5240	4400	17800	9550	20100	4130	130 - 35000 **
12.9	10.9	14.1	17.5	11.5	11.4	7.9	1530	9.5	1.5 - 40
2.7	3.6	3.6	4.1	2.1	2.8	2.7	4.7	2.5	2.5 - 60
8.7	9.6	10.5	20.3	7.2	13	7.8	106	6.3	1 - 50
7110	10200	9480	11900	5990	7540	8060	11700	8240	2000 - 550000
25.2	26.9	25.1	38.4	22.1	13.9	10.4	55.2	17	***4
1370	1350	1820	1560	789	1190	1070	1700	844	100 - 5000
90.2	273	135	116	93.9	125	94.4	182	74	50 - 5000
0.02	0.01	0.12	0.13	ND	0.06	0.07	0.16	0.02	0.0001 - 0.2
5.3	4.9	5.3	6.9	3.4	4.4	4.7	9.8	3.5	0.5 - 25
302	445	433	349	256	281	231	402	217	8500 - 43000
ND	0.54	ND	0.57	ND	ND	ND	ND	ND	0.1 - 3.9
ND	ND	0.21	0.4	0.14	0.22	0.12	10.4	ND	*
60.5	128	117	72.3	88.4	72.8	ND	126	ND	6000 - 8000
ND	ND	ND	ND	ND	ND	ND	ND	ND	*
11.6	13.2	16.1	19.4	9.2	10.8	11.5	24.5	10.1	1 - 300
41.2	29.8	36.5	60.3	24.2	22	20.3	317	30.3	9 -50
	4970 ND ¹ 3.8 31.5 0.2 0.06 10400 12.9 2.7 8.7 7110 25.2 1370 90.2 0.02 5.3 302 ND ND 60.5 ND 11.6	0-4 ft 4-8 ft 6/20/2002 6/20/2002 4970 6230 ND¹ ND 3.8 4.1 31.5 27.7 0.2 0.28 0.06 ND 10400 16000 12.9 10.9 2.7 3.6 8.7 9.6 7110 10200 25.2 26.9 1370 1350 90.2 273 0.02 0.01 5.3 4.9 302 445 ND ND 60.5 128 ND ND 11.6 13.2	0-4 ft 4-8 ft 8-12 ft 6/20/2002 6/20/2002 6/20/2002 4970 6230 6440 ND¹ ND ND 3.8 4.1 3.7 31.5 27.7 29.4 0.2 0.28 0.26 0.06 ND 0.1 10400 16000 11300 12.9 10.9 14.1 2.7 3.6 3.6 8.7 9.6 10.5 7110 10200 9480 25.2 26.9 25.1 1370 1350 1820 90.2 273 135 0.02 0.01 0.12 5.3 4.9 5.3 302 445 433 ND 0.54 ND ND ND ND ND ND ND 11.6 13.2 16.1	0-4 ft 4-8 ft 8-12 ft 0-4 ft 6/20/2002 6/20/2002 6/20/2002 6/20/2002 4970 6230 6440 8540 ND¹ ND ND ND 3.8 4.1 3.7 6 31.5 27.7 29.4 41.2 0.2 0.28 0.26 0.32 0.06 ND 0.1 ND 10400 16000 11300 5240 12.9 10.9 14.1 17.5 2.7 3.6 3.6 4.1 8.7 9.6 10.5 20.3 7110 10200 9480 11900 25.2 26.9 25.1 38.4 1370 1350 1820 1560 90.2 273 135 116 0.02 0.01 0.12 0.13 5.3 4.9 5.3 6.9 302 445 433 349	0-4 ft 4-8 ft 8-12 ft 0-4 ft 4-8 ft 6/20/2002 6/20/2002 6/20/2002 6/20/2002 6/20/2002 4970 6230 6440 8540 3650 ND¹ ND ND ND ND 3.8 4.1 3.7 6 2.4 31.5 27.7 29.4 41.2 31.3 0.2 0.28 0.26 0.32 0.17 0.06 ND 0.1 ND ND 10400 16000 11300 5240 4400 12.9 10.9 14.1 17.5 11.5 2.7 3.6 3.6 4.1 2.1 8.7 9.6 10.5 20.3 7.2 7110 10200 9480 11900 5990 25.2 26.9 25.1 38.4 22.1 1370 1350 1820 1560 789 90.2 273 135 116	0-4 ft 4-8 ft 8-12 ft 0-4 ft 4-8 ft 8-12 ft 6/20/2002 6/20/2002 6/20/2002 6/20/2002 6/20/2002 6/20/2002 4970 6230 6440 8540 3650 4620 ND1 ND ND ND ND 0.57 3.8 4.1 3.7 6 2.4 3.4 31.5 27.7 29.4 41.2 31.3 24.2 0.2 0.28 0.26 0.32 0.17 0.24 0.06 ND 0.1 ND ND ND 10400 16000 11300 5240 4400 17800 12.9 10.9 14.1 17.5 11.5 11.4 2.7 3.6 3.6 4.1 2.1 2.8 8.7 9.6 10.5 20.3 7.2 13 7110 10200 9480 11900 5990 7540 25.2 26.9 25.1	0-4 ft 4-8 ft 8-12 ft 0-4 ft 4-8 ft 8-12 ft 0-4 ft 6/20/2002 <t< td=""><td>0-4 ft 4-8 ft 8-12 ft 0-4 ft 4-8 ft 8-12 ft 0-4 ft 8-12 ft 6/20/2002</td><td>0-4 ft 4-8 ft 8-12 ft 0-4 ft 4-8 ft 8-12 ft 0-4 ft 8-12 ft 0-10 ft ND ND ND ND ND AD AD AD AD AD AD AD AD AD AB AB</td></t<>	0-4 ft 4-8 ft 8-12 ft 0-4 ft 4-8 ft 8-12 ft 0-4 ft 8-12 ft 6/20/2002	0-4 ft 4-8 ft 8-12 ft 0-4 ft 4-8 ft 8-12 ft 0-4 ft 8-12 ft 0-10 ft ND ND ND ND ND AD AD AD AD AD AD AD AD AD AB AB

- 1. ND Not Detected
- 2. No TAGM soil guidence value for this compound.
- 3. New York State background
- 4. Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4 61 ppm. Average levels in metropolitan or surburban areas or near highways are much higher and typically range from 200 500 ppm.

Table 6 (cont'd) Soil Analytical Results (mg/kg) Target Analyte List Metals: USEPA Method 6010

Sample ID	BS-5	BS-5	BS-6	BS-6	BS-6	BS-7	BS-7	BS-7	BS-8	Eastern USA
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Background
Sample Date	6/20/2002	6/20/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	(mg/kg)
PARAMETER - mg/kg										
Aluminum	2560	2810	4600	5070	7340	17200	5280	4000	4410	33000
Antimony	ND1	ND	ND	ND	0.95	ND	1.2	ND	8	*2
Arsenic	2	2.2	3.2	4	4.8	5.3	7.7	2.4	4.7	3 - 12 ** ³
Barium	13.5	14.6	23.2	16.6	25.4	31.7	178	12.4	18	15 - 600
Beryllium	0.16	0.16	0.23	0.19	0.29	0.5	0.23	0.19	0.2	0 - 1.75
Cadmium	ND	ND	ND	ND	0.23	ND	3.9	ND	0.29	0.1 - 1
Calcium	2160	3680	14600	2460	1920	2170	21900	1450	1670	130 - 35000 **
Chromium	6	15	8.1	7.2	15.7	18.8	14.6	6.2	14.5	1.5 - 40
Cobalt	2	2	2.9	2.4	3.6	6.1	4	2.4	2.6	2.5 - 60
Соррег	4.5	6.4	6	7.1	9.8	8.1	26.4	5.6	16.7	1 - 50
Iron	6230	7040	7740	6770	9810	19300	9130	7610	7620	2000 - 550000
Lead	11.6	9.9	18.5	8.2	21.5	10.4	48.7	7	283	***4
Magnesium	480	635	987	776	1260	1900	2180	652	623	100 - 5000
Manganese	93.4	85	146	71.5	83.6	134	133	117	100	50 - 5000
Mercury	ND	ND	0.02	ND	0.1	0.04	0.21	0.03	0.05	0.0001 - 0.2
Nickel	2.3	3.5	3.5	2.6	6.3	12.1	9.6	2.4	3.6	0.5 - 25
Potassium	164	227	373	250	454	659	502	235	233	8500 - 43000
Selenium	ND	ND	ND	ND	0.52	ND	ND	ND	ND	0.1 - 3.9
Silver	ND	ND	ND	0.14	0.15	0.15	0.22	ND	0.15	*
Sodium	39.8	83.6	121	84	97.8	106	164	109	115	6000 - 8000
Thallium	ND	*								
Vanadium	6.3	6.9	10.4	10.6	18.1	29	29.2	8.4	15.5	1 - 300
Zine	17.5	21.3	22.5	17.8	29.8	23.9	154	13.5	28.6	9 -50

- 1. ND Not Detected
- 2. No TAGM soil guidence value for this compound.
- 3. New York State background
- 4. Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4 61 ppm. Average levels in metropolitan or surburban areas or near highways are much higher and typically range from 200 500 ppm.

Table 6 (cont'd) Soil Analytical Results (mg/kg) Target Analyte List Metals: USEPA Method 6010

Sample ID	BS-8	BS-8	BS-9	BS-9	BS-9	BS-10	BS-10	BS-10	BS-11	Eastern USA
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	Background
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	(mg/kg)
PARAMETER - mg/kg										
Aluminum	6320	10400	3360	2540	2790	6570	5480	4850	2460	33000
Antimony	ND	ND	0.67	ND	ND	0.73	1.1	0.86	ND	*2
Arsenic	3.1	5.6	1.9	1.9	1.9	3.6	3	4.2	1.5	3 - 12 ** ³
Barium	35.5	37.5	23.3	11.9	9.9	28.5	144	19.4	10.9	15 - 600
Beryllium	0.26	0.37	0.17	0.14	0.15	0.26	0.25	0.2	0.14	0 - 1.75
Cadmium	0.7	0.44	0.46	ND	ND	ND	0.49	ND	ND	0.1 - 1
Calcium	1650	3380	17200	4660	2430	11600	24100	15100	1030	130 - 35000 **
Chromium	11.1	13.8	11.4	5.6	4.9	10.4	31.4	9.6	4.9	1.5 - 40
Cobalt	3.6	5	1.9	1.6	2.1	3.1	2.9	3.1	1.8	2.5 - 60
Copper	11.9	15.4	5.2	3.8	6.5	8.5	12	7.5	3.6	1 - 50
Iron	9730	13500	5300	4110	10600	8360	7650	6890	4930	2000 - 550000
Lead	12.3	27.7	8.4	5.7	4.4	17.9	122	13.4	3.3	***4
Magnesium	892	2000	1360	564	647	1360	3390	2310	556	100 - 5000
Manganese	108	166	86.6	79.7	106	118	153	88.6	93.1	50 - 5000
Mercury	0.05	0.23	0.01	0.03	0.01	0.23	0.07	0.05	0.05	0.0001 - 0.2
Nickel	12.9	7	4.2	2	3.3	4.3	4.4	4.5	I.5	0.5 - 25
Potassium	262	460	405	201	301	403	497	433	186	8500 - 43000
Selenium	ND	0.1 - 3.9								
Silver	ND	ND	ND	ND	0.28	0.12	0.23	ND	ND	*
Sodium	94.1	91.5	149	110	78.8	114	146	137	99.1	6000 - 8000
Thallium	ND	*								
Vanadium	12.5	21.1	6.9	6.1	7.1	13.8	13.4	10.3	5.6	1 - 300
Zine	19.7	32	16.3	9.1	10.9	27.5	180	24	9.2	9 -50

- 1. ND Not Detected
- 2. No TAGM soil guidence value for this compound.
- 3. New York State background
- 4. Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4 61 ppm. Average levels in metropolitan or surburban areas or near highways are much higher and typically range from 200 500 ppm.

Table 6 (cont'd) Soil Analytical Results (mg/kg) Target Analyte List Metals: USEPA Method 6010

Sample ID	BS-11	BS-11	BS-12	BS-12	BS-12	BS-13	BS-13	BS-14	BS-14	Eastern USA
Sample Depth	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	Background
Sample Date		6/19/2002			6/19/2002	6/20/2002	6/20/2002	6/19/2002	6/19/2002	(mg/kg)
PARAMETER - mg/kg										
Aluminum	5650	3110	2770	5620	2980	3740	1780	6260	2720	33000
Antimony	ND^{1}	ND	ND	ND	ND	ND	ND	ND	ND	*2
Arsenic	4.4	1.8	1.4	2.6	1.7	2	2.4	5	2.3	3 - 12 **3
Barium	67.9	26.7	24.8	19.3	21.3	18.1	7.2	59.4	28.2	15 - 600
Beryllium	0.26	0.16	0.18	0.21	0.14	0.27	0.2	0.24	0.15	0 - 1.75
Cadmium	0.08	0.1	ND	ND	0.1	4.4	ND	ND	ND	0.1 - 1
Calcium	20200	15700	9460	3080	5360	3630	1260	6280	17300	130 - 35000 **
Chromium	11.3	9.6	4.6	7.5	52.7	493	19.9	10.3	6.1	1.5 - 40
Cobalt	3.5	2.1	1.8	5.7	1.8	2.3	1.7	3.3	1.7	2.5 - 60
Copper	13.7	6	6.6	5.7	9	32.6	4.8	12.4	8.8	1 - 50
Iron	8560	4980	4140	7590	5060	6160	6970	8640	4080	2000 - 550000
Lead	32.3	9.7	20.7	7.7	23	24.8	7.4	26.5	24.6	***4
Magnesium	1540	1200	1000	2240	1220	701	360	3170	2350	100 - 5000
Manganese	122	90.2	127	201	76.1	139	92.1	134	87.4	50 - 5000
Mercury	0.16	0.09	0.07	0.02	0.05	0.11	0.03	0.06	0.07	0.0001 - 0.2
Nickel	4.4	2.2	1.8	3.3	3.5	4.4	2	5.1	2.2	0.5 - 25
Potassium	543	221	215	290	234	169	108	320	294	8500 - 43000
Selenium	0.41	ND	ND	ND	ND	ND	ND	0.61	ND	0.1 - 3.9
Silver	0.66	ND	ND	ND	0.6	8.6	0.34	ND	ND	*
Sodium	207	155	142	101	102	57.8	103	115	226	6000 - 8000
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	*
Vanadium	13.5	6.4	6	11.3	7	10.5	5.4	14.7	6.2	1 - 300
Zinc	67.2	20.1	32.1	16.2	27.9	114	14.2	41.9	47.2	9 -50

Notes:

- 1. ND Not Detected
- 2. No TAGM soil guidence value for this compound.
- 3. New York State background
- 4. Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4 61 ppm. Average levels in metropolitan or surburban areas or near highways are much higher and typically range from 200 500 ppm.

Table 6 (cont'd) Soil Analytical Results (mg/kg) Target Analyte List Metals: USEPA Method 6010

Sample ID	BS-14	BS-15	BS-15	BS-15	BS-16	BS-16	BS-16	BS-25	BS-27	Eastern USA
Sample Depth	8-12 ft	0-4 ft	4-8 ft	8-12 ft	0-4 ft	4-8 ft	8-12 ft	12-16 ft	8-12 ft	Background
Sample Date	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	6/19/2002	(mg/kg)
PARAMETER - mg/kg										
Aluminum	3220	5540	5350	4510	6680	3750	5600	16300	26000	33000
Antimony	NDI	0.88	ND	*2						
Arsenic	2.4	3.6	7	3.7	5.3	2.3	4.1	ND	7.3	3 - 12 ** ³
Barium	15.5	27.5	30.6	24.6	35	13.8	34.4	161	189	15 - 600
Beryllium	0.2	0.21	0.23	0.2	0.26	0.16	0.22	1.5	3.2	0 - 1.75
Cadmium	ND	0.09	ND	ND	ND	ND	0.13	77.6	74.9	0.1 - 1
Calcium	7830	3100	15500	27700	15700	3080	16400	17700	20100	130 - 35000 **
Chromium	8.9	12.9	7.3	12	12.6	8	13	20200	12600	1.5 - 40
Cobalt	2	2.6	2.3	2.5	3.1	2.1	2.9	27.1	21.5	2.5 - 60
Copper	5.5	13.5	13	9.9	13.4	5.9	16.2	539	1070	1 - 50
lron	6900	7200	7460	7330	9090	5520	8000	106000	54800	2000 - 550000
Lead	10.6	24.4	51.3	27.5	65.2	12.4	44	354	429	***4
Magnesium	1230	1200	6170	14200	1570	831	1820	4780	6770	100 - 5000
Manganese	97	53.8	89.7	114	116	77.4	110	1200	1190	50 - 5000
Mercury	0.1	0.03	0.22	0.08	0.07	0.14	0.22	0.1	0.1	0.0001 - 0.2
Nickel	2.4	4.2	3.3	4	4.8	2.3	4.2	46.4	611	0.5 - 25
Potassium	291	242	226	374	313	189	322	305	502	8500 - 43000
Selenium	ND	ND	ND	0.38	0.47	ND	ND	0.71	ND	0.1 - 3.9
Silver	ND	0.17	ND	0.29	0.14	0.17	ND	201	150	*
Sodium	150	133	137	131	113	80.1	147	558	851	6000 - 8000
Thallium	ND	2	ND	*						
Vanadium	8.5	12.9	12.3	11.3	16.7	9.2	13.4	85.4	108	1 - 300
Zinc	21.1	41.6	25.4	28.3	36.1	18.1	54.2	2670	3890	9 -50
N. f. 4										

Notes:

- 1. ND Not Detected
- 2. No TAGM soil guidence value for this compound.
- 3. New York State background
- 4. Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4 61 ppm. Average levels in metropolitan or surburban areas or near highways are much higher and typically range from 200 500 ppm.

Table 7
Air Analytical Results (ug/m³)
Volatile Organic Compounds: USEPA Method TO + 14

Sample ID	SG-1	SG-2	SG-3	SG-4	SG-5	SG-6	SG-7
Sample Depth	6 ft	6 ft	6 ft	6 ft	6 ft	6 ft	6 ft
Sample Date_	6/20/2002		6/20/2002	6/20/2002	6/20/2002		
PARAMETER - mg/m ³	0.20,200	0,20,202	9,20,20,00	0,00	0,20,200		
Chloromethane	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U U	U	U
	U	U	U	U	U	U	U
Vinyl Chloride Chloroethane	U	U	U	U	Ü	U	U
	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U
1,1-Dichloroethene	U	0.179	U	Ü	U	U	U
1,1-Dichloroethane	U		U	<u>U</u>	U	U	<u>U</u>
trans-1,2-Dichloroethene	U	<u>U</u>	U		U	U	U
cis-1,2-Dichloroethene	U	0.044	U	0.013	U	U	U
Chloroform	U	<u>U</u> U	U U	U	U	U	U
1,2-Dichloroethane	Ü		U	U	U	U	U
1,1,1-Trichloroethane		0.021		U		U	
Carbon Tetrachloride	U	<u>U</u>	U	U	U		U U
Bromodichloromethane	U	<u>U</u>	U	U	U	U	
1,2-Dichloropropane	U	<u>U</u>	U	<u>U</u>	U	U	<u>U</u>
Trichloroethene	0.223	0.239	0.058	0.009	0.075	U	0.027
Trichloroflouromethane	U	0.543	0.466	<u>U</u>	0.057	0.006	<u>U</u>
Benzene	U	0.006	0.005	U	U	0.007	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	<u>U</u>
Dibromochloromethane	U	U	U	U	U_	U	<u>U</u>
trans-1,3-Dichloropropene	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	0.041	U	U	U	U	U
Tetrachloroethene	16.869	0.024	0.107	0.008	0.025	0.003	0.264
Toluene	U	U	0.007	<u>U</u>	<u>U</u>	<u>U</u>	<u>U</u>
Chlorobenzene	U	U	U	<u>U</u>	U	U	U
Ethylbenzene	U	<u>U</u>	U	<u>U</u>	U	U	U
o-Xylene	U_	0.012	0.004	U	U	<u>U</u>	U
m+pXylene	U	0.007	U	U	U	<u>U</u>	U
Styrene	U U	U	U	U	U	U_	U
1,2-Dichlorobenzene		U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	<u>U</u>	U	U
Methyl Tert-butyl Ether	U	U	U	U	<u>U</u>	U_	U
Tert-butyl Alcohol	U	U	U	<u>U</u>	U	U	<u>U</u>
Isopropylbenzene	U	<u>U</u>	<u>U</u>	<u>U</u>	U	<u>U</u>	<u>U</u>
1,2,4-Trimethylbenzene	U	0.013	0.007	<u>U</u>	0.005	0.009	0.007
1,3,5-Trimethylbenzene	U	<u>U</u>	U	U	U	<u>U</u>	U
2-Chlorotoluene	U	U	U	U	U	U	U
4-Chlorotoluene	U	U	U	U	U	U	U
<u>Dichlorodifluoromethane</u>	<u>U</u>	U	U	U	<u>U</u>	<u>U</u>	U

Notes:

Table 7 (cont'd) Air Analytical Results (ug/m³) Volatile Organic Compounds: USEPA Method TO + 14

C 1 ID	- CC 0	200	CC 10	CC 11	SC 12	SG-13
Sample ID	SG-8	SG-9	SG-10	SG-11	SG-12	6 ft
Sample Depth	6 ft					
Sample Date	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002
PARAMETER - ug/m ³					<u>-</u>	
Chloromethane	U	U	U	U	U	U
Bromomethane	U	U	U	U	<u>U</u>	U
Vinyl Chloride	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U
Methylene Chloride	U	U	U	<u>U</u>	U	<u>U</u>
1,1-Dichloroethene	U	U	U	UU	U	U_
1,1-Dichloroethane	U	U	U	U	U	U
trans-1,2-Dichloroethene	U	U	U	U	<u>U</u>	<u> </u>
cis-1,2-Dichloroethene	U	Ų	U	U	0.004	Ŭ_
Chloroform	U	U	U	U	U	U_
1,2-Dichloroethane	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U
Trichloroethene	0.016	0.071	0.012	U	0.004	0.005
Trichloroflouromethane	0.013	0.004	U	U	U	<u> </u>
Benzene	0.005	U	U	U	0.006	U
cis-1,3-Dichloropropene	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U
trans-1,3-Dichloropropene	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U
Tetrachloroethene	0.01	0.034	0.008	U	0.004	0.03
Toluene	U	U	U	U	0.005	U
Chlorobenzene	U	U	U	U	U_	U
Ethylbenzene	U	U	U	U	U	U
o-Xylene	U	U	U	U	U	U
m+pXylene	U	U	U	U	Ų	U
Styrene	U	U	U	U	U	<u>U</u>
1,2-Dichlorobenzene	U	U	U	<u>U</u>	U	U
1,3-Dichlorobenzene	U_	U	U	<u>U</u>	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U
Methyl Tert-butyl Ether	U	U	U	U	U	U
Tert-butyl Alcohol	U	U	U	U	U	U
Isopropylbenzene	U	U	U	U	U	U
1,2,4-Trimethylbenzene	0.005	0.005	0.005	0.005	0.005	0.004
1,3,5-Trimethylbenzene	U	U	U	U	U	U
2-Chlorotoluene	U	U	U	U	U	U
4-Chlorotoluene	U	U	U	U	U	U
Dichlorodiflucromethane	U	U	U	U	U	U

Notes:

U - Undetected I

Appendix A

Geologic Logs

GEOLOGIC LOG

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-1				Bore Hole Data					
Location:	Buried Chron	ium Soil			Hole diameter (inches):	2				
M.P. Elevation:					Total Depth (ft):	12				
Project:	ORB Bottom	Sediment Investiga	tion		Sampler					
Date:	6/17/2002				Type:	Macro core 48	B" x 1.5" ID sampler			
Page	1	_ of	1		Hammer:		Pounds:			
Logged By:	Frank Mancin	i			Fall (inches):					
Company:	Zebra Enviror	nnental, Inc.			Remarks:	Soil samples collected from 0-4, 4-8, and 8-12 ft				
Drilling Started:			Ended:		_	cores.				
Driller:	r		_		1		atrix Spike, and Matrix Spike Duplicate			
Type of Rig:	Geoprobe					collected from				
	SAMPLE				Strata Change	Depth	SAMPLE			
PID/OVA (ppm)	No.	Recovery (%)	Depth (fl.)	Blows/6"	General Description	(feet)	DESCRIPTION			
	1						Yellow wet sand and cobble.			
					· · · · · · · · · · · · · · · · · · ·	2				
	1	60	0-4			4				
		k. 19				6	Dark brown wet sand and cobble with wood debris.			
	2	60	4-8			8				
						10	Yellow sand and cobble with wood and concrete.			
	3	80	8-12			12				
						14	End of Boring @ 12 ft.			
						16				
						18				
						20				
						22				
			. 			24				
					W. 1	26				
						28				
						30				
		<u></u>				32				
Comments		-								

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-2				Bore Hole Data		-
Location:	Buried Chror	mium Soil			Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investig	ation		Sampler		
Date:	6/17/200				Туре:	Macro core 4	18" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manei	ni			Fall (inches):		
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:			cores,	
Driller:							
Type of Rig:	Geoprobe						
		SAMPL	Е		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
	1	50	0-4			2	Yellow sand, cobble, and pebbles.
						6	Yellow sand and cobble.
	2	45	4-8			8	
						10	Yellow sand and cobble.
		_	-	-	_		1
	3	80	8-12			12	
						14	End of Boring @ 12 ft.
						16	
					-	10	†
			<u> </u>	- 		18	<u> </u> -
						20	
	1					22	
		-					1
			ļ	-		24	_
	_			ļ	<u></u>	26	
						28	
						30	-
						32	
Comments							· · · · · · · · · · · · · · · · · · ·

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Smithtown, New York 11787

Well/Boring No.	BC-3				Bore Hole Data				
Location:	Buried Chron	nium Soil			Hole diameter (inches):	2			
M.P. Elevation:					Total Depth (ft):	12			
Project:	ORB Bottom	Sediment Investig	ation		Sampler		_		
Date:	6/17/200	2			Туре:	Macro core 4	8" x 1.5" ID sampler		
Page	1	of	1		Hammer:		Pounds:		
Logged By:	Frank Mancii	ni			Fall (inches):				
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft		
Drilling Started:			Ended:			cores.			
Driller:									
Type of Rig:	Geoprobe								
		SAMPLI			Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
				Ì			Yellow sand, cobble, and pebbles.		
						2	4		
			1	1					
	1	40	0-4	ļ		4	1		
				Į			Yellow sand, cobble, and concrete.		
			_			6	1		
		1	1	ł			ì		
<u> </u>	2	30	4-8			- 8			
		· ·		l		10	Yellow sand, cobble, and concrete.		
						10	-		
		20	9.10	1		1 12			
	3		8-12			12	End of Boring @ 12 ft.		
						14	Effe of Doring (a) 12 ft.		
	-		 			1-	1		
				1		16	1		
		- 					-		
						18			
			 				1		
		i			1	20			
			1				1		
		<u> </u>	l			22]		
-									
					<u> </u>	24]		
					İ		1		
	- 	_			_	26			
			l						
						28	1		
				. [30	1		
	1					22			
71	<u> </u>		<u> </u>			32	<u></u>		
Comments									

GEOLOGIC LOG

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-4				Bore Hole Data		
Location:	Buried Chrom	ium Soil			Hole diameter (inches):	$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	
M.P. Elevation:			-		Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investiga	ation		Sampler		-
Date:	6/17/2002			_	Type:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Mancin	- i			Fall (inches):		
Company:	Zebra Environ	mental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:		1	cores.	
Driller:			_		1		
Type of Rig:	Geoprobe						
	SAMPLE				Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
			i			1	Yellow sand and gravel.
				1		2	
							1
	1	60	0-4			4	
							Dark brown sand, cobble, and concrete.
		j	ľ			6	
	2	65	4-8			8	
							Dark brown sand and cobble.
						10	
	3	60	8-12			12	
							End of Boring @ 12 ft.
	<u> </u>					14	
						16	
	 					18	
			_	 	<u> </u>	20	
	Ī					22	
	 						
						24	
	Ì			[26	
			_				
						28	
-							
						30	
						32	
Comments							

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-5				Bore Hole Data		
Location:	Buried Chron	nium Soil			Hole diameter (inches):		-
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investiga	ation		Sampler	_	
Date:	6/17/2002				Туре:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Mancin	ni			Fall (inches):		
Company:	Zebra Enviror	mental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:		_	cores.	
Driller:					4		
Type of Rig:	Geoprobe				<u> </u>		
		SAMPLE			Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
	İ						Wet yellow sand, cobble, and pebble.
			<u> </u>			2	4
	1	60	0-4			4	
			_				Dark brown wet sand, and cobble.
						6	6 inch band of dark black silt with
		ł		ł			petroluem type odor at 8ft.
	2	60	4-8			8	1
	}		Ì	ľ		4.0	Light to dark brown wet sand with fill
						10	material.
	3	80	8-12			12	
							End of Boring @ 12 ft.
	<u> </u>					14	
						16	
	<u> </u>					18	
		1				20	
				·		20	1
						22	
]
		·				24	
	ŀ			Ĭ			
	 					26	ŀ
				1		28	
	<u> </u>		ļ	L		30	
						32	
Comments							

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Well/Boring No.	BC-6	-			Bore Hole Data				
Location:	Buried Chron	nium Soil			Hole diameter (inches):				
M.P. Elevation:					Total Depth (ft):	12			
Project:	ORB Bottom	Sediment Investiga	ation		Sampler		_		
Date:	6/17/2002				Туре:	Macro core 4	8" x 1.5" ID sampler		
Page	1	of	1		Hammer:		Pounds:		
Logged By:	Frank Mancir	_	_		Fall (inches):				
Company:	Zebra Enviro				Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft		
Drilling Started:		<u> </u>	Ended:		1	cores.			
Driller:					7				
Type of Rig:	Geoprobe		_		7				
		SAMPLE	<u> </u>		Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
				1	<u> </u>		Yellow sand, cobble, and pebble.		
						2			
				~			1		
	1	60	0-4			4			
							Yellow sand, cobble, and pebble.		
		1				6	6 inch band of dark black silt with		
							petroluem type odor at 8ft to 9ft.		
2.8	2	70	4-8			8			
							Wet dark brown sand and cobble		
						10	6 inch band of dark black silt at 9 ft.		
							1		
	3	85	8-12			12			
							End of Boring @ 12 ft.		
						14]		
						16			
						18	1		
	ì						1		
		-				20			
	Į.	Į.							
						22	1		
				<u> </u>		24	1		
				i		26			
				-		- 20	1		
	1			Ì		28	i		
······································				 			1		
		I				30			
				l			1		
						32			
Conunents				_					

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-7				Bore Hole Data		
Location:	Buried Chrom	nium Soil			Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investig	ation		Sampler		
Date:	6/17/2002				Type:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Mancin	ıi			Fall (inches):		
Company:	Zebra Environ	ımental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:	Ended:					cores.	
Driller:							
Type of Rig:	Geoprobe						
	SAMPLE				Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
							Yellow wet sand, cobble, and pebble.
						2	1
				Í			
	1	50	0-4			4	
							Yellow wet sand, cobble, and pebble.
	_ 		 	1		6	1
	2	50	4-8			8	
							Wet yellow sand and cobble.
						10	
		1			Í		
VII. A.J. A.J. A.J. A.J. A.J. A.J. A.J. A	3	30	8-12	_	. 1	12	
						14	End of Boring @ 12 ft.
				_		14	
						16	
						18	
				_		20	
	-			-	-	22	
						24	
****						26	
				1			
				_		28	
						30	
	·					30	
						32	
Comments		4					

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-8				Bore Hole Data		
Location:	Buried Chro	mium Soil			Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Botton	sediment Investiga	ation		Sampler		
Date:	6/17/200)2			Type:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manci	ini			Fall (inches):		
Company:	Zebra Enviro	ommental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:		4	cores.	
Driller:					_		
Type of Rig:	Geoprobe		<u> </u>				
	SAMPLE				Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
							Yellow wet sand and pebbles.
		_{	[2	1
			ĺ				í
		85		L		44	4
			ľ	ľ		(Yellow wet sand and pebbles.
		 	 	 	 	6	1
	2	90	4-8	ł	ł	8	
	- -		- 	 			Yellow wet sand and pebbles.
	}	1	ļ		}	10	Tone was band and pessons
				1	1		1
	3	60	8-12	ļ]	12	_
							End of Boring @ 12 ft.
						14	
					. [16	1
	1		Ĭ		ſ		1
	<u> </u>	 	<u> </u>		 	18	1
	į.	ľ	i	i		20	ĺ
							1
		ł		ł		22	
		·					1
	<u> </u>	Į	<u> </u>			24	
	1]
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Comments		<u> </u>		<u> </u>			L
Committee							

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-9				Bore Hole Data	_	
Location:	Buried Chron	mium Soil			Hole diameter (inches):		
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Botton	n Sediment Investiga	ation		Sampler		
Date:	6/17/2002				Туре:	Macro core 4	48" x 1.5" ID sampler
Page	1of1		Hammer:		Pounds:		
Logged By:	Frank Manci	mi			Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:		_	cores.	
Driller:					-}		
Type of Rig:	Geoprobe						
		SAMPLI			Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Biows/6"	General Description	(feet)	DESCRIPTION
						T	Brown sand, pebbles, cobble, concrete,
		_				2	and brick.
		1	1				
<u> </u>	1	50	0-4			4	4
							Light brown sand, pebbles, and
					_]	- 6	concrete.
	1	l					
	2	50	4-8			8	4
			1		}	1.0	Yellow wet sand, some asphalt, and
		 -		<u> </u>		10	concrete.
	,	60	9,12			1,2	
	3	60	8-12	 	-	12	End of Boring @ 12 ft.
	ĺ					14	Dild of Dornig (a) 12 is.
	-		 			- 	1
]			16	
	<u> </u>					 	†
						18	
		1	1	_	-		1
	l		l	l	l	20	
							1
]			22	
				ĺ			
					_	24	4
						26	
			 	 		26	4
						70	1
			.]			28	┧
		1	1			30	1
		 	 -		_	30	4
						32	
<u>Comments</u>						32	
Comments							

GEOLOGIC LOG

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Well/Boring No.	BC-10				Bore Hole Data		
Location:	Buried Chro	mium Soil			Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Botton	n Sediment Investig	gation		Sampler		
Date:	6/17/200				Туре:	Macro core 4	48" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manci	ini			Fall (inches):		
Company:		onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:		1	cores.	
Driller:			_		1		
Type of Rig:	Geoprobe				7		
-91		SAMPL	 .E		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
			1			1	Yellow wet sand and cobble.
			l	i	1	2	1
		_			1		7
	1	45	0-4	1		4	1
				-			Wet sand, cobble, and concrete.
	<u> </u>	l	l			6	
							7
	2	30	4-8		<u></u>	8	
			1				Yellow wet sand, cobble, and concrete.
						10	_
					1		
	3	20	8-12			12	<u> </u>
		1]			End of Boring @ 12 ft.
						14	4
		1					
			 	-l		16	4
]		
			 	-l		18	4
		J				20	
		_		 		20	4
		ŀ	ľ			22	İ
			-		 	 	1
			1			24	1
							1
	ļ,	<u> </u>		l		26]
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					<u></u>	28	_
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]	
						32	

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-11				Bore Hole Data					
Location:	Buried Chron	nium Soil			Hole diameter (inches):	2				
M.P. Elevation:					Total Depth (ft):	12				
Project:	ORB Bottom	Sediment Investig	ation		Sampler	_				
Date:	6/17/200	2			Туре:	Macro core 4	8" x 1.5" ID sampler			
Page	1	_ of	1		Hammer:		Pounds:			
Logged By:	Frank Mancir	ni			Fall (inches):		·			
Company:	Zebra Environ	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft			
Drilling Started:			_ Ended:			cores.				
Driller:										
Type of Rig:	Geoprobe	CALCEL								
DID (OVA)		SAMPLI		DI (CII	Strata Change	Depth	SAMPLE			
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION			
		J	1				Dark brown wet sand, pebbles and cobble.			
	- 		I			2	┪			
	1	55	0-4	<u></u>		4	<u> </u>			
						6	Dark brown wet sand, some black streaks in soil, and some clay.			
	2	70	4-8			8				
			<u> </u>			10	Dark brown sand and cobble from 8 to 10 ft. Yellow wet sand and cobble 10 to 12 ft.			
	3	70	8-12			12				
						14	End of Boring @ 12 ft.			
						16				
			<u></u>			18				
						20				
						22				
			<u> </u>			24				
						26				
						28				
	_					30				
						32				

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Well/Boring No.	BC-12				Bore Hole Data						
Location:	Buried Chron	mium Soil			Hole diameter (inches):	2					
M.P. Elevation:					Total Depth (ft):	12					
Project:	ORB Bottom	Sediment Investiga	ation		Sampler						
Date:	6/17/200	2			Type:	Macro core 4	8" x 1.5" lD sampler				
Page	1	of	1		Hammer:		Pounds:				
Logged By:	Frank Maneir	ni		_	Fall (inches):						
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft				
Drilling Started:			Ended:		_	cores.					
Driller:											
Type of Rig:	Geoprobe					<u></u>					
1		SAMPLE			Strata Change	Depth	SAMPLE				
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION				
		1					Yellow wet sand and cobble.				
J						2	4				
	1	60	0-4			4					
							Yellow wet sand and cobble.				
						6	-{				
	2	50	4-8			8					
				1			Wet sand and cobble.				
						10	Fine wet black silt from 11 to 12ft.				
		-	AA771				1				
	3	60	8-12	Í	İ	12					
							End of Boring @ 12 ft.				
						14	J				
					1		1				
				_		16	1				
			}								
	 			-		18	1				
]	1				
		-J	J	-			-				
	ŀ				1	22					
	-[-			-		1				
	1		ļ			24					
						<u> </u>	1				
	I					26	}				
				1			1				
						28					
]				
	_					30					
		1		1							
		<u></u>	<u></u>	⊥		32					
Comments											

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Well/Boring No.	BC-13		_		Bore Hole Data				
Location:	Buried Chron	mium Soil			Hole diameter (inches):	2	2		
M.P. Elevation:					Total Depth (ft):	12			
Project:	ORB Bottom	Sediment Investiga	ation		Sampler				
Date:	6/17/200	2			Type:	Macro core 4	8" x 1.5" ID sampler		
Page	1	of	1		Hammer:		Pounds:		
Logged By:	Frank Manci	ni			Fall (inches):				
Company:	Zebra Enviro	nmental, Inc.		_	Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft		
Drilling Started:			Ended:			cores.			
Driller:					4		atrix Spike, and Matrix Spike Duplicate		
Type of Rig:	Geoprobe				 		n 8-12 ft core.		
		SAMPLI		_	Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
							Yellow wet sand and cobble.		
		<u> </u>		<u> </u>	_	2	4		
	1	40	0-4			4			
-						6	Dark brown wet sand, cobble, and pebbles.		
		-{		- [-			1		
	2	40	4-8			8			
						10	Wet sand and cobble with some concrete.		
						10	1		
	3	70	8-12			12			
						14	End of Boring @ 12 ft.		
	· [16	4		
						18			
						20			
		_	~		· · · · · · · · · · · · · · · · · · ·		1		
						22			
						24			
]		
	-	 	<u>.</u>			26	}		
	<u> </u>					28			
						30			
Comments	<u></u>		<u> </u>	<u> </u>		32			
Comments									

