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Through Douglas K. Halford, REAC Operations Manager
From Robert Evangelista, REAC Task Leader
Subject Trip Report for the Barker Chemical Site, WA # 0-153

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SUMMARY

The sampling locations and analyses are shown in Figures 2 to 5 and listed in Table 1. Figures 4 and 5 differ only on the aerial photo used as the base map. Selected analytical results of the New York State Department of Environmental Conservation (NYSDEC) investigations are shown in Figure 1.

Tables 3 through 6 contain a tabular summary of the analytical data. Table 2 contains the list of the individual compounds for each analytical parameter. The summary tables (3 through 6) only contain the concentrations of individual compounds that were detected (positive hits). If an individual compound was not detected in all of the samples in a particular table, the compound was not listed in the respective table. The analytical data has not gone through the Lockheed Martin Response Engineering and Analytical Contract (REAC) data validation process and must be considered preliminary. Raw data are in Appendix C.

For sediment and waste/soil samples, the four criteria for action levels were: 1) NYSDEC Technical and Administrative Guidance Memorandum (TAGM) #4046 *Determination of Soil Cleanup Objectives and Cleanup Levels*; 2) U.S.EPA Region III risk based concentrations (RBCs), for a cancer ratio of 1:1,000,000 or a health index of 1, in *EPA Region III RBC Table, 4/13/2000*; 3) U.S. EPA Health Based cleanup criteria in TAGM 4046 and 4) the U.S.EPA RCRA (Resource Conservation and Recovery Act) criteria for characteristic hazardous waste in 40 CFR Sec.261. For surface water, State of New York action levels used were from 6NYCRR Sec.703.5, *Table 1, Water Quality Standards, Surface Water and Groundwater*.

All waste/soil and sediment passed TCLP analyses.

No samples were reactive, ignitable, or contained PCBs.

Only the sediment from the Trough with a pH of 2.0 could be considered corrosive. However, the solid

sediment is not a RCRA characteristic hazardous waste with the characteristic of corrosivity (D002) because the U.S.EPA regulations for corrosivity apply if the waste "is aqueous and has a pH of less than or equal to pH 2.0" (40 CFR 261.22).

Herbicides exceeded the NYSDEC TAGM 4046 criteria in one sample, which was from the Process Area.

Pesticides were only found in the South Lagoon and Process Area samples; however, pesticide concentrations only slightly exceeded the U.S. EPA Health Based criteria (in TAGM 4046) and the NYSDEC TAGM 4046 criteria.

For sediment and waste/soil samples from the Waste Pile, Layer 4 in the Filled Lagoon, the Chip Area, the Lead Arsenate Area and the Process Building, only the TAL metal arsenic exceeded the U.S.EPA RBC Table criteria. Most sediment and waste/soil samples and all surface water samples have TAL metals that exceeded NYSDEC TAGM 4046 criteria.

The Chip Area, north of the North Lagoon, had TAL metals that exceeded TAGM 4046 and U.S.EPA RBC criteria; however, the area appeared to contain native soil, and not a waste material as is present in much of the rest of the site. Furthermore, it was visually difficult to see the chips and, therefore, to discern the physical boundaries of this area.

Two sampling locations in the Operations Area (Process Building and Lead Arsenate Area) had waste/soil exceeding federal and/or state cleanup criteria. The Horizontal (fuel) Tank results exceeded only state criteria. The Process Building sample contained concentrations of VOCs (alkyl benzenes), BNAs, and herbicides that exceeded NYSDEC TAGM 4046 criteria. The Horizontal (fuel) Tank area sample exceeded NYSDEC TAGM 4046 for the TAL metals copper and iron contained almost 9% total petroleum hydrocarbons (TPH). The Lead Arsenate Area had BNAs and TAL metals (but not lead) that exceeded federal and state criteria. The contaminated material associated with the Process Building, the Horizontal (fuel) Tank, and the Lead Arsenate Area needs to be removed and additional sampling should be performed, possibly during removal, to determine the extent of contamination in the Operations Area.

Waste/soil and sediment samples north of the Operations Area (except the Chip Area) had sulfur concentrations as high as 55%, by weight. The Lead Arsenate Area sample, in the Operations Area, contained 153,000 mg/kg sulfur. TAGM 4046 and RBC Table I had no cleanup criteria for sulfur. These high sulfur materials are not a Resource Conservation and Recovery Act (RCRA) hazardous waste per 40 CFR Sec 261.

Only the U.S. EPA RBC Table has an action level for boron. No sample had a concentration of boron exceeding this level.

All surface water samples had a pH approximately four units below the New York State Water Quality Standard (6 NYCRR Sec. 703.5 Table 1) of 6.5. Sulfate was found in all surface water samples. The acidic surface water is probably due to sulfuric acid. It is highly probable that the sulfuric acid was formed from the sulfur present in the waste/soil materials and the lagoon sediments. The acidic waters from the site are entering the surrounding environment via the Trough and the Drainage Ditch, which flow into the East Boundary Creek and then flow into the Railroad Creek north of the site.

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The subsurface stratigraphy for the Waste Pile and Filled Lagoon, located west of the South Lagoon, are similar. These areas should be considered as one contiguous area.

INTRODUCTION

Purpose. The United States Environmental Protection Agency (U.S. EPA) Region II office requested the assistance of the U.S. EPA Environmental Response Team Center (ERTC) to perform sampling, at the Barker Chemical Site, a former agricultural chemical blending facility, and associated areas, and then analyses of the samples. The purposes of this work assignment are 1) to determine the extent of contamination of TAL metals, sulfur, boron, TCLP metals, herbicides, pesticides, polychlorinated biphenyls (PCBs), and other compounds at the site, and 2) to obtain chemical, physical, and environmental data necessary to complete a Generator's Waste Profile Sheet for potential off-site disposal.

Background. The source of the background information was an undated draft memo from Michael J. O'Toole, Jr., Director, Division of Environmental Remediation, New York State Department of Environmental Conservation (NYSDEC).

The Barker Chemical Site is the location of the former Barker Chemical facility located at 8473 West Somerset Road, Village of Barker, Town of Somerset, NY. At this site, Barker Chemical formulated, warehoused, and distributed a wide variety of agricultural chemicals for local wholesale and retail sales, including: herbicides, fungicides, insecticides, and rodenticides. The company ceased operations in the early 1970s.

The products potentially handled at Barker Chemical were:

- Phosalone <acaricide, insecticide; fish toxicity>
Bromoxynil (3,5-dibromo-4-hydroxybenzoxynitrile; 3,5-dibromo-4-hydroxyphenyl cyanide) <herbicide>
Butyric acid
2,4-D (2,4-dichlorophenoxyacetic acid) <herbicide>
Sodium chlorate (NaClO₃) <herbicide, defoliant>
Sodium arsenate <insecticide>
Asulam (methyl sulfanyl carbamate; methyl 4-aminobenzenesulphonylcarbamate) <herbicide>
Sodium metaborate <added to sodium chlorate herbicides and defoliants>
- 2,4,5-T (2,4,5-trichlorophenoxyacetic acid) <herbicide>
- Sevin (Carbaryl; 1-naphthyl methylcarbamate) <insecticide>
- Silvex (Fenoprop; 2,4,5-TP; 2-(2,4,5-trichlorophenoxy)propionic acid) <herbicide>
- Propionic acid (2-(2,4-dichlorophenoxy)) [note: correct spelling is propionic acid]
- Sulfur (sulphur) <fungicide, acaricide>
- Dimethyl 4,4'-o-phenylenebis (3-thioallophanate)
Alkylaryl polyoxy ethylene
- Thiram (Thirame; Thiuram; tetramethylthiuram disulfide; bis(dimethylthiocarbamoyl)disulfide) <fungicide; seed protectant; animal repellent>

[Sources: Site inspections and interviews by the Niagara County Health Department (NCHD) on July 20, 1970 and July 1, 1972; *Farm Chemicals Handbook 2000*, Meister Publishing Company; The

Agrochemicals Handbook, Second Edition, The Royal Society of Chemistry, June 1990].

In addition to the above list, an area resident claimed that lead arsenate, a rodenticide, was manufactured at the site.

The approximately 10 acre site presently consists of several abandoned and decaying buildings, two larger lagoons/ponds, an above-ground tank areas of bare soil areas of heavy brush, and shallow water north of the buildings. Investigations by the NYSDEC also revealed a third lagoon, suspected to be filled with a lime-sulfur slurry, generated by a fungicide blending process. The site appears to have been unused and fallow for many years. The Niagara County Brownfields Committee included the site in its inventory of potential brownfield sites.

NYSDEC staff conducted reconnaissance inspections, collected several soil/sediment samples, and conducted in-field pH measurements during December 1999 and January 2000. See attached REAC map *Figure 1, Results of the NYSDEC Reconnaissance Inspections 12/99 & 1/00*. Results NYSDEC reconnaissance inspections indicated that low pH conditions existed in the surface waters. The lagoons (pH range 2.2 - 3.0) and surface water adjacent to the site building (pH range 1.7 - 2.5) exhibited the lowest pH measurements found.

The NCHD and the New York State Department of Health (NYSDOH) have determined that a public health risk exists through direct contact with the low pH waters at the site. In January 2000, the county issued a public health advisory to nearby residents cautioning against entry onto the site.

Work Assignment Objective. The objectives of this work assignment were to provide technical support to the ERTC Work Assignment Manager (WAM) and the Region II On Scene Coordinator (OSC) by evaluating the extent of contamination at the Barker Chemical Site and surrounding environs and to determine off-site disposal requirements for site materials.

TECHNICAL APPROACH

Scope of Work. The scope of work was divided into 2 phases: 1) a preliminary reconnaissance phase and 2) a sampling, analysis and requirements of disposal phase. The preliminary reconnaissance phase consisted of a site inspection by the ERTC WAM, the Region II OSC, and the Lockheed Martin Response Engineering and Analytical Contract (REAC) Task Leader (TL) to assist in the development of a work plan. The second phase of the project included an evaluation of the extent of contamination via subsurface soil and sediment borings; soil, sediment and surface water sampling; and chemical analyses. Furthermore, the second phase determined off-site disposal requirements for site materials.

Preliminary Reconnaissance Phase Activities. The preliminary phase involved a site reconnaissance visit by a 3-person team consisting of the OSC, the WAM and the TL on June 6, 2000.

The reconnaissance team walked around the perimeters of both the North and the South Lagoons, the Waste Pile (southeast of the lagoons), the aboveground Horizontal (fuel) Tank, the Trough Area, the Wet Area (on the west side of the site), the Chip Area (north of the North Lagoon), and the woodlands in the eastern and northern portions of the site.

The team also walked through the East and West Warehouses, the Office Building, and the Process

Building. The East and West Warehouses did not contain any pesticide materials; the East Warehouse contained a stack of wood pallets. The Office Building contained pieces of abandoned office furniture and strewn papers. The shipping and receiving area of the Process Building contained a stack of pallets and a pallet of empty bags for product. The process area of the Process Building contained only the cement foundations where process equipment once resided. For a two-piece cement foundation, wooden planks covered the floor between the two pieces. The roof of the process area was partly caved in.

The team took samples for visual observation only from four areas: the bottom sediment from both lagoons, the Waste Pile, and the Chip Area.

The team examined the surface waters of the site. The team walked by the creek on the eastern boundary of the site as well as the larger stream, Golden Hill Creek, approximately one-half mile north of the site. The team took pH readings from the surface waters of both lagoons, the Trough, and the East Boundary Creek both upstream and downstream of the confluence with the Trough. The pH readings ranged between 2 and 3, except for the surface water in the East Boundary Creek upstream of the confluence with the Trough which had pH of approximately 6.

Sampling and Analyses Phase Activities. The following components comprised the basic approach to the sampling portion of the second (sampling and analytical) phase:

- create a map showing selected contaminants on the site, from the results of the December 1999 and January 2000 NYSDEC reconnaissance inspections (previous to the ERTC/REAC site reconnaissance)
- create a site map from the aerial photos
- divide the site into areas for sampling
- apply a sampling strategy for each media in each of the areas
- determine which contaminants of concern would be analyzed, and
- apply an archival strategy for each of the areas.

Site Contamination Map. The TL and the REAC Geographic Information Systems/Computer Aided Drafting Specialist, created a map titled *Figure 1, Results of the NYSDEC Reconnaissance Inspections 12/99 & 1/00* (Appendix A). This map depicts known site contamination. The site contamination map was based on the September 2, 1958 aerial photo (PIC200023015). All of the NYSDEC soil, sediment, and surface water sampling locations were placed on the map. Concentrations, in mg/L or mg/kg, of selected indicator metals—arsenic, chromium, copper, and lead—were placed on the map for all NYSDEC samples. The metals selected are indicator compounds for contamination in the media based on the pesticide products produced at the site. The concentrations were obtained from three tables of the NYSDEC analyses titled: *Summary of Surface Water Analytical Results for the Former Barker Chemical Site*, *Summary of Sediment Analytical Results for the Former Barker Chemical Site*, and *Summary of Waste Sample Analytical Results for the Former Barker Chemical Site*.

Site Map. Creating the site map was a multi-step process. First, four preliminary site maps were created from the following four aerial photos of the site: September 2, 1958 (PIC 20002301S); April 17, 1968 (PIC 20002301S); May 17, 1972 (PIC 20002301S); and April 13, 2000 (PIC 20002301S). Then the four preliminary site maps and the four aerial photographs were placed side-to-side to observe the changes in the site over the 42 year time period. The TL and the REAC GIS/CAD Specialist determined that the September 2, 1958 aerial photograph should be used as the working site map because the September 2,

1958 map showed features of the operating Barker Chemical facility either not evident or that had changed in the subsequent (later) aerial photographs. Lastly, the GIS/CAD Specialist added final details to the site map, such as the five sampling areas.

The site map, based on the 1958 aerial photo, is the basis for Figures 2, 3, and 4 in Appendix A. Figure 5 was created from the 2000 aerial photo (Appendix A).

Site clearing and grubbing. The site was not used for nearly thirty years and was extensively overgrown with tall grass, thick brush, and small trees. This vegetation made it difficult to move around many areas of the site during the preliminary reconnaissance. Therefore, extensive site clearing and grubbing were required during the initial portion of the sampling and analytical phase to make room for the equipment trailer, the Geoprobe trailer, and general field sampling operations.

Sampling Areas. The site was initially divided into several sampling areas : North Lagoon, South Lagoon, Surface Water Drainage Areas, Filled Lagoon, Filled-in Area of the North Lagoon (FANL), Waste Pile, Chip Area, and Operations Area (Figures 2, 3, and 4). The North and South Lagoons are the two surface water impoundments on site. The Surface Water Drainage Areas are five discrete locations on or near the site, which move water from the site and surrounding environs toward Lake Ontario. The Surface Water Drainage Areas consists of: the Trough, the Drainage Ditch, the East Boundary Creek, the Railroad Drainage Creek, and Golden Hill Creek. The Filled Lagoon and the Waste Pile are three contiguous areas located west of the two lagoons and north of the Operations Area (site buildings). The Chip Area is located north of the western half of the North Lagoon. The NYSDEC reconnaissance inspections refers to this area as Green Pieces, from the green chips of material present in the soil (refer to Figure 1). The Operations Area, located in the southern portion of the site, consists of two warehouse buildings, the Process Building, an aboveground horizontal tank to the west of the Process Building, and the Lead Arsenate area to the east of the Process Building.

The sample locations are shown in Figure 2, *Sediment Sample Locations and Analyses*; Figure 3, *Surface Water Sample Locations and Analyses*; and Figure 4, *Waste and Soil Sample Locations and Analyses* (Appendix A). For a detailed account of each sample, refer to the Field Data Sheets in Appendix B.

North Lagoon and the South Lagoon. The sampling strategy was identical at both the North Lagoon and the South Lagoon. Two types of samples were obtained from each lagoon, sediment and surface water samples. One composite sediment sample was removed from each lagoon. The North and South Lagoon sediment samples were each a composite of nine locations within the lagoons. The rationale for this sediment sampling strategy was the assumption that the sediment within each lagoon was relatively homogeneous.

One composite surface water sample was taken from the surface of each lagoon. It was assumed that the water in each lagoon is homogeneous.

Surface Water Drainage Areas. The Surface Water Drainage Areas consisted of five discrete locations: the Trough, the Drainage Ditch, the East Boundary Creek, the Railroad Drainage Creek, and Golden Hill Creek (Figure 3, Golden Hill Creek is off scale to the north of the Railroad Drainage Creek). The surface waters of the Trough and the Drainage Ditch each flow east into the East Boundary Creek. The East Boundary Creek flows north into the Railroad Drainage Creek. The Railroad Drainage Creek, located north of the site, flows east. Golden Hill Creek is north of the Railroad Drainage Creek; however, a

hydraulic connection was not found between site surface water and Golden Hill Creek in the vicinity of the site.

The locations of the sediment samples are shown in Figure 2. One composite sediment sample was taken from the Trough. Another composite sediment sample was removed from the Drainage Ditch. Two composite sediment samples were taken from the East Boundary Creek. One sediment sample was obtained approximately fifty feet downstream from the confluence of the Trough with the creek; another sample just upstream from the confluence of the Trough and the creek, but downstream of the confluence of the Drainage Ditch and the creek. Another composite sediment sample was taken from the Railroad Drainage Creek immediately downstream from its confluence with the East Boundary Creek. Since a hydraulic connection was not found between the East Boundary Creek and Golden Hill Creek in the vicinity of the site, no sediment sample was taken from Golden Hill Creek.

One surface water sample was taken from the Trough, just upstream from its confluence with the East Boundary Creek (Figure 3).

Filled Lagoon and Waste Pile Areas. The sampling locations of the Filled Lagoon, the FANL, and the Waste Pile were determined by the WAM and the REAC hydrogeologist and are shown in Figure 4. A track-mounted Geoprobe was used to take core samples (i.e., direct push samples) in acetate sleeves at the various sampling locations. Based on field observations, certain waste/soil samples were selected for analysis. Geographic Positioning System (GPS) measurements were taken at each of these sampling locations.

Chip Area. One waste/soil sample was taken from the Chip Area. This area was located north of the western half of the North Lagoon. The Chip Area was in the general location that the NYSDEC called Green Pieces, and where the NYSDEC obtained a soil sample during their preliminary reconnaissance (Figure 4).

Operations Area. The Operations Area consists of the Horizontal (fuel) Tank, the Process Building, the Lead Arsenate Area, the office building, and two warehouses. One waste/soil sample was taken from each of the following locations: Horizontal (fuel) Tank, Process Building, and Lead Arsenate Area. Core samples were removed from the soil between the office building and the two warehouses, but not taken for analysis (Figure 4).

Direct Push Soil Sampling. Direct push waste/soil sampling was conducted at 20 locations, 19 within or near the Waste Pile and the Filled Lagoon areas (WP-1 through WP-19), and one at the Lead Arsenate (designated PbAs in the Field Data Sheets) Area (Figure 4). The waste/soil samples were collected in acetate sleeves pushed into the subsurface within a steel tube attached to expendable drive points. Sampling was performed in accordance with ERTC/REAC Standard Operating Procedure (SOP) #2050, *Model 5400 Geoprobe Operation*. The push samples were used to visually characterize subsurface material. Additionally, several subsurface waste/soil samples were collected and submitted for laboratory analysis.

Hand Auger Soil Sampling. A hand auger served as a backup to direct push soil sampling. Hand auger sampling was conducted at six locations, in accordance with ERTC/REAC SOP #2012, *Soil Sampling*. Waste/soil samples collected at three of the six locations (H-1, H-2, and H-3, Figure 4) were used only to visually characterize subsurface materials. Additionally, waste/soil samples were collected and submitted

for laboratory analysis at locations near the Horizontal Fuel Tank, in the Process Building, and within the Chip Area (sample # 22268, not shown in the actual location), as well as for visual inspection and characterization (refer to Figure 4).

Surface Sediment Sampling. Surface sediment samples in the Surface Water Drainage Areas were collected with stainless steel trowels and/or stainless steel spoons, following the procedures outlined in the ERTC/REAC standard operating procedure (SOP) #2012, *Soil Sampling*.

Deep Sediment Sampling. Deep sediment samples (under one to three feet of surface water) were extracted from the lagoons using an acetate sleeve sampler. Hence, it was possible to observe the sample before placing it into the sample container. Samples were observed to distinguish between waste material(s) and the presumed underlying native material. Only samples of the waste material were desired for analysis.

All sediment samples, surface and deep, were placed into a stainless-steel container and homogenized. After the sample was thoroughly mixed, aliquots for laboratory analyses were dispensed into appropriate sample containers.

Surface Water Sampling. One surface water sample was taken from each of the two lagoons using the procedures outlined in SOP #2013, *Surface Water Sampling*.

Sample Archiving. All archived samples were shipped under a separate Chain of Custody and are presently stored at REAC.

Sample Analyses. The types of analyses performed on each sample depended on the type and location of the sample. There were three types of samples: sediment, surface water, and waste/soil. Each sample was assigned a unique sample ID number. Table 1 lists the analyses performed per sample. Samples are grouped with other samples having the same analytical parameters. For a plan-view representation of this information, see Figures 2 to 5.

Calculated Waste Volumes. Waste volumes were estimated for the sediment of the North and South Lagoons, and for the waste/soil of the combined Filled Lagoon and Waste Pile areas. The volume of surface water was calculated for each of the two lagoons.

The sediment volumes for both the North and South Lagoons were calculated from the 9 sediment depth measurements made in each lagoon. A grid, having 20 foot by 20 foot sides, was placed over an aerial photograph showing both lagoons. Known sediment depths were placed in the proper grid box. Sediment depths in adjacent grid boxes were estimated using ascending or descending linear values to the next known grid box value. The product of the x and y (surface area), and z (depth) values for each grid box was calculated. Then, these values were summed across the entire grid.

To calculate the waste volumes for the waste/soil within the combined Filled Lagoon and Waste Pile areas, first the areas' surface area was measured in the north-south and east-west directions; then the average depth of material was estimated. The area of waste/soil to be removed extended northward from the Process Building to the North Lagoon. In the east-west direction, the area to be removed extended westward from of the South Lagoon to the Wet Area (on the western border of the Filled Lagoon). Waste/soil volume estimates are based on observations made through the direct push sampling in the

Waste Pile and Filled Lagoon. The waste/soil depth estimate was the sum of the thicknesses of the materials in Layers 4 and 3 (upper most, non-native material), and Layer 2 (the black stained portion of native glacial till).

The surface water volumes for both the North and South Lagoons were calculated from the water depth measurements made in each lagoon. Calculations were similar to those made for the sediment volumes. A grid, having 20 foot by 20 foot sides, was placed over an aerial photograph of each lagoon. Known surface water depths were placed in the proper grid box. Water depths in the adjacent grid boxes were estimated using ascending or descending linear values to the next known grid box value. The product of the x, y, and z values for each grid box was calculated. Then, these values were summed across the entire grid.

RESULTS

Analytical Parameters. General analytical parameters and a list of each parameter's individual compounds are presented in Table 2. This table is essentially a master list of all the individual analytes.

Tables 3, 4, 5, and 6 summarize the analytical results. They contain only the concentrations of individual compounds that were detected (positive hits). If an individual compound was not detected in any of the samples in a particular summary table, the compound was not shown in that summary table.

For tentatively identified compounds (total TICs), only the total concentration are listed in Tables 3 to 6. Individual tentatively identified compounds (TICs) are not listed in Tables 3 to 6.

Summary of the Preliminary Data. The preliminary analytical data have been summarized in Tables 3, 4, 5 and 6. Table 3 contains summarized data from sediment samples. Table 4 has data from surface water samples. Table 5 contains summarized data from waste/soil samples in the Waste Pile and Filled Lagoon. Table 6 contains summarized data from waste/soil samples in the Chip and Operations areas.

All tables contain the NYSDEC and U.S. EPA action level criteria. For waste/soil and sediment samples, the state action criteria used are the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) #4046, titled *Determination of Soil Cleanup Objectives and Cleanup Levels*. The U.S. EPA action levels for waste/soil and sediment are based on three criteria: 1) the risk based concentrations (RBCs) for a cancer ratio of 1:1,000, 000 or a health index of 1 in *EPA Region III RBC Table, 4/13/2000*; 2) U.S. EPA Health Based cleanup criteria in TAGM 4046; and 3) the Resource Conservation and Recovery Act (RCRA) criteria for the hazardous waste characteristics of ignitability, corrosivity, reactivity, and toxicity (TCLP) in 40 CFR Sec 261.

TAGM 4046 treats heavy metals somewhat differently compared to organic compounds. The TAGM 4046 Table 4, *Recommended Soil Cleanup Objectives (mg/kg or ppm), Heavy Metals* listed a heavy metal compound's soil cleanup criteria in one of three different ways: 1) concentration only, i.e., mercury, 0.1; 2) a listed concentration and site background (SB), i.e., arsenic, 7.5 or SB; or 3) SB only, i.e., thallium, SB. Therefore, background soil samples from the Barker Chemical Site should also be evaluated to determine the values for SB. Additionally, U.S. EPA Health Based cleanup criteria are not listed in TAGM 4046 for heavy metals .

For surface water, the state action levels used are from 6 NYCRR Sec.703.5, *Table 1, Water Quality*

Standards, Surface Water and Groundwater. All analytical results were compared against the above state and federal criteria.

Cleanup criteria did not exist for sulfur in the NYSDEC TAGM 4046, the RBC table, U.S. EPA Health Based criteria (in TAGM 4046), and 40 CFR Sec.261. Criteria exist for boron in the RBC table, but not in TAGM 4046, U.S. EPA Health Based criteria (in TAGM 4046), and 40 CFR Sec.261.

The raw (unsummarized) data are attached in Appendix C. Because of project scheduling and cost and with the approval of the WAM, the data have not been validated; therefore, all results should be considered preliminary.

Paint filter tests for the solid materials (sediments and waste/soil) were not complete at the time of this report. Those results will be sent under a different cover.

The results are segregated by site location: North Lagoon; South Lagoon; Surface Water Drainage Areas; Filled Lagoon and Waste Pile Area; Chip Area; and Operations Area.

North Lagoon. Sediment. The sediment sample from the North Lagoon exceeded the NYSDEC TAGM 4046 criteria because of the results for the TAL metals copper (29 mg/kg) and iron (5010 mg/kg). The sediment sample results were below the action level for selected 8151A herbicides, TCLP, BNA (semi-volatile), and PCB/pesticide compounds. The pH of the sediment was 3.4. The sample contained a sulfur concentration of 116,000 mg/kg.

The calculated sediment volume for the North Lagoon is 1500 cubic yards.

Surface Water. The surface water sample exceeded NYSDEC Water Quality Standards for the TAL metals aluminum (51,200 mg/L), cobalt (75 mg/L), copper (347 mg/L), iron (77,300 mg/L), lead (72 mg/L), magnesium (38,400 mg/L), manganese (5270 mg/L), nickel (127 mg/L), thallium (11 mg/L), and vanadium (57 mg/L). Sulfate (1470 mg/L) and pH (2.7) also exceeded standards.

The calculated surface water volume for the North Lagoon is 300,000 gallons

South Lagoon. Sediment. The South Lagoon's sediment sample exceeded the NYSDEC TAGM 4046 criteria because of the TAL metal beryllium (0.2 mg/kg). The sample results for p,p-DDE and p,p-DDT (7 and 6 mg/kg, respectively) exceeded the U.S. EPA Health Based criteria (in TAGM 4046) and the NYSDEC TAGM 4046 pesticide criteria. The results were below the action levels for selected 8151A herbicides, TCLP metals, and BNA (semi-volatile) compounds. The pH of the sediment is 8.2. The sulfur concentration of the sample was 581,000 mg/kg (almost 60%).

The calculated sediment volume for the South Lagoon was 1200 cubic yards

Surface Water. The surface water sample exceeded NYSDEC water quality standards for surface water and groundwater due to concentrations of the TAL metals aluminum (40,500 mg/L), cobalt (14 mg/L), iron (24,600 mg/L), magnesium (40,600 mg/L), and manganese (2660 mg/L). The surface water sample also exceeded NYSDEC water quality standards for sulfate (1480 mg/L) and pH (3.1). Analyses found that the concentration of sulfur (1430 mg/l) are similar to that for sulfate (1480 mg/L); hence, much of the sulfur in the surface water was in the sulfate form. And since tested waters had a low pH, much of the

sulfate may have been in the form of sulfuric acid. This hypothesis applies to all surface waters at the site.

The calculated surface water volume for the South Lagoon is 200,000 gallons

Surface Water Drainage Areas. Sediment. The five sediment samples from the Trough, the Drainage Ditch, the East Boundary Creek upstream of its confluence with the Trough, the East Boundary Creek downstream, and the Railroad Creek downstream of its confluence with the East Boundary Creek exceeded NYSDEC TAGM 4046 criteria because of the TAL metals arsenic beryllium, chromium, copper, iron, mercury, and zinc. The Trough had 158,000 mg/kg sulfur in the sediment sample; the other four samples ranged from 1010 to 2530 mg/kg sulfur. The results for the sediment samples were below the action levels for selected 8151A herbicides and TCLP compounds. Analyses for PCB/pesticides and BNA (semi-volatile compounds) were not performed.

The pH of the (solid) sediment sample from the Trough was 2.0. For a characteristic hazardous waste, the RCRA criteria for corrosivity is a pH of 2.0 or below. This value could be used as an action level for site cleanup; however, the sediment was not a RCRA hazardous waste with the characteristic of corrosivity (D002) because the U.S.EPA regulations for corrosivity apply if the waste "is aqueous and has a pH of less than or equal to pH 2.0" (40 CFR 261.22).

No sediment volumes were calculated

Surface Water. One surface water sample was taken from the Trough. The surface water samples exceeded NYSDEC water quality standards for surface water and groundwater due to concentrations of the TAL metals aluminum (30,200 mg/L), arsenic (204 mg/L), cobalt (23 mg/L), copper (355 mg/L), iron (67,400 mg/L), lead (222 mg/L), magnesium (78,700 mg/L), manganese (2050 mg/L), and vanadium (49 mg/L). The surface water sample also exceeded NYSDEC water quality standards for sulfate (2250 mg/l) and pH (2.1). As in the South Lagoon, the concentration of sulfur (1950 mg/L) was similar to that for sulfate (2250 mg/L); hence, the water leaving the site probably contains sulfuric acid.

