MALCOLM PIRNIE

DRAFT

SITE INVESTIGATION / REMEDIAL ALTERNATIVES REPORT

Former Incinerator Site
Lackawanna, New York

Prepared BY:

MALCOLM PIRNIE, INC.

For:

THE CITY OF LACKAWANNA

NOVEMBER 2005

Submitted by:
Malcolm Pirnie, Inc.
40 Centre Drive
Orchard Park, NY 14127

MALCOLM PIRNIE

Table of Contents

Page

Page

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

MALCOLM PIRNIE

Introduction

SECTION 1

1.1 Purpose and Scope

On behalf of the City of Lackawanna, New York (City), Malcolm Pirnie has prepared this Site Investigation/Remedial Alternatives Report for the Site of the City's former municipal solid waste incinerators (the Site) located at the east end of Reddon Street in Lackawanna, Erie County, New York. The Site was investigated in accordance with the United States Environmental Protection Agency's (USEPA) Brownfields Assessment Program. The program is designed to support economic redevelopment through the identification, assessment, and cleanup of Brownfields properties. The purpose of the investigation is to evaluate environmental conditions at the Site, including:

- The extent and composition, both physical and chemical, of fill material present in the elevated ramp approach to the two incinerator buildings.
- Pre-demolition survey of the existing incinerator buildings for the presence of lead based painted, and asbestos containing materials (ACMs).
- The magnitude of contaminants at the Site, if present.
- The hydrogeologic characteristics of the Site (e.g., depth to saturated zone, hydraulic gradients, proximity to drinking water aquifers, flood plains and wetlands).
- The potential for migration of contaminants from the Site, and whether possible future migration may pose a threat to human health or the environment.
- The preliminary identification of potentially feasible remedial alternatives, which are protective of human health and the environment, based on community needs and end-use planning for the property.

- Planning to support revitalization of the property.

This report summarizes the findings of field activities conducted at the Site from April 4 – 29, 2005. Field activities were conducted in accordance with the USEPA-approved Site Investigation Work Plan, submitted by Malcolm Pirnie in November 2004, and a letter amendment to the Work Plan and QAPP dated March 22, 2005.

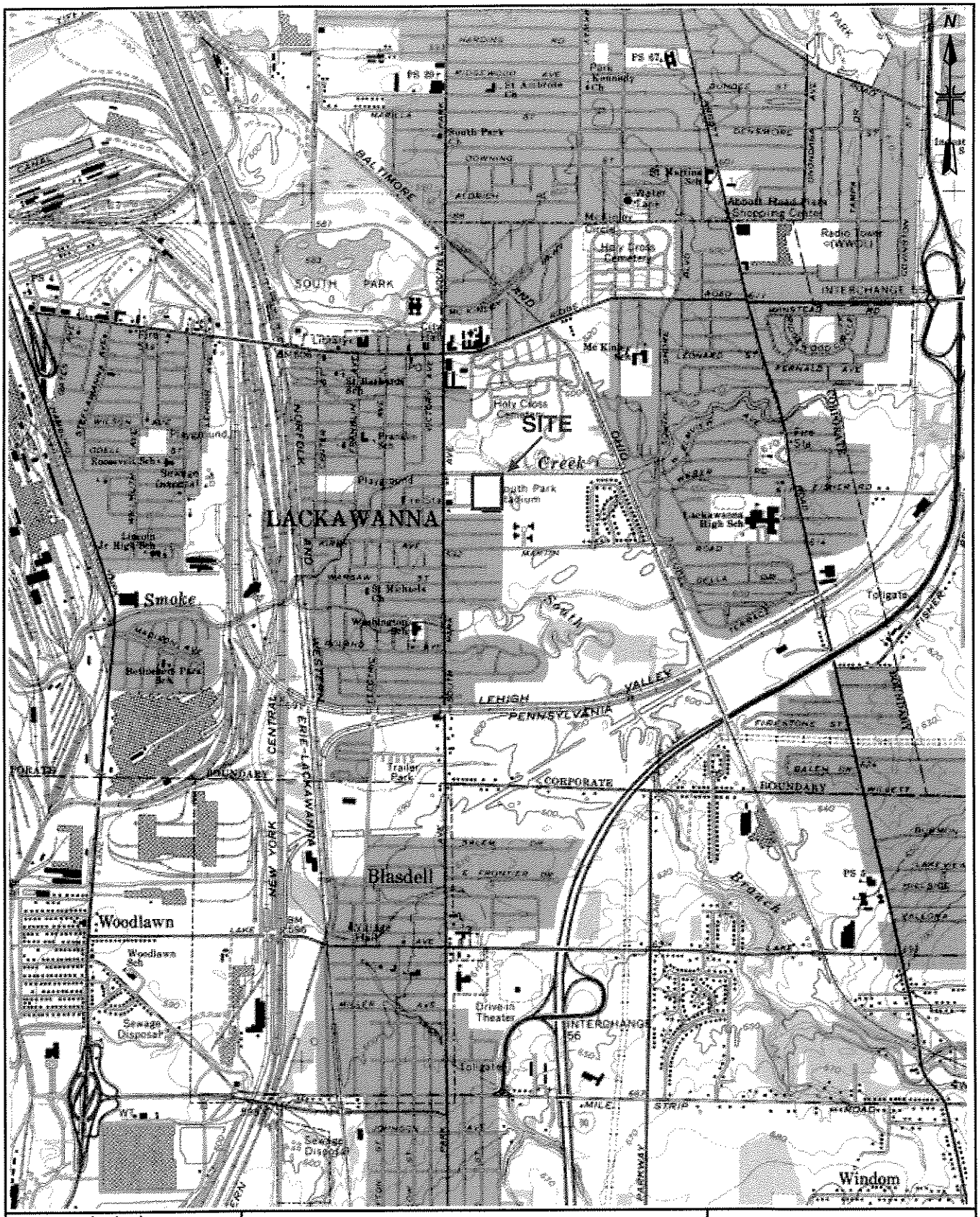
1.2 Site Description and Location

The Site includes approximately five acres of property surrounding the two former municipal solid waste incinerators located at the east end of Reddon Street in Lackawanna, Erie County, New York. Figure 1-1 identifies the location of the Site.

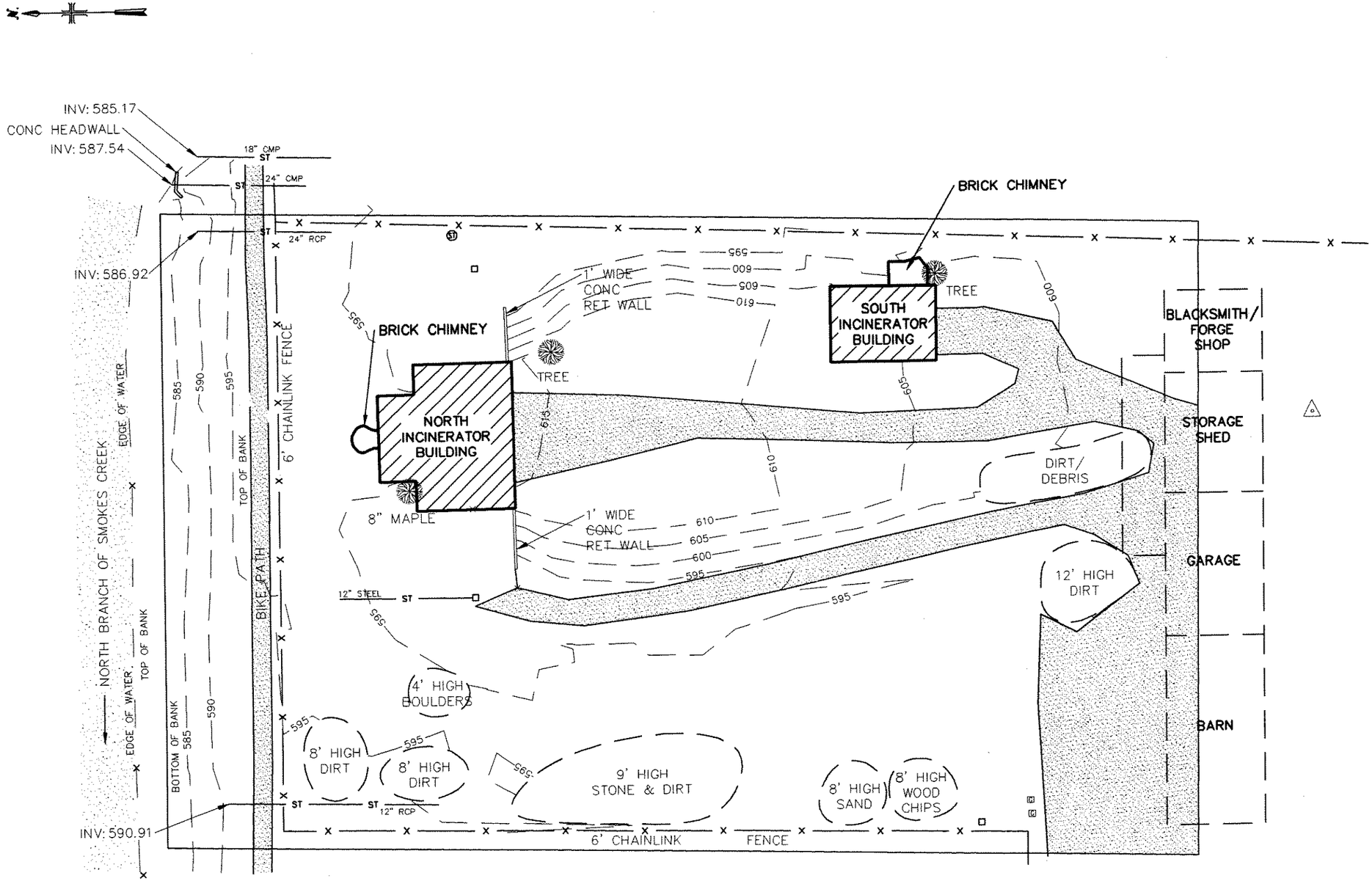
The Site is dominated by a large, ramp-like, mound of soil/fill that was incorporated into the construction of the two incinerators. The two incinerator buildings are no longer active, see Figure 1-2 for the Site layout. The fill ramp was constructed to provide truck access to the second story of the incinerator buildings. Over the years, the City has continued to add fill materials to the lateral edges of the fill ramp, widening the ramp to the east and west. The more recent fill materials originated from various City DPW projects, e.g., fire bricks removed during relining of the incinerators, and debris from street sweeping. The former incinerator buildings are used for equipment storage by the City's Department of Public Works. The basement floor of the newer incinerator building is also being used as a short-term dog holding kennel by the City dog warden.

1.3 Site Background and History

The first incinerator building was reportedly constructed in 1927 on the southeast corner of the Site. Several buildings, including a barn, storage sheds, and a forge shop once occupied the southern portion of the Site, at the base of the fill mound, south of the old incinerator building. Figure 1-2 provides the outlines of the approximate locations of past structures on and near the Site. The incinerators were used to burn primarily municipal trash collected curbside throughout the City. Medical wastes, generated at the nearby Our Lady of Victory (OLV) Hospital, were also intermittently burned in the incinerators. According to interviews of former city employees, no industrial or drummed wastes were burned in the incinerators. Yard wastes along with any construction and demolition (C&D) materials were segregated from the municipal trash



Latitude: +42.819019°N Longitude: -078.823972°W	**Former Incinerator Site Lackawanna, New York**	**FIGURE 1-1 SITE LOCATION MAP**
4852-001 | *July 2005*		



LEGEND

- LIMITS OF SITE INVESTIGATION
- CHAIN LINK FENCE
- APPROXIMATE LOCATION OF FORMER STRUCTURES
- EXISTING BUILDING
- ASPHALT PAVED AREA
- SB–1 SOIL BORING
- MW–1 MONITORING WELL
- SD–1 SEDIMENT SAMPLE
- WES–1 STREAM GUAGE
- STORM MANHOLE
- CATCH BASIN
- GAS METER

50' 0' 50' 100'

SCALE: 1 INCH = 50 FEET

FORMER INCINERATOR SITE
CITY OF LACKAWANNA

MALCOLM PIRNIE

06/05 4852F004

FIGURE 1–2
SITE MAP

and disposed of offsite. The first incinerator was used until approximately 1950 when a new larger incinerator was constructed at the north central area of the Site. Both incinerators were built into the same soil/fill mound, which forms a ramp-like feature on the Site. The ramp was reportedly constructed with slag, potentially obtained from Bethlehem Steel, and some incinerator ash, which was used occasionally to fill in, tire ruts. Findings of this investigation; however, indicate that the ramp is composed mostly of soil. The ramp allowed the trash trucks to back up and dump the trash into the incinerators, which were built at grade level. Trucks would then haul away the incinerator ash for off-site disposal. Occasionally, ash was stockpiled outside the incinerator building for later offsite disposal. Following its closing, the ground floor of the older incinerator building was filled with incinerator ash, and the second floor was converted to a carpenter and collision shop. The second incinerator was deactivated in approximately 1980 when the City ended the practice of incinerating its own trash and began contract hauling and disposal of its municipal wastes using private solid waste contractors. No known previous environmental studies have been performed at the incinerator Site.

1.4 Physical Setting

1.4.1 Land Use and Demography

The Site is located in an urban area, within the city limits of Lackawanna, New York, and surrounds the City's former municipal solid waste incinerators. The portions of the Site immediately surrounding the incinerator buildings are currently used by the City's DPW for stockpiling soils and fill materials, and equipment storage. The incinerator buildings are used for equipment storage and repair. The basement of the north incinerator building is also used by the City's animal control officer for the temporary caging of animals.

Properties surrounding the Site consist of mixed commercial and residential properties. A public access, blacktop paved, walking path is located along the Site's northern property boundary, adjacent to the North Branch of Smokes Creek. The Holy Cross Cemetery is north of Smokes Creek. Immediately west of the Site is the Veterans Memorial, athletic fields and stadium. Immediately south of the Site, is the City's DPW

facilities. East of the Site, beyond a site fence, are an overgrown vacant field and emergent woods with evidence of fill material.

1.4.2 Topography and Drainage

The topography at the Site is dominated by a large mound of fill constructed for use as a ramp to access the northern-most incinerator building. Elevations of the Site range from approximately 585 feet to 615 feet above mean sea level (AMSL). Surface water drainage flows radially from the elevated fill ramp to drainage ditches, storm water catch basins which eventually drain northward into Smokes Creek.

1.4.3 Soils

The Soil Survey of Erie County, New York, produced and distributed by the United States Department of Agriculture, Soil Conservation Service, identified soils at the Site as Dumps (Dp) a miscellaneous area filled with rubbish and debris (USDA-SCS, 1986). Since this Site is classified as Dumps, variations and deviations in Site characteristics resulting from human activity are likely.

The Niagara Sheet of the Surficial Geologic Map of New York was used to identify characteristics of the surface geology at the Site (Caldwell et al., 1986). Lacustrine silt and clay deposits associated with proglacial lakes were identified in the area underlying the Site. These soil types are listed as having thicknesses of up to 100 meters.

1.4.4 Regional Geology and Hydrogeology

The Niagara Sheet of the Geologic Map of New York was reviewed to determine the underlying bedrock at the Site (Fisher et al., 1970). Levanna Shale or Stafford Limestone members underlie the overburden at the Site and a majority of the surrounding area. Bedrock is not present at the surface or in outcrop at the Site.

MALCOLM PIRNIE

Remedial Investigation Methods and Results

SECTION 2

2.1 General

Field activities of the Site investigation were completed between April 4 and April 29, 2005. Tasks were conducted in accordance with the EPA-approved Investigation Work Plan (Malcolm Pirnie, November 2004).

The Site investigation included the following field tasks:

- Survey of lead paint and asbestos containing materials within the two incinerator buildings.
- Advancement of seven soil borings spatially distributed across the Site.
- Installation, development, and sampling of three shallow groundwater monitoring wells.
- Collection and analysis of seven subsurface soil/fill samples.
- Water level measurement in all newly-installed monitoring wells and the adjacent Smokes Creek.
- Collection and analysis of sediment samples form the adjacent Smokes Creek.
- Site survey for creation of a to-scale site base map with site features and well and sample locations.

Detailed discussions of the purpose, methodologies, and results of each of the investigative activities completed are presented in the following subsections. Analytical results are presented and discussed in Section 5.0.

2.2 Site Survey and Base Map Preparation

TVGA Consultants of Elma, New York, performed a survey of the Site that included relevant site features, topography, sample locations, and elevations. This information was used to generate a site base map. Ground control was established on Site that includes USGS vertical control and NY State Plane Coordinates for horizontal control. The base map developed for the Site, Figure 1-2, has a horizontal scale of 1-inch equal to 50 feet and covers an area of approximately five acres.

2.3 Lead/Asbestos Survey

A pre-demolition lead paint-chip assessment and asbestos survey of the two former incinerator buildings was performed by Aaction Environmental Services, Inc. to establish the location type and quantity of lead-based painted surfaces, and suspect asbestos containing materials (SACM). These surveys were performed to provide a basis for proper handling and disposal of building materials and related costs relative to future demolition of the buildings. The survey reports with analytical results are included as Appendix B.

The lead paint-chip assessment consisted of sampling painted surfaces throughout both buildings. A total of 14 samples were collected and submitted to Environmental Hazards Services, L.L.C. for lead analysis according to EPA method SW-846 7420. Five of the samples contained lead above the Federal Lead Paint Standard of 0.5 % by weight. The two highest detections, 8.5% and 9.2% came from the silver paint on the incinerators located in the north building. The other surfaces containing lead include the third floor ceiling, and stairs in the north incinerator building, as well as the light gray paint on the front door of the south building. Table 2-1 summarizes the surfaces sampled and the analytical results.

Aaction Environmental also performed a pre-demolition survey to identify and sample Suspect Asbestos Containing Materials (SACM), as well as estimate quantities of the confirmed ACMs. A total of Eighty-Eight (88) samples were collected from 36 different materials located at both of the incinerator buildings, chimneys, and debris at the ground

MALCOLM PIRNIE

TABLE 2-1
SUMMARY OF LEAD PAINT-CHIP SAMPLING
SITE INVESTIGATION REPORT
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

SAMPLE ID	LOCATION	SURFACE	COLOR	RESULT *%(by weight)*	FEDERAL LEAD STANDARDS[1] *%(by weight)*
LBP-1	North Incinerator Building, 3rd floor	West Wall	Light Blue	0.020	0.5
LBP-2	North Incinerator Building, 3rd floor	East Wall	Light Blue	0.028	0.5
GRP-3	North Incinerator Building, 3rd floor	Ceiling	Gray	**1.30**	0.5
RP-4	North Incinerator Building, 3rd floor	Base of Wall	Red	0.20	0.5
YP-5	North Incinerator Building, 3rd floor	Stairwell wall	Yellow	0.030	0.5
YP-6	North Incinerator Building, 2nd floor	Stairwell wall	Yellow	0.011	0.5
MP-7	North Incinerator Building, 2nd floor	Stairs	Maroon	**1.7**	0.5
DBP-8	North Incinerator Building, 2nd floor	West Wall	Dark Blue	0.030	0.5
DBP-9	North Incinerator Building, 2nd floor	South Wall	Dark Blue	0.012	0.5
GRP-10	North Incinerator Building, 2nd floor	Incinerator surface	Silver	**8.5**	0.5
BP-11	North Incinerator Building, 1st floor	South Wall	Brown	0.014	0.5
BLP-12	South Incinerator Building, 2nd floor	Ceiling	Black	< 0.009	0.5
LAP-13	South Incinerator Building, 2nd floor	Front Door	Light Gray	**1.6**	0.5
GRP-14	North Incinerator Building, 2nd floor	Incinerator surface	Silver	**9.2**	0.5

Notes:

(1) - Federal Lead Standard for Paint from the USHUD "Guidelines for the Indentification and Control of Lead-based Hazards in Housing", June 1995.

surface along the west side of the fill ramp. Samples were collected from the following materials:

- chimney & incinerator fire brick,
- chimney & incinerator fire brick mortar,
- chimney & incinerator fire brick lining,
- chimney & incinerator ash,
- internal & external incinerator insulations/materials,
- chimney exterior brick mortar,
- window and door gaskets,
- window glaze,
- surfacing cement,
- ceiling plaster,
- paints,
- pipe insulation,
- mud (elbow) joint packing,
- furnace cement/mud packing,
- transite piping ,
- roofing materials

The initial sampling event was conducted April 7, 2005. Confirmatory sampling events were performed April 22 and 28, 2005 to collect additional samples of SACMs that exhibited No Asbestos Detected (NAD) in the previous sampling events. These samples included incinerator fire brick, fire brick mortar, chimney stack brick, mortar, incinerator door gaskets, spray-on insulation, and mud packing. All collected samples were transported under Chain-of-Custody documentation to a certified laboratory for analysis. Sample results are summarized in Table 2-2.

According to the analytical results, the materials collected from the north incinerator building that are confirmed to contain asbestos include the incinerator door gaskets, pipe and wall mud-joint packing, pipe insulation, furnace cement, roof flashing, roof tar covering and caps. The only material collected from the south incinerator building that contained asbestos was from the south wall exhaust pipe furnace cement. None of the fire brick, exterior brick, brick mortar, incinerator linings, or incinerator ash sampled

MALCOLM PIRNIE

Table 2-2
Summary of Confirmed Asbestos Containing Material
Site Investigation/ Remedial Alternatives Report
Former Incinerator Site
Lackawanna, New York

Sample ID	Location	Type of Material	Color	Friable / NOB	Result *(% Asbestos)*	Estimated Quantity
North Incinerator Biulding						
IG-22	North Incinerator Bldg, 2nd floor, Incinerator Gasket	Gasket	Brown	Non-Friable / Non-NOB	< 0.25% Chrisotile	N/A
MJP-19	North Incinerator Bldg, 2nd floor, Bathroom 1" Pipe	Mud-Joint Packing	Gray	Friable	57.14% Chrisotile	75 linear feet
MJP-26	North Incinerator Bldg, 1st floor, SW Side	Mud-Joint Packing	Gray	Friable	16.67% Chrisotile	
MJP-27	North Incinerator Bldg, 1st floor, South Side	Mud-Joint Packing	Gray	Friable	44.44% Chrisotile	
MJP-28	North Incinerator Bldg, 1st floor, East Side	Mud-Joint Packing	Gray	Friable	35.71% Chrisotile	
PI-23	North Incinerator Bldg, 1st floor, SW Side	Pipe Insulation	Gray	Friable	3.42% Chrisotile	300 linear feet
PI-24	North Incinerator Bldg, 1st floor, South Side	Pipe Insulation	Gray	Friable	4.40% Chrisotile	
PI-25	North Incinerator Bldg, 1st floor, SE Side	Pipe Insulation	Gray	Friable	1.98% Chrisotile	
PI-40	North Incinerator Bldg, 1st floor, Northeast end	Pipe Insulation	Gray	Friable	28.57% Chrisotile	
RC-67	North Incinerator Bldg Roof, Caps around exhaust vents	Roof Cap	Black	NOB	6.45% Chrysotile	50 sq feet
RF-65	North Incinerator Bldg, Roof Parapet-Flashing	Roof Flashing	Black	NOB	10.24% Chrysotile	700 sq feet
RF-66	North Incinerator Bldg, Roof Parapet-Flashing	Roof Flashing	Black	NOB	8.83% Chrysotile	
TC-68	North Incinerator Bldg Roof - North Section between Chimney Stack and Main bldg.	Tar Covering	Black	NOB	1.73% Chrysotile	500 sq feet
TP-39	North Incinerator Bldg, 1st floor, Southeast end	Transite pipe	Gray	Non-Friable / Non-NOB	8.89% Chrisotile 5.48% Crocidolite 14.37% Total Asbestos	700 linear feet
South Incinerator Biulding						N/A
FC-42	South Incinerator Bldg, Main Floor, SW Wall Exhaust Pipe	Furnace Cement	Gray	Friable	25.0% Chrisotile	5 sq. feet

Notes:
NOB - Non-Friable Organically Bound
NAD - No Asbestos Detected
ACM - Asbestos Containing Material

Created by: BW Date: 6/3/2005

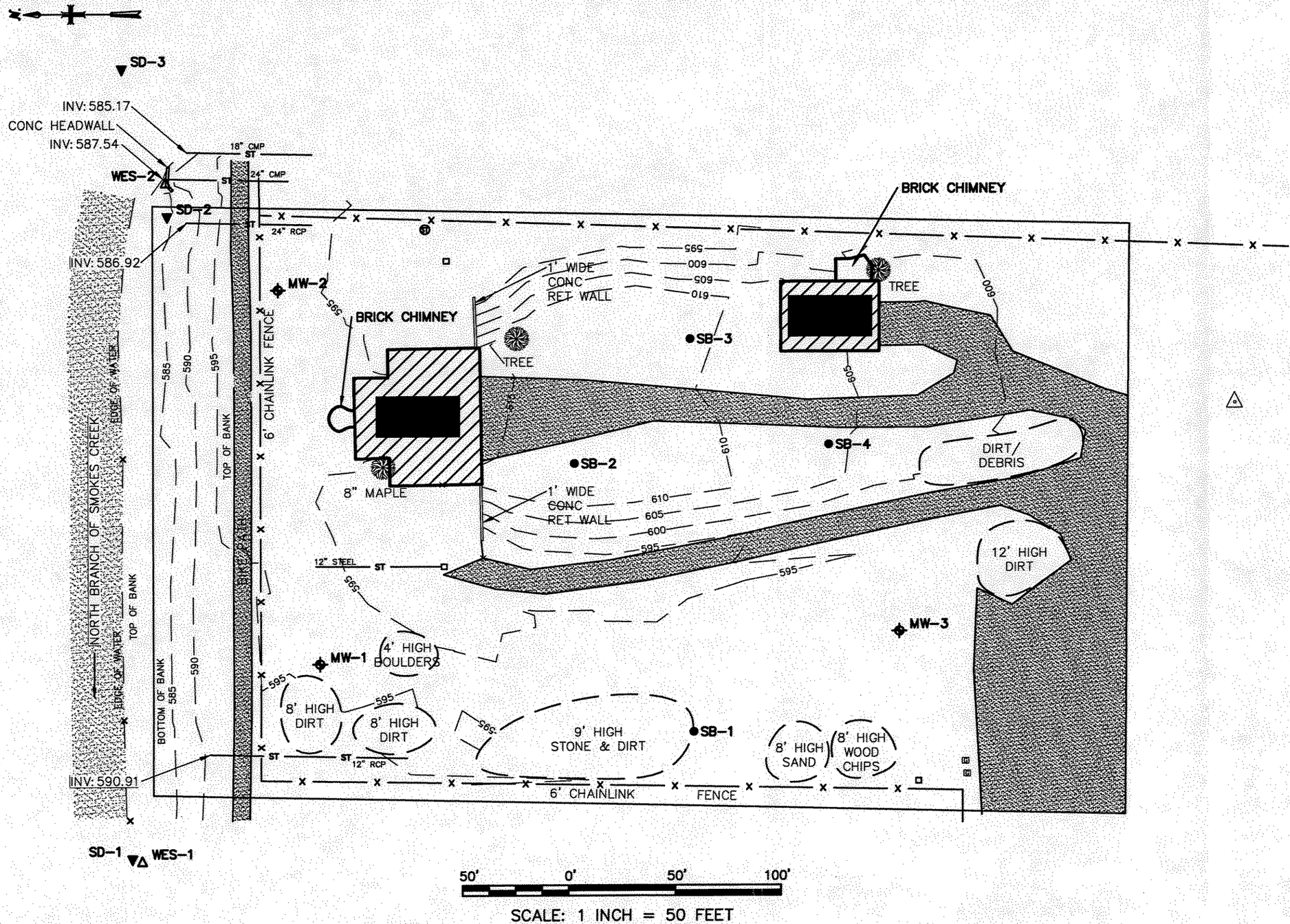
contained asbestos. No destructive sampling was performed and not all areas of the incinerator chimney stacks could be accessed or sampled.