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oring No.	BC-14				Bore Hole Data			
Location:	Buried Chron	mium Soil			Hole diameter (inches):	2		
M.P. Elevation:					Total Depth (ft):	8.5		
Project:	ORB Bottom	Sediment Investig	ation		Sampler			
Date:	6/17/2002 1 of 1				Туре:	Macro core	48" x 1.5" ID sampler	
Page					Hammer:		Pounds:	
Logged By:	Frank Manci				Fall (inches):			
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, and 4-8 ft.	
Drilling Started:			Ended:		4	cores.		
Driller:					4			
Type of Rig:	Geoprobe				n, d	<u> </u>	a de la constante de la consta	
DID (OT) A (SAMPLI		151 /68	Strata Change	Depth	SAMPLE	
PlD/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
		ĺ		1			Yellow wet sand, cobble, and pebble.	
				-		2	-	
	i	55	0-4			4		
	<u> </u>				<u> </u>		Dark brown sand, black silt, and cobble.	
						6	Dan Storm Cana, State Coll., and Costone	
			1				1	
	2	55	4-8			8	1	
							Dark brown sand, glass, and cobble.	
			<u> </u>			10	Refusal @ 8.5 ft.	
		ſ				Ĭ	End of Boring @ 8.5 ft.	
						12		
		-[14	4	
			<u> </u>			16	-	
						1.0		
						18	-	
			ł	ļ		20		
				<u> </u>			- 	
						22		
				1			1	
						24	Ĺ	
		<u> </u>			·	26	4	
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	1	1]		30		
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						32		
Comments		•				· · · · · · · · · · · · · · · · · · ·	<u> </u>	

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Well/Boring No.	BC-15			-	Bore Hole Data				
Location:	Buried Chron	nium Soil			Hole diameter (inches):	2	2		
M.P. Elevation:					Total Depth (ft):	12			
Project:	ORB Bottom	Sediment Investiga	ation		Sampler		<u></u>		
Date:	6/17/200	2			Туре:	Macro core 4	8"_x 1.5" ID sampler		
Page	1	of	I		Hammer:		Pounds:		
Logged By:	Frank Manci	<u>ni</u>			Fall (inches):				
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft		
Drilling Started:			Ended:		_	cores.			
Driller:					4				
Type of Rig:	Geoprobe	_							
		SAMPLI			Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
		1					Sand, cobble, concrete, and brick.		
				<u> </u>		2	_		
	1	90	0-4			4			
						6	Dark brown sand, cobble, concrete, asphalt, and brick.		
							and office.		
	2	75	4-8			8	_		
			ĺ			10	Dark brown sand, cobble, concrete, asphalt, and brick.		
					-t		1		
	3	60	8-12			12			
				l		,,	End of Boring @ 12 ft.		
		-		-		14	1		
						16			
						18			
	The state of the s						1		
						20	4		
						22			
			ļ			24			
		-					1		
			l			26	1		
						28			
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		<u> </u>	<u> </u>			30	1		
						32			
Comments						30			

GEOLOGIC LOG

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Well/Boring No.	BC-16				Bore Hole Data		
Location:	Buried Chron	nium Soil			Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investig	ation		Sampler		
Date:	6/17/200	2			Type:	Macro core 4	8" x 1.5" ID sampler
Page	1	_ of	I		Hammer:		Pounds:
Logged By:	Frank Manci	ni	_		Fall (inches):		
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:			cores.	
Driller:							
Type of Rig:	Geoprobe						
		SAMPL	E		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
	T						Dark brown sand, cobble, concrete, and brick.
				1		2	
	1	60	0-4			4	
							Dark brown sand, cobble, concrete, and brick.
		<u> </u>		1		6	j
	2	60	4-8			8	
					1		Dark brown sand, cobble, and concrete.
						10	
			Ĭ			ĺ	
	3	50	8-12	<u> </u>		12	<u></u>
	J		Ĭ	l.	1		End of Boring @ 12 ft.
		<u> </u>				14	_[
	1		Ī				
						16	1
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		- 		<u> </u>	<u> </u>	18	4
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Comments				_			

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Well/Boring No.	BC-17				Bore Hole Data					
Location:	Buried Chron	nium Soil			Hole diameter (inches):	2				
M.P. Elevation:					Total Depth (ft):	12				
Project:	ORB Bottom	Sediment Investig	ation		Sampler					
Date:	6/17/200		-		Туре:	Macro core 4	8" x 1.5" ID sampler			
Page	1	of			Hammer:		Pounds:			
Logged By:	Frank Mancir	_			Fall (inches):					
Company:	Zehra Enviror				Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft			
Drilling Started:			Ended:		1	cores.				
Driller:			-		-					
Type of Rig:	Geoprobe			 _	1					
-)F <u>0</u>		SAMPLI	E.		Strata Change	Depth	SAMPLE			
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION			
(просундрын)	110.	Recovery (70)	Deput (it.)	Bioward	General Description	(1001)	Dark brown sand, cobble, concrete, and brick.			
			ł			2	Dark brown sailu, cobble, concrete, and brick.			
		-	~				1			
	1	45	0-4			4				
						6	Dark brown sand, cobble, concrete, and brick.			
	2	75	4-8			8				
<u> </u>		,,,	1			<u> </u>	Yellow sand, cobble, and concrete.			
	_			 	<u> </u>	10	-			
	3	75	8-12			12				
						14	End of Boring @ 12 ft.			
	ĺ				1	16				
		- 		-[<u></u>		1			
				-		18				
· · · · · · · · · · · · · · · · · · ·						20				
	ļ				}	22				
										
	_					26				
						28				
						30				
						32				

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Well/Boring No.	BC-18				Bore Hole Data		
Location:	Buried Chron	nium Soil			Hole diameter (inches):	2	_
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investiga	ation		Sampler		
Date:	6/17/2002	2			Type:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Mancin	<u>ui</u>			Fall (inches):		·
Company:	Zebra Enviror	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:		_}	cores.	
Driller:					4		
Type of Rig:	Geoprobe			<u>-</u>			
		SAMPLI		_	Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
							Light brown sand and cobble 0 to 2 ft.
			 			22	Dark brown sand and cobble 3 to 4 ft.
				1			
	11	30	0-4	_ 	- -	4	4
						6	Light brown sand and cobble.
	2	60	4-8			8	
							Light brown sand and cobble.
	_	1				10	1
	3	55	8-12			12	
	İ					14	End of Boring @ 12 ft.
						16	
		-		-[1
		<u> </u>				18	
						20	
						22	
		<u></u>				24	
				- · · · · · · - · · · · · · · · · · ·		24	1
	_					26	
						28	
						30	
		<u> </u>		-			
Comments		<u></u>	<u> </u>	<u></u>		32	<u> </u>

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Well/Boring No.	BC-19	Bore Hole Data						
Location:	Buried Chron	nium Soil	_		Hole diameter (inches):	2		
M.P. Elevation:				 _	Total Depth (ft):	12		
Project:	ORB Bottom	Sediment Investig	ation		Sampler			
Date:	6/17/2002				Type:	Macro core 48" x 1.5" ID sampler		
Page	1	of	1		Hammer:		Pounds:	
Logged By:	Frank Mancin	-			Fall (inches):			
Company:	Zebra Enviror				Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:		<u> </u>	Ended:		=	cores.	, .	
Driller:			_		1			
Type of Rig:	Geoprobe				1			
	1	SAMPL	E		Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
Тъто ут (ррш)	110.	Receivery (70)	Depth (it.)	Bionso	General Description	(reet)	Medium sand, cobble, and concrete	
İ						2	Wednesday, copple, and concrete.	
							1	
	1	50	0-4			4		
				<u> </u>		 	Medium sand, cobble, and concrete.	
						6		
			-				†	
	2	55	4-8			8		
		- <u> </u>		 			Medium sand, cobble, and concrete.	
	1					10	,,	
		· ···					1	
	3	60	8-12			12		
							End of Boring @ 12 ft.	
	1			1		14		
							1	
			1			16		
							1	
				1		18		
N. B. (B. 7) 750						20	<u>.</u>	
			l					
		.			<u> </u>	22	4	
	Ĭ			1				
				-l		24	4	
]					
						26	4	
	ł			1		20		
			ļ	-		28	1	
		1				30		
				 		30	1	
	J					32		
Comments	<u> </u>	<u> </u>		<u> </u>		32		
Commence							•	

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Well/Boring No.	BC-20				Bore Hole Data		
Location:	Buried Chror	mium Soil			Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Botton	n Sediment Investiga	ation		Sampler		
Date:	6/17/200				Туре:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manci	.ni			Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:			cores.	
Driller:							atrix Spike, and Matrix Spike Duplicate
Type of Rig:	Geoprobe					collected from	
	<u> </u>	SAMPLE			Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
		ł					Medium sand and cobble.
						2	4
	1	20	0-4		1	4	
	1						Medium sand and cobble.
				<u></u>		6	
			1		ļ		
	2	60	4-8			8	Medium sand and cobble.
	l	<u> </u>			1	10	Mediani sana ana coosic.
							1
	3	90	8-12	-	<u> </u>	12	5 1 55 100
			ł			14	End of Boring @ 12 ft.
				-		<u> </u>	1
				<u> </u>		16	
		1					1
			 	-	<u> </u>	18	1
				1		20	
		_					1
						22	
		-	 	 		24	1
			l	l	}	26	
		-	 	<u> </u>		28	
						30	
	1		1			22	
Comments			<u> </u>	<u> </u>		32	<u> </u>
Committee							

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Smithtown, New York 11787

Well/Boring No.	BC-21				Bore Hole Data			
Location:	Buried Chron	nium Soil			Hole diameter (inches):	6.5		
M.P. Elevation:					Total Depth (ft):			
Project:	ORB Bottom	Sediment Investiga	ation		Sampler			
Date:	6/17/200	2			Type:	Macro core 4	8" x 1.5" 1D sampler	
Page	1	of	1		Hammer:		Pounds:	
Logged By:	Frank Mancin	ni			Fall (inches):			
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, and 4-8 ft.	
Drilling Started:			Ended:			cores.		
Driller;					_			
Type of Rig:	Geoprobe							
		SAMPLI			Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
							Dark brown sand, cobble, and conctrete.	
				<u> </u>		2		
					1	1		
	1	40	0-4	<u> </u>		4	4	
			l				Fine brown silt, concrete, asphalt,	
	2	30	4-6.5	_	 	- 6	and cobble. Refusal @ 6.5 ft.	
		1					End of Boring @ 6.5 ft.	
		-		I		8	1	
			ĺ			10		
						10	1	
						12		
-						1	1	
		İ			Ì	14		
		-					7	
	1					16		
							1	
		<u> </u>				18		
					1			
				<u> </u>		20	1	
	1							
				<u> </u>		22	-	
					ļ	24		
						24	1	
						26	ì	
			-		***************************************		1	
		1				28		
					· ····		1	
						30		
							1	
						32		
Comments								

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Well/Boring No.	BC-22				Bore Hole Data			
Location:	Buried Chro	mium Soil	_		Hole diameter (inches):	2 12		
M.P. Elevation:					Total Depth (ft):			
Project:	ORB Bottom Sediment Investigation				Sampler			
Date:	6/18/200		<u></u>		Type:	Macro core 4	8" x 1.5" ID sampler	
Page	1	of	1	-	Hammer:		Pounds:	
Logged By:	Frank Mancini				Fall (inches):			
Company:	Zebra Environmental, Inc.				Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:			Ended:		7	cores.	, .	
Driller:								
Type of Rig:	Geoprobe							
		SAMPL	E		Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.) Blows/6"		General Description	(feet)	DESCRIPTION	
		3 (/	1 ,	+	<u>'</u>		Dark brown med. sand, cobble, concrete,	
			ĺ			2	and asphalt.	
							<u> </u>	
	1	95	0-4			4		
							Dark brown med. sand, cobble, concrete,	
						6	and asphalt.	
			<u> </u>	1			l inch of black sediment @ 7 ft.	
	2	40	4-8			8		
				_			Yellow med. sand.	
			ł			10		
							1	
	3	80	8-12			12		
							End of Boring @ 12 ft.	
						14		
							1	
	Í					16		
							1	
						18		
			_					
						20	1	
				ľ	Ĭ		1	
						22	4	
	· ————-		1			24	4	
						26	-	
						20		
 .				-	<u>-</u>		1	
		1				30	}	
		-				30	1	
						32		
Comments						32		

GEOLOGIC LOG

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Well/Boring No.	BC-23				Bore Hole Data			
Location:	Buried Chromium Soil				Hole diameter (inches):	ches): 2		
M.P. Elevation:				_	Total Depth (ft):	12		
Project:	ORB Bottom	Sediment Investig	ation		Sampler			
Date:	6/18/200	12	<u> </u>		Type:	Macro core 48" x 1.5" 1D sampler		
Page	1	of	1		Hammer:		Pounds:	
Logged By:	Frank Mancini				Fall (inches):			
Company:	Zebra Environmental, Inc.				Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:			Ended:			cores.		
Driller:			_			Rinse blank	collected after decontamination.	
Type of Rig:	Geoprobe							
		SAMPL	E	·	Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
Mark and an						2	Yellow med, sand, concrete, and cobble.	
	_1	60	0-4			4		
						6	Yellow med. sand, concrete, and cobble.	
	2	80	4-8			8		
						10	Dark brown medium sand, cobble, and concrete from 8 to 9 ft.	
	3	100	8-12			12	Clean yellow sand and pebbles from 9 to 12 ft.	
						14	End of Boring @ 12 ft.	
						16		
						18		
	<u> </u>		 	<u> </u>		20	-	
						22		
				<u></u>		24		
	<u> </u>					26		
						28		
						30]	
						32		
Comments								

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 Smithtown, New York 11787

Well/Boring No.	BC-24				Bore Hole Data			
Location:	Buried Chron	mium Soil			Hole diameter (inches):	2		
M.P. Elevation:					Total Depth (ft):	12		
Project:	ORB Bottom Sediment Investigation				Sampler			
Date:	6/18/200)2			Type:	Macro core 4	8" x 1.5" lD sampler	
Page	1	of	1		Hammer:		Pounds:	
Logged By:	Frank Manci	<u>ni</u>			Fall (inches):			
Company:	Zebra Environmental, Inc.				Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:			Ended:		_	cores.		
Driller:								
Type of Rig:	Geoprobe				_			
		SAMPL			Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
						2	Yellow med. sand, concrete, and cobble.	
	1	60	0-4			4		
			_			6	Yellow med. sand, concrete, and cobble.	
	2	75	4-8			8	_	
						10	Yellow med. sand, pebble, and cobble.	
	3	85	8-12			12		
		ĺ				14	End of Boring @ 12 ft.	
						16		
					<u>.</u>	18		
						20		
		<u> </u>				22	,	
		-				24	_	
				<u>.</u>		26		
·						28	_	
· · · · · · · · · · · · · · · · · · ·						30		
						32		
Comments								

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BC-25				Bore Hole Data					
Location:	Buried Chro	mium Soil			Hole diameter (inches):	2				
M.P. Elevation:		<u></u>			Total Depth (ft):	12				
Project:	ORB Botton	n Sediment Investig	ation		Sampler					
Date:	6/18/200				Туре:	Macro core 4	8" x 1.5" ID sampler			
Page	1	of	1		Hammer:		Pounds:			
Logged By:	Frank Manei	ini			Fall (inches):					
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft			
Drilling Started:	Ended:				7	cores.				
Driller:										
Type of Rig:	Geoprobe									
		SAMPL	E		Strata Change	Strata Change Depth				
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION			
			 				Yellow med. sand, concrete, and cobble.			
						2	, , ,			
				-						
	1	60	0-4			4				
					·		Dark brown med. sand, concrete, and cobble.			
			1	1		6	·			
	2	60	4-8			8				
<u> </u>							Yellow med. sand, cobble, and asphalt.			
	ł					10				
							7			
	3	85	8-12	ł	ľ	12	<u> </u>			
							End of Boring @ 12 fl.			
						14				
						1				
						16]			
				L]]			
			.l			18	1			
	1									
				_		20	4			
	J									
		<u> </u>				22	-			
					1	24	1			
	- 			-		24	1			
						26				
			<u> </u>		78		1			
	ł					28				
			————				1			
			1	}		30	1			
			1		-		1			
						32				
Comments		-		_						

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Well/Boring No.	BC-26				Bore Hole Data		·		
Location:	Buried Chron	mium Soil				Hole diameter (inches): 2			
M.P. Elevation:	2011	111111111111111111111111111111111111111			Total Depth (ft):	12			
Project:	ORB Bottor	n Sediment Investig			Sampler				
Date:	6/18/200				Type:	Macro core 4	8" x 1.5" 1D sampler		
Page	1	of	1		Hammer:		Pounds:		
Logged By:	Frank Manci				Fall (inches):				
Company:		onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft		
Drilling Started:			Ended:		7	cores.			
Driller:			7	Duplicate, M	atrix Spike, and Matrix Spike Duplicate				
Type of Rig:	Geoprobe				┦	collected fron			
	1	SAMPLI	E	-	Strata Change	Depth			
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
	1	1					Yellow med. sand and cobble.		
						2			
							7		
	1	40	0-4			4			
				1			Dark brown med. sand, concrete, and cobble.		
	<u> </u>				<u> </u>	6	j		
							1		
	2	50	4-8			8]		
							Dark brown sand and cobble @ 9 ft.		
						10	Concrete @ 10 ft.		
							Med, sand and cobble 11 to 12 ft.		
	3	90	8-12		_	12			
							End of Boring @ 12 ft.		
				.]		14	4		
	1	ľ				I	1		
				<u> </u>		16			
			ł	ł		1 ,,	1		
			 	-		18	4		
						20	1		
		-	 	-[20	1		
						22			
			<u></u>				1		
_		1				24			
							1		
					l	26	İ		
							1		
						28	J		
		<u> </u>				30]		
							ļ		
		<u></u>		<u> </u>	<u></u>	32			
Comments									

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Well/Boring No.	BC-27				Bore Hole Data					
Location:	Buried Chron	nium Soil			Hole diameter (inches):	2				
M.P. Elevation:					Total Depth (fl):	12				
Project:	ORB Bottom Sediment Investigation				Sampler					
Date:	6/18/200	2			Туре:	Macro core 4	8" x 1.5" ID sampler			
Page	1	of	1		Hammer:		Pounds:			
Logged By:	Frank Manci	ni			Fall (inches):					
Сотрану:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples collected from 0-4, 4-8, and 8-12 ft				
Drilling Started:	Ended:			cores.						
Driller:					_					
Type of Rig:	Geoprobe									
		SAMPL		_	Strata Change	Depth	SAMPLE			
PID/OVA (ppm)	No.	Recovery (%)	Depth (fl.)	Blows/6"	General Description	(feet)	DESCRIPTION			
							Yellow med. sand and cobble.			
						2	1			
			i							
		40	0-4	_ _ -		4	.			
						6	Dark brown med. sand, concrete, and cobble.			
		-{ 	 			-	4			
	2	40	4-8			8				
			1-0				Dark brown sand and cobble 8 to 9 ft.			
				Í		10	Light sand and cobble 9 to 10 ft.			
					<u>-</u>		Asphalt 11 to 12 ft.			
	3	60	8-12			12	1			
							End of Boring @ 12 ft.			
						14				
						16	i			
			1							
]			<u> </u>		18				
						20				
			<u> </u>			20	1			
			ľ			22				
							1			
						24				
						26				
				<u> </u>		28				
		1								
		-	ļ			30				
						20				
		<u> </u>			<u></u>	32	<u> </u>			

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Well/Boring No.	BC-28				Bore Hole Data			
Location:	Buried Chromium Soil				Hole diameter (inches):	2		
M.P. Elevation:					Total Depth (ft):	12		
Project:	ORB Bottom	Sediment Investig	ation		Sampler			
Date:	6/18/2002				Туре:	Macro core 4	8" x 1.5" ID sampler	
Page	1	of	l		Hammer:		Pounds:	
Logged By:	Frank Mancin	- ii			Fall (inches):			
Company:	Zebra Enviror	unental, Inc.	_		Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:	Ended:				7	cores.		
Driller:			7					
Type of Rig:	Geoprobe							
-		SAMPL	E		Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (fl.)	Blows/6"	General Description	(feet)	DESCRIPTION	
							Yellow med. sand and cobble.	
		Ì				2	Brown clayey silt at 4 ft.	
							7	
	1	40	0-4			4		
							Dark brown med. sand and cobble.	
					1	6		
							1	
	2	40	4-8			8		
							Yellow med. sand.	
						10		
					1]	
	3	60	8-12			12		
							End of Boring @ 12 ft.	
						14	1	
						16	4	
						18	4	
	1			Ĭ				
	_	ļ	·			20	4	
						22	ĺ	
						22	1	
				1		24		
						24	1	
		ļ				26]	
		n	· · · · · · · · · · · · · · · · · · ·				1	
						28		
	 						1	
				1		30		
							1	
			l			32		
Comments			<u> </u>				-	

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SAMPLE Strata Change Depth SAMPLE	
Project: ORB Bottom Sediment Investigation	
Dale: 6/19/2002 Type: Macro core 48" x 1.5" ID sampler	
Date Gold Figure Figur	
Page 1 Hammer: Pounds: Logged By: Keith Milano / Frank Maneini Fall (inches): ————————————————————————————————————	
Company: Zebra Environmental, Inc. Ended:	
Drilling Started: Ended:	
Driller: Type of Rig: Geoprobe SAMPLE Strata Change Depth SAMPLE DESCRIPTION	
SAMPLE Strata Change Depth DESCRIPTION	
SAMPLE Strata Change Depth SAMPLE DESCRIPTION	
PID/OVA (ppm) No. Recovery (%) Depth (ft.) Blows/6" General Description (feet) DESCRIPTION	
Brown med. sand with brick, concrete debris, and coarse gravel. 1 55 0-4 Wet at 6 ft. Dark brown med. sand with red brick and gravel. Light brown med. sand with red brick and coarse gravel. Light brown med. sand with red brick and coarse gravel. Dark black silty material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand lade black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 Wet brown sand. 18 5 60 16-20 End of Boring @ 20 ft.	
2 concrete debris, and coarse gravel. 1 55 0-4 4 Wet at 6 ft. 6 Dark brown med. sand with red brick and gravel. 2 60 4-8 8 Light brown med. sand with red brick and coarse gravel. Dark black silty material at 13 ft. with slight material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand 14 Black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 16 Wet brown sand. 5 60 16-20 20 End of Boring @ 20 ft.	
1 55 0-4 4 Dark brown med. sand with red brick and gravel. 2 60 4-8 8 Light brown med. sand with red brick and coarse gravel. Dark black silty material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand Black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 16 Wet brown sand. 5 60 16-20 20 End of Boring @ 20 ft.	
Wet at 6 ft. 2 60 4-8 2 60 4-8 Light brown med. sand with red brick and gravel. 10 and coarse gravel. Dark black silty material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand Black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 Wet brown sand. 18 End of Boring @ 20 ft.	
Wet at 6 ft. 2 60 4-8 2 60 4-8 Light brown med. sand with red brick and gravel. 10 and coarse gravel. Dark black silty material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand Black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 Wet brown sand. 18 End of Boring @ 20 ft.	
Wet at 6 ft. 6 and gravel.	
2 60 4-8 Light brown med. sand with red brick 10 and coarse gravel. Dark black sitty material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand 14 Black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 Met brown sand. 18 S 60 16-20 End of Boring @ 20 ft.	
Light brown med. sand with red brick and coarse gravel. Dark black silty material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand Black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 16 Wet brown sand. 5 60 16-20 20 End of Boring @ 20 ft.	
Light brown med. sand with red brick and coarse gravel. Dark black silty material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand Black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 16 Wet brown sand. 5 60 16-20 20 End of Boring @ 20 ft.	
10 and coarse gravel. Dark black silty material at 13 ft. with slight petroluem odor. 3 45 8-12 12 petroluem odor. Med. and fine wet brown sand Black bottom sediment at 14ft. with streaks throughout core. 4 45 12-16 16 Wet brown sand. 5 60 16-20 20 End of Boring @ 20 ft.	
material at 13 ft. with slight petroluem odor. Med. and fine wet brown sand Black bottom sediment at 14ft. with streaks throughout core. Wet brown sand.	
3 45 8-12 12 petroluem odor.	
Med. and fine wet brown sand 14 Black bottom sediment at 14ft. with streaks throughout core. 16 Wet brown sand. 18 5 60 16-20 20 End of Boring @ 20 ft.	
14 Black bottom sediment at 14ft. with streaks throughout core. 16 Wet brown sand. 18 End of Boring @ 20 ft.	
4 45 12-16 16 Wet brown sand. 5 60 16-20 20 End of Boring @ 20 ft.	
4 45 12-16 16 Wet brown sand. 18 5 60 16-20 20 End of Boring @ 20 ft.	
18 Wet brown sand. 18	
5 60 16-20 20 End of Boring @ 20 ft.	
5 60 16-20 20 End of Boring @ 20 ft.	
End of Boring @ 20 ft.	
End of Boring @ 20 ft.	
24	
26	
28	
Comments	

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-2				Bore Hole Data			
Location:					Hole diameter (inches):			
M.P. Elevation:					Total Depth (ft):	12		
Project:	ORB Bottom Sediment Investigation				Sampler			
Date:	6/20/2002	2			Туре:	Macro core 4	8" x 1.5" ID sampler	
Page	1	of_	1		Hammer:		Pounds:	
Logged By:	Frank Mancin	ui			Fall (inches):			
Company:	Zebra Environ	amental, Inc.		<u> </u>	Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:	Ended:				_	cores.		
Driller:					_			
Type of Rig:	Geoprobe							
		SAMPLE			Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
l	1	ļ					Dark brown med. sand, concrete, asphalt,	
		 	 			2	and cobble.	
l	l ,	10				1	Fine brown sand at 4ft.	
	1	40	0-4	-		4	4	
		l					Med. and fine sand, concrete, and	
		-	<u> </u>	-	-	- 6	asphalt.	
ı	2	50	4-8			8		
		- 30	7-0		 		Dark brown fine to medium sand, asphalt,	
				J		10	concrete, and brick.	
	 				 	 		
	3	60	8-12			12		
			1				End of Boring (a) 12 ft.	
				1		14		
						-	1	
						16]	
		· [ĺ				Ĭ	
						18		
	ļ	1	1		1			
		<u> </u>	<u></u>	-		20	1	
		'	1			22	1	
		 	 	- -		22	1	
	1	'	1			24	1	
		†	1 —				1	
	·	1	1			26	1	
							1	
	· ['] '	1			28	1	
	,						1	
		<u> </u>	<u> </u>	<u> </u>	l	30		
	,	<u> </u>						
		<u> </u>	<u></u>	<u></u>		32		
Comments					<u> </u>		<u> </u>	

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-3				Bore Hole Data			
Location:			_		Hole diameter (inches):	2	<u> </u>	
M.P. Elevation:				_	Total Depth (ft):	12		
Project:	ORB Bottom	Sediment Investiga	ation		Sampler			
Date:	6/20/2002	2			Туре:	Macro core 4	8" x 1.5" ID sampler	
Page	1	_ of	1		Hammer:		Pounds:	
Logged By:	Frank Maneir	ու			Fall (inches):			
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:	-	- -	Ended:			cores.		
Driller:					1	Duplicate, Matrix Spike, and Matrix Spike Duplicate		
Type of Rig:	Geoprobe						m 8-12 ft core.	
<u>,, </u>	T	SAMPLI			Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%) Depth (ft.) Blows/6"			General Description	(feet)	DESCRIPTION	
Т 10/0 (/ А (ррш)	140.	Recovery (78)	Deput (it.)	Blows	General Description	(1000)	Dark brown med. sand, concrete,	
						2	and cobble.	
	1 .	1						
	1	40	0-4	-{		4	-	
							Dark brown med. sand, concrete,	
	- 		l			6	and cobble.	
	1			1				
	2	50	4-8			8		
		Ĭ			ĺ		Dark brown fine to medium sand, concrete	
						10	and asphalt.	
	3	60	8-12			12		
							End of Boring @ 12 ft.	
			ľ			14	- **	
					1		1	
	1	ļ		J.	d .	16		
		1				_		
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						20		
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				<u> </u>		32		
<u>Comments</u>								

GEOLOGIC LOG

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-4				Bore Hole Data			
Location:					Hole diameter (inches):	2		
M.P. Elevation:					Total Depth (ft):	12		
Project:	ORB Botton	n Sediment Investig	ation		Sampler			
Date:	6/20/200)2			Type:	Macro core 48" x 1.5" lD sampler		
Page	<u>l</u> _	of	1		Hammer:		Pounds:	
Logged By:	Frank Manei			_	Fall (inches):			
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4 and 8-12 ft	
Drilling Started:			Ended:			cores.		
Driller:					_[
Type of Rig:	Geoprobe		_					
		SAMPLI			Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
							Dark brown med. sand, concrete,	
			<u> </u>			2	and cobble.	
	<u></u>	60	0-4	<u></u>		4	-	
							Dark brown med. sand, concrete,	
			l	- -	-	6	and cobble.	
	2	40	4.0			0		
			4-8			8	Dark brown med. sand, concrete,	
						10	and cobble.	
				<u> </u>		10	Black bottom sediment from 11.5 to 12 ft.	
	3	25	8-12	İ		12	islack bottom sequipent from 11.5 to 12 ft.	
						12	End of Boring @ 12 ft.	
			J			14	Size of Boung @ 12 in	
·							1	
	1	1]			16]	
							1	
		ĺ		1		18		
							1	
					* ***	20		
			ł					
		_		-		22	4	
		_		 	-	24	1	
				ł		26		
	 		i				1	
						28		
		- 					1	
					1	30		
							1	
						32		
Comments								

✓ 222 Middle Country Road, Suite 209

Smithtown, New York 11787

Well/Boring No.	BS-5				Bore Hole Data		
Location:					Hole diameter (inches):	2	
M.P. Elevation:		_			Total Depth (ft):	12	
Project:	ORB Botton	n Sediment Investig	ation		Sampler		
Date:	6/20/200	02			Type:	Macro core 4	18" x 1.5" 1D sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manci	ini			Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:		<u> </u>	Ended:		7	cores.	
Driller:			_		7		
Type of Rig:	Geoprobe				7		
		SAMPL	E		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
	+		 	$\overline{}$			Brown fine to med. sand, concrete,
İ		ļ				2	and brick.
				 			Wet at 4 ft.
İ	1	80	0-4	1		4	
			*****			-}	Yellow med. sand, concrete, brick,
		ļ				6	and cobble.
		_		-	· ·		1
	2	80	4-8	1		8	
			 		-		Dark brown med. sand and cobble.
		ļ				10	
			.]		†	<u> </u>	1
	3	70	8-12	ł		12	
···					-		End of Boring @ 12 ft.
		1				14	
			 			 	1
				ł		16	
						\vdash	1
		ł				18	
				-		 	1
				ł		20	
							1
						22	
							1
	_					24	J
							1
			<u></u>	<u> </u>		26]
			İ				1
			<u> </u>			28	J
	ł						1
				<u> </u>		30]
			Ì				
						32	<u> </u>
<u>Comments</u>					· · · · · · · · · · · · · · · · · · ·		

222 Middle Country Road, Suite 209 Smithtown, New York 11787

BS-6				Bore Hole Data		
				Hole diameter (inches):	2	
				Total Depth (ft):	12	
ORB Bottom	Sediment Investig	ation	-	Sampler		
					Macro core 4	8" x 1.5" ID sampler
	of	1		Hammer:		Pounds:
	_			Fall (inches):		
Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
		Ended:		1	cores.	
		_				
Geoprobe				1		
	SAMPLI	E	_	Strata Change	Depth	SAMPLE
No.	Recovery (%)	Depth (fl.)	Blows/6"		(feet)	DESCRIPTION
					2	Brown fine to med. sand, concrete, and cobble.
1	50	0-4			4	
						Brown med. sand, concrete, brick.
×					6	and cobble.
					ì	
2	50	4-8			8	
ĺ						Brown med. sand, concrete, brick
		ļ			10	and cobble. Wet at 10 ft.
						Streaks of black bottom sediment
3	50	8-12			12	throughout core.
						End of Boring @ 12 ft.
		<u> </u>			14	4
					16	
				İ	18	
					20	4
					22	<u> </u>
					24	
					26]
					20	1
_			<u></u>		28	4
_	<u> </u>				30	
					32	
	Geoprobe Roo. 1 Frank Manci Zebra Enviro Geoprobe 1 1	Geoprobe SAMPL No. Recovery (%) 1 50	1	Of 1	Total Depth (ft): ORB Bottom Sediment Investigation G/19/2002 Type: I of I Hammer: Frank Mancini Zebra Environmental, Inc. Ended: Geoprobe SAMPLE No. Recovery (%) Depth (ft.) Blows/6" General Description 1 50 0-4 2 50 4-8	Total Depth (R): 12

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-7				Bore Hole Data		
Location:					Hole diameter (inches):	2	
M.P. Elevation:				-	Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investiga	tion		Sampler		
Date:	6/19/2002	2			Туре:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Mancin	<u>.i</u>			Fall (inches):	<u> </u>	
Company:	Zebra Enviror	nnental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:]	cores.	
Driller:							
Type of Rig:	Geoprobe			_		_	
		SAMPLE			Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
]			Brown fine to med. sand, concrete.
					L	2	and asphalt.
							Brown clay from 3 to 4 ft.
	1	80	0-4			4	
							Brown med. sand, concrete, brick,
						6	cobble, and asphalt.
]		}	1	1		
	2	50	4-8			8	<u>i</u>
	1				1		Brown med. sand, concrete, brick,
						10	cobble, and asphalt.
						ĺ	
	3	50	8-12			12	
)]		1			End of Boring @ 12 ft.
						14	4
	 					16	
	ŀ						
				<u> </u>		18	
	I	1		ł		20	
				<u></u>			•
						22	
	1	ļ]
						24	
							1
	1	1		4		26	
							1
						28	
]
						30]
	<u> </u>					32	
Comments							

222 Middle Country Road, Suite 209 Smithtown, New York 11787

WeII/Boring No.	BS-8			=	Bore Hole Data			
Location:					Hole diameter (inches):	2		
M.P. Elevation:					Total Depth (ft):	12		
Project:	ORB Botton	n Sediment Investig	ation		Sampler			
Date:	6/19/200	02			Type:	Macro core 48" x 1.5" ID sampler		
Page	1	of	1		Hammer:		Pounds:	
Logged By:	Frank Mane	ini			Fall (inches):			
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:			_ Ended:		_	cores.		
Driller:								
Type of Rig:	Geoprobe							
		SAMPL		_	Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (fl.)	Blows/6"	General Description	(feet)	DESCRIPTION	
							Brown fine to med. sand, concrete,	
		_[,	2	and cobble.	
							Dark brown sand at 4 ft.	
		60	0-4	-		4	4	
	ľ						Brown med. sand, concrete, and	
		<u> </u>		-{		6	asphalt.	
	2	55	4-8			8		
			7-0	· .			Brown med. sand.	
						10	Yellow sand at 12 ft.	
	-							
	3	50	8-12			12		
							End of Boring @ 12 ft.	
			.			14		
						16		
				-		16	- i	
						18		
		-					1	
						20		
							1	
		<u> </u>		- <u> </u>		22	4	
						24		
						- 24	1	
			ļ	ļ]	26]	
							1	
						28		
						30	-	
						32		
Comments								

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Well/Boring No.	BS-9				Bore Hole Data		
Location:			_		Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Botton	n Sediment Investiga	ution		Sampler		
Date:	6/19/200				Type:	Macro core 4	8" x 1.5" ID sampler
Page	1	of_	1		Hammer:		Pounds:
Logged By:	Frank Manci				Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:		<u>-</u>	Ended:			cores.	
Driller:							
Type of Rig:	Geoprobe					 	1
		SAMPLE			Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
							Brown fine to med. sand, concrete,
	_					2	cobble, and asphalt.
	1	80	0-4	-		4	Brown fine to med. sand, concrete,
						6	cobble, and asphalt.
		40	4.0			8	
	2	- 40	4-8				Brown fine to med. sand, concrete,
						10	cobble, and asphalt.
	-					-	soone, and aspiran.
	3	30	8-12			12	i
							End of Boring @ 12 ft.
						14	
		<u> </u>					1
					ì	16]
							1
						18	
	- av	_				20	_
							1
						22	4
				<u> </u>		24	-
]				26	
		-				26	1
						28	
]					20	1
						30	
 		1					1
						32	
Comments	Refusal on fu	rst boring at 5 feet.	Second horing	moved 2 ft to f	he east	-	

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-10				Bore Hole Data		
Location:					Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Botton	n Sediment Investig	ation		Sampler		
Date:	6/19/200	02			Туре:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1	_	Hammer:		Pounds:
Logged By:	Frank Mane	ini			Fall (inches):		
Company:	Zebra Envir	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:		_	cores.	
Driller:							
Type of Rig:	Geoprobe						·
	<u> </u>	SAMPLI			Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (fl.)	Blows/6"	General Description	(feet)	DESCRIPTION
							Brown fine to med. sand, concrete.
			l			2	and cobble.
		1				1 .	
	_ I	50	0-4				4
							Brown fine to med. sand, concrete,
			<u> </u>	- -	W-4-17-0	6	cobble, and asphalt.
	,	40	4-8		Wet at 7 ft.		
		40	4-8	 		8	Brown fine to med. sand, concrete,
						10	cobble, and asphalt.
				<u> </u>			ecoore, and asphare
	3	60	8-12			12	
				<u> </u>			End of Boring @ 12 ft.
						14	
							7
					_	16	
]
					_l	18	_
					i		
							4
			<u>-</u>	<u> </u>	-	22	
					1	24	
 -							1
						26	
							1
						28	
						30	
		1]			
	<u> ⊥</u>	<u></u>			<u> </u>	32	
<u>Comments</u>							<u></u> _