The surface waters in these areas are running waters. A calculated surface water volume is not applicable.

Waste Pile and Filled Lagoon. Subsurface Stratigraphy. Subsurface soil samples were collected continuously from the ground surface to the native glacial till at most of the 19 locations within the Waste Pile, FANL, and the Filled Lagoon. The locations of these soil borings are illustrated on Figures 4 and 5; the subsurface stratigraphy is in Table 7. Above the native glacial till (layer 1, the lowermost layer), three stratigraphic layers were present, although not all layers were observed at all locations. These layers included a black stained glacial till (layer 2), a dark green pond muck material (layer 3), and a layer of light-colored, loose waste material (layer 4, the uppermost layer).

Most of the soil recoveries from the direct push cores within the Waste Pile and Filled Lagoon varied between 50% and 75%. In order to account for the entire depth interval sampled at each location, estimates of the true intervals of each layer were made, assuming that the till layers were nearly 100% recovered, and recoveries of the looser layers (Layer 3 and Layer 4) were under-represented in the cores. Table 7 presents a summary of the best estimated vertical intervals of the units noted per location. The following are descriptions of these units.

Layer 1, Native Glacial Till. The lowermost stratigraphic unit observed at depth was a dark red native glacial till. This material was intact and undisturbed. The till was comprised of unsorted, glacially-transported material, mainly a mixture of silt and clay, with varying amounts of sand and small non-rounded pebbles.

Layer 2, Undisturbed Black-Stained Native Glacial Till. At most of the 19 locations, the uppermost portion of the native glacial till had been stained black. At several of these locations a black fluid was observed above the till. This fluid is likely the material responsible for the black staining of the till, where present. At this time, the composition of the fluid is unknown; additional samples are being analyzed at present.

Layer 3, Dark Green Pond Muck. At many locations, above either Layer 1 or Layer 2, a very loose, almost fluid-like, very fine grained, wet, dark green material was observed. This material appears to have been deposited in standing water. This layer does not appear to have been naturally deposited; it was likely the result of former operations at the site.

Layer 4, Light Colored, Loose, Waste Material. Above either the pond muck (where present) or glacial till, a very loose waste material was present covering the waste pile and filled lagoon areas. This material was light colored, mostly yellow, with grey, white, orange, and black components. This material was thickest within the waste pile, and appeared to have been vertically piled in this area. Within the Filled Lagoon, this material may have been mechanically spread. However, the vertical layering observed at several locations suggested that this material may have been fluvially transported to these locations.

Selection of Subsurface Soil Samples for Analysis. Five samples were sent for analyses from the 19 direct push soil samples (acetate core) in this area. Multiple cores were collected at each sample location, in order to obtain sufficient sample to fill the required laboratory glassware. The Layer 2, Layer 3, and Layer 4 samples were collected at direct push location WP-13. The Layer 1 sample was obtained at direct push location WP-6. Additionally, the thick accumulation of Layer 4 material at the Waste Pile was also sampled for laboratory analysis.

Waste/Soil Samples. The Waste Pile sample (#22261) did not exceed soil cleanup criteria for the TAL metals, selected herbicides, TCLP metals, BNAs, or PCB/pesticides. TPH was 87 mg/kg. However, this sample had nearly 20% sulfur by weight. As mentioned above, there are no action levels for sulfur.

Four samples were taken in the Filled Lagoon; one in each of the four distinct layers. The results for Layer 4, the uppermost layer, exceeded NYSDEC TAGM 4046 for beryllium and iron (0.2 and 3450 mg/kg, respectively). Layer 4 had a concentration of 352,000 mg/kg sulfur and a pH of 6.8. Layer 4 did not exceed criteria for selected 8151A herbicides, boron, and TCLP metals.

The Layer 3 sample had concentrations below all action levels; however, sulfur comprised over 55% of this material. The pH was 11.5.

Layer 2 exceeded NYSDEC TAGM 4046 for TAL metals beryllium (0.2 mg/kg), iron (9690 mg/kg), and zinc (22 mg/kg). Sulfur comprised nearly 20% of this material. Because Layer 2 had black coloration, it was analyzed for TPH and BNAs. The results for TPH was 131 mg/kg; the BNAs phenanthrene and bis(2-ethylhexyl)phthalate had concentrations 3 and 0.8 mg/kg, respectively. The material had a pH of

12.0. Layer 2 did not exceed the criteria for selected 8151A herbicides, boron, TCLP metals, and BNAs.

Layer 1 exceeded NYSDEC TAGM 4046 for TAL metals beryllium (0.4 mg/kg), iron (8780 mg/kg), and zinc (31 mg/kg). Even the native glacial till (layer 1) had nearly 2% sulfur by weight. It is likely that the sulfur from the above layers had migrated downward under the influence of rain water. The material had a pH of 8.6. TPH was not performed on the Layer 1 sample. Layer 1 did not exceed the criteria for selected 8151A herbicides, boron, TCLP metals, and BNAs.

The estimated volume of the Waste Pile and Filled Lagoon is 14,000 cubic yards.

Chip Area. Waste/Soil Samples. The results for the Chip Area waste/soil sample exceeded the NYSDEC TAGM 4046 criteria for the TAL metals arsenic (286 mg/kg), beryllium (0.5 mg/kg), copper (364mg/kg), iron (11,700 mg/kg), mercury (0.1 mg/kg) and zinc (36 mg/kg); the RBC criteria was also exceeded for arsenic. The pH of the sample taken from this area was 5.1. These results confirm the previous NYSDEC analyses shown in Figure 1. However, the sample appeared to be till-like material that had been weathered into a native soil horizon, and not a waste material. Although the NYSDEC site plan labeled this area "Green Pieces," the area appeared to be a normal woods environment. It was difficult to visually detect the green pieces and visually discern the physical boundaries of this area.

Operations Area. In the Operations Area, the results varied widely depending on the sample. See Figures 4 and 5 for the boundaries of this area.

Lead Arsenate Area. The results for the Lead Arsenate Area sample (#22263) exceeded the U.S. EPA Health Based (in TAGM 4046), the U.S. EPA RBC Table, and the NYSDEC TAGM 4046 criteria for the BNA benzo(a)anthracene (9 mg/kg). The results of the sample also exceeded the U.S. EPA RBC Table and the NYSDEC TAGM 4046 criteria for the BNA pentachlorophenol (130 mg/kg). Lastly, the material exceeded the NYSDEC TAGM 4046 criteria for the BNAs naphthalene (19 mg/kg), 3-nitroaniline (49 mg/kg), dibenzofuran (29 mg/kg), fluoranthene (51 mg/kg), and chrysene (9 mg/kg).

This sample exceeded the U.S. EPA RBC Table and the NYSDEC TAGM 4046 criteria for the TAL metal arsenic (15 mg/kg). The material also exceeded the NYSDEC TAGM 4046 criteria for the TAL metals copper (75mg/kg), iron (14,300 mg/kg), mercury (0.3 mg/kg) and zinc (27 mg/kg). However, the results for the lead arsenate area did not surpass the criteria for lead (95 mg/kg). The sulfur concentration was over 15% by weight. The pH value was 2.6. The results for selected herbicides, TCLP, PCBs, and pesticides were below state and federal criteria.

Horizontal (fuel) Tank. The results for the Horizontal (fuel) Tank area sample exceeded NYSDEC TAGM 4046 criteria for copper (28 mg/kg) and iron (2000 mg/kg). The pH value was 3.0. This sample contained almost 9% by weight TPH; the state and federal action levels do not address TPH. A BNA analysis, to determine the individual compounds found only 3 mg/kg butylbenzylphthalate above detection. Since the TPHs in this sample contain minimal BNAs, it is assumed that the tank was used for storing fuel oil.

Process Building. The sample from the Process Building had significant criteria contamination. The results for this sample exceeded the U.S. EPA RBC Table and the NYSDEC TAGM 4046 criteria for the TAL metal arsenic (11 mg/kg). It is the only sample taken with concentrations that exceeded the U.S. EPA Health Based (in TAGM 4046) and the NYSDEC TAGM 4046 criteria for the selected 8151A

herbicides 2,4-D (7,000 ug/kg) and 2,4,5-T (3,500 ug/kg)

It is also one of only two samples (the other is the South Lagoon sediment) that exceeded pesticide criteria. The pesticide heptachlor (0.2 mg/kg) exceeded the U.S. EPA Health Based (in TAGM 4046) and the NYSDEC TAGM 4046 criteria; eldrin (0.2 mg/kg) exceeded the NYSDEC TAGM 4046 criteria.

The pH value was 3.9. The concentration of total BNA tentatively identified compounds (total TICs) was 1003 mg/kg, with only 2,4-dinitrophenol (7 mg/kg) exceeding the NYSDEC TAGM 4046 criteria.

Due to the glue-like smell of the sample, a VOC analysis was performed. It was the only sample analyzed for VOCs. The results exceeded the NYSDEC TAGM 4046 criteria for the alkyl benzenes p&m-xylene (79 mg/kg) and o-xylene (22 mg/kg), and total VOCs (3142 mg/kg). The other detected VOCs did not exceed federal and state criteria. It can be hypothesized from the concentrations of alkyl benzenes in this sample that this area was used to blend concentrated herbicides or pesticides with a general petroleum distillate solvent. The list of products potentially handled at Barker Chemical contained at least one emulsifier. So it is likely that the herbicide-petroleum distillate blend was mixed with an emulsifier, and this formulation was sold to local farmers as a herbicide concentrate to be diluted with water for application.

Because of the high VOC results, a TCLP analysis for all organic species, in addition to the heavy metals, was performed on the Process Building sample. No concentrations from this sample exceeded the federal values for TCLP.

GPS. Initially, GPS georeferencing was performed on four discernable features at the site. A REAC Field Technician obtained GPS measurements at waste/soil borings and other sample locations. These locations, shown in Figures 4 and 5, have an accuracy of plus or minus 10 feet. The amount of error in the positions of the boring and sample locations is due to the close clustering of the georeferencing points along the southern portion of the site. There were no other reference positions that could be discerned on the 1958 and 2000 aerial photos in the central and northern portions of the site. The amount of positional error can be seen by the GPS outline of the South Lagoon versus the actual image from the aerial photograph in Figures 4 and 5.

CONCLUSIONS

The acidic surface water in the North and South Lagoons and the Trough are due to the formation of sulfuric acid from the very high concentrations of sulfur throughout much of the site. This excessively low pH surface water, containing criteria concentrations of TAL metals and sulfate, is draining off site into the surrounding environment via the Trough, the Drainage Ditch and the East Boundary Creek.

Throughout much of the site, the primary criteria contaminants identified were the TAL metals

Samples taken within the Operations Area (Horizontal Tank, Process Building, and Lead Arsenate Area) exceeded the federal and state criteria for several different analytical parameters. From the variety of the contaminants, this area appears to have been used for multiple operations. However, the extent of the contamination in this portion of the Barker Site is not fully defined.

The high VOC concentrations identified in the Process Area most likely resulted from petroleum

distillate, an inexpensive solvent, being mixed with pure herbicides and an emulsifying agent. This mixture was then be diluted with water for farm application.

The Chip Area contains arsenic exceeding U.S. EPA RBC and NYSDEC TAGM 4046 criteria; other TAL metals exceed the NYSDEC TAGM 4046 criteria. The chips of the Chip Area (or Green Pieces area on the NYSDEC site map) were difficult to detect or see. Therefore, the chips may be located in a small geographical area and the physical boundaries of this area is not visually discernable.

RECOMMENDATIONS

For the Operations Area (Horizontal Tank, Process Building, and Lead Arsenate Area), removal of the visible contamination, followed by additional sampling is prudent.

The threat to human health and the environment is from the surface water both on and leaving the site. Therefore removal of the sediments from the North and South Lagoons and the Trough and the waste/soil materials in Layers 2 to 4 located in the Waste Pile/Filled Lagoon Area will remedy this surface water issue. The sediment andf materials in these areas can be placed into a capped and lined impoundment or removed off site

The physical boundaries of the Chip Area (Green Pieces area) need to be defined

The NYSDEC TAGM 4046, the U.S. EPA Health Based (in TAGM 4046), and the U.S. EPA Region III RBC Table criteria should be reviewed and evaluated as they apply to the Barker Chemical site. Sulfur, a dominant chemical of concern at the Barker Site, is not addressed by these criterea. Many of the waste/soil and sediment samples had contaminant concentrations only slightly above the criteria values.

Most NYSDEC TAGM 4046 criteria for heavy metals consider the site background concentrations. Therefore, site background samples should be taken at or near the Barker Chemical Site. Then site background concentrations should be evaluated with respect to the TAGM criteria for heavy metals

Table ANALYTICAL PARAMETERS PER SAMPLE LOCATION

Analytical Parameters	Sample Type	Sample Location	Sample & Chain of Custody Numbers
TAL metals, sulfur, boron, Herbicides 8151A, TCLP (metals; 2,4-D; 2,4,5-TP) Ignitability, Reactivity, Corrosivity, Paint Filter	Sediment	Trough	22269 2817
TAL metals, sulfur, boron, Herbicides 8151A, TCLP (metals; 2,4-D; 2,4,5-TP) Ignitability, Reactivity	Sediment	Drainage Ditch	22270 2817
	Sediment	East Bound. Cr. upstream of Trough confluence	22271 2817
	Sediment	East Bound. Cr. downstream of Trough confluence	22264 2815
	Sediment	Railroad Cr. downstream of East Bound. Cr. confluence	22262 2815
TAL metals, sulfur, boron, Herbicides 8151A, TCLP (metals; 2,4-D; 2,4,5-TP) Ignitability, Reactivity, Corrosivity	Waste/soil	Chip Area	22268 2816
	Waste/soil	WP-13 Layer 3	22254 3585
	Waste/soil	WP-13 Layer 4	22255 3585
TAL metals, sulfur, boron Herbicides 8151A TCLP (metals; 2,4D; 2,4,5-TP) Ignitability, Reactivity, Corrosivity, BNAs, PCB/Pesticides, Paint Filter	Sediment	North Lagoon	22252 2812 & 2811
	Sediment	South Lagoon	22251 2812 & 2811
TAL metals, sulfur, boron Herbicides 8151A TCLP (metals; 2,4D; 2,4,5-TP) Ignitability, Reactivity Corrosivity, BNAs, PCB/Pesticides	Waste/soil	Lead Arsenate Area	22263 2815 & 2811
	Waste/soil	WP-1 Waste Pile	22261 2814 & 2811
TAL metals, sulfur, boron Herbicides 8151A, TCLP (metals; 2,4D; 2,4,5-TP), BNAs Ignitability, Reactivity, Corrosivity, TPH	Waste/soil	Horizontal (fuel) Tank	22267 2817 & 2811
	Waste/soil	WP-13 Layer 2	22253 2812
TAL metals, sulfur, boron Herbicides 8151A, TCLP (metals; 2,4D; 2,4,5-TP) Ignitability, Reactivity, BNAs	Waste/soil	WP-6 Layer 1	22256 2812

Table 1. (Cont.) ANALYTICAL PARAMETERS PER SAMPLE LOCATION

TAL metals, sulfur, boron, Herbicides 8151A, TCLP (all compounds), Ignitability, VOCs, Reactivity, Corrosivity, PCB/Pesticides	Waste/soil	Process Bldg, Process Area	22265 2816 & 2811
TAL metals, sulfur, boron, Herbicides 8151A, Sulfate, Chloride, Nitrate, Ignitability, Corrosivity, Reactivity	Surface water	North Lagoon	22257 2818
	Surface water	South Lagoon	22258 2809
	Surface water	Trough	22259 2810

Table 2. Barker Chemical Analytical Parameters and Individual Compounds

Volatile Organic Compounds (VOCs)	Base Neutral Acid Extractables (BNAs)	TCLP: metals	PCBs/Pesticide
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane Acetone 1,1-Dichloroethane Methylene Chloride Carbon Disulfide Methyl-t-butyl Ether trans-1,2-Dichloroethene 1,1-Dichloroethene 2-Butanone 2,2-Dichloropropane cis-1,2-Dichloroethene Chloroform 1,1-Dichloropropene 1,2-Dichloroethane 1,1,1-Trichloroethane Carbon Tetrachloride Benzene Trichloroethene 1,2-Dichloropropane Bromodichloromethane Dibromomethane cis-1,3-Dichloropropene trans-1,3-Dichloropropene 1,1,2-Trichloroethane 1,3-Dichloropropane Dibromochloromethane 1,2-Dibromoethane Bromoform 4-Methyl-2-Pentanone Toluene 2-Hexanone Tetrachloroethene Chlorobenzene 1,1,1,2-Tetrachloroethane Ethylbenzene m&p-Xylene o-Xylene Styrene Isopropylbenzene 1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane n-Propylbenzene Bromobenzene 1,3,5-Trimethylbenzene 2-Chlorotoluene 4-Chlorotoluene tert-Butylbenzene 1,2,4-Trimethylbenzene sec-Butylbenzene p-Isopropyltoluene 1,3-Dichlorobenzene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichlorobenzene	Phenol bis(-2-Chloroethyl)Ether 2-Chlorophenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene Benzyl Alcohol 1,2-Dichlorobenzene 2-Methylphenol bis(2-Chloroisopropyl)ether 4-Methylphenol N-Nitroso-Di-n-propylamine Hexachloroethane Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol bis(2-Chloroethoxy)methane 2,4-Dichlorophenol 1,2,4-Trichlorobenzene Naphthalene 4-Chloroaniline Hexachlorobutadiene 4-Chloro-3-methylphenol 2-Methylnaphthalene Hexachlorocyclopentadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene 3-Nitroaniline Acenaphthene 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate 4-Chlorophenyl-phenylether Fluorene 4-Nitroaniline 4,6-Dinitro-2-methylphenol N-Nitrosodiphenylamine 4-Bromophenyl-phenylether Hexachlorobenzene Pentachlorophenol Phenanthrene Anthracene Carbazole Di-n-butylphthalate Fluoranthene Pyrene Butylbenzylphthalate Benzo(a)anthracene 3,3'-Dichlorobenzidine Chrysene Bis(2-Ethylhexyl)phthalate Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene	Arsenic Barium Cadmium Chromium Lead Mercury Selenium Silver TCLP: Herbicides 2,4-D Silvex TCLP: VOCs Vinyl Chloride 1,1-Dichloroethene 2-Butanone Chloroform Carbon tetrachloride Benzene 1,2-Dichloroethane Trichloroethene Tetrachloroethene Chlorobenzene TCLP: Semivolatiles Pyridine 1,4-Dichlorobenzene 2-Methylphenol 3-Methylphenol 4-Methylphenol Hexachloroethane Nitrobenzene Hexachlorobutadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2,4-Dinitrotoluene Hexachlorobenzene Pentachlorophenol TCLP: Pesticides gamma-BHC (Lindane) Endrin Heptachlor Heptachlor Epoxide Methoxychlor Toxaphene Technical Chlordane Total Petroleum Hydrocarbons (TPH) Herbicides, selected (Method 8151A) 2,4-D Silvex 2,4,5-T This table contains all the individual compounds (individual analytes) for each analytical parameter. Therefore, this table contains the target compound list. Subsequent tables (Tables 3 to 6) only contain an individual compound if that compound was detected. If an individual compound is listed in Table 2, but not in one of the subsequent tables 3 to 6, the compound was not detected in the samples for the respective table.	a-BHC g-BHC b-BHC Heptachlor d-BHC Aldrin Heptachlor Epoxide g-Chlordane a-Chlordane Endosulfan (I) p,p'-DDE Dieldrin Endrin p,p'-DDD Endosulfan (II) p,p'-DDT Endrin Aldehyde Endosulfan Sulfate Methoxychlor Endrin Ketone Toxaphene Arochlor 1016 Arochlor 1221 Arochlor 1232 Arochlor 1242 Arochlor 1248 Arochlor 1254 Arochlor 1260 Arochlor 1268 TAL metals Aluminum Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc

Table 3. Sediment Sample Locations

				North Lagoon	South Lagoon	rough to East ouinary (EB) Creek	Drainage Ditch	B Cr. Upstr Confluence with Trough	B Cr. Downstr Confluence with Trough	Railroad Cr. Downstream Confl. EB Cr.
Data Sheet #				22252	22251	22269	22270	22271	22264	22262
Chain of Custody #				2812	2812	2817	2817	2817	2815	2815
TAL Metals (mg/kg)	NYSDEC Soil Objectives*	EPA Soil Objectives**	EPA Health Based Obj.*							
Aluminum	SB	2,000,000	N/A	3,470	4,040	1,100	8,780	6,160	6,340	6,400
Antimony	SB	820	N/A	ND	3	0.3	1	2	0.2	0.4
Arsenic	7.5 or SB	3.8	N/A	6	4	3	321	22	24	4
Barium	300 or SB	140,000	N/A	121	9	208	57	89	111	60
Beryllium	0.16 or SB	41,000	N/A	0.1	0.2	0.05	0.3	0.3	0.3	0.3
Calcium	SB	N/A	N/A	23,900	203,000	42,100	2,000	2,760	11,300	1,760
Chromium	10 or SB	N/A	N/A	6	4	2	17	70	11	8
Cobalt	30 or SB	120,000	N/A	2	0.9	0.9	2	5	4	3
Copper	25 or SB	82,000	N/A	29	7	27	394	53	66	12
Iron	2000 or SB	610,000	N/A	5,010	3,870	1,580	26,900	15,300	14,900	8,030
Lead	SB	N/A	N/A	14	4	14	69	314	16	41
Magnesium	SB	N/A	N/A	772	9,200	244	916	2,690	2,780	1,430
Manganese	SB	41,000	N/A	126	180	22	84	309	326	89
Mercury	0.1	N/A	N/A	0	0.05	0.05	13.1	0.2	0.3	0.08
Nickel	13 or SB	41,000	N/A	5	4	2	7	10	10	7
Potassium	SB	N/A	N/A	518	117	425	332	468	497	309
Selenium	Z or SB	10,000	N/A	ND	ND	ND	2	0.5	0.2	0.5
Silver	SB	10,000	N/A	0.08	0.1	0.8	0.9	0.2	0.05	0.1
Sodium	SB	N/A	N/A	72	66	91	114	79	50	80
Thallium	SB	140	N/A	ND	ND	ND	ND	ND	0.2	ND
Vanadium	150 or SB	14,000	N/A	8	5	2	22	17	18	12
Zinc	20 or SB	610,000	N/A	12	16	5	83	84	55	34
Sulfur (mg/kg)	N/A	N/A	N/A	116,000	581,000	158,000	1,010	2,260	2,530	2,500
Boron (mg/kg)	N/A	180,000	N/A	14	26	10	53	25	31	20
Herbicides 8151A (µg/kg):										
2,4-D	500	20,000,000	800	27	10	27	6	9	3	3
2,4,5-TP (Silvex)	700	16,000,000	600	5	1	12	0.6	0.2	0.4	0.7
2,4,5-T	1900	20,000,000	200	4	5	6	0.8	1.2	1	0.7
TCLP (µg/l):										
Arsenic		5000		21	30	14	29	50	61	8
Barium		100,000		29	74	94	170	637	1220	245
Cadmium		1000		2	1	2	0.3	2	1	0.3
Chromium		5000		7	54	17	2	2	1	0.4
Lead		5000		66	153	60	18	147	144	59
Mercury		200		0.1	0.2	0.2	0.1	0.2	0.3	0.1
Selenium		1000		7	10	8	8	12	11	7
Silver		5000		0.6	0.6	0.6	0.6	0.6	0.6	0.6
2,4-D		10,000		0.2	0.2	1	1	0.3	0.2	1
2,4,5-TP (Silvex)		1000		0.1	0.3	0.1	0.04	0.04	0.1	0.04
BNAs (mg/kg):										
Sum of BNA TICs	N/A	N/A	N/A	ND	ND					
				3	ND					
Corrosivity (pH)										
		≤ 2, ≥ 12.5***		3.4	8.2	2.0				
PCB/Pesticides (mg/kg)										
a-BHC	0.11	N/A	0.11	0.006	ND					
g-Chloridane	0.54	12,000	0.54	0.02	ND					
p,p-DDE	2.1	17	2.1	0.06	7					
Dieldrin	0.044	36	0.044, 4	0.004J	ND					
p,p-DDD	2.9	24	2.9	0.2	2					
p,p-DDT	2.1	17	2.1, 40	0.02	6					

**NO QC EVALUATION HAS BEEN PERFORMED
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

Shaded compounds and concentrations exceeded NYSDEC or U.S.EPA criteria

* TAGM 4046; ** EPA Region III RBC Table 4/13/2000, except TCLP in 40 CFR 261.24; *** for aqueous wastes (40 CFR 261.22)

SB = site background; N/A = not available; ND = none detected above J value

Analytical parameters and individual compounds listed in Tables 1 and 2 and not listed above were not found in above samples

Table 4. Surfacewater Sample Locations

Data Sheet #		North Lagoon	South Lagoon	Trough
Chain of Custody #		22257 2818	22258 2809	22259 2810
TAL Metals (µg/l):	NYSDEC Water Standards *			
Aluminum	100	51,200	40,500	30,200
Arsenic	50	31	ND	204
Barium	1000	21	21	82
Beryllium	3 G	2	2	1
Cadmium	5	4	0.7	3
Calcium	N/A	296,000	278,000	470,000
Chromium	50	48	22	38
Cobalt	5	75	14	23
Copper	200	347	55	355
Iron	300	77,300	24,600	67,400
Lead	50	72	12	222
Magnesium	35,000	38,400	40,600	78,700
Manganese	300	5270	2660	2050
Mercury	0.7	ND	ND	0.1
Nickel	100	127	41	81
Potassium	N/A	3880	3040	8260
Selenium	10	2.6	<2	<2
Sodium	N/A	3900	2740	14,600
Thallium	8	11	5	7
Vanadium	14	57	5	49
Zinc	2000 G	735	581	1150
Sulfur (mg/l)	N/A	2460	1430	1950
Boron (mg/l)	10	0.2	ND	0.1
pH	< 6.5; > 8.5	2.7	3.1	2.1
Chloride (mg/l)	250	ND	ND	8.2
Sulfate (mg/l)	250	1470	1480	2250

Shaded compounds and concentrations exceed NYSDEC or U.S.EPA criteria

Note: * 6NYCRR Sec.703.5 Table 1, Water Quality Standards, Surface Waters and Groundwater

G = guidance value; N/A = not available; ND = none detected above J value

Analytical parameters and individual compounds listed in Tables 1 and 2 and not listed above were not found in above samples

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

Table 5. Waste/Soil Sample Locations in Waste Pile and Filled Lagoon

Data Sheet # Chain of Custody #				WP-1 Waste Pile 22261 2814	WP-6 Layer 1 22256 2812	WP-13 Layer 2 22253 2812	WP-13 Layer 3 22254 3585	WP-13 Layer 4 22255 3585
TAL Metals (mg/kg):	NYSDEC Soil Objectives*	U.S.EPA Soil Objectives**	EPA Health Based Obj.*					
Aluminum	SB	2,000,000	N/A	347	4240	8810	1960	4350
Antimony	SB	820	N/A	0.4	ND	0.3	0.2	0.4
Arsenic	7.5 or SB	3.8	N/A	5	3	1	3	4
Barium	300 or SB	140,000	N/A	21	75	106	5	4
Beryllium	0.16 or SB	41,000	N/A	0.02	0.2	0.4	0.09	0.2
Calcium	SB	N/A	N/A	198,000	41,100	76,700	248,000	206,000
Chromium	10 or SB	N/A	N/A	1	6	9	2	6
Cobalt	30 or SB	120,000	N/A	ND	4	3	ND	0.3
Copper	25 or SB	82,000	N/A	24	19	9	3	3
Iron	2000 or SB	610,000	N/A	296	9690	8780	1770	3450
Lead	SB	N/A	N/A	7	3	4	4	6
Magnesium	SB	N/A	N/A	180	5140	3210	10,100	1180
Manganese	SB	41,000	N/A	6	610	269	146	57
Mercury	0.1	N/A	N/A	0.04	0.03	ND	0.03	0.03
Nickel	13 or SB	41,000	N/A	0.7	8	8	2	2
Potassium	SB	N/A	N/A	48	742	779	64	47
Sodium	SB	N/A	N/A	48	77	142	33	59
Vanadium	150 or SB	14,000	N/A	0	10	13	3	6
Zinc	20 or SB	610,000	N/A	ND	22	31	7	7
Sulfur (mg/kg)	N/A	N/A	N/A	198,000	27,400	198,000	551,000	352,000
Boron (mg/kg)	N/A	180,000	N/A	26	18	26	15	10
Herbicides 8151A (µg/kg)								
2,4-D	500	20,000,000	800	3	47	6	9	3
2,4,5-TP (Silvex)	700	16,000,000	600	6	10	7	1	2
2,4,5-T	1900	20,000,000	200	4	16	16	3	2
TCLP (µg/l):								
Arsenic		5000		121	4	9	20	2
Barium		100,000		61	478	624	80	70
Cadmium		1000		0.2	0.2	0.4	0.2	0.2
Chromium		5000		1	0.4	39	32	2.2
Lead		5000		29	12	36	47	14
Mercury		200		0.1	0.2	0.1	0.1	0.1
Selenium		1000		9	11	8	10	7
Silver		5000		0.6	0.6	0.6	0.9	0.6
2,4-D		10,000		0.2	0.2	0.1	0.9	1
2,4,5-TP (Silvex)		1000		0.03	0.04	0.2	0.03	0.7
PCB/Pesticides (mg/kg)								
p,p'-DDD	2.1	24	2.9	0.04				
p,p'-DDT	2.1	17	2.1, 40	0.05				
Endrin Ketone	N/A	N/A	N/A	0.01				
Total Petroleum Hydrocarbons, TPH (mg/kg)	N/A	N/A	N/A	87		131		
BNAs (mg/kg):								
Phenanthrene	50	N/A	N/A	ND	ND	0.8		
Bis(2-Ethylhexyl)phthalate	50	410	50, 2000	ND	ND	3		
Total TICs	N/A	N/A	N/A	ND	ND	17		
Corrosivity (pH)		≤ 2, ≥12.5***		7.0	8.6	12.0	11.5	6.8

* TAGM 4046; ** EPA Region III RBC Table 4/13/2000, except TCLP in 40 CFR 261.24; *** for aqueous wastes (40 CFR 261.22)