2.4 Soil Boring Program

A soil boring program was conducted to establish the thickness and composition of the fill material that makes up the elevated ramp and covers the surrounding portions of the Site.

Due to the uncertainty of buried utilities in the southwestern portion of the Site, two borings SB-1 and MW-3 were excavated using high pressure air and conventional hand shovels. This method was used for the upper four feet of overburden soils at MW-3. During the hand excavation of SB-1, native soils were encountered at approximately 2 feet bgs, and the boring was terminated. The remainder of boring MW-3 and the other test borings were advanced through unconsolidated overburden soils using 4-¼-inch inside diameter (ID) hollow stem augers. The drilling rig used to complete the other test borings was provided and operated by a subcontractor to Malcolm Pirnie. At each test boring location, continuous two-inch outer diameter (OD) split-spoon samplers were used to collect soil cores which were screened with a photo ionization detector (PID) to obtain a qualitative estimate of total volatile organic compounds (VOCs) emitted from the subsurface soils. The on-site Malcolm Pirnie geologist recorded the PID measurements, physical characteristics of the soil using the Unified Soil Classification System (USCS), depth to groundwater, and other notable conditions on Field Boring Log forms at each test boring location. The split spoon samplers were decontaminated prior to each use using a solution of Alconox and water followed by nitric acid and de-ionized (DI) water rinse. All soil borings not converted to monitoring wells were backfilled with the drill cuttings.

Seven test borings were drilled and sampled at the Site. Locations of the test borings are shown on Figure 2-1. Borehole depths ranged from 2.6 feet to 31 feet below ground surface (bgs). A description of the geologic conditions encountered during the drilling program is provided in Section 3, and borehole logs with detailed overburden descriptions and other observations are provided in Appendix B. Three test borings SB-2, SB-3, and SB-4 were advanced through the elevated fill ramp to native soils. Fill depths at these three borings ranged from approximately 14 feet bgs at boring SB-4 to



LEGEND

- LIMITS OF SITE INVESTIGATION
- CHAIN LINK FENCE
- EXISTING BUILDING
- ASPHALT PAVED AREA
- SB-1 SOIL BORING
- MW-1 MONITORING WELL
- SD-1 SEDIMENT SAMPLE
- WES-1 STREAM GUAGE
- STORM MANHOLE
- CATCH BASIN
- GAS METER

MALCOLM PIRNIE

06/05 4852F001

FORMER INCINERATOR SITE
CITY OF LACKAWANNA

FIGURE 2-1
SAMPLE LOCATION MAP

21.5 feet bgs at SB-2. Fill depths at locations off the fill ramp ranged from 2.3 feet at SB-1 to 6.0 feet at MW-2. A summary of the total depths of each soil boring, as well as the fill thickness and intervals selected for analytical sampling are presented in Table 2-3.

2.5 Monitoring Well Installation and Development

Three groundwater monitoring wells were installed during the site investigation to provide hydrogeologic and water quality data at the Site. Groundwater elevation data were collected from these new wells.

Well installation activities were completed using standard well installation techniques. All monitoring wells were constructed of 2-inch ID, flush joint, Schedule 40 PVC, with 0.010-inch slotted screen 10 feet in length. A silica sand filter pack was placed to approximately two feet above the top of the screened interval. A minimum two-foot thick layer of bentonite chips was placed above the sand pack as a seal to prevent the downward infiltration of surface water. The remainder of the boring annulus was filled with cement/bentonite grout. Monitoring wells were completed at the surface with either flush-mount "road boxes" or three foot steel pro-casings, and a two-foot by two-foot concrete drainage pad.

All monitoring wells were installed to depths of 21 and 30 feet bgs. A summary of well construction details is presented in Table 2-4. Detailed well construction diagrams and borehole logs with geologic descriptions for the wells are presented in Appendix B.

The newly installed wells were developed to flush the well and sand pack of fine sediments, create wells that will yield water samples that are representative of the groundwater quality at that location, and to provide accurate measurement points for groundwater elevations. All wells were developed using either, pre-cleaned dedicated bailers, a centrifugal pump attached to dedicated polyethylene tubing, or a submersible pump attached to dedicated polyethylene tubing. Groundwater evacuated from each well during development was monitored for pH, specific conductivity, temperature, dissolved oxygen, and turbidity. Due to the slow recharge of the wells, the well development task was completed over the course of several days. The wells were purged dry each day until approximately 10 well volumes had been purged. Development water was discharged at the ground surface. Well Development/Purging Logs are included in Appendix C.

MALCOLM PIRNIE

TABLE 2-3
SOIL BORING SUMMARY
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Boring No.	Date Drilled	Total Depth *(feet bgs)*	Depth to Water *(feet bgs)*	Fill Depth Range *(feet bgs)*	Maximum PID Reading/Depth Interval *(ppm/feet bgs)*	Sampled Interval (VOCs) *(feet bgs)*	Sampled Interval (non-VOCs) *(feet bgs)*	Analyses	Comments
MW-1	04/04/05	22.0	6.5	0 - 3.0	2.3 / 0-2' interval	2.0 - 2.5	0.0 - 3.0	VOCs, SVOCs, TAL Metals, CN, Pesticides, PCBs	
MW-2	04/04/05	25.0	18.0	0 - 6.0	0.0 ppm throughout	5.5 - 6.0	0.0 - 6.0	VOCs, SVOCs, TAL Metals, CN, Pesticides, PCBs	
MW-3	04/05/05	31.0	22.0	0 - 3.5	0.0 ppm throughout	2.0 - 2.5	0 - 4.0	VOCs, SVOCs, TAL Metals, CN, Pesticides, PCBs	Boring hand excavated to 4.0 feet bgs due to uncertainty of buried utilities.
SB-1	04/05/05	2.6	N/A	0 - 2.3	0.0 ppm throughout	1.0 - 1.5	0 - 2.0	VOCs, SVOCs, TAL Metals, CN, Pesticides, PCBs	Boring hand excavated to top of native soils due to uncertainty of buried utilities.
SB-2	04/06/05	24.0	16.0	0 - 21.5	0.0 ppm throughout	12.5	0 - 21.5	VOCs, SVOCs, TAL Metals, CN, Pesticides, PCBs	
SB-3	04/06/05	22.0	N/A	0 - 19.0	0.0 ppm throughout	14.0 - 16.0	0 - 19.0	VOCs, SVOCs, TAL Metals, CN, Pesticides, PCBs	
SB-4	04/05/05	16.0	N/A	0 - 13.7	0.0 ppm throughout	12.0 - 13.0	0 - 13.7	VOCs, SVOCs, TAL Metals, CN, Pesticides, PCBs	

Notes:

bgs - below ground surface
ppm - parts per million
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
TAL = Target Analyte List
CN = Cyanide
PCBs = Poly-Chlorinated Biphenyl's

Created by: BW Date: 6/1/2005
Checked by: Date:

MALCOLM PIRNIE

TABLE 2-4
SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS
SITE INVESTIGATION REPORT
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Well No.	Stick-Up *(ft)*	Screen Diam. *(in)*	Slot Size *(in)*	Well Material	Borehole Diameter *(in)*	Borehole Depth *(ft bgs)*	Screened Interval *(ft bgs)*	Date Installed
MW-I	2.05	2	0.010	PVC	8.0	22.0	11.0 - 21.0	4/7/2005
MW-2	2.30	2	0.010	PVC	8.0	25.0	14.0 - 24.0	4/7/2005
MW-3	- 0.34	2	0.010	PVC	8.0	31.0	20.0 - 30.0	4/5/2005

Notes:
All wells completed in overburdden soils.
bgs - below ground surface.
Well MW-3 installed with flush-mount pro-casing, therefore stick-up measurement shown as a negative value to reflect distance below ground surface.

2.6 Groundwater Elevation Measurement and Mapping

Groundwater and surface water levels of Smokes Creek were measured during three separate events at the Site. The synoptic water level event was collected to provide data for the determination of the groundwater flow direction at the Site.

Depth-to-water measurements were determined to the nearest 0.01 foot from the top of the PVC well riser and stream measuring stations upstream and downstream of the Site using an electronic water level indicator. Following the completion of the Site survey, all water levels were converted to elevation measurements in units of feet above mean sea level.

An equipotential map for the shallow overburden water table was prepared using the data from the June 13, 2005 measurement event. A discussion of groundwater flow directions and water level is presented in Section 3, Site Hydrogeology. A tabulated summary of the water level data is provided in Table 2-5.

2.7 Environmental Sampling Program

The environmental sampling program included the collection of subsurface soils/fill, incinerator ash samples, sediment samples and groundwater samples in accordance with the EPA approved Site Investigation Work Plan. Sampling events consisted of the soil boring, sediment, and ash sampling April 5 – 7, 2005, and the April 29, 2005 groundwater sampling. All samples were submitted under chain-of-custody to Chemtech Laboratories, Inc. in Mountainside, New Jersey. Environmental Quality Associates, Inc. validated all of the data. Data validation and usability is discussed in section 4.0 and the validation results are presented in Appendix E. Post-validation analytical results for both sampling events are presented and discussed in Section 5.

2.7.1 Subsurface Soil/Fill Samples

The purpose of the soil boring program was to characterize the physical and chemical conditions of the subsurface fill materials at the Site. This characterization was also used to evaluate potential human health risks to Site workers and contractors that may come into contact with these soils.

MALCOLM PIRNIE

TABLE 2-5
GROUNDWATER ELEVATIONS - JUNE 13, 2005
SITE INVESTIGATION REPORT
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Well No.	Ground Surface Elevation (ft AMSL)	Reference Point Elevation[1] (ft AMSL)	Water Level (ft BTOR)	Groundwater Elevation (ft AMSL)
MW-1 [2]	595.48	597.53	8.04	589.49
MW-2	595.70	598.03	12.24	585.79
MW-3	596.35	596.03	9.78	586.25
WES-1 (downstream)	N/A	584.06	3.68	580.38
WES-2 (upstream)	N/A	587.72	7.32	580.40

Notes:

(1) Reference point elevation for wells = top of PVC riser. Reference point elevations for WES stations = rebar on south bank of Smokes Creek for WES-1, and upper right side bolt on grate of concrete headwall at the storm sewer outfall.
(2) Well MW-1 groundwater elevation suspect. Water levels may be influenced by perched water zones.
AMSL - Above Mean Sea Level
BTOR - Below Top of Riser
WES - Water Elevation Station in North Branch of Smokes Creek.

Created by: BW Date: 6/1/2005
Checked by: Date:

Subsurface soils were collected from the soil borings. Soil cores were continuously collected from the soil borings using two-inch diameter split spoons two feet in length driven by a 140-pound hammer. Upon retrieval, each split-spoon sample was screened with a photoionization detector (PID) and described on boring logs by a Malcolm Pirnie geologist. Samples were collected directly from the split spoon for analysis. All soil samples were submitted for TCL VOCs, SVOCs, PCBs, and Pesticides and TAL metals, and total cyanide analyses. No PID readings were detected in any of the test borings. The samples for all parameters, except VOCs, consisted of a composite sample of the entire length of the fill material at each boring location. VOC samples were collected at discrete depths within the fill material as determined in the field based on visual characterization of the fill. A total of seven subsurface soil samples were collected from soil borings and submitted to the subcontracted analytical laboratory for analysis. Analytical results for the subsurface soil/fill samples are discussed in detail in Section 5, Site Contaminant Characterization.

2.7.2 Incinerator Ash Samples

To characterize the incinerator ash that had been used to fill in the basement area of the south incinerator building, three samples were collected from the ground floor of the building. Samples were collected by directly filling the appropriate laboratory supplied sample containers using decontaminated stainless steel spoons. The ash samples were submitted for analysis of TAL metals, cyanide, and dioxins. Analytical results for the ash samples are discussed in detail in Section 5, Site Contaminant Characterization.

2.7.3 Sediment Samples

Sediment samples were collected from the North Branch Smokes Creek to address whether past Site activities have impacted the creek by means of constituents migrating through the groundwater and/or the Site storm sewer system. Samples were collected 50 feet upstream of the Site, on the bank directly in front of the storm water outfall, and approximately 50 feet downstream of the Site. Samples were collected using decontaminated stainless steel spoons or a hand auger, and submitted for analysis of VOCs, SVOCs, pesticides, PCBs, TAL metals, and cyanide. Analytical results for the sediment samples are discussed in detail in Section 5, Site Contaminant Characterization.

2.7.4 Groundwater Samples

The three groundwater monitoring wells were sampled to characterize the groundwater quality at the Site. Groundwater samples were collected from the monitoring wells two weeks following development. A water level indicator was used to measure the water table elevation at each monitoring well. Each well was then purged using new polyethylene bailers. The evacuated groundwater was periodically measured for the pH, conductivity, temperature, turbidity, dissolved oxygen, and redox potential. Upon stabilization of these parameters, groundwater samples were collected using the polyethylene bailers. Samples were collected for TCL VOCs, SVOCs, PCBs, and pesticides, and TAL metals plus total cyanide analyses.

A total of three groundwater samples plus a field duplicate and a matrix spike (MS), and matrix spike duplicate (MSD) were collected. Well Purging and Sampling Logs are included in Appendix C. Analytical results for the groundwater samples are discussed in detail in Section 5, Site Contaminant Characterization.

MALCOLM PIRNIE

Hydrogeologic Evaluation

SECTION 3

3.1 Introduction

The geology and hydrogeology of the Site described herein was characterized using data from hydrogeologic reference literature, and information collected from soil borings and monitoring wells installed at the Site during the subsurface investigation. The investigation consisted of seven soil borings, three of which were converted into monitoring wells. Locations of soil borings are illustrated on Figure 2-1. Detailed test boring logs are provided in Appendix B. A summary of soil boring and well construction details is presented in Tables 2-3 and 2-4.

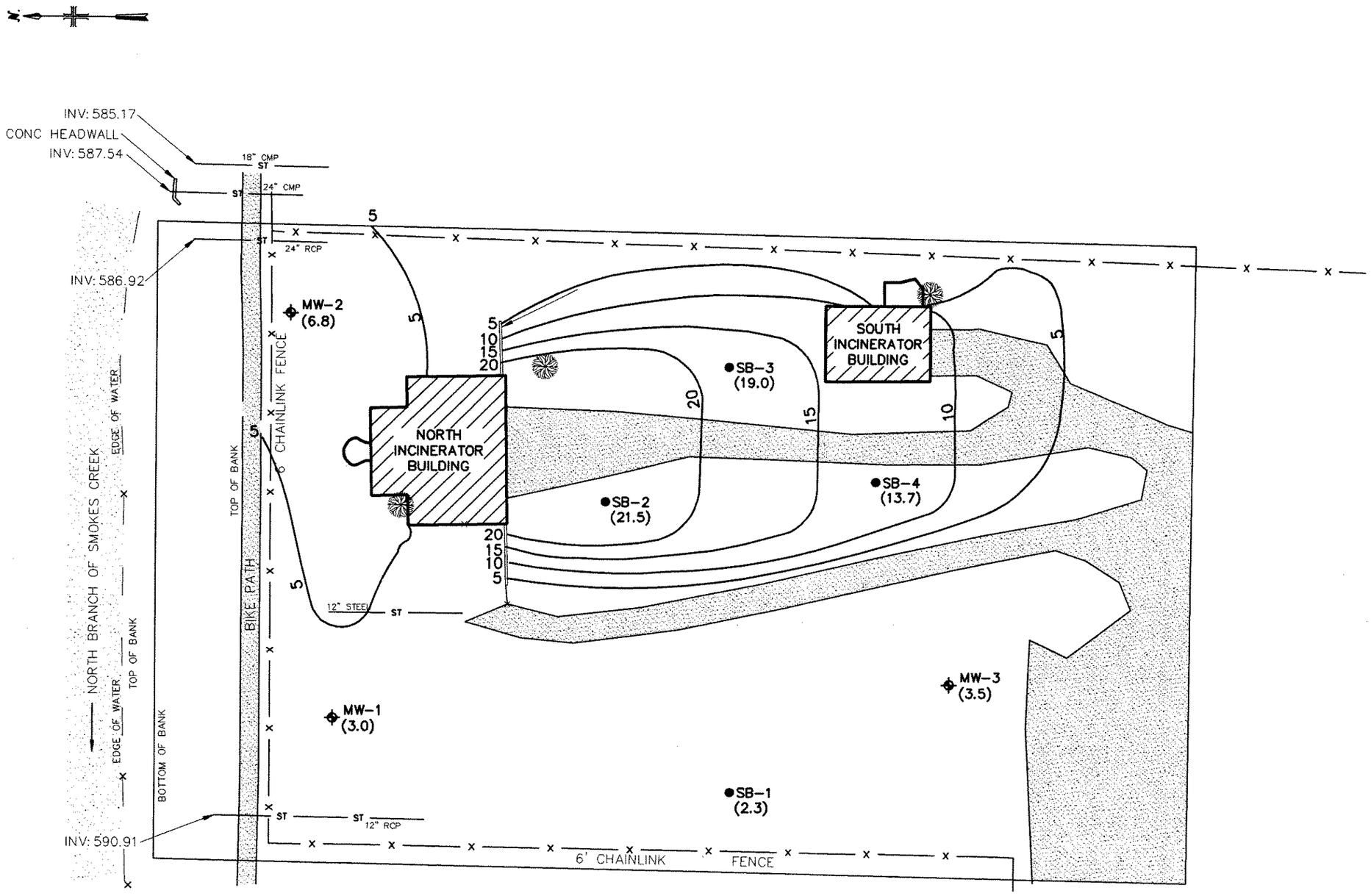
3.2 Site Geology

In general, subsurface conditions at the Site consist of fill materials underlain by glaciolacustrine deposits of fine-grained silt and clay.

Fill Materials – Due to the construction of the elevated fill ramp, fill thicknesses varied considerably across the Site. Fill thicknesses ranged from less than 2 ½ feet at SB-1 along the western property boundary to 21 ½ feet at SB-2 at the northern end of the elevated fill ramp. Although fill thicknesses ranged considerably, the fill/native soil interface was relatively flat, varying between 591.3 and 593.4 feet AMSL. The fill thickness distribution across the Site is illustrated on Figure 3-1.

The fill consisted primarily of silty clay intermixed with varying amounts of slag, and gravel; and trace amounts of glass cinders, brick, and ash. The thickness of this fill material varied considerably with only two and three feet at SB-1 and MW-1, respectively, while at borings SB-2 and SB-4 it extended to 21.5 and 13.7 feet, respectively.

A clay fill unit was encountered at the surface at borings SB-2, SB-3, and SB-4, and MW-1. A predominantly cinder and ash fill unit was encountered beneath the clay fill unit at borings SB-3 and SB-4, and at the surface at MW-2. This unit consisted



50' 0' 50' 100'

SCALE: 1 INCH = 50 FEET

LEGEND

- LIMITS OF SITE INVESTIGATION
- CHAIN LINK FENCE
- EXISTING BUILDING
- ASPHALT PAVED AREA
- FILL THICKNESS CONTOURS
- ●SB-1 SOIL BORING
- (2.3) FILL THICKNESS
- ⊕MW-1 MONITORING WELL
- ΔWES-1 STREAM GAUGE

MALCOLM PIRNIE

06/05 4852F003

FORMER INCINERATOR SITE
CITY OF LACKAWANNA

FIGURE 3-1
ESTIMATED THICKNESS OF FILL MATERIAL

primarily of cinders and ash, with varying amounts of slag, and trace amounts of glass, brick, and wood. The cinders and ash fill was thickest, 15 ½ feet, at SB-2, and decreased to seven feet at MW-3, and three feet at SB-4.

A mixed fill unit was encountered at the surface and extending to approximately two and 3 ½ feet at borings SB-1 and MW-3, respectively. This unit contained varying amounts of gravel, slag, silt, and sand, with trace amounts of organic matter, ash, and brick.

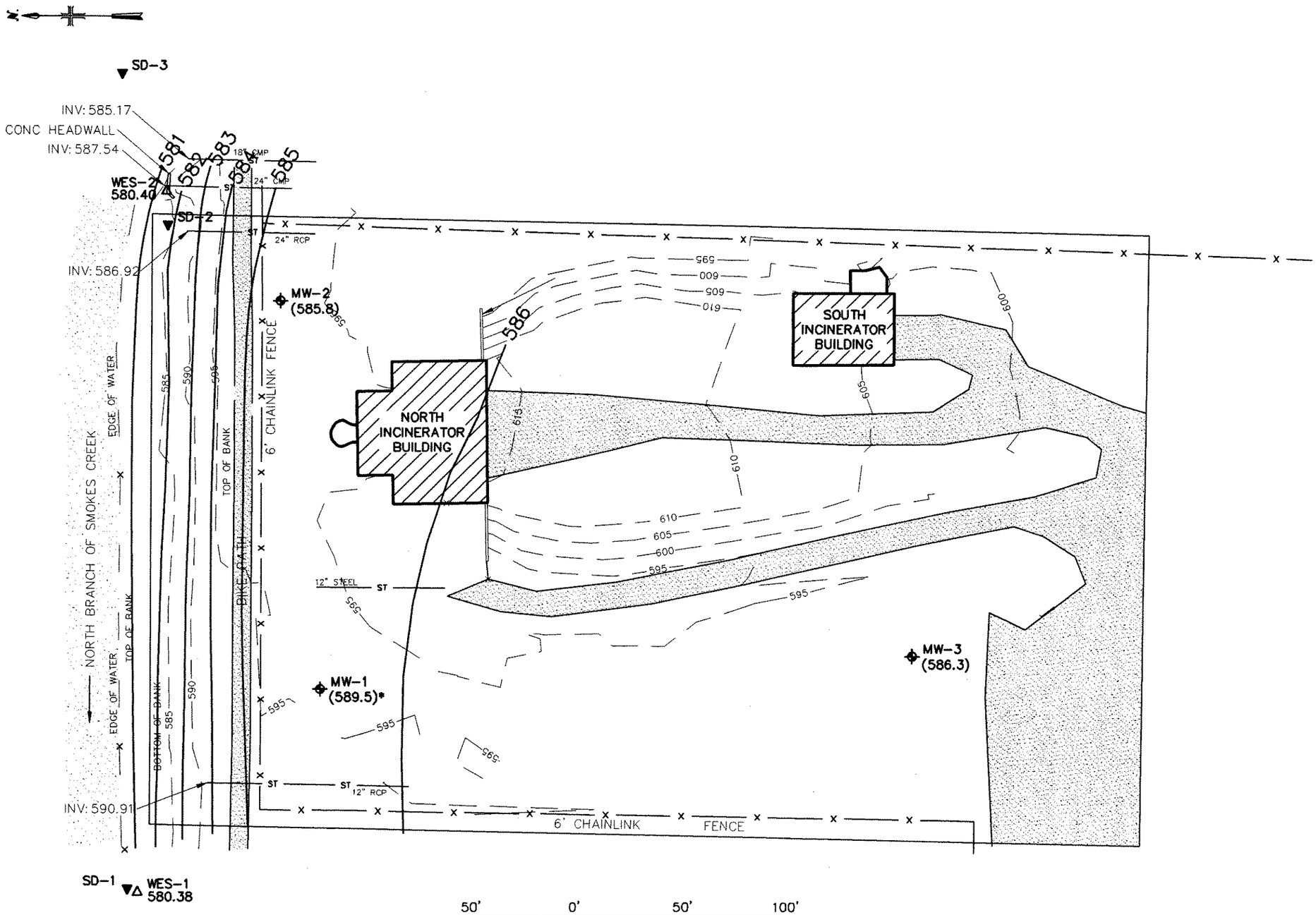
Fine-Grained Soils – Lacustrine deposits of silt, and clay exist beneath the fill materials at the Site. These deposits consisted primarily of laminated, silty clay with moderate plasticity. Consistency of this unit decreased from very stiff to very soft with increasing depth. This decrease in consistency coincided with the increase in moisture content from moist to saturated conditions at depth. Smaller sub-units of clayey silt and silty sands were also encountered; however, these units were not consistent across the Site. These units are most evident at MW-1, where they alternated between clayey silt, silty sand, and the silty clay to a depth of 15 feet bgs.