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Well/Boring No.	BS-11				Bore Hole Data				
Location:					Hole diameter (inches):	2			
M.P. Elevation:		_			Total Depth (ft):	12			
Project:	ORB Bottom	Sediment Investig	ation	-	Sampler				
Date:	6/19/2002				Туре:	Macro core 4	8" x 1.5" ID sampler		
Page	1	of	1		Hammer:		Pounds:		
Logged By:	Frank Mancin	i			Fall (inches):				
Company:	Zebra Environ	mental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft		
Drilling Started:			Ended:		1	cores.			
Driller:									
Type of Rig:	Geoprobe				1				
		SAMPL	E		Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
			<u> </u>	-			Brown fine to med. sand, asphalt,		
				1		2	and cobble.		
							1		
	1	60	0-4			4			
							Brown fine to med. sand, concrete,		
	1					6	cobble, and asphalt.		
							1		
	2	50	4-8		Wet at 8 ft.	8			
				-			Brown fine to med. sand, concrete,		
						10	cobble, and asphalt.		
							1		
	3	25	8-12	ľ		12			
							End of Boring @ 12 ft.		
]		ľ	14	· ·		
]		
	1					16			
						18			
·						20			
				ļ					
						22]		
			 			24			
	1						ĺ		
	-	<u> </u>	·	I		26			
						28	1		
		Ì	1						
	<u> </u>			<u> </u>		30			
-	<u> </u>	l	<u></u>	<u> </u>		32			
<u>Comments</u>									

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-12				Bore Hole Data		
Location:					Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Botton	n Sediment Investiga	ation		Sampler		
Date:	6/19/200)2			Туре:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manci				Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:		_	cores.	
Driller:					_	' - '	atrix Spike, and Matrix Spike Duplicate
Type of Rig:	Geoprobe	0.11600					n 8-12 ft core.
	<u> </u>	SAMPLE		T	Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
						2	Brown fine to med. sand, concrete, and brick.
	I	80	0-4			4]
			 			6	Brown fine to med. sand, concrete, and brick.
	2	60	4-8			8	
		_		<u> </u>		10	Brown fine to med. sand, concrete, brick, Fine silty clay at 10 ft.
	3	90	8-12			12	
	_		- -			14	End of Boring @ 12 ft.
	_	_			<u> </u>	16	1
						18	1
		<u> </u>					1
		<u> </u>	 		 	22	-
				<u> </u>	 	24	-
			<u></u>	-		26	1
					-	28	-
		-		<u> </u>	 	30	-
Comments			<u></u>		<u> </u>	32	

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-13				Bore Hole Data			
Location:					Hole diameter (inches):	2		
M.P. Elevation:					Total Depth (ft):	12		
Project:	ORB Bottom	Sediment Investig	ation		Sampler			
Date:	6/20/2002	2			Туре:	Macro core 4	8" x 1.5" ID sampler	
Page	1	of_	1		Hammer:		Pounds:	
Logged By:	Frank Mancin				Fall (inches):			
Company:	Zebra Enviror	imental, Inc.			Remarks:		collected from 4-8 and 8-12 ft	
Drilling Started:			Ended:		4	Cores. Rinse blank collected after decontamination. Depth SAMPLE		
Driller:					4			
Type of Rig:	Geoprobe	CANDI			(t.) (l)			
DID/OVA ()	No.	SAMPLI		Blows/6"	Strata Change	Depth		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
' 	1	i				,	Brown fine to med. sand and cobble.	
		- 		<u> </u>		2	4	
	1	80	0-4			4		
						 	Brown fine to med. sand and cobble.	
				ì		6	Bottom sediment from 7 to 8 ft.	
							1	
	2	60	4-8	ļ	ł .	8		
							Brown fine to med. sand and cobble.	
						10	Bottom sediment from 10 to 12 ft and	
			l	ľ			streaks of sediment throughout core.	
	3	60	8-12			12		
				J			End of Boring @ 12 ft.	
						14		
						1.6		
						16	1	
						18		
		 	<u></u>	ļ			1	
	J	ļ				20		
			i			·	1	
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						24		
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Comments		lie			<u> </u>			

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Well/Boring No.	BS-14				Bore Hole Data					
Location:					Hole diameter (inches):	2				
M.P. Elevation:					Total Depth (ft):	10.5				
Project:	ORB Botton	n Sediment Investig	ation		Sampler					
Date:	6/19/200	02			Type:	Масто соге 4	8" x 1.5" 1D sampler			
Page	1	of	1		Hammer:		Pounds:			
Logged By:	Frank Mane	ini			Fall (inches):					
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft			
Drilling Started:			Ended:	_		cores.				
Driller:	<u></u>		_							
Type of Rig:	Geoprobe				1					
		SAMPL	E		Strata Change	Depth	SAMPLE			
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION			
							Brown fine to med. sand, cobble, brick, and			
	ľ					2	asphalt.			
			1				Fine brown sand at 4 ft.			
	1	80	0-4			4				
							Brown fine to med. sand, cobble, and brick.			
			ľ	ľ		6	Most of core is concrete.			
				- 	.,		7			
	2	80	4-8	J		8				
					1		Brown fine to med. sand, cobble, concrete,			
	ľ					10	and asphalt. Refusal at 10.5 ft.			
							End of Boring @ 10.5 ft.			
	3	40	8-10.5			12	1			
							1			
			ľ	1		14				
							1			
]	l	Ĭ	16				
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				-		28	1			
			}							
		- 				30	4			
						22				
Comment			<u> </u>	<u> </u>	<u> </u>	32	<u> </u>			
<u>Comments</u>										

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Well/Boring No.	BS-15			<u>-</u>	Bore Hole Data			
Location:					Hole diameter (inches):	2		
M.P. Elevation:					Total Depth (ft):	12		
Project:	ORB Bottom	Sedunent Investig	ation		Sampler		<u></u>	
Date:	6/19/200	12			Туре:	Macro core 48" x 1.5" ID sampler		
Page	1	of	1		Hammer:		Pounds:	
Logged By:	Frank Manci	ni		-	Fall (inches):			
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:			Ended:			cores.		
Driller:								
Type of Rig:	Geoprobe	_						
	SAMPLE			Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
							Dark brown wet sand, asphalt, and concrete.	
				J		2		
						_]	
	. 1	50	0-4			4		
				i			Brown sand, concrete, and asphalt.	
						6		
				1				
	2	50	4-8			8		
	1					•	Brown sand, concrete, and asphalt.	
						10		
		1						
	3	65	8-12	<u> </u>		12		
]				ł	End of Boring @ 12 ft.	
				ļ		14	_	
			ľ			1		
		<u> </u>				16	_	
			l	ł		10		
				_		18	-	
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		1				24		
							7	
						26		
						28	<u> </u>	
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		<u> </u>		<u> </u>		30	J	
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		<u> </u>	L	<u></u>	<u> </u>	32	<u> </u>	
Comments								

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-16				Bore Hole Data		
Location:					Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investig	ation		Sampler		
Date:	6/19/2002	2			Туре:	Macro core 4	8" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manein	 ii			Fall (inches):		
Company:	Zebra Enviror	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:			Ended:			cores.	
Driller:							
Type of Rig:	Geoprobe						
		SAMPLI	<u> </u>		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
							Med. brown sand, asphalt, concrete,
		i	ł			2	and cobble.
	-						7
	1	60	0-4			4	
							Brown med. sand, asphalt, brick,
	J	J	j]	ļ	6	and cobble.
	2	40	4-8			8	
							Brown med. sand, asphalt, brick,
						10	cobble, and concrete. Wet sample.
						_	
	3	80	8-12			12	
							End of Boring @ 12 ft.
				·		14_	
				<u></u>		16].
			Ĭ	1			1
						18	
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						20	1
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				-	<u> </u>	22	4
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Comments		<u> </u>		<u> </u>			
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222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-17				Bore Hole Data		
Location:					Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	10	
Project:	ORB Bottom	Sediment Investig	ation		Sampler		
Date:	6/19/2003	2		<u></u> _	Type:	Macro core 4	48" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Keith Milano	_			Fall (inches):		
Company:	Zebra Enviro	nmental, Inc.			Remarks:		
Drilling Started:			Ended:		7		
Driller:			_	-	7		
Type of Rig:	Geoprobe				7		
	 _	SAMPLI	 -		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
115.5.1.(1	Dept. (c)	5.0.116. 5	2000 E 2000 A	(****)	Fine brown sand with red brick
		ľ			1	2	and concrete debris.
				 		 	and consists debits.
	I	70	0-4			4	
			· · · · · · · · · · · · · · · · · · ·	1		\vdash	Light brown fine sand with asphalt,
ı						6	crushed concrete and coarse gravel.
	-		1	 		 	- Indiana constant and compa plate.
	2	60	4-8			8]
		1	Ì		1		Med. brown sand with crushed concrete
		<u></u>		<u></u>	_l	10	and coarse gravel. Refusal at 10 ft.
							End of Boring @ 10 ft.
	3	50	8-12			12	
]	j					
				<u>_</u>	<u></u>	14	
	1	ļ					
		<u> </u>		_{		16	
						18	
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						28	
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Comments		<u></u>					
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222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-18				Bore Hole Data				
Location:					Hole diameter (inches):	2			
M.P. Elevation:					Total Depth (ft):	8.5			
Project:	ORB Bottom	Sediment Investiga	ation		Sampler				
Date:	6/18/2002				Туре:	Macro core 4	8" x 1.5" ID sampler		
Page	1	of	1		Hammer:	-	Pounds:		
Logged By:	Frank Mancin	ai			Fall (inches):				
Company:	Zebra Enviror	nmental, Inc.			Remarks:	Soil samples	collected from 0-4 and 4-8 ft		
Drilling Started:			Ended:			cores.			
Driller:]				
Type of Rig:	Geoprobe								
		SAMPLI	Ē		Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
		T		T			Med. brown sand, brick, and concrete.		
					,,	2			
							1		
	1	95	0-4			4			
]					Concrete and brick with brown med. sand.		
						6	J		
							1		
	2	50	4-8	1		8	Refusal at 8,5 ft.		
	T						End of Boring @ 8.5 ft.		
				<u> </u>		10			
]		
	3	10	8-8.5	<u></u>		12			
		1	1				1		
		<u> </u>	_	_	ļ	14	<u>_</u>		
			-	_	_ _	16	1		
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			_	· !		18	1		
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			_	-		22	-		
						24			
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Comments									

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Location: M.P. Elevation: Project:					Hole diameter (inches):	2	
					Hole diameter (titches).		
Project:					Total Depth (ft):	12	
ir roject.	ORB Bottom	Sediment Investig	ation ———		Sampler		
Date:	6/18/200				Type:	Macro core 4	18" x 1.5" ID sampler
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Mancin	บ่			Fall (inches):		
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft
Drilling Started:	Ended:				7	cores.	
Driller:							
Type of Rig:	Geoprobe						
		SAMPLI	3		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (fl.)	Blows/6"	General Description	(feet)	DESCRIPTION
							Brown fine to med. sand, concrete, and
			Ĺ			2	cobble.
	1	60	0-4			4	
		1					Brown fine to med. sand and concrete
·						6	_
		ł		ł			
	2	30	4-8			<u> </u>	4
		}		1			Brown fine to med. sand and concrete
						10	with some silt.
		ł					
	3	40	8-12	<u> </u>		12	
		ł				1	End of Boring @ 12 ft.
		<u> </u>				14	4
		ł	į			16	
			·			16	_
		ł				18	
		·				16	1
		i		Ĭ		20	
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Comments	<u> </u>	<u> </u>	<u></u>	L	<u></u>	32	<u> </u>

222 Middle Country Road, Suite 209 Smithtown, New York 11787

W-11/Daring No.	DS 20				Bore Hole Data				
Well/Boring No. Location:	<u>BS-20</u>				Hole diameter (inches):				
M.P. Elevation:					Total Depth (ft):	12			
Project:	ORB Bottom	1 Sediment Investiga	ation		Sampler				
Date:	6/18/200				Type:	Macro core 4	48" x 1.5" ID sampler		
Page	1	of	ī		Hammer:		Pounds:		
Logged By:	Frank Mancir				Fall (inches):				
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft		
Drilling Started:			Ended:]	cores.			
Driller:					Duplicate, Matrix Spike, and Matrix Spike Duplica				
Type of Rig:	Geoprobe				<u> </u>	collected from			
		SAMPLE			Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
		7		}	7	7	Med. sand, cobble, and concrete.		
			<u> </u>			2	6 inch band of black sediment at 4 ft.		
		1		1		1			
	11	75	0-4	-		4	4		
		1				1	Dark brown med. sand, wood, and cobble		
			 			6	from 6 to 7 ft.		
		75	4.0				Yellow med. sand from 7 to 8 ft.		
	2	75	4-8			8	Decree firs to ward sand and sabble		
		1				10	Brown fine to med. sand and cobble.		
			<u> </u>			- 10	-1		
	3	75	8-12			12	1		
		1		-	 	 	End of Boring @ 12 ft.		
		1				14	2000 00 2000 00 00 00		
			·	-			1		
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Comments	· · ·								

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-21				Bore Hole Data					
Location:					Hole diameter (inches):	2				
M.P. Elevation:					Total Depth (ft):	12				
Project:	ORB Botton	n Sediment Investig	ation		Sampler					
Date:	6/18/200	02		_	Type:	Macro core 4	8" x 1.5" ID sampler			
Page	1	of	1		Hammer:		Pounds:			
Logged By:	Frank Mane	 ini			Fall (inches):					
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft			
Drilling Started:			Ended:			cores.				
Driller:	-		_							
Type of Rig:	Geoprobe									
1, pv 01 111B.		SAMPL	F		Strata Change	Strata Change Depth SAMPLE				
DID/OVA ()	No.	Recovery (%) Depth (ft.)		Blows/6"	General Description	(feet)	DESCRIPTION			
PID/OVA (ppm)	NO.	Recovery (%)	Depui (It.)	Blows/6	General Description	(leet)				
							Med. sand, cobble, and concrete.			
			ļ			2				
		ļ				i .				
	1	80	0-4			4	4			
						J	Wet brown sand from 5 to 7 ft.			
						6	Med. sand, concrete, and cobble			
]	ł			from 7 to 8 ft.			
	2	70	4-8			8	_			
	· I						Reddish brown clayey sand, concrete,			
			<u> </u>			10	and cobble.			
	1	ľ		Į.						
	3	50	8-12	<u> </u>	_	12_				
						ľ	End of Boring @ 12 ft.			
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Comments										
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222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-22				Bore Hole Data					
Location:					Hole diameter (inches):	2				
M.P. Elevation:					Total Depth (ft):	13				
Project:	ORB Bottom	Sediment Investig	ation		Sampler	_				
Date:	6/18/200				Туре:	Macro core 4	8" x 1.5" ID sampler			
Page	1	of	<u> </u>		Hammer:		Pounds:			
Logged By:	Frank Manci				Fall (inches):					
Company:	Zebra Enviro	nmental, Inc.			Remarks:		collected from 0-4, 4-8, and 8-12 ft			
Drilling Started:			Ended:			cores.				
Driller:	C1									
Type of Rig:	Geoprobe	CAMBI			Strata Change	Donth	SAMPLE			
DID/OVA (~~~)	SAMPLE No. Recovery (%) Depth (ft.) Blows/6"		General Description	Depth	DESCRIPTION					
PID/OVA (ppm)	INO.	Recovery (%)	Depth (ft.)	Blows/6	General Description	(feet)				
		1	Ì			2	Light brown med. sand, cobble, and asphalt.			
		_	·			 	and asphart.			
	1	50	0-4	1		4	[
			1				Dark brown med. sand, cobble,			
	1			ł		6	and asphalt.			
	*						1 .			
	2	75	4-8	<u> </u>	<u> </u>	8				
]			j			Dark brown wet sand and cobble with some			
				_		10	black sediment streaks throughout core.			
]	Refusal at 11 ft.			
	3	75	8-11			12	End of Boring @ 11 ft.			
				1						
		 		- I		14				
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Comments										

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No. Location: M.P. Elevation: Project: Date: Page Logged By:	6/18/200	n Sediment Investig	otion		Bore Hole Data Hole diameter (inches):	2		
M.P. Elevation: Project: Date: Page	6/18/200		ation		_			
Project: Date: Page	6/18/200		ation			12		
Date: Page	6/18/200		ation		Total Depth (ft):	12		
Page	1	12	auon		Sampler			
					Туре:	Macro core 4	8" x 1.5" ID sampler	
Logged By:	1 of 1 Frank Mancimi				Hammer:		Pounds:	
					Fall (inches):			
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft	
Drilling Started:	Ended:				4	cores.		
Driller:					4			
Type of Rig:	Geoprobe				ļ			
ı		SAMPLE		,	Strata Change	Depth	SAMPLE	
PID/OVA (ppin)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
, I				Í			Light brown med. sand, cobble,	
				_		2	and concrete.	
	ŀ							
	1	60	0-4	<u> </u>		4	4	
						1	Light brown med. sand, cobble,	
			<u> </u>			66	and concrete.	
	2	60	4-8			8		
		1	1				Reddish brown med. sand, cobble,	
			1		10	and concrete.		
							1	
	3	80	8-12			12		
							End of Boring @ 12 ft.	
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<u>Comments</u>			-					

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-24				Bore Hole Data				
Location:					Hole diameter (inches):	2			
M.P. Elevation:					Total Depth (ft):	12			
Project:		Sediment Investig	ation		Sampler				
Date:	6/18/200				Турс:	Macro core 4	18" x 1.5" 1D sampler		
Page	1	of of	1		Hammer:		Pounds:		
Logged By:	Frank Mancii				Fall (inches):				
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil samples	collected from 0-4, 4-8, and 8-12 ft		
Drilling Started:	Ended:				4	cores.			
Driller:					_	Rinse blank	Rinse blank collected after decontamination.		
Type of Rig:	Geoprobe					Dondh CAMBI D			
		SAMPL			Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
		1	1			1	Dark brown wet med. sand, asphalt, concrete,		
			.]			2	and cobble.		
	1	60	0-4			4			
			-				Dark brown wet med. sand, asphalt, concrete,		
	İ	l	l	l	Í	6	and cobble.		
]		
	2	60	4-8		_	8	_		
	1	1					Dark brown wet med. sand, asphalt, concrete,		
		-	 			10	and cobble.		
	3	70	8-12			12			
		 	-\	- 	-		End of Boring @ 12 ft.		
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Comments									

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-25				Bore Hole Data		_ 		
Location:	20 25				Hole diameter (inches):				
M.P. Elevation:					Total Depth (ft):	16			
Project:	ORB Botto	n Sediment Investig	ation		Sampler				
Date:	6/19/20	02			Туре:	Macro core 4	48" x 1.5" lD sampler		
Page	_1	of	1		Hammer:	Pounds:			
Logged By:	Frank Mano	ini			Fall (inches):				
Company:	Zebra Envir	onmental, Inc.			Remarks:	Soil sample	collected from 12 to 16 ft. core.		
Drilling Started:			Ended:]				
Driller:					_				
Type of Rig:	Geoprobe								
		SAMPLI	В		Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
							Dark brown wet med. sand, asphalt, concrete,		
			ļ	_[2	brick, and cobble.		
			ł	I	i	1	Į.		
	1	60	0-4			4			
	ł			1			Dark brown wet med. sand, brick, concrete,		
						6	and cobble.		
			l				6 inch band of black sediment at 8 ft.		
	2	40	4-8			8	<u> </u>		
		J	l			ł	Dark brown wet med. sand, cobble and		
						10	some brick.		
	1	i i					Black bottom sediment from 11 to 12 ft.		
	3	70	8-12			12			
			ļ	1]		Wet brown sand, sludge, and cobble.		
		_				14	Black bottom sediment at 16 ft.		
]	1		1	•	ł			
···	4	55	12-16	ļ		16			
		Í					End of Boring @ 16 ft.		
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222 Middle Country Road, Suite 209 Smithtown, New York 11787

31/13 - ' 3.I-	DC 06				Describedo Dete					
Well/Boring No.	BS-26				Bore Hole Data					
Location:					Hole diameter (inches):	16				
M.P. Elevation:	222 D.H		 		Total Depth (ft):	16				
Project:		m Sediment Investiga	ation		Sampler	Maria core	100 1 50 33			
Date:	6/19/200	of	1		Type: Hammer:	Macro core -	48" x 1.5" ID sampler Pounds:			
Page Logged By:	Frank Manci	_			Fall (inches):		t outins.			
Logged By. Company:		oninental, Inc.			Remarks:					
Company: Drilling Started:	Zena Dire	minental, me.	Ended:		Memains.					
Driller:			_							
Type of Rig:	Geoprobe									
		SAMPLE	E		Strata Change	Depth	SAMPLE			
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION			
			 	+	 	+	Brown med. sand, concrete, and cobble.			
						_ 2	Some black bottom sediment at 4 ft.			
			l ———	- 		<u> </u>	7			
	1	70	0-4	l	1	4	1			
							Brown mcd. sand, concrete, and cobble.			
						_6	Some black sediment streaks throughout			
							core.			
	2	50	4-8			8				
		- 1					Dark brown wet med. sand, cobble, concrete,			
			. 	J		10	and some brick.			
							Some black sediment streaks throughout			
	3	60	8-12		<u> </u>	12	core.			
	İ	1	1	Ì		ľ	Dark brown med. sand and cobble.			
		_{ _	!	ļ <u></u>		14	Some black sediment streaks 12 to 14 ft.			
	.		 ,		1	l	Yellow sand and cobble 14 to 16 ft.			
	4	90	12-16	_	_	16	<u> </u>			
	-					10	End of Boring @ 16 ft.			
		<u> </u>				18	4			
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Comments							_			

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-27				Bore Hole Data				
Location:					Hole diameter (inches):	2			
M.P. Elevation:					Total Depth (ft):	12			
Project:	ORB Bottom	Sediment Investig	ation		Sampler				
Date:	6/19/2003				Туре:	Macro core 4	18" x 1.5" ID sampler		
Page	1	of	<u> </u>		Hammer:		Pounds:		
Logged By:	Frank Mancir	าเ๋			Fall (inches):				
Company:	Zebra Enviro	nmental, Inc.			Remarks:	Soil sample of	collected from 8-12 ft core.		
Drilling Started:			Ended:		7	-			
Driller:					1				
Type of Rig:	Geoprobe								
		SAMPL	E		Strata Change	Depth	SAMPLE		
PID/OVA (ppm)	No.			Blows/6"	General Description	(feet)	DESCRIPTION		
			· · · · · · · · · · · · · · · · · ·			(/	Med. sand, cobble, brick, and concrete.		
)			1		2	6 inch band of black sediment at 4 ft.		
			 	··-		 	Dried black bottom sediment at 3.5 ft.		
	1	75	0-4	1		4	, , , , , , , , , , , , , , , , , , ,		
		 		1		 	Med. to fine brown sand and cobble.		
				ł		6	Yellow med, sand from 7 to 8 ft.		
		- 			Wet at 7 ft.		Tenew med, same nem y to a xt.		
	,	80	4-8	ł	vy ct at / it.	8			
	2	- 00	4-6	- 	-		Wet brown sand and sludge.		
	1			i		10	Black bottom sediment at 11 ft.		
			 	-		10	Brack bottom sediment at 11 ii.		
	1 .								
	3	85	8-12	-l		12	F 1 6D : (2)10.0		
		}				i	End of Boring @ 12 ft.		
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<u>Comments</u>									

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-28		-		Bore Hole Data		
Location:					Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Bottom	n Sedi <u>ment Investig</u>	ation		Sampler		
Date:	6/20/200	02			Type:	Macro core 4	8" x 1.5" ID sampler
Page	1	of_	1		Hammer:		Pounds:
Logged By:	Frank Manci				Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:	Soil sample o	sollected from 8-12 ft core.
Drilling Started:			Ended:				
Driller:	<u> </u>				_		
Type of Rig:	Geoprobe	CALABY			04 - 44 - 61 - 44 - 44	I Don't	CAMPLE
DID/OUA (<u>. </u>	SAMPLI		DI (CII	Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
				ĺ			Med. sand, cobble, and concrete.
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	1	60	0-4			4	,
			l			 	Med. to fine brown sand and asphalt.
						6	price to the of our state and tapping.
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	2	60	4-8			8	
							Med, to fine brown sand and cobble.
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	3	55	8-12			. 12	<u> </u>
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222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	BS-29				Bore Hole Data		
Location:					Hole diameter (inches):	2	
M.P. Elevation:					Total Depth (ft):	12	
Project:	ORB Bottom	Sediment Investiga	ation		Sampler	•	
Date:	6/20/2002	2			Type:	Macro core 4	8" x 1.5" ID sampler
Page	1	_ of	11		Hammer:		Pounds:
Logged By:	Frank Mancin	ni			Fall (inches):		
Company:	Zebra Enviror	nmental, Inc.			Remarks:	Soil sample c	ollected from 8-12 ft core.
Drilling Started:			Ended:]		
Driller:					ſ		
Type of Rig:	Geoprobe						
		SAMPLE	3		Strata Change	Depth	SAMPLE
PlD/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
							Light brown med. sand and cobble.
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							Light brown med, sand and cobble.
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	2	70	4-8			8	
							Light brown med, sand and cobble.
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	3	55	8-12			12	1
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<u>Comments</u>							

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Well/Boring No.	SG-1				Bore Hole Data			
Location:					Hole diameter (inches):	1		
M.P. Elevation:					Total Depth (ft):	66		
Project:	ORB Botton	m Sediment Investig	gation - Soil Ga	s Survey	Sampler			
Date:	6/20/20	02			Type:	Summa Canister		
Page	1	of_	1		Hammer:		Pounds:	
Logged By:	Frank Mano	eini			Fall (inches):			
Company:	Zebra Envir	onmental, Inc.			Remarks:			
Drilling Started:			Ended:		1			
Driller:					1			
Type of Rig:	Geoprobe							-
		SAMPL			Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
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<u>Comments</u>								

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Well/Boring No.	SG-2				Bore Hole Data		
Location:					Hole diameter (inches):	1	
M.P. Elevation:					Total Depth (ft):	6	
Project:		Sediment Investig	ation - Soil Ga	is Survey	Sampler		 -
Date:	6/20/2002				Type:	Summa Canis	
Page	1	_ of	1		Hammer:		Pounds:
Logged By:	Frank Mancini				Fall (inches):		
Company:	Zebra Environ	imental, Inc.			Remarks:		
Drilling Started:			Ended:		_		
Driller:	~				4		
Type of Rig:	Geoprobe				 		
	<u> </u>	SAMPLI		<u> </u>	Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
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Well/Boring No.	SG-3				Bore Hole Data			
Location:					Hole diameter (inches):	1		
M.P. Elevation:					Total Depth (ft):	6		
Project:		Sediment Investiga	ation - Soil Ga	as Survey	Sampler			
Date:	6/20/2002				Туре:	Summa Canister		
Page	1	of_	1		Hammer:		Pounds:	
Logged By:	Frank Maneir				Fall (inches):			
Company:	Zebra Environ	nmental, Inc.			Remarks:			
Drilling Started:			Ended:					
Driller:					_			
Type of Rig:	Geoprobe							
	<u> </u>	SAMPL			Strata Change	Depth	SAMPLE	
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION	
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Well/Boring No.	SG-4				Bore Hole Data		
Location:					Hole diameter (inches):	1	
M.P. Elevation:					Total Depth (ft):	6	
Project:	ORB Botton	n Sediment Investig	ation - Soil Ga	s Survey	Sampler		
Date:	6/20/200				Туре:	Summa Canist	
Page	1	of of	1		Hammer:		Pounds:
Logged By:	Frank Mane				Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:		
Drilling Started:			Ended:		_		
Driller:	Carmaha				_		
Type of Rig:	Geoprobe	SAMPL	D.		Strata Change	Depth	SAMPLE
DID(OVA (mmm)	No.	Recovery (%)		Blows/6"	General Description		DESCRIPTION
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6	General Description	(feet)	DESCRIPTION
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Comments							

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Smithtown, New York 11787

Well/Boring No.	SG-5				Bore Hole Data		
Location:					Hole diameter (inches):	1	
M.P. Elevation:					Total Depth (ft):	6	
Project:	ORB Bottom	Sediment Investig	ation - Soil Ga	ıs Survey	Sampler		
Date:	6/20/200	2			Type:	Summa Canis	ter
Page	11	of	1		Hammer:		Pounds:
Logged By:	Frank Mancii	ni			Fall (inches):		
Company:	Zebra Enviro	nmental, Inc.			Remarks:		
Drilling Started:			Ended:				
Driller:							
Type of Rig:	Geoprobe						
	SAMPLE				Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
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Well/Boring No.	SG-6				Bore Hole Data				
Location:					Hole diameter (inches):	1			
M.P. Elevation:					Total Depth (ft):	6			
Project:		m Sediment Investig	gation - Soil Ge	as Survey	Sampler	_			
Date:	6/20/20				 -	Summa Canister			
Page	11	of	1		Hammer:		Pounds:		
Logged By:	Frank Mane				Fall (inches):				
Company:	Zebra Envir	onmental, Inc.			Remarks:				
Drilling Started:			Ended:						
Driller: Type of Rig:	Geoprobe				-				
Type of Rig.	Сеорголе	SAMPL	F		Strata Change Depth SAMPLE				
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION		
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Comments									

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Well/Boring No.	SG-7				Bore Hole Data		
Location:	30-7				Hole diameter (inches):	1	
M.P. Elevation:					Total Depth (ft):	6	
Project:	ORB Botton	n Sediment Investig	nation - Soil G	ne Survey	Sampler	<u>`</u>	
Date:	6/20/200		atton - tom Ca	25 Garvey	Туре:	Summa Canister	
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manci	_			Fall (inches):		
Company:	Zebra Environmental, Inc.				Remarks:		
Drilling Started:			Ended:				
Driller:			_				
Type of Rig:	Geoprobe				7		
		SAMPLI	.E		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
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M.P. Elevation: Project: ORB Bottom Sediment Investigation - Soil Gas Survey Date: Office: ORB Bottom Sediment Investigation - Soil Gas Survey Date: Office: ORB Bottom Sediment Investigation - Soil Gas Survey Type: Order: ORB Bottom Sediment Investigation - Soil Gas Survey Type: Order: ORB Bottom Sediment Investigation - Soil Gas Survey Type: Order: Order: Order: ORB Bottom Sediment Investigation - Soil Gas Survey Type: Order: Order: ORB Bottom Sediment Investigation - Soil Gas Survey Type: Order: Order: ORB Bottom Sediment Investigation - Soil Gas Survey Type: Order: Order: ORB Bottom Sediment Investigation - Soil Gas Survey Type: ORB Bottom Sediment Investigation - Soil Gas Survey Type: ORB Bottom Sediment Investigation - Soil Gas Survey Type: ORB Sediment Investigation - Soil Gas Survey Type: ORB Sediment Investigation - Soil Gas Survey Type: ORB Sediment Investigation - Soil Gas Survey Type: ORB Sediment Investigation - Soil Gas Survey Type: ORDER:	Well/Boring No.	SG-8				Bore Hole Data		
ORB Berton Sedement Investigation - Soil Gas Survey Color Colo	Location:					Hole diameter (inches):	l	
Date: 6.02/2012 Type Nurrans Canistrometed Nura	M.P. Elevation:					Total Depth (ft):	6	
Page 1 Hammer Pounds: Loged By: Frank Manciol Fall (usbot): Total (usbot):	Project:	ORB Bottom	Sediment Investig	ation - Soil Ga	s Survey	Sampler		
Company Comp	Date:	6/20/200)2			Туре:	Summa Canist	teт
Company: Zebra Environmental, Inc. Ended:	Page	11	of	1		Hammer:		Pounds:
Drilling Started Ended:	Logged By:	Frank Manci	ni			Fall (inches):		
Driller: Type of Rig: Geoprobe SAMPLE Strata Change Depth SAMPLE PIDIOVA (ppm) No. Resovery (%) Depth (ft.) Blows 6" General Description (feet) DESCRIPTION	Company:	Zebra Enviro	onmental, Inc.			Remarks:		
Type of Rig: Geoprobe	Drilling Started:			Ended:				
SAMPLE Strate Change Depth Geet DESCRIPTION	Driller:							
PIDOVA (ppm) No. Recovery (%) Depth (ft.) Blows/6" General Description (feet) DESCRIPTION 2 4 0.0 1 5.5-6 6 8 10 12 14 16 18 20 22 24 26 28 30 30	Type of Rig:	Geoprobe						
2 4 4 0.0 1 5.5-6 6 8 8 10 12 14 16 16 18 220 22 24 24 26 28 30 30 32						Strata Change	1	l i
0.0 1 5.5.6 6 8 8 10 10 12 14 14 16 18 20 22 24 24 26 28 30 30 32	PID/OVA (ppm)	No.	Recovery (%)	Depth (fl.)	Blows/6"	General Description	(feet)	DESCRIPTION
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222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	SG-9				Bore Hole Data		
Location:					Hole diameter (inches):	1	
M.P. Elevation:					Total Depth (ft):	6	
Project:	ORB Botton	n Sediment Investig	ation - Soil Ga	s Survey	Sampler		
Date:	6/20/200	02			Туре:	Summa Canis	ster
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Mane	ini			Fall (inches):		
Сотрану:	Zebra Enviro	onmental, Inc.			Remarks:		
Drilling Started:			Ended:				
Driller:					_∤		
Type of Rig:	Geoprobe					, 	
		SAMPL			Strata Change	Depth	SAMPLE
P1D/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
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Comments	———		<u> </u>	<u></u>	<u> </u>	32	
<u> </u>							

GEOLOGIC LOG

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	SG-10				Bore Hole Data		
Location:					Hole diameter (inches):	11	
M.P. Elevation:					Total Depth (ft):	6	
Project:	ORB Botton	n Sediment Investig	ation - Soil Ga	s Survey	Sampler		
Date:	6/20/200	02			Type:	Summa Canist	er
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manc	ini			Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:	<u> </u>	
Drilling Started:	-		Ended:		1		
Driller:	_	_					
Type of Rig:	Geoprobe				1		
		SAMPLI	E		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
0.0			5.5-6			4 6 8 10 12 14 16 18 20 22 24 26	
Comments						30	
Comments							

MAC CONSULTANTS, INC.

GEOLOGIC LOG

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	SG-11				Bore Hole Data		
Location:					Hole diameter (inches):	1	
M.P. Elevation:					Total Depth (ft):	6	
Project:	ORB Bottom	Sediment Investiga	ation - Soil Ga	s Survey	Sampler		
Date:	6/20/2002	2			Туре:	Summa Canist	ter
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Manein	·i			Fall (inches):		
Company:	Zebra Environ	unental, Inc.			Remarks:		
Drilling Started:			Ended:]		
Driller:					1		
Type of Rig:	Geoprobe						<u></u>
	<u> </u>	SAMPLE			Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
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Comments							

MAC CONSULTANTS, INC.

GEOLOGIC LOG

222 Middle Country Road, Suite 209 Smithtown, New York 11787

Well/Boring No.	SG-12				Bore Hole Data		
Location:					Hole diameter (inches):	1	
M.P. Elevation:					Total Depth (ft):	<u>6</u>	
Project:	ORB Botton	n Sediment Investig	ation - Soil Ga	s Survey	Sampler		
Date:	6/20/200	02			Type:	Summa Canister	
Page	1	of	t		Hammer:		Pounds:
Logged By:	Frank Mane	<u>ini</u>			Fall (inches):		
Company:	Zebra Enviro	onmental, Inc.			Remarks:		
Drilling Started:			Ended:		_[
Driller:				_			
Type of Rig:	Geoprobe						
		SAMPLI	ક		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
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Comments							

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222 Middle Country Road, Suite 209 Smithtown, New York 11787

GEOLOGIC LOG

Well/Boring No.	SG-13				Bore Hole Data		
Well/Boring No. Location:	30-13				Hole diameter (inches):	1	
M.P. Elevation:				·	Total Depth (ft):	6	
Project:	ORB Bottom	Sediment Investiga	ation - Soil Ga	s Survev	Sampler	 	
Date:	6/20/2003		501 501	5 541 1 5 y	Type:	Summa Canist	er
Page	1	of	1		Hammer:		Pounds:
Logged By:	Frank Mancir				Fall (inches):		
Company:	Zebra Enviror				Remarks:		
Drilling Started:			Ended:		1		
Driller:			- 				
Type of Rig:	Geoprobe						
		SAMPLE	3		Strata Change	Depth	SAMPLE
PID/OVA (ppm)	No.	Recovery (%)	Depth (ft.)	Blows/6"	General Description	(feet)	DESCRIPTION
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Appendix B

Chemtech Electronic Data

Appendix C

Data Usability Validation Report

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3045

Prepared By: Carole Collins

Laboratory Name: Chemtech Date: August 7, 2002

Laboratory Project #: P3045

Sample (s) Taken: June 17, 2002

Sample Matrix: Soil

Client Sample ID: BC-1 0'-4' BC-4 0'-4'

BC-1 0'-4'DUP BC-4 4'-8'' BC-1 0'-4' MS BC-4 8'-12'

BC-1 0-'4' MSD BC-5 0'-4'

BC-1 4'-8' BC-5 4'-8' BC-5 8'-12

BC-1 8-12 BC-3 8-12 BC-6 0'-4'

BC-2 4'-8' BC-6 4'-8'

BC-2 8'-12' BC-6 8'-12' BC-7 0'-4'

BC-3 4'-8' BC-7 4'-8'

BC-3 8'-12'

Analytical Parameters: Total Chromium

The DUSR was prepared by reviewing and evaluating the analytical data per the Region II guidelines from USEPA, Revision II/January 92 Inorganics analysis and NYSDEC ASP guidelines. The following checklist has been designed to ensure a thorough ad complete review of the analytical results based on the requirements in these guidelines. The analytical results are considered valid and usable for the purpose of this project, with any exceptions addressed in the Data Deficiencies comments section below.