SB = site background; N/A = not available; ND = none detected above J value

Analytical parameters and individual compounds listed in Tables 1 and 2 and not listed above were not found in above samples

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

Table 6. Waste/Soil Sample Locations in Operations and Chip Areas

Data Sheet # Chain of Custody #				Horizontal (Fuel) Tank 22267 2817	Process Bldg Process Area 22265 2816	Chip Area 22268 2816	PbAsO4 (lead arsenate) area 22263 2815
TAL Metals (mg/kg):	NYSDEC Soil Objectives*	U.S.EPA Soil Objectives**	EPA Health Based Obj.*				
Aluminum	SB	2,000,000	N/A	897	253	10,400	555
Antimony	SB	820	N/A	0.3	0.6	1	2
Arsenic	7.5 or SB	3.8	N/A	3	11	286	15
Barium	300 or SB	140,000	N/A	128	30	94	93
Beryllium	0.16 or SB	41,000	N/A	0.07	0.02	0.5	0.1
Calcium	SB	N/A	N/A	205	131,000	3080	9950
Chromium, total	10 or SB	N/A	N/A	3	0.8	11	5
Cobalt	30 or SB	120,000	N/A	1	<0.08	3	3
Copper	25 or SB	82,000	N/A	28	8	364	75
Iron	2000 or SB	610,000	N/A	2000	1980	11,700	14,300
Lead	SB	N/A	N/A	17	32	106	95
Magnesium	SB	N/A	N/A	99	103	1990	110
Manganese	SB	41,000	N/A	9	8	101	27
Mercury	0.1	N/A	N/A	0.06	0.2	0.1	0.3
Nickel	13 or SB	41,000	N/A	3	0.5	9	8
Potassium	SB	N/A	N/A	408	410	430	325
Selenium	2 or SB	10,000	N/A	0.6	<0.2	0.6	1
Silver	SB	10,000	N/A	0.08	<0.06	<0.8	0.5
Sodium	SB	N/A	N/A	81	99	97	85
Vanadium	150 or SB	14,000	N/A	3	1	17	8
Zinc	20 or SB	610,000	N/A	6	3	36	27
Sulfur (mg/kg)	N/A	N/A	N/A	17,700	251,000	2440	153,000
Boron (mg/kg)	N/A	180,000	N/A	13	10	26	35
Herbicides 8151A (µg/kg):							
2,4-D	500	20,000,000	800	13	7,000	2	7
2,4,5-TP (Silvex)	700	16,000,000	600	2	680	0.1	3
2,4,5-T	1900	20,000,000	200	3	3,500	1	1
TCLP (µg/l)							
Arsenic		5000		118	48	246	5
Barium		100,000		417	68	336	90
Cadmium		1000		0.4	0.2	0.2	2
Chromium		5000		2	2	0.8	2
Lead		5000		38	126	56	106
Mercury		200		0.1	0.2	0.2	0.1
Selenium		1000		10	9	9	132
Silver		5000		0.6	0.6	0.6	0.6
2,4-D		10,000		0.2	0.7	0.2	0.3
2,4,5-TP (Silvex)		1000		0.02	0.2	0.03	0.04
Heptachlor		8			0.5		
Heptachlor Epoxide		8			0.4		
BNAs (mg/kg):							
Naphthalene	13	41,000	300	ND	ND		19
2-Methylnaphthalene	36.4	41,000	N/A	ND	ND		27
3-Nitroaniline	0.5 or MDL	N/A	N/A	ND	ND		49
2,4-Dinitrophenol	0.2 or MDL	4,100	200	ND	7		<5
Dibenzofuran	6.2	8,200	N/A	ND	ND		29
Fluorene	50	120,000	3,000	ND	ND		43
Pentachlorophenol	1 or MDL	48	2000	ND	ND		130
Phenanthrene	50	N/A	N/A	ND	ND		13
Fluoranthene	50	82,000	3,000	ND	ND		51
Pyrene	50	61,000	2,000	ND	ND		35
Benzo(a)anthracene	0.224 or MDL	7.8	0.224	ND	ND		9
Chrysene	0.4	780	N/A	ND	ND		9
Butylbenzylphthalate	50	410,000	20,000	3	ND		ND
Sum of BNA TICs	N/A	N/A	N/A	446	1003		260
PCB/Pesticides (mg/kg):							
a-BHC	0.11	N/A	0.11		0.03		ND
g-BHC	N/A	N/A	N/A		0.7		ND
Heptachlor	0.1	1.3	0.16, 40		0.2		ND
g-Chlordane	0.54	16	0.54, 50		0.2		ND
Endosulfan (I)	0.9	12,000	N/A		0.3		ND
p,p-DDE	2.1	17	2.1		0.2		0.1
Endrin	0.1	610	20		0.2		ND
p,p-DDD	2.9	24	2.9		0.2		ND
Endosulfan (II)	0.9	12,000	N/A		0.1		ND
p,p-DDT	2.1	17	2.1, 40		ND		0.9
VOCs (mg/kg):							
n-Propylbenzene	1.2	4,100,000	200,000		79, 22		
1,3,5-Trimethylbenzene	N/A	82,000	N/A		110		
1,2,4-Trimethylbenzene	N/A	100,000	N/A		710		
n-Butylbenzene	N/A	100,000	N/A		2200		
Total VOCs	10	82,000	N/A		21		
Corrosivity (pH)		N/A	N/A		3142		
TPH (mg/kg)	N/A	≤ 2, ≥ 12.5***	N/A	3.0	3.9	5.1	2.6
				87,800			

**NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED**

Shaded compounds and concentrations exceeded NYSDEC or U.S.EPA criteria
 * TAGM 4046; ** EPA Region III RBC Table 4/13/2000, except TCLP in 40 CFR 261.24; *** for aqueous wastes (40 CFR 261.22)
 ND = none detected above J value; MDL = method detection limit; N/A = not available;
 Analytical parameters and individual compounds listed in Tables 1 and 2 and not listed above were not found in above samples

Table 7. Subsurface Stratigraphy - Waste Pile and Filled Lagoon

Sample Location	Layer 4	Layer 3	Layer 2	Layer 1
WP-1	0 - 7.0 ft.	NP	7.0 - 7.5 ft.	7.5 - 8.0 ft.
WP-2	0 - 2.5 ft.	NP	2.5 - 4.0 ft.	DNR
WP-3	0 - 3.9 ft.	NP	3.9 - 4.0 ft.	DNR
WP-4	NP	NP	NP	0 - 4.0 ft.
WP-5	0 - 4.0 ft.	4.0 - 6.5 ft.	6.5 - 8.0 ft.	DNR
WP-6	0 - 4.0 ft.	4.0 - 4.2 ft.	4.2 - 5.7 ft.	5.7 - 8.0 ft.
WP-7	0 - 4.0 ft.	NP	4.0 - 7.0 ft.	7.0 - 8.0 ft.
WP-8	0 - 3.8 ft.	3.8 - 6.0 ft.	6.0 - 6.8 ft.	6.8 - 7.0 ft.
WP-9	0 - 3.2 ft.	3.2 - 3.8 ft.	3.8 - 4.1 ft.	4.1 - 8.0 ft.
WP-10	0 - 4.0 ft.	NP	4.0 - 7.0 ft.	7.0 - 8.0 ft.
WP-11	0 - 4.0 ft.	4.0 - 4.8 ft.	4.8 - 6.3 ft.	6.3 - 8.0 ft.
WP-12	0 - 1.6 ft.	1.6 - 3.2 ft.	3.2 - 6.0 ft.	6.0 - 8.0 ft.
WP-13	0 - 2.4 ft.	2.4 - 3.2 ft.	3.2 - 4.2+ ft.	DNR
WP-14	0 - 3.0 ft.	NP	NP	3.0 - 8.0 ft.
WP-15	0 - 2.0 ft.	2.0 - 3.0 ft.	3.0 - 6.9 ft.	6.9 - 8.0 ft.
WP-16	0 - 2.5 ft reworked layer 1 2.5 - 2.8 ft layer 2 2.8 - 8.0 ft native layer 1			
WP-17	0 - 2.3 ft layer 4 2.3 - 3.3 ft clayey sand & clay (natural deposit) 3.3 - 8.0 layer 1			
WP-18	0 - 2.5 ft reworked layer 1 2.5 - 6.5 ft layer 2 6.5 - 8.0 ft native layer 1			
WP-19	0 - 4.0 ft reworked layer 1 4.0 - 4.3 ft layer 3 4.3 - 6.5 ft layer 2 6.5 - 8.0 ft layer 1			

NP = not present

DNR = did not reach

Appendix A
SITE FIGURES

Appendix B
FIELD DATA SHEETS

FIELD DATA SHEET

22268

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 6/24/00 Time: 1305 Samplers: Bussey Site Name: Barker Chemical Sample Location: Chip Area Chain of Custody No.: 02816 & 02813 REAC Task Leader: Evangelista EPA WAM: Zounir Work Assignment No.: RIA 00153

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	_____	rock	silt
industrial	<u>wooded</u>	lowland riverine	gravel	muck	odor	_____	depth	_____	rubble	clay
<u>commercial</u>	farmland	lacustrine	sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully		silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain		color	<u>Black</u>			riffles	_____ %	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color	<u>Black</u>	pH	_____
groundwater	sludge	trowel	other	odor	<u>None</u>	ORP	_____
potable water	leachate	bucket		temp	_____	salinity	_____
sediment	waste	<u>auger</u>		DO	_____	sample depth	<u>2'</u>
<u>soil</u>	other	ekman		cond	_____	tide stage	_____
						relative humidity	<u>in shade</u>
						weather conditions	<u>Clear</u>

ANALYSES TO BE PERFORMED

- ORGANICS
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - I. other 8151 A herbicides
- INORGANICS
- A. metals, priority pollutant
 - B metals, TAL
 - C. metals scan (ICP)
 - D metals, other aluminum, boron

- OTHER ANALYSES
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

SAMPLE PREPARATION

- CONTAINER
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - other
- PRESERVATIVES
- HNO₃
 - NaOH
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____
- STORAGE
- wet ice
 - dry ice
 - ambient

RCRA 8 Metals; 2,4-D; 2,4,5-TP
_____ pH _____
D reactivity _____
E. other _____

Archival Sample
F22268

COMMENTS:

- A 22268 Ignitability
- B 22268 REACTIVITY
- C 22268 TAL metals, sulfur, boron
- D 22268 8151 A herbicides
- E 22268 TCLP metals; 2,4-D; 2,4,5-TP

FORM #1

FIELD DATA SHEET

22262

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 6/22/00 AM
 Time: AM
 Samplers: Zaidelick / Fournier / Evangelista
 Site Name: Barker Chemical
 Sample Location: Railroad creek, downstream of the confluence of East Boundary Creek
 Chain of Custody No.: 02815 & 02813
 REAC Task Leader: Evangelista
 EPA WAM: Fournier
 Work Assignment No.: 0-0153

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width		rock	silt	
<u>industrial</u>	wooded	lowland riverine	gravel	<u>rock</u>	odor	depth		rubble	clay	
commercial	farmland	lacustrine	sand	loam	flow	velocity	cm/s	gravel	organic	
residential	gully		silt	peat	direction	pools	%	shell	other	
hedgerows	floodplain		color	<u>red dark brown</u>		riffles	%	sand		

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS		
surface water	effluent	<u>kemmerer</u>	ponar	color	pH	ambient temp			
groundwater	sludge	<u>trowel</u>	other	odor	ORP	barometric pressure			
potable water	leachate	bucket		temp	salinity	relative humidity			
<u>sediment</u>	waste	auger		DO	sample depth	weather conditions			
soil	other	ekman		cond	tide stage				

ANALYSES TO BE PERFORMED

- ORGANICS**
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - D other herbicide

- INORGANICS**
- A. metals, priority pollutant
 - B metals, TAL
 - C. metals scan (ICP)
 - D metals, other sulfur & boron

- RCRA**
- A TCLP: metals; 2,4-D; 2,4,5-TP
 - B ignitability
 - C. corrosivity _____ pH _____
 - C reactivity
 - E. other _____

- OTHER ANALYSES**
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

SAMPLE PREPARATION

- CONTAINER**
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - other _____
- PRESERVATIVES**
- HNO₃
 - NaOH
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____

- STORAGE**
- wet ice
 - dry ice
 - ambient

Archival samples

- G 22262
- H 22262
- I 22262

COMMENTS:

A 22262 } IGNITABILITY 2, 8-oz jar
 B 22262 }
 C 22262 REACTIVITY 1, 4-oz jar
 FORM #1
 D 22262 TAL metals plus sulfur & boron 1, 4-oz jar
 E 22262 8151A herbicides 1, 4-oz jar
 F 22262 TCLP: metals; 2,4-D; 2,4,5-TP 1, 4-oz jar

FIELD DATA SHEET

22264

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

02813 & 02815

Date: 6/21/00 Samplers: Zownia / EVANGELISTA Chain of Custody No.:
Site Name: Barker Chemical REAC Task Leader: THE ZOWNIA EVANGELISTA
Time: AM Sample Location: East Boundary Creek, Downstream OF CONFLUENCE WITH TROUGH EPA WAM: Zownia
Work Assignment No.: 0-0153

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width	rock	silt		
industrial	wooded	lowland riverine	gravel	rock	odor	depth	rubble	clay		
commercial	farmland	lacustrine	sand	loam	flow	velocity	cm/s	gravel	organic	
residential	gully		silt	peat	direction	pools	%	shell	other	
hedgerows	floodplain		color	<u>Medium Reddish Brown</u>		riffles	%	sand		

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color	pH	ambient temp		
groundwater	sludge	<u>trowel</u>	other	odor	ORP	barometric pressure		
potable water	leachate	bucket		temp	salinity	relative humidity		
<u>sediment</u>	waste	auger		DO	sample depth	weather conditions		
soil	other	ekman		cond	tide stage			

ANALYSES TO BE PERFORMED

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables
- G. pesticides, drinking water
- H. herbicides, drinking water

Other 8151A herbicides

OTHER ANALYSES

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate
- J. TOC
- K. grain size
- L. percent moisture
- M. other

INORGANICS

- A. metals, priority pollutant
- B. metals, TAL
- C. metals scan (ICP)
- D. metals, other Sulfur, boron

RCRA

- A. TCLP: Metals; 2,4-D; 2,4,5-TP
- B. ignitability
- C. corrosivity _____ pH
- D. reactivity
- E. other

SAMPLE PREPARATION

CONTAINER

- glass jar
- plastic jar
- acetate core
- plastic bag
- plastic bucket
- other

PRESERVATIVES

- HNO₃
- NaOH
- Zn Acetate
- HCl
- Na₂SO₄
- other

STORAGE

- wet ice
- dry ice
- ambient

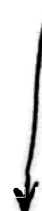
Archive Sample

F 22264

COMMENTS:

- A 22264 IGNITABILITY 1, 32-03 JAR
- B 22264 REACTIVITY 1, 8-03 JAR
- C 22264 TAL Metals, Sulfur, boron
- D 22264 8151A herbicides
- E 22264 TCLP: Metals; 2,4-D; 2,4,5-TP

FORM #



FIELD DATA SHEET

22270

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 6/21/2000 Samplers: Zownia / EUNIBOLISTA Chain of Custody No: 02817 & 02813
Time: PM Site Name: Daskor Chemical REAC Task Leader: EUNIBOLISTA
Sample Location: Retention Ditch (South of Trough) EPA WAM: Zownia
Work Assignment No.: 0-0153

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	_____	rock	silt
<u>industrial</u>	wooded	lowland riverine	gravel	muck	odor	_____	depth	_____	rubble	clay
commercial	farmland	lacustrine	sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully		silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain		<u>check for red brown</u>				riffles	_____ %	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color	_____	pH	_____
groundwater	sludge	<u>trivler</u>	other	odor	_____	ORP	_____
potable water	leachate	bucket		temp	_____	salinity	_____
<u>sediment</u>	waste	auger		DO	_____	sample depth	_____
soil	other	ekman		cond	_____	tide stage	_____

ANALYSES TO BE PERFORMED

SAMPLE PREPARATION

- | | | | |
|--|--|--|---|
| <p>ORGANICS</p> <ul style="list-style-type: none"> A. halogenated & aromatic volatiles B. volatiles C. trihalomethanes D. pesticides/PCB E. PCB F. base neutral/acid extractables G. pesticides, drinking water H. herbicides, drinking water <u>0</u> other <u>8151A herbicides</u> | <p>OTHER ANALYSES</p> <ul style="list-style-type: none"> A. total cyanide B. total phenol C. petroleum hydrocarbons D. pH E. alkalinity F. hardness G. total dissolved solids H. total suspended solids I. sulfate J. TOC K. grain size L. percent moisture M. other _____ | <p>CONTAINER</p> <ul style="list-style-type: none"> glass jar plastic jar acetate core plastic bag plastic bucket other | <p>PRESERVATIVES</p> <ul style="list-style-type: none"> HNO₃ NaOH Zn Acetate HCl Na₂SO₄ other _____ |
|--|--|--|---|

INORGANICS

- A. metals, priority pollutant
- B. metals, TAL
- C. metals scan (ICP)
- 0 metals, other Sulfur, Boron

RCRA

- 0 A. TCLP: metals; 2,4-D; 2,4,5-TP
- B. ignitability
- C. corrosivity _____ pH _____
- 0 D. reactivity
- E. other _____

Archival Sample
F 22270
G 22270

COMMENTS:

- A 22270 Ignitability
- B 22270 Reactivity
- C 22270 TAL metals, sulfur, boron
- FORM #1
- D 22270 8151A herbicides
- E 22270 TCLP: metals; 2,4-D; 2,4,5-TP

FIELD DATA SHEET

22271

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Chain of Custody No. 02817 & 02813
REAC Task Leader: EVANGELISTA
Date: 6/24/00 Site Name: BANKED CHEMICAL EPA WAM: ZONNIA
Time: AM Samplers: ZONNIA / EVANGELISTA Sample Location: East Boundary Creek
Upstream of confluence of Trough Work Assignment No.: 0-053

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width		rock	silt	
industrial	wooded	lowland riverine	gravel	muck	odor	depth		rubble	clay	
commercial	farmland	lacustrine	sand	loam	flow	velocity	cm/s	gravel	organic	
residential	gully		silt	peat	direction	pools	%	shell	other	
hedgerows	floodplain		color	<u>med brown</u>		riffles	%	sand		

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color	pH	ambient temp	
groundwater	sludge	crowl	other	odor	ORP	barometric pressure	
potable water	leachate	bucket		temp	salinity	relative humidity	
sediment	waste	auger		DO	sample depth	weather conditions	
soil	other	ekman		cond	tide stage		

ANALYSES TO BE PERFORMED

- ORGANICS
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - I. other 8151A herbicides

- INORGANICS
- A. metals, priority pollutant
 - B. metals, TAL Sulfur
 - C. metals scan (ICP)
 - D. metals, other Sulfur, boron

- RCRA
- A. TCLP 8 metals; 2,4-D; 2,4,5-TP
 - B. ignitability
 - C. corrosivity pH
 - D. reactivity
 - E. other

- OTHER ANALYSES
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other

SAMPLE PREPARATION

- CONTAINER
- glass jar
 - plastic jar NaOH
 - acetate core
 - plastic bag
 - plastic bucket
 - other
- PRESERVATIVES
- HNO₃
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other

- STORAGE
- wet ice
 - dry ice
 - ambient

Archival Samples
F 22271
G 22271

COMMENTS:

- A 22271 Ignitability
- B 22271 Reactivity
- " 22271 TAC Metals, sulfur, boron

FORM #1

- D 22271 8151A herbicides
- E 22271 TCLP: Metals; 2,4-D; 2,4,5-TP

FIELD DATA SHEET

22269

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 6/21/2000 Samplers: ZOWNIK / EVANGELISTA Chain of Custody No: 92817 & 02813
Time: AM Site Name: BARKER CHEMICAL REAC Task Leader: Evangelista
Sample Location: TROUGH TO EB Creek EPA WAM: ZOWNIK
Work Assignment No: 0-0152

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	_____	rock	silt
industrial	wooded	lowland riverine	gravel	<u>mud</u>	odor	_____	depth	_____	rubble	clay
<u>commercial</u>	familand	lacustrine	sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully		silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain		color	<u>gray/brown</u>			riffles	_____ %	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color	_____	pH	_____
groundwater	sludge	<u>trowel</u>	other	odor	_____	ORP	_____
potable water	leachate	bucket		temp	_____	salinity	_____
<u>sediment</u>	waste	auger		DO	_____	sample depth	_____
soil	other	ekman		cond	_____	tide stage	_____

ANALYSES TO BE PERFORMED

- ORGANICS
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - D other herbicide 8151A

- INORGANICS
- A. metals, priority pollutant
 - B metals, TAL
 - C. metals scan (ICP)
 - D metals, other sulfur, boron

- RCRA
- A TCLP & metals; 2,4-D; 2,4,5-TP
 - B ignitability
 - C. corrosivity _____ pH _____
 - D reactivity
 - E. other _____

- OTHER ANALYSES
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

SAMPLE PREPARATION

- CONTAINER
- glass jar
 - plastic jar NaOH
 - acetate core
 - plastic bag
 - plastic bucket
 - other
- PRESERVATIVES
- HNO₃
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____

- STORAGE
- wet ice
 - dry ice
 - ambient

Archival Sample
F22269

COMMENTS:

- A 22269 Ignitability
- B 22269 Reactivity
- C 22269 TAL Metals, sulfur, boron

FORM #1

- D 22269 8151A herbicides
- E 22269 TCLP & Metals; 2,4-D; 2,4,5-TP

FIELD DATA SHEET

22251

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

028136

028126 02811

Date: 6/20/00 Samplers: EVANGELISTA / Zouma Chain of Custody No.: _____
 Time: 11AM Site Name: BARKER Chemical REAC Task Leader: EVANGELISTA
 Sample Location: SOUTH Lagoon Highway N EPA WAM: Zouma
 Work Assignment No.: 0-0653

SITE DESCRIPTION			SOIL TYPE	SURFACE WATER	STREAM	BOTTOM
landfill	old field	upland palustrine	rock clay	color _____	width _____	rock silt
industrial	wooded	lowland riverine	gravel <u>muck</u>	odor _____	depth _____	rubble clay
commercial	farmland	lacustrine	sand <u>foam</u>	flow _____	velocity <u>cm/s</u>	gravel organic
residential	gully	<u>restoration</u>	silt peat	direction _____	pools _____ %	shell other _____
hedgerows	floodplain	<u>Lagoon</u>	color <u>tan-brown grey</u>		riffles _____ %	sand

SAMPLE TYPE	DEVICE	SAMPLE INFORMATION	WEATHER PARAMETERS
surface water	effluent kemmerer	color <u>tan-brown grey</u>	ambient temp. _____
groundwater	sludge trowel	odor <u>Sulfur</u>	barometric pressure _____
potable water	leachate bucket	temp <u>approx 75 F</u>	relative humidity _____
sediment	waste auger	DO _____	weather conditions _____
soil	other <u>Composite</u> ekman	cond. _____	tide stage _____

ANALYSES TO BE PERFORMED

- ORGANICS**
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - I. other herbicides

- INORGANICS**
- A. metals, priority pollutant
 - B. metals, TAL
 - C. metals scan (ICP)
 - D. metals, other sulfur, boron

- RCRA**
- A. TCLP, metals; 2,4-D; 2,4,5-TP
 - B. ignitability
 - C. corrosivity _____ pH.
 - D. reactivity
 - E. other _____

- OTHER ANALYSES**
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

SAMPLE PREPARATION

- CONTAINER**
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - other _____
- PRESERVATIVES**
- HNO₃
 - NaOH
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____

- STORAGE**
- wet ice
 - dry ice
 - ambient

log book sediment samples:
 SL Sed Loc 4 and
 SL Sed Loc 2.
 Samples A composite of above two

Archive samples (3 8-oz jars)
 H 22251
 I 22251
 J 22251

COMMENTS:

A 22251 : } ~~TCLP metals; 2,4-D; 2,4,5-TP RAE~~
 B 22251 : } ~~IGNITABILITY (2 8-oz jars)~~

FORM #1

- C 22251 : Reactivity (1 4-oz jar)
- D 22251 : TAL Metals plus sulfur & boron (1 4-oz jar)
- E 22251 : 8151A herbicides (1 4-oz jar)
- F 22251 : TCLP metals; 2,4-D, 2,4,5-TP (1 4-oz jar)
- L 22251 : BAA...

FIELD DATA SHEET

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 6/24/2000
Time: 5:40P
Samplers: ZOWNIR/ EVANGELISTA
Site Name: BARBER CHEMICAL TROUGH, EAST END
Sample Location: _____

Chain of Custody No.: 02810
REAC Task Leader: EVANGELISTA
EPA WAM: ZOWNIR
Work Assignment No.: 0-0153

SITE DESCRIPTION
landfill _____
industrial _____
commercial _____
residential _____
hedgerows _____
old field _____
wooded _____
farmland _____
gully _____
floodplain _____
upland palustrine _____
lowland riverine _____
lacustrine _____

SOIL TYPE
rock _____
clay _____
gravel _____
sand _____
silt _____
color _____
muck _____
loam _____
peat _____

SURFACE WATER
color cloud with sediment
odor _____
flow _____
direction Sulfur

STREAM
width 8"
depth 2 1/2"
velocity _____ cm/s
pools _____ %
riffles _____ %

BOTTOM
rock _____
rubble _____
gravel _____
shell _____
sand _____
silt _____
clay _____
organic _____
other _____

SAMPLE TYPE
surface water _____
groundwater _____
potable water _____
sediment _____
soil _____
effluent _____
sludge _____
leachate _____
waste _____
other _____

DEVICE
kemmerer _____
trowel _____
bucket _____
auger _____
ekman _____
ponar _____
other Kettle

SAMPLE INFORMATION
color _____
odor _____
temp _____
DO _____
cond _____
pH _____
ORP _____
salinity _____
sample depth _____
tide stage _____

WEATHER PARAMETERS
ambient temp _____
barometric pressure _____
relative humidity _____
weather conditions JUST A FEW

SAMPLE PREPARATION

CONTAINER
glass jar
plastic jar _____
acetate core _____
plastic bag _____
plastic bucket _____
other _____

PRESERVATIVES
HNO3 for TA
H2S2O3*
NaOH _____
Zn Acetate _____
HCl _____
Na2SO4 _____
other _____

STORAGE
wet ice
dry ice _____
ambient _____

* for Metho 8151A

ANALYSES TO BE PERFORMED

ORGANICS
A. halogenated & aromatic volatiles _____
B. volatiles _____
C. trihalomethanes _____
D. pesticides/PCB _____
E. PCB _____
F. base neutral/acid extractables _____
G. pesticides, drinking water _____
H herbicides, drinking water 8151A method
I. other _____

OTHER ANALYSES
A. total cyanide _____
B. total phenol _____
C. petroleum hydrocarbons _____
D. pH _____
E. alkalinity _____
F. hardness _____
G. total dissolved solids _____
H. total suspended solids _____
I. sulfate _____
J. TOC _____
K. grain size _____
L. percent moisture _____
M. other SO4, NO3, Cl-

INORGANICS
A. metals, priority pollutant _____
B. metals, TAL _____
C. metals scan (ICP) _____
D metals, other 101 Fury boron

RCRA
A. TCLP _____
B ignitability _____
C. corrosivity _____ pH _____
D. reactivity _____
E. other _____

COMMENTS:

Sample #	Analyses	Containers
A 22259	sulfate, nitrate, chloride	1, 1-l Amber glass
B 22259	TAL metals, sulfur, boron	1, 1-l Amber glass
C 22259	Herbicide 8151A	1, 1-l Amber glass
D 22259	Ignitability, Corrosivity Reactivity	3 1-l Amber glass
E 22259		
F 22259		

FIELD DATA SHEET

22252

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

02813 &

Date: 11/20/2008
Time: 4:30 PM
Samplers: EVANGELISTA / ZOWAN R
Site Name: Barker Chemical
Sample Location: North Lagoon - Random Locations

Chain of Custody No.: 02812 & 02811
REAC Task Leader: EVANGELISTA
EPA WAM: ZOWAN R
Work Assignment No.: 0-0153

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	_____	rock	silt
industrial	wooded	lowland riverine	gravel	<u>muck</u>	odor	_____	depth	_____	rubble	clay
commercial	farmland	lacustrine	sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully	<u>WASTEWATER</u>	silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain	<u>LAGOON</u>	color	<u>MEDIUM GREY</u>	_____	_____	riffles	_____ %	sand	_____

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color	<u>light grey</u>	pH	_____
groundwater	<u>mud</u>	trowel	other	odor	<u>SULFUR</u>	ORP	_____
potable water	leachate	bucket	<u>ACETATE</u>	temp	<u>APPROX 85°F</u>	salinity	_____
sediment	waste	auger	<u>SLEEVE</u>	DO	_____	sample depth	_____
soil	other	backman	_____	cond	_____	tide stage	_____
	<u>COMPOSITE</u>					ambient temp	_____
						barometric pressure	_____
						relative humidity	_____
						weather conditions	_____

ANALYSES TO BE PERFORMED

- ORGANICS**
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - D. other Herbicide

- INORGANICS**
- A. metals, priority pollutant
 - B. metals, TAL
 - C. metals scan (ICP)
 - D. metals, other Sulfur, boron

- RCRA**
- A. TCLP: METALS; 2,4-D; 2,4,5-TP
 - B. ignitability
 - C. corrosivity _____ pH _____
 - D. reactivity
 - E. other _____

- OTHER ANALYSES**
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

SAMPLE PREPARATION

- CONTAINER**
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - other _____
- PRESERVATIVES**
- HNO₃
 - NaOH
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____

- STORAGE**
- refrigeration
 - dry ice
 - ambient

H-22252 } Archiv
I-22252 } Samp.
J-22252 } (4, 8-oz jars)
K-22252 }

Sample is a Composite of 18 samples taken at Random locations from the sediment of the North Lagoon

COMMENTS: A 22252 } Ignitability (2, 8-oz jars)
B 22252 }
C 22252 } Reactivity (1, 4-oz jar)
D 22252 } TAL metals plus sulfur & boron (1, 4-oz jar)
FORM #1 E 22252 } 8151A herbicides (1, 4-oz jar)
F 22252 } TCLP: METALS; 2,4-D; 2,4,5-TP (1, 4-oz jar)
G 22252 } BNAS and PCB/Pesticides (1, 8-oz jar)

FIELD DATA SHEET

22258

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 4/21/2000
Time: 5:30 PM
Samplers: JOURNAL/ EVANGELISTA
Site Name: Borden Chemical
Sample Location: South Lagoon
Chain of Custody No.: 02809
REAC Task Leader: EVANGELISTA
EPA WAM: JOURNAL
Work Assignment No.: 0-0153

Table with 5 columns: SITE DESCRIPTION, SOIL TYPE, SURFACE WATER, STREAM, BOTTOM. Includes categories like landfill, old field, upland palustrine, etc.