Bedrock – Bedrock was not encountered in any of the soil borings drilled during the site investigation. Bedrock within the area is reported to be the Levanna Shale of the Skaneateles Formation.

3.3 Site Hydrogeology

Depths to groundwater were measured on three separate occasions (April 28, 2005, May 24, 2005, and June 13, 2005) in the newly installed monitoring wells. These measurements were used to determine groundwater elevations and local groundwater flow direction. The depths measured on June 13, 2005 and their calculated elevations are presented in Table 2-5. These groundwater elevations were then used to produce a groundwater isopotential map for the shallow groundwater bearing zone, Figure 3-2.

Groundwater Flow - The water table, as measured in the groundwater monitoring wells, was generally observed at depths of approximately ten feet below grade. Water levels measured in well MW-1 were consistently higher, approximately six to seven feet below grade, than those measured at wells MW-2 and MW-3. These water levels are believed to be influenced by a perched water zone that was observed in the fine sand lenses described at 3 ½ and 6 ½ feet below grade. Although the well was constructed with the screened interval at 11 to 21 feet, it is likely that the perched zone is influencing the water levels in this well through the vertical fractures observed in the clay unit from 7.8 feet to



LEGEND

- LIMITS OF SITE INVESTIGATION
- CHAIN LINK FENCE
- EXISTING BUILDING
- ASPHALT PAVED AREA
- GROUNDWATER ISOPOTENTIAL CONTOUR
- (586.3) GROUNDWATER ELEVATION
- MW-1 MONITORING WELL
- WES-1 STREAM GAUGE

*REPORTED GROUNDWATER ELEVATION NOT USED TO CONSTRUCT GROUNDWATER ISOPOTENTIAL CONTOURS.

MALCOLM PIRNIE

06/05 4852F002

FORMER INCINERATOR SITE
CITY OF LACKAWANNA

FIGURE 3-2
SHALLOW OVERBURDEN
GROUNDWATER EQUIPOTENTIAL MAP

12.0 feet. Oxidation was observed along these fracture planes, indicating the presence of water in them. Based on these observations, well MW-1 was not used in the construction of the shallow groundwater isopotential map (Figure 3-2). Figure 3-2 shows that shallow groundwater has a general northerly flow across the Site. Shallow groundwater discharge occurs along the course of the North Branch of Smokes Creek that borders the Site to the north.

MALCOLM PIRNIE

Data Validation/Usability

SECTION 4

Samples were collected for the site investigation during two sampling events. Soil, sediment, and ash samples were collected from April 5 – 7, 2005 and analyzed for TCL VOCs, TCL SVOCs, TAL Metals, Pesticides, PCBs, Cyanide, and pH. Ash samples were collected on April 7 and submitted for TAL metals and dioxin analysis. Groundwater samples were also collected from monitoring wells April 29, 2005 and analyzed for TCL VOCs, TCL SVOCs, TAL Metals, Pesticides, PCBs, and Cyanide. Chemtech Laboratories of Mountainside, New Jersey analyzed the soil, sediment, and groundwater samples.

Environmental Quality Associates, Inc. (EQA), a qualified data validator, performed third-party validation of the analytical results. The data validation was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review (DUSR) process. The DUSR process was performed to provide a determination of whether the data meets the project specific criteria for data quality and data use. The ash sample data was not reviewed by the data validator.

Data Review Reports were prepared for each sample delivery group (SDG) and are attached to this report as Appendix D. The Data Review Reports provide copies of the laboratory analytical results and descriptions of the criteria used to review the laboratory results and supporting quality control documentation. Overall, all of the data packages were deemed usable by the data validator, with no data points rejected. The usability of the data, as assessed by the data validator is presented in detail in the following sections. All data summary tables in Section 5 and related discussions and conclusions present and use analytical results that have been validated, with the exception of the ash data.

4.1 Subsurface Soil/Fill Samples

The subsurface soil/fill samples consisted of two sample delivery Groups (SDGs), identified as T2253, and T2275. These two SDGs consisted of subsurface soil/fill samples collected from soil borings. The soil samples were analyzed for full TCL VOCs, TCL SVOCs, TAL metals, cyanide, chlorinated pesticides, and PCBs. All samples collected and received by the laboratory during the April 5-6 sampling event were received within the allowable temperature range for cooler packed samples (between two and six degrees centigrade) established by the NYSDEC-ASP. NYSDEC holding times for extraction and analysis were met for all samples except IS-SB3 (14-16), which was analyzed two days past the NYSDEC-ASP 10 day holding time. No additional issues were identified regarding sample receiving or holding times for the subsurface soil/fill samples.

Volatile Organics

Data validation resulted in assigning "J" qualifiers to some of the results indicating that the result is a quantitatively estimated value. The qualifiers were assigned to the data based on the results of one or more of the following:

- Percent RSD (%RSD) values for up to 19 compounds exceeded the allowable maximum of 15% in the instrument calibrations (ICAL).
- Continuing calibration parameters exhibiting several target compounds whose Relative Response Factor (RRF) values were greater than 15% of the Relative Standard Deviation (RSD).
- Surrogate recoveries of compounds exceeding the upper limits on initial sample runs, due to matrix interferences.

Method blanks for these samples exhibited detections of acetone, and methylene chloride. This resulted in the following:

- Qualifying positive results for methylene chloride or acetone less than 10x the blank value as a quantitatively estimated non-detect value "UJ".

Semi-Volatile Organics

Internal standard recoveries were low for perylene-d12, affecting samples IS-SB3 (0-19), and IS-SB2 (0-21.5). This resulted in qualifying target compounds quantitated by this internal standard (PAHs) with a "J" or "UJ" qualifier as quantitatively estimated values.

Calibration parameters in excess of 20% D limits on April 6, 2005 resulted in "J" qualifications for up to 15 compounds (primarily PAHs) in samples IS-MW1 (0-3), IS-SB1 (0-2), and IS-SB4 (0-13.7). This qualification considers these results estimated with a high bias.

TAL Metals and Cyanide

Matrix spike recoveries for silver, and barium were below the acceptable limit of 75%. Reported concentrations of these analytes were qualified as "UJ" or "J" with a negative bias suggested. Matrix spike recoveries for chromium were greater than the acceptable limit of 125%. Reported concentrations of chromium were qualified as "J" with a positive bias suggested. Spike recoveries were poor for mercury in both the MS and MSD samples, resulting in a significant negative bias. Mercury results were therefore assigned a "J" qualifier. These three deviations affected samples IS-MW1 (0-3), IS-MW2 (0-6), IS-MW3 (0-4), IS-SB1 (0-2), and IS-SB4 (0-13.7).

The serial dilution sample precision values for all analytes, except thallium, silver and potassium, exceeded the acceptable limit of 10 percent. Positive results for these compounds greater than 10 times the analyte Method Detection Limit (MDL) were qualified as estimated values with a "J". This qualification suggests a negative bias due to sample matrix effects.

Pesticides

Since no positive results were reported for pesticides in any of the samples submitted for analysis, no changes to the data or data qualifiers were required.

PCBs

Continuing calibration standards in excess of 15% D, relative to the calibration average for Aroclor-1016, resulted in "UJ" qualifications (non-detect, estimated values) of this compound in all samples, suggesting a negative bias in these results.

4.2 Sediment Samples

Volatile Organics

Since no positive results were reported for volatile organics in any of the samples submitted for analysis, no changes to the data tables were made following data validation. The only data qualifier changes made consisted of assigning a "UJ" to several compounds suggesting a negative bias due to poor surrogate recoveries for specific compounds, or calibration parameters outside acceptable limits.

Semi-Volatile Organics

The only one semi-volatile organic compound, bis(2-ethylhexyl)phthalate, was detected in the sediment sample IS-SD-2. This result was qualified as estimated "J" qualifier by the data validator due to reported values that are greater than the compounds method detection limit (MDL), but below the practical quantitation limit (PQL).

Pesticides

Since no positive results were reported for pesticides in any of the samples submitted for analysis, no changes to the data tables were made following data validation. The only data qualifier changes made consisted of assigning a "UJ" to DDT and methoxychlor due to continuing calibration parameters outside acceptable limits.

TAL Metals and Cyanide

Chromium results were flagged with a "J" qualifier (estimated value) for due to matrix spike as well as post digestion spike recoveries above the acceptable limit of 125%, and laboratory control sample (LCS) recoveries outside acceptable limits. LCS recoveries were also outside acceptable limits for barium and calcium, resulting in "J" qualifications of their results.

The serial dilution sample precision values for several analytes exceeded the acceptable limit of 10 percent. Positive results for these compounds greater than 10 times the analyte (MDL) were qualified as estimated values with a "J". This qualification suggests a negative bias due to sample matrix effects.

Several other results were flagged "J" because the values were less than the MDL, but greater than the reporting limits (RL).

4.3 Incinerator Ash Samples

TAL Metals and Cyanide

As with the sediment samples, chromium results were flagged with a "J" qualifier (estimated value) for due to matrix spike as well as post digestion spike recoveries above the acceptable limit of 125%, and laboratory control sample (LCS) recoveries outside acceptable limits. LCS recoveries were also outside acceptable limits for barium and calcium, resulting in "J" qualifications of their results.

The serial dilution sample precision values for several analytes exceeded the acceptable limit of 10 percent. Positive results for these compounds greater than 10 times the analyte (MDL) were qualified as estimated values with a "J". This qualification suggests a negative bias due to sample matrix effects.

Several other results were flagged "J" because the values were less than the MDL, but greater than the reporting limits (RL).

4.4 Groundwater Samples

The groundwater samples included in this delivery group (T2648) were analyzed for TCL VOCs, TCL SVOCs, TAL metals, Pesticides, PCBs, and cyanide. The validation report indicates that all samples in the SDG were received in good condition and were analyzed within all applicable holding times.

A summary of the data validation findings that affected data results or data qualification is provided below. Additional notes, which did not affect results or data qualification, are located in the appended data validation report (Appendix D).

Volatile Organics

Since no positive results were reported for VOCs in any of the samples submitted for analysis, no changes to the data or data qualifiers were required. The only analyte requiring qualification by the data validator was methylcyclohexane that was qualified "UJ" due to continuing calibrations relative response factor (RRF) % D outside the acceptable range.

Semi-Volatile Organics

Since no positive results were reported for SVOCs in any of the samples submitted for analysis, no changes to the data or data qualifiers were required.

TAL Metals and Cyanide

Matrix spike recoveries for barium, chromium, iron, manganese, and potassium were outside the acceptable limits of 75% - 125%. Reported concentrations of these analytes were qualified "J" with a positive bias suggested (potassium only), and a negative bias suggested for the others due to MS recoveries below 75%.

The serial dilution sample precision values for barium, cobalt, potassium, sodium, and zinc exceeded the acceptable limit of 10 percent deviation. All positive results for these analytes were qualified "J".

MALCOLM PIRNIE

Site Contaminant Characterization

SECTION 5

5.1 Introduction

The Former Incinerator Site was characterized through collection and analysis of samples of several media including suspect asbestos containing materials and paint-chip samples collected from the two former incinerator buildings, as well as collection and analysis of subsurface soil/fill, incinerator ash, sediment, and groundwater. Sample locations are shown on Figure 2-1. Sampling methodologies were performed in accordance with the NYSDEC and USEPA-approved Site Investigation Work Plan (Malcolm Pirnie, Inc., November 2004). Sampling protocols and methodologies are described in Section 2.0 of this report for each sampled media. Subsurface soil/fill, ash, sediment, and groundwater samples were submitted for analyses under chain-of-custody to Chemtech Laboratories of Mountainside, New Jersey. Analytical services were performed in accordance with the most current SW-846 and ASP2000 analytical methods and protocols. Appendix F contains raw analytical data (Form 1's) for each sample analyzed. Analytical summary tables (Tables 5-1 through 5-5) are provided in this section and include only those parameters for which a value greater than the laboratory detection limit was detected at a minimum of one sample location.

Suspect Asbestos Containing Materials (ACMs) and paint-chip samples were collected by Aaction Environmental Services, and submitted under chain-of-custody to Environmental Hazard Services of Richmond, Virginia, and ATC Associates of New York, New York. Sampling frequency, depths and locations were determined based on observed Site conditions. Results of the ACM and paint-chip sampling are presented in Section 2, and Aaction's reports are included as Appendices C and D.

Subsurface soil/fill samples were collected from seven test boring locations advanced at the Site between April 4 through 6, 2005. Sediment samples were collected from the north branch of Smokes Creek and a storm sewer outfall to the creek. Ash samples were collected from the basement area and base of the chimney stack of the south incinerator building on April 7, 2005. The three monitoring wells installed during test boring program were purged and groundwater from these wells sampled on April 29, 2005.

Analytical results were compared to the following standards and criteria:

- Subsurface soil/fill and ash sample data were compared to NYSDEC Technical Administrative Guidance Memorandum (TAGM) 4046, Recommended Soil Cleanup Objectives, December 2000. Metals were compared to TAGM 4046 and eastern U.S. background concentrations. Poly Aromatic Hydrocarbons (PAHs) were compared to background soil concentrations for urban soils as referenced from the U.S. Department of Health and Human Services Toxicological Profile for PAHs

- Groundwater sample data were compared to NYSDEC Class GA groundwater standards and guidance values, (6NYCRR Part 360).

- Sediment samples were compared to NYSDEC Technical Guidance for Screening Contaminated sediments, June 1998.

5.2 Subsurface Soil/Fill Samples

Seven subsurface soil/fill samples were collected from three soil borings advanced through the elevated fill ramp as well as four borings located off of the fill ramp. Samples from each boring were collected as composite samples of the entire fill depth at each boring location, except that portion to be analyzed for VOCs which was collected at a discrete depth within the fill to minimize volatilization caused by the compositing process. Sampling locations are shown on Figure 2-1. Every one of the subsurface soil/fill samples contained one or more analytes at concentrations greater then the NYSDEC TAGM 4046 recommended soil cleanup objectives or urban background concentrations. These concentrations are likely characteristic of the fill material and incinerator ash placed at the Site rather than from some former or current on-site point

source. Analytical results for subsurface soil/fill samples are provided in Table 5-1, and describe by analyte group below.

VOCS

Only one VOC analyte, acetone, was detected at a concentration in excess of TAGM 4046 Recommended Soil Cleanup Objectives (TAGM RSCOs). The concentration, 250 ug/kg, detected was only slightly above the TAGM value of 200 ug/kg. This detection occurred at only one location, boring SB-4, in the elevated fill ramp, west of the south incinerator building. Low levels of acetone are often present in environmental samples as a result of residual contamination from the laboratory bottle cleaning procedures.

SVOCs

Five SVOCs, (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene) were present in the subsurface soils/fill at the Site at concentrations in excess of TAGM RSCOs. Most samples only exhibited one or two SVOC compounds, benzo(a)anthracene and benzo(a)pyrene, greater than the TAGM RSCOs. The samples from borings SB-2 and MW-2 had three and five compounds greater than the TAGM RSCOs. Each of the five SVOCs are identified as carcinogenic polycyclic aromatic hydrocarbons (PAHs) and therefore have reduced cleanup objectives as compared to other SVOCs. Two of these PAHs (benzo(a)pyrene and chrysene) were present above the typical range found in urban soils. PAHs are a byproduct of anthropogenic combustion processes and are ubiquitous in urban soils. PAHs are often present near roads, factories, power plants, railroads and parking lots were petroleum fuels are burned.

Pesticides

No pesticides were detected in the subsurface soil/fill samples.

PCBs

Only one PCB, aroclor 1260, was detected in the subsurface soil/fill sample collected from boring SB2. This compound was detected at a concentration of 800 ug/kg, well below the 10,000 mg/kg TAGM RSCO for total PCBs below the ground surface.

MALCOLM PIRNIE

TABLE 5-1
SUMMARY OF ANALYTICAL RESULTS - SUBSURFACE SOIL SAMPLES
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

							Fill Ramp Sample Locations			
Sample Location			**IS-MW1**	**IS-MW2**	**IS-MW3**	**IS-SB1**	**IS-SB2**	**IS-SB3**	**IS-SB-4**	**IS-**
Sampling Depth (ft. bgs)[1]	**NYSDEC TAGM**	**Urban Background**	**0-3**	**0-6**	**0-4**	**0-2**	**0-21.5**	**0-19**	**0-13.7**	**SOILDUP**
Collection D	**4046 [2]**	**Concentrations[3][4]**	**(2-2.5)**	**(5.5-6.0)**	**(2-2.5)**	**(1-1.5)**	**(12.5)**	**(14-16)**	**(12-13)**	**IS-SB4**
			4/5/2005	**4/5/2005**	**4/5/2005**	**4/5/2005**	**4/6/2005**	**4/6/2005**	**4/5/2005**	**4/5/2005**
VOCs - Method 8260 (ug/kg)										
2-Butanone	N/A	N/A					11 J		27 J	
Acetone	200	N/A					97 J		250	
Carbon Disulfide	2700	N/A	4.2 J				6.7 J		8.8	3.5 J
Ethyl Benzene	5500	N/A					1.4 J	1.5 J		
Methylcyclohexane	N/A	N/A							4.6 J	2.8 J
Methylene Chloride	100	N/A					14			
Tetrachloroethene	1400	N/A		1.5 J				1.3 J		
Toluene	N/A	N/A	2.6 J	10 J	3.3 J	2.8 J	3.6 J	2.8 J	9.9	1.4 J
m/p-Xylenes	N/A	N/A	3 J				5.8 J	5.4 J		
o-Xylene	N/A	N/A					2.1 J	1.3 J		
Total Xylenes	1,200	N/A	3				7.9	6.7		
Total VOCs	10,000	N/A	9.8 J	11.5 J	3.3 J	2.8 J	141.6 J	12.3 J	300.3 J	7.7 J
SVOCs - Method 8270 (ug/kg)										
Acenaphthylene	41,000	N/A						80 J		
Anthracene	50,000 ***	N/A				68 J	160 J	83 J		64 J
Benzo(a)anthracene	224 or MDL	169 -59,000		90 J	1,600 J	210 J	490 J	410	110 J	210 J
Benzo(a)pyrene	61 or MDL	165 - 220		88 J	***1,700 J***	180 J	***440 J***	***330 J***	120 J	***220 J***
Benzo(b)fluoranthene	1100	15,000 - 62,000	93 J	110 J	1,900 J	250 J	690 J	500 J	160 J	300 J
Benzo(g,h,i)perylene	50,000 ***	900 - 47,000				81 J	190 J	120 J	88 J	140 J
Benzo(k)fluoranthene	1100	300 - 26,000			1,900 J	100 J	290 J	200 J		120 J
bis(2-Ethylhexyl)phthalate	50,000 ***	N/A		240 J	1,800 J			110 J	110 J	
Carbazole	N/A	N/A					170 J			
Chrysene	400	251 - 640		95 J	***1,900 J***	240 J	460 J	390 J	130 J	240 J
Di-n-butylphthalate	8100	N/A			1,300 J				71 J	
Fluoranthene	50,000 ***	200 - 166,000	130 J	140 J	2,200 J	390 J	1,400	820	160 J	440
Indeno(1,2,3-cd)pyrene	3200	8,000 - 61,000				61 J		60 J	57 J	
Phenanthrene	50,000 ***	N/A		72 J	1,900 J	350 J	910	350 J	90 J	280 J
Pyrene	50,000 ***	145 - 147,000		140 J	2,500 J	420 J	1,200	780	200 J	400 J
TICs	N/A	N/A	570 J	2,110 JB	6,240 JB	150 J	460 J	760 J	1,715 JB	1768 J
Total SVOCs	500,000 ***	N/A	793 J	3,085 J	24,940 J	2,500 J	6,860 J	4,993 J	3,011 J	4,182 J
Total BaP Equivalent[5]	N/A	N/A	9	109	2,088	236	566	433	154	274.6

Blank space indicates analyte was not detected.

-- Indicates sample was not analyzed for this parameter.

Shaded and framed concentrations exceed TAGM values.

Bold/Italic values exceed upper limits of urban background concentrations.

(1) Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.

(2) New York State Dept. of Environmental Conservation TAGM 4046, Recommended Soil Cleanup Objectives, Dec. 2000.

(3) TAL Inorganic Analytes from Eastern USA Background as shown in New York State Dept. of Environmental Conservation TAGM 4046, Dec.

(4) SVOCs background from Background Soil Concentrations of Poly Aromatic Hydrocarbons (PAHs), Urban Soils (U.S. and other), Toxicological

(5) Total BaP equivalent - Benzo (a) pyrene equivalent is calculated by multiplying the following individual PAH concentrations by their multiplier (#) and summing the results. Benzo (a) pyrene (1.00); Dibenzo (a,h) anthracene (1.00); Benzo (a) anthracene (0.10); Benzo (b) fluoranthene (0.10); Ideno (1,2,3-cd) pyrene (0.10); Benzo (k) fluoranthene (0.01); Chrysene (0.01).

(6) USEPA Region 3 Soil Screening Level.

*** New York State background concentration.*

**** - The Soil Cleanup Objective refers to the sum of these compounds.*

Data Qualifiers

B - (for organics) indicates analyte was found in blank as well as the sample report.

J - (for organics) indicates an estimated value.

N/A - Not Applicable or Not Available.