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3045

<u>Da</u>	ta Verification Parameters	Circle One
1. 2.	Were all chain of custody records present and completed? Were statements made in the analytical data case narrative	Yes No NA Yes No NA
2	supported by the analytical data?	OZON NO NA
3. 4.	Were the analysis performed as per method requested? Was the data package complete as defined under the	Yes No NA Yes No NA
7.	requirements for the NYSDEC ASP or USEPA CLP deliverables?	(CS) NO NA
5.	Were the required holing times met for all matrices and	Yes No NA
	analytical parameter (metals, mercury, cyanide)?	A 1 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
6.	Were samples correctly preserved?	Yes (No) NA
7.	Was sample preservation documented?	Yes No NA
8.	Was % solids greater than 50% for all soils samples?	Yes No NA
9.	Were preparation log/distillation log provided for all the analytes?	(Yes) No NA
10.	Did the preservation/distillation log include all the	(Yes) No NA
	information about weight/volume and preparation date(s)?	
11.	Were there raw data included for all the analytes?	(Yes) No NA
12.	Were the instrument(s) calibrated correctly using	Yes No NA
	proper standards?	and the second s
13.	Were the initial and continuing calibrations performed at the required frequency?	(Yes) No NA
14.	Were the initial and continuing calibration within the acceptance criteria?	(Yes) No NA
15.	Were CRDL standard(s) run at the beginning and end of each run?	(Yes) No NA
16.	Were percent recoveries (%R) for CRDL standard within the acceptance criteria?	(Yes) No NA
17.	Were the calibration blanks less than CRDL?	Yes) No NA
18.	Were the preparation blanks free of contaminants?	Yes No NA
19.	Were the field blank free of contaminants?	Yes No (NA)
20.	Were ICP Interference Check Samples (ICS) analyzed at the beginning and end of each ICP run?	Yes No NA
21.	Were percent recoveries (%R) for ICS within the acceptance criteria?	Yes No NA
22.	Was the matrix spike (MS) analysis performed at the required frequency?	Yes No NA
23.	Did the MS meet the percent recovery (%R) criteria?	Yes No NA
24.	Was the post digestion spike sample analysis performed	Yes No NA
25.	when required? Was the laboratory duplicate analysis performed at the required frequency?	Yes No NA

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3045

Did the duplicate analysis meet the Relative Percent	Yes	No	NA
Difference (RPD) acceptance criteria?		_	
Did the results for any field duplicate samples meet	Yes	N ₀	NA
Was the Laboratory Control Sample analysis performed	(Yes)	No	NA
for each matrix and analysis at the required frequency?			
Did the LCS meet the percent recovery (%R) criteria?	Yes	No	NA
Was ICP Serial Dilution analysis preformed at the required frequency?	Yes	No	NA
Did the ICP serial dilution analysis meet the percent	Yes	No	NA
difference (%D) criteria?			
Was proper quantitation procedure followed for Method of Standard Addition (MSA) analysis?	Yes	No	(NA)
· · · · · · · · · · · · · · · · · · ·	Yes	No	(NA)
_			
Were there any analysis performed for dissolved as total	Yes	No	NA
-	Yes	Nο	(NA)
, , , , , , , , , , , , , , , , , , , ,	1 05	110	411
	Yes	No	NA
	(Yes)	Nο	NA
· · · ·			NA
•	103	140	11/7
	(Ves)	No	NA
	(100)	110	1 17 7
	Difference (RPD) acceptance criteria? Did the results for any field duplicate samples meet expected precision requirements? Was the Laboratory Control Sample analysis performed for each matrix and analysis at the required frequency? Did the LCS meet the percent recovery (%R) criteria? Was ICP Serial Dilution analysis preformed at the required frequency? Did the ICP serial dilution analysis meet the percent difference (%D) criteria? Was proper quantitation procedure followed for Method of Standard Addition (MSA) analysis? Was coefficient of correlation greater than 0.0995 for MSA analysis?	Difference (RPD) acceptance criteria? Did the results for any field duplicate samples meet expected precision requirements? Was the Laboratory Control Sample analysis performed for each matrix and analysis at the required frequency? Did the LCS meet the percent recovery (%R) criteria? Was ICP Serial Dilution analysis preformed at the required frequency? Did the ICP serial dilution analysis meet the percent difference (%D) criteria? Was proper quantitation procedure followed for Method of Standard Addition (MSA) analysis? Was coefficient of correlation greater than 0.0995 for MSA yes analysis? Were there any analysis performed for dissolved as total analysis? Was the concentration of any dissolved analyte greater than its total concentration by 10%? Did the laboratory submit Instrument Detection Limit (IDL), ICP linear ranges and ICP Interelement Correction Factors? Were dilutions made appropriately when required? No discrepancies were noted when review of raw data (instrument printouts) was performed. Were results reported in correct units and soil samples	Difference (RPD) acceptance criteria? Did the results for any field duplicate samples meet expected precision requirements? Was the Laboratory Control Sample analysis performed for each matrix and analysis at the required frequency? Did the LCS meet the percent recovery (%R) criteria? Was ICP Serial Dilution analysis preformed at the required frequency? Did the ICP serial dilution analysis meet the percent difference (%D) criteria? Was proper quantitation procedure followed for Method of Standard Addition (MSA) analysis? Was coefficient of correlation greater than 0.0995 for MSA yes No analysis? Were there any analysis performed for dissolved as total analysis? Was the concentration of any dissolved analyte greater than its total concentration by 10%? Did the laboratory submit Instrument Detection Limit (IDL), ICP linear ranges and ICP Interelement Correction Factors? Were dilutions made appropriately when required? No discrepancies were noted when review of raw data (instrument printouts) was performed. Were results reported in correct units and soil samples

If NO for any of the above questions, give further explanation in the comments section:

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3045

COMMENTS:

Samples were not received within the Temperature QC range, but were preserved once received in the laboratory.

The Duplicates for sample # 1 did not meet QC criteria for Chromium. The samples associated with the duplicate are flagged with an "*".

The Duplicates are field sampled. The non-homogenous nature of the soil sample is the suspected cause, duplicate sample results should be considered estimated concentrations.

Samples are flagged with a "J" qualifier.

All other data met QC requirements. Data usability is acceptable.

R= Rejected

E= Estimated

Reviewer Signature: Const. Collins Date 3/10/02

	c. ————	_	SDG N	io.:_P	3045			Method '	Type: SW846
							_		
Sample ID: P3045-01					Client	ID: BC-10	-4		
Contract: MAC Consultant	s. Inc.	Lab Co	ode: CF	HEMED) <u> </u>	Case No.:		SA	S No.: P3045
Matrix: SOIL	Date R	eceived:	6/19/02		Level:	LOW			
% Solids: 90.0									
CAS No. Analyte Cor	ncentration	Units	C	Qual	M	DL	Instrumen	t ID	Analytical Run
44()-47-3 Chromium	3.7	mg/Kg		*	Р	0.08	P1		P162402
Color Before: BROWN		Clarity	Before:				Texture:	MEDIUI	М
Color After: YELLOW		Classic	After:				Artifacts:		

Sample ID: P3045	-02			Client	ID: BC-10	-4DUP	
Contract: MAC Co	onsultants, Inc.	 Lab Cod	e: CHEMED	(Case No.:		SAS No.: P3045
Matrix: SOIL	Date F	Received: 6/1	9/02	Level:	LOW		
% Solids: 88.0					<u> </u>		
CAS No. Analyte	Concentration	Units C	C Qual	М	DL	Instrument ID	Analytical Run
40-47-3 Chromium	7.5	mg/Kg	*	P	0.08	Pl	P162402
Color Before: BROW	N	Clarity B	efore:			Texture: MI	EDIUM_
Color After: YELLO	<u>)</u> W	Clarity A	fter:			Artifacts:	

	, Inc.	SDG	G No.: P3	3045		M	ethod Type: SW846
							
Sample ID: P3045-05				Client	ID: BC-14	-8	
Contract: MAC Consul	tants, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3045
Matrix: SOIL	Date R	eceived: 6/19/0)2	Level:	LOW		
% Solids: 86.0						_	
CAS No. Analyte	Concentration	Units C	Qual		DL	Instrument I	Analytical D Run
40-47-3 Chromium	80.3	mg/Kg	* **********		0.08	PI	P162402
Color Before: BROWN		Clarity Befo	re:	_		Texture: N	MEDIUM
Color After: YELLOW		Clarity After	r:			Artifacts:	

Client: MAC Consultants,	inc.	SDC	G No.: P3	045		Meth	nod Type: SW846
Sample 1D: P3045-06	· · · · · · · · · · · · · · · · · · ·			Client	ID: BC-18	-12	
Contract: MAC Consult	ants, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3045
Matrix: SOIL % Solids: 71.0	Date Ro	eceived: 6/19/0)2	Level:	LOW	<u> </u>	
	Concentration	Units C	Qual	M	DL	Instrument ID	Analytical Run
.40-47-3 Chromium	115	mg/Kg	*	Р	0.10	Pl ·	P162402
Color Before: BROWN Color After: YELLOW		Clarity Befo				Texture: MEI	DIUM
Comments:					_ _		

METALŚ

SDG No.: P3		YICLI	od Type: SW846
		· · · · · · · · · · · · · · · · · · ·	
	Client ID: BC-2	0-4	
Lab Code: CHEMED	Case No.:		SAS No.: P3045
Received: 6/19/02	Level: LOW		
			
Units C Qual	M DL	Instrument ID	Analytical Run
5 5		PI	P162402
Clarity Before:		Texture: MEI	DIUM
Clarity After:		Artifacts:	
		· .	
	Units C Qual mg/Kg * Clarity Before:	Lab Code: CHEMED Case No.: Received: 6/19/02 Level: LOW Units C Qual M DL mg/Kg * P 0.08 Clarity Before:	Units C Qual M DL Instrument ID mg/Kg * P 0.08 P1 Clarity Before: Texture: MEI

40-47-3 Chromium 5.4 mg/Kg * P 0.08 P1 P162402	Client: MAC Consultants, Inc.	SDG No.: P3	045	Method Type:	SW846
Contract: MAC Consultants, Inc. Lab Code: CHEMED Case No.: Matrix: SOIL Date Received: 6/19/02 Level: LOW AS No. Analyte Concentration Units C Qual M DL Instrument ID Analytical Run 40-47-3 Chromium 5.4 mg/Kg P 0.08 P1 P162402	·				
Matrix: SOIL Date Received: 6/19/02 Level: LOW % Solids: 90.0 AS No. Analyte Concentration Units C Qual M DL Instrument ID Run 40-47-3 Chromium 5.4 mg/Kg * P 0.08 P1 P162402	Sample ID: P3045-08		Client ID: BC-24	-8	
% Solids: 90.0 As No. Analyte Concentration Units C Qual M DL Instrument ID Run Analytical Run Chromium 5.4 mg/Kg * P 0.08 Pl P162402	Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:	SAS No.:	P3045
Analytical Analyte Concentration Units C Qual M DL Instrument ID Run 40-47-3 Chromium 5.4 mg/Kg * P 0.08 P1 P162402	Matrix: SOIL Date R	deceived: 6/19/02	Level: LOW		
CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run 40-47-3 Chromium 5.4 mg/Kg * P 0.08 P1 P162402	% Solids: 90.0				
TO THE TOUR STATE OF THE TOUR	AS No. Analyte Concentration	Units C Qual	M DL		-
	40-47-3 Chromium 5.4	mg/Kg *	P 0.08	PI PI6	52402
Color Before: BROWN Clarity Before: Texture: MEDIUM	Color Before: BROWN	Clarity Before:		Texture: MEDIUM	
Color After: YELLOW Clarity After: Artifacts:	Color After: YELLOW	Clarity After:		Artifacts:	
Comments:	Comments:		·		

Sample ID	: P3045-09				Client	ID: BC-28	-12	_
Contract:	MAC Consult	tants, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3045
Matrix:	SOIL	Date R	eceived: 6/19/	02	Level:	LOW		
% Solids:	95.0							
CAS No.	Analyte (Concentration	Units C	Qual	М	DL	Instrument ID	Analytical Run
140-47-3 Chr	romium	6.6	mg/Kg	* ************************************	1	0.07	PI	P162402
Color Before:	BROWN		Clarity Befo	ore:			Texture: ME	DIUM
Color After:	YELLOW	<u> </u>	Clarity Afte	r:			Artifacts:	

MAC Consultants, Inc.			SDG	No.: P30	45			Method	d Type: SW846
		_	-			<u> </u>			· · · · · · · · · · · · · · · · · · ·
Sample ID: P3045-10				[4	Client 1	(D: BC-3	0-4		
Contract: MAC Consultants,	Inc.	Lab C	ode:	CHEMED	C	ase No.:		S	SAS No.: P3045
Matrix: SOIL % Solids: 95.0		eceived:			Level:			-	Analytical
	entration	Units		Qual	M ·	DL	Instrumen		Run
0-47-3 Chromium	4.2	mg/Kg		* 155 554	Р	0.07	Pl		P162402
olor Before: BROWN		Clarity	y Befor	e:			Texture:	MEDI	UM
Color After: YELLOW		Clarity	y After:	<u> </u>		_	Artifacts:		
Comments:									-

Code: CHEMED		ID: BC-34-	8	SAS No.: P3045
Code: CHEMED	C	ase No.:		SAS No B2045
				SAS NO. 13043
6/19/02	Level:	LOW		
C Qual	<u>M</u>	DL	Instrument ID	Analytical Run P162402
y Before:	· · · · · · · · · · · · · · · · · · ·		Texture: ME	DIUM
	y Before:	y Before:	* 5 P 0.07	* P 0.07 Pl y Before: Texture: ME

Client: MAC Consultants, Inc.		SDG No.	: P3045		Met	hod Type: SW846
						
Sample ID: P3045-12			Clien	t 1D: BC-38	-12	
Contract: MAC Consultants, In	nc. Lab (Code: CHEN	MED	Case No.:		SAS No.: P3045
Matrix: SOIL	Date Received:	6/19/02	Level	: LOW		
% Solids: 88.0	_					
CAS No. Analyte Conce	ntration Units	C Qu	al M	DL	Instrument ID	Analytical Run
440-47-3 Chromium	4.5 mg/Kg	,	* p	0.08	Pl	P162402
Color Before: BROWN	Clarit	y Before:			Texture: ME	DIUM
Color After: YELLOW	Clarit	y After:			Artifacts:	
Comments:						

Client: MAC Consultants	s, Inc.	_ si	DG No.: P	3045		· i	Method Type: SW846
Sample ID: P3045-13				Client	ID: BC-40	II	
Contract: MAC Consu	Itants, Inc.	Lab Code	: CHEMED	(Case No.:		SAS No.: P3045
Matrix: SOIL % Solids: 96.0	Date Re	eceived: 6/19	9/02	Level:	LOW		
AS No. Analyte	Concentration	Units C	Qual	M	DL	Instrument	Analytical Run
40-47-3 Chromium	4.8	mg/Kg	*	P	0.07	P1	P162402
Color Before: BROWN Color After: YELLOW		Clarity Be				Texture: Artifacts:	MEDIUM
Comments:							

Client:	MAC Consultar	nts, Inc.		SDG No.: 1	23045			Method Type: SW846
Samı	ple ID: P3045-1	4			Clien	t ID: BC-4	4-8	
Cont	ract: MAC Con	sultants, Inc.	Lab Co	de: CHEME	D	Case No.:		SAS No.: P3045
Matr	olids: 86.0	Date R	eceived: 6	5/19/02	Level	LOW		
CAS No.	Analyte	Concentration	Units	C Qual	M	DL	Instrument	Analytica I ID Run
440-47-3	Chromium	4.0	mg/Kg	* ,	P	0.08	PI	P162402
Color B	Gefore: BROWN After: YELLOV		Clarity Clarity				Texture: Artifacts:	MEDIUM
Comme	ents:		· 					

Chent: MAC	Consultant	s, inc.		SDG No.: P3	045	-	<u> </u>	Method Type: SW846
								·
Sample ID	P3045-15	-			Client	ID: BC-48	-12	
Contract:	MAC Const	ıltants, Inc.	Lab Coo	de: CHEMED	C	Case No.:		SAS No.: P3045
Matrix: % Solids:	SOIL 89.0	Date Ro	eceived: 6/	19/02	Level:	LOW		
CAS No.	Analyte	Concentration	Units	C Qual	M	DL	Instrument	Analytical ID Run
40-47-3 Chr	romium	13.4	mg/Kg	*		0.08	PI	P162402
Color Before:	BROWN		Clarity E	Before:			Texture:	MEDIUM
Color After:	YELLOW		Clarity A	After:			Artifacts:	
Color After: Comments:	YELLOW		Clarity A	After:			Artifacts:	

Client: MAC Consultants, Inc.	SDG	No.: P30)45			Method Type: SW846
<u> </u>	<u> </u>					<u>-</u>
Sample ID: P3045-16			Client	ID: BC-50	-4	
Contract: MAC Consultants, Inc.	Lab Code: (CHEMED	•	Case No.:		SAS No.: P3045
Matrix: SOIL D	Pate Received: 6/19/02		Level:	LOW	<u>-</u>	
CAS No. Analyte Concentra	ation Units C	Qual	M	DL	Instrument	Analytical ID Run
40-47-3 Chromium	9.5 mg/Kg	*	P	0.08	P1	P162402
Color Before: BROWN	Clarity Before	 ::			Texture:	MEDIUM
Color After: YELLOW	Clarity After:				Artifacts:	·
Comments:						

Sample ID: P3045-17 Contract: MAC Consultants, Inc. Lab Code Matrix: SOIL Date Received: 6/1	e: CHEMED		D: BC-54-	8	
Contract: MAC Consultants, Inc. Lab Code	L			8	
	e: CHEMED	Ca	•		
Matrix: SOIL Date Received: 6/1			ise No.: _		SAS No.: P3045
	19/02	Level:	LOW		
% Solids: 91.0		-		·····	
AS No. Analyte Concentration Units C	C Qual	M	DL	Instrument ID	Analytical Run
10-47-3 Chromium 25.2 mg/Kg	*	Р	0.08	PI	P162402
olor Before: BROWN Clarity Be	efore:			Texture: MEI	DIUM
Color After: YELLOW Clarity A	fter:			Artifacts:	
Comments:					

Client: MAC Consultar	nts, Inc.	SD	OG No.: P	3045		N	Aethod Type: SW846
Sample ID: P3045-1	8			Client	1D: BC-58	3-12	
Contract: MAC Cons	sultants. Inc.	Lab Code:	CHEMED	(Case No.:		SAS No.: P3045
Matrix: SOIL	Date R	eceived: 6/19/	'02	Level:	LOW		
% Solids: 93.0							
CAS No. Analyte	Concentration	Units C	Qual	M	DL	Instrument	Analytical ID Run
40-47-3 Chromium	5.8	mg/Kg	* 3,	Р	0.08	Pl	P162402
Color Before: BROWN		Clarity Befo				•	MEDIUM
Color After: YELLOV	<u> </u>	Clarity Afte	er:	_		Artifacts:	
Comments:							

Client:	MAC Consultar	nts, Inc.		SD	G No.: P30	45		Me	thod Type: SW846
Ļ	ble ID: P3045-19				L		1D: BC-60)-4	SASNA PROJE
Matr	ix: SOIL		eceived:	•	CHEMED 02 1		LOW		SAS No.: P3045
CAS No.	Analyte	Concentration	Units	С	Qual	M	DL	Instrument ID	Analytical Run
440-47-3	Chromium	5.7	mg/Kg		* Same	Р	0.07	PI	P162402
Color B	efore: BROWN		Clarit	y Befo	ore:			Texture: M	EDIUM
Color A	fter: YELLOV	<u>v</u>	Clarit	y Afte	r:			Artifacts:	
Comme	ents:								

Client: MAC C	Consultants,	Inc.		SDG N	No.: P30	45		Met	hod Type: SW846
Sample ID:	P3045-20					Client	1D: BC-64	8	
Contract: M	IAC Consult	ants, Inc.	Lab C	Code: Ch	HEMED	(Case No.:		SAS No.: P3045
Matrix: Solids: 6	7.0	Date Re	eceived: -	6/19/02	I	Level:	LOW		
CAS No. AI	nalyte (Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
440-47-3 Chron	nium	1180	mg/Kg	_	*	Р	0.10	Pl	P162402
Color Before: E	BROWN		Clarity	y Before:				Texture: ME	DIUM
Color After: \(\)	ELLOW	<u> </u>	Clarity	y After:				Artifacts:	
Comments:								•	

Client: MAC Consultants, Inc.	SDO	G No.: P3	3045		Mo	ethod Type: SW846
Sample ID: P3045-21			Client	ID: BC-68	-12	
Contract: MAC Consultants, In	c. Lab Code:	CHEMED		Case No.:		SAS No.: P3045
Matrix: SOIL	Date Received: 6/19/0)2	Level:	LOW		
% Solids: 65.0						
CAS No. Analyte Concen	ntration Units C	Qual	М	DL	Instrument II	Analytical) Run
140-47-3 Chromium	108 mg/Kg	* ~~~	; P	0.11	P1	P162402
Color Before: BROWN	Clarity Befo	re:			Texture: N	IEDIUM
Color After: YELLOW	Clarity Afte	r:			Artifacts:	

Client: MAC Consultants, Inc		_ SDC	G No.: P3	045		Meth	od Type: SW846
	······	<u> </u>				-	
Sample ID: P3045-22				Client	ID: BC-70	-4	
Contract: MAC Consultant	s. Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3045
Matrix: SOIL	Date Re	ceived: 6/19/0	2	Level:	LOW		
% Solids: 86.0			_				
CAS No. Analyte Cor	centration	Units C	Qual	M	DL	Instrument ID	Analytical Run
40-47-3 Chromium	3.2	mg/Kg	*	Р	0.08	P1	P162402
Color Before: BROWN Color After: YELLOW		Clarity Before				Texture: ME	DIUM
Comments:							

Client: MAC Consultants, Inc.	SDG No.: P3	045	Met	hod Type: SW846
·				
Sample ID: P3045-23		Client ID: B	C-74-8	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case N	No.:	SAS No.: P3045
Matrix: SOIL Da	te Received: 6/19/02	Level: LOW	V	
% Solids: 87.0) 			
CAS No. Analyte Concentrat	ion Units C Qual	M DI	Instrument ID	Analytical Run
140-47-3 Chromium 5.	8 mg/Kg	P 0.0	8 P1	P162402
Color Before: BROWN	Clarity Before:		Texture: ME	DIUM
Color After: YELLOW	Clarity After:		Artifacts:	
Comments:				
				

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3046

Prepared By: Carole Collins

Laboratory Name: Chemtech Date: August 7, 2002

Laboratory Project #: P3046

Sample (s) Taken: June 17, 2002

Sample Matrix: Soil

Client Sample ID: BC-7 8'-12' BC-11 8'-12'

BC-8 0'-4' BC-12 0'-4' BC-8 4'-8' BC-12 4'-8' BC-12 8' 12'

BC-8 8'-12' BC-12 8'-12' BC-9 0'-4' BC-13 0'-4'

BC-9 4'-8' BC-13 4'-8' BC-13 8'-12'

BC-10 0'-4' BC-13 8'-12'DUP BC-10 4'-8' BC-13 8'-12'MS

BC-10 4 -8 BC-13 8 -12 MS BC-10 8 -12 MSD

BC-11 0'-4' BC-14 0'-4' BC-14 4'-8'

Analytical Parameters: Total Chromium

The DUSR was prepared by reviewing and evaluating the analytical data per the Region II guidelines from USEPA, Revision II/January 92 Inorganics analysis and NYSDEC ASP guidelines. The following checklist has been designed to ensure a thorough ad complete review of the analytical results based on the requirements in these guidelines. The analytical results are considered valid and usable for the purpose of this project, with any exceptions addressed in the Data Deficiencies comments section below.

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3046

<u>Da</u>	ta Verification Parameters	<u>Circ</u>	le O	<u>ne</u>
1. 2.	Were all chain of custody records present and completed? Were statements made in the analytical data case narrative supported by the analytical data?	Tes Ves	No No	NA NA
3. 4.	Were the analysis performed as per method requested? Was the data package complete as defined under the requirements for the NYSDEC ASP or USEPA CLP deliverables?	Yes Yes	No No	NA NA
5.	Were the required holing times met for all matrices and analytical parameter (metals, mercury, cyanide)?	Yes	No	NA
6.	Were samples correctly preserved?	Yes	(\hat{N}_0)	NA
7.	Was sample preservation documented?	(Ves	No	NA
8.	Was % solids greater than 50% for all soils samples?	Yes	No	NA
9.	Were preparation log/distillation log provided for all the analytes?	Yes	No	NA
10.	Did the preservation/distillation log include all the information about weight/volume and preparation date(s)?	Yes	No	NA
11.	Were there raw data included for all the analytes?	Yes	No	NA
12.	Were the instrument(s) calibrated correctly using	Yes	No	NA
13.	proper standards? Were the initial and continuing calibrations performed	Yes	No	NA
14.	at the required frequency? Were the initial and continuing calibration within the acceptance criteria?	(Yes)	No	NA
15.	Were CRDL standard(s) run at the beginning and end of each run?	Yes	No	NA
16.	Were percent recoveries (%R) for CRDL standard within the acceptance criteria?	(Yes)	No	NA
17.	Were the calibration blanks less than CRDL?	Yes	No	NA
18.	Were the preparation blanks free of contaminants?	Yes	No	NA
19.	Were the field blank free of contaminants?	Yes	No	(NA)
20.	Were ICP Interference Check Samples (ICS) analyzed at the beginning and end of each ICP run?	(Yes)	No	NA
21.	Were percent recoveries (%R) for ICS within the acceptance criteria?	(Yes)	No	NA
22.	Was the matrix spike (MS) analysis performed at the required frequency?	(Yes)	No	NA
23.	Did the MS meet the percent recovery (%R) criteria?	(Yes)	No	NA
24.	Was the post digestion spike sample analysis performed when required?	Yes	No	NA
25.	Was the laboratory duplicate analysis performed at the required frequency?	Yes	No	NA

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3046

26.	Did the duplicate analysis meet the Relative Percent	Yes	(No)	NA
27.	Difference (RPD) acceptance criteria? Did the results for any field duplicate samples meet	Yes	(Ña)	NA
21.	expected precision requirements?	I CS		INA
28.	Was the Laboratory Control Sample analysis performed	Yes	No	NA
20.	for each matrix and analysis at the required frequency?		1,0	1111
29.	Did the LCS meet the percent recovery (%R) criteria?	Yes	No	NA
30.	Was ICP Serial Dilution analysis preformed at the	Yes	No	NA
	required frequency?			
31.	Did the ICP serial dilution analysis meet the percent	Yes	No	NA
	difference (%D) criteria?			
32.	Was proper quantitation procedure followed for Method	Yes	No	(NA)
	of Standard Addition (MSA) analysis?			
33.	Was coefficient of correlation greater than 0.0995 for MSA	Yes	No	(NA)
2.4	analysis?	37	NT.	(TA)
34.	Were there any analysis performed for dissolved as total analysis?	Yes	No	(NA)
35.	Was the concentration of any dissolved analyte greater	Yes	No	NA
	than its total concentration by 10%?			
36.	Did the laboratory submit Instrument Detection Limit	(Ves)	No	NA
	(IDL), ICP linear ranges and ICP Interelement Correction			
	Factors?			=
37.	Were dilutions made appropriately when required?	Yes	No	NA
38.	No discrepancies were noted when review of raw data	(Yes)	No	NA
• •	(instrument printouts) was performed.		- +	
39.	Were results reported in correct units and soil samples	Yes	No	NA
	corrected for % solid?			

If NO for any of the above questions, give further explanation in the comments section:

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3046

COMMENTS:

Samples were not received within the acceptable Temperature range, but were preserved once received in the laboratory.

The Matrix spike and Matrix spike duplicate for sample P3046-19 did not meet QC requirements. The samples associated with the spike sample are flagged with an "N" qualifier.

The Duplicates for sample P3046-19 did not meet QC criteria for Chromium. The samples associated with the spike sample are flagged with an "*".

The serial dilution for sample P3046-23 did not meet QC criteria. A chemical of physical interference effect is suspected. The samples associated with serial dilution are flagged with an "E" qualifier.

The MS/MSD and Duplicate for sample P3046-19 were field sampled. The non-homogeneous nature of the soil sample is the suspected cause.

Samples are qualified with "J".

All other QC met requirements. Data usability is acceptable.

R= Rejected

E= Estimated

Reviewer Signature: 22 role Collins Date & Indo

Sample ID: P3046-01		Clien	t ID: BC-78	-12	
Contract: MAC Consultants	, Inc. Lab Code	: CHEMED	Case No.:		SAS No.: P3046
Matrix: SOIL	Date Received: 6/19	0/02 Level	: LOW		
% Solids: 84.0			-		
AS No. Analyte Con-	centration Units C	Qual M	DL	Instrument ID	Analytical Run
0-47-3 Chromium	4.9 mg/Kg	N* P	0.07	P2	P260621
olor Before: BROWN	Clarity Be	fore:		Texture: MED	IUM
	Clarity Af	4		Artifacts:	

Sample ID: P30	6-02			Client	ID: BC-80	-4	
Contract: MAC Consultants, Inc.		Lab Code:	Lab Code: CHEMED		Case No.:		SAS No.: P3046
Matrix: SOIL	Date	Received: 6/19/0)2	Level:	LOW		
% Solids: 91.0							
AS No. Analy	e Concentration	Units C	Qual	M	DL	Instrument ID	Analytical Run
0-47-3 Chromiun	2.6	mg/Kg	N*	ъ. Р	0.07	P2	P260621
olor Before: BRO	WN	Clarity Befo	re:			Texture: ME	EDIUM
Color After: YEL	_OW	Clarity After	r:			Artifacts:	

Client: MAC Consultants, Inc.	SDG No.: P3	8046	Meth	nod Type: SW846
Sample ID: P3046-03		Client ID: BC-84	l-8 	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3046
Matrix: SOIL Date	Received: 6/19/02	Level: LOW		
% Solids: 88.0				
AS No. Analyte Concentratio	n Units C Qual	M DL	Instrument ID	Analytica l Run
0-47-3 Chroinium 8.0	mg/Kg N*	P 0.07	P2 .	P260621
olor Before: BROWN	Clarity Before:		Texture: ME	DIUM
olor After: YELLOW	Clarity After:		Artifacts:	
Comments:				
Comments:				

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Client: MAC Consultants, Inc	·		SDG No	D.: P30	046			Method	Type: SW846
· · · · · · · · · · · · · · · · · · ·		<u></u>							
Sample ID: P3046-04					Client	ID: BC-88	-12		
Contract: MAC Consultant	s, Inc.	Lab Co	de: CHI	EMED	(ase No.:		S	SAS No.: P3046
Matrix: SOIL	Date Re	eceived:	5/19/02		Level:	LOW			
% Solids: 86.0									
CAS No. Analyte Con	centration	Units	C Q	ual	M	DL	Instrumen	t ID	Analytical Run
440-47-3 Chromium	16.4	mg/Kg		N*	P	0.07	P2		P260621
Color Before: BROWN		Clarity	Before:				Texture:	MEDIU	JM
Color After: YELLOW		Clarity	After:				Artifacts:		·
Comments:						· · · · · · · · · · · · · · · · · · ·			
·									

Client: _	MAC Consultar	nts, Inc.	sp	OG No.: P3	046		M etho	od Type: SW846
Sampl	le ID: P3046-0	5			Client	ID: BC-90	-4	
Contr	act: MAC Con	sultants, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3046
Matri	x: SOIL	Date R	eceived: 6/19/	/02	Level:	LOW		
% Sol	ids: 94.0							
AS No.	Analyte	Concentration	Units C	Qual	M	DL	Instrument ID	Analytical Run
)-47-3	Chromium	8.3	mg/Kg	N* •••	Р	0.06	P2	P260621
olor Be	fore: BROWN		Clarity Bef	ore:			Texture: MED	IUM
olor Af	ter: YELLO	W	Clarity Aft	er:			Artifacts:	
Commen	ıts:							
								

Client: MAC Consultants, Inc.		SD	G No.: P304	46			Method Ty	/ pe: SW846
Sample ID: P3046-06			C	Client	1D: BC-94	-8		
Contract: MAC Consultants, In	nc. Lab	Code:	СНЕМЕД		Case No.:		SAS	No.: P3046
Matrix: SOIL	Date Received	1: 6/19/0)2I	Level:	LOW			
% Solids: 88.0	-							
AS No. Analyte Concer	ntration Units	C C	Qual	M	DL	Instrumen	t ID	Analytical Run
0-47-3 Chromium	6.0 mg/f	⟨g	N* was	P	0.07	P2	-	P260621
olor Before: BROWN	Clar	ity Befo	ore:			Texture:	MEDIUM	
olor After: YELLOW	Clar	ity Afte	r:			Artifacts:		
Comments:								

Sample ID: P3046-07				Client	ID: BC-98	-12	
Contract: MAC Cons	ultants, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3046
Matrix: SOIL % Solids: 93.0	Date R	eceived: 6/19/0	<u></u>	Level:	LOW		
AS No. Analyte	Concentration	Units C	Qual		DL	Instrument ID	Analytical Run
(1.7.2. Classical	4.6	mg/Kg	N*	Р	0.06	P2	P260621
)-47-3 Chroinium							
olor Before: BROWN		Clarity Befo	re:			Texture: MEI	DIUM

Client: MAC Consultants, Inc.	SDG No.: P3	046	— Meth	nod Type: SW846
				
Sample ID: P3046-08		Client ID: BC-10	00-4	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3046
	e Received: 6/19/02	Level: LOW		
% Solids: 90.0				
CAS No. Analyte Concentration	on Units C Qual	M DL	Instrument ID	Analytical Run
140-47-3 Chromium · 8.2	mg/Kg N*	. 0.07	P2	P260621
Color Before: BROWN	Clarity Before:		Texture: ME	DIUM
Color After: YELLOW	Clarity After:		Artifacts:	
Comments:				

Sample ID: P	3046-09					Client	ID : BC-10	4-8	
Contract: MA	C Consultants,	Inc.	Lab C	ode: _	CHEMED		Case No.:		SAS No.: P304
Matrix: SO % Solids: 94.		Date Ro	eccived: —	6/19/03	2	Level:	LOW	_ _	
		entration	 Únits	C	Qual		DL	Instrument	Analytical D Run
0-47-3 Chromi	um	6.6	mg/Kg		N*	P	0.06	P2	P260621
olor Before: BF	LOWN _		Clarity					Texture:	MEDIUM

			Client	ID: BC-10	8-12	
Inc.	Lab Cod	le: CHEMED		Case No.:		SAS No.: P304
Date Re	eceived: 6/	19/02	Level:	LOW		
_		-				
entration	Units (C Qual		DL	Instrument	Analytical ID Run
6.7	mg/Kg			0.06	P2	P260621
	Clarity B	Before:			Texture:	MEDIUM
	Clarity A	After:			Artifacts:	
	centration	Date Received: 6/	Date Received: 6/19/02 centration Units C Qual 6.7 mg/Kg N*	Date Received: 6/19/02 Level: centration Units C Qual M 6.7 mg/Kg N* P Clarity Before:	Date Received: 6/19/02 Level: LOW centration Units C Qual M DL 6.7 mg/Kg N* P 0.06 Clarity Before:	Date Received: 6/19/02 Level: LOW centration Units C Qual M DL Instrument 6.7 mg/Kg N* P 0.06 P2 Clarity Before: Texture:

Sample ID: P3046-11		CE TE DC 110		
		Client ID: BC-110-	4	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:	S	AS No.: P3046
Matrix: SOIL Date Ro	eceived: 6/19/02	Level: LOW		
% Solids: 91.0				
		·		Analytical
AS No. Analyte Concentration	Units C Qual	M DL	Instrument ID	Run
-47-3 Chromium 14.9	mg/Kg N*	P 0.07	P2	P260621
, p. c. DDOUDI	Clarity Before:		Texture: MEDIU	ЛМ
dor Before: BKUWN			L	
olor Before: BROWN Olor After: YELLOW	Clarity After:		Artifacts:	

Sample ID: P3046-12				Client	ID: BC-11	4-8	
Contract: MAC Consul	tants, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3046
Matrix: SOIL	Date R	eceived: 6/19/	02	Level:	LOW		
% Solids: 95.0							
CAS No. Analyte	Concentration	Units C	Qual	M	DL	Instrument ID	Analytical Run
40-47-3 Chromium	8.2	mg/Kg	N*	1	0.06	P2	P260621
Color Before: BROWN		Clarity Befo	ore:			Texture: ME	DIUM
Color After: YELLOW		Clarity Afte	er:			Artifacts:	

Sample ID: P3	146-13			CI	ient I	D: BC-11	3-12		
Contract: MA	Consultants, Inc.	Lab C	ode: CHE	MED	C	ase No.:		SAS	No.: P3046
Matrix: SOI		Date Received:	6/19/02	Le	vel:	LOW			
% Solids: 97.0									
AS No. Anal	yte Concentr	ation Units	C Qu	ıal	M	DL	Instrumen		Analytical Run
0-47-3 Chromiu	n	2.0 mg/Kg		N*	Р	0.06	P2		P260621
olor Before: BR)WN	Clarity	Before:				Texture:	MEDIUM	
olor After: YE	LOW	Clarity	After:				Artifacts:		

Sample ID: P3046-14				Client	ID: BC-12	0-4		
Contract: MAC Consulta	nts, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.:	P3046
Matrix: SOIL	Date R	eceived: 6/19/0)2	Level:	LOW			
% Solids: 97.0								
AS No. Analyte C	oncentration	Units C	Qual	M	DL	Instrument	Analyt ID Rur	
0-47-3 Chromium	3.7	mg/Kg	N*	P	0.06	P2	P2600	521
DD CUDI		Clarity Befo	re:			Texture:	MEDIUM	
olor Before: BROWN								

	SDG No.: P3		Method Type: SW84	16
				— ¬
Sample ID: P3046-15		Client 1D: BC-12		
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:	SAS No.: P30-	46
Matrix: SOIL	Date Received: 6/19/02	Level: LOW		
% Solids: 96.0				
AS No. Analyte Concents	ration Units C Qual	M DL	Analytica Instrument ID Run	1
0-47-3 Chromium	4.6 mg/Kg N*	P 0.06	P2 P260621	
olor Before: BROWN	Clarity Before:		Texture: MEDIUM	
olor After: YELLOW	Clarity After:		Artifacts:	
Comments:				

Client: MAC Consultants,	Inc.	_ SD	OG No.: P3	3046		M	lethod Type: SW846
		<u> </u>		<u> </u>			
Sample ID: P3046-16				Client	ID: BC-12	8-12	
Contract: MAC Consulta	ants, Inc.	Lab Code:	CHEMED	• -	Case No.:		SAS No.: P3046
Matrix: SOIL	Date R	eceived: 6/19/	702	Level:	LOW	<u> </u>	
% Solids: 95.0					_	_ 	
CAS No. Analyte C	Concentration	Units C	Qual		DL	Instrument I	Analytical D Run
440-47-3 Chromium	4.4	ıng/Kg	N*	. Р	0.06	P2	P260621
Color Before: BROWN		Clarity Befo	ore:			Texture:	MEDIUM
Color After: YELLOW		Clarity Afte	er:			Artifacts:	
Comments:							

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Client: MAC Consultants, Inc.	SDG No.: P3	3046	Met	thod Type: SW846
		 -		
Sample ID: P3046-17		Client ID: BC-13	30-4	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3046
Matrix: SOIL D	ate Received: 6/19/02	Level: LOW		
% Solids: 95.0			_	
CAS No. Analyte Concentra	tion Units C Qual	M DL	Instrument ID	Analytical Run
140-47-3 Chromium 14	4.5 mg/Kg N*	, P 0.06	P2	P260621
Color Before: BROWN	Clarity Before:		Texture: ME	EDIUM
Color After: YELLOW	Clarity After:		Artifacts:	
Comments:	·			· · · · · · · · · · · · · · · · · · ·

Client: MAC Consultants, In	nc.		SDG No.: P3	046			Method T	ype: SW846	
Sample ID: P3046-18				Client	ID: BC-13	4-8			
Contract: MAC Consultar	its, Inc.	Lab Cod	e: CHEMED		Case No.:		SAS	5 No.: P3046	
Matrix: SOIL % Solids: 95.0	Date Ro	eceived: 6/]	19/02	Level:	LOW				
CAS No. Analyte Co	oncentration	Units C	Qual	M	DL	Instrument	: ID	Analytical Run	
440-47-3 Chromium	13.6	mg/Kg	N* :		0.06	P2		P260621	
Color Before: BROWN		Clarity B	efore:			Texture:	MEDIUM	- 	
Color After: YELLOW		Clarity A	fter:			Artifacts:			
Comments:				. <u>-</u>					·
	-		_						

Client: MAC Consultants	, Inc.	_	SDG No.: P	3046		·	Method Ty	pe: SW846
Sample ID: P3046-19				Client	ID: BC-13	8-12		
Contract: MAC Consul	tants, Inc.	Lab Cod	e: CHEMEI) (Case No.:		SAS	No.: P3046
Matrix: SOIL % Solids: 96.0	Date Re	eceived: 6/1	19/02	Level:	LOW			
CAS No. Analyte	Concentration	Units C	Qual	M	DL	Instrument		Analytical Run
40-47-3 Chromium	6.2	mg/Kg	N*	P	0.06	P2		P260621
Color Before: BROWN Color After: YELLOW		Clarity B				Texture: Artifacts:	MEDIUM	
Comments:								

Sample ID: P3046-20		Client ID: BC-13	38-12DUP	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:	_	SAS No.: P3046
Matrix: SOIL Date	Received: 6/19/02	Level: LOW		
% Solids: 94.0				
AS No. Analyte Concentration	Units C Qual	M DL	Instrument ID	Analytical Run
40-47-3 Chromium 8.7	mg/Kg N*	P 0.06	P2	P260621
Color Before: BROWN	Clarity Before:		Texture: MEI	DIUM
	Clarity After:		Artifacts:	
Color After: YELLOW				

mac Consultants, Inc.	SDG No.	P3046	Method Type: SW84	1 6
Sample ID: P3046-23		Client ID: BC-1	140-4]
Contract: MAC Consultants, Inc	Lab Code: CHE	1ED Case No.:	: SAS No.: P30	_ 46
Matrix: SOIL % Solids: 95.0	Date Received: 6/19/02	Level: LOW	·	
AS No. Analyte Concent	tration Units C Qu	al M DL	Analytica Instrument ID Run	l
0-47-3 Chromium	13.5 mg/Kg	E P 0.06	P2 P260621	
olor Before: BROWN	Clarity Before:		Texture: MEDIUM	
Color After: YELLOW	Clarity After: _		Artifacts:	
Comments:	·			

		· · · · · · · · · · · · · · · · · · ·	
			
	Client ID: BC-14	4-8	
c. Lab Code: CHEMED	Case No.:		SAS No.: P3046
Date Received: 6/19/02	Level: LOW		
· — · — · — ·		_	
tration Units C Qual	M DL	Instrument ID	Analytical Run
46.3 mg/Kg E	P 0.07	P2	P260621
Clarity Before:		Texture: MED	IUM
Clarity After:		Artifacts:	
	tration Units C Qual 46.3 mg/Kg E Clarity Before:	tration Units C Qual M DL 46.3 mg/Kg E P 0.07 Clarity Before:	tration Units C Qual M DL Instrument ID 46.3 mg/Kg E P 0.07 P2 Clarity Before: Texture: MED

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3047

Prepared By: Carole Collins

Laboratory Name: Chemtech Date: August 7, 2002

Laboratory Project #: P3047

Sample (s) Taken: June 17, 2002

Sample Matrix: Soil

Client Sample ID: BC-15 0'-4' BC-19 0'-4' BC-15 4'-8' BC-19 4'-8'

BC-15 8'-12' BC-19 8'-12' BC-16 0'-4' BC-16 4'-8' BC-20 4'-8'

BC-16 8'-12' BC-20 8'-12' BC-17 0'-4' BC-20 8'-12'DUP BC-17 4'-8' BC-20 8'-12'MS BC-17 8'-12' BC-20 8'-12'MSD

BC-18 0'-4' BC-21 0'-4' BC-18 4'-8' BC-21 4'-8'

BC-18 8'-12'

Analytical Parameters: Total Chromium

The DUSR was prepared by reviewing and evaluating the analytical data per the Region II guidelines from USEPA, Revision II/January 92 Inorganics analysis and NYSDEC ASP guidelines. The following checklist has been designed to ensure a thorough ad complete review of the analytical results based on the requirements in these guidelines. The analytical results are considered valid and usable for the purpose of this project, with any exceptions addressed in the Data Deficiencies comments section below.