Table with 4 columns: SAMPLE TYPE, DEVICE, SAMPLE INFORMATION, WEATHER PARAMETERS. Includes categories like surface water, groundwater, etc.

- ANALYSES TO BE PERFORMED: ORGANICS (A-I), INORGANICS (A-D), RCRA (A-E).
SAMPLE PREPARATION: CONTAINER (glass jar, plastic jar, etc.), PRESERVATIVES (NaOH, Zn Acetate, etc.), STORAGE (dry ice, ambient).

COMMENTS: Sample #, Analyses, CONTAINER.
A 22258 Sulfate, Nitrate, Chloride 1, 1-l Amber glass
B 22258 TAL metals, sulfur, boron 1, 1-l Amber glass
C 22258 Herbicide 8151A 1, 1-l Amber glass
D 22258 } Ignitability, Corrosivity, Reactivity 3, 1-l Amber gla
E 22258
F 22258

FIELD DATA SHEET

22257

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 6/20/200 Time: 5:20 PM Samplers: Zoumik / Evangelista Site Name: Baker Chemical Sample Location: North Lagoon Chain of Custody No.: 02818 REAC Task Leader: Evangelista EPA WAM: Zoumik Work Assignment No.: 0-053

Table with 5 columns: SITE DESCRIPTION, SOIL TYPE, SURFACE WATER, STREAM, BOTTOM. Includes handwritten entries like 'landfill', 'rock clay', 'clear to tea', 'Sulfur', 'Lagoon', 'width', 'depth', 'velocity', 'pools', 'riffles', 'rock silt', 'rubble clay', 'gravel organic', 'shell other', 'sand'.

Table with 4 columns: SAMPLE TYPE, DEVICE, SAMPLE INFORMATION, WEATHER PARAMETERS. Includes handwritten entries like 'surface water', 'kemmerer ponar', 'Bottle', 'color', 'pH', 'ambient temp', 'odor', 'ORP', 'barometric pressure', 'temp', 'salinity', 'relative humidity', 'DO', 'sample depth', 'weather conditions: just after rain', 'cond', 'tide stage'.

ANALYSES TO BE PERFORMED

- ORGANICS
A. halogenated & aromatic volatiles
B. volatiles
C. trihalomethanes
D. pesticides/PCB
E. PCB
F. base neutral/acid extractables
G. pesticides, drinking water
H. herbicides, drinking water 8151 A Method
I. other

- OTHER ANALYSES
A. total cyanide
B. total phenol
C. petroleum hydrocarbons
D. pH
E. alkalinity
F. hardness
G. total dissolved solids
H. total suspended solids
I. sulfate
J. TOC
K. grain size
L. percent moisture
M. other SO4, Cl-, NO3-

- CONTAINER
glass jar
plastic jar
acetate core
plastic bag
plastic bucket
other

- PRESERVATIVES
NaOH
Zn Acetate
HCl
Na2SO4
other

- INORGANICS
A. metals, priority pollutant
B. metals, TAL
C. metals scan (ICP)
D. metals, other Sulfur, boron

- STORAGE
wet ice
dry ice
ambient

* For Method 8151

- RCRA
A. TCLP
B. ignitability
C. corrosivity pH
D. reactivity
E. other

COMMENTS: Table with columns for Sample #, Analyses, and Bottles. Includes handwritten entries for samples A-F and their respective analyses (Sulfate, nitrate, chlorides, TAL metals, sulfide, sulfur, boron, Herbicide 8151A, Ignitability, Corrosivity, Reactivity) and bottle counts (1, 1-2 Amber 9, 3, 1-2 Amber).

FIELD DATA SHEET

22254

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Chain of Custody No.: 03585 & 02813
REAC Task Leader: Evangelista
EPA WAM: Zamir
Work Assignment No.: R1A 00153

Date: 6/21/00 Samplers: Don Bussey / Chris French
Site Name: Barker Chemical
Time: 1345 Sample Location: WP-13 - Layer 3

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color		width		rock	silt
<u>industrial</u>	<u>wooded</u>	lowland riverine	gravel	<u>muck</u>	odor		depth		rubble	clay
commercial	farmland	lacustrine	sand	loam	flow		velocity	cm/s	gravel	organic
residential	gully		silt	peat	direction		pools	%	shell	other
hedgerows	floodplain		color	<u>DL green</u>			riffles	%	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color		pH	ambient temp <u>85°F</u>
groundwater	sludge	trowel	other <u>Geoprobe</u>	odor		ORP	barometric pressure
potable water	leachate	bucket		temp		salinity	relative humidity <u>High</u>
sediment	waste	auger		DO		sample depth	weather conditions <u>Sunny</u>
soil	other <u>muck</u>	ekman		cond		tide stage	

ANALYSES TO BE PERFORMED

- ORGANICS
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - I. other 8151A herbicides

- INORGANICS
- A. metals, priority pollutant
 - B. metals, TAL
 - C. metals scan (ICP)
 - D. metals, other sulfur, boron

- RCRA
- A. TCLP metals; 24-D, 2,4,5-TP
 - B. ignitability
 - C. corrosivity _____ pH _____
 - D. reactivity
 - E. other _____

- OTHER ANALYSES
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

SAMPLE PREPARATION

- CONTAINER
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - other
- PRESERVATIVES
- HNO₃
 - NaOH
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____

STORAGE

- wet ice
- dry ice
- ambient

Archival samples
G 22254
H 22254

COMMENTS:

A 22254 } Ignitability 2, 8-02 jar
B 22254 }
C 22254 Reactivity 1, 4-02 jar

FORM #1
D 22254 TAL metals, sulfur, boron 1, 4-02 jar
E 22254 8151A herbicides 1, 4-02 jar
F 22254 TCLP: metals; 24-D; 2,4,5-TP 1, 4-02 jar

FIELD DATA SHEET

22255

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

03585602F13

Date: 6/21/00 Site Name: Barker Chemical
Time: 1345 Sample Location: WP-13 - Layer 4
Samplers: Don Bussey / Chris Franchi

Chain of Custody No.: _____
REAC Task Leader: Evangelista
EPA WAM: Zowis
Work Assignment No.: KIA 00153

SITE DESCRIPTION			SOIL TYPE <u>FILL</u>		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	_____	rock	silt
<u>industrial</u>	<u>wooded</u>	lowland riverine	gravel	muck	odor	_____	depth	_____	rubble	clay
commercial	farmland	lacustrine	sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully		silt	peat	direction	_____	poole	_____ %	shell	other
hedgerows	floodplain		color	<u>Light Colors</u>			riffles	_____ %	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color	<u>Light Colors</u>	pH	_____
groundwater	sludge	trowel	other <u>Geo probe</u>	odor	_____	ORP	_____
potable water	leachate	bucket		temp	_____	salinity	_____
potable <u>RAE</u>	waste	auger		DO	_____	sample depth	_____
soil	other <u>FILL</u>	ekman		cond	_____	tide stage	_____
						ambient temp	<u>85°F</u>
						barometric pressure	_____
						relative humidity	<u>High</u>
						weather conditions	<u>Sunny</u>

ANALYSES TO BE PERFORMED

- ORGANICS
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - I. other 8151A herbicides

- OTHER ANALYSES
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

- INORGANICS
- A. metals, priority pollutant
 - B. metals, TAL Sulfur, barium
 - C. metals scan (ICP)
 - D. metals, other Sulfur, barium

- RCRA
- A. TCLP : metals; 2,4-D; 2,4,5-TP
 - B. ignitability
 - C. corrosivity _____ pH _____
 - D. reactivity
 - E. other _____

SAMPLE PREPARATION

- CONTAINER
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - other _____
- PRESERVATIVES
- HNO₃
 - NaOH
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____

- STORAGE
- wet ice
 - dry ice
 - ambient

Archival Samples

- G 22255
- H 22255
- I 22255

COMMENTS:

A 22255 } IGNITABILITY
 B 22255 }
 C 22255 } REACTIVITY
 D 22255 } TAL METALS
 FORM #1
 E 22255 herbicide 8151A
 F 22255 TCLP : metals; 2,4-D; 2,4,5-TP

FIELD DATA SHEET

22261

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

02811,
02813 6 02814

Date: 6/21/00 Site Name: Barker Chemical
Time: 1645 Sample Location: WP-1 - Waste Pile
Chain of Custody No.: REAC Task Leader: Evangelista
EPA WAM: Zolnier
Work Assignment No.: R1A 00153

Table with columns: SITE DESCRIPTION, SOIL TYPE, SURFACE WATER, STREAM, BOTTOM. Includes site details like landfill, old field, upland palustrine, etc.

Table with columns: SAMPLE TYPE, DEVICE, SAMPLE INFORMATION, WEATHER PARAMETERS. Includes details like surface water, effluent, kemmerer, ponar, etc.

ANALYSES TO BE PERFORMED SAMPLE PREPARATION

- ORGANICS: A. halogenated & aromatic volatiles, B. volatiles, C. trihalomethanes, D. pesticides/PCB, E. PCB, F. base neutral/acid extractables, G. pesticides, drinking water, H. herbicides, drinking water, I. other Herbicide 8151A
OTHER ANALYSES: A. total cyanide, B. total phenol, C. petroleum hydrocarbons, D. pH, E. alkalinity, F. hardness, G. total dissolved solids, H. total suspended solids, I. sulfate, J. TOC, K. grain size, L. percent moisture, M. other
CONTAINER: glass jar, plastic jar, acetate core, plastic bag, plastic bucket, other
PRESERVATIVES: HNO3, NaOH, Zn Acetate, HCl, Na2SO4, other

- INORGANICS: A. metals, priority pollutant, B. metals, TAL, C. metals scan (ICP), D. metals, other Sulfur, boron
RCRA: A. TCLP & metals; 2,4-D; 2,4,5-TP, B. ignitability, C. corrosivity pH, D. reactivity, E. other

STORAGE: wet ice, dry ice, ambient
ARCHIVAL SAMPLES: H 22261, I 22261

COMMENTS:
A 22261 } IGNITABILITY 2, 8-oz jars
B 22261 }
C 22261 REACTIVITY 1, 4-oz jar
FORM #1
D 22261 TAL METALS PLUS SULFUR & BORON 1, 4-oz jar
E 22261 8151A herbicides 1, 4-oz jar
F 22261 TCLP & METALS; 2,4-D; 2,4,5-TP 1, 4-oz jar
G 22261 BNAs and PCB/PESTICIDES

FIELD DATA SHEET

2226

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Chain of Custody No. 02811, 02813, 60281
 REAC Task Leader: E. Ungalasta
 EPA WAM: Zounif
 Work Assignment No.: RIA 00153
 Samplers: Busssey
 Date: 6/22/00 Site Name: Barker Creek and
 Time: 1235 Sample Location: Horizontal tank
(FUEL TANK)

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	_____	rock	silt
industrial	<u>wooded</u>	lowland riverine	gravel	muck	odor	_____	depth	_____	rubble	clay
<u>commercial</u>	farmland	lacustrine	sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully		silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain		color	<u>Dark 11</u>			riffles	_____ %	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS		
surface water	effluent	kemmerer	ponar	color	<u>Dark</u>	pH	_____	ambient temp	<u>75 F</u>
groundwater	sludge	trowel	other	odor	<u>oil</u>	ORP	_____	barometric pressure	_____
potable water	leachate	bucket		temp	_____	salinity	_____	relative humidity	<u>variable</u>
sediment	waste	<u>auger</u>		DO	_____	sample depth	<u>0-1</u>	weather conditions	<u>clear</u>
<u>soil</u>	other	ekman		cond	_____	tide stage	_____		

ANALYSES TO BE PERFORMED

- ORGANICS**
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - I. other 8151A herbicides
 - J. other Total Petroleum Hydrocarbons
- INORGANICS**
- A. metals, priority pollutant
 - B. metals, TAL
 - C. metals scan (ICP)
 - D. metals, other sulfur, boron
- RCRA**
- A. TCLP: metals; 2,4-D, 2,4,5-TP
 - B. ignitability
 - C. corrosivity _____ pH
 - D. reactivity
 - E. other _____

- OTHER ANALYSES**
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

SAMPLE PREPARATION

- CONTAINER**
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - other _____
- PRESERVATIVES**
- HNO₃
 - NaOH
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____
- STORAGE**
- wet ice
 - dry ice
 - ambient

Archival Samples
622267

COMMENTS:

- A 22267 Toxicity
- B 22267 Reactivity
- C 22267 TAL Metals, sulfur, boron
- D 22267 8151A herbicides
- E 22267 TCLP: metals; 2,4-D; 2,4,5-TP
- F 22267 Total Petroleum Hydrocarbons (TPH)

Added BNA analyses 7/12/01

FIELD DATA SHEET

22256

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

02812 & 02813

Chain of Custody No.:
REAC Task Leader: Evangelista
EPA WAM: Bowen
Work Assignment No.: RIA 00153
Date: 6/21/00 Site Name: Barker Channel
Time: 1515 Sample Location: WP-6 (layer 1)
Samplers: Don Bussey / Chris French

Table with columns: SITE DESCRIPTION, SOIL TYPE (Till), SURFACE WATER, STREAM, BOTTOM. Includes categories like landfill, old field, upland palustrine, etc.

Table with columns: SAMPLE TYPE, DEVICE, SAMPLE INFORMATION, WEATHER PARAMETERS. Includes rows for surface water, groundwater, sediment, soil.

ANALYSES TO BE PERFORMED

- ORGANICS
A. halogenated & aromatic volatiles
B. volatiles
C. trihalomethanes
D. pesticides/PCB
E. PCB
F. base neutral/acid extractables
G. pesticides, drinking water
H. herbicides, drinking water
I other herbicides

- INORGANICS
A. metals, priority pollutant
B metals, TAL
C. metals scan (ICP)
D metals, other Sulfur, boron

- RCRA
A) TCLP: Metals; 2,4-D; 2,4,5-TP
B) ignitability
C. corrosivity pH
D) reactivity
E. other

- OTHER ANALYSES
A. total cyanide
B. total phenol
C. petroleum hydrocarbons
D. pH
E. alkalinity
F. hardness
G. total dissolved solids
H. total suspended solids
I. sulfate
J. TOC
K. grain size
L. percent moisture
M. other

SAMPLE PREPARATION

- CONTAINER
(glass jar)
plastic jar NaOH
acetate core
plastic bag
plastic bucket
other
PRESERVATIVES
HNO3
Zn Acetate
HCl
Na2SO4
other

- STORAGE
(wet ice)
dry ice
ambient

Archival samples

- G 22256
H 22256
I 22256

COMMENTS Sample

- A 22256
B 22256
C 22256
FORM #1
D 22256
E 22256
F 22256

ANALYSES

- Ignitable
Reactivity
TAL metals plus sulfur & boron
8151A herbicides
TCLP: Metals; 2,4-D; 2,4,5-TP

CONTAINERS

- 2, 8-oz jar
1, 4-oz jar
1, 4-oz jar
1, 4-oz jar
1, 4-oz jar

ALL RIA ITPIL 7/17/00

FIELD DATA SHEET

22253

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 6/21/00 Site Name: Barker Chemical Chain of Custody No.: 02112 & 02113
 Time: 1345 Sample Location: WP-13 - Layer 2 REAC Task Leader: Evangelista
 EPA WAM: Zownit Work Assignment No.: R1400153

SITE DESCRIPTION			SOIL TYPE	SURFACE WATER	STREAM	BOTTOM
landfill	old field	upland palustrine	rock clay	color _____	width _____	rock silt
<u>Industrial</u>	<u>wooded</u>	lowland riverine	gravel muck	odor _____	depth _____	rubble clay
commercial	farmland	lacustrine	sand loam	flow _____	velocity _____ cm/s	gravel organic
residential	gully		silt peat	direction _____	pools _____ %	shell other _____
hedgerows	floodplain		color <u>Black</u>		riffles _____ %	sand

SAMPLE TYPE	DEVICE	SAMPLE INFORMATION	WEATHER PARAMETERS
surface water	kemmerer	color _____	ambient temp <u>~85°F</u>
groundwater	ponar	odor _____	barometric pressure _____
potable water	trowel	temp _____	relative humidity <u>High</u>
sediment	bucket	DO _____	weather conditions <u>Sunny</u>
soil	other <u>Tull</u>	cond _____	tidal stage _____

ANALYSES TO BE PERFORMED

- ORGANICS**
- A. halogenated & aromatic volatiles
 - B. volatiles
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables
 - G. pesticides, drinking water
 - H. herbicides, drinking water
 - I. other herbicide 8151A

- INORGANICS**
- A. metals, priority pollutant
 - B. metals, TAL
 - C. metals scan (ICP)
 - D. metals, other Sulfur, boron

- RCRA**
- A. TCLP: metals; 2,4-D; 2,4,5-TP
 - B. ignitability
 - C. corrosivity _____ pH
 - D. reactivity
 - E. other _____

SAMPLE PREPARATION

- OTHER ANALYSES**
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate
 - J. TOC
 - K. grain size
 - L. percent moisture
 - M. other _____

- CONTAINER**
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - other _____
- PRESERVATIVES**
- HNO₃
 - NaOH
 - Zn Acetate
 - HCl
 - Na₂SO₄
 - other _____

- STORAGE**
- wet ice
 - dry ice
 - ambient
- Archival samples

G 22253
H 22253
I 22253

COMMENTS: Simple

FORM #	Analyses	CONTAINERS
A 22253	Ignitability	2, 8-oz jar
B 22253		
C 22253	TAL METAL plus sulfur & boron	1, 4-oz jar
D 22253	TAL METALS plus sulfur & boron	1, 8-oz jar
E 22253	TCLP: METALS; 2,4-D; 2,4,5-TP	1, 4-oz jar
F 22253	8151A herbicides	1, 4-oz jar
F 22253	TCLP: METALS; 2,4-D; 2,4,5-TP	1, 4-oz jar

Added TMAA & TPH 7/12/00

FIELD DATA SHEET

22265

REAC, EDISON, NJ
(908) 321-4200
EPA CONTRACT 68-C4-0022

Date: 6/22/2010 Samplers: Don Bussey, Dan Feidlick Chain of Custody No.: 02816, 02811, 02813
 Time: AM Site Name: DANKER CHEMICAL REAC Task Leader: EVANGELISTA
 Sample Location: PROCESS Bldg, PROCESS AREA EPA WAM: ZONADIA
 Work Assignment No.: 0-0153

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	rock	silt	
<u>industrial</u>	wooded	lowland riverine	gravel	muck	odor	_____	depth	rubble	clay	
commercial	farmland	lacustrine	sand	loam	flow	_____	velocity	cm/s	gravel	organic
residential	gully		silt	peat	direction	_____	pools	%	shell	other
hedgerows	floodplain		color	<u>light yellowish gray</u>			riffles	%	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
surface water	effluent	kemmerer	ponar	color	_____	pH	ambient temp
groundwater	sludge	<u>trowel</u>	other	odor	_____	ORP	barometric pressure
potable water	leachate	bucket		temp	_____	salinity	relative humidity
sediment	waste	auger		DO	_____	sample depth	weather conditions
<u>soil</u>	other	ekman		cond	_____	tide stage	

ANALYSES TO BE PERFORMED		SAMPLE PREPARATION	
ORGANICS	OTHER ANALYSES	CONTAINER	PRESERVATIVES
A. halogenated & aromatic volatiles	A. total cyanide	<u>glass jar</u>	HNO ₃
<u>B</u> volatiles	B. total phenol	plastic jar	NaOH
C. trihalomethanes	C. petroleum hydrocarbons	acetate core	Zn Acetate
<u>D</u> pesticides/PCB	D. pH	plastic bag	HCl
E. PCB	E. alkalinity	plastic bucket	Na ₂ SO ₄
<u>F</u> base neutral/acid extractables	F. hardness	other	other
G. pesticides, drinking water	G. total dissolved solids		
H. herbicides, drinking water	H. total suspended solids	STORAGE	
<u>I</u> other <u>8151A herbicide</u>	I. sulfate	wet ice	
	J. TOC	dry ice	
INORGANICS	K. grain size	ambient	
A. metals, priority pollutant	L. percent moisture		
<u>B</u> metals, TAL	M. other		
C. metals scan (ICP)			
<u>D</u> metals, other <u>sulfur, boron</u>			
RCRA			
<u>A</u> TCLP <u>metals, organics</u> ← Note: full organics for TCLP!			
<u>B</u> ignitability			
C. corrosivity _____ pH			
<u>D</u> reactivity			
E. other			

ARCHIVAL SAMPLE
I 22265

COMMENTS:

A 22265	Ignitability	1, 32-oz jar
B 22265	Reactivity	1, 4-oz jar
C 22265	TAL Metals, sulfur, boron	1, 4-oz jar
FORM #1		
D 22265	8151 A herbicides	1, 4-oz jar
E 22265	TCLP 8 Metals; all organics	1, 4-oz jar
F 22265	} BNA's and PCB/Pesticides	2, 4-oz jar
G 22265		
H 22265	volatile organics	1, 4-oz jar

Appendix C

PRELIMINARY ANALYTICAL DATA

Lockheed Martin Technology Services Group
Environmental Services REAC
2890 Woodbridge Avenue, Building 209 Annex Edison, NJ 08837-3679
Telephone 732-321-4200 Facsimile 732-494-4021

LOCKHEED MARTIN 

DATE: 7/11/2000
TO: R.Singhvi, ERTC/EPA
FROM: Deborah Killeen, Data Validation and Report Writing Group Leader *DK*
SUBJECT: Preliminary Results of Project Barker Chemical WA# 0153

Attached please find the preliminary results of the above referenced project for the following samples.

Chain of Custody No.

Analyses

03366

1 soil sample for TPH.

cc: Archives
Subcontracting
Deborah Killeen
WAM: A. Zownir
Task Leader: R. Evangelista

TOTAL PETROLEUM HYDROCARBONS IN SOIL ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)
1.	F22267	T1398-1	87800	1076

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: *Jama Melt* 12439 Date: 7/7/00

Lockhead REAC
 REAC, Edison, NJ
 732 (908) 321-4200
 EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Banker Chemical
 Project Number: 0-453
 RPWT Contact: L. Engles Phone: 752-713-4233
 No: 03366
 SHEET NO. 1 OF 1

Sample Identification

Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	Analyses Requested
707	F 22267	Horizontal Tank	S	6/22/11	1	902 ml, ICE	Total Petroleum Hydrocarbons
<i>Due</i>							
<i>rec'd at 20°C</i>							

Matrix:
 SD - Sediment PW - Potable Water (S) - Soil
 DS - Drum Solids GW - Groundwater W - Water
 DL - Drum Liquids SW - Surface Water O - Oil
 X - Other SL - Sludge A - Air

Special Instructions:

FOR SUBCONTRACTING USE ONLY
FROM CHAIN OF CUSTODY # 2811

QC by [Signature]

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
PMF only	A. Gaudin	6/27/11	[Signature]	6/27	1515						
			P. McCoy	6/28	9:50						

Lockheed Martin Technology Services Group
Environmental Services REAC
2890 Woodbridge Avenue, Building 209 Annex Edison, NJ 08837-3679
Telephone 732-321-4200 Facsimile 732-494-4021



DATE: 7/19/2000
TO: R.Singhvi, ERTC/EPA
FROM: Deborah Killeen, Data Validation and Report Writing Group Leader *dk*
SUBJECT: Preliminary Results of Project Barker Chemical WA# 0153

Attached please find the preliminary results of the above referenced project for the following samples.

<u>Chain of Custody No.</u>	<u>Analyses</u>
02812	1 soil sample for TPH.
02814	1 soil sample for TPH.

cc: Archives
Subcontracting
Deborah Killeen
WAM: A. Zownir
Task Leader: R. Evangelista

TOTAL PETROLEUM HYDROCARBONS ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/kg)	REPORTING LIMIT (mg/kg)
1.	22253	V1398-1	131	2.5
2.	22261	V1398-2	86.5	2.5

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R/Deery 12405 Date: 7/18/00

**TOTAL PETROLEUM HYDROCARBONS ANALYSIS
QUALITY CONTROL REPORT**

CASE: Q1398
MATRIX: SOIL

Analyst: 2441
Date Analyzed: 07/17/00

BLANK SPIKE	TRUE VALUE (mg/kg)	OBSERVED RESULT (mg/kg)	BS % RECOVERY
COMPUCHEM #			
WG4133-2	3213.37	3607.97	112

ORIG. SAMPLE COMPUCHEM #: V1398-1						
MATRIX SPIKE (MS) COMPUCHEM #: WG4133-3						
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG4133-4						
SPIKE ADDED (mg/kg)	SAMPLE CONC. (mg/kg)	MS CONC. (mg/kg)	MS % RECOVERY	MSD CONC. (mg/kg)	MSD % RECOVERY	RPD
3213.4	131.0	3117.6	97.0	3271.9	101.8	4.8

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/kg)
WG4133-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

REAC, Edison, NJ
 (908) 321-4200
 EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Proctor Chemical
 Project Number: 0-0153
 RFW Contact: John Johnson Phone: 732-321-4248

No: 02814
 SHEET NO 2 OF 2

Sample Identification

Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	Analyses Requested
	A 22261	WP1-KANEK12	S	6/21/2000	2	8-02 4°C	IGNITABILITY
	B 22261	↓	↓	↓	1	4-02 4	REACTIVITY
	C 22261	↓	↓	↓	1	↓	TAL METALS Sulfur Boron
	P 22261	↓	↓	↓	1	↓	8151A herbicides
	E 22261	↓	↓	↓	1	↓	TCLP Metals; 2,4-D; 2,4,5-TP
	F 22261	↓	↓	↓	1	↓	

Special Instructions:

- Matrix:
- SD - Sediment
 - DS - Drum Solids
 - DL - Drum Liquids
 - X - Other
 - PW - Potable Water
 - GW - Groundwater
 - SW - Surface Water
 - SL - Sludge
 - S - Soil
 - W - Water
 - O - Oil
 - A - Air


*Spence Coles
 As CoC
 02812*

FOR SUBCONTRACTING USE ONLY
FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All Analyses	R. Gandy	6/22/00	Debra Doolittle	6-23-00	9:30						

Lockheed Martin Technology Services Group
Environmental Services REAC
2890 Woodbridge Avenue, Building 209 Annex Edison, NJ 08837-3679
Telephone 732-321-4200 Facsimile 732-494-4021

LOCKHEED MARTIN 

DATE: 7/19/2000
TO: R.Singhvi, ERTC/EPA
FROM: Deborah Killeen, Data Validation and Report Writing Group Leader 
SUBJECT: Preliminary Results of Project Barker Chemical WA# 0153

Attached please find the preliminary results of the above referenced project for the following samples.

Chain of Custody No.