Created by: BW Date: 05/16/2005
Checked by: MM Date: 07/07/2005

MALCOLM PIRNIE

TABLE 5-1
SUMMARY OF ANALYTICAL RESULTS - SUBSURFACE SOIL SAMPLES
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

							Fill Ramp Sample Locations			
Sample Location			**IS-MW1**	**IS-MW2**	**IS-MW3**	**IS-SB1**	**IS-SB2**	**IS-SB3**	**IS-SB-4**	**IS-**
Sampling Depth (ft. bgs)[1]			**0-3**	**0-6**	**0-4**	**0-2**	**0-21.5**	**0-19**	**0-13.7**	**SOILDUP**
Collection D	**NYSDEC TAGM 4046 [2]**	**Urban Background Concentrations[3][4]**	**(2-2.5) 4/5/2005**	**(5.5-6.0) 4/5/2005**	**(2-2.5) 4/5/2005**	**(1-1.5) 4/5/2005**	**(12.5) 4/6/2005**	**(14-16) 4/6/2005**	**(12-13) 4/5/2005**	**IS-SB4 4/5/2005**
PESTICIDES - Method 8081 (ug/kg)										
All Pesticides	N/A	N/A								
PCBs - Method 8082 (ug/kg)										
Aroclor-1260	N/A	N/A					800 J	93 J		
Total PCBs	10,000	N/A					800 J	93 J		
Inorganics / TAL Metals (mg/kg)										
Aluminum	SB	33,000	12,400 J	13,400 J	14,900 J	20,200 J	9,550	11,200	9,670 J	12,000 J
Antimony	SB	N/A		19.3 J	4.92 J		2.5 J	15.8	13.7 J	12.2 J
Arsenic	7.5 or SB	3-12 **	5.52 J	***38.9 J***	***21.3 J***	4.41 J	10.6	***26.6***	***17.4 J***	***16 J***
Barium	300 or SB	15-600	118 J	***604 J***	287 J	137 J	205	494	***727 J***	***726 J***
Beryllium	0.16 or SB	0-1.75	1.29 J	0.511 J	***1.96 J***	***3.02 J***	0.63	0.408 J	0.602 J	0.689 J
Cadmium	1 or SB	0.1-1	0.298 J	***6.2 J***	***1.51 J***		0.934	***4.22***	***4.41 J***	***2.79 J***
Calcium	SB	130 - 35,000 **	***49,500 J***	33,700 J	***65,300 J***	***135,000 DJ***	31,900	***44,100***	***44,900 J***	***43,600 J***
Chromium	10 or SB	1.5 - 40 **	17.3 J	***84.1 J***	***55 J***	13.1 J	***53.7***	***63.6***	***101 J***	***60.2 J***
Cobalt	30 or SB	2.5 - 60 **	5.61 J	21.6 J	9.34 J	2.94 J	9.72	18.7	11.3 J	9.44 J
Copper	25 or SB	1 - 50	24 J	***703 J***	***108 J***	16.1 J	***92.7***	***529***	***364 J***	***342 J***
Cyanide	N/A	N/A		1.05		0.75				
Iron	2,000 or SB	2,000 - 550,000	17,500 J	146,000 DJ	107,000 J	13,100 J	33,200	172,000 D	70,600 J	53,700 J
Lead	400 [6]	200 - 500	77.5 J	***1450 J***	***572 J***	60.8 J	323	***1820***	***1020 J***	***767 J***
Magnesium	SB	100 - 5,000	***12,100 J***	3,810 J	***13,200 J***	***22,100 J***	***6,830***	***5,410***	***7,370 J***	***8,000 J***
Manganese	SB	50 - 5,000	909 J	1,240 J	1,500 J	1,360 J	750	2,340	2,500 J	1,540 J
Mercury	0.1	0.001 - 0.2		***0.453 J***	0.072		0.064	0.046	0.023 J	0.104 J
Nickel	13 or SB	0.5 -25	17.3 J	***78 J***	21.2 J	10.1 J	***30.6***	***181***	***47.3 J***	***43.4 J***
Potassium	SB	8,500 - 43,000 **	1,340	1,770	1,360	1,890	1,210	2,160	1,620	1,790
Selenium	2 or SB	0.1 - 3.9	1.24	***6.45 J***	***5.02 J***	1.67	0.46 J	1.21 J	2.69	2.59
Silver	SB	N/A		6.36 J	0.476		2.12		8.2 J	0.236 J
Sodium	SB	6,000 - 8,000	317 J	1,710 J	1,490 J	3,140 J	744	2,330	2,080 J	1,820 J
Thallium	SB	N/A					1.29	0.509 J		
Vanadium	150 or SB	1-300	16.1 J	15.9 J	14.2 J	9.7 J	22.6	10.6	40.3 J	30 J
Zinc	20 or SB	9-50	***130 J***	***1,810 J***	***495 J***	***109 J***	***683***	***2,300***	***1,220 J***	***1,020 J***

Blank space indicates analyte was not detected.
-- Indicates sample was not analyzed for this parameter.
Shaded and framed concentrations exceed TAGM values.
Bold/Italic values exceed upper limits of urban background concentrations.
(1) Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.
(2) New York State Dept. of Environmental Conservation TAGM 4046, Recommended Soil Cleanup Objectives, Dec. 2000.
(3) TAL Inorganic Analytes from Eastern USA Background as shown in New York State Dept. of Environmental Conservation TAGM 4046, Dec.
(4) SVOCs background from Background Soil Concentrations of Poly Aromatic Hydrocarbons (PAHs), Urban Soils (U.S. and other), Toxicological Profile for PAHs, US Dept. of Health and Human Services, August 1995.
(5) Total BaP equivalent - Benzo (a) pyrene equivalent is calculated by multiplying the following individual PAH concentrations by their multiplier (#) and summing the results. Benzo (a) pyrene (1.00); Dibenzo (a,h) anthracene (1.00); Benzo (a) anthracene (0.10); Benzo (b) fluoranthene (0.10); Ideno (1,2,3-cd) pyrene (0.10); Benzo (k) fluoranthene (0.01); Chrysene (0.01).
(6) USEPA Region 3 Soil Screening Level.
*** New York State background concentration.*
**** - The Soil Cleanup Objective refers to the sum of these compounds.*

Data Qualifiers
J - (for inorganics) indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
D - indicates a result detected in a secondary dilution factor.
N/A - Not Applicable or Not Available.

Metals

All of the subsurface soil samples contained metals at concentrations greater than the TAGM RSCOs with most samples having between 7 and 12 metals greater than TAGM RSCOs. Beryllium, chromium, iron, nickel, and zinc were detected at concentrations greater than the TAGM RSCOs in every sample. Arsenic, barium, copper and lead were detected above TAGM RSCOs at five of the seven sample locations, while cadmium and selenium were detected above the TAGM RSCOs at four and three sample locations, respectively. Most of these detections were several times greater than the TAGM RSCO values, with six metals detected at concentrations one order of magnitude above the TAGM RSCOs. These included: beryllium, chromium, copper, iron, nickel, and zinc. These metals as well as arsenic, barium, calcium, lead, magnesium, mercury, and selenium also exceeded the Eastern US Background Range at several sample locations. Zinc and copper exceeded the Eastern US Background Range by as much as one order of magnitude. These detections are not isolated to the elevated fill ramp or a particular source area, and are likely the result of the past incinerator operations at the Site as is evidenced by their presence at almost all sampling locations, and the similar detections within the ash samples collected at the Site. The two samples exhibiting the most detections greater than the TAGM RSCOs and Eastern US Background Range were MW-2 and SB-3. Both samples collected from these boring locations consisted primarily of ash and cinders apparently originating from the incinerator operations on-site. This would indicate that the source of the elevated metals in the subsurface soil/fill material is the incinerator ash that is mixed into the fill.

5.3 Incinerator Ash Samples

Three ash samples were collected from the basement area of the south incinerator building and submitted for TAL metals, cyanide and dioxins analysis. Analytical results for the incinerator ash samples are provided in Table 5-2.

Metals

Generally the three ash samples collected exhibited relatively similar detections and concentrations for most of the target analyte list of metals. The results indicate that as many as eight metals exceeded both TAGM RSCOs and Eastern US background ranges in these samples. These eight metals included arsenic, barium, cadmium, chromium,

MALCOLM PIRNIE

TABLE 5-2
SUMMARY OF ANALYTICAL RESULTS - ASH SAMPLES
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Sample Location Collection Date	NYSDEC TAGM 4046 [1]	Urban Background Concentrations[2]	IS-ASH1 4/7/2005	IS-ASHDUP (IS-ASH1) 4/7/2005	IS-ASH2 4/7/2005	IS-ASH3 4/7/2005
Inorganics / TAL Metals (mg/kg)						
Aluminum	SB	33,000	12,300 J	9,650 J	11,600 J	9,270 J
Antimony	SB	N/A	9.76		8.26 J	1.28 J
Arsenic	7.5 or SB	3-12 **	9.78 J	7.28 J	***13.3 J***	***13.1 J***
Barium	300 or SB	15-600	***798 J***	***676 J***	395 J	106 J
Beryllium	0.16 or SB	0-1.75	0.24 J	0.202 J	1.09	0.694
Cadmium	1 or SB	0.1-1	***7.31 J***	***5.68 J***	***3.29***	0.586 J
Calcium	SB	130 - 35,000 **	***40,200***	***36,700 J***	***47,800 J***	***44,800***
Chromium	10 or SB	1.5 - 40 **	***51.9 J***	***44.9 J***	26.3 J	***43.3 J***
Cobalt	30 or SB	2.5 - 60 **	6.93 J	5.68 J	7.70 J	6.86 J
Copper	25 or SB	1 - 50	***56,400 D***	***39,300 D***	***179***	***72***
Iron	2,000 or SB	2,000 - 550,000	55,600	45,200	43,200	31,600
Lead	400 [3]	200 - 500	***19,300 D***	***23,600 D***	479	238
Magnesium	SB	100 - 5,000	3,490	2,900	***7,990***	***6,340***
Manganese	SB	50 - 5,000	523	405	744	749
Mercury	0.1	0.001 - 0.2	0.106	0.051	0.127	0.052
Nickel	13 or SB	0.5 -25	***42.1***	***31.0***	***26.0***	20.6
Potassium	SB	8,500 - 43,000 **	554 J	433 J	2,440 J	1,250 J
Selenium	2 or SB	0.1 - 3.9	0.672 J		0.532 J	
Silver	SB	N/A	1.64	0.758 J	0.695 J	
Sodium	SB	6,000 - 8,000	***30,400***	***39,900***	6,040	556 J
Thallium	SB	N/A	1.01 J	2.12	1.69	2.95
Vanadium	150 or SB	1-300	30.6 J	23.7 J	16.9 J	20.1 J
Zinc	20 or SB	9-50	***109,000 D***	***146,000 D***	***2,050***	***451***
Dioxins (ug/kg)						
All Dioxins	N/A	N/A				

Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.

Blank space indicates analyte was not detected.

-- Indicates sample was not analyzed for this parameter.

Shaded and framed concentrations exceed TAGM values.

Bold/Italic values exceed upper limits of urban background concentrations.

(1) New York State Dept. of Environmental Conservation TAGM 4046, Recommended Soil Cleanup Objectives, Dec. 2000.
(2) TAL Inorganic Analytes from Eastern USA Background as shown in New York State Dept. of Environmental Conservation TAGM 4046, Dec. 2000.

(3) USEPA Region 3 Soil Screening Level.

*** New York State background concentration.*

N/A - Not Applicable or Not Available.

Data Qualifiers

J - (for inorganics) indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.

D - indicates a result detected in a secondary dilution factor.

Created by: BW Date: 05/16/2005

copper, lead, nickel, and zinc. Copper lead and zinc exhibited the highest concentrations, reaching as high as three orders of magnitude above the Eastern US Background Ranges.

Dioxins

No dioxins were detected in the ash samples.

5.4 Sediment Samples

Three sediment locations were sampled, two within the North Branch of Smokes Creek and one at a storm sewer outfall to Smokes Creek. Sample locations were selected based on their proximity to the Site and the storm sewer outfall originating from the Site. Sample locations were downstream, at the outfall of the storm sewer discharge pipe, and upstream of the Site. These samples were labeled as SD-1, SD-2, and SD-3 respectively and are shown on Figure 2-1. The sediment samples were analyzed for full TCL/TAL parameters. The analytical results are summarized in Tables 5-3 and 5-4 and compared to the sediment criteria from the NYSDEC Technical Guidance for Screening Contaminated Sediments, assuming a conservatively low total organic carbon content of one percent.

Organics (VOCs, SVOCs, Pesticides, and PCBs)

A summary of the organic analytical results detected in the sediment samples is presented in Table 5-3. As shown in Table 5-3, SVOCs was the only organic fraction that exhibited detections above the laboratory reporting limits. The compounds detected consisted of bis(2-ethylhexyl)phthalate, and several tentatively identified compounds (TICS). The bis(2-ethylhexyl)phthalate was detected in sample SD-2, at the storm sewer outfall, at a concentration of 340 ug/kg, well below the 1995 ug/kg NYSDEC sediment screening criteria. The TICs detected totaled 3040 ug/kg. There are no NYSDEC sediment screening criteria for TICs or total SVOCs. Pesticides and PCBs were not detected in any of the sediment samples.

Inorganics (Metals)

The results of the sediment inorganic analysis are summarized in Table 5-4. Eleven metals antimony, arsenic, cadmium, chromium, copper, iron, lead, manganese, nickel,

MALCOLM PIRNIE

TABLE 5-3
SUMMARY OF ORGANIC ANALYTICAL RESULTS - SEDIMENT SAMPLES
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Relative Location Sample ID Collection Date	NYSDEC Sediment Criteria[1]	Downstream IS-SD-1 4/7/2005	Outfall IS-SD-2 4/7/2005	IS-SD-DUP (IS-SD-2) 4/7/2005	Upstream IS-SD-3 4/7/2005
VOCs - Method 8260 (ug/kg)					
All VOCs	N/A				
Total VOCs	N/A				
SVOCs - Method 8270 (ug/kg)					
Bis(2-Ethylhexyl)phthalate	1995		340 J		
TICs	N/A	3040 J			
Total SVOCs	N/A	3040 J	340 J		
Total BaP Equivalent[5]	N/A				
PESTICIDES - Method 8081 (ug/kg)					
All Pesticides	N/A				
PCBs - Method 8082 (ug/kg)					
All PCBs	0.008				
Total PCBs	0.008				

Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.
Blank space indicates analyte was not detected.
-- Indicates sample was not analyzed for this parameter.
Shaded and framed concentrations exceed sediment criteria values.

(1) Sediment Criteria from NYSDEC Tech. Guidance for Screening Contaminated Sediments (June 1998). These conservative criteria were derived using the lowest sediment criteria in the guidance document and an organic content of 1 percent.

(5) Total BaP equivalent - Benzo (a) pyrene equivalent is calculated by multiplying the following individual PAH concentrations by their multiplier (#) and summing the results. Benzo (a) pyrene (1.00); Dibenzo (a,h) anthracene (1.00); Benzo (a) anthracene (0.10); Benzo (b) fluoranthene (0.10); Ideno (1,2,3-cd) pyrene (0.10); Benzo (k) fluoranthene (0.01); Chrysene (0.01).

J - (for inorganics) indicates a value greater than or equal to the instrument detection limit, but less than the quantitation
N/A - Not Applicable or Not Available.

MALCOLM PIRNIE

TABLE 5-4
SUMMARY OF INORGANIC ANALYTICAL RESULTS - SEDIMENT SAMPLES
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Relative Location	NYSDEC Sediment Criteria[1]		Downstream	Outfall	IS-SD-DUP	Upstream
Sample ID	Lowest Effect	Severe Effect	IS-SD-1	IS-SD-2	(IS-SD-2)	IS-SD-3
Collection Date	Level	Level	4/7/2005	4/7/2005	4/7/2005	4/7/2005
Inorganics / TAL Metals (mg/kg)						
Aluminum	N/A	N/A	7,970 J	11,400 J	12,500 J	7,220 J
Antimony	2	25		3.88 J	***53.7***	
Arsenic	6	33	6.15	***35***	12.5	5.15
Barium	N/A	N/A	75.7 J	158 J	199 J	61 J
Beryllium	N/A	N/A	0.504 J	1.01 J	0.926	0.443 J
Cadmium	0.6	9		1.25	1.28	
Calcium	N/A	N/A	18,600 J	56,700 J	36,900 J	16,100 J
Chromium	26	110	14.2 J	45.7 J	29.4 J	12.2 J
Cobalt	N/A	N/A	8.82	12.2	10.4	7.69
Copper	16	110	29.8 J	***160 J***	90.2 J	25.1 J
Iron	20,000	40,000	17,500	***99,000***	32,900	15,500
Lead	31	110	23.5 J	***345 J***	***3,580 J***	22.7 J
Magnesium	N/A	N/A	5,190	9,050	10,500	4,780
Manganese	460	1100	672	***1,180***	***1,300***	546
Mercury	0.15	1.3	0.055	0.129 J	0.106	0.054
Nickel	16	50	24.3	34.2	28	21.5
Potassium	N/A	N/A	989 J	1,870 J	2,270 J	1,040 J
Selenium	N/A	N/A		0.8 J	1.3 J	
Silver	1	2.2		1.37 J	1.47 J	
Sodium	N/A	N/A	186 J	1,640	1,330	244 J
Thallium	N/A	N/A		1.71 J	0.978 J	0.668 J
Vanadium	N/A	N/A	15.5 J	19.4 J	21.9 J	14.1 J
Zinc	120	270	122	***671***	***436***	113

Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.

Blank space indicates analyte was not detected.

Shaded and framed concentrations exceed Sediment Criteria Lowest Effect Level.

Bold/Italic values exceed Sediment Criteria Severe Effect Level.

(1) Sediment Criteria from NYSDEC Tech. Guidance for Screening Contaminated Sediments (June 1998). These conservative criteria were derived using the lowest sediment criteria in the guidance document and an organic content of 1 percent.

J - (for inorganics) indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.

N/A - Not Applicable or Not Available.

Created by: BW Date: 05/16/2005
Checked by: MM Date: 07/07/2005

silver, and zinc were detected at concentrations above the NYSDEC Sediment Screening Criteria in at least one of the three sediment samples collected. Copper, manganese, and nickel exceeded the Sediment Screening Criteria in all samples collected including the upstream sample SD-3, indicating an upstream source contributing to the downstream detections of these analytes. Besides the three metals that were present both upstream and downstream of the Site, only arsenic and zinc were present above the Sediment Screening Criteria at the downstream sample SD-1 and these were detected only slightly above their respective sediment screening criteria. The metals detected at the outfall sample point SD-2, were considerably higher than the downstream sample; sometimes as high as 5 ½ times greater, as is the case with iron which was detected at a concentration of 17,500 mk/kg at SD-1 and 99,000 mk/kg at SD-2. The elevated concentrations at SD-2 along with the identification of glass and plastics within the sediments at SD-2 indicate the influence of the on-site fill and ash originating from the storm sewer system.

5.5 Groundwater Samples

The following characterization of the groundwater at the Site was based on the samples collected from monitoring wells MW-1, MW-2, and MW-3 on April 29, 2005. The groundwater samples were analyzed for full TCL/TAL parameters. The analytical results are summarized in Table 5-5 and compared to the Class GA Groundwater Standard from the NYSDEC Technical and Operational Guidance Series (TOGS).

Organics (VOCs, SVOCs, Pesticides, and PCBs)

As shown in Table 5-5, none of the organic analysis fractions analyzed exhibited detected compounds above the laboratory reporting limits, at any of the well locations.

Metals

Six metals were present in one or more of the groundwater samples collected at the Site at concentrations in excess of NYSDEC Class GA Groundwater Standards. Iron, magnesium, and sodium, exceeded the Class GA Standards in all three samples. Concentrations of iron, magnesium, and sodium were also relatively consistent between wells MW-2 and MW-3 and significantly higher, at MW1. Of the remaining metals that exceeded the Class GA standards, arsenic was detected at MW-3, manganese at MW-1, and thallium at MW-2. Thallium was present in the duplicate sample collected from

MALCOLM PIRNIE

TABLE 5-5
SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER SAMPLES
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Sample Location Collection Date	CLASS GA STANDARD (ug/L)[1]	MW-1 04/29/2005	MW-2 04/29/2005	GW-DUP1 (MW-2) 04/29/2005	MW-3 04/29/2005	FIELD BLANK 04/29/2005	TRIP BLANK 04/29/2005
VOCs - Method 8260 (ug/L)							
All VOCs	N/A						
SVOCs - Method 8270 (ug/L)							
All SVOCs	N/A						--
PESTICIDES - Method 8081 (ug/L)							
All Pesticides	N/A						--
PCBs - Method 6010/3010/7040 (ug/L)							
All PCBs	N/A						--
Inorganics / TAL Metals - Method 6010/3010/7040 (ug/L)							
Aluminum	N/A	2,180	259	311	1,170	6.64 J	--
Arsenic	25		13.4	17.3	**43.6**		--
Barium	1000	49.7 J	119 J	119 J	230 J		--
Beryllium	(3)	0.165 J	0.235 J	0.125 J	0.11 J		--
Calcium	N/A	258,000	73,600	72,900	67,300		--
Chromium	50	2.68 J		0.58 J	0.735 J		--
Cobalt	N/A	4.14 J	0.91 J	2.7 J	0.875 J	0.88 J	--
Copper	200	10.7 J	4.28 J	5.65 J	5.4 J		--
Iron	300	**4,600 J**	**880 J**	**719 J**	**3,510 J**		--
Magnesium	(35000)	**102,000**	**39,600**	**39,200**	**43,900**		--
Manganese	300	**750 J**	151 J	150 J	149 J		--
Mercury	0.7	0.05 J			0.05 J		--
Nickel	100	8.57 J	2.74 J	1.74 J	2.37 J		--
Potassium	N/A	4,770 J	2,020 J	2,110 J	2,070 J		--
Sodium	20,000	**441,000 J**	**39,400 J**	**39,800 J**	**41,300 J**		--
Thallium	(0.5)			**3.61 J**			--
Vanadium	N/A	3.58 J		1.82 J	1.25 J		--
Zinc	(2000)	55.6 J	23.3 J	28.9 J	29 J		--

Notes:

[1] Class GA Ambient Water Quality Standards and Guidance Values from TOGS series 1.1.1, June 1998, and April 2000 Addendum.

Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.

Blank space indicates analyte was not detected.

-- Indicates sample was not analyzed for this parameter.

Shaded and framed concentrations exceed Class GA groundwater standards or guidance values.

Values in ( ) represent Guidance Values.

NA - Not Applicable or Not Available.

Data Qualifiers

J - Indicates and estimated value.

Created by: BW Date: 05//27/2005
Checked by: MM Date: 07/07/2005

monitoring well MW-2 at concentrations in excess of Class GA groundwater standards but was not detected in the preliminary sample. Results for this metal are therefore uncertain.

5.6 Analytical Summary

The analytical results of the site investigation indicate elevated concentrations of several metals and PAHs in the soil/fill throughout the Site. Concentrations of metals in the on-site ash are even higher than those present in the soil/fill. Most significant are copper, lead, and zinc which are present in the ash at concentrations up to three orders of magnitude above the NYSDEC TAGM values.

Groundwater does not appear to be impacted by Site contaminants. Although groundwater does contain several metals at concentrations above groundwater standards, most of these metals are commonly found locally at such concentrations and are believed to be naturally occurring at these concentrations or are common nutrients that do not pose a significant risk at elevated concentrations. These metals include calcium, iron, magnesium, and sodium.

Sediment at the storm sewer outfall appears to be impacted by the Site as evidenced by the presence of several metals at elevated concentrations that are also elevated in the onsite soil/fill and ash, these included copper, lead and zinc. The outfall sediments likely enter the Smokes Creek during high flow events but it appears that the metals are being sufficiently dispersed such that downstream sediments do not contain significantly elevated concentrations of these same metals.

In general, VOCs, pesticides, PCBs, and dioxin are not present in any of the environmental medial sampled on-site.

Lead was detected in paint samples at concentrations above the Federal paint standard at some locations within both incinerator buildings. Highest concentrations were present in the silver paint that covers the north incinerator.

Results of the 88 asbestos samples collected from both the south and north incinerators indicate that none of the fire brick, exterior brick, brick mortar, incinerator linings, or incinerator ash sampled contains asbestos. Asbestos was found, mostly in the north

incinerator building. At this north incinerator asbestos was confirmed in incinerator door gaskets, pipe and wall mud-joint packing, pipe insulation, furnace cement, roof flashing, roof tar covering and caps. The only material collected from the south incinerator building that contained asbestos was the south wall exhaust pipe furnace cement.

MALCOLM PIRNIE

Human Health Evaluation

SECTION 6

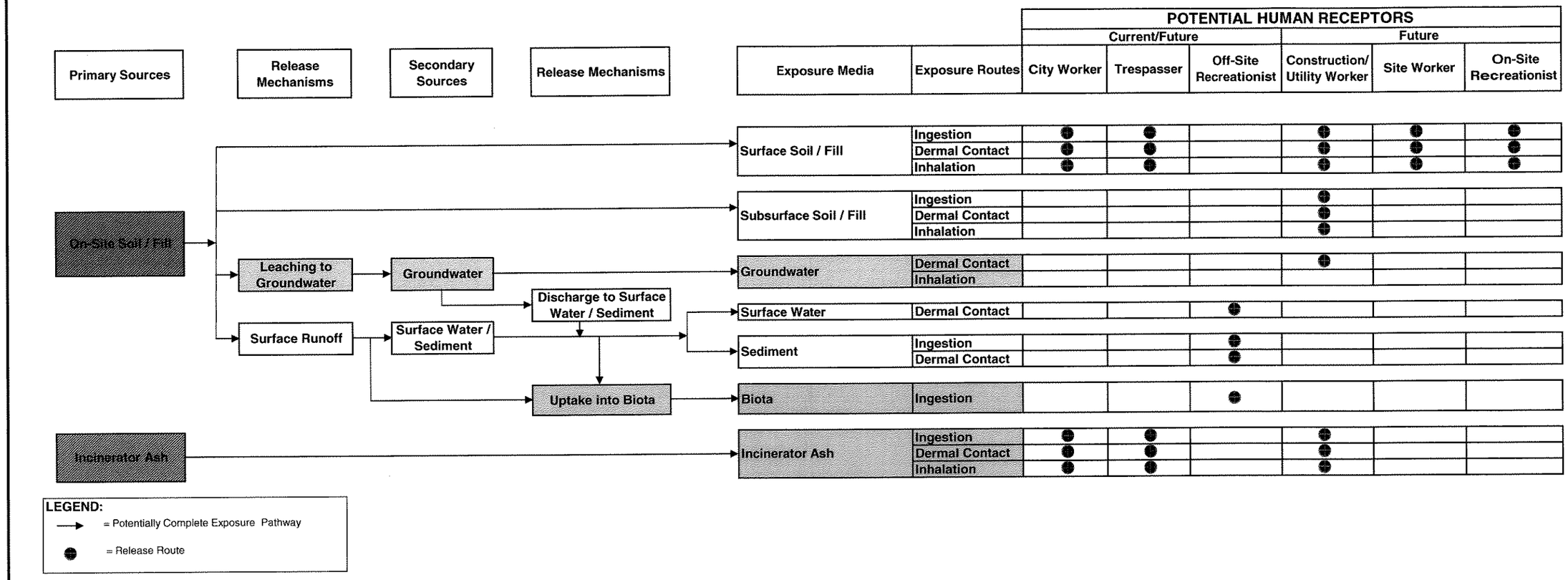
This section presents a qualitative evaluation of the potential for exposure and adverse human health effects associated with constituents detected in the various environmental media sampled at the Site.