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3047

<u>Da</u>	ta Verification Parameters	Circle C	<u>ne</u>
1.	Were all chain of custody records present and completed?	Yes No	NA
2.	Were statements made in the analytical data case narrative supported by the analytical data?	Yes No	
3.	Were the analysis performed as per method requested?	Yes No	NA
4.	Was the data package complete as defined under the requirements for the NYSDEC ASP or USEPA CLP deliverables?	Yes No	NA
5.	Were the required holing times met for all matrices and analytical parameter (metals, mercury, cyanide)?	Yes No	NA
6.	Were samples correctly preserved?	Yes No) NA
7.	Was sample preservation documented?	Yes No	
8.	Was % solids greater than 50% for all soils samples?	Yes No	NA
9.	Were preparation log/distillation log provided for all the analytes?	Yes No	NA
10.	Did the preservation/distillation log include all the information about weight/volume and preparation date(s)?	Yes No	NA
11.	Were there raw data included for all the analytes?	Yes No	NA
12.	Were the instrument(s) calibrated correctly using proper standards?	Yes No	NA
13.	Were the initial and continuing calibrations performed at the required frequency?	Yes No	NA
14.	Were the initial and continuing calibration within the acceptance criteria?	Yes No	NA
15.	Were CRDL standard(s) run at the beginning and end of each run?	Yes No	NA NA
16.	Were percent recoveries (%R) for CRDL standard within the acceptance criteria?	Yes No	NA
17.	Were the calibration blanks less than CRDL?	Yes No	NA
18.	Were the preparation blanks free of contaminants?	Yes No	NA
19.	Were the field blank free of contaminants?		(NA)
20.	Were ICP Interference Check Samples (ICS) analyzed at the beginning and end of each ICP run?	Yes No	NA
21.	Were percent recoveries (%R) for ICS within the acceptance criteria?	Yes No	NA
22.	Was the matrix spike (MS) analysis performed at the required frequency?	Yes No	NA
23.	Did the MS meet the percent recovery (%R) criteria?	Yes No) NA
24.	Was the post digestion spike sample analysis performed when required?	Yes) No	NA
25.	Was the laboratory duplicate analysis performed at the required frequency?	Yes No	NA

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3047

26.	Did the duplicate analysis meet the Relative Percent	Yes	(No)	NA
	Difference (RPD) acceptance criteria?			
27.	Did the results for any field duplicate samples meet	Yes	(NO)	NA
20	expected precision requirements?	67	'A T	3.7.4
28.	Was the Laboratory Control Sample analysis performed	(Yes)	No	NA
	for each matrix and analysis at the required frequency?			
29.	Did the LCS meet the percent recovery (%R) criteria?	Yes	No	NA
30.	Was ICP Serial Dilution analysis preformed at the	(Yes)	No	NA
	required frequency?			
31.	Did the ICP serial dilution analysis meet the percent	(Yes)	No	NA
51.	difference (%D) criteria?	103	110	1471
22		Vac	Νıα	(TA)
32.	Was proper quantitation procedure followed for Method	Yes	No	WA
	of Standard Addition (MSA) analysis?			
33.	Was coefficient of correlation greater than 0.0995 for MSA	Yes	No	(NA)
	analysis?			
34.	Were there any analysis performed for dissolved as total	Yes	No	(NA)
	analysis?			
35.	Was the concentration of any dissolved analyte greater	Yes	No (NA
	than its total concentration by 10%?			
36.	Did the laboratory submit Instrument Detection Limit	(Yes)	No	NA
50.	(IDL), ICP linear ranges and ICP Interelement Correction	(103)	110	1111
	,			
27	Factors?		3.7	27.4
37.	Were dilutions made appropriately when required?	(Yes)	No	NA
38.	No discrepancies were noted when review of raw data	(Yes)	No	NA
	(instrument printouts) was performed.			
39.	Were results reported in correct units and soil samples	(Yes)	No	NA
	corrected for % solid?	_		

If NO for any of the above questions, give further explanation in the comments section:

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3047

COMMENTS:

Samples were not received within the acceptable Temperature range, but were preserved once received in the laboratory.

The Matrix spike and Matrix spike duplicate for sample P3046-18 did not meet QC requirements. The samples associated with the spike sample are flagged with an "N" qualifier.

The Duplicates for sample P3046-18 did not meet QC criteria for Chromium. The samples associated with the spike sample are flagged with an "*".

The MS/MSD and Duplicate for sample P3046-18 were field sampled. The non-homogeneous nature of the soil sample is the suspected cause.

Samples are qualified with "J".

All other QC met requirements. Data usability is acceptable.

R= Rejected

E= Estimated

Reviewer Signature: Carole Collins

Date 8/16/02

Case No.: SAS No.: P3047 vel: LOW
Case No.: SAS No.: P3047
vel: LOW
M DL Instrument ID Run
P 0.07 P1 P161902
Texture: MEDIUM
Artifacts:
_

Sample ID: P3047-02		Client ID: BC-1	54-8	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3047
Matrix: SOIL Date I	Received: 6/19/02	Level: LOW		
% Solids: 92.0				
CAS No. Analyte Concentration	Units C Qual	M DL	Instrument ID	Analytical Run
40-47-3 Chromium 38.2	mg/Kg N*	P 0.08	P1	P161902
Color Before: BROWN	Clarity Before:		Texture: MEI	DIUM
Color After: YELLOW	Clarity After:		Artifacts:	
Comments:		<u> </u>		

Sample II): P3047-03				Client	ID: BC-15	8-12		
Contract:	MAC Cons	ultants. Inc.	Lab Code	e: CHEMED		case No.:		SAS	No.: P3047
Matrix:	SOIL	Date R	eceived: 6/1	9/02	Level:	LOW	_		
% Solids:	94.0								
AS No.	Analyte	Concentration	Units C	Qual	М	DL	Instrument		Analytical Run
10-47-3 Ch	nromium	13.0	mg/Kg	N*	5	0.07	PI		P161902
olor Before	e: BROWN		Clarity Be	efore:			Texture:	MEDIUM	
olor After:	YELLOW	<i>7</i>	Clarity A	fter:			Artifacts:		

Client ID: P3047-04 Client ID: BC-160-4	lient: MAC Consultants, Inc.		SDG No.: P3	3047		M	ethod Type: SW846
Contract: MAC Consultants. Inc. Lab Code: CHEMED Case No.: SAS No.: P3047 Matrix: SOIL Date Received: 6/19/02 Level: LOW Solids: 94.0 SNo. Analyte Concentration Units C Qual M DL Instrument ID Run 47-3 Chromium 12.7 mg/Kg N* P 0.07 P1 P161902 Ior Before: BROWN Clarity Before: Texture: MEDIUM Jor After: YELLOW Clarity After: Artifacts:						······································	·
Matrix: SOIL Date Received: 6/19/02 Level: LOW % Solids: 94.0 AS No. Analyte Concentration Units C Qual M DL Instrument ID Run 0-47-3 Chromium 12.7 mg/Kg N* P 0.07 P1 P161902 Clarity Before: BROWN Clarity Before: Texture: MEDIUM Color After: YELLOW Clarity After: Artifacts:	Sample ID: P3047-04			Client	ID: BC-16	0-4	
% Solids: 94.0 As No. Analyte Concentration Units C Qual M DL Instrument ID Run O-47-3 Chromium 12.7 mg/Kg N* P 0.07 P1 P161902 Clor Before: BROWN Clarity Before: Texture: MEDIUM Clarity After: Artifacts:	Contract: MAC Consultants.	Inc. Lab C	ode: CHEMED		lase No.:		SAS No.: P3047
AS No. Analyte Concentration Units C Qual M DL Instrument ID Run 0-47-3 Chromium 12.7 mg/Kg N* P 0.07 P1 P161902 color Before: BROWN Clarity Before: Texture: MEDIUM color After: YELLOW Clarity After: Artifacts:		Date Received:	6/19/02	Level:	LOW		
olor Before: BROWN Clarity Before: Texture: MEDIUM olor After: YELLOW Clarity After: Artifacts:	AS No. Analyte Conc	entration Units	C Qual	M	DL	Instrument II	-
olor After: YELLOW Clarity After: Artifacts:)-47-3 Chromium	12.7 mg/Kg			0.07	Pl	P161902
	olor Before: BROWN	Clarity	Before:			Texture: N	иEDIUM
	olor After: YELLOW	Clarity	After:			Artifacts:	
Comments:	Comments:						

Client: MAC Consultants, Inc.	SDG No.: P3	047	Meth	od Type: SW846
				
Sample ID: P3047-05		Client 1D: BC-16	4-8	
Contract: MAC Consultants. Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3047
Matrix: SOIL Da	te Received: 6/19/02	Level: LOW		
% Solids: 94.0				
CAS No. Analyte Concentrat	ion Units C Qual	M DL	Instrument ID	Analytical Run
40-47-3 Chromium 20	9 mg/Kg N*	P 0.07	Pl	P161902
Color Before: BROWN	Clarity Before:		Texture: ME	DIUM
Color After: YELLOW	Clarity After:		Artifacts:	
Comments:		· 		

Sample ID: P30	47-06					Client	ID: BC-16	8-12	
Contract: MAC	Consultants, Ir	nc.	Lab Co	ode:	CHEMED		Case No.:		SAS No.: P3047
Matrix: SOII		Date Re	ceived:	6/19/02	2	Level:	LOW		
% Solids: 93.0									
CAS No. Anal	te Conce	ntration	Units	С	Qual	M	DL	Instrument	Analytical ID Run
40-47-3 Chromiu	n	101	mg/Kg		N*	Р	0.07	Pl	P161902
Color After: YEI	LOW		Clarity			·		Texture: Artifacts:	MEDIUM

	ic.		SDG No.:_P3	304/		— Met	hod Type: SW846
							
Sample ID: P3047-07				Client	ID: BC-17	0-4	
Contract: MAC Consultan	ts, Inc.	Lab Cod	le: CHEMED		Case No.:		SAS No.: P3047
Matrix: SOIL	Date R	eceived: 6/1	19/02	Level:	LOW		
% Solids: 94.0							
CAS No. Analyte Co.	ncentration	Units C	C Qual	M	DL	Instrument ID	Analytical Run
40-47-3 Chromium	9.7	mg/Kg	N* ***	Р	0.07	PI	P161902
Color Before: BROWN		Clarity B	efore:			Texture: ME	DIUM
Color After: YELLOW_	·	Clarity A	fter:			Artifacts:	

	ent: MAC Consultants, Inc.		SDG No.: P3047					Method Type: SW846		
		<u>-</u>	_							
Sample ID: P3047-08					Client	ID: BC-17	74-8			
Contract: MAC Consu	iltants, Inc.	Lab Co	ode: Ch	IEMED	(Case No.:		SAS No.: P3047		
Matrix: SOIL % Solids: 97.0	Date R	eceived: (6/19/02		Level:	LOW				
CAS No. Analyte	Concentration	Units	C (Qual	M	DL	Instrument	Analytical D Run		
140-47-3 Chromium	61.0	mg/Kg		N*	Р	0.07	P1	P161902		
Color Before: BROWN		Clarity	Before:				Texture:	MEDIUM		
Color After: YELLOW		Clarity	After:				Artifacts:			

lient: MAC Consultants, Inc.	SDG No.: P3	047	Meth	od Type: SW846
· · · · · · · · · · · · · · · · · · ·				
Sample ID: P3047-09		Client ID: BC-17	78-12	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3047
Matrix: SOIL Date F	teceived: 6/19/02	Level: LOW		
AS No. Analyte Concentration	Units C Qual	M DL	Instrument ID	Analytical Run
0-47-3 Chromium 55.7	mg/Kg N*	P 0.07	Pl	P161902
olor Before: BROWN olor After: YELLOW	Clarity Before:		Texture: ME	DIUM
Comments:				

Sample ID: P3047-10				Client	ID: BC-18	0-4	
Contract: MAC Consultants,	Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3047
Matrix: SOIL	Date R	eceived: 6/19/0	2	Level:	LOW		
% Solids: 94.0							
CAS No. Analyte Conc	entration	Units C	Qual	М	DL	Instrument D	Analytical) Run
440-47-3 Chromium	6.6	mg/Kg	N*		0.07	Pl	P161902
Color Before: BROWN		Clarity Before	re:			Texture: N	IEDIUM
Color After: YELLOW		Clarity After	:			Artifacts:	

lient: MAC Consultants, Inc	J.		SDG	No.: P30)4/			Metho	d Type: SW846
Sample ID: P3047-11					Client	ID: BC-18	4-8		· · · · · · · · · · · · · · · · · · ·
Contract: MAC Consultant	s, Inc.	Lab Co	ode:	CHEMED		Case No.:			SAS No.: P3047
Matrix: SOIL % Solids: 95.0	Date Re	eceived: 	6/19/02	2	Level:	LOW			
AS No. Analyte Cor	ncentration	Units	С	Qual	M	DL	Instrumen	t ID	Analytical Run
0-47-3 Chromium	5.3	mg/Kg		N*	Р	0.07	PI		P161902
Color Before: BROWN Color After: YELLOW		Clarity Clarity					Texture: Artifacts:	MEDI	UM
Comments:									

Client: MAC Consultants, Inc.	SDG No.: P3047	Method Type: SW846
G 1 1D P2047 12	GF - ID 20 IO	0.10
Sample 1D: P3047-12 Contract: MAC Consultants, Inc.	Client ID: BC-188 Lab Code: CHEMED Case No.:	SAS No.: P3047
Matrix: SOIL Date % Solids: 96.0	Received: 6/19/02 Level: LOW	
CAS No. Analyte Concentration	Units C Qual M DL	Analytica l Instrument ID Run
440-47-3 Chromium 78.8	mg/Kg N* P 0.07	P1 P161902
Color Before: BROWN	Clarity Before:	Texture: MEDIUM
Color After: YELLOW	Clarity After:	Artifacts:
Comments:		

				
Sample ID: P3047-13		Client ID: BC-1	90-4 	
Contract: MAC Consultants. Inc	c. Lab Code: CHE	EMED Case No.:		SAS No.: P3047
Matrix: SOIL	Date Received: 6/19/02	Level: LOW		
% Solids: 97.0				
AS No. Analyte Concen	ntration Units C Q	ual M DL	Instrument ID	Analytical Run
0-47-3 Chromium	5.8 mg/Kg	N* P 0.07	P1	P161902
o ii omomani				
olor Before: BROWN	Clarity Before:		Texture: MED	IUM

Client: MAC Consultants, In	nc.	sr	OG No.: P3	3047		Meth	od Type: SW846
	· · · · · · · · · · · · · · · · · · ·					 	
Sample ID: P3047-14				Client	ID: BC-19	4-8	
Contract: MAC Consultan	its Inc.	Lab Code	: CHEMED		Case No.:		SAS No.: P3047
Matrix: SOIL	Date Ro	eceived: 6/19	//02	Level:	LOW		
% Solids: 95.0]						
CAS No. Analyte Co	ncentration	Units C	Qual		DL	Instrument ID	Analytical Run
40-47-3 Chromium	32.9	mg/Kg	N* ***	P	0.07	PI	P161902
Color Before: BROWN		Clarity Bet	fore:			Texture: MED	DIUM
Color After: YELLOW		Clarity Aft	er:			Artifacts:	
Comments:							

Client: MAC Consultants, Inc.	SDG No.: Pi	3047	Metho	od Type: SW846
Sample ID: P3047-15		Client ID: BC-1	98-12	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3047
Matrix: SOIL D	ate Received: 6/19/02	Level: LOW		
% Solids: 96.0				
AS No. Analyte Concentra	tion Units C Qual	M DL	Instrument ID	Analytical Run
40-47-3 Chromium 87	7.9 mg/Kg N*	P 0.07	Pl	P161902
Color Before: BROWN	Clarity Before:		Texture: MEDI	IUM
olor After: YELLOW	Clarity After:		Artifacts:	
Comments:				

Client: MAC Consultants, Inc	.		OG No.: P3	3047		Met	hod Type: SW846
							
Sample ID: P3047-16				Client	ID: BC-20	0-4	
Contract: MAC Consultant	s, Inc.	Lab Code:	CHEMED	(Case No.:		SAS No.: P3047
Matrix: SOIL	Date R	eceived: 6/19/	/02	Level:	LOW		
% Solids: 96.0							
CAS No. Analyte Con	centration	Units C	Qual	М	DL	Instrument ID	Analytical Run
40-47-3 Chromium	5.8	mg/Kg	N* **	P	0.07	P1	P161902
Color Before: BROWN		Clarity Bef	ore:			Texture: ME	DIUM
Color After: YELLOW		Clarity Afte	er:			Artifacts:	
Comments:							

Sample ID: P3047-17 Contract: MAC Consultants. Inc. Lab Code: CHEMED Case No.: SAS No.: P3 Matrix: SOIL Date Received: 6/19/02 Level: LOW AS No. Analyte Concentration Units C Qual M DL Instrument ID Run 0-47-3 Chromium 47.4 mg/Kg N* P 0.07 P1 P161903	846
Contract: MAC Consultants. Inc. Lab Code: CHEMED Case No.: SAS No.: P3 Matrix: SOIL Date Received: 6/19/02 Level: LOW Solids: 97.0 Analyte Concentration Units C Qual M DL Instrument ID Run	
Matrix: SOIL Date Received: 6/19/02 Level: LOW % Solids: 97.0 Analytic Concentration Units C Qual M DL Instrument ID Run	
% Solids: 97.0 AS No. Analyte Concentration Units C Qual M DL Instrument ID Run	3047
Analytic AS No. Analyte Concentration Units C Qual M DL Instrument ID Run	
AS No. Analyte Concentration Units C Qual M DL Instrument ID Run	
0-47-3 Chromium 47.4 mg/Kg N* P 0.07 P1 P161900	al
	2
olor Before: BROWN Clarity Before: Texture: MEDIUM	_
olor After: YELLOW Clarity After: Artifacts:	
Comments:	

Client: MAC Consultants,	mc.	SD	•G No.: P.	3047		— Metho	d Type: SW846
·				_			
Sample ID: P3047-18	_			Client	ID: BC-20	8-12	
Contract: MAC Consulta	ints, Inc.	Lab Code:	CHEMED	<u> </u>	Case No.:		SAS No.: P3047
Matrix: SOIL	Date R	eceived: 6/19/	02	Level:	LOW		
% Solids: 96.0							
CAS No. Analyte C	Concentration	Units C	Qual	M	DL	Instrument ID	Analytical Run
140-47-3 Chromium	72.2	mg/Kg	N*	P	0.07	Pl	P161902
Color Before: BROWN		Clarity Befo	ore:			Texture: MED	IUM
Color After: YELLOW		Clarity Afte	er:			Artifacts:	
Comments:							

Sample ID: P3047-19 Contract: MAC Consultants, Inc. Lab	Code: CHEMED	Client II	D: BC-208	3-12DUP	
	Code: CHEMED			5-12DUP	
			56 NO.: _		SAS No.: P3047.
Matrix: SOIL Date Received % Solids: 96.0	: 6/19/02	Level:	LOW		
CAS No. Analyte Concentration Units	C Qual	М	DL	Instrument ID	Analytical Run
40-47-3 Chromium 12.0 mg/K	g N* 🦟	P	0.07	Pl	P161902
Color Before: BROWN Clari	ty Before:			Texture: MEI	DIUM
Color After: YELLOW Clari	ty After:			Artifacts:	
Comments:					

Client: MAC Consultants	, Inc.	_ SD	G No.: P3	047	_	_	Method Type: SW846
Sample ID: P3047-22				Client	ID: BC-21	0-4	
Contract: MAC Consul	tants, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3047
Matrix: SOIL	Date R	eceived: 6/19/0)2	Level:	LOW	_	
% Solids: 96.0							
CAS No. Analyte	Concentration	Units C	Qual	M	DL	Instrumen	Analytical t ID Run
140-47-3 Chromium	4.0	mg/Kg	N* *	") P	0.07	P1	P161902
Color Before: BROWN		Clarity Befo	re:			Texture:	MEDIUM
Color After: YELLOW		Clarity After	r:			Artifacts:	
Comments:							

· · · · · · · · · · · · · · · · · · ·								
	•				 		 	
Sample ID: P3047-23					Client	1D: BC-2	14-8	
Contract: MAC Consultants. Ir	nc.	Lab C	ode:	CHEMED) (Case No.:	•	SAS No.: P3047
Matrix: SOIL % Solids: 92.0	Date Ro	eceived: -	6/19/0)2	Level:	LOW		
CAS No. Analyte Concer	ntration	Units	C	Qual	M	DL	Instrument	Analytical ID Run
40-47-3 Chromium	16.9	mg/Kg			P	0.08	P1	P161902
Color Before: BROWN		Clarit	y Befo	re:			Texture:	MEDIUM
Color After: YELLOW		Clarity	y Afte	r:			Artifacts:	
Comments:			_					

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3048

Prepared By: Carole Collins

Laboratory Name: Chemtech Date: August 7, 2002

Laboratory Project #:P3048

Sample (s) Taken: June 18, 2002

Sample Matrix: Soil and Water

Client Sample ID: BC-22 0'-4' BC-26 0'-4'

BC-22 4'-8' BC-26 4'-8' BC-26 8'-12'

BC-23 0'-4' BC-26 8'-12' DUP BC-23 4'-8' BC-26 8'-12' MS

BC-23 8'-12' BC-26 8'-12' MSD BC-24 0'-4' BC-27 4'-8' BC-27 4'-8' BC-27 8' 12' BC-27 8' 12'

BC-24 8'-12' BC-27 8'-12' BC-25 0'-4' BC-25 4'-8' BC-28 4'-8'

BC-25 8'-12' BC-28 8'-12'

RINSE BLANK

Analytical Parameters: Total Chromium

The DUSR was prepared by reviewing and evaluating the analytical data per the Region II guidelines from USEPA, Revision II/January 92 Inorganics analysis and NYSDEC ASP guidelines. The following checklist has been designed to ensure a thorough ad complete review of the analytical results based on the requirements in these guidelines. The analytical results are considered valid and usable for the purpose of this project, with any exceptions addressed in the Data Deficiencies comments section below.

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3048

Dat	ta Verification Parameters	<u>Circ</u>	le Oı	ne
1. 2.	Were all chain of custody records present and completed? Were statements made in the analytical data case narrative supported by the analytical data?	Ved Ved	No No	NA NA
3. 4.	Were the analysis performed as per method requested? Was the data package complete as defined under the requirements for the NYSDEC ASP or USEPA CLP deliverables?	(Yes)	No No	NA NA
5.	Were the required holing times met for all matrices and analytical parameter (metals, mercury, cyanide)?	Yes	No	NA
6.	Were samples correctly preserved?	Yes	129)	NA
7.	Was sample preservation documented?	Yes	No	NA
8.	Was % solids greater than 50% for all soils samples?	Yes	No	NA
9.	Were preparation log/distillation log provided for all the analytes?	Yes	No	NA
10.	Did the preservation/distillation log include all the information about weight/volume and preparation date(s)?	Yes	No	NA
11.	Were there raw data included for all the analytes?	Yes	No	NA
12.	Were the instrument(s) calibrated correctly using proper standards?	Yes	No	NA
13.	Were the initial and continuing calibrations performed at the required frequency?	(Yes)	No	NA
14.	Were the initial and continuing calibration within the acceptance criteria?	Yes	No	NA
15.	Were CRDL standard(s) run at the beginning and end of each run?	Yes	No	NA
16.	Were percent recoveries (%R) for CRDL standard within the acceptance criteria?	Yes	No	NA
17.	Were the calibration blanks less than CRDL?	Yes	No	NA
18.	Were the preparation blanks free of contaminants?	Yes	No	NA
19.	Were the field blank free of contaminants?	Yes	No	(NA)
20.	Were ICP Interference Check Samples (ICS) analyzed at the beginning and end of each ICP run?	Yes	No	NA
21.	Were percent recoveries (%R) for ICS within the acceptance criteria?	Yes	No	NA
22.	Was the matrix spike (MS) analysis performed at the required frequency?	Yes	No	NA
23.	Did the MS meet the percent recovery (%R) criteria?	Yes	No	NA
24.	Was the post digestion spike sample analysis performed when required?	Yes	No	NA
25.	Was the laboratory duplicate analysis performed at the required frequency?	Yes	No	NA

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3048

26.	Did the duplicate analysis meet the Relative Percent Difference (RPD) acceptance criteria?	Yes	(No)	NA
27.	Did the results for any field duplicate samples meet	Yes	(No)	NIA
21.		1 68	(40)	INA
20	expected precision requirements?	(1/2)	ΝIα	NA
28.	Was the Laboratory Control Sample analysis performed	(Yes)	No	NA
20	for each matrix and analysis at the required frequency?	AF 1	3.7	37.4
29.	Did the LCS meet the percent recovery (%R) criteria?	(Yes)	No	NA
30.	Was ICP Serial Dilution analysis preformed at the	(Yes)	No	NA
	required frequency?			
31.	Did the ICP serial dilution analysis meet the percent	(Yes)	No	NA
	difference (%D) criteria?			
32.	Was proper quantitation procedure followed for Method	Yes	No	(NA)
	of Standard Addition (MSA) analysis?			
33.	Was coefficient of correlation greater than 0.0995 for MSA	Yes	No	(NA)
	analysis?			
34.	Were there any analysis performed for dissolved as total	Yes	No	(NA)
	analysis?			
35.	Was the concentration of any dissolved analyte greater	Yes	No	(NA)
	than its total concentration by 10%?			
36.	Did the laboratory submit Instrument Detection Limit	Yes	No	NA
	(IDL), ICP linear ranges and ICP Interelement Correction			
	Factors?			
37.	Were dilutions made appropriately when required?	Yes	No	NA
38.	No discrepancies were noted when review of raw data	(Yes)	No	NA
	(instrument printouts) was performed.			
39.	Were results reported in correct units and soil samples	Yes	No	NA
٥,٠	corrected for % solid?	<u> </u>	110	1111
	corrected for 70 boller.			

If NO for any of the above questions, give further explanation in the comments section:

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3048

COMMENTS:

Samples were not received within the acceptable QC Temperature range, but were preserved once received in the laboratory.

The Duplicates for sample # 15 did not meet QC criteria for Chromium. The duplicates were field sampled. The samples associated with the duplicate sample are flagged with an "*".

The MS/MSD and Duplicate for sample P3048-15 were field sampled. The non-homogeneous nature of the soil sample is the suspected cause.

The samples are flagged with a "J" qualifier.

All other QC data met requirements. Data usability is acceptable.

R= Rejected

E= Estimated

						_	-	
Sample ID: P3048-01	· <u>-</u>			[Client	ID: BC-22	0-4	
Contract: MAC Consul	tants, Inc.	Lab C	ode: CH	EMED		Case No.:		SAS No.: P3048
Matrix: SOIL	Date R	eceived:	6/19/02		Level:	LOW		
% Solids: 93.0								
CAS No. Analyte	Concentration	Units	C Q	ual	M	DL	Instrument 1	Analytical D Run
7440-47-3 Chromium	37.8	mg/Kg		*	Р	0.07	PI	P162402
Color Before: BROWN		Clarity	Before:				Texture:	MEDIUM

Client: MAC Consultants, Inc.		SDG No.: P3048					Method Type: SW846		
_				· · · · · · · · · · · · · · · · · · ·					
Sample ID: P3048-02					Client	ID: BC-22	4-8		
Contract: MAC Consultants	s, Inc.	Lab Co	de: C	HEMED_		Case No.:	<u> </u>	S.	AS No.: P3048
Matrix: SOIL	Date Re	eceived: 6	5/19/02		Level:	LOW			
% Solids: 97.0									
CAS No. Analyte Con	centration	Units	C	Qual	M	DL	Instrumen	t ID	Analytical Run
40-47-3 Chromium	3.3	mg/Kg		* mush	P	0.07	PI	-	P162402
Color Before: BROWN		Clarity	Before:	:			Texture:	MEDIU	M
Color After: YELLOW	-	Clarity	After:				Artifacts:		
Comments:									

Client: MAC Consultants, Inc.	SDG No.: P3	048	Method Type: SW846		
Sample ID: P3048-03		Client ID: BC-22	8-12		
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3048	
Matrix: SÓIL Date I	Received: 6/19/02	Level: LOW			
% Solids: 96.0					
CAS No. Analyte Concentration	Units C Qual	M DL	Instrument ID	Analytical Run	
40-47-3 Chromium 2.8	mg/Kg *	P 0.07	Pl	P162402	
Color Before: BROWN	Clarity Before:		Texture: MEI	DIUM	
Color After: YELLOW	Clarity After:		Artifacts:		
Comments:		· .			

	Method Type: SW846
Client	ID: BC-230-4
Lab Code: CHEMED C	ase No.: SAS No.: P3048
eived: 6/19/02 Level:	LOW
Units C Qual M	DL Instrument ID Run
mg/Kg * P	0.07 P1 P162402
Clarity Before:	Texture: MEDIUM
Clarity After:	Artifacts:
•	Lab Code: CHEMED Ceived: 6/19/02 Level: Units C Qual M mg/Kg * P Clarity Before:

Client: MAC Consultants, Inc.		SDG No.: P3048					Method Type: SW846		
· · ·					 -				
Sample ID: P3048-05					Client	ID: BC-23	4-8		
Contract: MAC Consultants, I	inc.	Lab C	ode:	CHEMED	· C	Case No.:	_		SAS No.: P3048
Matrix: SOIL % Solids: 94.0	Date Re	eceived:	6/19/02	2	Level:	LOW	- 		
CAS No. Analyte Conce	entration	Units	C	Qual	<u>М</u>	DL	Instrumen	t ID	Analytical Run
40-47-3 Chromium	13.8	mg/Kg		*	P	0.07	Pl		P162402
Color Before: BROWN		Clarity	Befor	e:			Texture:	MEDI	UM
Color After: YELLOW		Clarity	After	: <u></u>			Artifacts:		<u> </u>
Comments:									

lient: MAC Consultants, Inc.	SDG No.:_ P3	048	Method Type: SW846		
			-		
Sample ID: P3048-06		Client ID: BC-23	8-12		
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3048	
Matrix: SOIL Date Re	eceived: 6/19/02	Level: LOW			
% Solids: 97.0					
AS No. Analyte Concentration	Units C Qual	M DL	Instrument ID	Analytical Run	
0-47-3 Chromium 1.5	mg/Kg *	P 0.07	PI	P162402	
olor Before: BROWN	Clarity Before:		Texture: MEI	DIUM	
olor After: YELLOW	Clarity After:		Artifacts:		
Comments:					

ient: MAC Consultants, Inc.	SDC	G No.: <u>P3048</u>		M e	ethod Type: SW846
Sample ID: P3048-07		Cli	ent ID: BC-2	40-4	
Contract: MAC Consultants, Inc	Lab Code:	CHEMED	Case No.:	: 	SAS No.: P3048
Matrix: SOIL	Date Received: 6/19/02	2 Lev	el: LOW		
% Solids: 97.0			-		
AS No. Analyte Concen	tration Units C	Qual	M DL	Instrument II	Analytical Run
0-47-3 Chromium	5.7 mg/Kg	*	P 0.07	Pl	P162402
olor Before: BROWN	Clarity Befor	re:		Texture: M	EDIUM
olor After: YELLOW	Clarity After	:		Artifacts:	
Comments:					

Sample ID: P3048-08 Client ID: BC-244-8	Client: MAC Consultants, Inc.	SDG No.: P3		Method Type: SW846		
Contract: MAC Consultants, Inc. Lab Code: CHEMED Case No.: SAS No.: P3048 Matrix: SOIL Date Received: 6/19/02 Level: LOW % Solids: 96.0 Analytical Run Analytical Run Analytical Run Analytical Run Analytical Run Analytical Run					<u> </u>	
Matrix: SOIL Date Received: 6/19/02 Level: LOW % Solids: 96.0 CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run 40.47.3 Chromium 46.0 mg/Kg * P. 0.07 Pl P. 162402	Sample ID: P3048-08		Client ID: BC-24	1-8		
% Solids: 96.0 CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run 40.47.3 Chromium 46.0 mg/Kg * P 0.07 Pl P162402	Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3048	
CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run	Matrix: SOIL Date I	Received: 6/19/02	Level: LOW			
CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run 40.47.3 Chromium 46.0 mg/Kg * * * * P 0.07 Pl P162402	% Solids: 96.0					
40-47-3 Chromium 46.0 mg/Kg * P 0.07 Pl P162402	CAS No. Analyte Concentration	Units C Qual	M DL	Instrument ID		
	40-47-3 Chromium 46.0	mg/Kg *	P 0.07	Pl	P162402	
Color Before: BROWN Clarity Before: Texture: MEDIUM	Color Before: BROWN	Clarity Before:		Texture: MED	IUM	
Color After: YELLOW Clarity After: Artifacts:	Color After: YELLOW	Clarity After:		Artifacts:		
Comments:	Comments:	· .				