Analyses

02816

1 soil sample for TCLP VOA, TCLP Pesticides, and TCLP Semivolatiles.

cc: Archives
Subcontracting
Deborah Killeen
WAM: A. Zownir
Task Leader: R. Evangelista

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PROCESS BLDG

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: U1398-1

Sample wt/vol: 5 (g/ml) ML

Lab File ID: U1398-1A59

Level: (low/med) LOW

Date Received: 07/07/00

% Moisture: not dec. _____

Date Analyzed: 07/15/00

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 5.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	50	U
75-35-4	1,1-Dichloroethene	50	U
78-93-3	2-butanone	50	U
67-66-3	Chloroform	50	U
56-23-5	Carbon Tetrachloride	50	U
71-43-2	Benzene	50	U
107-06-2	1,2-Dichloroethane	50	U
79-01-6	Trichloroethene	50	U
127-18-4	Tetrachloroethene	50	U
108-90-7	Chlorobenzene	50	U

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PROCESS BLDGMS

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG4052-6

Sample wt/vol: 5 (g/ml) ML

Lab File ID: WG4052-6A59

Level: (low/med) LOW

Date Received: 07/07/00

% Moisture: not dec. _____

Date Analyzed: 07/15/00

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 5.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	230	_____
75-35-4	1,1-Dichloroethene	460	_____
78-93-3	2-butanone	530	_____
67-66-3	Chloroform	530	_____
56-23-5	Carbon Tetrachloride	530	_____
71-43-2	Benzene	550	_____
107-06-2	1,2-Dichloroethane	520	_____
79-01-6	Trichloroethene	550	_____
127-18-4	Tetrachloroethene	540	_____
108-90-7	Chlorobenzene	510	_____

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PROCESS BLDGMSD

b Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG4052-7

Sample wt/vol: 5 (g/ml) ML

Lab File ID: WG4052-7A59

Level: (low/med) LOW

Date Received: 07/07/00

% Moisture: not dec. _____

Date Analyzed: 07/15/00

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 5.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

75-01-4	Vinyl Chloride	210	
75-35-4	1,1-Dichloroethene	430	
78-93-3	2-butanone	460	
67-66-3	Chloroform	500	
56-23-5	Carbon Tetrachloride	490	
71-43-2	Benzene	520	
107-06-2	1,2-Dichloroethane	480	
79-01-6	Trichloroethene	510	
127-18-4	Tetrachloroethene	510	
108-90-7	Chlorobenzene	490	

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM I VOA

3A
WATER VOLATILE LAB CONTROL SAMPLE

VSYLCS

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Vinyl Chloride	50.00	37.08	74	1-251
1,1-Dichloroethene	50.00	44.56	89	1-234
2-butanone	50.00	58.57	117	1-200
Chloroform	50.00	50.79	102	51-138
Carbon Tetrachloride	50.00	51.39	103	70-140
Benzene	50.00	52.72	105	37-151
1,2-Dichloroethane	50.00	50.56	101	49-155
Trichloroethene	50.00	52.42	105	71-157
Tetrachloroethene	50.00	70.17	140	64-148
Chlorobenzene	50.00	50.60	101	37-160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

~~NO QC EVALUATION HAS BEEN PERFORMED.~~
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VSYLCS

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG4052-4

Sample wt/vol: 5 (g/ml) ML

Lab File ID: WG4052-4B59ZHE

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. _____

Date Analyzed: 07/14/00

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	37	
75-35-4	1,1-Dichloroethene	45	
78-93-3	2-butanone	59	
67-66-3	Chloroform	51	
56-23-5	Carbon Tetrachloride	51	
71-43-2	Benzene	53	
107-06-2	1,2-Dichloroethane	51	
79-01-6	Trichloroethene	52	
127-18-4	Tetrachloroethene	70	
108-90-7	Chlorobenzene	51	

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKSY

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: U1398

Lab File ID: WG4052-2B59

Lab Sample ID: WG4052-2

Date Analyzed: 07/14/00

Time Analyzed: 2301

GC Column: EQUITY624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: 5972HP59

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VSYLCS	WG4052-4	WG4052-4B59Z	2346
02	PROCESS BLDG	U1398-1	U1398-1A59	0059
03	PROCESS BLDG	WG4052-6	WG4052-6A59	0131
04	PROCESS BLDG	WG4052-7	WG4052-7A59	0203
05	ZHEBLK	WG4026-1	WG4026-1A59	0235
06				
07				
08				
09				
10				
11				
12				
13				
14				
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16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PROCESS BLDG

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: U1398-1

Sample wt/vol: 100 (g/mL) ML

Lab File ID: U1398-1A68

Level: (low/med) LOW

Date Received: 07/07/00

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/10/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 07/11/00

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	50	U
108-39-4	3-Methylphenol	50	U
106-44-5	4-Methylphenol	50	U
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	50	U
121-14-2	2,4-Dinitrotoluene	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	100	U

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM I SV

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKJV

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3938-1

Sample wt/vol: 500 (g/mL) ML

Lab File ID: WG3938-1A68

Level: (low/med) LOW

Date Received: _____

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/10/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 07/11/00

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

110-86-1-----	Pyridine	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-48-7-----	2-Methylphenol	10	U
108-39-4-----	3-Methylphenol	10	U
106-44-5-----	4-Methylphenol	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
87-68-3-----	Hexachlorobutadiene	10	U
88-06-2-----	2,4,6-Trichlorophenol	10	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	20	U

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM I SV

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKKP

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3985-1

Sample wt/vol: 500 (g/mL) ML

Lab File ID: WG3985-1A68

Level: (low/med) LOW

Date Received: _____

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/11/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 07/12/00

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
121-14-2	2,4-Dinitrotoluene	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	20	U

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM I SV

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TCLPBLKIV

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3866-1

Sample wt/vol: 250 (g/mL) ML

Lab File ID: WG3866-1RA68

Level: (low/med) LOW

Date Received: _____

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/11/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 07/12/00

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

110-86-1-----	Pyridine	20	U
106-46-7-----	1,4-Dichlorobenzene	20	U
95-48-7-----	2-Methylphenol	20	U
108-39-4-----	3-Methylphenol	20	U
106-44-5-----	4-Methylphenol	20	U
67-72-1-----	Hexachloroethane	20	U
98-95-3-----	Nitrobenzene	20	U
87-68-3-----	Hexachlorobutadiene	20	U
88-06-2-----	2,4,6-Trichlorophenol	20	U
95-95-4-----	2,4,5-Trichlorophenol	20	U
121-14-2-----	2,4-Dinitrotoluene	20	U
118-74-1-----	Hexachlorobenzene	20	U
87-86-5-----	Pentachlorophenol	40	U

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM I SV

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix Spike - Sample No.: PROCESS BLDG

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Pyridine	250	0	180	72	1-200
1,4-Dichlorobenzene	250	0	170	68	20-124
2-Methylphenol	250	0	230	92	1-200
3-Methylphenol	500	0	460	92	1-200
4-Methylphenol	500	0	460	92	1-200
Hexachloroethane	250	0	170	68	40-113
Nitrobenzene	250	0	160	64	35-180
Hexachlorobutadiene	250	0	170	68	24-116
2,4,6-Trichlorophenol	250	0	210	84	37-144
2,4,5-Trichlorophenol	250	0	220	88	37-144
2,4-Dinitrotoluene	250	0	200	80	39-139
Hexachlorobenzene	250	0	200	80	1-152
Pentachlorophenol	250	0	230	92	14-176

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Pyridine	250	210	84	15	40	1-200
1,4-Dichlorobenzene	250	170	68	0	40	20-124
2-Methylphenol	250	240	96	4	40	1-200
3-Methylphenol	500	460	92	0	40	1-200
4-Methylphenol	500	460	92	0	40	1-200
Hexachloroethane	250	180	72	6	40	40-113
Nitrobenzene	250	180	72	12	40	35-180
Hexachlorobutadiene	250	200	80	16	40	24-116
2,4,6-Trichlorophenol	250	220	88	5	40	37-144
2,4,5-Trichlorophenol	250	230	92	4	40	37-144
2,4-Dinitrotoluene	250	210	84	5	40	39-139
Hexachlorobenzene	250	200	80	0	40	1-152
Pentachlorophenol	250	230	92	0	40	14-176

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

**NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION**

COMMENTS:

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PROCESS BLDGMS

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3985-5

Sample wt/vol: 100 (g/mL) ML

Lab File ID: WG3985-5RA68

Level: (low/med) LOW

Date Received: 07/07/00

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/11/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 07/12/00

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

110-86-1	Pyridine	180	
106-46-7	1,4-Dichlorobenzene	170	
95-48-7	2-Methylphenol	230	
108-39-4	3-Methylphenol	460	
106-44-5	4-Methylphenol	460	
67-72-1	Hexachloroethane	170	
98-95-3	Nitrobenzene	160	
87-68-3	Hexachlorobutadiene	170	
88-06-2	2,4,6-Trichlorophenol	210	
95-95-4	2,4,5-Trichlorophenol	220	
121-14-2	2,4-Dinitrotoluene	200	
118-74-1	Hexachlorobenzene	200	
87-86-5	Pentachlorophenol	230	

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM I SV

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PROCESS BLDGMSD

Lab Name: COMPUCHEM Contract:
 Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1398
 Matrix: (soil/water) WATER Lab Sample ID: WG3985-6
 Sample wt/vol: 100 (g/mL) ML Lab File ID: WG3985-6RA68
 Level: (low/med) LOW Date Received: 07/07/00
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 07/11/00
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 07/12/00
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	210	
106-46-7	1,4-Dichlorobenzene	170	
95-48-7	2-Methylphenol	240	
108-39-4	3-Methylphenol	460	
106-44-5	4-Methylphenol	460	
67-72-1	Hexachloroethane	180	
98-95-3	Nitrobenzene	180	
87-68-3	Hexachlorobutadiene	200	
88-06-2	2,4,6-Trichlorophenol	220	
95-95-4	2,4,5-Trichlorophenol	230	
121-14-2	2,4-Dinitrotoluene	210	
118-74-1	Hexachlorobenzene	200	
87-86-5	Pentachlorophenol	230	

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

FORM I SV

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SJVLCS

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Pyridine	50	19	38	1-200
1,4-Dichlorobenzene	50	24	48	20-124
2-Methylphenol	50	32	64	1-200
3-Methylphenol	100	65	65	1-200
4-Methylphenol	100	65	65	1-200
Hexachloroethane	50	25	50	40-113
Nitrobenzene	50	28	56	35-180
Hexachlorobutadiene	50	26	52	24-116
2,4,6-Trichlorophenol	50	26	52	37-144
2,4,5-Trichlorophenol	50	30	60	37-144
2,4-Dinitrotoluene	50	31	62	39-139
Hexachlorobenzene	50	32	64	1-152
Pentachlorophenol	50	19	38	14-176

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

COMMENTS: _____

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SJVLCS

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3938-2

Sample wt/vol: 500 (g/mL) ML

Lab File ID: WG3938-2A68

Level: (low/med) LOW

Date Received: _____

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 07/10/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 07/11/00

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	19	
106-46-7	1,4-Dichlorobenzene	24	
95-48-7	2-Methylphenol	32	
108-39-4	3-Methylphenol	65	
106-44-5	4-Methylphenol	65	
67-72-1	Hexachloroethane	25	
98-95-3	Nitrobenzene	28	
87-68-3	Hexachlorobutadiene	26	
88-06-2	2,4,6-Trichloropheno	26	
95-95-4	2,4,5-Trichlorophenol	30	
121-14-2	2,4-Dinitrotoluene	31	
118-74-1	Hexachlorobenzene	32	
87-86-5	Pentachlorophenol	19	J

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

FORM I SV

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SKPLCS

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
=====	=====	=====	=====	=====
Pyridine	50	30	60	1-200
1,4-Dichlorobenzene	50	31	62	20-124
2-Methylphenol	50	37	74	1-200
3-Methylphenol	100	75	75	1-200
4-Methylphenol	100	75	75	1-200
Hexachloroethane	50	32	64	40-113
Nitrobenzene	50	29	58	35-180
Hexachlorobutadiene	50	30	60	24-116
2,4,6-Trichlorophenol	50	35	70	37-144
2,4,5-Trichlorophenol	50	37	74	37-144
2,4-Dinitrotoluene	50	30	60	39-139
Hexachlorobenzene	50	34	68	1-152
Pentachlorophenol	50	33	66	14-176

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SKPLCS

Lab Name: COMPUCHEM Contract:
 Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1398
 Matrix: (soil/water) WATER Lab Sample ID: WG3985-2
 Sample wt/vol: 500 (g/mL) ML Lab File ID: WG3985-2A68
 Level: (low/med) LOW Date Received: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 07/11/00
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 07/12/00
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	30	_____
106-46-7	1,4-Dichlorobenzene	31	_____
95-48-7	2-Methylphenol	37	_____
108-39-4	3-Methylphenol	75	_____
106-44-5	4-Methylphenol	75	_____
67-72-1	Hexachloroethane	32	_____
98-95-3	Nitrobenzene	29	_____
87-68-3	Hexachlorobutadiene	30	_____
88-06-2	2,4,6-Trichlorophenol	35	_____
95-95-4	2,4,5-Trichlorophenol	37	_____
121-14-2	2,4-Dinitrotoluene	30	_____
118-74-1	Hexachlorobenzene	34	_____
87-86-5	Pentachlorophenol	33	_____

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKJV

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: U1398

Lab File ID: WG3938-1A68

Lab Sample ID: WG3938-1

Instrument ID: 5972HP68

Date Extracted: 07/10/00

Matrix: (soil/water) WATER

Date Analyzed: 07/11/00

Level: (low/med) LOW

Time Analyzed: 0849

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SJVLCS	WG3938-2	WG3938-2A68	07/11/00
02	PROCESS BLDG	U1398-1	U1398-1A68	07/11/00
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
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22				
23				
24				
25				
26				
27				
28				
29				
30				

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDG

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: U1398-1

Sample wt/vol: 100.0 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 07/07/00

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 07/10/00

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/11/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

58-89-9-----	gamma-BHC (Lindane) _____	1.6	JPB
72-20-8-----	Endrin _____	0.14	JP
76-44-8-----	Heptachlor _____	0.45	PB
1024-57-3-----	Heptachlor Epoxide _____	0.42	P
72-43-5-----	Methoxychlor _____	1.2	JPB
8001-35-2-----	Toxaphene _____	25	U
12789-03-6-----	Technical Chlordane _____	25	U

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKJW

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3939-1

Sample wt/vol: 100.0 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 07/10/00

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/11/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

58-89-9-----	gamma-BHC (Lindane) _____	0.00070	JP
72-20-8-----	Endrin _____	1.0	U
76-44-8-----	Heptachlor _____	0.0054	JP
1024-57-3-----	Heptachlor Epoxide _____	0.25	U
72-43-5-----	Methoxychlor _____	0.0028	JP
8001-35-2-----	Toxaphene _____	25	U
12789-03-6-----	Technical Chlordane _____	25	U

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

FORM I PEST

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TCLPBLKIV

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3866-1

Sample wt/vol: 100.0 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 07/10/00

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/11/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

58-89-9-----	gamma-BHC (Lindane) _____	0.018	JB
72-20-8-----	Endrin _____	1.0	U
76-44-8-----	Heptachlor _____	0.023	JPB
1024-57-3-----	Heptachlor Epoxide _____	0.25	U
72-43-5-----	Methoxychlor _____	0.036	JPB
8001-35-2-----	Toxaphene _____	25	U
12789-03-6-----	Technical Chlordane _____	25	U

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

FORM I PEST

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix Spike - EPA Sample No.: PROCESS BLDG

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	0.30	1.6	0.84	-253*	32-127
Heptachlor	1.5	0.45	2.0	103	34-111
Heptachlor Epoxide	0.30	0.42	0.73	103	37-142
Toxaphene	2.5	0.0	2.8	112	41-126

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
gamma-BHC (Lindane)	0.30	0.71	-297*	17	20	32-127
Heptachlor	0.30	0.45	0*	126*	20	34-111
Heptachlor Epoxide	0.30	0.65	77	12	20	37-142
Toxaphene	2.5	3.0	120	7	20	41-126

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 4 outside limits

Spike Recovery: 3 out of 8 outside limits

COMMENTS:

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDGMS

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3939-3

Sample wt/vol: 500.0 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 07/07/00

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 07/10/00

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/11/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

58-89-9-----	gamma-BHC (Lindane) _____	0.84	PB
72-20-8-----	Endrin _____	0.17	JP
76-44-8-----	Heptachlor _____	2.0	PB
1024-57-3-----	Heptachlor Epoxide _____	0.73	EP
72-43-5-----	Methoxychlor _____	0.25	JPB
8001-35-2-----	Toxaphene _____	2.8	JP
12789-03-6-----	Technical Chlordane _____	5.0	U

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDGMSD

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3939-4

Sample wt/vol: 500.0 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 07/07/00

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 07/10/00

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/11/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

58-89-9-----	gamma-BHC (Lindane)	0.71	PB
72-20-8-----	Endrin	0.12	JP
76-44-8-----	Heptachlor	0.45	PB
1024-57-3-----	Heptachlor Epoxide	0.65	EP
72-43-5-----	Methoxychlor	0.34	JPB
8001-35-2-----	Toxaphene	3.0	JP
12789-03-6-----	Technical Chlordane	5.0	U

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: U1398

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS & REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	0.30	0.21	70	32-127
Heptachlor	0.30	0.18	60	34-111
Heptachlor Epoxide	0.30	0.18	60	37-142
Toxaphene	2.5	1.6	64	41-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 4 outside limits

COMMENTS:

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

FORM III PEST-1

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PJWLCS

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: U1398

Matrix: (soil/water) WATER Lab Sample ID: WG3939-2

Sample wt/vol: 500.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/10/00

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 07/11/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
58-89-9-----	gamma-BHC (Lindane) _____	0.21	JB
72-20-8-----	Endrin _____	0.20	U
76-44-8-----	Heptachlor _____	0.18	B
1024-57-3-----	Heptachlor Epoxide _____	0.18	
72-43-5-----	Methoxychlor _____	0.50	U
8001-35-2-----	Toxaphene _____	1.6	J
12789-03-6-----	Technical Chlordane _____	5.0	U

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

REAC, Edison, NJ
 (908) 321-4200
 EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Barker Chemical
 Project Number: 0-0153
 RFW Contact: John Johnson Phone: 732-321-4248

No: 02916
 SHEET NO 2 OF 2

Sample Identification

Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative				
	A 22265	Process Bldg	S	6/22/2000	1	32-02 4°C	Ignitability			
	B 22265	↓	↓	↓	1	4-02	Reactivity			
	C 22265	↓	↓	↓	1	4-02	TAL Metals Sulfur Boron			
	D 22265	↓	↓	↓	1	4-02	8151A herbicides			
	E 22265	↓	↓	↓	1	4-02	TCLP: Metals, All organics			
	A 22268	Chip Area	S	6/22/2000	1	32-02 4°C	Ignitability			
	B 22268	↓	↓	↓	1	4-02	Reactivity			
	C 22268	↓	↓	↓	1	4-02	TAL Metals Sulfur Boron			
	D 22268	↓	↓	↓	1	4-02	8151A herbicides			
	E 22268	↓	↓	↓	1	4-02	TCLP: Metals; 2,4-D; 2,4,5-TP			

Matrix:
 SD - Sediment PW - Potable Water S - Soil
 DS - Drum Solids GW - Groundwater W - Water
 DL - Drum Liquids SW - Surface Water O - Oil
 X - Other SL - Sludge A - Air

Special Instructions:
 Please Note: SAMPLE E 22265
 IS TCLP for ALL METALS AND
 ALL ORGANICS

FOR SUBCONTRACTING USE ONLY
 FROM CHAIN OF
 CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All Analyses	P. [Signature]	6/22/00	[Signature]	6-23-00	9:30						

LOCKHEED MARTIN

Date: 04 August 00
To: Work Assignment Manager A. Zolnic
From: Vinod Kansal, Organic Group Leader Vinod Kansal
Subject: Preliminary Results of Project Barber Chemical
WA# 0-0153

Attached please find the preliminary results of the above referenced project for the following samples:

Chain(s) of Custody No.: 02813
Analyses: BNA
No. of Samples: 3
Matrix: BoA

Comments on the results:

cc: Central File
Task Leader B. Livaniest
Analyst V Beed

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED.
AND THE DATA SHOULD BE USED
WITH DISCRETION
REAC ORGANIC GROUP**

Preliminary Analytical Report Summary
Barker Chemical Site WA# 0-0153
04 August 2000
BNA results: COC # 02813

This report contains the result of the sample that was and received on 07/12/2000 for BNA analysis by GC/MS. Three soil samples were received for analysis. The chain of custody does not indicate the analysis request. The results and MDLs are reported in units of $\mu\text{g}/\text{kg}$ based on dry weight for soil samples. The sample was extracted outside the REAC holding time, as per the task leader request.

The soil blank contained bis(2-ethylhexyl)phthalate.

The soil samples target compounds consisted of phenols and PAHs. The non-target compounds contained hydrocarbons, PAHs, sulfur compounds, and unknowns.

The surrogate recoveries and the internal standards were within the QA/QC limits, except for 2-fluorophenol (samples H-22256 and H-22256 MS), phenol-d5 (sample H22256 MS), 2,4,6-tribromophenol (samples H-22253 and G-22267), and terphenyl-d14 (sample G-22267). All matrix spike recoveries were within QA/QC limits, except for phenol, 2-chlorophenol, 1,4-dichlorobenzene, n-nitroso-di-n-propylamine, and 1,2,4-trichlorobenzene.

The initial calibration, daily calibration checks, and DFTPP all met QC criteria.

Due to the Y2K bug the date for the quant time stamp for all injections is 19100 rather than year 2000.

V. Reed

Note: Result Files could be found I:\organic\0153bark\bna\080400*.*

**NO QC EVALUATION HAS BEEN PERFORMED
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION.
REAC ORGANIC GROUP**

Table 1.x Results of the Analysis for BNA in Soil
 WA # 0-0153 Barker Chemical Site
 (Results are Based on Dry Weight)

Sample No. Sample Location GC/MS File Name Matrix Dilution Factor % Solid	SBLK072600 Lab Blank BAR022 Soil 1 100		H-22253 WP-13 Layer 2 BAR023 Soil 1 62		H-22256 WP-6 Layer 1 BAR024 Soil 1 90		G-22267 Horiz (Fuel) Tank BAR025 Soil 5 66	
Compound Name	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
Phenol	U	330	U	540	U	370	U	2500
bis(-2-Chloroethyl)Ether	U	330	U	540	U	370	U	2500
2-Chlorophenol	U	330	U	540	U	370	U	2500
1,3-Dichlorobenzene	U	330	U	540	U	370	U	2500
1,4-Dichlorobenzene	U	330	U	540	U	370	U	2500
Benzyl alcohol	U	330	U	540	U	370	U	2500
1,2-Dichlorobenzene	U	330	U	540	U	370	U	2500
2-Methylphenol	U	330	U	540	U	370	U	2500
bis(2-Chloroisopropyl)ether	U	330	U	540	U	370	U	2500
4-Methylphenol	U	330	U	540	U	370	U	2500
N-Nitroso-Di-n-propylamine	U	330	U	540	U	370	U	2500
Hexachloroethane	U	330	U	540	U	370	U	2500
Nitrobenzene	U	330	U	540	U	370	U	2500
Isophorone	U	330	U	540	U	370	U	2500
2-Nitrophenol	U	330	U	540	U	370	U	2500
2,4-Dimethylphenol	U	330	U	540	U	370	U	2500
bis(2-Chloroethoxy)methane	U	330	U	540	U	370	U	2500
2,4-Dichlorophenol	U	330	U	540	U	370	U	2500
1,2,4-Trichlorobenzene	U	330	U	540	U	370	U	2500
Naphthalene	U	330	170 J	540	U	370	400 J	2500
4-Chloroaniline	U	330	U	540	U	370	U	2500
Hexachlorobutadiene	U	330	U	540	U	370	U	2500
4-Chloro-3-methylphenol	U	330	U	540	U	370	U	2500
2-Methylnaphthalene	U	330	120 J	540	U	370	740 J	2500
Hexachlorocyclopentadiene	U	330	U	540	U	370	U	2500
2,4,6-Trichlorophenol	U	330	U	540	U	370	U	2500
2,4,5-Trichlorophenol	U	330	U	540	U	370	U	2500
2-Chloronaphthalene	U	330	U	540	U	370	U	2500
2-Nitroaniline	U	330	U	540	U	370	U	2500
Dimethylphthalate	U	330	U	540	U	370	U	2500
Acenaphthylene	U	330	U	540	U	370	U	2500
2,6-Dinitrotoluene	U	330	U	540	U	370	U	2500
3-Nitroaniline	U	330	U	540	U	370	U	2500
Acenaphthene	U	330	180 J	540	U	370	U	2500
2,4-Dinitrophenol	U	330	U	540	U	370	U	2500
4-Nitrophenol	U	330	U	540	U	370	U	2500
Dibenzofuran	U	330	120 J	540	U	370	280 J	2500
2,4-Dinitrotoluene	U	330	U	540	U	370	U	2500
Diethylphthalate	U	330	U	540	U	370	U	2500
4-Chlorophenyl-phenylether	U	330	U	540	U	370	U	2500
Fluorene	U	330	200 J	540	U	370	U	2500
4-Nitroaniline	U	330	U	540	U	370	U	2500
4,6-Dinitro-2-methylphenol	U	330	U	540	U	370	U	2500
N-Nitrosodiphenylamine	U	330	U	540	U	370	600 J	2500
4-Bromophenyl-phenylether	U	330	U	540	U	370	U	2500
Hexachlorobenzene	U	330	U	540	U	370	U	2500
Pentachlorophenol	U	330	U	540	U	370	U	2500
Phenanthrene	U	330	800	540	U	370	2500 J	2500
Anthracene	U	330	190 J	540	U	370	U	2500
Carbazole	U	330	150 J	540	U	370	U	2500
Di-n-butylphthalate	U	330	U	540	U	370	U	2500
Fluoranthene	U	330	330 J	540	U	370	U	2500
Pyrene	U	330	390 J	540	U	370	U	2500
Butylbenzylphthalate	U	330	U	540	U	370	2800	2500
Benzo(a)anthracene	U	330	140 J	540	U	370	U	2500
3,3'-Dichlorobenzidine	U	330	U	540	U	370	U	2500
Chrysene	U	330	150 J	540	U	370	2100 J	2500
Bis(2-Ethylhexyl)phthalate	62 J	330	3100	540	78 J	370	990 J	2500
Di-n-octylphthalate	U	330	U	540	U	370	U	2500
Benzo(b)fluoranthene	U	330	U	540	U	370	340 J	2500
Benzo(k)fluoranthene	U	330	62 J	540	U	370	300 J	2500
Benzo(a)pyrene	U	330	93 J	540	U	370	U	2500
Indeno(1,2,3-cd)pyrene	U	330	U	540	U	370	U	2500
Dibenzo(a,h)anthracene	U	330	U	540	U	370	U	2500
Benzo(g,h,i)perylene	U	330	U	540	U	370	330 J	2500

NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.
 REAC ORGANIC GROUP

Table 1.2 (Cont) Results of TIC for BNA in Soil
 WA # 0-0153 Barker Chemical Site

Sample # SBLK072600
 LabFile# BAR022

Con. Factor 33

	CAS#	Compound	Q	RT	Conc.* µg/kg
1		No TICs were detected.			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

* Estimated Concentration (Response Factor = 1)

**NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.
 REAC ORGANIC GROUP**

Table 1.2 (Cont) Results of TIC for BNA in Soil
 WA # 0-0153 Barker Chemical Site

Sample # H-22253
 LabFile# BAR023

Con. Factor 54

	CAS#	Compound	Q	RT	Conc.* µg/kg
1		Sulfur compound		6.37	1800
2		Sulfur compound		7.28	440
3		Sulfur compound		7.45	240
4		Sulfur compound		8.41	1100
5		Sulfur compound		8.58	530
6		Unknown		9.14	2400
7		Sulfur compound		10.33	7900
8		Sulfur compound		10.90	1700
9		PAH isomer + alkane		11.73	450
10		Alcohol		14.17	550
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

* Estimated Concentration (Response Factor = 1)

**NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.
 REAC ORGANIC GROUP**

Table 1.2 (Cont) Results of TIC for BNA in Soil
 WA # 0-0153 Barker Chemical Site

Sample # H-22256
 LabFile# BAR024

Con. Factor

37

	CAS#	Compound	Q	RT	Conc.* µg/kg
1		No TICs were detected.			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

* Estimated Concentration (Response Factor = 1)

**NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.
 REAC ORGANIC GROUP**

Table 1.2 (Cont) Results of TIC for BNA in Soil
 WA # 0-0153 Barker Chemical Site

Sample # G-22267
 LabFile# BAR025

Con. Factor 252

	CAS#	Compound	Q	RT	Conc.* µg/kg
1		Alkane + unknown		8.73	4600
2		PAH isomer + diene\cycloalkene		8.79	3500
3		Alkane		8.96	7400
4		Alkane		9.58	22000
5		Alkene\cycloalkane		9.77	5300
6		Alkane		9.87	43000
7		Alkane + unknown		9.93	5600
8		Alkane		10.17	24000
9		Alkane		10.20	46000
10		Carbonic acid/cycloalkane		10.28	4300
11		Carbonic acid/cycloalkane		10.38	7000
12		Alkane		10.42	14000
13		Alkane		10.58	8000
14		Alkene\cycloalkane		10.62	7300
15		Alkane		10.73	28000
16		Alkane		10.80	98000
17		Alkane		10.92	11000
18		Alkane +cycloalkane		10.95	18000
19		Alkane		11.23	46000
20		Alkane		11.27	43000

* Estimated Concentration (Response Factor = 1)

**NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.
 REAC ORGANIC GROUP**

Sample Identification

Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative				
708	H, I, J 22251	South Lagoon	Sed	6/20/2000	3	8-oz jar 4°C	Archival			
709	H, I, J, K 22252	North Lagoon	Sed	6/20/2000	3/4	8-oz jar 4°C	Archival			
710	G, H, I 22253	WP-13 Layer 2	S	6/21/2000	3	8-oz jar 4°C	Archival			
711	G, H, I 22255	WP-6 Layer 1	S	6/21/2000	3	8-oz jar 4°C	Archival			
712	H 22261	WP-1 White Pile	S	6/21/2000	1	8-oz jar 4°C	Archival			
713	G, H, I 22262	RR Creek ^{down} stream	Sed	6/22/2000	3	8-oz jar 4°C	Archival			
714	E, F 22263	RR Creek ^{up} stream	S	6/22/2000	2	4-oz jar 4°C	Archival			
715	F 22264	EB Creek, Down	Sed	6/21/2000	1	4-oz jar 4°C	Archival			
716	I 22265	Process Pkg	S	6/22/2000	1	4-oz jar 4°C	Archival			
717	F 22266	Chip Area	S	6/22/2000	1	4-oz jar 4°C	Archival			
718	G 22267	Horiz Fuel Tank	S	6/22/2000	1	4-oz jar 4°C	Archival			
719	F 22269	Trough	Sed	6/21/2000	1	4-oz jar 4°C	Archival			
720	E, G 22270	Drainage Ditch	Sed	6/21/2000	2	4-oz jar 4°C	Archival			
721	E, G 22271	EB Creek, Upstream	Sed	6/21/2000	2	4-oz jar 4°C	Archival			
722	G, H 22264	WP-13 Layer 3	S	6/21/2000	2	8-oz jar 4°C	Archival			
723	G, H, I 22255	WP-13 - Layer 4	S	6/21/2000	3	8-oz jar 4°C	Archival			

Matrix:

- SD - Sediment
- DS - Drum Solids
- DL - Drum Liquids
- X - Other
- PW - Potable Water
- GW - Groundwater
- SW - Surface Water
- SL - Sludge

Special Instructions:

S - Soil
W - Water
O - Oil
A - Air
Sed - Sediment

REAC # 710, 711, 718 delivered to central lab on 7/12/00 for DNA extraction. C. Hansen

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
H/I/Analyses	C. Hansen	6/23/00				3/7/BNA	C. Hansen	7/12/00	J. Jones	7/12/00	3:50

LOCKHEED MARTIN

Date: 07 July 00
To: Work Assignment Manager A. Zownic
From: Vinod Kansal, Organic Group Leader Vinod Kansal
Subject: Preliminary Results of Project Barker Chemical
WA# 0-0153

Attached please find the preliminary results of the above referenced project for the following samples:

Chain(s) of Custody No.: 02811

Analyses: BnA

No. of Samples: 5

Matrix: Soil

Comments on the results:

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION.
REAC ORGANIC GROUP**

cc: Central File
Task Leader R. E. Estin
Analyst V. Reed
R. Singhi

Preliminary Analytical Report Summary
Barker Chemical Site WA# 0-0153
07 July 2000
BNA results: COC # 02811

This report contains the result of the sample received on 06/23/2000 for BNA analysis by GC/MS. Five soil samples were received for analysis. The results and MDLs are reported in units of $\mu\text{g}/\text{kg}$ based on dry weight for soil samples. All samples were extracted within the REAC holding time. The samples were left at a final volume of 10 mL because the samples began to crystalize between a 10 mL and 5 mL.

The soil samples target compounds consisted of phenols and PAHs. The non-target compounds contained pesticides, alkanes, PAHs, phenols, alkyl benzenes, and unknowns.