The exposure assessment was facilitated through the development of a conceptual site model, as presented on Figure 6-1. The conceptual site model is a graphic illustration that outlines constituent source areas, possible constituent release mechanisms, environmental media that currently show or may show the presence of constituents in the future, possible exposure pathways, potentially-exposed human populations, and possible exposure routes. It considers current Site conditions and surrounding land use, as well as the most likely future Site conditions and surrounding land use based on the proposed redevelopment of the Site. It is anticipated that redevelopment of the Site will include removal of the incinerator buildings and leveling of the fill mounds, to support its use as an extension of the stadium area to the west or the park to the east. The conceptual site model presents the hypotheses regarding the potential for exposure that are analyzed and discussed in this evaluation.

6.1 Overview

Although qualitative, the human health evaluation followed the four-step process that is typically used to assess potential human health risk; these include:

Data evaluation: relevant Site data were compiled and analyzed to determine the usability of the data and to select constituents of potential concern (COPC) that are representative of the conditions present at the Site.



MALCOLM PIRNIE

CONCEPTUAL SITE MODEL

Former Incinerator Site
Lackawanna, New York

August, 2005
MALCOLM PIRNIE, INC

FIGURE 6-1

Exposure Assessment: actual and/or potential constituent release pathways were analyzed and potentially exposed human populations, possible exposure pathways, and potential exposure routes were identified.

Toxicity Assessment: qualitative toxicity information was presented for each COPC.

Risk Characterization: the potential for adverse human health effects, in terms of both non-carcinogenic hazard and carcinogenic risk, was evaluated, currently and for the future, in the absence of remedial action. The uncertainty in the evaluation is also briefly discussed.

6.2 Data Evaluation

The data evaluation focuses on the compilation of usable analytical data to assess the potential for human exposure and the selection of COPC. As such, constituents in soil (i.e., subsurface soil/fill and ash), groundwater, and sediment were evaluated. While the entire data sets for these media were discussed previously, data summary tables were organized to facilitate the data evaluation. The data summaries, presented in Tables 6-1 to 6-4, are discussed below. These tables also present the screening criteria used to select COPC. The selection of screening criteria for each medium is discussed below. This process, as presented below, identifies those COPC that, if exposed to, may pose potential risk to human health.

Selection of Media of Concern: Surface and subsurface soil/fill, groundwater, surface water, sediment, biota, and ash were identified as environmental media of concern because they are or may become, in the future, readily available for human contact. Although surface soil samples were not collected for analysis, surface soil/fill contamination was inferred from the subsurface soil/fill data. Constituents detected in subsurface soil/fill were assumed to be present at the ground surfaces of the Site. Surface water samples were also not collected for analysis. Constituents detected in sediment were assumed to be in the surface water. Biota is an exposure medium of concern due to the potential for human consumption of fish that has been exposed to COPC.

Selection of COPC: The following sub-sections describe the analytical data in the media sampled (i.e., subsurface soil/fill, ash, groundwater, and sediment) and the identification of COPC in these media. COPC were selected by comparing the maximum detected

TABLE 6-1
SUMMARY OF SUBSURFACE SOIL/FILL DATA AND COMPARISON TO SCREENING CRITERIA

FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Detected compounds	Frequency of Detection	Range of Detected Concentrations [1]	NYSDEC Soil Cleanup Objectives [2]	Urban Background Concentrations [3][4]
Volatile Organic Compounds - VOCs (ug/kg)				
Acetone	2 / 7	97 - **250**	200	NA
2-Butanone	2 / 7	11 - 27	300	NA
Carbon disulfide	3 / 7	4.2 - 8.8	2,700	NA
Ethylbenzene	2 / 7	1.4 - 1.5	5,500	NA
Methylcyclohexane	1 / 7	**4.6**	NA	NA
Methylene chloride	1 / 7	14	100	NA
Tetrachloroethene	2 / 7	1.3 - 1.5	1,400	NA
Toluene	7 / 7	1.4 - 10	1,500	NA
Xylenes, total	3 / 7	3 - 7.9	1,200	NA
Semivolatile Organic Compounds - SVOCs (ug/kg)				
Acenaphthylene	1 / 7	80	41,000	NA
Anthracene	4 / 7	64 - 160	50,000 [5]	NA
Benzo(a)anthracene	6 / 7	90 - **1,600**	224 or MDL	169 - 59,000
Benzo(a)pyrene	6 / 7	**88** - **1,700**	61	165 - 220
Benzo(b)fluoranthene	7 / 7	93 - **1,900**	1,100	15,000 - 62,000
Benzo(g,h,i)perylene	4 / 7	81 - 190	50,000 [5]	900 - 47,000
Benzo(k)fluoranthene	5 / 7	100 - **1,900**	1,100	300 - 26,000
Bis(2-ethylhexyl) phthalate	4 / 7	110 - 1,800	50,000 [5]	NA
Carbazole	1 / 7	**170**	NA	NA
Chrysene	6 / 7	95 - **1,900**	400	251 - 640
Di-n-butylphthalate	2 / 7	71 - 1,300	8,100	NA
Fluoranthene	7 / 7	130 - 2,200	50,000 [5]	200 - 166,000
Indeno(1,2,3-c,d)pyrene	3 / 7	57 - 61	3,200	8,000 - 61,000
Phenanthrene	6 / 7	72 - 1,900	50,000 [5]	NA
Pyrene	6 / 7	140 - 2,500	50,000 [5]	145 - 147,000
Pesticides/PCBs (ug/kg)				
PCBs, total	2 / 7	93 - 800	10,000 [6]	NA
Inorganics (mg/kg)				
Aluminum	7 / 7	9,550 - 14,900	SB	33,000
Antimony	5 / 7	2.5 - **19.3**	SB	<1 - 8.8 [7]
Arsenic	7 / 7	4.41 - **38.9**	7.5 or SB	3 - 12 [8]
Barium	7 / 7	118 - **727**	300 or SB	15 - 600
Beryllium	7 / 7	0.408 - **3.02**	0.16 or SB	0 - 1.75
Cadmium	6 / 7	0.298 - **6.2**	1 or SB	0.1 - 1
Calcium	7 / 7	31,900 [9] - 135,000 [9]	SB	130 - 35,000
Chromium	7 / 7	13.1 - **101**	10 or SB	1.5 - 40 [8]
Cobalt	7 / 7	2.94 - 21.6	30 or SB	2.5 - 60 [8]
Copper	7 / 7	16.1 - **703**	25 or SB	1 - 50
Cyanide	2 / 7	**0.75** - **1.05**	NA	NA
Iron	7 / 7	13,100 [9] - 172,000 [9]	2,000 or SB	2,000 - 550,000
Lead	7 / 7	60.8 - **1820**	400 [10]	200 - 500
Magnesium	7 / 7	3,810 [9] - 22,100 [9]	SB	100 - 5,000
Manganese	7 / 7	750 - 2,500	SB	50 - 5,000
Mercury	5 / 7	0.046 - **0.453**	0.1	0.001 - 0.2
Nickel	7 / 7	10.1 - **181**	13 or SB	0.5 - 25
Potassium	7 / 7	1,210 [9] - 2,160 [9]	SB	8,500 - 43,000 [8]
Selenium	7 / 7	0.46 - **6.45**	2 or SB	0.1 - 3.9
Silver	4 / 7	0.476 - **8.2**	SB	ND - 5.0 [11]
Sodium	7 / 7	317 [9] - 3,140 [9]	SB	6,000 - 8,000
Thallium	2 / 7	**0.509** - **1.29**	SB	NA
Vanadium	7 / 7	9.7 - 40.3	150 or SB	1 - 300
Zinc	7 / 7	**109** - **2,300**	20 or SB	9 - 50

Notes:

Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.

(1) The maximum concentration was used for duplicate samples

(2) Recommended Soil Cleanup Objectives, New York State Dept. of Environmental Conservation TAGM 4046, Dec. 2000

(3) Eastern USA Background, NYSDEC TAGM 4046, Dec. 2000

(4) PAH background concentrations are from the Agency for Toxic Substances and Disease Registry, 1995

(5) NYSDEC TAGM, Recommended Soil Cleanup Objectives, Dec. 2000, Total SVOCs < 500 ppm, Individual SVOCs < 50 ppm

(6) NYSDEC TAGM, Recommended Soil Cleanup Objectives, Dec. 2000, for surface soil is 1,000 ug/kg

(7) Value from Elements in North American Soils, eastern USA soils, Dragun and Chiasson, 1991

(8) New York State background, NYSDEC TAGM 4046, Dec. 2000

(9) This concentration is below the human health essential nutrient screening criterion

(10) USEPA soil screening level for residential soils

(11) Value from Elements in North American Soils, soils of the conterminous USA, Dragun and Chiasson, 1991

NA - Not Applicable or Not Available

SB - Site Background

TABLE 6-2
SUMMARY OF GROUNDWATER DATA AND COMPARISON TO SCREENING CRITERIA

FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Detected compounds	Frequency of Detection	Range of Detected Concentrations [1]	NYSDEC Class "GA" Standards [2]
Inorganics (ug/L)			
Aluminum	3 / 3	**311** - **2180**	NA
Arsenic	2 / 3	17.3 - **43.6**	25
Barium	3 / 3	49.7 - 230	1,000
Beryllium	3 / 3	0.11 - 0.235	3 [3]
Calcium	3 / 3	67,300 [4] - 258,000 [4]	NA
Chromium	3 / 3	0.58 - 2.68	50
Cobalt	3 / 3	**0.875** - **4.14**	NA
Copper	3 / 3	5.4 - 10.7	200
Iron	3 / 3	880 [4] - 4,600 [4]	NA
Magnesium	3 / 3	39,600 [4] - **102,000** [5]	35,000 [3]
Manganese	3 / 3	149 - **750**	NA
Mercury	2 / 3	0.05	0.7
Nickel	3 / 3	2.37 - 8.57	100
Potassium	3 / 3	2,070 [4] - 4,770 [4]	NA
Sodium	3 / 3	39,800 [4] - 441,000 [4]	20,000
Thallium	1 / 3	**3.61**	0.5 [3]
Vanadium	3 / 3	**1.25** - **3.58**	NA
Zinc	3 / 3	28.9 - 55.0	2,000 [3]

Notes:
Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.
(1) The maximum concentration was used for duplicate samples
(2) Class GA Ambient Water Quality Standards and Guidance Values from NYSDEC TOGS 1.1.1, June 1998, and April 2000 Addendum
(3) Values represent Guidance Values
(4) This concentration is below the human health essential nutrient screening criterion
(5) Value exceeded the human health essential nutrient screening criterion of 80,000 ug/L
NA - Not Applicable or Not Available

TABLE 6-3
SUMMARY OF SEDIMENT DATA AND COMPARISON TO SCREENING CRITERIA

FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Detected compounds	Frequency of Detection	Range of Detected Concentrations [1]	NYSDEC Soil Cleanup Objectives [2]	Urban Background Concentrations [3]	Site Upstream Sample
Semivolatile Organic Compounds - SVOCs (ug/kg)					
Bis(2-ethylhexyl)phthalate	1 / 2	340	50,000 [4]	NA	ND
Inorganics (mg/kg)					
Aluminum	2 / 2	7,970 - 12,500	SB	33,000	7,220
Antimony	1 / 2	**53.7**	SB	<1 - 8.8 [5]	ND
Arsenic	2 / 2	6.15 - **35**	7.5 or SB	3 - 12 [6]	5.15
Barium	2 / 2	75.7 - 199	300 or SB	15 - 600	61
Beryllium	2 / 2	0.504 - 1.01	0.16 or SB	0 - 1.75	0.443
Cadmium	1 / 2	**1.28**	1 or SB	0.1 - 1	ND
Calcium	2 / 2	18600 [7] - 56700 [7]	SB	130 - 35,000	16,100
Chromium	2 / 2	14.2 - **45.7**	10 or SB	1.5 - 40 [6]	12.2
Cobalt	2 / 2	8.82 - 12.2	30 or SB	2.5 - 60 [6]	7.69
Copper	2 / 2	29.8 - **160**	25 or SB	1 - 50	25.1
Iron	2 / 2	17500 [7] - 99000 [7]	2,000 or SB	2,000 - 550,000	15,500
Lead	2 / 2	23.5 - **3,580**	400 [8]	200 - 500	22.7
Magnesium	2 / 2	5190 [7] - 10500 [7]	SB	100 - 5,000	4,780
Manganese	2 / 2	672 - 1,300	SB	50 - 5,000	546
Mercury	2 / 2	0.055 - 0.129	0.1	0.001 - 0.2	0.054
Nickel	2 / 2	24.3 - **34.2**	13 or SB	0.5 - 25	21.5
Potassium	2 / 2	989 [7] - 2270 [7]	SB	8,500 - 43,000 [6]	1,040
Selenium	1 / 2	1.3	2 or SB	0.1 - 3.9	ND
Silver	1 / 2	1.47	SB	ND - 5.0 [9]	ND
Sodium	2 / 2	186 [7] - 1640 [7]	SB	6,000 - 8,000	244
Thallium	1 / 2	**1.71**	SB	NA	0.668
Vanadium	2 / 2	15.5 - 19.4	150 or SB	1 - 300	14.1
Zinc	2 / 2	**122** - **671**	20 or SB	9 - 50	113

Notes:

Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.

Since there are no NYSDEC sediment screening criteria for the protection of human health, soil screening criteria were used

(1) The maximum concentration was used for duplicate samples

(2) Recommended Soil Cleanup Objectives, New York State Dept. of Environmental Conservation TAGM 4046, Dec. 2000

(3) Eastern USA Background, NYSDEC TAGM 4046, Dec. 2000

(4) NYSDEC TAGM, Recommended Soil Cleanup Objectives, Dec. 2000, Total SVOCs < 500 ppm, Individual SVOCs < 50 ppm

(5) Value from Elements in North American Soils, eastern USA soils, Dragun and Chiasson, 1991

(6) New York State background, NYSDEC TAGM 4046, Dec. 2000

(7) This concentration is below the human health essential nutrient screening criterion

(8) USEPA soil screening level for residential soils

(9) Value from Elements in North American Soils, soils of the conterminous USA, Dragun and Chiasson, 1991

NA - Not Applicable or Not Available

ND - Not Detected

SB - Site Background

TABLE 6-4
SUMMARY OF ASH SAMPLE DATA AND COMPARISON TO SCREENING CRITERIA

FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Detected compounds	Frequency of Detection	Range of Detected Concentrations [1]	NYSDEC Soil Cleanup Objectives [2]	Urban Background Concentrations [3]
Inorganics (mg/kg)				
Aluminum	3 / 3	9,270 - 12,300	SB	33,000
Antimony	3 / 3	1.28 - **9.76**	SB	<1 - 8.8 [4]
Arsenic	3 / 3	9.78 - **13.3**	7.5 or SB	3 - 12 [5]
Barium	3 / 3	106 - **798**	300 or SB	15 - 600
Beryllium	3 / 3	0.24 - 1.09	0.16 or SB	0 - 1.75
Cadmium	3 / 3	0.586 - **7.31**	1 or SB	0.1 - 1
Calcium	3 / 3	40,200 [6] - 47,800 [6]	SB	130 - 35,000
Chromium	3 / 3	26.3 - **51.9**	10 or SB	1.5 - 40 [5]
Cobalt	3 / 3	6.86 - 7.70	30 or SB	2.5 - 60 [5]
Copper	3 / 3	**72** - **56,400**	25 or SB	1 - 50
Iron	3 / 3	31,600 [6] - 55,600 [6]	2,000 or SB	2,000 - 550,000
Lead	3 / 3	238 - **23,600**	400 [7]	200 - 500
Magnesium	3 / 3	3,490 [6] - 7,990 [6]	SB	100 - 5,000
Manganese	3 / 3	523 - 749	SB	50 - 5,000
Mercury	3 / 3	0.052 - 0.127	0.1	0.001 - 0.2
Nickel	3 / 3	20.6 - **42.1**	13 or SB	0.5 - 25
Potassium	3 / 3	554 [6] - 2,440 [6]	SB	8,500 - 43,000 [5]
Selenium	2 / 3	0.532 - 0.672	2 or SB	0.1 - 3.9
Silver	2 / 3	0.695 - 1.64	SB	ND - 5.0 [8]
Sodium	3 / 3	556 [6] - 39,900 [6]	SB	6,000 - 8,000
Thallium	3 / 3	**1.69** - **2.95**	SB	NA
Vanadium	3 / 3	16.9 - 30.6	150 or SB	1 - 300
Zinc	3 / 3	**451** - **146,000**	20 or SB	9 - 50

Notes:

Only those analytes detected at a minimum of one location and greater than the reporting limit are shown.

(1) The maximum concentration was used for duplicate samples

(2) Recommended Soil Cleanup Objectives, New York State Dept. of Environmental Conservation TAGM 4046, Dec. 2000

(3) Eastern USA Background, NYSDEC TAGM 4046, Dec. 2000

(4) Value from Elements in North American Soils, eastern USA soils, Dragun and Chiasson, 1991

(5) New York State background, NYSDEC TAGM 4046, Dec. 2000

(6) This concentration is below the human health essential nutrient screening criterion

(7) USEPA soil screening level for residential soils

(8) Value from Elements in North American Soils, soils of the conterminous USA, Dragun and Chiasson, 1991

NA - Not Applicable or Not Available

SB - Site Background

concentration of each constituent in the indicated data sets to appropriate screening criteria (e.g., NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives); constituents whose maximum detected concentration exceeded the screening criteria were selected as COPC. However, for the inorganic constituents in soil/fill and sediment, if a constituent concentration exceeded a screening criterion, but is still within the range of the Conterminous or Eastern United States background concentrations, then it was not selected as a COPC. Constituents without a corresponding screening criterion were also selected as COPC. Constituents with a detection frequency of less than five percent of the samples with sample sizes of 20 or more were eliminated as COPC. Finally, inorganic constituents regarded as essential nutrients (i.e., calcium, iron, magnesium, potassium, and sodium) were only selected as COPC if they exceeded the nutrient screening concentration. The nutrient screening concentrations were derived for a child, as shown in Appendix G. The COPC selected in the environmental media sampled are summarized in Table 6-5.

6.2.1 Subsurface Soil/Fill

The collection of subsurface soil/fill samples from the April 2005 sampling event were discussed in Section 2.7.1 and sample locations illustrated on Figure 2.1. Subsurface soil/fill (greater than 2 feet below ground surface) data are summarized in Table 6-1. The frequency of detection, range of detected concentrations, and screening criteria are provided. The screening criteria used were the NYSDEC's recommended soil cleanup objectives, eastern United States background concentrations for inorganic constituents provided in TAGM 4046 [or, in their absence, as provided in *Elements in North American Soils* (Dragun and Chiasson, 1991)], and essential nutrient screening concentrations. Screening concentrations for essential nutrients are shown in Table G-1 of Appendix G. There were no site-specific background samples collected. Background concentrations of PAHs in urban soils (ATSDR, 1995) were included in Tables 6-1 for comparison purposes only and were not used as screening criteria.

Subsurface soil/fill was analyzed for VOCs, SVOCs, pesticides, PCBs, and inorganics (metals and cyanide). The following constituents were selected as COPC for subsurface soil/fill:

- VOCs: acetone and methylcyclohexane

TABLE 6-5
CONSTITUENTS OF POTENTIAL CONCERN
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

CHEMICAL	Subsurface Soil/Fill	Ash	Sediment	Groundwater
Volatile Organic Compounds				
Acetone	X	-	-	-
Methylcyclohexane	X	-	-	-
Semivolatile Organic Compounds				
Benzo(a)anthracene	X	-	-	-
Benzo(a)pyrene	X	-	-	-
Benzo(b)Fluoranthene	X	-	-	-
Benzo(k)fluoranthene	X	-	-	-
Carbazole	X	-	-	-
Chrysene	X	-	-	-
Inorganics				
Aluminum	•	•	•	X
Antimony	X	X	X	-
Arsenic	X	X	X	X
Barium	X	X	•	•
Beryllium	X	•	•	•
Cadmium	X	X	X	-
Chromium	X	X	X	•
Cobalt	•	•	•	X
Copper	X	X	X	•
Cyanide	X	-	-	-
Lead	X	X	X	-
Magnesium	•	•	•	X
Manganese	•	•	•	X
Mercury	X	•	•	•
Nickel	X	X	X	•
Selenium	X	•	•	-
Silver	X	•	•	-
Thallium	X	X	X	X
Vanadium	•	•	•	X
Zinc	X	X	X	•

Notes:

X : Selected as a Constituent of Potential Concern (COPC). Shaded entries are COPCs selected based on exceedance of the screening criteria. Unshaded entries are COPCs for which no screening criteria are available.

• : Detected, but not selected as a COPC.

- : Not Analyzed or Not Detected.

- SVOCs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, carbazole, and chrysene
- Inorganics: antimony, arsenic, barium, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, selenium, silver, thallium, and zinc

Methylcyclohexane, carbazole, cyanide, and thallium were included as COPCs because they have no screening criteria. Of the PAHs selected as COPC, only benzo(a)pyrene and chrysene were detected at concentrations greater than those typically found in urban soils. Also detected were various TICs in the SVOC fraction.

6.2.2 Groundwater

The collection of groundwater samples from the April 2005 sampling event was discussed in Section 2.7.4 and well locations are illustrated on Figure 2.1. Groundwater data are summarized in Table 6-2. The frequency of detection, range of detected concentrations, and screening criteria are provided. The screening criteria used were for water "Class GA," *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations* from NYSDEC's Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998, and April 2000 Addendum and the essential nutrient screening concentrations. Screening concentrations for essential nutrients are shown in Table G-2 of Appendix G. All groundwater data were collected from on-site monitoring wells.

Groundwater was analyzed for VOCs, SVOCs, pesticides, PCBs, and inorganics. Constituents were only detected in the inorganics fraction. The following constituents were selected as COPC based on the monitoring well data:

- Inorganics: aluminum, arsenic, cobalt, magnesium, manganese, thallium, and vanadium

Aluminum, cobalt, and vanadium were included as COPCs because they have no screening criteria.

6.2.3 Sediment

The collection of sediment samples from the April 2005 sampling event are presented in Section 2.7.3 and sample locations are illustrated on Figure 2-1. Sediment data are summarized in Table 6-3. The frequency of detection, range of detected concentrations, and screening criteria are provided. Since there were no NYSDEC sediment screening criteria for the protection of human health, the screening criteria used were the NYSDEC's recommended soil cleanup objectives, Eastern United States background concentrations provided in TAGM 4046 [or, in their absence, as provided in *Elements in North American Soils* (Dragun and Chiasson, 1991)], and essential nutrient screening concentrations. Screening concentrations for essential nutrients are shown in Table G-1 of Appendix G. There was one sample collected from upstream of the Site on the north branch of Smokes Creek.

Sediment samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and inorganics (metals and cyanide). There was only one constituent detected in the SVOC fraction and all other constituents were detected in the inorganics fraction. The following constituents were selected as COPC for sediments:

- Inorganics: antimony, arsenic, cadmium, chromium, copper, lead, nickel, thallium, and zinc

6.2.4 Incinerator Ash

The collection of incinerator ash samples from the April 2005 sampling event were discussed in Section 2.7.2. Incinerator ash data are summarized in Table 6-4. The frequency of detection, range of detected concentrations, and screening criteria are provided. Since there were no NYSDEC TAGM screening criteria for the protection of human health specific to ash, the screening criteria used were the NYSDEC's recommended soil cleanup objectives, Eastern United States background concentrations provided in TAGM 4046 [or, in their absence, as provided in *Elements in North American Soils* (Dragun and Chiasson, 1991)], and essential nutrient screening concentrations. Screening concentrations for essential nutrients are shown in Table G-1 of Appendix G. All ash sample data were collected from the basement area of the south incinerator building. There were no site-specific background samples collected.

Ash samples were analyzed for dioxins and inorganics (metals and cyanide). The following constituents were selected as COPC for ash samples:

- Inorganics: antimony, arsenic, barium, cadmium, chromium, copper, lead, nickel, thallium, and zinc

Thallium was included as a COPC because there were no screening criteria.