MAC Consultants, Inc.	SDG No.:_	<u> </u>		hod Type: SW846
Sample ID: P3048-09		Client ID: BC-2	48-12	_
Contract: MAC Consultants, Inc.	Lab Code: CHEME	D Case No.:	:	SAS No.: P3048
Matrix: SOIL Date R % Solids: 97.0	eceived: 6/19/02	Level: LOW	<u>.</u>	Analytical
AS No. Analyte Concentration	Units C Qual	M DL	Instrument ID	Run
0-47-3 Chromium 5.7		P 0.07	PI	P162402
olor Before: BROWN	Clarity Before:		Texture: ME	EDIUM
olor After: YELLOW	Clarity After:		Artifacts:	
Comments:				

Client: MAC Consultants,	, Inc.	SI	OG No.: P3	048		— Met	hod Type: SW846
Sample ID: P3048-10				Client	ID: BC-25	0-4	
Contract: MAC Consult	tants, Inc.	Lab Code:	CHEMED		Case No.:		SAS No.: P3048
Matrix: SOIL	Date R	eceived: 6/19	/02	Level:	LOW		
% Solids: 94.0						_ _	
CAS No. Analyte	Concentration	Units C	Qual	—— М	DL	Instrument ID	Analytical Run
440-47-3 Chromium	28.4	mg/Kg	*	Р	0.07	Pl	P162402
Color Before: BROWN		Clarity Bef	ore:			Texture: ME	EDIUM
Color After: YELLOW		Clarity Aft	er:			Artifacts:	
Comments:							

Client:	MAC Cons	sultar	nts, Inc.		_	SDC	G No.:_	P304	8			Meth	od Type: SW846
Samp	ole ID: P30	48-11						C	lient	ID: BC-25	4-8		
Conti	ract: MAC	Cons	sultants, Inc.		Lab C	Code: _	СНЕМЕ	D _		Case No.:			SAS No.: P3048
Matr			D	ate Re	ceived: ,-	6/19/0	2	L -	evel:	LOW			
% So	olids: 97.0						_						Analytical
AS No.	Analy	yte	Concentra	ition	Units	C	Qual		M	DL	Instrume	nt ID	Analytical Run
0-47-3	Chromiur	n	1	.19	mg/Kg		*	alv	Ь	0.07	P1		P162402
olor B	efore: BRC	OWN			Clarit	y Befor	re:				Texture:	MEI	DIUM
olor A	fter: YEL	LOV	<u> </u>		Clarit	y After	::			 -	Artifacts:		
Comme	ents:				_								

SDG No.: Pa			d Type: SW846
<u> </u>			
	Client ID: BC-2:	58-12	
Lab Code: CHEMED	Case No.:		SAS No.: P3048
Pate Received: 6/19/02	Level: LOW		
	M DL	Instrument ID	Analytical Run
210 mg/Kg ****	P 0.08	P1	P162402
Clarity Before:		Texture: MEDI	UM
Clarity After:		Artifacts:	
•	Lab Code: CHEMED Date Received: 6/19/02 ation Units C Qual 210 mg/Kg ** Clarity Before:	Lab Code: CHEMED Case No.: Oate Received: 6/19/02 Level: LOW ation Units C Qual M DL 210 mg/Kg * P 0.08 Clarity Before:	Client ID: BC-258-12 Lab Code: CHEMED Case No.: Date Received: 6/19/02 Level: LOW ation Units C Qual M DL Instrument ID 210 mg/Kg * P 0.08 P1 Clarity Before: Texture: MEDI

Matrix: SOIL Date Received: 6/19/02 Level: LOW % Solids: 96.0 CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run	Client: MAC Consultants, Inc.	SDG No.: P30)48	Method Type	
Contract: MAC Consultants, Inc. Lab Code: CHEMED Case No.: Matrix: SOIL Date Received: 6/19/02 Level: LOW CAS No. Analyte Concentration Units C Qual M DL Instrument ID Analytica Run 440-47-3 Chromium 5.3 mg/Kg P 0.07 P1 P162402					
Matrix: SOIL Date Received: 6/19/02 Level: LOW % Solids: 96.0 CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run 440-47-3 Chromium 5.3 mg/Kg * P 0.07 P1 P162402	Sample ID: P3048-13		Client ID: BC-260-	-4	
CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run 440-47-3 Chromium 5.3 mg/Kg * P 0.07 P1 P162402	Contract: MAC Consultants, I	nc. Lab Code: CHEMED	Case No.:		SAS No.: P3048
CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run 7440-47-3 Chromium 5.3 mg/Kg * P 0.07 P1 P162402	Matrix: SOIL	Date Received: 6/19/02	Level: LOW		
CAS No. Analyte Concentration Units C Qual M DL Instrument ID Run 7440-47-3 Chromium 5.3 mg/Kg * P 0.07 P1 P162402	% Solids: 96.0			-	
	CAS No. Analyte Conce	ntration Units C Qual	M DL	Instrument ID	Analytical Run
Color Before: BROWN Clarity Before: Texture: MEDIUM	'440-47-3 Chromium	5.3 mg/Kg *	P 0.07	PI	P162402
	Color Before: BROWN	Clarity Before:		Texture: MED	IUM
Color After: YELLOW Clarity After: Artifacts:	Color After: YELLOW	Clarity After:		Artifacts:	
Comments:	Comments:		·		

Client: MAC Consultants,	ent: MAC Consultants, Inc.		G No.: P	3048	Method Type: SW846		
						<u> </u>	
Sample 1D: P3048-14				Client	1D: BC-26	4-8	
Contract: MAC Consult	ants, Inc.	Lab Code:	СНЕМЕС	· · ·	Case No.:		SAS No.: P3048
Matrix: SOIL	Date R	eceived: 6/19/0	02	Level:	LOW		
% Solids: 90.0							
CAS No. Analyte (Concentration	Units C	Qual	М	DL	Instrument ID	Analytical Run
40-47-3 Chromium	52.7	mg/Kg	*	P	0.08	PI	P162402
Color Before: BROWN		Clarity Befo	re:			Texture: MEI	DIUM
Color After: YELLOW	<u>-</u>	Clarity Afte	r:			Artifacts:	
Comments:							
							<u> </u>

IEMED) (LOW			SAS No.: P3048 Analytical
	Level:	LOW		S	
	Level:	LOW		<u> </u>	
					Analytical
	М				Analytical
Qual		DL	Instrumen	nt ID	Run
*	* P	0.07	P1		P162402
	-		Texture:	MEDI	UM
			Artifacts:		
					

lient: MAC Consultants, Inc). 	·	SDG N	No.: P	23048			Method Typ	e: SW846
		_				·		· · · · · · · · · · · · · · · · · · ·	
Sample ID: P3048-16					Client	ID: BC-26	8-12DUP		
Contract: MAC Consultant	s, Inc.	Lab C	ode: Cl	IEMEI) (Case No.:		SAS N	o.: P3048
Matrix: SOIL	Date R	eceived:	6/19/02		Level:	LOW			
% Solids: 94.0		_				· · · · ·	_		
AS No. Analyte Con	centration	Units	C	Qual	М	DL	Instrumen		nalytica l Run
40-47-3 Chromium	1230	mg/Kg		* .	Р	0.07	P1		P162402
Color Before: BROWN		Clarity	Before:	_			Texture:	MEDIUM	
Color After: YELLOW		Clarity	After:				Artifacts:		
Comments:									

				· · · · · · · · · · · · · · · · · · ·
]	Client	ID: BC-27	' 0-4	
b Code: CHEME!	D (Case No.:		SAS No.: P3048
ed: 6/19/02	Level:	LOW		
ts C Qual	М	DL	Instrument	Analytical ID Run
/Kg *	haman' P	0.07	PI	P162402
rity Before:			Texture:	MEDIUM
rity After:			Artifacts:	
	_			
	ed: 6/19/02	b Code: CHEMED Ced: 6/19/02 Level: ts C Qual M //Kg * P	b Code: CHEMED Case No.: ed: 6/19/02 Level: LOW ts C Qual M DL //Kg * P 0.07	ts C Qual M DL Instrument Kg * P 0.07 P1 Texture:

<u> </u>		<u> </u>					<u> </u>
Sample ID: P3048-20				Client	ID: BC-27	4-8	
Contract: MAC Consu	ltants. Inc.	Lab Code:	СНЕМЕД		Case No.:		SAS No.: P3048
Matrix: SOIL	Date R	eceived: 6/19/0)2	Level:	LOW		
% Solids: 97.0							
CAS No. Analyte	Concentration	Units C	Qual	M	DL	Instrument ID	Analytical Run
40-47-3 Chromium	91.1	mg/Kg	*	P	0.07	P1	P162402
Color Before: BROWN		Clarity Befo	re:		-	Texture: MEI	DIUM
Color After: YELLOW		Clarity After	r:			Artifacts:	

Sample ID: P	048-21				Client	ID: BC-27	78-12	
Contract: MA	C Consultants,	Inc.	Lab Co	de: CHEMEI) (Case No.:		SAS No.: P3048
Matrix: SO	IL	Date R	eceived: 6	6/19/02	Level:	LOW		
% Solids: 94.	0							
CAS No. Ana	lyte Conc	entration	Units	C Qual	M	DL	Instrument ID	Analytical Run
40-47-3 Chromi	ım	14.2	mg/Kg	* 4	P	0.07	PI	P162402
Color Before: BI	OWN		Clarity	Before:			Texture: ME	DIUM
Color After: Y	ELLOW		Clarity	After:			Artifacts:	

MAC Consultants	s, Inc.	— su	OG No.: P	3048		Meth	od Type: SW846
Sample ID: P3048-22				Client	ID: BC-28	0-4	
Contract: MAC Consu	Itants, Inc.	Lab Code:	: СНЕМЕГ	· ·	Case No.:		SAS No.: P3048
Matrix: SOIL	Date R	eceived: 6/19	/02	Level:	LOW		
% Solids: 91.0				•			
AS No. Analyte	Concentration	Units C	Qual	М	DL	Instrument ID	Analytica l Run
0-47-3 Chromium	15.2	mg/Kg	*	P	0.08	P1	P162402
Color Before: BROWN		Clarity Bef	ore:			Texture: MEI	DIUM
olor After: YELLOW	· 	Clarity Aft	er:			Artifacts:	
Comments:							

				
	Client	ID: BC-28	4-8	
Code: CHEMED	C	ase No.:		SAS No.: P3048
1: 6/19/02	Level:	LOW		
C Qual	M	DL	Instrument ID	Analytical Run
	P	0.07	P1	P162402
ity Before:			Texture: MEI	DIUM
rity After:			Artifacts:	
<u>.</u>				
	C Qual Grity Before:	Code: CHEMED Code: CHEMED Code: CHEMED Code: CHEMED Code: CHEMED Code: Chemedocode Chemedo	Code: CHEMED Case No.: d: 6/19/02 Level: LOW C Qual M DL G P 0.07 City Before:	C Qual M DL Instrument ID G P 0.07 P1 Tity Before: Texture: MEI

Client: MAC Consultants,	Inc.	_ s	DG No.:_P	3048		M	ethod Type: SW846
	-						
Sample ID: P3048-24				Client	ID: BC-28	8-12	
Contract: MAC Consult	ants. Inc.	Lab Code	e: CHEMEI) C	ase No.:	<u> </u>	SAS No.: P3048
Matrix: SOIL	Date Re	eceived: 6/1	9/02	Level:	LOW		
% Solids: 95.0							
CAS No. Analyte (Concentration	Units C	Qual	M	DL	Instrument I	Analytical D Run
440-47-3 Chromium	74.6	mg/Kg		Р	0.07	Pl	P162402
Color Before: BROWN		Clarity Be	efore:			Texture: N	MEDIUM
Color After: YELLOW		Clarity Af	fter:	<u>_</u>	<u> </u>	Artifacts:	
Comments:	_						
· .							

_	ient: MAC Consultants, Inc.		SDG No.: P3048					Method Type: SW846		
		· · · · · · · · · · · · · · · · · · ·								
Sample	e ID: P3048-2:	5				Client	ID: RINSI	eblank		
Contra	act: MAC Cons	sultants, Inc.	Lab	Code:	CHEMED	c	ase No.:		SAS No.: P3048	
Matrix	: WATER	Date R	eceived:	6/19/0	2	Level:	LOW			
% Soli	ds:		-							
			_		<u>-</u>				Amalastiani	
CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run	
40-47-3	Chromium	1.4	ug/L	U		P	1.4	Pl	P162402	
Color Bei	fore: COLORI	LESS	Clarit	y Befor	re: <u>CLEA</u> I	₹		Texture:		
	er: <u>COLORI</u>	LESS	Clarit	y After	: <u>CLEA</u>	<u>R</u>		Artifacts:		
Color Aft										

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3190

Prepared By: Carole Collins

Laboratory Name: Chemtech Date: August 7, 2002

Laboratory Project #: P3190

Sample (s) Taken: June 17 & 18, 2002

Sample Matrix: Soil

Client Sample ID: BC-1 8'-12' BC-19 8'-12'

BC-6 4'-8' BC-25 4'-8' BC-6 8'-12' BC-16 4'-8' BC-26 8'-12' BC-16 8'-12' BC-28 4'-8'

Analytical Parameters: TCLP Chromium

The DUSR was prepared by reviewing and evaluating the analytical data per the Region II guidelines from USEPA, Revision II/January 92 Inorganics analysis and NYSDEC ASP guidelines. The following checklist has been designed to ensure a thorough ad complete review of the analytical results based on the requirements in these guidelines. The analytical results are considered valid and usable for the purpose of this project, with any exceptions addressed in the Data Deficiencies comments section below.

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3190

<u>Da</u>	ta Verification Parameters	Circ	le Oi	<u>ne</u>
1.	Were all chain of custody records present and completed?	(Ŷes)	No	NA
2.	Were statements made in the analytical data case narrative	(Yes)	No	NA
	supported by the analytical data?	<u> </u>		
3.	Were the analysis performed as per method requested?	Yes	No	NA
4.	Was the data package complete as defined under the	Yes	No	NA
	requirements for the NYSDEC ASP or USEPA CLP			
	deliverables?	-		
5.	Were the required holing times met for all matrices and	Yes	No	NA
	analytical parameter (metals, mercury, cyanide)?			
6.	Were samples correctly preserved?		MO.	NA
7.	Was sample preservation documented?	Yes	No	NA
8.	Was % solids greater than 50% for all soils samples?	Ves	No	NA
9.	Were preparation log/distillation log provided for all	(Yes)	No	NA
10.	the analytes? Did the preservation/distillation log include all the	Yes	No	NA
10.	information about weight/volume and preparation date(s)?	(LES)	NU	NA
11.	Were there raw data included for all the analytes?	Yes	No	NA
12.	Were the instrument(s) calibrated correctly using	Yes	No	NA
12.	proper standards?		110	1124
13.	Were the initial and continuing calibrations performed	Yes	No	NA
	at the required frequency?			
14.	Were the initial and continuing calibration within the	Yes	No	NA
	acceptance criteria?			
15.	Were CRDL standard(s) run at the beginning and end	Yes	No	NA
	of each run?			
16.	Were percent recoveries (%R) for CRDL standard within	(Yes)	No	NA
17	the acceptance criteria?		ът.	D.T.A
17. 18.	Were the calibration blanks less than CRDL? Were the preparation blanks free of contaminants?	Yes	No No	NA NA
19.	Were the field blank free of contaminants?	Yes Yes		NA)
20.	Were ICP Interference Check Samples (ICS) analyzed	Yes)	No	NA
201	at the beginning and end of each ICP run?	(100)	110	1 11 1
21.	Were percent recoveries (%R) for ICS within the	Yes	No	NA
	acceptance criteria?			
22.	Was the matrix spike (MS) analysis performed at	Yes	No	NA
	the required frequency?			
23.	Did the MS meet the percent recovery (%R) criteria?	Yes	No	NA
24.	Was the post digestion spike sample analysis performed	(Yes)	No	NA
25	when required?	AT.	3.7	3.7.4
25.	Was the laboratory duplicate analysis performed at the	Yes	No	NA
	required frequency?			

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3190

26.	Did the duplicate analysis meet the Relative Percent	(Yes)	No	NA
	Difference (RPD) acceptance criteria?			
27.	Did the results for any field duplicate samples meet	Yes	No	(NA)
• •	expected precision requirements?	STATE IN	3.7	3.7.4
28.	Was the Laboratory Control Sample analysis performed	Yes	No	NA
	for each matrix and analysis at the required frequency?			
29.	Did the LCS meet the percent recovery (%R) criteria?	Yes	No	NA
30.	Was ICP Serial Dilution analysis preformed at the	Yes	No	NA
	required frequency?			
31.	Did the ICP serial dilution analysis meet the percent	(Yes)	No	NA
	difference (%D) criteria?	and the same of th		
32.	Was proper quantitation procedure followed for Method	Yes	Nο	(ÑA
52.	of Standard Addition (MSA) analysis?	1 05	110	C. 13.4
33.	Was coefficient of correlation greater than 0.0995 for MSA	Yes	No	(NA)
<i>JJ</i> .	analysis?	1 03	110	UID
34.	•	Yes	NΙα	NA
34.	Were there any analysis performed for dissolved as total	i es	110	TIA
2.5	analysis?	3.7	NT.	77 N
35.	Was the concentration of any dissolved analyte greater	Yes	No	NA)
	than its total concentration by 10%?			
36.	Did the laboratory submit Instrument Detection Limit	(Yes)	No	NA
	(IDL), ICP linear ranges and ICP Interelement Correction			
	Factors?			
37.	Were dilutions made appropriately when required?	Yes	No	NA
38.	No discrepancies were noted when review of raw data	Yes	No	NA
	(instrument printouts) was performed.			
39.	Were results reported in correct units and soil samples	Yes	No	NA
	corrected for % solid?			

If NO for any of the above questions, give further explanation in the comments section:

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3190

COMMENTS:

Samples were not received within the Temperature QC range, but preserved once received in the laboratory.

All QC meet QC requirements. Data usability acceptable.

R= Rejected

E= Estimated

Reviewer Signature: Carolo Collins

Date 3/10/02

- 1 -INORGANIC ANALYSIS DATA PACKAGE

Sample ID: .P3190-01		Client ID: BC-18	3-12 - 	
Contract: MAC Consultants, Inc.	Lab Code: CHEMED	Case No.:		SAS No.: P3190
Matrix: ICLP Date Re	ceived: 7/1/02	Level: LOW		
% Solids:				
Case No. Analyte Community	Wells C Ousl			Analytical Run
Analyte Concentration 40-47-3 Chromium 39.4	Units C Qual	M DL P 14.0	Instrument ID	P170902
Color Betore: COLORLESS	Clarity Before: CLEAF	\	Texture:	
Color After: COLORLESS	Clarity After: CLEA	R	Artifacts:	

-1-INORGANIC ANALYSIS DATA PACKAGE

1 -	23190-02				Client	ID: BC-64	8	
Contract: M	AC Consultants, in	nc.	Lab Co	de: CHEMED		ase No.:		SAS No.: P3190
Vlatrix: 1	LP	Date Re	eceived: /	/1/02	Levei:	LOW		
% Solids:							 _	
S No. An	alyte Conce	ntration	Units	C Qual	M	DL	Instrument ID	Analytical Run
-47-3 Chrom	ium	386	ug/L	-	Р	14.0	Pl	P170902
		_		<u> </u>				
ior Before: C	OLORLESS		Clarity	Before: <u>CLEA</u>	R		Texture:	

-1 -INORGANIC ANALYSIS DATA PACKAGE

Sample ID: P3190-03 Contract: MAC Consultants, Inc. Lab Code: CHER Matrix: TCLP Date Received: 7/1/02 7/6 Solids: CAS No. Analyte Concentration Units C Question 440-47-3 Chromium 366 ug/L		D: BC-68-12 ise No.: LOW	SAS No.: P3190
Matrix: TCLP Date Received: 7/1/02 % Solids: CAS No. Analyte Concentration Units C Qu			
44()-47-3 Chromium 366 ug/L	al M	DL Instrume	Analytical ent ID Run
	Р	14.0 P1	P170902
Color Before: COLORLESS Clarity Before: COLORLESS Clarity After: COLORL	LEAR LEAR	Texture:	:
Comments:			

-1-INORGANIC ANALYSIS DATA PACKAGE

Client: M	AAC Consultar	nts, Inc.		SDG	No.: P3	190		Meth	nod Type: SW846
Sample	ID : P3190-04	1				Client	ID: BC-16	4-8	
Contra	ct: MAC Cons	sultants, Inc.	Lab Co	ode: (HEMED	(lase No.:		SAS No.: P3190
Matrix % Solid	ds:		Received:			Level:			Analytical
CAS No.	Analyte	Concentration	Units	C	Qual	M 	DL	Instrument ID	Run
40-47-3	Chromium	64.5	ug/L	В		P	14.0	PI	P170902
Color Bet	ore: COLORI	LESS	Clarity	Before	: CLEAI	₹		Texture:	
Jolor Afte	er: <u>COLORI</u>	LESS	Clarity	After:	<u>C</u> LEA	R		Artifacts:	

- 1 -INORGANIC ANALYSIS DATA PACKAGE

Sample ID: P3190-05				Clien	t ID: BC-16	8-12	
Contract: MAC Cons	sultants, inc.	Lab Co	de: CHEN	MED	Case No.:		SAS No.: P3190
Matrix: TCLP	Date R	eceived: 7	/1/02	Level	: LUW		
% Solids:							
CAS No. Analyte	Concentration	Units	C Qu	al M	ÐL	Instrument ID	Analytical Run
40-47-3 Chromium	49.6	ug/L	В	Р	14.0	Pl	P170902
Color Betore: COLORI	ESS	Clarity	Before: Cl	LEAR		Texture:	
	LESS	Clasien	After: C	LEAR		Artifacts:	

-1 -INORGANIC ANALYSIS DATA PACKAGE

Sample ID: P3190-06		ļ	Client l	D : BC-19	8-12	
Contract: MAC Consultants, inc	Lab Coo	de: CHEMED		ase No.:		SAS No.: P3190
Matrix: TCLP	Date Received: 7/	1/02	Level:	LOW		
% Solids:						
AS No. Analyte Concen-	tration Units	C Qual	<u></u>	DL	Instrument ID	Analytical Run
0-47-3 Chromium	20.9 ug/L	В	Р	14.0	P1	P170902
olor Before: COLORLESS	Clarity I	Before: CLEAR			Texture:	

- 1 - INORGANIC ANALYSIS DATA PACKAGE

Sample ID: P3	90-07				Client	ID: BC-25	4-8	
Contract: MAC	Consultants, Inc.	Lab	Code:	CHEMED	(Jase No.:		SAS No.: P3190
Matrix: TCL % Solids:	? 1	Date Received:	7/1/02		Level:	LOW		
AS No. Anal	yte Concentr	ration Units	С	Qual	М	DL	Instrument ID	Analytical Run
40-47-3 Chromiu	n	26.1 ug/L	В		Р	14.0	PI	P170902
Color Before: CO	LORLESS		ty Befo	re: <u>CLEAF</u> r: <u>CLEA</u>			Texture:	

-1-INORGANIC ANALYSIS DATA PACKAGE

Sample ID: P3190-08	,			Client	D: BC-2	58-12	
Contract: MAC Cons	sultants, Inc.	Lab Code	: CHEMED		ase No.:		SAS No.: P3190
Matrix: 1 CEP	Date R	eceived: 7/1/	02	Level:	LOW		
% Solids:							Analytical
AS No. Analyte	Concentration	Units C	Qual	M	DL	Instrument ID	Analytical Run
	53.2	ug/L B	_	Р	14.0	PI	P170902
0-47-3 Chromium						•	
0-47-3 Chromium olor Betore: COLORI			fore: CLEAI	₹ _		Texture:	·

- 1 -INORGANIC ANALYSIS DATA PACKAGE

Sample ID: P3190-09					Client	ID: BC-26	8-12	
Contract: MAC Consulta	ants, Inc.	Lab C	ode: -	CHEMED	(ase No.:		SAS No.: P3190
Matrix: TCLP	Date Re	eceived:	7/1/02		Level:	LOW		
% Solids:								
	_							
AS No. Analyte C	Concentration	Units	<u>С</u>	Qual	M	DL	Instrument ID	Analytical Run
	Concentration 38.4	Units ug/L	СВ	Qual	M	DL 14.0	Instrument ID	•
	38.4	ug/L	В	Qual	Р			Run

-1 -INORGANIC ANALYSIS DATA PACKAGE

Client: MAC Consultants	, Inc		SD	G No.: P3	190		Meth	nod Type: SW846
Sample ID: P3190-10					Client	I D: BC-28	4-8	
Contract: MAC Consul	tants, Inc.	Lab C	ode:	СНЕМЕО	(ase No.:		SAS No.: P3190
Matrix: ICLY	Date R	ece ived:	7/1/02		Level:	LOW		
% Solids:		_	_					
CAS No. Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-47-3 Chromium	39.4	ug/L	В		Р	14.0	PI	P170902
Color Before: COLORLE	SS	Clarity	Befo	ore: <u>CLEA</u> F	₹		Texture:	
Color After: COLORLE	<u>SS</u>	Clarity	Afte	er: <u>CLEA</u>	R		Artifacts:	
Comments:						<u> </u>		
						_		

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3097

Prepared by: Carole Collins

Laboratory Name: Chemtech Date: August 8, 2002

Laboratory Project: P3097

Analytical parameters: Volatile Organics by method 8260- SW846

Sample (s) Taken: June 19, 2002

Sample Matrix: Soil

Client Sample ID: BS-6 0'-4' BS-10 0'-4'

BS-6 4'-8' BS-10 4'-8' BS-10 8'-12'

BS-7 0'-4' BS-11 0'-4'

BS-7 4'-8' BS-11 4'-8'

BS-7 8'-12' BS-11 8'-12'

BS-8 0'-4' BS-12 0'-4'

BS-8 4'-8' BS-12 4'-8'

BS-8 8'-12' BS-12 8'-12

BS-9 0'-4' BS-12 8'-12' DUP BS-9 4'-8' BS-12 8'-12' MS

BS-9 8'-12' BS-12 8'-12' MSD

The DUSR was prepared by reviewing and evaluating the analytical data per the method 8260, SW846 and NYSDEC ASP guidelines. The following checklist has been designed to ensure a thorough and complete review of the analytical results based on the requirements in these guidelines. The analytical results are considered valid and usable for the purpose of this project, with any exceptions addressed in the Data Deficiencies comments section below.

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3097

Data Verification Parameters

		<u>Circ</u>	le O	<u>ne</u>
1. 2.	Were all chain of custody records present and completed? Were statements made in the analytical data case narrative supported by the analytical data?	Yes Yes	No No	NA NA
3.	Were the analysis performed as per method requested?	Yes	No	NA
4.	Was the data package complete as defined under the requirements for the NYSDEC ASP or USEPA CLP deliverables?	Yes	No	NA
5.	Were the required holding times met for all matrices and analytical parameter?	Yes	No	NA
6.	Were samples correctly preserved?	Yes	No	NA
7.	Was sample preservation documented?	Yes	No	NA
8.	Was % moisture less than 50 % for all soil samples?	Yes	No	NA
9.	Were the initial and continuing calibrations performed at the required frequency?	Yes	No	NA
10.	Were the initial calibration within the acceptance criteria?	Yes	No	NA
11.	Were the midpoint check std. within the acceptance criteria	?(Yes	No	NA
12.	Were the method blanks free of contaminants?	Yes	No	NA
13.	Were the field blank free of contaminants?	Yes	No	NA
14.	Were system monitoring compounds within the acceptance limits?	Yes	No	NA
15.	Were matrix spike/matrix spike duplicate (MS/MSD) Analyzed at the correct frequency?	Yes	No	NA
16.	Did the MS/MSD met the percent recovery (%R) and Relative percent difference (RPD) acceptance criteria?	Yes	No	NA
17.	Was the matrix spike blank sample (MSB) analysis performed at the required frequency?	Yes	No	NA
18.	Did the MSB meet the percent recovery (%R) criteria?	(Yes)	No	NA
19.	Did the result for any field duplicate samples meet expected precision requirements?	Yes	No	NA
20.	Were dilutions made appropriately?	(Yes)	No	NA
21.	No discrepancies were noted when the review of raw data (instrument printouts and chromatograms was performed.	Yes	No	NA
22.	Were results reported in correct units and soil samples corrected for % moisture?	Yes	No	NA

If no answered for any of the above questions, give further explanation in the comments section:

Data Usability Summary Report (DUSR)

Project of Site Name: ORB SDG #: P3097

COMMENTS:

The following samples did not meet surrogates QC requirements. The samples were rerun to confirm that the surrogates were not within QC requirements. Samples are flagged with "J" qualifiers.

BS-8 0'-4' BS-9 8'-12' BS-9 4'-8' BS-11 8'-12'

All other data met requirements. All data is usable.

R= Rejected

E= Estimated

Reviewer Signature: Carlo Callino

Date 2/10/02

Volatiles 3 SW-846

SDG No.:

P3097

~lient:

MAC Consultants, Inc.

Sample 1D:

P3097-01

6/19/02

Date Collected: Date Analyzed:

6/26/02

File ID:

VA062620.D

Dilution:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol:

8260 5.0

Units:

 \mathbf{g}

Client ID:

BS-60-4

Date Received:

6/21/02

Matrix:

SOIL

Analytical Run ID:

Instrument ID:

Associated Blank:

Soil Extract Vol:

% Moisture:

VA061202

MSVOAA

VBA0626S3

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 1.7	U	5.1	1.7	ug/Kg	
Bromomethane	74-83-9	< 1.0	Ū	5.1	1.0	ug/Kg	
Vinyl chloride	75-01-4	< 1.0	U	5.1	1.0	ug/Kg	
Chloroethane	75-00-3	< 1.3	U	5.1	1.3	ug/Kg	
Methylene Chloride	75-09-2	< 1.3	U	5.1	1.3	ug/Kg	
Acetone	67-64-I	< 3.6	U	5.1	3.6	ug/Kg	
Carbon disulfide	75-15-0	< 1.3	U	5.1	1.3	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.1	U	5.1	1.1	ug/Kg	
! chloroethane	75-34-3	< 0.92	U	5.1	0.92	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.1	U	5.1	1.1	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.92	U	5.1	0.92	ug/Kg	
Chloroform	67-66-3	< 1.0	U	5.1	1.0	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.1	U	5.1	1.1	ug/Kg	
2-Butanone	78-93 - 3	< 5.5	U	5.1	5.5	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.0	U	5.1	1.0	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.1	U	5.1	2.1	ug/Kg	
Bromodichloromethane	75-27-4	< 0.82	U	5.1	0.82	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.82	U	5.1	0.82	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.92	U	5.1	0.92	ug/Kg	
Trichloroethene	79-01-6	< 1.0	U	5.1	1.0	ug/Kg	:
Dibromochloromethane	124-48-1	< 0.92	U	5.1	0.92	ug/Kg	:
1,1,2-Trichloroethane	79-00-5	< 1.1	U	5.1	1.1	ug/Kg	
Benzene	7-1-43-2	< 1.0	U	5.1	1.0	ug/Kg	,
t-1,3-Dichloropropene	10061-02-6	< 1.0	U	5.1	1.0	ug/Kg	•
Bromoform	75-25-2	< 1.1	U	5.1	1.1	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.1	U	5.1	4.1	ug/Kg	
2-Hexanone	591-78-6	< 6.1	U	5.1	6.1	ug/Kg	
Tetrachloroethene	127-18-4	< 1.2	U	5.1	1.2	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	U	5.1	1.0	ug/Kg	
Tr :	108-88-3	< 1.1	U	5.1	1.1	ug/Kg	
Charobenzene	108-90-7	< 1.1	U	5.1	1.1	ug/Kg	
Ethyl Benzene	100-41-4	< 0.1	U	5.1	1.0	ug/Kg	at .
Styrene	100-42-5	< 1.4	U	5.1	1.4	ug/Kg	101
m/p-Xylenes	136777-61-2	< 2.9	U	5.1	2.9	ug/Kg	Ster
							シフ

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample (D:

P3097-01

Client ID:

BS-60-4

Date Collected: Date Analyzed: 6/19/02

g

6/26/02

File ID: Dilution: VA062620.D

Analytical Method:

Soil Aliquot Vol:

Sample Wt/Wol:

8260

5.0 Units:

Date Received:

6/21/02

Matrix:

SOIL

Analytical Run ID:

Instrument ID:

Associated Blank: Soil Extract Vol:

VA061202 MSVOAA

VBA0626S3

% Moisture:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Xylene	93-41-0	< 1.1	U	2.1	1.1	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	45.11	90 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	51.43	103 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	39.33	79 %	74 - 121		SPK: 50
Dibromofluoromethane		50.82	102 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3089374	6.02			
1,4-Difluorobenzene	540-36-3	3250280	7.82			
obenzene-d5	3114-55-4	2648886	14.04			
1, Dichlorobenzene-d4	3855-82-1	1593953	19.54			

Volatiles : SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-02

Client ID:

BS-64-8

Date Collected: Date Analyzed: 6/19/02

6/26/02

VA062621.D

File ID: Dilution:

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

8260 Units: 5.0 g Date Received:

Matrix:

Analytical Run ID: Instrument ID:

Associated Blank: Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202 MSVOAA

VBA0626S3

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS		 					
Chloromethane	74-87-3	< 1.9	U	5.6	1.9	ug/Kg	
Bromomethane	74-83-9	< 1.1	U	5.6	1.1	ug/Kg	
Vinyl chloride	75-01-4	< 1.1	U	5.6	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.5	U	5.6	1.5	ug/Kg	
Methylene Chloride	75-09-2	< 1.5	U	5.6	1.5	ug/Kg	
Acetone	67-64-1	< 3.9	U	5.6	3.9	ug/Kg	
Carbon disulfide	75-15-0	< 1.5	U	5.6	1.5	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.2	U	5.6	1.2	ug/Kg	
ichloroethane	75-34-3	< 1.0	U	5.6	1.0	ug/Kg	•
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.6	1.2	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 1.0	U	5.6	1.0	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.6	1.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.2	U	5.6	1.2	ug/Kg	
2-Butanone	78-93-3	< 6.1	U	5.6	6.1	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.6	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.4	U	5.6	2.4	ug/Kg	
Bromodichloromethane	75-27-4	< 0.90	U	5.6	0.90	ug/Kg	
1,2-Dichloropropane	78-87 - 5	< 0.90	U	5.6	0.90	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.1	U	5.6	1.0	ug/Kg	
Trichloroethene	79-01-6	< 1.1	U	5.6	1.1	ug/Kg	
Dibromochloromethane	124-48-1	< 1.0	U	5.6	1.0	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.2	Ü	5.6	1.2	ug/Kg	
Benzene	71-43-2	< 1.1	U	5.6	1.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.6	1.1	ug/Kg	
Bromoform	75-25-2	< 1.2	U	5.6	1.2	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.5	U	5.6	4.5	ug/Kg	
2-Hexanone	591-78-6	< 6.7	U	5.6	6.7	ug/Kg	
Tetrachloroethene	127-18-4	< 1.3	U	5.6	1.3	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.6	1.1	ug/Kg	
Tr e	108-88-3	< 1.2	U	5.6	1.2	ug/Kg	
Charobenzene	108-90-7	< 1.2	U	5.6	1.2	ug/Kg	
Ethyl Benzene	100-41-4	< 1.1	U	5.6	1.1	ug/Kg	
Styrene	100-42-5	< 1.6	U	5.6	1.6	ug/Kg	14°0/
m/p-Xylenes	136777-61-2	< 3.1	U	5.6	3.1	ug/Kg	0 4

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample 1D:

6/19/02

Date Collected: Date Analyzed:

6/26/02 VA062621.D

5.0

Units:

 \mathbf{g}

File ID: Dilution:

 $\overline{1}$ 8260

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

P3097-02

Client ID:

BS-64-8

Date Received:

Matrix:

Analytical Run ID:

Instrument 1D:

Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202

MSVOAA

VBA0626S3

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
ō-Aylene	93-47-0	< 1.2	U	J.0	1.2	αβ\Kβ
SURROGATES						N
1,2-Dichloroethane-d4	79-00-5	41.62	83 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	51.63	103 %	31 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	38.57	77 %	74 - 121		SPK: 50
Dibromofluoromethane	•	51.46	103 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3150420	6.07			
1,4-Difluorobenzene	540-36-3	3182911	7.85			
obenzene-d5	3114-55-4	2552568	14.06			
I,+Dichlorobenzene-d4	3855-82-1	1556237	19.57			

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-03

6/19/02

Date Collected: Date Analyzed:

6/28/02

File ID:

VA062804.D

Dilution:

8260

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol:

5.0

Units:

g

Client ID:

BS-68-12

Date Received:

Matrix:

6/21/02 SOIL

Analytical Run ID:

VA061202

Instrument ID: Associated Blank: MSVOAA VBA0628S1

Soil Extract Vol:

% Moisture:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 1.9	U	5.5	1.9	ug/Kg	
Bromomethane	74-83-9	< 1.1	U	5.5	1.1	ug/Kg	
Vinyl chloride	75-01-4	< 1.1	U	5.5	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.5	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.5	1.4	ug/Kg	
Acetone	67-64-1	< 3.8	U	5.5	3.8	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.5	1.4	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.2	U	5.5	1.2	ug/Kg	
ichloroethane	75-34-3	< 0.99	U	5.5	0.99	ug/K.g	
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.5	1.2	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.99	U	5.5	0.99	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.5	1.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.2	U	5.5	1.2	ug/Kg	
2-Butanone	78-93-3	< 5.9	U	5.5	5.9	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.5	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.3	U	3. 5	2.3	ug/Kg	
Bromodichloromethane	75-27-4	< 0.88	U	5.5	0.88	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.88	U	5.5	0.88	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.99	U	5.5	0.99	ug/Kg	
Trichloroethene	79-01-6	< 1.1	U	5.5	1.1	ug/Kg	:
Dibromochloromethane	124-48-1	< 0.99	U	5.5	0.99	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.2	U	5.5	1.2	ug/Kg	
Benzene	71-43-2	< 1.1	U	5.5	1.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.5	1.1	ug/Kg	
Bromoform	75-25-2	< 1.2	U	5.5	1.2	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.4	U	5.5	4.4	ug/Kg	
2-Hexanone	591-78-6	< 6.6	U	5.5	6.6	ug/Kg	
Tetrachloroethene	127-18-4	< 1.3	U	5.5	1.3	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.5	1.1	ug/Kg	
T e	108-88-3	< 1.2	U	5.5	1.2	ug/Kg	
Charobenzene	108-90-7	< 1.2	U	5.5	1.2	ug/Kg	
Ethyl Benzene	1,00-41-4	< 1.1	U	5.5	1.1	ug/Kg	6,
Styrene	100-42-5	< 1.5	U	5.5	1.5	ug/Kg	N. J.K.
n/p-Xylenes	136777-61-2	. < .3.1	U	5.5	3.1	ug/Kg	O 2



Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-03

Date Collected: Date Analyzed:

6/28/02

File ID: Dilution:

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

6/19/02

VA062804.D

8260 5.0

Units: g Client 1D:

BS-68-12

6/21/02

MSVOAA

VBA0628S1

Date Received:

Matrix:

SOIL VA061202

Analytical Run ID:

Instrument ID:

Associated Blank:

Soil Extract Vol:

% Moisture:

		_				
Parameter	CAS Number	Concentration	С	RDL	MDL	Units
ō-Aylene	95-71-0	< 1.2	U	5.3	1.2	ng Ng
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	44.99	90 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	54.71	109 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	41.34	83 %	74 - 121		SPK: 50
Dibromofluoromethane		54.35	109 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2955186	6.05			
1,4-Difluorobenzene	540-36 - 3	3306121	7.82			
obenzene-d5	3114-55-4	2642875	14.06			
I,-Dichlorobenzene-d4	3855-82-1	1543324	19.60			
TENTITIVE IDENTIFIED	COMPOUNDS					
Coulmn Bleed	74779616	6.1	J	20.62		ug/kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-04

Client ID:

BS-70-4

Date Collected: Date Analyzed: 6/19/02

File ID:

6/28/02 VA062805.D

Dilution:

8260

5.0

Units:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol: Date Received:

Matrix:

Analytical Run ID: Instrument ID:

Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202

MSVOAA

VBA0628S1

Parameter	CAS Number	Concentration	C	RDL	MDL	Units	
TARGETS			<u>-</u> -				
Chloromethane	74-87-3	< 2.2	U	6.6	2.2	ug/Kg	
Bromomethane	74-83-9	< 1.3	Ŭ	6.6	1.3	ug/Kg	
Vinyl chloride	75-01-4	< 1.3	U	6.6	1.3	ug/Kg	
Chloroethane	75-00-3	< 1.7	U	6.6	1.7	ug/Kg	
Methylene Chloride	75-09-2	< 1.7	U	6.6	1.7	ug/Kg	
Acetone	67-64-1	< 4.6	U	6.6	4.6	ug/Kg	
Carbon disulfide	75-15-0	< 1.7	U	6.6	1.7	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.4	U	6.6	1.4	ug/Kg	
ichloroethane	75-34-3	< 1.2	U	6.6	1.2	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.4	Ū	6.6	1.4	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 1.2	U	6.6	1.2	ug/Kg	
Chloroform	67-66-3	< 1.3	U	6.6	1.3	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.4	U	6.6	1.4	ug/Kg	
2-Butanone	78-93-3	< 7.1	U	6.6	7.1	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.3	U	6.6	1.3	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.8	U	6.6	2.8	ug/Kg	
Bromodichloromethane	75-27-4	< 1.1	U	6.6	1.1	ug/Kg	
1,2-Dichloropropane	78-87-5	< 1.1	U	6.6	1.1	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 1.2	U	6.6	1.2	ug/Kg	
Trichloroethene	79-01-6	< 1.3	U	6.6	1.3	ug/Kg	
Dibromochloromethane	124-48-1	< 1.2	U	6.6	1.2	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.4	Ü	6.6	1.4	ug/Kg	
Benzene	7.1-43-2	< 1.3	U	6.6	1.3	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.3	U	6.6	1.3	ug/Kg	
Bromoform	75-25-2	< 1.4	U	6.6	1.4	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 5.3	U	6.6	5.3	ug/Kg	
2-Hexanone	591-78-6	< 7.9	U	6.6	7.9	ug/Kg	
Tetrachloroethene	127-18-4	< 1.6	U	6.6	1.6	ug/Kg	
l, l, 2, 2-Tetrachloroethane	79-34-5	< 1.3	U	6.6	1.3	ug/Kg	
Γ <u>ie</u>	108-88-3	< 1.4	U	6.6	1.4	ug/Kg	
Chrorobenzene	108-90-7	< 1.4	U	6.6	1.4	ug/Kg	
Ethyl Benzene	100-41-4	< 1.3	U	6.6	1.3	ug/Kg	
Styrene	100-42-5	< 1.8	U	6.6	1.8	ug/Kg	62
n/p-Xylenes	136777-61-2	< .3.7	U	6.6	3.7	ug/Kg	ص′ <i>ن</i>

Volatiles : 5W-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-04

Client 1D:

BS-70-4

Date Collected: Date Analyzed: 6/19/02

6/28/02

File ID:

VA062805.D

Dilution:

1

Analytical Method: Sample Wt/Wol: Soil Aliquot Vol:

8260

5.0 Units:

g

Date Received:

6/21/02

Matrix:

Analytical Run ID:

SOIL VA061202

Instrument ID:

MSVOAA

Associated Blank:

Soil Extract Vol:

VBA0628S1

% Moisture:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
ō-Xyiene	y3-+7-0	1.4		0.0	1.4	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	45.19	90 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	55.1	110 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	39.3	79 %	74 - 121		SPK: 50
Dibromofluoromethane		53.35	107 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3157976	6.02			
1,4-Difluorobenzene	540-36-3	3560072	7.82			
obenzene-d5	3114-55-4	2725586	14.04			
1,4-Dichlorobenzene-d4	3855-82-1	1574581	19.57			
TENTITIVE IDENTIFIED C	COMPOUNDS					
Column Bleed	7385106	10	J	20.58		ug/kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:	Sam	ple	ID:	
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P3097-05

Client ID:

BS-74-8

Date Collected: Date Analyzed: $\frac{6/19/02}{6/27/02}$

Matrix:

6/21/02

SOIL

File ID:
Dilution:

VA062624.D

Units:

g

Analytical Run ID: Instrument ID:

VA061202 MSVOAA

Analytical Method:

 $\frac{8260}{5.0}$

Associated Blank: Soil Extract Vol:

Date Received:

VBA0626S3

Sample Wt/Wol: Soil Aliquot Vol:

% Moisture:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 1.7	U	5.1	1.7	ug/Kg	
Bromomethane	74-83-9	< 1.0	U	5.1	0.1	ug/Kg	
Vinyl chloride	75-01-4	< 0.1	U	5.1	1.0	ug/Kg	
Chloroethane	75-00-3	< 1.3	U	5.1	1.3	ug/Kg	
Methylene Chloride	75-09-2	< 1.3	U	5.1	1.3	ug/Kg	
Acetone	67-64-1	< 3.5	U	5.1	3.5	ug/Kg	
Carbon disulfide	75-15-0	< 1.3	U	5.1	1.3	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.1	U	5.1	1.1	ug/Kg	
ichloroethane	75-34-3	< 0.91	U	5.1	0.91	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.1	U	5.1	1.1	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.91	U	5.1	0.91	ug/Kg	
Chloroform	67-66-3	< 1.0	U	5.1	1.0	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.1	U	5.1	1.1	ug/Kg	
2-Butanone	78-93-3	< 5.5	U	5.1	5.5	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.0	U	5.1	1.0	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.1	Ū	5.1	2.1	ug/Kg	
Bromodichloromethane	75-27-4	< 0.81	U	5.1	0.81	ug/Kg	
1.2-Dichloropropane	78-8 7- 5	< 0.81	U	5.1	0.81	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.91	U	5.l	0.91	ug/Kg	
Trichloroethene	79-01-6	< 1.0	U	5.1	1.0	ug/Kg	
Dibromochloromethane	124-48-1	< 0.91	U	5.1	0.91	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.1	Ú	5.1	1.1	ug/Kg	
Benzene	7-1-43-2	< 1.0	U	5.1	1.0	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.0	U	5.1	1.0	ug/Kg	
Bromoform	75-25-2	< 1.1	U	5.1	1.1	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.0	U	5.1	4.0	ug/Kg	
2-Hexanone	591-78-6	< 6.1	U	5.1	6.1	ug/Kg	
Tetrachloroethene	127-18-4	< 1.2	U	5.1	1.2	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	U	5.1	1.0	ug/Kg	
T e	108-88-3	< 1.1	U	5.1	1.1	ug/Kg	
Charobenzene	108-90-7	< 1.1	U	5.1	1.1	ug/Kg	
Ethyl Benzene	100-41-4	< 1.0	U ,	5.1	1.0	ug/Kg	
Styrene	100-42-5	< 1.4	U .	5.1	1.4	ug/Kg	
m/p-Xylenes	136777-61-2	< .2.8	U	5.1	2.8	ug/Kg	20

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants. Inc.

Sample ID:

P3097-05

Date Collected:
Date Analyzed:

 $\frac{6/19/02}{6/27/02}$

File ID:

VA062624.D

5.0

Units:

Dilution:

Analytical Method: 8260

Sample Wt/Wol:

Soil Aliquot Vol:

Client ID:

BS-74-8

Date Received:

Matrix:

____<u>§</u>

Analytical Run ID: Instrument ID:

Associated Blank: Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202 MSVOAA

VBA0626S3

.

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
o-Aylene	95-47-6	< 1.1	- U	5.1	1.1	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	43.25	87 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	51.2	102 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	40.15	80 %	74 - 121		SPK: 50
Dibromofluoromethane	•	47.72	95 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2823505	6.07			
l 4-Difluorobenzene	540-36-3	2935344	7.85			
obenzene-d5	3114-55-4	2315317	14.06			
1,4-Dichlorobenzene-d4	3855-82-1	1414400	19.57			
TENTITIVE IDENTIFIED CO	MPOUNDS					
Octane, 2,3,7-trimethyl-	62016346	6.6	J	24.59		ug/kg
Tridecane	629505	7.2	J	25.38		ug/kg
Dodecane, 2,6,10-trimethyl-	3891983	6.0	J	27.08		ug/kg
Eicosane	112958	11	J	27.73		ug/kg
Heptadecane, 2,6,10,14-tetrameth	y 18344371	6.0	J	28.96		ug/kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

6/19/02

Date Collected: Date Analyzed: File ID:

6/27/02 VA062626.D

5.0

Units:

 \mathbf{g}

Dilution:

1 8260

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

P3097-06

Client ID:

BS-78-12

Date Received:

Matrix:

6/21/02SOIL

Analytical Run ID: Instrument ID:

VA061202 MSVOAA

Associated Blank:

VBA0626S3

Soil Extract Vol:

% Moisture:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 1.8	U	5.3	1.8	ug/Kg	
Bromomethane	74-83-9	< 1.1	U	5.3	1.1	ug/K.g	
Vinyl chloride	75-01-4	< 1.1	U	5.3	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.3	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.3	1.4	ug/Kg	
Acetone	67-64-1	< 3.7	U	5.3	3.7	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.3	1.4	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.2	U	5.3	1.2	ug/Kg	
`ichloroethane	75-34-3	< 0.96	U	5.3	0.96	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.3	1.2	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.96	U	5.3	0.96	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.3	1.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.2	U	5.3	1.2	ug/Kg	
2-Butanone	78-93-3	< 5.7	U	5.3	5.7	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.3	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.2	Ū	5.3	2.2	ug/Kg	
Bromodichloromethane	75-27-4	< 0.85	U	5.3	0.85	ug/Kg	
1,2-Dichloropropane	78-87 - 5	< 0.85	U	5.3	0.85	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.96	U	5.3	0.96	ug/Kg	
Trichloroethene	79-01-6	< 1.1	U	5.3	1.1	ug/Kg	
Dibromochloromethane	124-48-1	< 0.96	U	5.3	0.96	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.2	Ú	5.3	1.2	ug/Kg	
Benzene	7.1-43-2	< 1.1	U	5.3	1.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.3	1.1	ug/Kg	
Bromoform	75-25-2	< 1.2	U	5.3	1.2	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.3	U	5.3	4.3	ug/Kg	
2-Hexanone	591-78-6	< 6.4	U	5.3	6.4	ug/Kg	
Tetrachloroethene	127-18-4	< 1.3	U	5.3	1.3	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U .	5.3	1.1	ug/Kg	
T rejain	108-88-3	< 1.2	U	5.3	, 1.2	ug/Kg	
Carobenzene	108-90-7	< 1.2	U	5.3	1.2	ug/Kg	
Ethyl Benzene	100-41-4	< 1.1	U	5.3 .	1.1	ug/Kg	
Styrene	100-42-5	< 1.5	U	5.3	1.5	ug/Kg	20,
m/p-Xylenes	136777-61-2	. < .3.0	U	5.3	3.0	ug/Kg	0,50

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-06

6/19/02

Date Collected: Date Analyzed:

File 1D:

VA062626.D

5.0

Dilution:

Analytical Method: Sample Wt/Wol:

Soil Aliquot Vol:

6/27/02

8260

Units:

Client ID:

BS-78-12

Date Received:

Matrix:

SOIL

Analytical Run ID: Instrument (D:

Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

VA061202

MSVOAA VBA0626S3

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Ayiene	93-47-0		U	٥.٥	1	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79 - 00-5	44.35	89 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	49.21	98 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	36.85	74 %	74 - 121		SPK: 50
Dibromofluoromethane		49.94	100 %a	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3125595	6.10			
1,4-Difluorobenzene	540-36-3	3318740	7.87			
obenzene-d5	3114-55-4	2702719	14.12			
1,4-Dichlorobenzene-d4	3855-82-1	1540669	19.63			

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-07

Client ID:

BS-80-4

Date Collected: Date Analyzed: 6/19/02

6/27/02

File ID:

VA062625.D

Dilution: Analytical Method: Sample Wt/Wol:

Soil Aliquot Vol:

5.0

8260

Units:

Date Received:

Matrix:

Analytical Run ID: Instrument ID:

Associated Blank: Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202

MSVOAA

VBA062683

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
TARGETS			2.00000 20.000			
Chloromethane	74-87-3	< 1.8	U 🚚	5.4	8.1	ug/Kg
Bromomethane	74-83-9	< 1.1	U	5.4	1.1	ug/Kg
Vinyl chloride	75-01-4	< 1.1	U	5.4	1.1	ug/Kg
Chloroethane	75-00-3	< 1.4	U	5.4	1.4	ug/Kg
Methylene Chloride	75-09-2	< 1.4	U į	5.4	1.4	ug/Kg
Acetone	67-64-1	< 3.8	U į	5.4	3.8	ug/Kg
Carbon disulfide	75-15-0	< 1.4	U	5.4	1.4	ug/Kg
1,1-Dichloroethene	75-35-4	< 1.2	U 🕴	5.4	1.2	ug/Kg
ichloroethane	75-34-3	< 0.98	U	5.4	0.98	ug/Kg
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.4	1.2	ug/Kg
cis-1,2-Dichloroethene	156-59-2	< 0.98	U	5.4	0.98	ug/Kg
Chloroform	67-66-3	< 1.1	U 🖔	5.4	1.1	ug/Kg
1,2-Dichloroethane	107-06-2	< 1.2	U	5.4	1.2	ug/Kg
2-Butanone	78-93-3	< 5.9	U :	5.4	5.9	ug/Kg
1,1,1-Trichloroethane	71-55-6	< 1.1	U 🌾	5.4	1.1	ug/Kg
Carbon Tetrachloride	56-23-5	< 2.3	U	5.4	2.3	ug/Kg
Bromodichloromethane	75-27-4	< 0.87	U	5.4	0.87	ug/Kg
1,2-Dichloropropane	78-87-5	< 0.87	U :	5.4	0.87	ug/Kg
cis-1,3-Dichloropropene	10061-01-5	< 0.98	U	5.4	0.98	ug/Kg
Trichloroethene	79-01-6	2.0	J 🚶	5.4	1.1	ug/Kg
Dibromochloromethane	124-48-1	< 0.98	U	5.4	0.98	ug/Kg
1,1,2-Trichloroethane	79-00-5	< 1.2	Ú,	5.4	1.2	ug/Kg
Benzene	71-43-2	< 1.1	U ţ	5.4	1.1	ug/Kg
t-1,3-Dichloropropene	10061-02-6	< 1.1	U 🦙	5.4	1.1	ug/Kg
Bromoform	75-25-2	< 1.2	U q	5.4	1.2	ug/Kg
4-Methyl-2-Pentanone	108-10-1	< 4.3	U	5.4	4.3	ug/Kg
2-Hexanone	591 - 78-6	< 6.5	U	5.4	6.5	ug/Kg
Tetrachloroethene	127-18-4	< 1.3	U 🖟	5.4	1.3	ug/Kg
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U ,	5.4	1.1	ug/Kg
Γ 'e	108-88-3	< 1.2	ប 🖑	5.4	1.2	ug/Kg
Charobenzene	108-90-7	< 1.2	U 🦾	5.4	1.2	ug/Kg
Ethyl Benzene	100-41-4	< 1.1	U !	5.4	1.1	ug/Kg
Styrene	100-42-5	< 1.5	U	5.4	1.5	ug/Kg
n/p-Xylenes	136777-61-2	. < .3.0	U 🧳	5.4	3.0	ug/Kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-07

Client ID:

BS-80-4

Date Collected:

6/19/02

Date Analyzed:

6/27/02

File ID:

VA062625.D

Dilution:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol: 8260

5.0 Units:

Date Received:

Matrix:

Analytical Run ID: Instrument ID:

Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202

MSVOAA

VBA0626S3

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
0-Xylene	90-47-0	1.2 grama	U	5.+	1.2	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	45.45	91%	70 - 121		SPK: 50
Toluene-d8	2037-26-5	51.77	104 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	36.65	73 %	74 - 121		SPK: 50
Dibromofluoromethane	•	50.81	102 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2480334	6.07			
l.4-Difluorobenzene	540-36-3	2653396	7.85			
obenzene-d5:	3114-55-4	2084394	14.06			
1,4-Dichlorobenzene-d4	3855-82-1	1169085	19.57			

Volatiles : SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample 1D:

P3097-08

Client 1D:

BS-84-8

6/21/02

VA061202

VBA0627S1

MSVOAA

Date Collected: Date Analyzed: 6/19/02

6/27/02

VA062704.D

File ID: Dilution:

Analytical Method: Sample Wt/Wol:

Soil Aliquot Vol:

8260 5.0

Units: g Date Received:

Matrix:

SOIL

Analytical Run ID: Instrument ID:

Associated Blank: Soil Extract Vol:

% Moisture:

11	
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Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 1.9	U	5.6	1.9	ug/Kg	
Bromomethane	74-83-9	< 1.1	U	5.6	1.1	ug/Kg	
Vinyl chloride	75-01-4	< 1.1	U	5.6	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.5	U	5.6	1.5	ug/Kg	
Methylene Chloride	75-09-2	< 1.5	U	5.6	1.5	ug/Kg	
Acetone	67-64-1	< 3.9	U	5.6	3.9	ug/Kg	
Carbon disulfide	75-15-0	< 1.5	U	5.6	1.5	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.2	U	5.6	1.2	ug/Kg	
\ichloroethane	75-34-3	< 1.0	U	5.6	1.0	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.6	1.2	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 1.0	U	5.6	1.0	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.6	1.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.2	U	5.6	1.2	ug/Kg	
2-Butanone	78-93-3	< 6.1	U	5.6	6.1	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.6	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.4	U	5.6	2.4	ug/Kg	
Bromodichloromethane	• 75-27-4	< 0.90	U	5.6	0.90	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.90	U	5.6	0.90	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 1.0	U	5.6	1.0	ug/Kg	
Trichloroethene	79-01-6	< 1.1	U	5.6	1.1	ug/Kg	
Dibromochloromethane	124-48-1	0.1	U	5.6	1.0	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.2	Ú	5.6	1.2	ug/Kg	
Benzene	7.1-43-2	< 1.1	U	5.6	1.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.6	1.1	ug/Kg	
Bromoform	75-25-2	< 1.2	U	5.6	1.2	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.5	U	5.6	4.5	ug/Kg	
2-Hexanone	591-78-6	< 6.7	U	5.6	6.7	ug/Kg	
Tetrachloroethene	127-18-4	< 1.3	U	5.6	1.3	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.6	1.1	ug/Kg	
Tr ne	108-88-3	< 1.2	U	5.6	1.2	ug/Kg	
Chabenzene	108-90-7	< 1.2	U	5.6	1.2	ug/Kg	
Ethyl Benzene	100-41-4	< 1.1	U	5.6	1.1	ug/Kg	
Styrene	100-42-5	< 1.6	U	5.6	1.6	ug/Kg	10)
m/p-Xylenes	136777-61-2	. < .3.1	U	5.6	3.1	ug/Kg	NO KO

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample 1D:

P3097-08

Client ID:

BS-34-8

Date Collected:

6/19/02 6/27/02

Date Analyzed: File ID:

VA062704.D

Dilution:

8260 Analytical Method: 5.0

Sample Wt/Wol: Soil Aliquot Vol:

Units:

Date Received:

Matrix:

Analytical Run ID:

Instrument ID: Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02SOIL

VA061202 MSVOAA

VBA0627S1

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
0-Aylene	y⊃- ∓ /-0	X 1.2	- U	5.5	1.2	<u> पछ्र ८ छ</u>
SURROGATES						
1,2-Dichloroethane-d4	. 79-00-5	38.59	77 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	50.22	100 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	39.54	79 %	74 - 121		SPK: 50
Dibromofluoromethane		48.55	97 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3034199	6.13			
1,4-Difluorobenzene	540-36-3	3155498	7.93			
obenzene-d5	3114-55-4	2602733	14.17			
1,4-Dichlorobenzene-d4	3855-82-1	1589529	19.68			

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample 1D:

P3097-09

Client ID:

Matrix:

Date Received:

BS-88-12

6/21/02

SOIL

Date Collected: Date Analyzed:

6/19/02 6/27/02

VA062705.D

Units:

File ID: Dilution:

Analytical Method:

8260

Analytical Run ID: Instrument ID:

VA061202 MSVOAA

Sample Wt/Wol:

5.0

Associated Blank: Soil Extract Vol:

VBA0627S1

Soil Aliquot Vol:

% Moisture:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS					· · · · · · · · · · · · · · · · · · ·		
Chloromethane	74-87-3	< 2.0	U	6.0	2.0	ug/Kg	
Bromomethane	74-83-9	< 1.2	U	6.0	1.2	ug/Kg	
Vinyl chloride	75-01-4	< 1.2	U	6.0	1.2	ug/Kg	
Chloroethane	75-00-3	< 1.6	U	6.0	1.6	ug/Kg	
Methylene Chloride	75-09-2	< 1.6	U	6.0	1.6	ug/Kg	
Acetone	67-64-1	< 4.2	U	6.0	4.2	ug/Kg	
Carbon disulfide	75-15-0	< 1.6	U	6.0	1.6	ug/Kg	
I.I-Dichloroethene	75-35-4	< 1.3	U	6.0	1.3	ug/Kg	
richloroethane	75-34-3	< 1.1	U	6.0	1.1	ug/Kg	·
trans-1,2-Dichloroethene	156-60-5	< 1.3	U	6.0	1.3	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 1.1	U	6.0	1.1	ug/Kg	
Chloroform	67-66-3	< 1.2	U	6.0	1.2	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.3	U	6.0	1.3	ug/Kg	
2-Butanone	78-93-3	< 6.5	U	6.0	6.5	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.2	U	6.0	1.2	ug/Kg	
Carbon Tetrachloride	56-23-3	< 2.5	U	6.0	2.5	ug/Kg	
Bromodichloromethane	75-27-4	< 0.96	U	6.0	0.96	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.96	U	6.0	0.96	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 1.1	U	6.0	1.1	ug/Kg	
Trichloroethene	79-01-6	< 1.2	Ŭ	6.0	1.2	ug/Kg	
Dibromochloromethane	124-48-1	< 1.1	U	6.0	1.1	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.3	Ú	6.0	1.3	ug/Kg	
Benzene	71-43-2	< 1.2	U	6.0	1.2	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.2	Ŭ	6.0	1.2	ug/Kg	
Bromoform	75-25-2	< 1.3	U	6.0	1.3	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.8	U	6.0	4.8	ug/Kg	
2-Hexanone	591-78-6	< 7.2	U	6.0	7.2	ug/Kg	
Tetrachloroethene	127-18-4	< 1.4	U	6.0	1.4	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.2	U	6.0	1.2	ug/Kg	
T 1e	108-88-3	< 1.3	U	6.0	1.3	ug/Kg	
Chrorobenzene	108-90-7	< 1.3	U	6.0	1.3	ug/Kg	
Ethyl Benzene	100-41-4	< 1.2	U	6.0		ug/Kg	* 15
Styrene	100-42-5	< 1.7	U	6.0	1.7	ug/Kg	$-\sqrt{\chi}/\sqrt{\chi}$
m/p-Xylenes	136777-61-2	< .3.4	U	6.0	3.4	ug/Kg	
	120117 01 2		<u> </u>		J	45/115	

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-09

Date Collected:

6/19/02

Date Analyzed:

6/27/02

File ID:

VA062705.D

5.0

Units:

g

Dilution:

8260

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

Client 1D:

BS-88-12

Date Received:

Matrix:

6/21/02 SOIL

Analytical Run ID:

VA061202

Instrument ID:

MSVOAA VBA0627S1

Associated Blank:

Soil Extract Vol: % Moisture:

1	7	

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
o-Xylene	93-47-0	< 1.5	U	ō.U	1.5	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	41.76	8+ %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	50.28	101 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	39.4	79 %	74 - 121		SPK: 50
Dibromofluoromethane		48.77	98 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3082702	6.13			
1,4-Difluorobenzene	540-36-3	3293365	7.93			
obenzene-d5	3114-55-4	2770148	14.14			
1,4-Dichlorobenzene-d4	3855-82-1	1680860	19.65			

Volatiles -SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-10

Client ID:

BS-90-4

Date Collected: Date Analyzed: 6/19/02

6/27/02

File ID: Dilution: VA062725.D

Analytical Method: Sample Wt/Wol:

Soil Aliquot Vol:

8260

ر 5.0ء Units:

Date Received:

Matrix:

Analytical Run ID: Instrument ID: Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202

MSVOAA

VBA0627S2

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< !.8	U	5.2	1.8	ug/Kg	
Bromomethane	74-83-9	< 1.0	U	5.2	0.1	ug/Kg	
Vinyl chloride	75-01-4	< 1.0	U	5.2	0.1	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.2	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.2	1.4	ug/Kg	
Acetone	67-64-1	< 3.6	U	5.2	3.6	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.2	1.4	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.1	U	5.2	1.1	ug/Kg	
ichloroethane	75-34-3	< 0.94	U	5.2	0.94	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.1	U	5.2	1.1	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.94	U	5.2	0.94	ug/Kg	
Chloroform	67-66-3	< 1.0	U	5.2	0.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.1	U	5.2	1.1	ug/Kg	
2-Butanone	78-93-3	< 5.6	U	5.2	5.6	ug/Kg	
l,1,1-Trichloroethane	71-55-6	< 1.0	U	5.2	0.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.2	U	5.2	2.2	ug/Kg	
Bromodichloromethane	75-27-4	< 0.83	U	5.2	0.83	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.83	U	5.2	0.83	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.94	U	5.2	0.94	ug/Kg	
Trichloroethene	79-01-6	< 1.0	U	5.2	1.0	ug/Kg	
Dibromochloromethane	124-48-1	< 0.94	U	5.2	0.94	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.1	Ü	5.2	1.1	ug/Kg	
Benzene	71-43-2	< 1.0	U	5.2	0.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.0	U	5.2	1.0	ug/Kg	•
Bromoform	75-25-2	< 1.1	U	5.2	1.1	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.2	U	5.2	4.2	ug/Kg	
2-Hexanone	591-78-6	< 6.2	U	5.2	6.2	ug/Kg	
Tetrachloroethene	127-18-4	< 1.2	U	5.2	1.2	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	U	5.2	1.0	ug/Kg	
T 1e	108-88-3	< 1.1	U	5.2	1.1	ug/Kg	
Calerobenzene	108-90-7	< 1.1	U	5.2	1.1	ug/Kg	
Ethyl Benzene	100-41-4	< 1.0	U.	5.2	1.0	ug/Kg	
Styrene	100-42-5	< 1.5	U.	5.2	1.5	ug/Kg	2
m/p-Xylenes	136777-61-2	< 2.9	Ų	5.2	2.9	ug/Kg 🥂	/S

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-10

Client ID:

BS-90-4

Date Collected: Date Analyzed:

6/27/02

VA062725.D

File ID: Dilution:

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

6/19/02

g

8260 5.0 Units: Date Received:

Matrix:

Analytical Run ID:

Instrument ID:

Associated Blank: Soil Extract Vol:

% Moisture:

6/21/02

SOIL VA061202

MSVOAA

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Aylene	yo-47-6	< 1.1	- U	5.2	1.1	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	38.06	76 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	49.97	100 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	40.09	80 %	74 - 121		SPK: 50
Dibromofluoromethane	. ,	47.74	95 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3502658	6.10			
1,4-Difluorobenzene	540-36-3	3885119	7.88			
obenzene-d5	3114-55-4	3352565	14.09		;	
1,4-Dichlorobenzene-d4	3855-82-1	1980548	19.57			

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample 1D:

P3097-11

Client ID:

BS-94-8

Date Collected:

6/19/02

Date Received: Matrix:

6/21/02

Date Analyzed: File ID:

6/27/02 VA062707.D SOIL

Dilution:

Analytical Method:

Units:

 \mathbf{g}

Analytical Run ID: Instrument ID:

VA061202 MSVOAA

Sample Wt/Wol:

8260 5.0

Associated Blank: Soil Extract Vol:

VBA0627S1

Soil Aliquot Vol:

Parameter	CAS Number	Concentration	C .	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 1.8	U ****	5.2	1.3	ug/Kg	
Bromomethane	74-83-9	< 1.0	U	5.2	1.0	ug/Kg	
Vinyl chloride	75-01-4	< 1.0	U	5.2	1.0	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.2	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.2	1.4	ug/Kg	
Acetone	67-64-1	< 3.6	U	5.2	3.6	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.2	1.4	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.1	U	5.2	1.1	ug/Kg	
Pichloroethane	75-34-3	< 0.94	U	5.2	0.94	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.1	U	5.2	1.1	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.94	U	5.2	0.94	ug/Kg	
Chloroform	67-66-3	< 1.0	U	5.2	1.0	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.1	U 🛊	5.2	1.1	ug/Kg	
2-Butanone	78-93 - 3	< 5.6	U	5.2	5.6	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.0	U	5.2	1.0	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.2	U]	5.2	2.2	ug/Kg	
Bromodichloromethane	75-27-4	< 0.83	U	5.2	0.83	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.83	U	5.2	0.83	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.94	U	5.2	0.94	ug/Kg	
Trichloroethene	79-01-6	< 1.0	U	5.2	1.0	ug/Kg	
Dibromochloromethane	124-48-1	< 0.94	U	5.2	0.94	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.1	Ú 🕴	, 5.2	. 1.1	ug/Kg	
Benzene	71-43-2	< 1.0	U 🤚	5.2	1.0	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.0	U	5.2	1.0	ug/Kg	
Bromoform	75 - 25-2	< 1.1	U	5.2	1.1	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.2	U	5.2	4.2	ug/Kg	
2-Hexanone	591-78-6	< 6.2	U	5.2	6.2	ug/Kg	
Tetrachloroethene	127-18-4	< 1.2	U	5.2	1.2	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	U 🖟	5.2	1.0	ug/Kg	
Γ ιε	108-88-3	< 1.1	U ‡	5.2	1.1	ug/Kg	
Charobenzene	108-90-7	< 1.1	U	5.2	1.1	ug/Kg	
Ethyl Benzene	100-11-4	< 1.0	U .	5.2	1.0	ug/Kg	
Styrene	100-4.2-5	< 1.5	U	5.2	1.5	ug/Kg 🔀	
m/p-Xylenes	13677: -61-2	< .2.9	U	5.2	2.9	ug/Kg	$\widetilde{\varsigma}$

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-11

6/19/02

Date Collected: Date Analyzed:

6/27/02

File ID: Dilution: VA062707.D

8260

5.0

Units:

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

Client ID:

BS-94-8

Date Received:

Matrix:

6/21/02 SOIL

Analytical Run ID: Instrument ID:

Associated Blank:

Soil Extract Vol:

% Moisture:

VA061202 MSVOAA

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
o-Aylene	95-47-6	< 1.1	U	5.2	1.1	nā\ <u>V</u> ā
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	38.52	77 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	44.43	89 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	36.26	73 %	74 - 121		SPK: 50
Dibromofluoromethane	,	22.56	45 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3146885	6.10			
1,4-Difluorobenzene	540-36-3	3332438	7.90			
obenzene-d5	3114-55-4	2738590	14.12			
1,4-Dichlorobenzene-d4	3855-82-1	1725040	19.65			

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-12RE

Client ID:

BS-98-12RE

Date Collected: Date Analyzed: 6/19/02

6/28/02

File ID:

VA062807.D

Dilution:

8260

Analytical Method: Sample Wt/Wol: Soil Aliquot Vol:

5.0 Units:

 \mathbf{g}

Date Received:

Matrix:

Analytical Run ID:

Instrument 1D: Associated Blank:

Soil Extract Voi: % Moisture:

6/21/02

SOIL

VA061202 **MSVOAA**

Parameter	CAS Number	Concentration	C	RDL	MDL	Units	
TARGETS			-				
Chloromethane	74-87-3	< 1.8	U	5.2	1.8	ug/Kg	
Bromomethane	74-83-9	< 1.0	U	5.2	1.0	ug/Kg	
Vinyl chloride	75-01-4	< 1.0	U	5.2	0.1	ug/Kg	-
Chloroethane	75-00-3	< 1.4	U	5.2	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.2	1.4	ug/Kg	
Acetone	67-64-1	< 3.6	U	5.2	3.6	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.2	1.4	u <i>g!</i> Kg	
1,1-Dichloroethene	75-35-4	< 1.1	U	5.2	1.1	ug/Kg	
ichloroethane	75-34-3	< 0.94	U	5.2	0.94	ug/Kg	-
trans-1,2-Dichloroethene	156-60-5	< 1.1	U	5.2	1.1	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.94	U	5.2	0.94	ug/Kg	
Chloroform	67-66-3	< 1.0	U	5.2	1.0	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.1	U	5.2	1.1	ug/Kg	
2-Butanone	78-93-3	< 5.6	U	5.2	5.6	ug/Kg	
1,1,1-Trichloroethane	71-55 - 6	< 1.0	U	5.2	1.0	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.2	U	5.2	2.2	ug/Kg	
Bromodichloromethane	75-27-4	< 0.83	U	5.2	0.83	ug/Kg	
1,2-Dichloropropane .	78-87-5	< 0.83	U	5.2	0.83	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.94	U	5.2	0.94	ug/Kg	
Trichloroethene	79-01-6	< 1.0	U	5.2	1.0	ug/Kg	
Dibromochloromethane	124-48-1	< 0.94	U	5.2	0.94	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.1	U	5.2	1.1	ug/Kg	
Benzene	7.1-43-2	< 1.0	U	5.2	1.0	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.0	U	5.2	1.0	ug/Kg	
Bromoform	75-25-2	< 1.1	U	5.2	1.1	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.2	U	5.2	4.2	ug/Kg	
2-Hexanone	591-78-6	< 6.2	U	5.2	6.2	ug/Kg	
Tetrachloroethene	127-18-4	< 1.2	U	5.2	1.2	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	U	5.2	1.0	ug/Kg	
T e	108-88-3	< 1.1	U	5.2	. 1.1	ug/Kg	
Charobenzene	108-90-7	< 1.1	U	5.2	1.1	ug/Kg	
Ethyl Benzene	100-41-4	< 1.0	U	5.2	1.0	ug/Kg	
Styrene	100-42-5	< 1.5	U	5.2	1.5	ug/Kg	1/0/
m/p-Xylenes	136777-61-2	< 2.9	U "	5.2	2.9	ug/Kg	6X 5~
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Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-12RE

Client ID:

BS-98-12RE

Date Collected: Date Analyzed: 6/19/02

6/28/02

File ID:

VA062807.D

Dilution:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol: 8260

5.0 Units:

Date Received:

Matrix:

Analytical Run ID:

Instrument ID:

Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL VA061202

MSVOAA

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Xylene	95-47-0	< 1.1 →	- 	3.2	1.1	ug Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	46.45	93 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	55.98	112 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	46.11	92 %	74 - 121		SPK: 50
Dibromofluoromethane	•	17.51	35 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3021647	6.02			
1 'Difluorobenzene	540-36-3	3138540	7.82			
robenzene-d5	3114-55-4	2787303	14.08			
1,4-Dichlorobenzene-d4	3855-82-1	1663526	19.61			
TENTITIVE IDENTIFIED	COMPOUNDS					
Column Bleed	14629664	13	J	20.59		ug/kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

File ID:

P3097-13

Client ID:

BS-100-4

Date Collected: Date Analyzed: 6/19/02

6/28/02

Dilution:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol: VA062808.D

8260 5.0 Units: Date Received:

Matrix:

Analytical Run ID: Instrument ID: Associated Blank:

Soil Extract Vol: % Moisture:

6/21/02

SOIL VA061202

MSVOAA VBA0628S1

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
TARGETS			·			
Chloromethane	74-87-3	< 1.8	U	5.4	1.8	ug/K.g
Bromomethane	74-83-9	< 1.1	U	5.4	1.1	ug/Kg
Vinyl chloride	75-01-4	< 1.1	U	5.4	1.1	ug/Kg
Chloroethane	75-00-3	< 1.4	U	5.4	1.4	ug/Kg
Methylene Chloride	75-09-2	< 1.4	U	5.4	1.4	ug/Kg
Acetone	67-64-1	< 3.8	U	5.4	3.8	ug/Kg
Carbon disulfide	75-15-0	< 1.4	U	5.4	1.4	ug/Kg
1.1-Dichloroethene	75-35-4	< 1.2	U	5.4	1.2	ug/Kg
ichloroethane	75-34-3	< 0.98	U	5.4	0.98	ug/Kg
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.4	1.2	ug/Kg
cis-1,2-Dichloroethene	156-59-2	< 0.98	U	5.4	0.98	ug/Kg
Chloroform	67-66-3	< 1.1	U	5.4	1.1	ug/Kg
1,2-Dichloroethane	107-06-2	< 1.2	U	5.4	1.2	ug/Kg
2-Butanone	78-93-3	< 5.9	U	5.4	5.9	ug/Kg
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.4	1.1	ug/Kg
Carbon Tetrachloride	56-23-5	< 2.3	U	5.4	2.3	ug/Kg
Bromodichloromethane	75-27-4	< 0.87	U	5.4	0.87	ug/Kg
1,2-Dichloropropane	78-87-5	< 0.87	U	5.4	0.87	ug/Kg
cis-1,3-Dichloropropene	10061-01-5	< 0.98	U	5.4	0.98	ug/Kg
Trichloroethene	79-01-6	< 1.1	U	5.4	1.1	ug/Kg
Dibromochloromethane	124-48-1	< 0.98	U	5.4	0.98	ug/Kg
1,1,2-Trichloroethane	79-00-5	< 12	Ú .	5.4	1.2	ug/Kg
Benzene	71-43-2	< 1.1	U	5.4	1.1	ug/Kg
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.4	1.1	ug/Kg
Bromoform	75-25-2	< 1.2	U	5.4	1.2	ug/Kg
4-Methyl-2-Pentanone	108-10-1	< 4.3	U	5.4	4.3	ug/Kg
2-Hexanone	591-78-6	< 6.5	U	5.4	6.5	ug/Kg
Tetrachloroethene	127-18-4	< 1.3	U	5.4	1.3	ug/Kg
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.4	1.1	ug/Kg
T le	108-88-3	< 1.2	U	5.4	1.2	ug/Kg
Chiorobenzene	108-90-7	< 1.2	U	5.4	1.2	ug/Kg
Ethyl Benzene	100-41-4	< 1.1	U	5.4	1.1	ug/Kg
Styrene	100-42-5	< 1.5	U.	5.4	1.5	ug/Kg
n/p-Xylenes	136777-61-2	< 3.0	U	5.4	3.0	ng/Kg O

Volatiles -SW-846

SDG-No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-13

Client 1D:

BS-100-4

Date Collected:

6/19/02

Date Analyzed: File ID:

6/28/02

Dilution:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol: VA062808.D

8260 5.0

Units:

Date Received:

6/21/02

Matrix:

SOIL VA061202

Analytical Run ID:

Instrument ID: Associated Blank:

Soil Extract Vol: % Moisture:

0	
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MSVOAA

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
ō-Ayrene	95-47-6	< 1.2	Ü	5.4	1.2	ug/Kg	
SURROGATES							
1,2-Dichloroethane-d4	79-00-5	48.57	97 %	70 - 121		SPK: 50	
Toluene-d8	2037-26-5	58.77	118 %	81 - 117		SPK: 50	
4-Bromofluorobenzene	460-00-4	43.94	88 %	74 - 121		SPK: 50	
Dibromofluoromethane		54.27	109 %	80 - 120		SPK: 50	
INTERNAL STANDARDS							
Pentafluorobenzene	363-72-4	2776695	6.05				
1,4-Difluorobenzene	540-36-3	3201951	7.82				
obenzene-d5	3114-55-4	2700858	14.06			•	
1,4-Dichlorobenzene-d4	3855-82-1	1483918	19.60				
TENTITIVE IDENTIFIED	COMPOUNDS						
Column Bleed	1000493	5.5	JВ	20.61		ug/kg	

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample 1D:

P3097-14

6/19/02

Date Collected: Date Analyzed: File (D:

6/28/02 VA062809.D

Dilution:

8260

Analytical Method: Sample Wt/Wol:

Soil Aliquot Vol:

5.0 Units:

Client ID:

BS-104-8

Date Received:

Matrix:

6/21/02 SOIL

Analytical Run ID:

VA061202

Instrument ID:

Associated Blank:

MSVOAA VBA0628S1

Soil Extract Vol:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 1.9	\mathbf{U}^{-}	5.5	1.9	ugÆg	
Bromomethane	74-83-9	< 1.1	U	5.5	1.1	ug/Kg	
Vinyl chloride	75-01-4	< 1.1	U	5.5	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.5	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.5	1.4	ug/Kg	
Acetone	67-64-1	< 3.8	U	5.5	3.8	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.5	1.4	ug/Kg	
1,1-Dichloroethene	75-35 - 4	< 1.2	U	5.5	1.2	ug/Kg	
Pichloroethane	75-34-3	< 0.99	U	5.5	0.99	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5. <i>5</i>	1.2	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.99	U	5.5	0.99	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.5	1.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.2	U	5.5	1.2	ug/Kg	
2-Butanone	78-93-3	< 5.9	U	5.5	5.9	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.1	U .	5.5	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.3	U	5.5	2.3	ug/Kg	
Bromodichloromethane	75-27-4	< 0.88	U	5.5	0.38	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.88	U	5.5	0.88	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.99	U	5.5	0.99	ug/Kg	
Trichloroethene	79-01-6	< 1.1	U	5.5	1.1	ug/Kg	
Dibromochloromethane	124-48-1	< 0.99	U	5.5	0.99	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.2	Ü	5.5	1.2	ug/Kg	
Benzene	71-43-2	< 1.1	U	5.5	1.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.5	1.1	ug/Kg	
Bromoform	75-25-2	< 1.2	U	5.5	1.2	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.4	U	5.5	4.4	ug/Kg	
2-Hexanone	591-78-6	< 6.6	U	5.5	6.6	ug/Kg	
Tetrachloroethene	127-18-4	< 1.3	U	5.5	1.3	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.5	1.1	ug/Kg	
Γ ιe	108-88-3	< 1.2	U	5.5	1.2	ug/Kg	
Chambenzene	108-90-7	< 1.2	U	5.5	1.2	ug/Kg	
Ethyl Benzene	100-41-4	< 1.1	U.,	5.5	1.1	ug/Kg	
Styrene	100-42-5	< 1.5	U	5.5	1.5	ug/Kg	13
n/p-Xylenes	136777-61-2	< 3.1	U	5.5	3.1	ug/Kg , ,	χ_{χ}

Volatiles SW-846

SDC No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-14

Date Collected: Date Analyzed:

6/19/02 6/28/02

File ID:

VA062809.D

5.0

Units:

Dilution:

8260

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

Client ID:

BS-104-8

Date Received:

Matrix:

6/21/02 SOIL

VA061202

Analytical Run ID: Instrument ID:

Associated Blank:

MSVOAA VBA0628S1

Soil Extract Vol:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Ayrene	90-4 7-0	< 1.2		3.3	1.2	पष्टु/रूषु
SURROGATES						
1,2-Dichloroethane-d4	79-00-3	47.42	95 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	55.9	112 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	40.27	81%	74 - 121		SPK: 50
Dibromofluoromethane	(55.03	110 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2825862	6.05			
1 d Difluorobenzene	540-36-3	3173766	7.82			
obenzene-d5	3114-55-4	2494425	14.08			
1,4-Dichlorobenzene-d4	3855-82-1	1408454	19.59			
TENTITIVE IDENTIFIED	COMPOUNDS					
Column Bleed	14629664	22	J	20.60		ug/kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-15

Date Collected: Date Analyzed: File ID:

6/28/02 VA062810.D

Dilution:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol:

6/19/02

8260

5.0 Units: Client 1D:

BS-108-12

Date Received:

Matrix:

SOIL

Analytical Run ID: Instrument ID:

Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

VA061202

MSVOAA

8	

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 1.8	U	5.4	1.8	ug/Kg
Bromomethane	74-83-9	< 1.1	U	5.4	1.1	ug/Kg
Vinyl chloride	75-01-4	< 1.1	U	5.4	1.1	ug/Kg
Chloroethane	75-00-3	< [.4	U	5.4	1.4	ug/Kg
Methylene Chloride	75-09-2	< 1.4	U	5.4	1.4	ug/Kg
Acetone	67-64-1	< 3.8	U	5.4	3.8	ug/Kg
Carbon disulfide	75-15-0	< 1.4	U	5.4	1.4	ug/Kg
1.1-Dichloroethene	75-35-4	< 1.2	U	5.4	1.2	ug/Kg
ichloroethane	75-34-3	< 0.98	U	5.4	0.98	ug/Kg
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.4	1.2	ug/Kg
cis-1,2-Dichloroethene	156-59-2	< 0.98	U	5.4	0.98	ug/Kg
Chloroform	67-66-3	< 1.1	U	5.4	1.1	ug/Kg
1,2-Dichloroethane	107-06-2	< 1.2	U	5.4	1.2	ug/Kg
2-Butanone	78-93-3	< 5.9	U	5.4	5.9	ug/Kg
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.4	1.1	ug/Kg
Carbon Tetrachloride	56-23-5	< 2.3	U	5.4	2.3	ug/Kg
Bromodichloromethane	75-27-4	< 0.87	U	5.4	0.87	ug/Kg
1,2-Dichloropropane	78-87-5	< 0.87	U	5.4	0.87	ug/Kg
cis-1,3-Dichloropropene	10061-01-5	< 0.93	U	5.4	0.98	ug/Kg
Trichloroethene	79-01-6	1.8	J	5.4	1.1	ug/Kg
Dibromochloromethane	124-48-1	< 0.98	U _i	5.4	0.98	ug/Kg
1,1,2-Trichloroethane	79-00-5	< 1.2	Ü	5.4	1.2	ug/Kg
Benzene	71-43-2	< 1.1	U	5.4	1.1	ug/Kg
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.4	1.1	ug/Kg
Bromoform	75-25-2	< 1.2	U	5.4	1.2	ug/Kg
4-Methyl-2-Pentanone	108-10-1	< 4.3	U	5.4	4.3	ug/Kg
2-Hexanone	591-78-6	< 6.5	U	5.4	6.5	ug/Kg
Tetrachloroethene	127-18-4	< 1.3	U	5.4	1.3	ug/Kg
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.4	1.1	ug/Kg
T e	108-88-3	< 1.2	U	5.4	1.2	ug/Kg
Chlorobenzene	108-90-7	< 1.2	U	5.4	1.2	ug/Kg
Ethyl Benzene	100-41-4	< 1.1	U	5.4	1.1	ug/Kg
Styrene	100-42-5	< 1.5	U	5.4	1.5	ug/Kg
m/p-Xylenes	136777-61-2	< 3.0	U	5.4	3.0	ug/Kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

6/19/02

Date Collected: Date Analyzed: File ID:

6/28/02 VA062810.D

Dilution:

8260

5.0

Units:

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

P3097-15

Client 1D:

BS-108-12

Date Received:

Matrix:

6/21/02 SOIL

Analytical Run ID:

Instrument lD:

Associated Blank:

MSVOAA VBA0628S1

VA061202

Soil Extract Vol:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
D-Aylene	95-47-6	< 1.2	U	5.4	1.2	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	48.76	98 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	56.25	113 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	41.2	82 %	74 - 121		SPK: 50
Dibromofluoromethane	,	55.32	111 %	80 - 120		SPK: 50
NTERNAL STANDARDS	S					
Pentafluorobenzene	363-72-4	2693587	6.02			
" Difluorobenzene	540-36-3	3062609	7.85			
obenzene-d5	3114-55-4	2409374	14.09			
,4-Dichlorobenzene-d4	3855-82-1	1358116	19.62			
TENTITIVE IDENTIFIED	COMPOUNDS					
Column Bleed	14629664	18	J	20.66		ug/kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-16

6/19/02

Date Collected: Date Analyzed: File ID:

6/28/02

Dilution:

 $\frac{\frac{\text{VA062811.D}}{1}}{8260}$

5.0

Units:

 \mathbf{g}

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

Client ID:

BS-110-4

6/21/02

Date Received:

Matrix:

Analytical Run ID:

Instrument ID:
Associated Blank:

Soil Extract Vol: % Moisture:

SOIL VA061202

MSVOAA

VBA0628S1

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 1.8	U	5.2	1.8	ug/Kg	
Bromomethane	74-83-9	< 1.0	U	5.2	1.0	ug/Kg	
Vinyl chloride	75-01-4	< 1.0	U	5.2	0.1	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.2	1.4	${\tt ug/Kg}$	
Methylene Chloride	75-09-2	< 1.4	U	5.2	l.4	ug/Kg	
Acetone	67-64-1	< 3.6	U	5.2	3.6	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.2	1.4	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.1	U	5.2	1.1	ug/Kg	
ichloroethane	75-34-3	< 0.94	U	5.2	0.94	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.1	U	5.2	1.1	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.94	U	5.2	0.94	ug/Kg	
Chloroform	67-66-3	< 1.0	U	5.2	1.0	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.1	U	.5.2	1.1	ug/Kg	
2-Butanone	78-93 - 3	< 5.6	U	5.2	5.6	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.0	U	5.2	1.0	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.2	U	5.2	2.2	ug/Kg	
Bromodichloromethane	75-27-4	< 0.83	U	5.2	0.83	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.83	U	5.2	0.83	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.94	U	5.2	0.94	ug/Kg	
Trichloroethene	79-01-6	0.1	U	5.2	1.0	ug/Kg	
Dibromochloromethane	124-48-1	< 0.94	U	5.2	0.94	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.1	U	5.2	1.1	ug/Kg	
Benzene	71-43-2	< 1.0	U	5.2	1.0	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.0	U	5.2	1.0	ug/Kg	
Bromoform	75-25-2	< 1.1	U	5.2	1.1	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.2	U	5.2	4.2	ug/Kg	
2-Hexanone	591-78-6	< 6.2	U	5.2	6.2	ug/Kg	
Tetrachloroethene	127-18-4	< 1.2	U	5.2	1.2	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34 - 5	< 1.0	U	5.2	1.0	ug/Kg	
T te	108-88-3	< 1.1	Ũ	5.2	1.1	ug/Kg	
Chiorobenzene	108-90-7	< 1.1	U	5.2	1.1	ug/Kg	
Ethyl Benzene	100-4!-4	< 1.0	U	5.2	1.0	ug/Kg	
Styrene	100-42-5	< 1.5	U	5.2	1.5	ug/Kg	
m/p-Xylenes	136777-61-2	< .2.9	U	5.2	2.9	ug/Kg	
-						U U	

Volatiles SW-846

SDG No.:

P3097

lient:

MAC Consultants, Inc.

Sample ID:

P3097-16

Date Collected: Date Analyzed:

6/19/02 6/28/02

File ID:

VA062811.D

Dilution:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol: 8260

5.0 Units: g Client ID:

BS-110-4

Date Received:

6/21/02 SOIL

Matrix:

Analytical Run ID: Instrument ID:

Associated Blank:

Soil Extract Vol:

% Moisture:

VA061202

MSVOAA

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Xylene	95-47-6	< 1.1	U	5.2	1.1	ug/Kg
SURROGATES 1,2-Dichloroethane-d4 Toluene-d8	79-00-5 2037-26-5	51.71 58.9	103 % 115 %	70 - 121 81 - 117		SPK: 50 SPK: 50
4-Bromofluorobenzene Dibromofluoromethane	460-00-4	43.13 57.33	86 % 115 %	74 - 121 80 - 120		SPK: 50 SPK: 50
INTERNAL STANDARDS Pentafluorobenzene	363-72-4	2734137	6.05	720		0111. 30
1 * Difluorobenzene obenzene-d5	540-36-3 3114-55-4	3078567 2432940	7.85 14.09			
1,4-Dichlorobenzene-d4	3855-82-1	1392726	19.62			
TENTITIVE IDENTIFIED CO	OMPOUNDS 14629664	18	J	20.63		ug/Kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-17

6/19/02

Date Collected: Date Analyzed: File ID:

6/28/02

VA062812.D

5.0

Units:

Dilution:

8260

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

Client 1D:

Date Received:

Matrix:

Analytical Run ID:

Instrument ID: Associated Blank: Soil Extract Vol:

% Moisture:

BS-114-8

6/21/02

SOIL

VA061202

MSVOAA

VBA0628S1

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS						<u>. </u>	
Chloromethane	74-87-3	< 1.9	U	5.6	1.9	ug/Kg	
Bromomethane	74-83-9	< 1.1	U	5.6	1.1	ug/Kg	
Vinyl chloride	75-01-4	< 1.1	Ŭ	5.6	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.5	Ū	5.6	1.5	ug/Kg	
Methylene Chloride	75-09-2	< 1.5	ប	5.6	1.5	ug/Kg	
Acetone	67-64-1	< 3.9	U	5.6	3.9	ug/Kg	
Carbon disulfide	75-15-0	< 1.5	U	5.6	1.5	ug/Kg	
1.1-Dichloroethene	75 - 35-4	< 1.2	U	5.6	1.2	ug/Kg	
ichloroethane	75-34-3	< 1.0	U	5.6	1.0	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.6	1.2	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 1.0	U	5.6	1.0	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.6	1.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.2	U	5.6	1.2	ug/Kg	
2-Butanone	78-93-3	< 6.1	U	5.6	6.1	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.6	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.4	U	5.6	2.4	ug/Kg	
Bromodichloromethane	75-27-4	< 0.90	U	5.6	0.90	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.90	U	5.6	0.90	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 1.0	U	5.6	1.0	ug/Kg	
Trichloroethene	79-01-6	< 1.1	U	5.6	1.1	ug/Kg	
Dibromochloromethane	124-48-1	< 1.0	U	5.6	1.0	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.2	U	5.6	1.2	ug/Kg	
Benzene	71-43-2	< 1.1	U	5.6	1.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.6	1.1	ug/Kg	
Bromoform	75-25-2	< 1.2	U	5.6	1.2	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.5	U	5.6	4.5	ug/Kg	
2-Hexanone	591-78-6	< 6.7	U	5.6	6.7	ug/Kg	
Tetrachloroethene	127-18-4	< 1.3	U	5.6	1.3	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.6	1.1	ug/Kg	
Г е	108-88-3	< 1.2	U	5.6	1.2	ug/Kg	
Chrorobenzene	108-90-7	< 1.2	U	5.6	1.2	ug/Kg	
Ethyl Benzene	100-41-4	< 1.1	U	5.6	1.1	ug/Kg	e.
Styrene	100-42-5	< 1.6	U ·	5.6	1.6	ug/Kg	10
n/p-Xylenes	136777-61-2	< 3.1	U	5.6	3.1	ug/Kg	50

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-17

Date Collected: Date Analyzed:

6/28/02

File ID: Dilution:

1

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

6/19/02

VA062812.D

8260

5.0 Units: Client ID:

BS-114-8

Date Received:

Matrix:

6/21/02SOIL

Analytical Run ID: Instrument ID:

Associated Blank:

% Moisture:

Soil Extract Vol:

MSVOAA VBA0628S1

11

VA061202

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Aylene	95-47-0	< 1.2	U	5.0	1.2	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	48.51	97 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	55.66	111 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	38.52	77 %	74 - 121		SPK: 50
Dibromofluoromethane		55.38	111%	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2555666	6.07			i e
1,4-Difluorobenzene	540-36-3	2876146	7.87			
obenzene-d5	3114-55-4	2290052	14.12			
1,4-Dichlorobenzene-d4	3855-82-1	1119325	19.62			

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample 1D:

P3097-18RE

Client 1D:

BS-118-12RE

Date Collected:

6/19/02

6/28/02

Date Analyzed: File ID:

VA062813.D

Dilution:

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol: 8260 5.0

Units:

Date Received:

Matrix:

Analytical Run ID: Instrument ID: Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL VA061202

MSVOAA

VBA0628S1

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87-3	< 2.0	U "	5.8	2.0	ug/Kg	
Bromomethane	74-83-9	< 1.2	U	5.8	1.2	ug/Kg	
Vinyl chloride	75-01-4	< 1.2	U	5.8	1.2	ug/Kg	
Chloroethane	75-00-3	< 1.5	U	5.8	1.5	ug/Kg	
Methylene Chloride	75-09-2	< 1.5	U	5.8	1.5	ug/Kg	
Acetone	67-64-1	< 4.1	U	5.8	4.1	ug/Kg	
Carbon disulfide	75-15-0	< 1.5	U	5.8	1.5	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.3	U	5.8	1.3	· ug/Kg	
ichloroethane	75-34-3	< 1.0	U 🥻	5.8	0.1	ug/Kg	
trans-1,2-Dichloroethene	136-60-3	< 1.3	U	5.8	1.3	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 1.0	U 🖟	5.8	1.0	ug/Kg	
Chloroform	67-66-3	< 1.2	U 🖠	5.8	1.2	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.3	U	5.8	1.3	ug/Kg	
2-Butanone	78-93-3	< 6.3	U	5.8	6.3	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.2	U 🛊	5.8	1.2	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.4	U 🖟	5.8	2.4	ug/Kg	
Bromodichloromethane	75-27-4	< 0.93	U 🕻	5.8	0.93	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.93	U	5.8	0.93	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 1.0	U	5.8	1.0	ug/Kg	
Trichloroethene	79-01-6	< 1.2	U	5.8	1.2	ug/Kg	
Dibromochloromethane	124-48-1	< 1.0	U	5.8	1.0	ug/Kg	
1,1,2-Trichloroethane	79-00-5	< 1.3	U	5.8	1.3	ug/Kg	
Benzene	71-43-2	< 1.2	U 🖁	5.8	1.2	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.2	U 🎉	5.8	1.2	ug/Kg	
Bromoform	75-25-2	< 1.3	U	5.8	1.3	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.7	U	5.8	4.7	ug/Kg	
2-Hexanone	591-78-6	< 7.0	U	5.8	7.0	ug/Kg	
Tetrachloroethene	127-18-4	< 1.4	U	5.8	1.4	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.2	U	5.8	1.2	ug/Kg	
T e	108-88-3	< 1.3	U 🖟	5.8	1.3	ug/Kg	
Chrorobenzene	108-90-7	< 1.3	U 🚦	5.8	1.3	ug/Kg	
Ethyl Benzene	100-41-4	< 1.2	U .	5.8	1.2	ug/Kg	
Styrene	100-42-5	< 1.6	U	5.8	1.6	ug/Kg	(-1
m/p-Xylenes	136777-61-2	< 3.3	U F	5.8	3.3	ug/Kg	

Volatiles SW-846

SDG No.:

P3097

Ilient:

MAC Consultants, Inc.

Sample ID:

P3097-18RE

Client ID:

BS-118-12RE

Date Collected: Date Analyzed: 6/19/02

6/28/02

File ID:

Sample Wt/Wol:

Soil Aliquot Vol:

VA062813.D

Dilution:

Analytical Method:

8260

5.0

Units:

Date Received:

Matrix:

6/21/02 SOIL

Analytical Run ID:

VA061202

Instrument ID:

Associated Blank:

MSVOAA VBA0628S1

Soil Extract Vol:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
ō-Xylene	93-47-0	< 1.5		٥.٥	١.٥	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	51.15	102 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	55.08	110 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4 .	42.05	84 %	74 - 121		SPK: 50
Dibromofluoromethane	,	12.2	24 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2408601	6.07			
Difluorobenzene	540-36-3	2768527	7.87			
tobenzene-d5	3114-55-4	2221236	14.12			
1,4-Dichlorobenzene-d4	3855-82-1	1315404	19.62			
TENTITIVE IDENTIFIED	COMPOUNDS					
Column Bleed	1000493	6.0	JВ	20.63		ug/kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-19

Client ID:

BS-120-4

Date Collected:

6/19/02

Date Received:

6/21/02

Date Analyzed:

6/28/02

Matrix:

SOIL

File ID: Dilution: VA062814.D

Analytical Run ID:

VA061202

Analytical Method:

8260

instrument ID: Associated Blank:

MSVOAA VBA0628S1

Sample Wt/Wol: Soil Aliquot Vol:

5.0 Units: Soil Extract Vol: % Moisture:

Parameter	CAS Number	Concentration	C	RDL	MDL	Units	
TARGETS							
Chloromethane	74-87 - 3	< 1.8	U	5.3	1.8	ug/Kg	
Bromomethane	74-83-9	< 1.1	U	5.3	1.1	ug/Kg	
Vinyl chloride	75-0Î-4	< 1.1	U	5.3	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.3	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.3	1.4	ug/Kg	
Acetone	67-64-1	< 3.7	U	5.3	3.7	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.3	1.4	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.2	U	5.3	1.2	ug/Kg	
ichloroethane	75-34-3	< 0.95	U	5.3	0.95	ug/Kg	
trans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.3	1.2	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 0.95	U	5.3	0.95	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.3	1.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.2	U	5.3	1.2	ug/Kg	
2-Butanone	78-93-3	< 5.7	U	5.3	5.7	ug/Kg	
l,l,l-Trichloroethane	71-55-6	< 1.1	U	5.3	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.2	U	5.3	2.2	ug/Kg	
Bromodichloromethane	75-27-4	< 0.84	U	5.3	0.84	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.84	U	5.3	0.84	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 0.95	U	5.3	0.95	ug/Kg	
Trichloroethene	79-01-6	< 1.1	U	5.3	1.1	ug/Kg	
Dibromochloromethane	124-48-1	< 0.95	U	5.3	0.95	ug/Kg	
1,1,2-Trichloroethane		< 1.2	Ü	5.3	1.2	ug/Kg	
Benzene	71-43-2	< 1.1	U	5.3	1.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.3	1.1	ug/Kg	
Bromoform	75-25-2	< 1.2	U	5.3	1.2	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.2	U	5.3	4.2	ug/Kg	
2-Hexanone	591-78-6	< 6.3	U	5.3	6.3	ug/Kg	
Tetrachloroethene	127-18-4	< 1.3	U	5.3	1.3	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.3	1.1	ug/Kg	
T ie	108-88-3	< 1.2	U	5.3	1.2	ug/Kg	
Charobenzene	108-90-7	< 1.2	U	5.3	1.2	ug/Kg	
Ethyl Benzene	100-41-4	< 1.1	U ,	5.3	1.1	ug/Kg	a
Styrene	100-42-5	< 1.5	U.	5.3	1.5	ug/Kg	
m/p-Xylenes	136777-61-2	< 2.9	U	5.3	2.9	ug/Kg	45

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-19

Client 1D:

BS-120-4

Date Collected:

6/19/02

6/28/02

Date Analyzed: File ID:

VA062814.D

5.0

Units:

Dilution:

8260

Analytical Method: Sample Wt/Wol:

Soil Aliquot Vol:

Date Received:

Matrix:

6/21/02

Analytical Run ID:

SOIL VA061202

Instrument ID:

Associated Blank;

MSVOAA VBA0628S1

Soil Extract Vol:

% Moisture:

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Aylene	95-47-6	< 1.2	U,	5.3	1.2	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79 - 00-5	49.16	98 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	54.15	108 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	40	80 %	74 - 121		SPK: 50
Dibromofluoromethane	,	53.79	108 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2455403	6.07			
1.4-Difluorobenzene	540-36-3	2787644	7.87			
obenzene-d5	3114-55-4	2191209	14.12			
1,4-Dichlorobenzene-d4	3855-82-1	1208756	19.65			
TENTITIVE IDENTIFIED	COMPOUNDS					
Column Bleed	1000493	11	JB	20.63		ug/kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-20

6/19/02

Date Collected: Date Analyzed:

6/27/02

File ID:

VA062716.D

5.0

Units:

Dilution:

Analytical Method:

8260

Sample Wt/Wol:

Soil Aliquot Vol:

Client ID:

BS-124-8

Date Received:

Matrix: Analytical Run ID:

Instrument 1D: Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202

MSVOAA

TARGETS Chloromethane Bromomethane Vinyl chloride	74-87-3 74-83-9 75-01-4	< 1.8	U			····	
Bromomethane	74-83-9		Ţī				
		2 1 1		5.4	1.8	ug/Kg	
Vinyl chloride	75-01-4	< 1.1	U	5.4	1.1	ug/Kg	
•		< 1.1	U	5.4	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.4	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.4	1.4	ug/Kg	
Acetone	67-64-1	< 3.8	U	5.4	3.8	ug/Kg	
Carbon disulfide	· 75-15-0	< 1.4	U	5.4	1.4	ug/Kg	
,1-Dichloroethene	75-35-4	< 1.2	U	5.4	1.2	ug/Kg	
ichloroethane	75-34-3	< 0.97	U	5.4	0.97	ug/Kg	
rans-1,2-Dichloroethene	156-60-5	< 1.2	U	5.4	1.2	ug/Kg	
is-1,2-Dichloroethene	156-59-2	< 0.97	U	5.4	0.97	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.4	1.1	ug/Kg	
,2-Dichloroethane	107-06-2	< 1.2	U	5.4	1.2	ug/Kg	
-Butanone	78-93-3	< 5.8	U	5.4	5.8	ug/Kg	
,1,1-Trichloroethane	71-55-6	< 1.1	U	5.4	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.3	U	5.4	2.3	ug/Kg	
Bromodichloromethane	75-27-4	< 0.86	U	5.4	0.86	ug/Kg	
,2-Dichloropropane	78-87-5	< 0.86	U	5.4	0.86	ug/Kg	
is-1,3-Dichloropropene	10061-01-5	< 0.97	U	5.4	0.97	ug/Kg	
richloroethene	79-01-6	< 1.1	U	5.4	1.1	ug/Kg	
Dibromochloromethane	124-48-1	< 0.97	U	5.4	0.97	ug/Kg	
,1,2-Trichloroethane	79-00-5	< 1.2	U.	5.4	1.2	ug/Kg	
Benzene	71-43-2	< 1.1	U	5.4	1.1	ug/Kg	
1,3-Dichloropropene	10061-02-6	< 1.1	U	5.4	1.1	ug/Kg	
remoform	75-25-2	< 1.2	U	5.4	1.2	ug/Kg	
-Methyl-2-Pentanone	108-10-1	< 4.3	U	5.4	4.3	ug/Kg	
-Hexanone	591-78-6	< 6.5	U	5.4	6.5	ug/Kg	
etrachloroethene	127-18-4	< 1.3	U	5.4	1.3	ug/Kg	
,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.4	1.1	ug/Kg	
	108-88-3	< 1.2	U	5.4	1.2	ug/Kg	
horobenzene	108-90-7	< 1.2	U	5.4	1.2	ug/Kg	
thyl Benzene	100-41-4	< 1.1	U	5.4	1.1	ug/Kg	
tyrene	100-42-5	< 1.5	U	5.4	1.5	ug/Kg	
/p-Xylenes	1:36777-61-2	< .3.0	U	5.4	3.0	ug/Kg	

Volatiles : SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-20

Client ID:

BS-124-8

Date Collected:

6/19/02

Date Analyzed: File 1D:

6/27/02 VA062716.D

Dilution:

Analytical Method: Sample Wt/Wol:

Soil Aliquot Vol:

5.0 Units:

8260

Date Received:

Matrix:

Analytical Run ID: Instrument ID: Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL

VA061202

MSVOAA

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
o-Xylene	95-17-0	< ₹.2	U	5.4	1.2	ug/Kg
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	41.23	82 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	51.73	103 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	38.07	76 %	74 - 121		SPK: 50
Dibromofluoromethane	•	47.58	95 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	3024248	6.18			
1,4-Difluorobenzene	540-36-3	3387429	7.96			
robenzene-d5	3114-55-4	2864440	14.20			
1,4-Dichlorobenzene-d4	3855-82-1	1548216	19.71			

Volatiles -SW-846

SDG No.: P3097

MAC Consultants, Inc. Client:

Sample ID:

P3097-21

Client ID:

BS-128-12

Date Collected: Date Analyzed:

Sample Wt/Wol:

Soil Aliquot Vol:

6/19/02

6/27/02

VA062720.D

File ID: Dilution:

Analytical Method:

8260

5.0 Units:

g

Date Received:

Matrix:

Analytical Run ID:

Instrument ID: Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02

SOIL VA061202

MSVOAA

VBA0627S2

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 1.8	U	5.3	1.3	ug/Kg
Bromomethane	74-83-9	< 1.1	U	5.3	1.1	ug/Kg
Vinyl chloride	75-01-4	< 1.1	U	5.3	1.1	ug/Kg
Chloroethane	75-00-3	< 1.4	U	5.3	1.4	ug/Kg
Methylene Chloride	75-09-2	< 1.4	U	5.3	1.4	ug/Kg
Acetone	67-64-1	< 3.7	U	5.3	3.7	ug/Kg
Carbon disulfide	75-15-0	< 1.4	U	5.3	1.4	ug/Kg
I,1-Dichloroethene	75-35-4	< 1.2	U	5.3	1.2	ug/Kg
Dichloroethane	75-34-3	< 0.95	U	5.3	0.95	ug/Kg
1,2-Dichloroethene	156-60-5	< 1.2	U	5.3	1.2	ug/Kg
cis-1,2-Dichloroethene	156-59-2	< 0.95	U	5.3	0.95	ug/Kg
Chloroform	67-66-3	< 1.1	U	5.3	1.1	ug/Kg
1,2-Dichloroethane	107-06-2	< 1.2	U	5.3	1.2	ug/K.g
2-Butanone	78-93-3	< 5.7	U	5.3	5.7	ug/Kg
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.3	1.1	ug/Kg
Carbon Tetrachloride	56-23-5	< - 2.2	U	5.3	2.2	ug/Kg
Bromodichloromethane	75-27-4	< 0.84	U	5.3	0.84	ug/Kg
1,2-Dichloropropane	78-87-5	< 0.84	U	5.3	0.34	ug/Kg
cis-1,3-Dichloropropene	10061-01-5	< 0.95	U	5.3	0.95	ug/Kg
Frichloroethene	79-01-6	< 1.1	U	5.3	1.1	ug/Kg
Dibromochloromethane	124-48-1	< 0.95	U	5.3	0.95	ug/Kg
1,1,2-Trichloroethane	79-00-5	< 1.2	. Ú	5.3	1.2	ug/Kg
Benzene	71-43-2	< 1.1	U	5.3	1.1	ug/Kg
-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.3	1.1	ug/Kg
Bromoform	75-25-2	< 1.2	U	5.3	1.2	ug/Kg
-Methyl-2-Pentanone	108-10-1	< 4.2	. U	5.3	4.2	ug/Kg
-Hexanone	591-78-6	< 6.3	U	5.3	6.3	ug/Kg
Tetrachloroethene	127-18-4	< 1.3	U	5.3	1.3	ug/Kg
,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.3	1.1	ug/Kg
ini ne	108-38-3	< 1.2	U	5.3	. 1.2	ug/Kg
benzene	108-90-7	< 1.2	Ŭ	5.3	1.2	ug/Kg
thyl Benzene	100-41-4	< 1.1	U	5.3	i.1	ug/Kg
Styrene	100-42-5	< 1.5	U .	5.3	1.5	ug/Kg
n/p-Xylenes	13/3777-61-2	< 2.9	U	5.3	2.9	ug/Kg

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

P3097-21

6/19/02

Date Collected: Date Analyzed: File ID:

6/27/02

Dilution:

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

VA062720.D

8260 5.0

Units:

Client ID:

BS-128-12

Date Received:

Matrix:

Analytical Run ID:

Instrument ID: Associated Blank:

Soil Extract Vol:

% Moisture:

6/21/02 50IL

VA061202 MSVOAA

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
o-Xylené	93-17-0	<u> </u>	U	5.5	1.2	ng/Vã
SURROGATES						
1.2-Dichloroethane-d4	79-00-5	41.95	84 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	49.63	99 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	38.38	77 %	74 - 121		SPK: 50
Dibromofluoromethane		46.82	94 %	80 - 120		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2893957	6.16			
1,4-Difluorobenzene	540-36-3	3327374	7.96			
obenzene-d5	3114-55-4	2765841	14.20			
l, Dichlorobenzene-d4	3855-82-1	1576465	19.68			

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants. Inc.

Sample ID:

P3097-22

6/19/02

Date Collected: Date Analyzed:

6/28/02 VA062815.D

File ID: Dilution:

8260

5.0

Units:

g

Analytical Method:

Sample Wt/Wol: Soil Aliquot Vol:

Client ID:

BS-128-12DUP

Date Received:

Matrix:

Analytical Run ID:

Instrument ID:

Soil Extract Vol:

Associated Blank:

% Moisture:

6/21/02

SOIL

VA061202

MSVOAA

VBA0628S1

Parameter	CAS Number	Concentration	С	RDL	MDL	Units	
TARGETS	4. 27. 2	. 10	T.T.		1.0	77.5	
Chloromethane	74-87-3	< 1.9	U	5.6	1.9	ug/Kg	
Bromomethane	74-83-9	< 1.1	Ω.	5.6	1.1	ug/Kg	
Vinyl chloride	75-01-4	< 1.1	U	5.6	1.1	ug/Kg	
Chloroethane	75-00-3	< 1.4	U	5.6	1.4	ug/Kg	
Methylene Chloride	75-09-2	< 1.4	U	5.6	1.4	ug/Kg	
Acetone	67-64-1	< 3.9	U	5.6	3.9	ug/Kg	
Carbon disulfide	75-15-0	< 1.4	U	5.6	1.4	ug/Kg	
1,1-Dichloroethene	75-35-4	< 1.2	U	5.6	1.2	ug/Kg	
ichloroethane	75-34-3	< 1.0	U	5.6	1.0	ug/Kg	
trans-1,2-Dichloroethene	156-60 - 5	< 1.2	U	5.6	1.2	ug/Kg	
cis-1,2-Dichloroethene	156-59-2	< 1.0	U	5.6	1.0	ug/Kg	
Chloroform	67-66-3	< 1.1	U	5.6	1.1	ug/Kg	
1,2-Dichloroethane	107-06-2	< 1.2	U	5.6	1.2	ug/Kg	
2-Butanone	78-93-3	< 6.0	U	5.6	6.0	ug/Kg	
1,1,1-Trichloroethane	71-55-6	< 1.1	U	5.6	1.1	ug/Kg	
Carbon Tetrachloride	56-23-5	< 2.3	U	5.6	2.3	ug/Kg	
Bromodichloromethane	75-27-4	< 0.89 .	U	5.6	0.89	ug/Kg	
1,2-Dichloropropane	78-87-5	< 0.89	U	5.6	0.89	ug/Kg	
cis-1,3-Dichloropropene	10061-01-5	< 1.0	U	5.6	1.0	ug/Kg	
Trichloroethene	79-01-6	< 1.1	U	5.6	1.1	ug/Kg	
Dibromochloromethane	124-48-1	< 1.0	U _.	5.6	1.0	ug/Kg	:
1,1,2-Trichloroethane	79-00-5	< 1.2	Ü	5.6	1.2	ug/Kg	
Benzene	71-43-2	< 1.1	U	5.6	1.1	ug/Kg	
t-1,3-Dichloropropene	10061-02-6	< 1.1	U	5.6	1.1	ug/Kg	
Bromoform	75-25-2	< 1.2	U	5.6	1.2	ug/Kg	
4-Methyl-2-Pentanone	108-10-1	< 4.4	U	5.6	4.4	ug/Kg	
2-Hexanone	591-78-6	< 6.7	U	5.6	6.7	ug/Kg	
Tetrachloroethene	127-18-4	< 1.3	U	5.6	1.3	ug/Kg	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	U	5.6	1.1	ug/Kg	
T te	108-88-3	< 1.2	U	5.6	1.2	ug/Kg	
Charobenzene	108-90-7	< 1.2	U	5.6	1.2	ug/Kg	
Ethyl Benzene	100-41-4	< 1.1	U	5.6		ug/Kg	uh.
Styrene	100-42-5	< 1.6	U	5.6	1.6	ug/Kg	(0)
m/p-Xylenes	136777-61-2	< 3.1	Ū	5.6	3.1	ug/Kg	37,57

Volatiles SW-846

SDG No.:

P3097

Client:

MAC Consultants, Inc.

Sample ID:

6/19/02

Date Collected: Date Analyzed:

6/28/02

8260

5.0

Units:

g

File ID: Dilution: VA062815.D

Analytical Method:

Sample Wt/Wol:

Soil Aliquot Vol:

P3097-22

Client ID:

BS-128-12DUP

Date Received:

Matrix:

SOIL

Analytical Run ID:

Instrument ID:

Associated Blank: Soil Extract Vol:

% Moisture:

6/21/02

VA061202

MSVOAA

VBA0628S1

Parameter	CAS Number	Concentration	С	RDL	MDL	Units
0-Aylene	yɔ-+/-6	\$ 1.2	U,	5.6	1.2	ug/Kg
SURROGATES						
1,2-Dichleroethane-d4	79-00-5	49.24	98 %	70 - 121		SPK: 50
Toluene-d8	2037-26-5	54.3	109 %	81 - 117		SPK: 50
4-Bromofluorobenzene	460-00-4	37.28	75 %	74 - 121		SPK: 50
Dibromofluoromethane	,	53.97	108 %	80 - 120		SP.K.: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	2512828	6.10			
1,4-Difluorobenzene	540-36-3	2883659	7.87			
obenzene-d5	3114-55-4	2228323	14.12			
1,4-Dichlorobenzene-d4	3855-82-1	1135028	19.65			
TENTITIVE IDENTIFIED	COMPOUNDS					
Column Bleed	1000493	8.5	ЛВ	20.66		ug/kg