The surrogate recoveries and the internal standards were within the QA/QC limits, except for terphenyl-d14 in sample F,G22265. All matrix spike recoveries were within QA/QC limits, except for PCP.

The initial calibration, daily calibration checks, and DFTPP all met QC criteria.

Due to the Y2K bug the date for the quant time stamp for all injections is 19100 rather than year 2000.

V. Reed

Note: Result Files could be found I:\organic\0153bark\bna\070700*.*

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION.
REAC ORGANIC**

Table 1.x Results of the Analysis for BNA in Soil
 WA # 0-0153 Barker Chemical Site
 (Results are Based on Dry Weight)

Sample No. Sample Location GC/MS File Name Matrix Dilution Factor % Solid	SBLK062600 Lab Blank BAR002 Soil 1 100	G22251 South Lagoon BAR003 Soil 10 38	G22252 North Lagoon BAR004 Soil 10 69	G22261 WPI Waste Pile BAR007 Soil 10 68	G22263 PbAs Area BAR008 Soil 10 65					
Compound Name	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
Phenol	U	330	U	8900	U	4900	U	4900	U	5100
bis(-2-Chloroethyl)Ether	U	330	U	8900	U	4900	U	4900	U	5100
2-Chlorophenol	U	330	U	8900	U	4900	U	4900	U	5100
1,3-Dichlorobenzene	U	330	U	8900	U	4900	U	4900	U	5100
1,4-Dichlorobenzene	U	330	U	8900	U	4900	U	4900	U	5100
Benzyl alcohol	U	330	U	8900	U	4900	U	4900	U	5100
1,2-Dichlorobenzene	U	330	U	8900	U	4900	U	4900	U	5100
2-Methylphenol	U	330	U	8900	U	4900	U	4900	U	5100
bis(2-Chloroisopropyl)ether	U	330	U	8900	U	4900	U	4900	U	5100
4-Methylphenol	U	330	U	8900	U	4900	U	4900	U	5100
N-Nitroso-Di-n-propylamine	U	330	U	8900	U	4900	U	4900	U	5100
Hexachloroethane	U	330	U	8900	U	4900	U	4900	U	5100
Nitrobenzene	U	330	U	8900	U	4900	U	4900	U	5100
Isophorone	U	330	U	8900	U	4900	U	4900	U	5100
2-Nitrophenol	U	330	U	8900	U	4900	U	4900	U	5100
2,4-Dimethylphenol	U	330	U	8900	U	4900	U	4900	U	5100
bis(2-Chloroethoxy)methane	U	330	U	8900	U	4900	U	4900	U	5100
2,4-Dichlorophenol	U	330	U	8900	U	4900	U	4900	U	5100
1,2,4-Trichlorobenzene	U	330	U	8900	U	4900	U	4900	U	5100
Naphthalene	U	330	U	8900	U	4900	U	4900	19000	5100
4-Chloroaniline	U	330	U	8900	U	4900	U	4900	U	5100
Hexachlorobutadiene	U	330	U	8900	U	4900	U	4900	U	5100
4-Chloro-3-methylphenol	U	330	U	8900	U	4900	U	4900	U	5100
2-Methylnaphthalene	U	330	U	8900	U	4900	U	4900	27000	5100
Hexachlorocyclopentadiene	U	330	U	8900	U	4900	U	4900	U	5100
2,4,6-Trichlorophenol	U	330	U	8900	U	4900	U	4900	U	5100
2,4,5-Trichlorophenol	U	330	U	8900	U	4900	U	4900	U	5100
2-Chloronaphthalene	U	330	U	8900	U	4900	U	4900	U	5100
2-Nitroaniline	U	330	U	8900	U	4900	U	4900	U	5100
Dimethylphthalate	U	330	U	8900	U	4900	U	4900	U	5100
Acenaphthylene	U	330	U	8900	U	4900	U	4900	U	5100
2,6-Dinitrotoluene	U	330	U	8900	U	4900	U	4900	U	5100
3-Nitroaniline	U	330	U	8900	U	4900	U	4900	U	5100
Acenaphthene	U	330	U	8900	U	4900	U	4900	49000	5100
2,4-Dinitrophenol	U	330	U	8900	U	4900	U	4900	U	5100
4-Nitrophenol	U	330	U	8900	U	4900	U	4900	U	5100
Dibenzofuran	U	330	U	8900	U	4900	U	4900	29000	5100
2,4-Dinitrotoluene	U	330	U	8900	U	4900	U	4900	U	5100
Diethylphthalate	U	330	U	8900	U	4900	U	4900	U	5100
4-Chlorophenyl-phenylether	U	330	U	8900	U	4900	U	4900	U	5100
Fluorene	U	330	U	8900	U	4900	U	4900	43000	5100
4-Nitroaniline	U	330	U	8900	U	4900	U	4900	U	5100
4,6-Dinitro-2-methylphenol	U	330	U	8900	U	4900	U	4900	U	5100
N-Nitrosodiphenylamine	U	330	U	8900	U	4900	U	4900	U	5100
4-Bromophenyl-phenylether	U	330	U	8900	U	4900	U	4900	U	5100
Hexachlorobenzene	U	330	U	8900	U	4900	U	4900	U	5100
Pentachlorophenol	U	330	U	8900	U	4900	U	4900	U	5100
Phenanthrene	U	330	U	8900	U	4900	U	4900	130000	5100
Anthracene	U	330	U	8900	U	4900	U	4900	13000	5100
Carbazole	U	330	U	8900	U	4900	U	4900	1800 J	5100
Di-n-butylphthalate	U	330	U	8900	U	4900	U	4900	U	5100
Fluoranthene	U	330	U	8900	U	4900	U	4900	51000	5100
Pyrene	U	330	U	8900	U	4900	U	4900	35000	5100
Butylbenzylphthalate	U	330	U	8900	U	4900	U	4900	U	5100
Benzo(a)anthracene	U	330	U	8900	U	4900	U	4900	9100	5100
3,3'-Dichlorobenzidine	U	330	U	8900	U	4900	U	4900	U	5100
Chrysene	U	330	U	8900	U	4900	U	4900	8500	5100
Bis(2-Ethylhexyl)phthalate	U	330	U	8900	U	4900	500 J	4900	U	5100
Di-n-octylphthalate	U	330	U	8900	U	4900	U	4900	U	5100
Benzo(b)fluoranthene	U	330	U	8900	U	4900	U	4900	2900 J	5100
Benzo(k)fluoranthene	U	330	U	8900	U	4900	U	4900	3300 J	5100
Benzo(a)pyrene	U	330	U	8900	U	4900	U	4900	3000 J	5100
Indeno(1,2,3-cd)pyrene	U	330	U	8900	U	4900	U	4900	1100 J	5100
Dibenzo(a,h)anthracene	U	330	U	8900	U	4900	U	4900	U	5100
Benzo(g,h,i)perylene	U	330	U	8900	U	4900	U	4900	1100 J	5100

**NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.**

Table 1.x Results of the Analysis for BNA in Soil
 WA # 0-0153 Barker Chemical Site
 (Results are Based on Dry Weight)

Sample No. F,G22265
 Sample Location Process Area
 GC/MS File Name BAR009
 Matrix Soil
 Dilution Factor 10
 % Solid 70

Compound Name	Conc. µg/kg	MDL µg/kg
Phenol	U	4800
bis(-2-Chloroethyl)Ether	U	4800
2-Chlorophenol	U	4800
1,3-Dichlorobenzene	U	4800
1,4-Dichlorobenzene	U	4800
Benzyl alcohol	U	4800
1,2-Dichlorobenzene	U	4800
2-Methylphenol	U	4800
bis(2-Chloroisopropyl)ether	U	4800
4-Methylphenol	U	4800
N-Nitroso-Di-n-propylamine	U	4800
Hexachloroethane	U	4800
Nitrobenzene	U	4800
Isophorone	U	4800
2-Nitrophenol	U	4800
2,4-Dimethylphenol	U	4800
bis(2-Chloroethoxy)methane	U	4800
2,4-Dichlorophenol	U	4800
1,2,4-Trichlorobenzene	U	4800
Naphthalene	1400 J	4800
4-Chloroaniline	U	4800
Hexachlorobutadiene	U	4800
4-Chloro-3-methylphenol	U	4800
2-Methylnaphthalene	2600 J	4800
Hexachlorocyclopentadiene	U	4800
2,4,6-Trichlorophenol	U	4800
2,4,5-Trichlorophenol	U	4800
2-Chloronaphthalene	U	4800
2-Nitroaniline	U	4800
Dimethylphthalate	U	4800
Acenaphthylene	U	4800
2,6-Dinitrotoluene	U	4800
3-Nitroaniline	U	4800
Acenaphthene	U	4800
2,4-Dinitrophenol	6900	4800
4-Nitrophenol	U	4800
Dibenzofuran	U	4800
2,4-Dinitrotoluene	U	4800
Diethylphthalate	U	4800
4-Chlorophenyl-phenylether	U	4800
Fluorene	U	4800
4-Nitroaniline	U	4800
4,6-Dinitro-2-methylphenol	U	4800
N-Nitrosodiphenylamine	U	4800
4-Bromophenyl-phenylether	U	4800
Hexachlorobenzene	U	4800
Pentachlorophenol	U	4800
Phenanthrene	U	4800
Anthracene	U	4800
Carbazole	U	4800
Di-n-butylphthalate	U	4800
Fluoranthene	570 J	4800
Pyrene	550 J	4800
Butylbenzylphthalate	U	4800
Benzo(a)anthracene	U	4800
3,3'-Dichlorobenzidine	U	4800
Chrysene	U	4800
Bis(2-Ethylhexyl)phthalate	1000 J	4800
Di-n-octylphthalate	U	4800
Benzo(b)fluoranthene	U	4800
Benzo(k)fluoranthene	U	4800
Benzo(a)pyrene	U	4800
Indeno(1,2,3-cd)pyrene	U	4800
Dibenzo(a,h)anthracene	U	4800
Benzo(g,h,i)perylene	U	4800

**NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION**

**Table 1.2 (Cont) Results of TIC for BNA in Soil
WA # 0-0153 Barker Chemical Site**

Sample #	SBLK062600	Con. Factor	33		
LabFile#	BAR002				
	CAS#	Compound	Q	RT	Conc.* µg/kg
1		Unknown		3.61	340
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

* Estimated Concentration (Response Factor = 1)

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION
REAC ORGANIC**

Table 1.2 (Cont) Results of TIC for BNA in Soil
 WA # 0-0153 Barker Chemical Site

Sample #	LabFile#	G22251	BAR003	Con. Factor	889
	CAS#	Compound	Q	RT	Conc.* µg/kg
1	000072-55-9	p,p'-DDE	99	12.87	8100
2	000050-29-3	Chlorophenothane	91	13.76	4000
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

* Estimated Concentration (Response Factor = 1)

**NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.
 REAC ORGANIC CHEMISTRY**

Table 1.2 (Cont) Results of TIC for BNA in Soil
 WA # 0-0153 Barker Chemical Site

Sample #	G22252	Con. Factor			486
LabFile#	BAR004				Conc.*
	CAS#	Compound	Q	RT	µg/kg
1		Alkane		17.12	2800
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

* Estimated Concentration (Response Factor = 1)

**NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.
 REAC ORGANIC**

Table 1.2 (Cont) Results of TIC for BNA in Soil
 WA # 0-0153 Barker Chemical Site

Sample #	G22261	Con. Factor			492
LabFile#	BAR007				Conc.*
	CAS#	Compound	Q	RT	µg/kg
1		No TICs were detected			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

* Estimated Concentration (Response Factor = 1)

**NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION
 REAC 08/01/01**

Table 1.2 (Cont) Results of TIC for BNA in Soil
WA # 0-0153 Barker Chemical Site

Sample # G,H22263
LabFile# BAR008

Con. Factor 514

	CAS#	Compound	Q	RT	Conc.* µg/kg
1		Alkane		6.00	9800
2		Alkane		6.78	12000
3		Alkane		7.52	8100
4		Naphthalene, -methyl- isomer		7.93	18000
5		Naphthalene, -dimethyl- isomer		8.55	11000
6		Naphthalene, -dimethyl- isomer		8.67	16000
7		Naphthalene, -dimethyl- isomer		8.69	8100
8		Benzene, -(cyclopentadien-ylidene)ethyl isomer + PAH isomer		9.89	8600
9		Dibenzofuran, -methyl- isomer		9.98	9600
10		Dibenzofuran, -methyl- isomer		10.07	25000
11		Alkane		10.61	12000
12		Phenol, -(-phenylethenyl)- isomer + alkane		10.66	9300
13	000132-65-0	Dibenzothiophene	95	10.85	10000
14		Hexadecanoic acid + PAH isomer		11.48	16000
15		Anthracene, -methyl- isomer		11.59	15000
16		Anthracene, -methyl- isomer		11.63	24000
17		Cyclopenta[def]phenanthrene isomer		11.77	15000
18	000238-84-6	11H-Benzo[a]fluorene	93	13.23	12000
19	000234-17-4	11H-Benzo[b]fluorene	94	13.31	11000
20		Cholesta-dien-one isomer + alkyl benzene		23.04	9200

* Esimated Concentration (Response Factor = 1)

NO QC EVALUATION HAS BEEN PERFORMED
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION.
REAC ORGANIZATION

Table 1.2 (Cont) Results of TIC for BNA in Soil
 WA # 0-0153 Barker Chemical Site

Sample #	F,G22265	Con. Factor	476		
LabFile#	BAR009				
	CAS#	Compound	Q	RT	Conc.* µg/kg
1	000103-65-1	Benzene, propyl-	94	4.91	5900
2		Benzene, -ethyl-methyl- isomer		4.98	42000
3		Benzene, -ethyl-methyl- isomer		5.15	17000
4		Benzene, -ethyl-methyl- isomer		5.29	82000
5		Benzene, -ethyl-methyl- isomer		5.55	19000
6		Benzene, -methyl-propyl- isomer		5.73	5900
7		Benzene, -ethyl-dimethyl- isomer		5.78	6300
8		Phenol, -(-methylpropyl)-dinitro- + unknown		10.90	16000
9		Phenol, -(-methylpropyl)-dinitro- + unknown		11.23	790000
10	000786-19-6	Carbofenotion	97	13.61	19000
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

* Estimated Concentration (Response Factor = 1)

NO QC EVALUATION HAS BEEN PERFORMED
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION
 REAC OPERATIONS

CHAIN OF CUSTODY RECORD

Project Name: Drexler Chemical
 Project Number: 0-0153
 RFW Contact: Robert Evans Phone: 732 744 4233
752 713 2007

No: 02811
 SHEET NO. 1 OF 1

06 2300

Sample Identification

Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative				
701	G22251	South Lagoon	Sed	6/20/2000	1	8-oz jar 4°C	BNAs	PCBs	Pesticides	
702	G22252	NORTH LAGOON	Sed	6/20/2000	1	8-oz jar 4°C	BNAs	PCBs	Pesticides	
703	G22261	W/P-1 WASTE PILE	S	6/21/2000	1	8-oz jar 4°C	BNAs	PCBs	Pesticides	
704	G22263	PHAS AREA	S	6/22/2000	2	4-oz jar 4°C	BNAs	PCBs	Pesticides	
705	G22265	PROCESS AREA	S	6/22/2000	2	4-oz jar 4°C	BNAs	PCBs	Pesticides	
706	H22265	PROCESS AREA	S	6/22/2000	1	4-oz jar 4°C	volatile organics			
707	F22267	Horiz (Fuel) Tank	S	6/22/2000	1	4-oz jar 4°C	total petroleum hydrocarbon (TPH)			

Matrix:
 SD - Sediment PW - Potable Water S - Soil
 DS - Drum Solids GW - Groundwater W - Water
 DL - Drum Liquids SW - Surface Water O - Oil
 X - Other SL - Sludge A - Air

Special Instructions:
 Sed Sediment

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All analyses	Robert Evans	6/23/00	John R. [Signature]			706 for WIT	John R. [Signature]	6/23/00	[Signature]	6/23/00	10:32
706	John R. [Signature]	6/26/00	[Signature]	6/26/00	9:12 AM						

Lockheed Martin Technology Services Group
Environmental Services RLAC
2890 Woodhurst Avenue, Building 209 Annex Edison, NJ 08837-3679
Telephone 732-321-4200 Facsimile 732-494-4021

LOCKHEED MARTIN



Date: July 5, 2000

To: Work Assignment Manager ANDRE ZOWNIR , EPA/ERTC

From: Vinod Kansal, Organic Group Leader, Analytical Section, REAC *Vinod Kansal*

Subject: Preliminary Results of Project BARKER CHEMICAL SITE WA# 0-153

Attached please find the preliminary results of the above referenced project for the following samples:

Chain(s) of Custody No.: 02811

Analyses: PESTICIDE/PCBs

No. of Samples: FIVE

Matrix: SOIL

Comments: _____

cc Raj Singhvi, V.Kansal
Central File
D. Angwenyi
Task Leader: ROBERT EVANGELISTA
Analyst: GIRMA ADMASSU

Table 1.x Results of the Analysis for Pesticide/PCBs in Soil
 WA# 0-153 Barker Chemical Site
 Based on Dry Weight

Client ID Location Percent Solid Analyte	SBLK062600		G22251 South Lagoon 37.5		G22252 North Lagoon 68.6		G22261 WP-1 Waste Pile 67.7		GH22263 PbAs Area 64.8	
	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
a-BHC	U	3.3	U	8.9	5.5	J 9.7	2.4	J 4.9	U	5.1
g-BHC	U	3.3	U	8.9	U	9.7	2.0	J 4.9	U	5.1
b-BHC	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
Heptachlor	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
d-BHC	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
Aldrin	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
Heptachlor Epoxide	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
g-Chlordane	U	3.3	U	8.9	17	9.7	U	4.9	U	5.1
a-Chlordane	U	3.3	U	8.9	4.6	J 9.7	U	4.9	U	5.1
Endosulfan (I)	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
p,p'-D D E	U	3.3	7100	8.9	56	9.7	3.0	J 4.9	110	5.1
Dieldrin	U	3.3	U	8.9	4	J 9.7	U	4.9	U	5.1
Endrin	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
p,p'-D D D	U	3.3	1600	8.9	210	9.7	36	4.9	U	5.1
Endosulfan (II)	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
p,p'-D D T	U	3.3	5500	8.9	19	9.7	50	4.9	900	5.1
Endrin Aldehyde	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
Endosulfan Sulfate	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
Methoxychlor	U	3.3	U	8.9	U	9.7	U	4.9	U	5.1
Endrin Ketone	U	3.3	U	8.9	U	9.7	10	4.9	U	5.1
Toxaphene	U	83	U	220	U	240	U	120	U	130
Aroclor 1016	U	42	U	110	U	120	U	62	U	64
Aroclor 1221	U	83	U	220	U	240	U	120	U	130
Aroclor 1232	U	42	U	110	U	120	U	62	U	64
Aroclor 1242	U	42	U	110	U	120	U	62	U	64
Aroclor 1248	U	42	U	110	U	120	U	62	U	64
Aroclor 1254	U	42	U	110	U	120	U	62	U	64
Aroclor 1260	U	42	U	110	U	120	U	62	U	64
Aroclor 1268	U	42	U	110	U	120	U	62	U	64

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.
 REAC ORGANIC CHEMISTRY

Table 2.x Results of the Surrogate Recoveries
for Pesticide/PCBs in Soil
WA# 0-153 Barker Chemical Site

Sample ID	Percent Recovery	
	TCMX	DCBP
SBLK062600	85	129
G22251	53 *	56 *
G22252	64	54 *
G22252ms	80	79
G22252msd	85	89
G22261	102	129
GH22263	63	54 *
GH22265	172 *	80

	ADVISORY QC Limits
Tetrachloro-m-xylene (TCMX)	60-150
Decachlorobiphenyl (DCBP)	60-150

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION.
/REAC ORGANIC GROUP

REAC, Edison, NJ
 (908) 321-4200
 EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Ducktown Chemical
 Project Number: 0-0153
 RFW Contact: Robert Evans Phone: 732 744 4233
752 713 2007

No: 02011

SHEET NO. 1 OF 1

62300-

Sample Identification

Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative				
701	G22251	South Lagoon	Sed	6/20/2000	1	8-oz jar 4°C	DNAs	PCBs	Pesticides	
702	G22252	North Lagoon	Sed	6/20/2000	1	8-oz jar 4°C	DNAs	PCBs	Pesticides	
703	G22261	W.P. Waste Pile	S	6/22/2000	1	8-oz jar 4°C	DNAs	PCBs	Pesticides	
704	G22263	Pack House	S	6/22/2000	2	4-oz jar 4°C	DNAs	PCBs	Pesticides	
705	G22265	Process Area	S	6/22/2000	2	4-oz jar 4°C	DNAs	PCBs	Pesticides	
706	H22265	Process Area	S	6/22/2000	1	4-oz jar 4°C	volatile organics			
707	F22267	Horiz (fuel) Tank	S	6/22/2000	1	4-oz jar 4°C	total Petroleum Hydrocarbon			CTPH

Matrix: Special Instructions:

- SD - Sediment
- US - Drum Solids
- DL - Drum Liquids
- X - Other
- PW - Potable Water
- GW - Groundwater
- SW - Surface Water
- SL - Sludge
- S - Soil
- W - Water
- O - Oil
- A - Air

Sed Sediment

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
Oil/Analyses	[Signature]	6/23/00	[Signature]			706 fuel tank	[Signature]	6/23/00	[Signature]	6/27/00	18:32
707	[Signature]	6/22/00	[Signature]	6/26/00	9:22						

Date: 06/24/00
To: Work Assignment Manager Andy Zownir
From: Yi-Hua Lin, Special Project Group Leader
Subject: Preliminary Results of Project Barker Chemical.
WA# 0153

Attached please find the preliminary results of the above referenced project for the following samples:

Chain(s) of Custody No.: 02158

Analyses: VOC

No. of Samples: 1

Matrix: Sediment

Comments on the results:

This sample contains high conc. of alkyl
benzenes in non-target compounds
Yi-Hua

cc: R. SINGHVI
Central File
Task Leader Robert Guengulista
Analyst Yi-Hua Lin
SAMPLE RECEIVING
D. MILLER
D. KILLEEN
E. MATOS

TABLE 1
VOLATILE ORGANIC COMPOUND ANALYSIS

Project #	Barker Chem. 0-153	H22265
Sample #	methanol blk0624	
Location		Proc Area
Collected		06/22
Analyzed	06/24	06/24
Injected	2:06 pm	2:43 pm
File	AV1931.D	AV1932.D
Dil. Fact.	1.0	10000
Unit	ug/kg	ug/kg
% Solid	100	61

<u>Compound</u>	<u>Conc.</u>	<u>MDL</u>	<u>Conc.</u>	<u>MDL</u>
Dichlorodifluoromethane	U	1.0	U	16000
Chloromethane	U	1.0	U	16000
Vinyl Chloride	U	1.0	U	16000
Bromomethane	U	2.0	U	33000
Chloroethane	U	1.0	U	16000
Trichlorofluoromethane	U	1.0	U	16000
Acetone	1.4 J	8.0	U	130000
1,1-Dichloroethene	U	1.0	U	16000
Methylene Chloride	U	1.0	U	16000
Carbon Disulfide	U	1.0	U	16000
Methyl-t-butyl Ether	U	1.0	U	16000
trans-1,2-Dichloroethene	U	1.0	U	16000
1,1-Dichloroethane	U	1.0	U	16000
2-Butanone	U	4.0	U	65000
2,2-Dichloropropane	U	1.0	U	16000
cis-1,2-Dichloroethene	U	1.0	U	16000
Chloroform	U	1.0	U	16000
1,1-Dichloropropene	U	1.0	U	16000
1,2-Dichloroethane	U	1.0	U	16000
1,1,1-Trichloroethane	U	1.0	U	16000
Carbon Tetrachloride	U	1.0	U	16000
Benzene	U	1.0	U	16000
Trichloroethene	U	1.0	U	16000
1,2-Dichloropropane	U	1.0	U	16000
Bromodichloromethane	U	1.0	U	16000
Dibromomethane	U	1.0	U	16000
cis-1,3-Dichloropropene	U	1.0	U	16000
trans-1,3-Dichloropropene	U	1.0	U	16000
1,1,2-Trichloroethane	U	1.0	U	16000
1,3-Dichloropropane	U	1.0	U	16000
Dibromochloromethane	U	1.0	U	16000
1,2-Dibromoethane	U	1.0	U	16000
Bromoform	U	1.0	U	16000
4-Methyl-2-Pentanone	U	2.0	U	33000
Toluene	U	1.0	U	16000
2-Hexanone	U	2.0	U	33000
Tetrachloroethene	U	1.0	U	16000
Chlorobenzene	U	1.0	U	16000
1,1,1,2-Tetrachloroethane	U	1.0	U	16000
Ethylbenzene	U	1.0	U	16000
p&m-Xylene	U	1.0	79000	16000
o-Xylene	U	1.0	22100	16000
Styrene	U	1.0	U	16000
Isopropylbenzene	U	1.0	U	16000
1,1,2,2-Tetrachloroethane	U	1.0	U	16000
1,2,3-Trichloropropane	U	1.0	U	16000
n-Propylbenzene	U	1.0	110000	16000
Bromobenzene	U	1.0	U	16000
1,3,5-Trimethylbenzene	U	1.0	710000	16000
2-Chlorotoluene	U	1.0	U	16000
4-Chlorotoluene	U	1.0	U	16000
tert-Butylbenzene	U	1.0	U	16000
1,2,4-Trimethylbenzene	U	1.0	2200000	16000
sec-Butylbenzene	U	1.0	U	16000
p-Isopropyltoluene	U	1.0	U	16000
1,3-Dichlorobenzene	U	1.0	U	16000
1,4-Dichlorobenzene	U	1.0	U	16000
n-Butylbenzene	U	1.0	21000	16000
1,2-Dichlorobenzene	U	1.0	U	16000
1,2-Dibromo-3-chloropropane	U	1.0	U	16000
1,2,4-Trichlorobenzene	U	1.0	U	16000
Hexachlorobutadiene	U	1.0	U	16000
Naphthalene	U	4.0	U	65000
1,2,3-Trichlorobenzene	U	1.0	U	16000

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION.**

B Indicates results are present in Blank
J Indicates below Method Detection Limit

REAC, E 10th, NJ
 (908) 321-4200
 EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Daelon Chemical
 Project Number: 0-0153
 RFW Contact: Robert Evans Phone: 732 724 4233
732 713 2007

No: 02811
 SHEET NO. 1 OF 1

06 2300

Sample Identification

Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative				
.701	G 22251	South Lagoon	Sed	6/20/2000	1	8-oz jar 4°C	BNAs	PCBs	Pesticides	
.702	G 22252	NORTH LAGOON	Sed	6/20/2000	1	8-oz jar 4°C	BNAs	PCBs	Pesticides	
.703	G 22261	WP-1 WASTEPILE	S	6/20/2000	1	8-oz jar 4°C	BNAs	PCBs	Pesticides	
.704	G 22263	PhAs (Lead/Arsenic)	S	6/22/2000	2	4-oz jar 4°C	BNAs	PCBs	Pesticides	Volatiles
.705	G 22265	Process Area	S	6/22/2000	2	4-oz jar 4°C	BNAs	PCBs	Pesticides	Volatiles
.706	H 22265	Process Area	S	6/22/2000	1	4-oz jar 4°C	VOLATILE ORGANICS			
.707	F 22267	Horiz (Fuel) Tank	S	6/22/2000	1	4-oz jar 4°C	total petroleum hydrocarbon (TPH)			

Matrix:
 SD - Sediment PW - Potable Water S - Soil
 DS - Drum Solids GW - Groundwater W - Water
 DL - Drum Liquids SW - Surface Water O - Oil
 X - Other SL - Sludge A - Air

Sed Sediment

Special Instructions:

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
Oil/Analyses	Ryan	6/23/00	Ryan			706 Fuel	Ryan	6/23/00	Ryan	6/23/00	18:00

CompuChem

a division of Liberty Analytical Corporation

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

- U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.
- J : This flag indicates an estimated value. The flag is used as detailed below:
1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,
 2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and
 3. When the retention time data indicate the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.
- N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.
- P : This flag is used for a pesticide/Aroclor target analyte, and other GC or HPLC analytes, when there is greater than 25% difference for detected concentrations between the two GC or HPLC columns. The lower of the two values is reported on Form I and flagged with a P.
- C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

- B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.
- E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.
- D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.
- NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL and the U flag.
- NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.
- A : This flag indicates that a TIC is a suspected aldol-condensation product.
- X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

DATE: 7/06/2000
TO: R.Singhvi, ERTC/EPA
FROM: Deborah Killeen, Data Validation and Report Writing Group Leader *dk*
SUBJECT: Preliminary Results of Project Barker Chemical WA# 0153

Attached please find the preliminary results of the above referenced project for the following samples.