6.3 Exposure Assessment

The objective of the exposure assessment is to estimate the type of and potential for human exposure to the COPC that are present in, or migrating from, those environmental media of potential concern identified in Section 6.2. The exposure assessment consists of the consideration of populations that have the potential for exposure to conditions at the Site, currently and in the future, and an analysis of the pathways and routes by which receptors may be exposed to constituents/media of concern at the Site.

6.3.1 Potentially Exposed Populations

The potential for human exposure to the COPC at the Site was considered under potential current and future scenarios. The following six categories of human receptors (termed "potentially exposed populations") were identified:

Current/Future

- City Worker: (adult) who works for the city and has access to the Site. The city worker may have an office in the vicinity and occasionally visits the Site and/or stock-pile construction, fill, waste, and other miscellaneous material and equipment at the Site.

- Trespasser: (adults, adolescents) who may spend time within the boundaries of the Site without access permission.

- Off-Site Recreationist: (adults, adolescents, children) who may fish along the public access foot path of the creek immediately north of the Site's boundary.

Future

- Construction/Utility Worker: (adults) whose work may require excavation at the Site while improving and/or maintaining the Site for future use.
- Site Worker: (adults) who may perform area supervisory or security activities, grounds maintenance, or work within future structures/layout of the Site.
- On-Site Recreationist: (adults, adolescents, children) who may visit the Site when/if the Site becomes an extension of the athletic field and stadium area to the west.

6.3.2 Exposure Pathways

The Site is rectangular, is approximately five acres in size, and is located within the City of Lackawanna. It is locally situated among municipal and industrial establishments. Residential properties are located within a half mile of the Site. The Site is currently used by the City's Department of Public Works (DPW) for stockpiling of construction debris, fill, waste, and other miscellaneous solid material and equipment. The City's dog warden also uses the northern incinerator building for temporary dog holding. Access to the Site is restricted or limited. There is a high chain-link fence surrounding the Site on all sides. However, evidence of unauthorized access to the Site exists.

North of and adjacent to the Site is the north branch of Smokes Creek, with blacktop paved walking paths on both sides of the creek. The Holy Cross Cemetery is north of the creek. East of the Site is an overgrown vacant field (or park) and emergent woods. Directly south and west of the Site are the City's DPW facilities and Veterans Memorial Athletic Fields and Stadium, respectively. Surface water at the Site flows into catch basins and a storm drain system that discharges into Smokes Creek, which flows west into Lake Erie. Groundwater at the Site also flows toward Smokes Creek. There is no evidence of potable groundwater wells downgradient of the Site.

Constituent release mechanisms, in the absence of remedial action, used in determining the exposure pathways, are summarized in Table 6-6. The potential receptors and routes of exposure were summarized with descriptions justifying their inclusion as potentially complete exposure pathways.

TABLE 6-6
CONSTITUENT RELEASE MECHANISMS IN THE ABSENCE OF REMEDIAL ACTION
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Release Source	Release Mechanism	Receiving Medium	Site Conditions	Viable Current Release Scenario?	Viable Future Release Scenario?
On-Site Soil/Fill	--	Surface Soil/Fill	The Site is dominated by a large, ramp-like, man-made mound of soil/fill that was constructed to provide truck access to the second story of two incinerator buildings. Over the years, additional fill material was added to widen the ramp. All of the ground areas of the Site consist of fill material, originating from various City DPW projects, incinerator maintenance and ash, and debris from street sweeping. Throughout the western half of the Site, there are many temporary storage mounds of dirt, sand, wood chips, stones, and various fill materials. There is a large hole in the chain-link fence surrounding the Site, created by trespassers. There are asphalt-paved pathways for vehicular access to the incinerator buildings.	Yes - although surface soil samples were not collected for analysis, surface soil/fill constituents can be inferred from subsurface soil/fill constituents. Since there is no known or suspected clean soil or other cap at the Site, the contents of the subsurface soil/fill (and ash) are assumed to be present at the ground surfaces of the Site. constituents have been found in all subsurface soil/fill samples. As such, individuals may be exposed to constituents present in the surface soil/fill.	Yes - in the absence of Site remediation, future release will not differ from current scenario.
On-Site Soil/Fill	--	Subsurface Soil/Fill	See description of "Surface Soil/Fill" above.	No - subsurface soil/fill is not expected to be disturbed by current activities.	Yes - in the absence of Site remediation, constituents present in subsurface soil/fill may be released by future construction activities.
On-Site Soils/Fill	Leaching	Groundwater	See description of "On-Site Soil/Fill" above. Groundwater flows under the Site towards the north branch of Smokes Creek, which is approximately 50 feet immediately north of the Site's northern boundary.	Yes - constituents may have been transported from soil/fill to groundwater.	Yes - in the absence of Site remediation, constituents may continue to be transported to groundwater.
On-Site Soil/Fill	Surface Runoff	Surface Water / Sediment	There are stormwater drainage ditches and catch basins along the edges of the Site that are piped to the bank of the north branch of Smokes Creek. The north branch is approximately 50 feet immediately north of the Site's northern boundary.	Yes - surface water, at the Site, that does not seep into the ground will eventually drain into the stormwater drainage system. constituents may be transported to the creek via the outfall of the drainage system.	Yes - in the absence of Site remediation, constituents may continue to be transported to the creek.
Groundwater	Discharge	Surface Water / Sediment	Shallow groundwater under the Site flows northward toward the north branch of Smokes Creek immediately north of the Site's northern boundary. Depth to groundwater is approximately 10 feet below ground surface.	Yes - constituents in shallow groundwater are expected to discharge along the course of the north branch of Smokes Creek.	Yes - in the absence of Site remediation, constituents may continue to be transported to the creek.
Surface Water / Sediment	Uptake	Biota	The Site is located 50 feet south of the north branch of Smokes Creek, which flows to Lake Erie. There are paved foot paths on both sides of the river where fishing activities take place. The creek is known locally for its steelhead trout fishing.	Yes - there is the potential for biota exposure, which may represent a possible source for human exposure if fish are consumed.	Yes - in the absence of Site remediation, there is the potential for biota exposure, which may represent a possible source for human exposure if fish are consumed.
Ash	--	Ash	The primary location of the ash is within the basement area of the south incinerator building. Ash, as fill material, is expected to have been comingled with soil/fill material throughout the site and there may be small pockets or layers of it used in filling out ground depressions throughout the years of incinerator operations. Also see description of "Surface Soil/Fill" above.	Yes - there is evidence of human activity in the ash storage area of the incinerator building. Also, since there is no known or suspected clean soil or other cap at the Site, ash, as fill material, is assumed to be present at the ground surface of the Site. As such, constituents within the ash present on ground surfaces may be released to individuals entering the Site.	Yes - in the absence of Site remediation, future release will not differ from current scenario.

Exposure pathways are considered for current and future scenarios, and are discussed below. All scenarios evaluated include exposure pathways that were considered as potentially complete. Such scenarios include foreseeable events such as construction and maintenance activities. Scenarios are analyzed and discussed with regard to their likelihood below.

6.3.2.1 Current/Future Scenario

The following exposure scenarios were based on current conditions, and are expected to exist in the future, in the absence of site remediation.

***City Worker*:** Based on current land use, city workers may continue to access and store material and equipment at the Site. The following exposure pathways were identified as potentially complete:

- Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill.
- Dermal contact with and incidental ingestion and inhalation of COPC in incinerator ash.

Trespasser: Based on evidence that trespassing has occurred at the Site and may continue to occur in the future, the following exposure pathways were identified as potentially complete:

- Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill.
- Dermal contact with and incidental ingestion and inhalation of COPC in incinerator ash.

Off-Site Recreationist: Since fishing along the north branch of Smokes Creek, immediately north of the Site's northern boundary, is a common recreational activity and may continue to be enjoyed in the future, the following exposure pathways were identified as potentially complete:

- Dermal contact with and incidental ingestion of COPC in sediment and dermal contact of COPC in surface water along the north branch of Smokes Creek's banks.

- Ingestion of fish impacted by Site COPC caught in or near the north branch of Smokes Creek.

6.3.2.2 Future Scenario

The following additional exposure scenarios, which may occur in the future, were evaluated based on the planned use of the Site as extensions to the stadium and athletics field to the west. As part of the redevelopment plan, it is anticipated that the two incinerator buildings will be demolished and the soil/fill mound will be leveled.

Construction/Utility Worker: During future redevelopment or maintenance of the Site, the following exposure pathways were identified as potentially complete:

- Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill.
- Dermal contact with and incidental ingestion and inhalation of COPC in subsurface soil/fill.
- Dermal contact with of COPC in shallow groundwater.
- Dermal contact with and incidental ingestion and inhalation of COPC in incinerator ash.

Site Worker: Since the future use of the Site will probably be managed, there may be workers who may perform area supervisory or security activities, grounds maintenance, or work within the future layout of the Site. The following exposure pathways were identified as potentially complete:

- Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill.

On-Site Recreationist: Since the future redevelopment of the Site will allow Site-access to the public as activity spectators or active participants, the following exposure pathways were identified as potentially complete:

- Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill.

6.4 Toxicity Assessment

For each COPC, critical non-carcinogenic and carcinogenic health effects, for oral and inhalation exposures, are presented in Tables 6-7 and 6-8, respectively. The critical health effects given were those that are used by the USEPA to derive reference doses and reference concentrations (to assess the potential for chronic non-carcinogenic health effects), and slope factors (to assess carcinogenic risk), that are typically used in the quantification of human health risks.

6.5 Risk Characterization

Based on Site conditions, observations, and the fact that the Site will be redeveloped, relative exposure and potential for adverse health effects are discussed for each receptor population below. Table 6-9 provides a summary of the human health risk characterization.

6.5.1 Current/Future Scenario

The potential for exposure to COPC via the pathways described in the Exposure Assessment was discussed for each receptor population in the current/future scenario under the assumption that there will be no remediation at the Site. The potential for exposure is classified as "Not Expected", "Possible", or "Likely" based on Site conditions.

City Worker:

Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill:

It is known that city workers frequently access the Site. The City's DPW facilities are located within the chain-link fence that surrounds the Site itself. The Site is used by the DPW for stock-piling construction, fill, waste, and other miscellaneous material and equipment at the Site. The City's dog warden also uses one of the idle incinerator buildings for temporary dog holding. From the nature of the work activities, exposure to COPC in the surface soil/fill via dermal contact or incidental ingestion, or inhalation of particulates released from the soil/fill, is likely.

TABLE 6-7
NON-CARCINOGENIC HEALTH EFFECTS OF CONSTITUENTS OF POTENTIAL CONCERN
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

CHEMICAL	CAS #	NON-CARCINOGENIC ORAL CRITICAL EFFECT	NON-CARCINOGENIC INHALATION CRITICAL EFFECT
Volatile Organic Compounds			
Acetone	67-64-1	Nephropathy	--
Methylcyclohexane	108-87-2	--	--
Semivolatile Organic Compounds			
Benzo(a)anthracene	56-55-3	--	--
Benzo(a)pyrene	50-32-8	--	--
Benzo(b)fluoranthene	205-99-2	--	--
Benzo(k)fluoranthene	208-08-9	--	--
Carbazole	86-74-8	--	--
Chrysene	218-01-9	--	--
Inorganics			
Aluminum	121-82-4	Minimal neurotoxicity	Psychomotor and cognitive impairment
Antimony	7440-36-0	Decreased longevity, decreased blood glucose levels, and altered chloesterol levels	--
Arsenic	7440-38-2	Hyperpigmentation, keratosis and possible vascular complications	--
Barium	7440-39-3	Increased kidney weight	--
Beryllium	7440-41-7	Small intestinal lesions	Beryllium sensitization and progression to chronic beryllium disease -chronic inflammatory lung lesion
Cadmium	7440-43-9	Significant proteinuria	--
Chromium (as chromium VI)	18540-29-9	--	Nasal septum atrophy; lactate dehydrogenase in bronchioalveolar lavage fluid
Cobalt	7440-48-4	--	--
Copper	7440-50-8	--	--
Cyanide (as hydrogen cyanide)	74-90-8	weight loss, thyroid effects, and myelin degeneration	Central nervous systems and thyroid effects
Lead	7439-92-1	--	--
Magnesium	7439-95-4	--	--
Manganese	7439-96-5	Central nervous system effects (other effect: Impairment of neurobehavioral function)	Impairment of neurobehavioral function
Mercury (as mercuric chloride)	7487-94-7	Autoimmune effects	--
Nickel (as soluble salts)	7440-02-0	Decreased body and organ weights	--
Selenium	7782-49-2	Clinical selenosis	--
Silver	7440-22-4	Argyria - medically benign but permanent bluish gray discoloration of the skin	--
Thallium (as thallium(I)sulfate)	7446-18-6	No observed adverse effects	--
Vanadium	7440-62-2	--	--
Zinc	7440-66-6	Decrease in erythrocyte superoxide dismutase activity	--

Source: USEPA Integrated Risk Information System (IRIS)

TABLE 6-8
CARCINOGENIC HEALTH EFFECTS OF CONSTITUENTS OF POTENTIAL CONCERN
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

CHEMICAL	CAS #	ORAL CARCINOGENIC CANCER TYPE	INHALATION CARCINOGENIC CANCER TYPE	Weight-of-Evidence Classification (*)
Volatile Organic Compounds				
Acetone	67-64-1	--	--	D
Methylcyclohexane	108-87-2	--	--	--
Semivolatile Organic Compounds				
Benzo(a)anthracene	56-55-3	--	--	B2
Benzo(a)pyrene	50-32-8	Forestomach, squamous cell papillomas, and carcinomas	--	B2
Benzo(b)fluoranthene	205-99-2	--	--	B2
Benzo(k)fluoranthene	207-08-9	--	--	B2
Carbazole	86-74-8	--	--	--
Chrysene	218-01-9	--	--	B2
Inorganics				
Aluminum	121-82-4	--	--	D
Antimony	7440-36-0	--	--	--
Arsenic	7440-38-2	Increased mortality from multiple internal organ cancers (liver, kidney, lung, bladder), and increased incidence of skin cancer	Lung cancer	A
Barium	7440-39-3	--	--	D
Beryllium	7440-41-7	--	Lung cancer	B1
Cadmium	7440-43-9	--	Lung, trachea, and bronchus cancer deaths	B1
Chromium (as chromium VI)	18540-29-9	--	Lung cancer	A
Cobalt	7440-48-4	--	--	--
Copper	7440-50-8	--	--	D
Cyanide (as hydrogen cyanide)	74-90-8	--	--	--
Lead	7439-92-1	Increased renal tumors; suppressed gene expression	--	B2
Magnesium	7439-95-4	--	--	--
Manganese	7439-96-5	--	--	D
Mercury (as mercuric chloride)	7487-94-7	--	--	C
Nickel (as soluble salts)	7440-02-0	--	--	--
Selenium	7782-49-2	--	--	D
Silver	7440-22-4	--	--	D
Thallium (as thallium(I)sulfate)	7446-18-6	--	--	--
Vanadium	7440-62-2	--	--	--
Zinc	7440-66-6	--	--	--

(*): USEPA Weight-of-Evidence Classification:
A: Human carcinogen
B1: Probable human carcinogen; limited human data are available
B2: Probably human carcinogen; sufficient evidence in animals and inadequate or no evidence in humans
C: Possible human carcinogen
D: Not classifiable as to human carcinogenicity
--: Not evaluated
Source: USEPA Integrated Risk Information System (IRIS)

MALCOLM PIRNIE

TABLE 6-9
SUMMARY OF HUMAN HEALTH EVALUATION RISK CHARACTERIZATION
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Scenario Timeframe	Receptor Population	Environmental Medium	Exposure Route			Likelihood of Exposure		
						Not Expected	Possible	Likely
Current/ Future	City Worker	Surface Soil/Fill	Ingestion	Dermal Contact	Inhalation			X
		Incinerator Ash	Ingestion	Dermal Contact	Inhalation			X
		Subsurface Soil/Fill	Ingestion	Dermal Contact	Inhalation	X		
		Groundwater	Ingestion	Dermal Contact	Inhalation	X		
	Trespasser	Surface Soil/Fill	Ingestion	Dermal Contact	Inhalation		X	
		Incinerator Ash	Ingestion	Dermal Contact	Inhalation		X	
		Subsurface Soil/Fill	Ingestion	Dermal Contact	Inhalation	X		
		Groundwater	Ingestion	Dermal Contact	Inhalation	X		
	Off-Site Recreationist	Surface Water		Dermal Contact			X	
		Sediment	Ingestion	Dermal Contact			X	
		Biota	Ingestion				X	
Future	Construction / Utility Worker	Surface Soil/Fill	Ingestion	Dermal Contact	Inhalation			X
		Incinerator Ash	Ingestion	Dermal Contact	Inhalation			X
		Subsurface Soil/Fill	Ingestion	Dermal Contact	Inhalation			X
		Groundwater		Dermal Contact	Inhalation		X	
	Site Worker	Surface Soil/Fill	Ingestion	Dermal Contact	Inhalation		X	
		Subsurface Soil/Fill	Ingestion	Dermal Contact	Inhalation	X		
		Groundwater	Ingestion	Dermal Contact	Inhalation	X		
	On-Site Recreationist	Surface Soil/Fill	Ingestion	Dermal Contact	Inhalation		X	
		Subsurface Soil/Fill	Ingestion	Dermal Contact	Inhalation	X		
		Groundwater	Ingestion	Dermal Contact	Inhalation	X		

Dermal contact with and incidental ingestion and inhalation of COPC in incinerator ash:

As with the surface soil/fill exposure media, exposure to incinerator ash would be by the same mechanisms. Although the incinerator ash is stored within the basement of the south incinerator building, over the years of the Site's operation, it is also likely that ash was mixed with the soil/fill material as ground filler. There may also be pockets of incinerator ash throughout the Site. Therefore, similar to the surface soil/fill, exposure to COPC via dermal contact or incidental ingestion, or inhalation of particulates released from the incinerator ash, is likely.

Trespasser:

Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill:

Since the vast majority of the Site is not covered with either pavement or grass, exposure to COPC in surface soil/fill via dermal contact or incidental ingestion, or inhalation of respirable particulates released from soil/fill is possible.

Dermal contact with and incidental ingestion and inhalation of COPC in incinerator ash:

Exposure to incinerator ash would be by the same mechanism as with the surface soil/fill. The incinerator ash is stored within the basement of the south incinerator building, where, there is also evidence of trespassing activities. In addition, over the years of the Site's operation, it is likely that ash was mixed with the soil/fill material as ground fillers. There may also be pockets of incinerator ash throughout the Site. Therefore, similar to the surface soil/fill, exposure to COPC via dermal contact or incidental ingestion, or inhalation of particulates released from the incinerator ash is possible.

Off-Site Recreationist:

Dermal contact with and incidental ingestion of COPC in sediment and dermal contact with COPC in surface water along the north branch of Smokes Creek's banks:

Immediately north of the Site is the north branch of Smokes Creek, with public access paved foot paths on both sides of the creek. People have been seen fishing from these paths. The creek is known locally for steelhead trout fishing. Therefore, in the course of

fishing activities, exposure to COPC in sediment via dermal contact or incidental ingestion and to COPC in surface water via dermal contact is presumed possible.

Ingestion of fish impacted by Site COPC caught in or near the north branch of Smokes Creek:

It is expected that fish are caught on the creek adjacent to or near the Site and that some of those fish may be consumed. Therefore, ingestion of COPC in fish caught for consumption in the vicinity of the Site is possible.

6.5.2 Future Scenario

The potential for exposure to COPC via the pathways described in the Exposure Assessment is discussed for each receptor population in the future scenario listed below, under the assumption that remedial actions will not be implemented at the Site. The following receptor populations were considered with redevelopment and maintenance of the Site for recreational use. The redevelopment plan for the Site is anticipated to include the demolition of the two incinerator buildings and the leveling of the soil/fill mound.

Construction/Utility Worker:

Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill:

Redevelopment and/or maintenance-related excavation or grading work at the Site could lead to contact with surface soil/fill. Therefore, dermal contact with and incidental ingestion of COPC in surface soil/fill, and inhalation of wind blown or mechanically driven COPC adsorbed to fugitive dust released from soil/fill are likely. Such exposure would be limited to the construction/maintenance period.

Dermal contact with and incidental ingestion and inhalation of COPC in subsurface soil/fill:

Redevelopment and/or maintenance-related excavation or grading work at the Site could lead to contact with subsurface soil/fill. Therefore, dermal contact with and incidental ingestion of COPC in subsurface soil/fill, and inhalation of wind blown or mechanically driven COPC adsorbed to fugitive dust released from soil/fill are likely. Such exposure would be limited to the construction/maintenance period.

Dermal contact with COPC in shallow groundwater:

Groundwater at the Site averages approximately 10 feet below ground surface; therefore, exposure to shallow groundwater may be possible. It is conceivable that excavation work at the Site may encounter the groundwater interface. Should this occur, dermal contact with COPC in shallow groundwater is possible. Such exposure would be limited to the construction/maintenance period.

Dermal contact with and incidental ingestion and inhalation of COPC in incinerator ash:

Incinerator ash may be released from the basement area of the south incinerator building onto the ground surfaces of the Site during the buildings' future demolition. In addition, over the years of the Site's operation, it is likely that ash was mixed with the soil/fill material as ground fillers. There may also be pockets of incinerator ash throughout the Site. Redevelopment and/or maintenance-related excavation or grading work at the Site could lead to contact with incinerator ash. Therefore, dermal contact with and incidental ingestion of COPC in incinerator ash, and inhalation of wind blown or mechanically driven COPC adsorbed to fugitive dust released from incinerator ash, are likely. Such exposure would be limited to the construction/maintenance period.

Site Worker:

Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill:

If the Site is to be used for recreational purposes, it will also need to be properly managed. Workers may perform area supervisory or security activities or work within the future layout of the Site. Exposed areas of the Site may become dusty during dry weather. Therefore, exposure to COPC in the surface soil/fill via dermal contact or incidental ingestion, or inhalation of particulates released from the soil/fill, is possible.

On-Site Recreationist:

Dermal contact with and incidental ingestion and inhalation of COPC in surface soil/fill:

Future redevelopment of the Site for recreational purposes will allow public-access to the Site for activity spectators or active participants. Exposed areas of the Site may become dusty during dry weather. Therefore, exposure to COPC in the surface soil/fill via dermal

contact or incidental ingestion, or inhalation of particulates released from the soil/fill, is possible.

6.6 Uncertainty Analysis

Uncertainty is inherent in the process of conducting human health evaluations. In qualitative evaluations, sampling and analysis data, information and assumptions regarding the likelihood, frequency, and magnitude of exposure, and information on the toxicity of the constituents are used to infer the potential for exposure and health risk. By design, the evaluations relied on simple and conservative assumptions with the sole intent of identifying and eliminating from concern those scenarios that were unlikely to result in exposure and health risk and highlighting those scenarios that, depending on actual circumstances, may result in exposure and health risk. Uncertainty was associated with each component of this process, including environmental sampling and analysis, constituent fate and transport analysis, exposure assessment, and the toxicological information used to characterize potential human health risks. Uncertainty in any of these components could alter the conclusions regarding the likelihood of exposure and health risk for a given receptor population.

6.6.1 Sampling and Analysis

Uncertainty associated with environmental sampling is generally related to the limitations of the sampling in terms of the number and distribution of samples, while uncertainty associated with the sample analysis is generally associated with systematic or random errors (e.g., false positive or false negative results). Thus, the potential for exposure may be overstated or understated depending on how well each environmental medium was characterized.

6.6.2 Exposure Assessment

Aspects of the human exposure assessment generally result in overstatement of the potential for long-term exposure. In addition, the release mechanisms for COPC may have been overstated. Of the environmental media of potential concern at the Site, only four media (subsurface soil/fill, groundwater, sediment, and incinerator ash) were sampled. Other media (surface soil/fill, surface water, and biota) were not sampled and conservative assumptions were made for their inclusion as possible exposure pathways.

6.6.3 Toxicological/Screening Criteria

Screening criteria were not available for all constituents that were detected in samples collected at the Site. As such, the potential for adverse health effects as a result of exposure to those constituents, should exposure occur, was uncertain, based on the lack of available screening criteria, and associated toxicological criteria. In most cases, the critical effects listed for the COPC were for laboratory animals, not humans. Differences in toxicity may exist between laboratory animals and humans.

Tentatively identified compounds (TICs) detected in the SVOC fraction of the subsurface soil/fill and sediment samples were not screened or evaluated. The greatest number of TICs found in any of the samples is 12 and the highest concentration of the total TICs in any of the samples was estimated to be 5,640 ug/kg. Due to the uncertainty of both identification and concentration of the TICs and the lack of screening criteria or toxicological information for these compounds, their health risk contribution, if any, were not included.

6.7 Summary and Discussion

The current/future and future scenarios assumed redevelopment and reuse of the Site with no remediation.

6.7.1 Current/Future Scenario

The potential for exposure to COPC in soil/fill or incinerator ash, either separately or mixed with the soil/fill, at the Site was expected to be likely for city workers given that the Site is mostly unpaved. During dry weather, the Site can become dusty with wind or foot or vehicle traffic, and thereby increasing the likelihood of exposure to city workers entering the Site. The Site has been and will most likely, in the future, be accessible by determined trespassers, and therefore, it is possible for them to be exposed to COPC in soil/fill or incinerator ash. Exposure to subsurface soil/fill or groundwater is not expected. There is no evidence of potable wells at or near the Site.

Since groundwater and surface runoff flow to the creek adjacent to the Site and fishing at the creek has been observed, exposure of the off-site recreationist to the COPC of the sediment, surface water, and biota (i.e., fish) was conservatively assumed to be possible.

However, the impact of groundwater COPC to the creek as an exposure medium is uncertain. Since surface runoff from the Site will only occur during storm events, the volume of water from the creek's increased flow (from upstream due to the storm event) would dilute the COPC entering the creek from the Site and lessen its impact.

6.7.2 Future Scenario

The potential for exposure to COPC in the future was also evaluated based on assumed redevelopment of the Site for recreational use. Under this scenario, additional potential receptors include the construction/utility worker, site worker, and on-site recreationist.

Exposure of construction/utility workers to COPC in surface and subsurface soil/fill and shallow groundwater during construction, grading, or utility maintenance activities is likely or possible. Such exposures would be limited primarily to the construction/maintenance period. Since the Site is expected to be managed after redevelopment for recreational use, new Site workers will be expected to be performing area supervisory and security activities, grounds maintenance, or other activities. It may be possible for these Site workers to be exposed to COPC in soil/fill or incinerator ash. Similarly, recreationists that will have access to the Site, either as spectators or active participants, may also be exposed to COPC in soil/fill or incinerator ash. However, this potential exposure can be mitigated through placement of final cover.

MALCOLM PIRNIE

Ecological Habitat Characterization

SECTION 7

7.1 Introduction

The objectives of the ecological habitat characterization are to identify plant communities and aquatic resources on and adjacent to the Site, identify potential wildlife receptors utilizing resources on the Site, observe any visible signs of stress to plants and animals, and to document significant ecological resources on and/or near the Site. A visual survey was conducted on May 24, 2005. Other sources of information include the New York State Natural Heritage Program (NHP), the National Wetlands Inventory (NWI; USFWS, 2005), and the New York State Freshwater Wetlands Map.

7.2 Terrestrial Habitat Characterization

Terrestrial habitat on the Site is limited in variety and size. According to the Erie County Soil Survey, the five-acre Site is classified as "urban lands," identified as being greater than 85% covered by roads, parking lots, buildings, and other generally impervious surfaces; natural soil structure is likely disturbed by human activity.

During the Site visit, it was confirmed that the majority of the Site is or has been disturbed by anthropogenic activity in some manner. The Site is currently used by the City's DPW for municipal stockpiling of construction, fill, waste, and other miscellaneous material and equipment. The Site is dominated by a large, ramp-like, mound of soil/fill that was incorporated into the construction of the two former incinerator buildings. At the base of the paved ramp leading up to the northernmost incinerator, there are piles of road debris, including dirt and vegetation that has recently been deposited. Signs of historic dumping of construction debris, tires, and other garbage were observed along the eastern fenceline of the Site.

The only areas on the Site where dense vegetation is present and potentially provides shrubby wildlife habitat is around the former incinerator buildings, on the sloped sides of the soil/fill mound that was reportedly constructed from slag and incinerator ash. Vegetative species are typical of disturbed areas and/or forest edge species. These include tree-of-heaven (*Ailanthus altissima*), box elder (*Alnus negundo*), common reed (*Phragmites australis*), poison ivy (*Toxicodendron radicans*), smooth sumac (*Rhus glabra*), and Japanese knotweed (*Polygonum cuspidatum*). Garlic mustard (*Alliara officinalis*), purple loosestrife (*Lythrum salicaria*), various grasses, thistle, ragweed (*Artemisia vulgaris*), and other low-growing forbs are present throughout areas of the Site that are not paved or otherwise covered by piles of dirt, gravel, or debris.

Two groundhogs (*Marmota monax*) were observed during the visual survey near a den on the western side of the fill mound/ramp, indicating that the area contains adequate resources for small mammals. The only other signs of wildlife during the Site visit were songbirds, such as American goldfinch (*Carduelis tristis*), American robin (*Turdus migratorius*) and red-winged blackbirds (*Agelaius phoeniceus*). Eastern cottontail rabbits (*Sylvilagus floridanus*) and stray cats have been observed at the Site in the past.

No signs of health stress to vegetation or wildlife were observed on the Site. However, if disturbance is an indication of physical stress to an ecosystem, then characteristics of the Site indicate that it has constantly changing topography, with a succession of disturbance-tolerant species that have primarily colonized fill material as substrate.

Potential wildlife habitat, of higher quality based on patch size, dense cover, and more diverse vegetative species, is present directly east of the Site. There is tall grassland / unmowed field associated with a former park. A patch of northern hardwood forest extends from an area directly northeast of the Site to a residential area about a quarter mile east. Two tree species identified at the forest's edge are gray birch (*Betula populifolia*) and black locust (*Robinia pseudoacacia*). North of and adjacent to the Site is the north branch of Smokes Creek, with blacktop paved walk paths on both sides of the creek. Holy Cross Cemetery is beyond a patch of woods on the northern side of the creek and has expansive lawn and tall canopy trees. Directly south and west of the Site are the City's DPW facilities and Veterans Memorial Athletic Fields and Stadium, respectively.

7.3 Wetlands and Aquatic Resources

According to the NWI Wetlands Mapper (USFWS, 2005), there are no wetlands on or within ½ mile of the Site. New York State freshwater wetlands information for Lackawanna, NY was obtained through the Erie County (2005) Internet Mapping Project. According to the internet mapping system, there are no federal or state wetlands on or within ½ mile of the Site.

Directly north of the Site is the north branch of Smoke's Creek, which is a westerly-flowing tributary of Lake Erie. Near the Site, Smoke's Creek is about 20 feet wide and not more than 4 feet deep. There is some aquatic vegetation rooted in a sandy/silty bottom. The creek is known locally for its steelhead trout fishing. During the visual survey, tracks of raccoon (*Procyon lotor*), Eastern wild turkey (*Meleagris gallopavo*), and whitetail deer (*Odoceoleus virginiana*) were observed in sediment along the water's edge.

7.4 Sensitive Species and Ecological Communities

The New York State NHP was contacted regarding the presence of threatened/endangered species and sensitive ecological communities on or in the vicinity of the Site. A review of the records indicates there are no known occurrences of rare or state-listed animals and plants, significant natural communities, or other significant habitats on or in the immediate vicinity of the Site. The response letter received from the NHP can be found in Attachment G.

7.5 Summary

The Site is primarily urban land that has been and continues to be disturbed by anthropogenic activity. Vegetative species typical of disturbed areas and forest edge have primarily colonized fill material as substrate. The Site contains adequate habitat for small mammals and songbirds. Terrestrial wildlife habitat of higher quality based on patch size, dense cover, and more diverse vegetative species, is present directly east of the Site and consists of tall grassland and northern hardwood forest. There are no wetlands, threatened/endangered species, or sensitive ecological communities on or near the Site.

Smokes Creek, located directly north of the Site, provides aquatic habitat and some recreational value.

MALCOLM PIRNIE

Reuse Planning

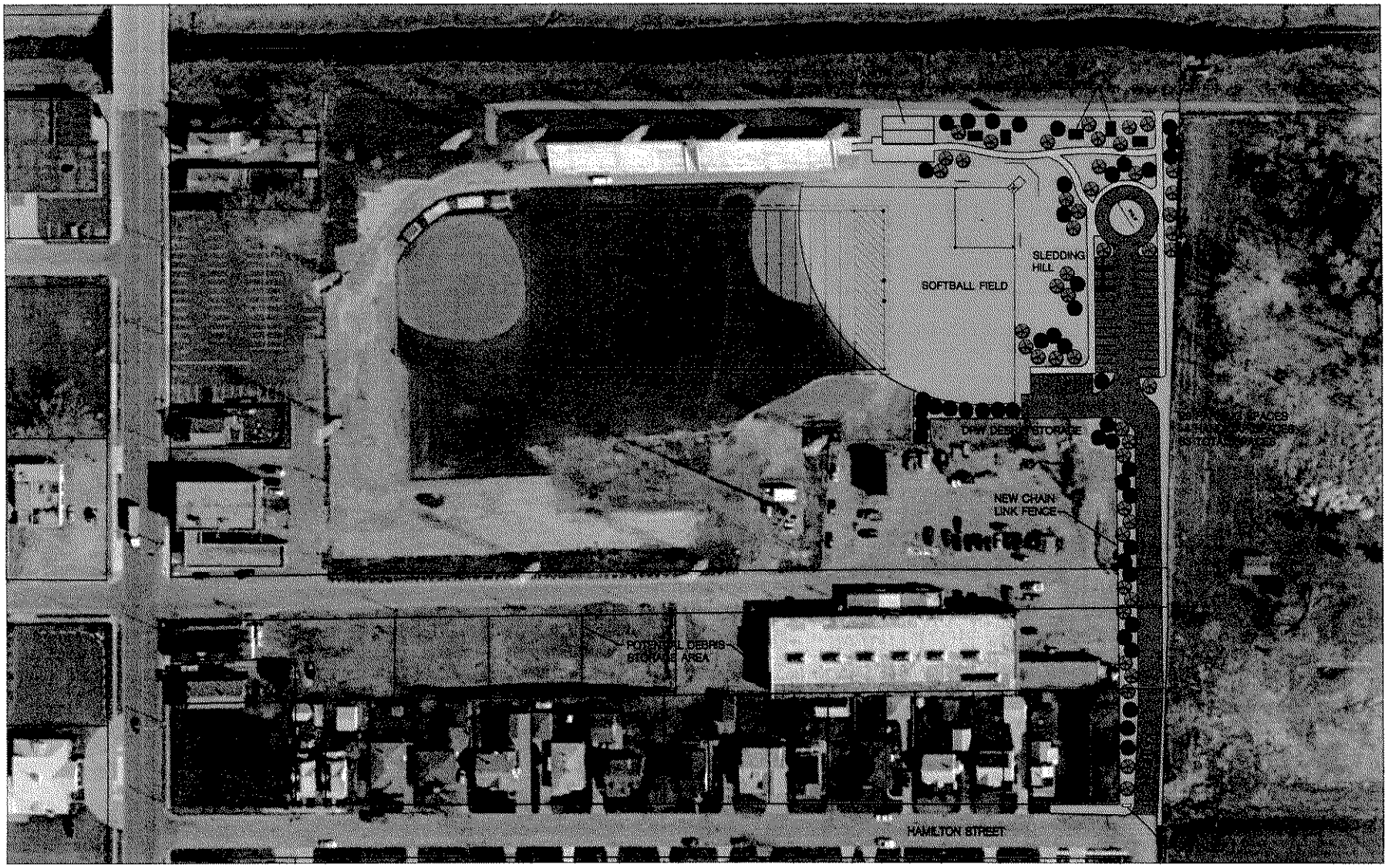
SECTION 8

Based on the findings of the Site Investigation, the qualitative risk assessment and meetings with representatives of the City of Lackawanna and feedback from local residents, conceptual redevelopment plans were prepared. Wendel Duchscherer Architects and Engineers as subcontractor to Malcolm Pirnie was tasked to prepare two different reuse plans for the Former Incinerator Site. Both reuse plans are for recreational use that would enhance the existing Veterans Memorial sports stadium and the nearby walking path. The two reuse plans are illustrated as Figures 8-1 and 8-2 and are described below:

Reuse Plan Option A – Softball Facility

Under Option A, the Former Incinerator site would be redeveloped to add up to four new and related recreational uses, see Figure 8-1. These include:

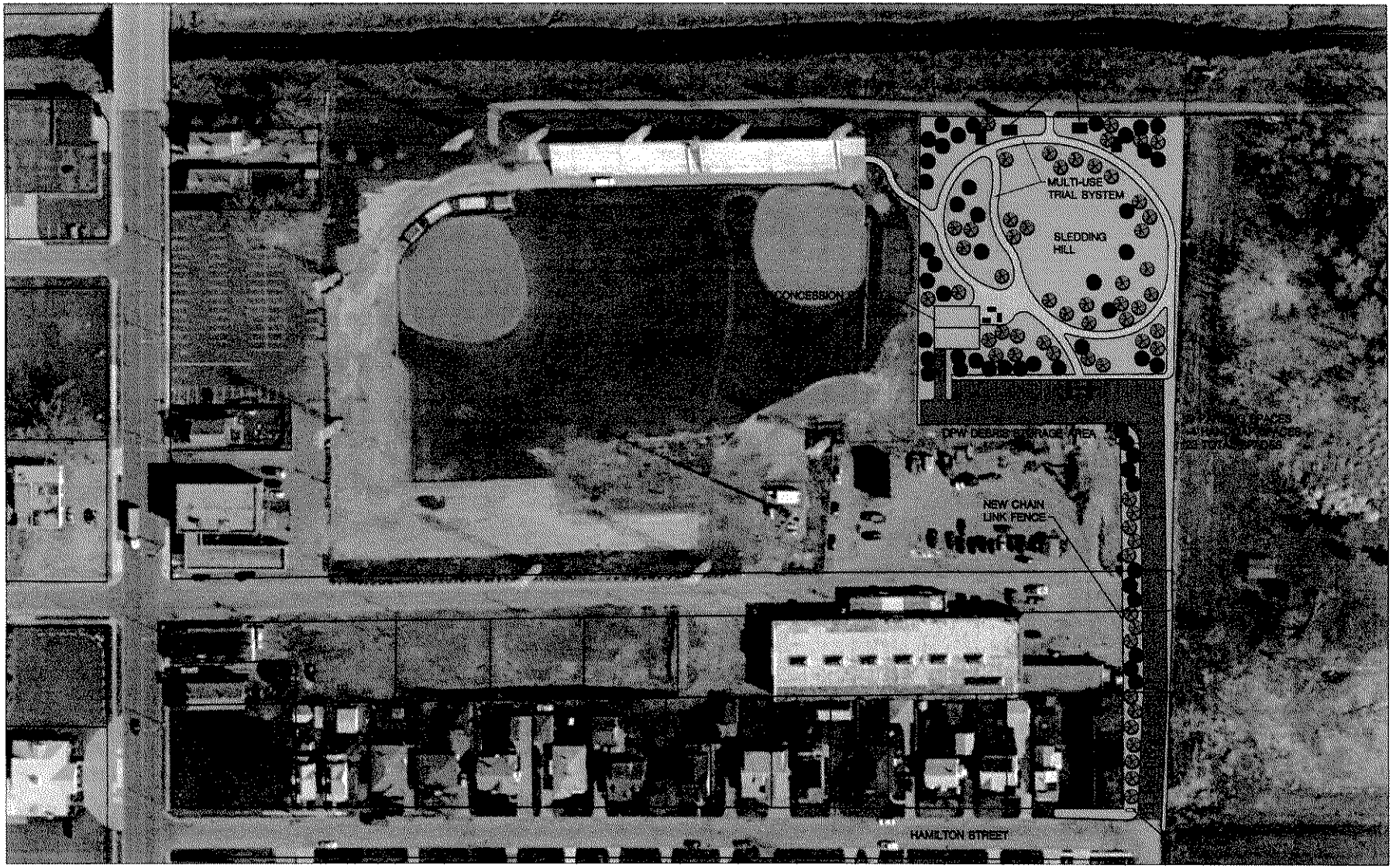
1. A softball field that would replace the one that used to exist on the eastern end of what is now an improved football field. Some of the outfield of the proposed softball field would overlap the football field but the actual softball diamond would not overlap the football field.
2. A concession stand for use during special stadium events and softball games.
3. A picnic area with trees, walking paths, and shelters for small groups of park users.
4. Additional paved parking for users of the stadium and related recreational facilities.



MALCOLM PIRNIE OCTOBER 2005 4852-001	**FORMER INCINERATOR SITE** CITY OF LACKAWANNA, NY SITE INVESTIGATION/REMEDIAL ALTERNATIVES REPORT	**FIGURE 8-1** **CONCEPTUAL REUSE PLAN** **OPTION A**

Reuse Plan Option B – Multi-Use Trail System

Under Option B, the Former Incinerator site would be redeveloped similar to Option A above but without the softball field and a larger system of walking trails and an optional sledding hill. Under Option B more trees would also be planted and the trail system would be more complementary to the existing walking path, See Figure 8-2.



MALCOLM PIRNIE OCTOBER 2005 4852-001	**FORMER INCINERATOR SITE** CITY OF LACKAWANNA, NY SITE INVESTIGATION/REMEDIAL ALTERNATIVES REPORT	**FIGURE 8-2** **CONCEPTUAL REUSE PLAN** **OPTION B**

MALCOLM PIRNIE

Conclusions and Recommendations

SECTION 9

9.1 Conclusions

The site investigation of the Former Incinerator Site provided an environmental characterization of subsurface soil/fill, incinerator ash, sediment, groundwater, and site structures sufficient to evaluate their potential risk to human health. A summary of conclusions is provided below:

9.1.1 Hydrogeology

Disturbed soil/fill was encountered at each of the seven boring locations drilled across the Site. The soil/fill is described as mostly silty clay with varying amounts of slag and gravel and trace amounts of glass cinders, brick, and ash. Fill thicknesses ranged from approximately two to seven feet off of the fill mound to over 20 feet near the top of the fill mound. Beneath the soil/fill is a relatively flat contact with the underlying natural lake deposits of silt and clay. Fine sand lenses were observed in the northwest corner of the Site at well MW-1 at depths of 3.5 and 6.5 feet bgs. These sand lenses, along with observed vertical fractures in the underlying silty clay, combine to cause an anomalous groundwater high in that area. Otherwise groundwater is mapped to flow across the Site from south to north into the creek.

9.1.2 Environmental Media

9.1.2.1 Subsurface Soil/Fill

Evaluation of analytical results of subsurface soil/fill samples indicates that there are PAHs in the soil/fill at concentrations slightly above TAGM and typical urban background levels. PAHs at such levels are not uncommon in urban settings even without

fill material present. Also, when totaled, the PAHs in subsurface soil/fill samples do not exceed the TAGM value for total SVOCs.

Several metals were present in the subsurface soil/fill at concentrations above both the TAGM 4046 criteria and eastern US background levels. Most notably were copper, lead, and zinc which were present at concentrations two and three orders of magnitude higher than the upper limit of the eastern US background range.

VOCs, pesticides, and PCBs were not detected in any of the subsurface soil/fill samples at concentrations above TAGM values.

9.1.2.2 Incinerator Ash

Several metals were present at concentrations significantly above both the TAGM 4046 criteria and eastern US background levels. Most notable of these are copper, lead and zinc which were present at concentrations two to four orders of magnitude greater than the TAGM values and the upper limit of the range detected in eastern US background soils. These same three metals were also present at somewhat less elevated levels in subsurface soil/fill samples which are likely the result of ash within the subsurface soil/fill material. The incinerator ash samples were also analyzed for dioxin/furans but none were present above method detection limits.

9.1.2.3 Sediment

Evaluation of analytical results of sediment samples indicates that the Site is not currently significantly impacting Smokes Creek. However, several metals are present above the NYSDEC sediment criteria in sediment located at the storm water outfall, up the south bank from Smokes Creek. Over time these affected sediments could potentially migrate downhill and impact surface water and sediment in Smokes Creek.

9.1.2.4 Groundwater

No organics were present in the groundwater samples at concentrations above analytical method detection limits. Six metals were detected slightly above groundwater standards in one or more groundwater samples. Most prevalent and concentrated were three common nutrients iron, magnesium, and sodium.

9.1.2.5 Lead Paint and Asbestos

Overall the lead paint will likely not require remediation if the incinerator buildings are to be demolished. The demolition debris will be sampled as a composite and the small percentage of paint within the debris pile will likely be too small to effect the lead concentration of the rest of the debris pile such that special handling for lead is required.

Although the amount of asbestos was found to be low overall, removal of the asbestos will be required prior to demolition of the two incinerator buildings.

9.1.3 Risk Assessment

The qualitative human health evaluation indicates that in the current and future scenario, exposure to constituents of potential concern (COPC) present in incinerator ash and surface soil/fill is likely for City employees that work on the Site. Also, in the future scenario, assuming no remediation, is performed, construction/utility workers are likely to be exposed to COPC present in incinerator ash, surface soil/fill, and subsurface soil/fill.

Similar exposure is possible for current/future trespassers and future Site workers and on-site recreationalists. Exposure to COPC in surface water, sediment, and biota (fish) is possible for the current/future off-site recreationalist who fishes in and along Smokes Creek.

9.2 Recommendations

Based on the findings of the Site Investigation and the results of the qualitative human health evaluation, the following recommendations are offered:

Incinerator Ash: Because of the high levels of heavy metals found in the ash located beneath the older incinerator building, this material should be removed and properly disposed off-site.

Sediment: Sediments in smokes creek show only slight evidence of Site effect. However sediment at the storm water outfall (above the usual elevation of the creek) contains more significant concentrations of metals that appear to be Site derived.

Therefore, to prevent these sediments from effecting the surface water and sediment of Smokes Creek in the future, removal and off-site disposal of the sediments directly below the storm water outfall is recommended.

Asbestos: Prior to reuse or demolition of the two incinerator buildings, asbestos containing materials should be removed and properly disposed off-site.

Surface and Subsurface Soil/Fill: Because of the presence of elevated metals and PAHs in the on-site soil/fill, future development of the Site should include provisions to either remove or cover the soil/fill to minimize human exposure. Also, if future plans include leaving the soil/fill on-site, even if covered, proper handling by implementation of a soil/fill management plan and safety measures should be followed to minimize human exposure during development, Site use, and maintenance activities on Site.

MALCOLM PIRNIE

Remedial Alternatives Analyses

SECTION 10

Based on the results of the site investigation and qualitative human health evaluation several tested media may pose potential risks to current and future on-site and off-site human receptors. These include:

- Ash from the incineration process that is located in the basement floor of the older incinerator building.
- Surface and subsurface soil/fill material that is known to contain incinerator ash.
- Sediments beneath a storm sewer outfall.
- Asbestos containing materials (ACM) present in both incinerator buildings.

Other media tested, groundwater and stream sediments, were determined not to be of environmental concern.

Of the four media of potential concern listed above, three (incinerator ash, outfall sediment, and ACM) were recommended for removal and off-site disposal. Removal of these media could be performed as part of the demolition of the incinerator buildings. Evaluation of remedial alternatives for these three media therefore was not performed. The remedial alternatives analysis focused exclusively on the on-site soil/fill material.

Tables 10-1 and 10-2 provide cost estimates of the demolition of the two incinerator buildings including removal of ACM, incinerator ash beneath the older incinerator building, and sediments beneath the storm water outfall. Because it remains undetermined if the brick used to construct the two incinerator smoke stacks contains ACM, two cost estimates were prepared, one assuming the stacks contain brick with asbestos and one assuming the stacks do not contain brick with asbestos.

TABLE 10-1
OPINION OF PROBABLE CONSTUCTION COST
PRELIMINARY ESTIMATE
BEST CASE SCENARIO

MALCOLM PIRNIE

Project Title: Lackawanna Incinerator Demolition
Location: City of Lackawanna, New York
Owner: City of Lackawanna

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE MAT. & LAB.	ESTIMATED TOTAL
1	Mobilization	1	LS	$ 20,000	$ 20,000
2	Asbestos Abatement*	1	LS	$ 50,000	$ 50,000
3	Off-Site Disposal of Ash**	100	ton	$ 50	$ 5,000
4	Building and Chimney Demolition***	1	LS	$ 80,000	$ 80,000
5	Controlled Low Strength Material Placement (Flowable Fill)	600	CY	$ 55	$ 33,000
6	Site Grading****	7600	CY	$ 5	$ 38,000
7	Restoration and Seeding	1	LS	$ 5,000	$ 5,000
			SUBTOTAL (Incl. O&P)		$ 231,000
			Health & Safety (5%)		$ 11,550
			Engineering & Contingency (30%)		$ 69,300
			TOTAL		**$ 312,000**

* Assumes chimney core does not contain asbestos
** Assumes approximately 10% of ground floor airspace contains ash
*** Assumes crushed demolition debris will be used in conjunction with flowable fill, for on-site backfill.
**** Assumes the 1+ acre site will be graded with on-site material

Notes:
1) Asbestos abatement costs are based on estimate provided by Peerless Environmental
2) Demolition costs are based on estimate provided by Donald Braasch Construction

TABLE 10-2
OPINION OF PROBABLE CONSTUCTION COST
PRELIMINARY ESTIMATE
WORST CASE SCENARIO

MALCOLM PIRNIE

Project Title: Lackawanna Incinerator Demolition
Location: City of Lackawanna, New York
Owner: City of Lackawanna

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE MAT. & LAB.	ESTIMATED TOTAL
1	Mobilization	1	LS	$ 20,000	$ 20,000
2	Asbestos Abatement*	1	LS	$ 150,000	$ 150,000
3	Off-Site Disposal of Ash**	100	ton	$ 50	$ 5,000
4	Building and Chimney Demolition***	1	LS	$ 80,000	$ 80,000
5	Controlled Low Strength Material Placement (Flowable Fill)	600	CY	$ 55	$ 33,000
6	Site Grading****	7600	CY	$ 5	$ 38,000
7	Restoration and Seeding	1	LS	$ 5,000	$ 5,000
			SUBTOTAL (Incl. O&P)		$ 331,000
			Health & Safety (5%)		$ 16,550
			Engineering & Contingency (30%)		$ 99,300
			TOTAL		**$ 446,900**

* Assumes chimney core contains asbestos and will require off-site disposal
** Assumes approximately 10% of ground floor airspace contains ash
*** Assumes crushed demolition debris will be used in conjunction with flowable fill, for on-site backfill.
**** Assumes the 1+ acre site will be graded with on-site material

Notes:
1) Asbestos abatement costs are based on estimate provided by Peerless Environmental
2) Demolition costs are based on estimate provided by Donald Braasch Construction

10.1 Remedial Goals

Several remedial alternatives exist for the soil/fill material and therefore the goal of the remedial alternatives analysis is to identify, evaluate, and recommend remedial alternative(s) that address the potential risks posed by the on-site soil/fill. Only those remedial alternatives that relate directly to the on-site soil/fill are considered for possible implementation at the Former Incinerator Site.