<u>Chain of Custody No.</u>	<u>Analyses</u>
02809	1 water sample for sulfate, nitrate, chloride, TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, and corrosivity
02810	1 water sample for sulfate, nitrate, chloride, TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, and corrosivity
02812	4 soil samples for TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, TCLP metals, and TCLP herbicides
02812	1 soil samples for TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, TCLP metals, and TCLP herbicides
02815	3 soil samples for TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, TCLP metals, and TCLP herbicides
02816	2 soil samples for TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, TCLP metals, and TCLP herbicides
02817	4 soil samples for TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, TCLP metals, and TCLP herbicides
02818	1 water sample for sulfate, nitrate, chloride, TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, and corrosivity
03585	1 soil samples for TAL Metals, sulfur, boron, herbicides, ignitability, reactivity, TCLP metals, and TCLP herbicides

The TCLP VOA, Pesticides, and Semivolatiles will follow later for sample E22265, COC 02816.

cc: Archives
Subcontracting
Deborah Killeen
WAM: A. Zownir
Task Leader: R. Evangelista

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKQW

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: Q1398
 Matrix: (soil/water) SOIL Lab Sample ID: WG3616-1
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 % Moisture: 0 decanted: (Y/N) N Date Received: _____
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00
 Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/29/00
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	2.8	J
93-72-1-----	silvex	0.13	JP
93-76-5-----	2,4,5-T	0.89	JP

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SULFUR BLANK

ab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: Q1398
Matrix: (soil/water) SOIL		Lab Sample ID: SCHIBLK041
Sample wt/vol: 30.0 (g/mL) G		Lab File ID: _____
% Moisture: 0	decanted: (Y/N) N	Date Received: _____
Extraction: (SepF/Cont/Sonc) SONC		Date Extracted: 06/26/00
Concentrated Extract Volume: 5000 (ul)		Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	5.0	U
93-72-1-----	silvex	0.072	JBP
93-76-5-----	2,4,5-T	0.16	JBP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOUTHLAGOON

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
Matrix: (soil/water) SOIL		SDG No.: Q1398
Sample wt/vol: 30.0 (g/mL) G		Lab Sample ID: Q1398-1
% Moisture: 58	decanted: (Y/N) N	Lab File ID: _____
Extraction: (SepF/Cont/Sonc) SONC		Date Received: 06/23/00
Concentrated Extract Volume: 5000 (ul)		Date Extracted: 06/26/00
Injection Volume: 2.0 (uL)		Date Analyzed: 06/29/00
GPC Cleanup: (Y/N) N	pH: _____	Dilution Factor: 1.0
		Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	10	JBP
93-72-1-----	silvex	1.4	JBP
93-76-5-----	2,4,5-T	5.2	JBP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NORTHLAGOON

Lab Name: COMPUCHEM	Contract:
Lab Code: LIBRTY Case No.:	SAS No.:
Matrix: (soil/water) SOIL	SDG No.: Q1398
Sample wt/vol: 30.0 (g/mL) G	Lab Sample ID: Q1398-2
% Moisture: 26 decanted: (Y/N) N	Lab File ID: _____
Extraction: (SepF/Cont/Sonc) SONC	Date Received: 06/23/00
Concentrated Extract Volume: 5000 (ul)	Date Extracted: 06/26/00
Injection Volume: 2.0 (uL)	Date Analyzed: 06/30/00
GPC Cleanup: (Y/N) N pH: ____	Dilution Factor: 1.0
	Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	27	BP
93-72-1-----	silvex	4.6	BP
93-76-5-----	2,4,5-T	3.5	BP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-6 LAYER

Lab Name: COMPUCHEM Contract:
Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1398
Matrix: (soil/water) SOIL Lab Sample ID: Q1398-3
Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
% Moisture: 9 decanted: (Y/N) N Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00
Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/30/00
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) Y

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

94-75-7-----	2,4-D	47	BP
93-72-1-----	silvex	10	BP
93-76-5-----	2,4,5-T	16	BP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

PESTICIDE ORGANISM ID

Layer 2?

EPA SAMPLE NO.

WP-13 LAYER

Lab Name: COMPUCHEM

Lab Code: LIBRTY Case No.: CAS No.: SDG No.: Q1398

Matrix: (soil/water) SOIL Lab Sample ID: Q1398-4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 38 decanted: (Y/N) N Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00

Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/30/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
94-75-7-----	2,4-D	6.4	JBP	
93-72-1-----	silvex	6.8	B	
93-76-5-----	2,4,5-T	16	BP	

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP1-WASTE FILE

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: Q1398
Matrix: (soil/water) SOIL		Lab Sample ID: Q1398-5
Sample wt/vol: 30.0 (g/mL) G		Lab File ID: _____
% Moisture: 30	decanted: (Y/N) N	Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SONC		Date Extracted: 06/26/00
Concentrated Extract Volume: 5000 (ul)		Date Analyzed: 06/30/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: ____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	2.7	JP
93-72-1-----	silvex	6.3	P
93-76-5-----	2,4,5-T	3.9	P

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RR CREEK

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: Q1398

Matrix: (soil/water) SOIL Lab Sample ID: Q1398-6

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 33 decanted: (Y/N) N Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00

Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	2.5	JB
93-72-1-----	silvex	0.71	JB
93-76-5-----	2,4,5-T	0.73	JBP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PB AS

ab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: Q1398
Matrix: (soil/water) SOIL		Lab Sample ID: Q1398-7
Sample wt/vol: 30.0 (g/mL) G		Lab File ID: _____
% Moisture: 29	decanted: (Y/N) N	Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SONC		Date Extracted: 06/26/00
Concentrated Extract Volume: 5000 (ul)		Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: ____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	7.0	U
93-72-1-----	silvex	2.8	U
93-76-5-----	2,4,5-T	0.80	JP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS I

*Downstream?
confluence*

EPA SAMPLE NO.

EAST CREEK

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: Q1398
 Matrix: (soil/water) SOIL Lab Sample ID: Q1398-8
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 % Moisture: 19 decanted: (Y/N) N Date Received: 06/23/00
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00
 Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/29/00
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	2.5	JBP
93-72-1-----	silvex	0.39	JBP
93-76-5-----	2,4,5-T	0.95	JBP

**NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDG

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: Q1398
 Matrix: (soil/water) SOIL Lab Sample ID: Q1398-9
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 % Moisture: 29 decanted: (Y/N) N Date Received: 06/23/00
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00
 Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/30/00
 Injection Volume: 2.0 (uL) Dilution Factor: 1000.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	7000	U
93-72-1-----	silvex	680	JBP
93-76-5-----	2,4,5-T	3500	U

**NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION**

1D
 PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHIP AREA

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: Q1398
 Matrix: (soil/water) SOIL Lab Sample ID: Q1398-10
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 % Moisture: 39 decanted: (Y/N) N Date Received: 06/23/00
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00
 Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/29/00
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	2.3	JBP
93-72-1-----	silvex	0.12	JBP
93-76-5-----	2,4,5-T	0.98	JBP

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FUEL TANK

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
Matrix: (soil/water) SOIL		SDG No.: Q1398
Sample wt/vol: 30.0 (g/mL) G		Lab Sample ID: Q1398-11
% Moisture: 26	decanted: (Y/N) N	Lab File ID: _____
Extraction: (SepF/Cont/Sonc) SONC		Date Received: 06/23/00
Concentrated Extract Volume: 5000 (ul)		Date Extracted: 06/26/00
Injection Volume: 2.0 (uL)		Date Analyzed: 06/30/00
GPC Cleanup: (Y/N) N	pH: ____	Dilution Factor: 1.0
		Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
94-75-7-----	2,4-D		13	B
93-72-1-----	silvex		1.9	JBP
93-76-5-----	2,4,5-T		2.9	JBP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TROUGH

ab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: Q1398
 Matrix: (soil/water) SOIL Lab Sample ID: Q1398-12
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 % Moisture: 21 decanted: (Y/N) N Date Received: 06/23/00
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00
 Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/30/00
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
94-75-7-----	2,4-D	27	BP	
93-72-1-----	silvex	12	BP	
93-76-5-----	2,4,5-T	6.4	BP	

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DRAINAGE DITCH

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: Q1398
Matrix: (soil/water) SOIL		Lab Sample ID: Q1398-13
Sample wt/vol: 30.0 (g/mL) G		Lab File ID: _____
% Moisture: 56	decanted: (Y/N) N	Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SONC		Date Extracted: 06/26/00
Concentrated Extract Volume: 5000 (ul)		Date Analyzed: 06/30/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: ____	Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	6.1	JBP
93-72-1-----	silvex	0.56	JBP
93-76-5-----	2,4,5-T	0.79	JBP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS

EPA SAMPLE NO.

*Upstream ?
confluence*

EB CREEK

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1398

Matrix: (soil/water) SOIL Lab Sample ID: Q1398-14

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 21 decanted: (Y/N) N Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00

Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	8.7	B
93-72-1-----	silvex	0.22	JBP
93-76-5-----	2,4,5-T	1.2	JBP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER 3

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: Q1398

Matrix: (soil/water) SOIL

Lab Sample ID: Q1398-15

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: _____

% Moisture: 45 decanted: (Y/N) N

Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/26/00

Concentrated Extract Volume: 5000 (ul)

Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG
94-75-7-----	2,4-D	9.0	JB
93-72-1-----	silvex	1.1	JBP
93-76-5-----	2,4,5-T	3.1	JBP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER 4

ab Name: COMPUCHEM Contract:
Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1398
Matrix: (soil/water) SOIL Lab Sample ID: Q1398-16
Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
% Moisture: 34 decanted: (Y/N) N Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00
Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
94-75-7-----	2,4-D		3.4	JBP
93-72-1-----	silvex		1.8	JBP
93-76-5-----	2,4,5-T		2.0	JBP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDGMS

Lab Name: COMPUCHEM Contract:
Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1398
Matrix: (soil/water) SOIL Lab Sample ID: WG3616-3
Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
% Moisture: 29 decanted: (Y/N) N Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/26/00
Concentrated Extract Volume: 5000 (ul) Date Analyzed: 06/30/00
Injection Volume: 2.0 (uL) Dilution Factor: 1000.0
GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	7000	U
93-72-1-----	silvex	240	JBP
93-76-5-----	2,4,5-T	3500	U

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDGMSD

ab Name: COMPUCHEM	Contract:
Lab Code: LIBRTY Case No.:	SAS No.:
	SDG No.: Q1398
Matrix: (soil/water) SOIL	Lab Sample ID: WG3616-4
Sample wt/vol: 30.0 (g/mL) G	Lab File ID: _____
% Moisture: 29 decanted: (Y/N) N	Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SONC	Date Extracted: 06/26/00
Concentrated Extract Volume: 5000 (ul)	Date Analyzed: 06/30/00
Injection Volume: 2.0 (uL)	Dilution Factor: 1000.0
GPC Cleanup: (Y/N) N pH: ____	Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

94-75-7-----	2,4-D	7000	U
93-72-1-----	silvex	23	JBP
93-76-5-----	2,4,5-T	320	JBP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PQWLCS

Lab Name: COMPUCHEM	Contract:	SDG No.: Q1398
Lab Code: LIBRTY Case No.:	SAS No.:	Lab Sample ID: WG3616-2
Matrix: (soil/water) SOIL		Lab File ID: _____
Sample wt/vol: 30.0 (g/mL) G		Date Received: _____
% Moisture: 0 decanted: (Y/N) N		Date Extracted: 06/26/00
Extraction: (SepF/Cont/Sonc) SONC		Date Analyzed: 06/29/00
Concentrated Extract Volume: 5000 (ul)		Dilution Factor: 1.0
Injection Volume: 2.0 (uL)		Sulfur Cleanup: (Y/N) N
GPC Cleanup: (Y/N) N pH: ____		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7-----	2,4-D	58	B
93-72-1-----	silvex	11	B
93-76-5-----	2,4,5-T	11	B

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract:
 Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1398
 Matrix Spike - EPA Sample No.: PROCESS BLDG

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
2,4-D	94	0.0	0.0	0*	30-150
silvex	19	680	240	-2316*	30-150
2,4,5-T	19	0.0	0.0	0*	30-150

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
2,4-D	94	0.0	0*		40	30-150
silvex	19	23	-3458*	165*	40	30-150
2,4,5-T	19	320	1684*		40	30-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 3 outside limits

Spike Recovery: 6 out of 6 outside limits

COMMENTS:

3F
SOIL PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: Q1398

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
2,4-D	67	58	86	30-150
silvex	13	11	85	30-150
2,4,5-T	13	11	85	30-150

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS: _____

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKPX

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: Q1391

Matrix: (soil/water) WATER Lab Sample ID: WG3554-1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/23/00

Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/23/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.032	JP
93-72-1-----	silvex	0.0028	JP
93-76-5-----	2,4,5-T	0.0045	JP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOUTH LAGOON

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: Q1391
Matrix: (soil/water) WATER		Lab Sample ID: Q1391-1
Sample wt/vol: 500.0 (g/ml) ML		Lab File ID: _____
% Moisture: _____ decanted: (Y/N) _____		Date Received: 06/22/00
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/23/00
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/23/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.046	JBP
93-72-1-----	silvex	0.035	JBP
93-76-5-----	2,4,5-T	0.026	JBP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NORTH LAGOON

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: Q1391
Matrix: (soil/water) WATER		Lab Sample ID: Q1391-2
Sample wt/vol: 500.0 (g/ml) ML		Lab File ID: _____
% Moisture: _____	decanted: (Y/N) _____	Date Received: 06/22/00
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/23/00
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/24/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.20	JBP
93-72-1-----	silvex	0.16	JBP
93-76-5-----	2,4,5-T	0.077	JBP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
 PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TROUGH

Lab Name: COMPUCHEM	Contract:
Lab Code: LIBRTY	Case No.:
Matrix: (soil/water) WATER	SAS No.:
Sample wt/vol: 500.0 (g/ml) ML	SDG No.: Q1391
% Moisture: _____ decanted: (Y/N) _____	Lab Sample ID: Q1391-3
Extraction: (SepF/Cont/Sonc) SEPF	Lab File ID: _____
Concentrated Extract Volume: 2500 (ul)	Date Received: 06/22/00
Injection Volume: 2.0 (uL)	Date Extracted: 06/23/00
GPC Cleanup: (Y/N) N	Date Analyzed: 06/24/00
pH: _____	Dilution Factor: 1.0
	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.28	JBP
93-72-1-----	silvex	0.030	JB
93-76-5-----	2,4,5-T	0.015	JBP

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PPXLCS

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: Q1391
Matrix: (soil/water) WATER		Lab Sample ID: WG3554-2
Sample wt/vol: 500.0 (g/ml) ML		Lab File ID: _____
% Moisture: _____ decanted: (Y/N) _____		Date Received: _____
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/23/00
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/23/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	1.8	B
93-72-1-----	silvex	0.40	JB
93-76-5-----	2,4,5-T	0.36	JB

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TROUGHMS

Lab Name: COMPUCHEM	Contract:		
Lab Code: LIBRTY	Case No.:	SAS No.:	SDG No.: Q1391
Matrix: (soil/water) WATER		Lab Sample ID: WG3554-5	
Sample wt/vol: 500.0 (g/ml) ML		Lab File ID: _____	
% Moisture: _____ decanted: (Y/N) _____		Date Received: 06/22/00	
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/23/00	
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/24/00	
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0	
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.94	JBP
93-72-1-----	silvex	0.28	JBP
93-76-5-----	2,4,5-T	0.26	JB

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TROUGHMSD

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: Q1391

Matrix: (soil/water) WATER Lab Sample ID: WG3554-6

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 06/22/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/23/00

Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/24/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.81	JBP
93-72-1-----	silvex	0.27	JBP
93-76-5-----	2,4,5-T	0.20	JBP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION.

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

b Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: Q1391

Matrix Spike - EPA Sample No.: TROUGH

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
2,4-D	2.0	0.28	0.94	33	30-150
silvex	0.40	0.030	0.28	62	30-150
2,4,5-T	0.40	0.015	0.26	61	30-150

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
2,4-D	2.0	0.81	26*	15	40	30-150
silvex	0.40	0.27	60	4	40	30-150
2,4,5-T	0.40	0.20	46	26	40	30-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 3 outside limits

Spike Recovery: 1 out of 6 outside limits

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKQY

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: S1398
Matrix: (soil/water) WATER		Lab Sample ID: WG3618-1
Sample wt/vol: 500.0 (g/ml) ML		Lab File ID: _____
% Moisture: _____ decanted: (Y/N) _____		Date Received: _____
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/27/00
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.027	JP
93-72-1-----	silvex	0.0079	JP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TCLPBLKF1

Lab Name: COMPUCHEM		Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:	SDG No.: S1398
Matrix: (soil/water) WATER		Lab Sample ID: WG3612-1	
Sample wt/vol: 100.0 (g/ml) ML		Lab File ID: _____	
% Moisture: _____	decanted: (Y/N) _____	Date Received: _____	
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/27/00	
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/29/00	
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0	
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.22	BJP
93-72-1-----	silvex	0.044	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TCLPBLKF2

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: S1398

Matrix: (soil/water) WATER

Lab Sample ID: WG3612-2

Sample wt/vol: 100.0 (g/ml) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul)

Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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94-75-7-----	2,4-D	0.098	BJP
93-72-1-----	silvex	0.030	BJP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
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WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOUTHLAGOON

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix: (soil/water) WATER Lab Sample ID: S1398-1

Sample wt/vol: 100.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.20	BJP
93-72-1-----	silvex	0.26	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NORTHLAGOON

Lab Name: COMPUCHEM	Contract:
Lab Code: LIBRTY Case No.:	SAS No.:
Matrix: (soil/water) WATER	SDG No.: S1398
Sample wt/vol: 100.0 (g/ml) ML	Lab Sample ID: S1398-2
% Moisture: _____ decanted: (Y/N) _____	Lab File ID: _____
Extraction: (SepF/Cont/Sonc) SEPF	Date Received: 06/23/00
Concentrated Extract Volume: 2500 (ul)	Date Extracted: 06/27/00
Injection Volume: 2.0 (uL)	Date Analyzed: 06/29/00
GPC Cleanup: (Y/N) N pH: _____	Dilution Factor: 1.0
	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----2,4-D		0.21	BJP
93-72-1-----silvex		0.059	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-6 LAYER

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: S1398

Matrix: (soil/water) WATER

Lab Sample ID: S1398-3

Sample wt/vol: 100.0 (g/ml) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul)

Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

94-75-7-----	2,4-D	0.16	BJP
93-72-1-----	silvex	0.038	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix: (soil/water) WATER Lab Sample ID: S1398-4
 Sample wt/vol: 100.0 (g/ml) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 06/23/00
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/00
 Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/29/00
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.12	BJP
93-72-1-----	silvex	0.22	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP1-WASTE PILE

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: S1398
Matrix: (soil/water) WATER		Lab Sample ID: S1398-5
Sample wt/vol: 100.0 (g/ml) ML		Lab File ID: _____
% Moisture: _____	decanted: (Y/N) _____	Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/27/00
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.20	BJP
93-72-1-----	silvex	0.033	BJP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RR CREEK

Lab Name: COMPUCHEM	Contract:
Lab Code: LIBRTY Case No.:	SAS No.:
Matrix: (soil/water) WATER	SDG No.: S1398
Sample wt/vol: 100.0 (g/ml) ML	Lab Sample ID: S1398-6
% Moisture: _____ decanted: (Y/N) _____	Lab File ID: _____
Extraction: (SepF/Cont/Sonc) SEPF	Date Received: 06/23/00
Concentrated Extract Volume: 2500 (ul)	Date Extracted: 06/27/00
Injection Volume: 2.0 (uL)	Date Analyzed: 06/29/00
GPC Cleanup: (Y/N) N pH: _____	Dilution Factor: 1.0
	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	1.0	BJP
93-72-1-----	silvex	0.044	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PB AS

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix: (soil/water) WATER Lab Sample ID: S1398-7
 Sample wt/vol: 100.0 (g/ml) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 06/23/00
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/00
 Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/29/00
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.27	BJP
93-72-1-----	silvex	0.035	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAST CREEK

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: S1398

Matrix: (soil/water) WATER

Lab Sample ID: S1398-8

Sample wt/vol: 100.0 (g/ml) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul)

Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.18	BJP
93-72-1-----	silvex	0.083	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDG

Lab Name: COMPUCHEM	Contract:
Lab Code: LIBRTY Case No.:	SAS No.:
	SDG No.: S1398
Matrix: (soil/water) WATER	Lab Sample ID: S1398-9
Sample wt/vol: 100.0 (g/ml) ML	Lab File ID: _____
% Moisture: _____ decanted: (Y/N) _____	Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SEPF	Date Extracted: 06/27/00
Concentrated Extract Volume: 2500 (ul)	Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.72	BJP
93-72-1-----	silvex	0.16	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHIP AREA

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: S1398

Matrix: (soil/water) WATER

Lab Sample ID: S1398-10

Sample wt/vol: 100.0 (g/ml) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul)

Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

94-75-7-----	2,4-D	0.19	BJP
93-72-1-----	silvex	0.031	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FUEL TANK

ab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix: (soil/water) WATER Lab Sample ID: S1398-11

Sample wt/vol: 100.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

94-75-7-2,4-D		0.24	BJP
93-72-1-silvex		0.022	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TROUGH

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix: (soil/water) WATER Lab Sample ID: S1398-12

Sample wt/vol: 100.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.97	BJP
93-72-1-----	silvex	0.091	BJ

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DRAINAGE DITCH

ab Name: COMPUCHEM	Contract:		
Lab Code: LIBRTY	Case No.:	SAS No.:	SDG No.: S1398
Matrix: (soil/water) WATER		Lab Sample ID: S1398-13	
Sample wt/vol: 100.0 (g/ml) ML		Lab File ID: _____	
% Moisture: _____	decanted: (Y/N) _____	Date Received: 06/23/00	
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/27/00	
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/29/00	
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0	
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----2,4-D	_____	0.91	BJP
93-72-1-----silvex	_____	0.043	BJ

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EB CREEK

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: S1398

Matrix: (soil/water) WATER

Lab Sample ID: S1398-14

Sample wt/vol: 100.0 (g/ml) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 06/23/00

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul)

Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-2,4-D	2,4-D	0.27	BJ
93-72-1-silvex	silvex	0.044	BJP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER 3

ab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SAS No.:
		SDG No.: S1398
Matrix: (soil/water) WATER		Lab Sample ID: S1398-15
Sample wt/vol: 100.0 (g/ml) ML		Lab File ID: _____
% Moisture: _____	decanted: (Y/N) _____	Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/27/00
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	0.94	BJP
93-72-1-----	silvex	0.033	BJP

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER 4

Lab Name: COMPUCHEM Contract:
Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1398
Matrix: (soil/water) WATER Lab Sample ID: S1398-16
Sample wt/vol: 100.0 (g/ml) ML Lab File ID: _____
% Moisture: _____ decanted: (Y/N) _____ Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/00
Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	1.0	BJP
93-72-1-----	silvex	0.074	BJP

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NORTHLAGOONMS

Lab Name: COMPUCHEM	Contract:	
Lab Code: LIBRTY	Case No.:	SDG No.: S1398
Matrix: (soil/water) WATER	SAS No.:	Lab Sample ID: WG3618-3
Sample wt/vol: 100.0 (g/ml) ML		Lab File ID: _____
% Moisture: _____	decanted: (Y/N) _____	Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SEPF		Date Extracted: 06/27/00
Concentrated Extract Volume: 2500 (ul)		Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	5.8	BJ
93-72-1-----	silvex	2.0	BJ

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NORTHLAGOONMSD

Lab Name: COMPUCHEM Contract:
Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1398
Matrix: (soil/water) WATER Lab Sample ID: WG3618-4
Sample wt/vol: 100.0 (g/ml) ML Lab File ID: _____
% Moisture: _____ decanted: (Y/N) _____ Date Received: 06/23/00
Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/00
Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/29/00
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7-----	2,4-D	6.3	BJ
93-72-1-----	silvex	2.3	BJ

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PQYLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1398

Matrix: (soil/water) WATER Lab Sample ID: WG3618-2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/00

Concentrated Extract Volume: 2500 (ul) Date Analyzed: 06/29/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

94-75-7-----	2,4-D	1.6	B
93-72-1-----	silvex	0.44	BJ

**NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION**

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: S1398

Matrix Spike - EPA Sample No.: NORTHLAGOON

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
2,4-D	10	0.21	5.8	56	30-150
silvex	2.0	0.059	2.0	97	30-150

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
2,4-D	10	6.3	61	8	40	30-150
silvex	2.0	2.3	112	14	40	30-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

COMMENTS:

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM

Contract:

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: S1398

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
2,4-D	2.0	1.6	80	30-150
silvex	0.40	0.44	110	30-150

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

SW846 METALS

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BLANKS

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG NO.: S1398

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic	2.3 U	2.3 U		2.3 U		2.3 U		-4.272	B	P
Barium	0.1 U	0.1 B		1.6 B		0.5 B		1.054	B	P
Cadmium	-.2 B	0.2 U		-.2 B		0.2 U		-.607	B	P
Chromium	-.7 B	0.4 U		-.4 B		0.4 U		0.400	U	P
Lead	1.3 U	1.3 U		1.3 U		1.3 U		1.300	U	P
Mercury	0.1 B	0.1 U		0.1 U		0.1 U		0.102	B	CV
Selenium	2.2 U	-2.6 B		2.2 U		-6.0 B		-2.478	B	P
Silver	0.6 U	0.6 U		0.6 U		0.6 U		0.600	U	P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LEACH BLK1

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: WG3612-1

Level (low/med): LOW Date Received: 06/26/00

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.3	U		P
7440-39-3	Barium	0.63	B	E	P
7440-43-9	Cadmium	0.20	U		P
7440-47-3	Chromium	0.40	U	E	P
7439-92-1	Lead	3.0	B		P
7439-97-6	Mercury	0.12	B		CV
7782-49-2	Selenium	10.5	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LEACH BLK2

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBERTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix (soil/water): WATER Lab Sample ID: WG3612-2
 Level (low/med): LOW Date Received: 06/26/00
 % Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.3	U		P
7440-39-3	Barium	0.77	B	E	P
7440-43-9	Cadmium	0.20	U		P
7440-47-3	Chromium	0.40	U	E	P
7439-92-1	Lead	1.8	B		P
7439-97-6	Mercury	0.20	B		CV
7782-49-2	Selenium	12.6	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOUTH LAGOON

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-1

Level (low/med): LOW Date Received: 06/23/00

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	30.3	B		P
7440-39-3	Barium	74.1	B	E	P
7440-43-9	Cadmium	1.2	B		P
7440-47-3	Chromium	54.2	B	E	P
7439-92-1	Lead	153	B		P
7439-97-6	Mercury	0.22	B		CV
7782-49-2	Selenium	10.3	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BROWN Clarity Before: CLEAR Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

NORTH LAGOON

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-2

Level (low/med): LOW Date Received: 06/23/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	21.2	B		P
7440-39-3	Barium	29.1	B	E	P
7440-43-9	Cadmium	1.9	B		P
7440-47-3	Chromium	7.0	B	E	P
7439-92-1	Lead	65.6	B		P
7439-97-6	Mercury	0.14	B		CV
7782-49-2	Selenium	7.3	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-6 LAYER1

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-3

Level (low/med): LOW Date Received: 06/23/00

8 Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.0	B		P
7440-39-3	Barium	478	B	E	P
7440-43-9	Cadmium	0.20	U		P
7440-47-3	Chromium	0.40	U	E	P
7439-92-1	Lead	11.8	B		P
7439-97-6	Mercury	0.21	B		CV
7782-49-2	Selenium	10.5	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: PINK Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER2

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-4

Level (low/med): LOW Date Received: 06/23/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	8.6	B		P
7440-39-3	Barium	624	B	E	P
7440-43-9	Cadmium	0.43	B		P
7440-47-3	Chromium	38.8	B	E	P
7439-92-1	Lead	35.9	B		P
7439-97-6	Mercury	0.14	B		CV
7782-49-2	Selenium	8.1	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: YELLOW Clarity Before: CLEAR Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments: _____

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SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP1-WASTE PILE

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBERTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix (soil/water): WATER Lab Sample ID: S1398-5
 Level (low/med): LOW Date Received: 06/23/00
 Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	121	B		P
7440-39-3	Barium	60.6	B	E	P
7440-43-9	Cadmium	0.22	B		P
7440-47-3	Chromium	1.4	B	E	P
7439-92-1	Lead	28.6	B		P
7439-97-6	Mercury	0.14	B		CV
7782-49-2	Selenium	9.4	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: YELLOW Clarity Before: CLEAR Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RR CREEK

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix (soil/water): WATER Lab Sample ID: S1398-6
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.7	B		P
7440-39-3	Barium	245	B	E	P
7440-43-9	Cadmium	0.33	B		P
7440-47-3	Chromium	0.40	U	E	P
7439-92-1	Lead	58.9	B		P
7439-97-6	Mercury	0.11	B		CV
7782-49-2	Selenium	7.3	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BROWN Clarity Before: CLEAR Texture: _____
 Color After: BROWN Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PB AS

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-7

Level (low/med): LOW Date Received: 06/23/00

☉ Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.2	B		P
7440-39-3	Barium	89.5	B	E	P
7440-43-9	Cadmium	1.9	B		P
7440-47-3	Chromium	2.4	B	E	P
7439-92-1	Lead	106	B		P
7439-97-6	Mercury	0.11	B		CV
7782-49-2	Selenium	12.8	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

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SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAST CREEK

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-8

Level (low/med): LOW Date Received: 06/23/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	61.4	B		P
7440-39-3	Barium	1220	B	E	P
7440-43-9	Cadmium	1.3	B		P
7440-47-3	Chromium	1.1	B	E	P
7439-92-1	Lead	144	B		P
7439-97-6	Mercury	0.25	B		CV
7782-49-2	Selenium	10.6	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDG

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBERTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix (soil/water): WATER Lab Sample ID: S1398-9
 Level (low/med): LOW Date Received: 06/23/00
 Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	47.6	B		P
7440-39-3	Barium	67.6	B	E	P
7440-43-9	Cadmium	0.20	U		P
7440-47-3	Chromium	2.1	B	E	P
7439-92-1	Lead	126	B		P
7439-97-6	Mercury	0.17	B		CV
7782-49-2	Selenium	8.5	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: YELLOW Clarity Before: CLEAR Texture: _____
 Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHIP AREA

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix (soil/water): WATER Lab Sample ID: S1398-10
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	246	B		P
7440-39-3	Barium	336	B	E	P
7440-43-9	Cadmium	0.20	U		P
7440-47-3	Chromium	0.84	B	E	P
7439-92-1	Lead	55.6	B		P
7439-97-6	Mercury	0.15	B		CV
7782-49-2	Selenium	9.4	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FUEL TANK

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-11

Level (low/med): LOW Date Received: 06/23/00

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	118	B		P
7440-39-3	Barium	417	B	E	P
7440-43-9	Cadmium	0.36	B		P
7440-47-3	Chromium	2.2	B	E	P
7439-92-1	Lead	38.4	B		P
7439-97-6	Mercury	0.14	B		CV
7782-49-2	Selenium	9.9	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: YELLOW Clarity Before: CLEAR Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

TROUGH

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix (soil/water): WATER Lab Sample ID: S1398-12
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	13.9	B		P
7440-39-3	Barium	93.6	B	E	P
7440-43-9	Cadmium	1.5	B		P
7440-47-3	Chromium	16.9	B	E	P
7439-92-1	Lead	60.0	B		P
7439-97-6	Mercury	0.17	B		CV
7782-49-2	Selenium	8.4	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DRAINAGE DITCH

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBERTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix (soil/water): WATER Lab Sample ID: S1398-13
 Level (low/med): LOW Date Received: 06/23/00
 Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	28.6	B		P
7440-39-3	Barium	170	B	E	P
7440-43-9	Cadmium	0.34	B		P
7440-47-3	Chromium	2.0	B	E	P
7439-92-1	Lead	18.0	B		P
7439-97-6	Mercury	0.11	B		CV
7782-49-2	Selenium	7.9	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EB CREEK

Lab Name: COMPUCHEM Contract: _____
 Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398
 Matrix (soil/water): WATER Lab Sample ID: S1398-14
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	50.2	B		P
7440-39-3	Barium	637	B	E	P
7440-43-9	Cadmium	2.0	B		P
7440-47-3	Chromium	1.8	B	E	P
7439-92-1	Lead	147	B		P
7439-97-6	Mercury	0.18	B		CV
7782-49-2	Selenium	12.0	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
 Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER 3

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-15

Level (low/med): LOW Date Received: 06/23/00

8 Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	19.7	B		P
7440-39-3	Barium	79.5	B	E	P
7440-43-9	Cadmium	0.24	B		P
7440-47-3	Chromium	31.6	B	E	P
7439-92-1	Lead	46.8	B		P
7439-97-6	Mercury	0.13	B		CV
7782-49-2	Selenium	10.0	B		P
7440-22-4	Silver	0.87	B		P

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SW846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER 4

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: S1398

Matrix (soil/water): WATER Lab Sample ID: S1398-16

Level (low/med): LOW Date Received: 06/23/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.3	U		P
7440-39-3	Barium	69.5	B	E	P
7440-43-9	Cadmium	0.20	U		P
7440-47-3	Chromium	2.2	B	E	P
7439-92-1	Lead	14.2	B		P
7439-97-6	Mercury	0.10	U		CV
7782-49-2	Selenium	7.2	B		P
7440-22-4	Silver	0.60	U		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments: _____

**SW846 METALS
5A
SPIKE SAMPLE RECOVERY**

EPA SAMPLE NO.

SOUTH LAGOONM

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG NO.: S1398

Matrix (soil/water): WATER Level (low/med): LOW

† Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	5227.1812	30.3012 B	5000.00	103.9		P
Barium	75 - 125	5066.7612 B	74.1364 B	100000.00	5.0		P
Cadmium	75 - 125	931.8485	1.1918 B	1000.00	93.1		P
Chromium	75 - 125	4922.6660	54.1596 B	5000.00	97.4		P
Lead	75 - 125	2492.9900 B	152.9550 B	5000.00	46.8		P
Mercury	75 - 125	201.7500	0.2208 B	200.00	100.8		CV
Selenium	75 - 125	1015.5440	10.3396 B	1000.00	100.5		P
Silver	75 - 125	946.1808	0.6000 U	1000.00	94.6		P

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

Comments: _____

SW846 METALS
5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

SOUTH LAGOONS

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBERTY Case No.: _____ SAS No.: _____ SDG NO.: S1398

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	5367.4390	30.3012 B	5000.00	106.7		P
Barium	75 - 125	4708.8979 B	74.1364 B	100000.00	4.6		P
Cadmium	75 - 125	951.7543	1.1918 B	1000.00	95.0		P
Chromium	75 - 125	5065.1709	54.1596 B	5000.00	100.2		P
Lead	75 - 125	2481.7571 B	152.9550 B	5000.00	46.6		P
Mercury	75 - 125	194.4750	0.2208 B	200.00	97.1		CV
Selenium	75 - 125	1021.7010	10.3396 B	1000.00	101.1		P
Silver	75 - 125	963.2346	0.6000 U	1000.00	96.3		P

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

Comments: _____

SW-846 METALS

3

BLANKS

Name: CompuChem

Contract: _____

Lab Code: LIBRTY

Case No.: Q1398

SAS No.: _____

SDG NO.: Q1398

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Aluminum	26.7	U	26.7	U	26.7	U	26.7	U	5.340	U	P
Antimony	1.5	U	1.7	B	1.5	U	1.5	U	0.368	B	P
Arsenic	2.1	U	2.1	U	2.1	U	2.1	U	0.420	U	P
Barium	0.2	U	0.2	B	0.2	B	0.3	B	0.106	B	P
Beryllium	0.1	U	0.3	B	0.4	B	0.4	B	0.017	B	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	-.058	B	P
Calcium	25.0	U	25.0	U	43.0	B	25.0	U	13.839	B	P
Chromium	2.1	U	2.1	U	2.1	U	2.1	U	0.420	U	P
Cobalt	0.7	U	0.7	U	0.7	U	0.7	U	0.140	U	P
Copper	1.3	U	1.3	U	1.3	U	1.3	U	0.228	B	P
Iron	14.1	U	14.1	U	14.1	U	14.1	U	1.696	B	P
Lead	1.1	U	1.1	U	1.1	U	1.6	B	0.213	B	P
Magnesium	6.8	U	36.4	B	17.8	B	22.4	B	2.167	B	P
Manganese	0.4	U	0.4	U	0.4	U	0.4	U	0.051	B	P
Mercury	0.1	B	0.1	U	0.1	U	0.1	U	0.025	B	CV
Nickel	3.2	U	3.2	U	3.2	U	3.2	U	0.640	U	P
Potassium	36.9	U	36.9	U	36.9	U	36.9	U	7.380	U	P
Selenium	1.7	U	1.7	U	1.7	U	1.7	U	0.340	U	P
Silver	0.5	U	0.5	U	0.5	U	0.5	U	0.100	U	P
Sodium	158.6	U	158.6	U	158.6	U	158.6	U	48.624	B	P
Thallium	2.5	B	2.2	U	2.2	U	2.2	U	-.482	B	P
Vanadium	-.6	B	-.4	B	0.4	U	0.4	U	0.080	U	P
Zinc	3.6	U	3.6	U	3.6	U	3.6	U	1.054	B	P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOUTH LAGOON

Lab Name: CompuChem Contract: _____
 Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398
 Matrix (soil/water): SOIL Lab Sample ID: Q1398-1
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 42.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4040			P
7440-36-0	Antimony	0.32	U	N	P
7440-38-2	Arsenic	3.7		N	P
7440-39-3	Barium	8.5		N	P
7440-41-7	Beryllium	0.22	B		P
7440-43-9	Cadmium	0.063	U		P
7440-70-2	Calcium	203000		E	P
7440-47-3	Chromium	4.3			P
7440-48-4	Cobalt	0.92	B		P
7440-50-8	Copper	7.4		N	P
7439-89-6	Iron	3870			P
7439-92-1	Lead	3.7		N	P
7439-95-4	Magnesium	9200			P
7439-96-5	Manganese	180		N	P
7439-97-6	Mercury	0.048	B	N	CV
7440-02-0	Nickel	3.9			P
7440-09-7	Potassium	117	B		P
7782-49-2	Selenium	0.36	U		P
7440-22-4	Silver	0.12	B		P
7440-23-5	Sodium	66.0	B		P
7440-28-0	Thallium	0.46	U	N	P
7440-62-2	Vanadium	4.5			P
7440-66-6	Zinc	15.6			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED

Color Before: GRAY Clarity Before: WITH DISCRETION Texture: FINE
 Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

NORTH LAGOON

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-2

Level (low/med): LOW Date Received: 06/23/00

% Solids: 74.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3470			P
7440-36-0	Antimony	0.18	U	N	P
7440-38-2	Arsenic	6.1		N	P
7440-39-3	Barium	121		N	P
7440-41-7	Beryllium	0.093	B		P
7440-43-9	Cadmium	0.035	U		P
7440-70-2	Calcium	23900		E	P
7440-47-3	Chromium	6.0			P
7440-48-4	Cobalt	2.3			P
7440-50-8	Copper	29.2		N	P
7439-89-6	Iron	5010			P
7439-92-1	Lead	14.0		N	P
7439-95-4	Magnesium	772			P
7439-96-5	Manganese	126		N	P
7439-97-6	Mercury	0.17		N	CV
7440-02-0	Nickel	4.8			P
7440-09-7	Potassium	518			P
7782-49-2	Selenium	0.20	U		P
7440-22-4	Silver	0.079	B		P
7440-23-5	Sodium	71.9	B		P
7440-28-0	Thallium	0.26	U	N	P
7440-62-2	Vanadium	7.6			P
7440-66-6	Zinc	12.1			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BROWN Clarity Before: _____ Texture: FINE

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-6 LAYER1

Lab Name: CompuChem Contract: _____
 Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398
 Matrix (soil/water): SOIL Lab Sample ID: Q1398-3
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 91.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4240			P
7440-36-0	Antimony	0.16	U	N	P
7440-38-2	Arsenic	2.6		N	P
7440-39-3	Barium	75.1		N	P
7440-41-7	Beryllium	0.19	B		P
7440-43-9	Cadmium	0.031	U		P
7440-70-2	Calcium	41100		E	P
7440-47-3	Chromium	6.4			P
7440-48-4	Cobalt	4.0			P
7440-50-8	Copper	19.1		N	P
7439-89-6	Iron	9690			P
7439-92-1	Lead	2.9		N	P
7439-95-4	Magnesium	5140			P
7439-96-5	Manganese	610		N	P
7439-97-6	Mercury	0.032	B	N	CV
7440-02-0	Nickel	8.4			P
7440-09-7	Potassium	742			P
7782-49-2	Selenium	0.18	U		P
7440-22-4	Silver	0.052	U		P
7440-23-5	Sodium	77.0	B		P
7440-28-0	Thallium	0.23	U	N	P
7440-62-2	Vanadium	10.3			P
7440-66-6	Zinc	21.6			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM
 Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER2

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-4

Level (low/med): LOW Date Received: 06/23/00

% Solids: 62.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8810			P
7440-36-0	Antimony	0.26	B	N	P
7440-38-2	Arsenic	1.2	B	N	P
7440-39-3	Barium	106		N	P
7440-41-7	Beryllium	0.40	B		P
7440-43-9	Cadmium	0.044	U		P
7440-70-2	Calcium	76700		E	P
7440-47-3	Chromium	9.2			P
7440-48-4	Cobalt	3.4			P
7440-50-8	Copper	8.9		N	P
7439-89-6	Iron	8780			P
7439-92-1	Lead	3.5		N	P
7439-95-4	Magnesium	3210			P
7439-96-5	Manganese	269		N	P
7439-97-6	Mercury	0.018	U	N	CV
7440-02-0	Nickel	8.0			P
7440-09-7	Potassium	779			P
7782-49-2	Selenium	0.25	U		P
7440-22-4	Silver	0.073	U		P
7440-23-5	Sodium	142	B		P
7440-28-0	Thallium	0.32	U	N	P
7440-62-2	Vanadium	13.3			P
7440-66-6	Zinc	30.8			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED

Color Before: BLACK Clarity Before: WITH DISCRETION COARSE

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

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SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WPI-WASTE PILE

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-5

Level (low/med): LOW Date Received: 06/23/00

% Solids: 69.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	347			P
7440-36-0	Antimony	0.36	B	N	P
7440-38-2	Arsenic	5.0		N	P
7440-39-3	Barium	20.7		N	P
7440-41-7	Beryllium	0.022	B		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	198000		E	P
7440-47-3	Chromium	1.3			P
7440-48-4	Cobalt	0.095	U		P
7440-50-8	Copper	23.8		N	P
7439-89-6	Iron	296			P
7439-92-1	Lead	6.5		N	P
7439-95-4	Magnesium	180			P
7439-96-5	Manganese	6.3		N	P
7439-97-6	Mercury	0.036	B	N	CV
7440-02-0	Nickel	0.65	B		P
7440-09-7	Potassium	47.9	B		P
7782-49-2	Selenium	0.23	U		P
7440-22-4	Silver	0.068	U		P
7440-23-5	Sodium	47.7	B		P
7440-28-0	Thallium	0.30	U	N	P
7440-62-2	Vanadium	0.81	B		P
7440-66-6	Zinc	0.49	U		P

DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION

Color Before: GRAY Clarity Before: _____ Texture: FINE

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

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SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RR CREEK

Lab Name: CompuChem Contract: _____
 Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398
 Matrix (soil/water): SOIL Lab Sample ID: Q1398-6
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 67.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6400			P
7440-36-0	Antimony	0.36	B	N	P
7440-38-2	Arsenic	4.2		N	P
7440-39-3	Barium	60.4		N	P
7440-41-7	Beryllium	0.27	B		P
7440-43-9	Cadmium	0.042	U		P
7440-70-2	Calcium	1760		E	P
7440-47-3	Chromium	7.5			P
7440-48-4	Cobalt	2.7			P
7440-50-8	Copper	12.4		N	P
7439-89-6	Iron	8030			P
7439-92-1	Lead	40.9		N	P
7439-95-4	Magnesium	1430			P
7439-96-5	Manganese	89.0		N	P
7439-97-6	Mercury	0.082		N	CV
7440-02-0	Nickel	7.2			P
7440-09-7	Potassium	309			P
7782-49-2	Selenium	0.53	B		P
7440-22-4	Silver	0.14	B		P
7440-23-5	Sodium	80.1	B		P
7440-28-0	Thallium	0.30	U	N	P
7440-62-2	Vanadium	12.4			P
7440-66-6	Zinc	34.3			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED

WITH DISCRETION

Color Before: BROWN Clarity Before: _____ Texture: COARSE
 Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PB AS

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-7

Level (low/med): LOW Date Received: 06/23/00

% Solids: 71.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	555			P
7440-36-0	Antimony	1.7		N	P
7440-38-2	Arsenic	14.6		N	P
7440-39-3	Barium	93.1		N	P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	9950		E	P
7440-47-3	Chromium	5.0			P
7440-48-4	Cobalt	3.4			P
7440-50-8	Copper	74.8		N	P
7439-89-6	Iron	14300			P
7439-92-1	Lead	94.8		N	P
7439-95-4	Magnesium	110	B		P
7439-96-5	Manganese	27.1		N	P
7439-97-6	Mercury	0.33		N	CV
7440-02-0	Nickel	8.4			P
7440-09-7	Potassium	325			P
7782-49-2	Selenium	1.4			P
7440-22-4	Silver	0.48	B		P
7440-23-5	Sodium	85.4	B		P
7440-28-0	Thallium	0.29	U	N	P
7440-62-2	Vanadium	7.7			P
7440-66-6	Zinc	26.8			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BLACK Clarity Before: _____ Texture: COARSE

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAST CREEK

Lab Name: CompuChem Contract: _____
 Lab Code: LIBERTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398
 Matrix (soil/water): SOIL Lab Sample ID: Q1398-8
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 81.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6340			P
7440-36-0	Antimony	0.21	B	N	P
7440-38-2	Arsenic	23.5		N	P
7440-39-3	Barium	111		N	P
7440-41-7	Beryllium	0.25	B		P
7440-43-9	Cadmium	0.032	U		P
7440-70-2	Calcium	11300		E	P
7440-47-3	Chromium	11.2			P
7440-48-4	Cobalt	3.9			P
7440-50-8	Copper	65.8		N	P
7439-89-6	Iron	14900			P
7439-92-1	Lead	15.5		N	P
7439-95-4	Magnesium	2780			P
7439-96-5	Manganese	326		N	P
7439-97-6	Mercury	0.27		N	CV
7439-97-6	Mercury	0.059		N	CV
7440-02-0	Nickel	10.1			P
7440-09-7	Potassium	497			P
7782-49-2	Selenium	0.22	B		P
7440-22-4	Silver	0.053	U		P
7440-23-5	Sodium	49.7	B		P
7440-28-0	Thallium	0.24	U	N	P
7440-62-2	Vanadium	17.7			P
7440-66-6	Zinc	54.7			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM
 Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PROCESS BLDG

Lab Name: CompuChem Contract: _____
 Lab Code: LIBERTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398
 Matrix (soil/water): SOIL Lab Sample ID: Q1398-9
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 71.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	253			P
7440-36-0	Antimony	0.57	B	N	P
7440-38-2	Arsenic	11.4		N	P
7440-39-3	Barium	29.6		N	P
7440-41-7	Beryllium	0.017	B		P
7440-43-9	Cadmium	0.035	U		P
7440-70-2	Calcium	131000		E	P
7440-47-3	Chromium	0.77			P
7440-48-4	Cobalt	0.082	U		P
7440-50-8	Copper	8.1		N	P
7439-89-6	Iron	1980			P
7439-92-1	Lead	31.9		N	P
7439-95-4	Magnesium	103	B		P
7439-96-5	Manganese	7.9		N	P
7439-97-6	Mercury	0.25		N	CV
7439-97-6	Mercury	0.18		N	CV
7440-02-0	Nickel	0.53	B		P
7440-09-7	Potassium	410			P
7782-49-2	Selenium	0.20	U		P
7440-22-4	Silver	0.058	U		P
7440-23-5	Sodium	99.2	B		P
7440-28-0	Thallium	0.26	U	N	P
7440-62-2	Vanadium	0.99	B		P
7440-66-6	Zinc	3.3			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BROWN Clarity Before: MEDIUM
 Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CHIP AREA

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-10

Level (low/med): LOW Date Received: 06/23/00

% Solids: 61.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10400			P
7440-36-0	Antimony	1.0		N	P
7440-38-2	Arsenic	286		N	P
7440-39-3	Barium	93.6		N	P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	0.049	U		P
7440-70-2	Calcium	3080		E	P
7440-47-3	Chromium	10.8			P
7440-48-4	Cobalt	3.0			P
7440-50-8	Copper	364		N	P
7439-89-6	Iron	11700			P
7439-92-1	Lead	106		N	P
7439-95-4	Magnesium	1990			P
7439-96-5	Manganese	101		N	P
7439-97-6	Mercury	0.10		N	CV
7440-02-0	Nickel	8.8			P
7440-09-7	Potassium	430			P
7782-49-2	Selenium	0.61	B		P
7440-22-4	Silver	0.081	U		P
7440-23-5	Sodium	97.2	B		P
7440-28-0	Thallium	0.36	U	N	P
7440-62-2	Vanadium	16.9			P
7440-66-6	Zinc	36.3			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BROWN Clarity Before: _____ Texture: FINE

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FUEL TANK

Lab Name: CompuChem Contract: _____

Lab Code: LIBERTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-11

Level (low/med): LOW Date Received: 06/23/00

% Solids: 74.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	897			P
7440-36-0	Antimony	0.33	B	N	P
7440-38-2	Arsenic	3.3		N	P
7440-39-3	Barium	128		N	P
7440-41-7	Beryllium	0.073	B		P
7440-43-9	Cadmium	0.034	U		P
7440-70-2	Calcium	205		E	P
7440-47-3	Chromium	3.4			P
7440-48-4	Cobalt	1.1			P
7440-50-8	Copper	28.1		N	P
7439-89-6	Iron	2000			P
7439-92-1	Lead	16.9		N	P
7439-95-4	Magnesium	99.3	B		P
7439-96-5	Manganese	9.0		N	P
7439-97-6	Mercury	0.056		N	CV
7440-02-0	Nickel	2.7			P
7440-09-7	Potassium	406			P
7782-49-2	Selenium	0.59			P
7440-22-4	Silver	0.075	B		P
7440-23-5	Sodium	80.5	B		P
7440-28-0	Thallium	0.25	U	N	P
7440-62-2	Vanadium	3.4			P
7440-66-6	Zinc	6.3			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BLACK Clarity Before: _____ ~~COARSE~~ COARSE

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

TROUGH

Lab Name: CompuChem Contract: _____
 Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398
 Matrix (soil/water): SOIL Lab Sample ID: Q1398-12
 Level (low/med): LOW Date Received: 06/23/00
 * Solids: 79.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1100			P
7440-36-0	Antimony	0.32	B	N	P
7440-38-2	Arsenic	3.3		N	P
7440-39-3	Barium	208		N	P
7440-41-7	Beryllium	0.049	B		P
7440-43-9	Cadmium	0.034	U		P
7440-70-2	Calcium	42100		E	P
7440-47-3	Chromium	2.4			P
7440-48-4	Cobalt	0.87			P
7440-50-8	Copper	26.6		N	P
7439-89-6	Iron	1580			P
7439-92-1	Lead	13.9		N	P
7439-95-4	Magnesium	244			P
7439-96-5	Manganese	22.4		N	P
7439-97-6	Mercury	0.052		N	CV
7440-02-0	Nickel	1.8			P
7440-09-7	Potassium	425			P
7782-49-2	Selenium	0.20	U		P
7440-22-4	Silver	0.076	B		P
7440-23-5	Sodium	90.8	B		P
7440-28-0	Thallium	0.25	U	N	P
7440-62-2	Vanadium	2.4			P
7440-66-6	Zinc	5.4			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: GRAY Clarity Before: _____ Texture: FINE
 Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DRAINAGE DITCH

Lab Name: CompuChem Contract: _____

Lab Code: LIBERTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-13

Level (low/med): LOW Date Received: 06/23/00

% Solids: 44.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8780			P
7440-36-0	Antimony	1.4		N	P
7440-38-2	Arsenic	321		N	P
7440-39-3	Barium	56.5		N	P
7440-41-7	Beryllium	0.29	B		P
7440-43-9	Cadmium	0.062	U		P
7440-70-2	Calcium	2000		E	P
7440-47-3	Chromium	17.0			P
7440-48-4	Cobalt	1.8			P
7440-50-8	Copper	394		N	P
7439-89-6	Iron	26900			P
7439-92-1	Lead	68.5		N	P
7439-95-4	Magnesium	916			P
7439-96-5	Manganese	84.2		N	P
7439-97-6	Mercury	0.13		N	CV
7440-02-0	Nickel	6.6			P
7440-09-7	Potassium	332			P
7782-49-2	Selenium	1.7			P
7440-22-4	Silver	0.94	B		P
7440-23-5	Sodium	114	B		P
7440-28-0	Thallium	0.45	U	N	P
7440-62-2	Vanadium	22.2			P
7440-66-6	Zinc	82.7			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BLACK Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EB CREEK

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-14

Level (low/med): LOW Date Received: 06/23/00

% Solids: 78.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6160			P
7440-36-0	Antimony	2.1		N	P
7440-38-2	Arsenic	22.1		N	P
7440-39-3	Barium	88.8		N	P
7440-41-7	Beryllium	0.33	B		P
7440-43-9	Cadmium	0.034	U		P
7440-70-2	Calcium	2760		E	P
7440-47-3	Chromium	69.6			P
7440-48-4	Cobalt	4.5			P
7440-50-8	Copper	53.4		N	P
7439-89-6	Iron	15300			P
7439-92-1	Lead	314		N	P
7439-95-4	Magnesium	2690			P
7439-96-5	Manganese	309		N	P
7439-97-6	Mercury	0.19		N	CV
7440-02-0	Nickel	10.4			P
7440-09-7	Potassium	468			P
7782-49-2	Selenium	0.48	B		P
7440-22-4	Silver	0.17	B		P
7440-23-5	Sodium	79.3	B		P
7440-28-0	Thallium	0.24	U	N	P
7440-62-2	Vanadium	17.2			P
7440-66-6	Zinc	83.9			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED

Color Before: BROWN Clarity Before: WITH DISCRETION Turbidity: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER 3

Lab Name: CompuChem Contract: _____
 Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398
 Matrix (soil/water): SOIL Lab Sample ID: Q1398-15
 Level (low/med): LOW Date Received: 06/23/00
 % Solids: 55.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1960			P
7440-36-0	Antimony	0.23	B	N	P
7440-38-2	Arsenic	3.3		N	P
7440-39-3	Barium	5.2		N	P
7440-41-7	Beryllium	0.089	B		P
7440-43-9	Cadmium	0.045	U		P
7440-70-2	Calcium	248000		E	P
7440-47-3	Chromium	2.4			P
7440-48-4	Cobalt	0.10	U		P
7440-50-8	Copper	2.8		N	P
7439-89-6	Iron	1770			P
7439-92-1	Lead	3.7		N	P
7439-95-4	Magnesium	10100			P
7439-96-5	Manganese	146		N	P
7439-97-6	Mercury	0.031	B	N	CV
7440-02-0	Nickel	1.9			P
7440-09-7	Potassium	63.9	B		P
7782-49-2	Selenium	0.25	U		P
7440-22-4	Silver	0.075	U		P
7440-23-5	Sodium	32.6	B		P
7440-28-0	Thallium	0.33	U	N	P
7440-62-2	Vanadium	3.3			P
7440-66-6	Zinc	7.0			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION.

Color Before: GREEN Clarity Before: _____ Texture: FINE
 Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WP-13 LAYER 4

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG No.: Q1398

Matrix (soil/water): SOIL Lab Sample ID: Q1398-16

Level (low/med): LOW Date Received: 06/23/00

% Solids: 65.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4350			P
7440-36-0	Antimony	0.40	B	N	P
7440-38-2	Arsenic	3.7		N	P
7440-39-3	Barium	4.4		N	P
7440-41-7	Beryllium	0.15	B		P
7440-43-9	Cadmium	0.042	U		P
7440-70-2	Calcium	206000		E	P
7440-47-3	Chromium	5.8			P
7440-48-4	Cobalt	0.30	B		P
7440-50-8	Copper	3.4		N	P
7439-89-6	Iron	3450			P
7439-92-1	Lead	5.7		N	P
7439-95-4	Magnesium	1180			P
7439-96-5	Manganese	56.6		N	P
7439-97-6	Mercury	0.032	B	N	CV
7440-02-0	Nickel	2.2			P
7440-09-7	Potassium	47.4	B		P
7782-49-2	Selenium	0.24	U		P
7440-22-4	Silver	0.069	U		P
7440-23-5	Sodium	58.9	B		P
7440-28-0	Thallium	0.30	U	N	P
7440-62-2	Vanadium	5.8			P
7440-66-6	Zinc	7.4			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

**SW-846 METALS
5A
SPIKE SAMPLE RECOVERY**

EPA SAMPLE NO.

SOUTH LAGOONMS

Lab Name: CompuChem Contract: _____
 Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG NO.: Q1398
 Matrix (soil/water): SOIL Level (low/med): LOW
 % Solids for Sample: 42.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum		0.0004	3836.6621	453.60	165.1		P
Antimony	75 - 125	90.2520	0.3000 U	113.40	79.6		P
Arsenic	75 - 125	10.8353	3.5431	4.50	162.0	N	P
Barium	75 - 125	415.7232	8.0642	453.60	89.9		P
Beryllium	75 - 125	9.4049	0.2086 B	11.30	81.4		P
Cadmium	75 - 125	8.5189	0.0600 U	11.30	75.4		P
Chromium	75 - 125	40.9547	4.0626	45.40	81.2		P
Cobalt	75 - 125	88.6916	0.8760 B	113.40	77.4		P
Copper	75 - 125	65.7773	7.3784	117.90	49.5	N	P
Iron		4110.8467	3677.5205	226.80	191.1		P
Lead	75 - 125	7.0124	3.5215	4.50	77.6		P
Manganese	75 - 125	266.9229	170.7753	113.40	84.8		P
Mercury	75 - 125	0.2862	0.0484 B	0.31	76.7		CV
Nickel	75 - 125	92.2984	3.7173	113.40	78.1		P
Selenium	75 - 125	2.0088	0.3400 U	2.30	87.3		P
Silver	75 - 125	9.3172	0.1117 B	11.30	81.5		P
Thallium	75 - 125	6.7000	0.4400 U	11.30	59.3	N	P
Vanadium	75 - 125	98.6277	4.2377	113.40	83.2		P
Zinc	75 - 125	102.4679	14.8353	113.40	77.3		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Comments: _____

SW-846 METALS
5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

SOUTH LAGOONMSD

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1398 SAS No.: _____ SDG NO.: Q1398

Matrix (soil/water): SOIL Level (low/med): LOW

Solids for Sample: 42.4

Concentration Units (ug/L or mg/kg dry weight): **MG/KG**

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum		4931.8140	3836.6621	421.20	260.0		P
Antimony	75 - 125	90.1185	0.3000 U	16.80	536.4	N	P
Arsenic	75 - 125	11.3150	3.5431	4.20	185.0	N	P
Barium	75 - 125	419.5700	8.0642	421.20	97.7		P
Beryllium	75 - 125	9.4190	0.2086 B	10.50	87.7		P
Cadmium	75 - 125	8.4150	0.0600 U	10.50	80.1		P
Chromium	75 - 125	41.1010	4.0626	42.10	88.0		P
Cobalt	75 - 125	88.6439	0.8760 B	105.30	83.4		P
Copper	75 - 125	68.5289	7.3784	117.90	51.9	N	P
Iron		4110.6113	3677.5205	210.60	205.6		P
Lead	75 - 125	7.0718	3.5215	4.20	84.5		P
Manganese	75 - 125	261.4619	170.7753	421.20	21.5	N	P
Mercury	75 - 125	0.3163	0.0484 B	0.36	74.4	N	CV
Nickel	75 - 125	92.1043	3.7173	105.30	83.9		P
Selenium	75 - 125	2.0423	0.3400 U	2.10	97.2		P
Silver	75 - 125	9.4469	0.1117 B	10.50	88.9		P
Thallium	75 - 125	7.6188	0.4400 U	10.50	72.6	N	P
Vanadium	75 - 125	98.8157	4.2377	105.30	89.8		P
Zinc	75 - 125	104.6613	14.8353	105.30	85.3		P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
 WITH DISCRETION

Comments: _____

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOUTH LAGOON

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: Q1391 SAS No.: _____ SDG No.: Q1391

Matrix (soil/water): WATER Lab Sample ID: Q1391-1

Level (low/med): LOW Date Received: 06/22/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	40500			P
7440-36-0	Antimony	2.1	U		P
7440-38-2	Arsenic	2.3	U		P
7440-39-3	Barium	21.2			P
7440-41-7	Beryllium	1.7	B		P
7440-43-9	Cadmium	0.65	B		P
7440-70-2	Calcium	278000			P
7440-47-3	Chromium	22.1			P
7440-48-4	Cobalt	14.4			P
7440-50-8	Copper	54.8		E	P
7439-89-6	Iron	24600			P
7439-92-1	Lead	11.9		N	P
7439-95-4	Magnesium	40600			P
7439-96-5	Manganese	2660			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	41.0			P
7440-09-7	Potassium	3040		E	P
7782-49-2	Selenium	2.2	U	N	P
7440-22-4	Silver	0.60	U	N	P
7440-23-5	Sodium	2740			P
7440-28-0	Thallium	4.7	B		P
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	581			P

NO QC EVALUATION HAS BEEN PERFORMED.
 DATA VALIDITY IS UNSUBSTANTIATED
 AND THE DATA SHOULD BE USED
WITH DISCRETION

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments: _____