10.2 Identification of Remedial Alternatives

Remedies identified fall into one of two general categories; those that provide for unrestricted use and those that result in restricted use of the Site.

Remedies that could result in unrestricted use of the Site include:

- Excavation and off-site disposal of all fill materials on-site.
- In-situ or ex-situ treatment of the contaminated soil/fill.

Restricted use remediation of the Ste can be accomplished by providing soil cover over all areas of the Ste where direct contact will not be precluded by the presence of either buildings or pavement with off-site disposal of fill materials excavated during construction only.

The following subsection describes each remedial alternative.

10.3 Description of Remedial Alternatives

10.3.1 Unrestricted Use Remedies

Excavation and Off-Site Disposal

This alternative involves excavation of all fill materials and off-site transport and disposal in an appropriately permitted secure landfill. This alternative will be retained for further evaluation.

Treatment Technologies

Treatment technologies potentially applicable for the contaminants associated with the Site include:

- solidification/stabilization,
- bioremediation,
- phytoremediation,
- chemical oxidation,
- electro kinetic separation
- soil flushing.

Each of these potentially applicable treatment technologies are described below:

Solidification/Stabilization (S/S) involves physically binding or enclosing the Site contaminants within a stabilized mass (solidification), or inducing chemical reactions between the stabilizing agent and the contaminants to reduce their mobility (stabilization). S/S can be applied in-situ or ex-situ. The target contaminant group for in-situ S/S is generally inorganics and thus would not address the PAHs. The In-Situ Vitrification (ISV) process can destroy or remove organics and immobilize most inorganics in contaminated soils, sludge, or other earthen materials. The process has been tested on a broad range of VOCs and SVOCs, other organics including dioxins and PCBs, and on most priority pollutant metals and radionuclides. However, future use of the Site may "weather" the materials and affect their ability to maintain contaminant stability. Most vitrification processes result in a significant increase in volume (up to double the original volume). In addition, the solidified material may potentially hinder future Site uses. As a result S/S is not considered applicable for remediation of this Site and will not be included for further consideration.

Bioremediation/Bio-augmentation describes the activity of naturally occurring or inoculated microbes stimulated by circulating water-based solutions through the contaminated soils to enhance in situ biological degradation of organic contaminants or immobilization of inorganic contaminants. Nutrients, oxygen, or other admixed materials may be used to enhance bioremediation and contaminant desorption from subsurface materials. The contaminant groups treated most often are PAHs, non-halogenated SVOCs (not including PAHs), and BTEX. Remediation of metals with microbial techniques is in the experimental stage, with limited data/guidance.

Bioleaching uses microorganisms to solubilize metal contaminants either by direct action of the bacteria, as a result of interactions with metabolic products, or both. Bioleaching can be used in-situ or ex-situ to aid the removal of metals from soil. Because of bioremediation's limited applicability for treating recalcitrant PAHs and metals, and the potential for the on-site metals concentrations to be toxic to the microorganisms, this treatment technology is not considered to be applicable for remediation of this Site and will not be given further consideration.

Phytoremediation is a process that uses plants to remove, transfer, stabilize, or destroy contaminants in soil, sediment, and groundwater. The mechanisms of phytoremediation include enhanced rhizosphere biodegradation, which takes place in soil or groundwater immediately surrounding plant roots; phytoextraction (also known as phytoaccumulation), the uptake of contaminants by plant roots and the translocation/accumulation of contaminants into plant shoots and leaves; phytodegradation, the metabolism of contaminants within plant tissues; and phytostabilization, the production of chemical compounds by plants to immobilize contaminants at the interface of roots and soil. Phytoremediation applies to all biological, chemical, and physical processes that are influenced by plants (including the rhizosphere) and that aid in cleanup of the contaminated substances. Plants can be used in Site remediation, both through the mineralization of toxic organic compounds and through the accumulation and concentration of heavy metals and other inorganic compounds from soil into aboveground shoots. Phytoremediation may be applicable for the remediation of metals, pesticides, solvents, explosives, crude oil, PAHs, and landfill leachates. Some plant species have the ability to store metals in their roots. As the roots become saturated with metal contaminants, they can be harvested. Hyper-accumulator plants may be able to remove and store significant amounts of metallic contaminants. Currently, trees are under investigation to determine their ability to remove organic contaminants from ground water, translocate and transpiration, and possibly metabolize them either to CO2 or plant tissue. The depth of the treatment zone varies based on the plants used in phytoremediation, but in most cases, it is limited to shallow soils. High concentrations of some contaminants can be toxic to plants. In addition, the process occurs seasonally. Since different planting materials would be required for each group of Site contaminants, this process likely requires many seasons to remediate to non-risk concentrations.

Given the nature of the Site, selected plant species may not consistently remove materials from across the Site and with depth; contaminants may potentially be mobilized into groundwater. This treatment technology is not considered applicable for remediation of this Site and will not be given further consideration.

Chemical Oxidation chemically converts hazardous contaminants to non-hazardous or less toxic compounds that are more stable, less mobile, and/or inert. The oxidizing agents most commonly used are ozone, hydrogen peroxide, hypochlorites, chlorine, and chlorine dioxide. This technology can be applied in-situ or ex-situ. In-situ chemical oxidation (ISCO) using permanganate for soil and groundwater treatment has been demonstrated at a number of sites for the following organics: chlorinated solvents (such as trichloroethylene [TCE]), naphthalene, and pyrene. Fenton's Reagent can be used to treat a wide range of organic contaminants in soil and groundwater, including chlorinated solvents, petroleum hydrocarbons, semi-volatile organic compounds (SVOCs), and pesticides. ISCO has also been used to remediate polyaromatic hydrocarbons (PAHs), petroleum products, and ordnance compounds. Chemical treatment may be used to solubilize contaminants from the most contaminated fraction of the soil. Many processes manipulate the acid/base chemistry of the slurry to leach contaminants from the soil. Oxidizing and reducing agents (e.g., hydrogen peroxide, sodium borohydride) provide yet another option to aid in solubilization of metals since chemical oxidation/ reduction can convert metals to more soluble forms. Finally, surfactants may be used in extraction of the metals from soil. Because different chemicals would be required to treat each contaminant group, and application is limited by the ability of the oxidants to reach the contaminants, this treatment technology is not considered applicable for remediation of this Site.

Electrokinetic Separation relies upon the application of a low-intensity direct current through the soil between ceramic electrodes that are divided into a cathode array and an anode array. This mobilizes charged species, causing ions and water to move toward the electrodes. Metal ions, ammonium ions, and positively charged organic compounds move toward the cathode. Anions such as chloride, cyanide, fluoride, nitrate, and negatively charged organic compounds move toward the anode. The current creates an acid front at the anode and a base front at the cathode. This generation of an in-situ acidic condition may help to mobilize sorbed metal contaminants for transport to the collection system at the cathode. Concentrated (migrated) contaminants are then

removed for treatment or can be treated in treatment walls as they migrate. The polarity of the electrodes is reversed periodically, which reverses the direction of the contaminants back and forth through treatment zones. Electrokinetics has been used for decades in the oil recovery industry and to remove water from soils, but in-situ application of electrokinetics to remediate contaminated soil is new. Recently, attention has focused on developing in-situ electrokinetic techniques for the treatment of low permeability soils, which are resistant to remediation with traditional technologies because of their low hydraulic conductivity. Because of its limited effectiveness for non-polar organic contaminants, such as PAHs, this treatment technology will not be given further consideration for this Site.

In-Situ Soil Flushing is used to mobilize metals by leaching contaminants from soils so that they can be extracted without excavating the contaminated materials. An aqueous extracting solution is injected into or sprayed onto the contaminated area to mobilize the contaminants, usually by solubilization. After being contacted with the contaminated material, the extractant solution is collected using pump-and-treat methods for disposal or treatment and reuse. Common extracting agents include acids/bases, chelating agents, oxidizing/reducing agents and surfactant cosolvents. This process can be applied in-situ or ex-situ (soil washing). The target contaminant groups for soil washing are SVOCs, fuels, and heavy metals. The technology can be used on selected VOCs and pesticides. The technology offers the ability for recovery of metals and can clean a wide range of organic and inorganic contaminants from coarse-grained soils. However, complex mixtures of contaminants in the soil (such as a mixture of metals, nonvolatile organics, and SVOCs) and heterogeneous contaminant compositions throughout the soil mixture make it difficult to formulate a single suitable washing solution that will consistently and reliably remove all of the different types of contaminants. There is additionally limited data regarding flushing for PAHs. For these reasons, this treatment technology is not considered applicable for remediation of this Site and will not be considered further.

10.3.2 Restricted Use Remedy

In order to eliminate potential exposure risks associated with direct contact with Site soil/fill material, the entire Site can be covered as part of Site redevelopment. The cover system would be placed directly on top of the regraded on-site fill material and will include clean soil for outdoor, vegetated areas, asphalt for roads and parking lots, or concrete for sidewalks, buildings and heavy use areas. A Soil/Fill Management Plan would be necessary in order to set guidelines for management of soil cover during activities that would breach the cover system. A proposed soil/fill management plan is provided in Appendix H and an Operation, Monitoring, and Maintenance (OM&M) Work Plan for implementation following remediation of the Site is included in Appendix I.

The proposed cover system has been designed to be protective of human health and the environment. The primary exposure pathway for contaminants at the Site (PAHs and metals in soil) is via direct contact. The proposed plan of covering the on-site soil/fill material will eliminate the potential for direct contact with soil and is therefore protective of human health and the environment.

Exposure to soil fill piles generated during construction activities will be precluded for on-site workers and trespassers through covering with poly sheeting. Exposure to fill at the surface would also be precluded for future on-site workers through covering. The potential for exposure through invasive on-site construction activities would be managed by implementation of the protocols described in the Soil/Fill Management Plan, presented in Appendix H.

Preparation of Site Surface

The surface will be graded in accordance with the redevelopment project grading plan such that precipitation events will not cause the formation of standing water. Prior to placement of the cover soil, all protruding material will be removed from the ground surface. Burning shall not be allowed on the Site.

The placement of the cover material may occur as portions of the Site are developed. The Site will be hydroseeded to limit dust generation from the soil/fill that has not yet been covered.

Soil

In areas that will not receive significant equipment or vehicular use, the minimum cover system will be composed of documented clean off-site soil tested in accordance with Section A.4 of the Soil/Fill Management Plan and found to contain constituent concentrations less than those specified in NYSDEC TAGM 4046. The completed soil cover will be of a thickness required to maintain sufficient vegetative cover to prevent exposure to the on-site fill material. The minimum soil thickness must be 24 inches.

In areas in which trees and shrubs will be planted, bermed islands or greenspace will be of sufficient thickness to allow the excavation of only clean fill to a depth sufficient to plant the tree or shrub root ball. Unless additional soil is required for the plantings, the soil cover thickness will be 24 inches. The soil used to cover berms or mounds will contain sufficient organic material to allow the growth of trees and/or shrubs and will be of sufficient strength to support trees and/or shrubs at their maximum height. Fill materials containing lumps, pockets, or concentrations of silt or clay, rubble, debris, wood or other organic matter will not be acceptable. Fill containing unacceptable material shall be removed and disposed appropriately.

Topsoil used for the final cover shall meet the following general specifications:

1. Fertile, friable, natural loam surface soil, capable of sustaining plant growth, and free of clods of hard earth, plants or roots, sticks or other extraneous material harmful to plant growth. The topsoil will have the following characteristics:

   a. pH 5.5 to pH 7.6.

   b. Minimum organic content of 2.5 percent as determined by ignition loss.

   c. Soluble salt content not greater than 500 ppm.

2. Before delivery, soil samples will conform to the criteria specified in Sections 2.3 and 2.4 in the Soil/Fill Management Plan.

Grass seed used for final cover shall meet the following general specifications:

1. The grass seed mixture will be fresh, clean, new-crop seed complying with the tolerance for purity and germination established by the Official Seed Analysts of North America.

2. The entire ground surface disturbed by construction operations shall be seeded with 100 lbs/acre of seed consistent with the following:

   a.

Name of Grass	Application Rate (lbs/acre)	Purity (%)	Germination (%)
Perennial Ryegrass	10	95	85
Kentucky Bluegrass	20	85	75
Strong Creeping Red Fescue	20	95	80
Chewings Fescue	20	95	80
Hard Fescue	20	95	80
White Clover	10	98	75

   b. Germination and purity percentages should equal or exceed the minimum seed standards listed. If it necessary to use seed with a germination percentage less than the minimum recommended above, the seeding rate will be increased accordingly to compensate for the lower germinations.

   c. Weed seed content will be less than 0.25 percent and free of noxious weeds.

   d. All seed shall be rejected if the label lists any of the following grasses:

      1) Sheep Fescue
      2) Meadow Fescue
      3) Canada Blue
      4) Alta Fescue
      5) Kentucky 31 Fescue
      6) Bent Grass

3. In addition to the seed mixtures listed above, one bushel per acre of oats or rye seed shall be sowed over the entire area, including drainage ditches, to provide a quick shade cover and to prevent erosion during turf establishment.

Asphalt

Where applicable, the cover system in areas that will become roads, sidewalks, and parking lots consists of a minimum of two inches of asphalt placed over the soil/fill

material at the Site. Asphalt will be placed over a four-inch gravel subbase to provide stability for construction and to limit subsidence. Prior to placement of the subbase, all protruding material will be removed from the ground surface and the area regraded to a regular surface.

Concrete

Where applicable, the cover system in areas that will become slab-on-grade structures will consist of a minimum of two inches of concrete that will be placed above the soil/fill material. The concrete will be placed on a minimum four-inch gravel subbase to provide stability for construction and to limit subsidence. Concrete may also be used instead of asphalt for roads, sidewalks, and parking lots. Prior to placement of the subbase, all protruding material will be removed from the ground surface and the area regraded to a sufficient regular surface.

This alternative will be retained for further evaluation.

10.4 Remedial Evaluation Criteria

The criteria used to evaluate the selected remedial technologies include the following:

- Short-term effectiveness and impacts
- Long-term effectiveness and permanence
- Implementability
- Reduction of toxicity, mobility and volume
- Conformance to standards, criteria and guidance
- Overall Protectiveness
- Cost

The issues considered for each criteria are discussed below.

Short term Effectiveness and Impacts - The effectiveness of alternatives in protecting human health and the environment during construction and implementation of the remedial action is evaluated by this criterion. Short-term effectiveness is assessed by

protection of the community, protection of workers, environmental impacts, and time until protection is achieved.

Long term Effectiveness and Permanence - This criterion evaluates the long-term protection of human health and the environment at the completion of the remedial action. Effectiveness is assessed with respect to the magnitude of residual risks; adequacy of controls, if any, in managing residuals or untreated wastes that remain at the Site; reliability of controls against possible failure, and potential to provide continued protection.

Reduction of Toxicity, Mobility, and Volume - This evaluation criterion prioritizes those remedial actions that permanently and significantly reduce toxicity, mobility, or volume of the hazardous substances. This criterion is satisfied when the treatment is used to reduce the principal threats at a Site through destruction of toxic contaminants, irreversible reduction in contaminant mobility, or reduction of total volume of contaminated media.

Implementability - This assessment criterion evaluates the technical and administrative feasibility of implementing alternatives and the availability of services and materials.

Compliance with Standards, Criteria, and Guidelines - This threshold addresses whether or not a remedy will meet regulatory environmental limits.

Overall Protection of Human Health and the Environment - This is a threshold assessment, which addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled. This evaluation allows for consideration of whether an alternative poses any unacceptable short term or cross-media impacts.

Cost - The estimated capital and operation and maintenance (O&M) costs.

These criteria serve to provide a basis of comparison and allow for ranking of the alternatives by preference and acceptability.

10.5 Evaluation of Remedial Alternatives

Potential remedial technologies that could reasonably be developed for the Site are identified and evaluated in this section. One unrestricted Site use alternative and one restricted Site use alternative are evaluated in this detailed evaluation of remedial alternatives. The two remedial alternatives evaluated are:

- Alternative #1 – Soil/Fill Removal and Placement of clean fill
- Alternative #2 – Limited Excavation Using Soil/Fill Management Plus Cover System

Prior to implementation of either alternative, the following work is recommended:

- Incinerator ash beneath the older (south) incinerator and the sediment beneath the storm sewer outfall should be removed and disposed of off-site.
- Asbestos containing materials should be removed from both of the former incinerator buildings.
- Both of the former incinerator buildings should be demolished and the rubble pile of each solidified with flowable fill.
- The large fill mound should be regarded to level or per the Site end use grade.

Alternative #1 - Soil/Fill Removal and Placement of Clean Fill

This alternative involves the removal of all soil/fill, transport and placement of these materials in an appropriately permitted secure landfill and placement of clean backfill.

A discussion of the evaluation criteria for this alternative follows.

Excavation of impacted fill materials and subsequent backfilling and re-grading would effectively eliminate the source of the contamination. Short-term risks of exposure to construction personnel could be adequately managed through the appropriate use of personal protective equipment (PPE), and health and safety protocols. Disposal of the removed material at an approved off-site facility would effectively eliminate the human health risks posed by the Site and would thus provide a permanent remedy for the Site.

This alternative does pose a slight potential risk of exposure to the public during transport to the disposal facility if a truck were to spill its contents.

Excavation of the Site's fill material could be accomplished using standard construction equipment and techniques. Some time would be required to sample and characterize the soil/fill and obtain appropriate approvals for disposal. This alternative would reduce the mobility of the contaminants, but not the toxicity or volume. Under this alternative site-specific action levels (SSALs) would be achieved and no long-term monitoring or special maintenance of the Site would be required.

Table 10-3 presents the capital cost of this alternative. While this alternative is implementable and effective in achieving the remedial action objectives, the estimated cost would be comparatively high at approximately $3.2 million dollars.

Alternative #2 – Limited Excavation Using Soil/Fill Management Plus Cover System

This alternative involves installing a cover system over the entire Site using either asphalt or concrete pavement or two feet of documented clean soil. Soil/fill material excavated during Site redevelopment and maintenance would be managed using a soil/fill management plan.

A discussion of the evaluation criteria for this alternative follows.

Excavation of the soil/fill, if performed, could pose a short-term risk to construction personnel. These short-term risks could be adequately managed through the use of personal protective equipment (PPE) and appropriate health and safety protocols. Short-term risk of exposure to Site workers and trespassers during construction activities would be addressed through covering stockpiled soil/fill, temporary seeding of graded soil/fill areas and Site security. Once the construction is complete and the Site is fully covered, the risk to on-site workers and the public will be eliminated and sustained through adequate protections and maintenance of the cover systems. Exposure risks to future construction workers would be adequately managed through the Soil/Fill Management protocols and appropriate health and safety protocols. Standard readily available construction equipment and techniques would be utilized. This alternative would reduce the mobility and volume of the contaminants, but not their toxicity. The SSAL's would

Table 10-3
Cost Estimate of Remedial Alternative # 1
Soil/Fill Removal and Placement of Clean Fill
Former Incinerator Site, Lackawanna, New York

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED BID AMOUNT
1	Excavation and Off-Site Disposal of Fill Material (1)	35,000	Tons	$60	$2,100,000
2	Off-Site Backfill Material	25,000	yd^3	$12	$300,000
3	Misc. Environmental costs (2)	1	LS	$50,000	$50,000
Sub-Total					$2,450,000
30% Contingency					$735,000
Total Project Cost					**$3,185,000**

1) Assumes fill contains non-hazardous concentrations of PAHs and metals, above the Site-Specific Action Limits (SSALs)

2) Misc environmental costs include PID screening, health and safety plan development, site safety officer, decontamination units, site access control, NYSDEC coordination, and construction certification report preparation.

be achieved through implementation of the Soil/Fill Management Plan, since no excavated fill or soils with concentrations in excess of the SSAL's would be returned to the Site. The resulting Site condition would not pose a potential risk to human health provided the cover systems are appropriately maintained. Table 10-4 presents the capital cost of this alternative. The estimated cost to implement this alternative is comparatively low at approximately $228,000 in capital cost.

10.6 Comparative Analysis of Remedial Alternatives

This comparison evaluates the relative performance of both alternatives considered with respect to the following seven evaluation criteria:

- Short-term effectiveness and impacts.
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, and volume.
- Implementability.
- Compliance with standards, criteria, and guidelines.
- Overall protection of human health and the environment.
- Cost.

The advantages and disadvantages of the alternatives are identified so that trade-offs between the alternatives can be appropriately evaluated. Tables 10-3 and 10-4 provide the capital costs for each alternative.

Short-term Effectiveness and Impacts – Equivalent levels of potential exposure for workers exist under both alternatives. Short-term exposure risk would be minimal for the public for the excavation and disposal alternative, (Alternative #1).

Long-term Effectiveness and Permanence – Alternative #2 would not remove the contaminant source, but with routine maintenance would be effective in long-term

Table 10-4
Cost Estimate of Remedial Alternative #2
Limited Excavation using Soil/Fill Management Plus a Cover System
Former Incinerator Site, Lackawanna, New York

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED BID AMOUNT
3	24" clean soil cover material (1)	8,350	yd^3	$15	$125,250
4	Misc. Environmental costs (2)	1	LS	$50,000	$50,000
Sub-Total					$175,250
30% Contingency					$52,575
Total Project Cost					**$227,825**

1) A 6" topsoil layer will make up the uppermost portion of the 24"soil barrier layer.

2) Misc costs include PID screening, health and safety plan development, site safety officer, decontamination units, site access control, NYSDEC coordination, and construction certification report preparation.

containment of the contaminated soils. Alternative #1 would remove the contamination from the Site and thus be considered a permanent remedy.

Reduction of Toxicity, Mobility, and Volume – Both alternatives would reduce the mobility and volume of the contaminants. Neither alternative would reduce the toxicity.

Implementability – Both the alternatives are readily implementable with standard construction equipment and techniques.

Compliance with Standards, Criteria, and Guidelines – Both alternatives would be expected to achieve compliance with SSAL's.

Overall Protection of Human Health and the Environment – Both alternatives provide equivalent protection of human health and ecological receptors.

Cost – Capital cost for implementing Alternative #1 is estimated at $3.2 million, as compared to $228,000 for Alternative #2.

10.7 Recommended Approach

10.7.1 Proposed Approach

Both of the restricted use alternatives provide comparable long-term effectiveness and overall protection to human health and the environment, but full excavation and disposal at a properly permitted landfill increases the cost for Site development by approximately $3 million.

As a result, based on an evaluation of the criteria for each alternative and review of the capital cost impact, Alternative #2 (Limited Excavation using Soil/Fill Management and a Cover System) in addition to limited removal of ash and sediment, and demolition of the incinerators would provide the best overall remedy for the Site. This alternative is able to provide effective long-term contaminant containment and be protective of both on-site and off-site potential receptors at a lower overall cost.

10.7.2 Soil/Fill Management Plan (SFMP)

During construction activities at the Site, excavation of selected areas of soil/fill material will be necessary for the construction of utility corridors. Excavation may also be necessary during the construction of footings for structures and for other activities. Although the Site investigation has characterized the nature and extent of contamination, the nature of investigations does not allow for a 100 percent complete or accurate characterization. Therefore, it is possible that some quantity of undocumented contamination may be encountered during redevelopment activities.

Soil management protocols are necessary to limit the potential for exposure of on-site workers to contaminated fill material. The soil handling protocols will also be necessary for assisting with the determination of whether soil/fill removed during excavation activities may be reused on-site or must be disposed off-site. The Soil/Fill Management Protocols are included in Appendix H

10.7.3 Health and Safety

Invasive work performed at the Site will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety. The Soil/Fill Management Protocols (Appendix H) describes recommended Health and Safety procedures for intrusive work activities at the Site.

All contractors performing redevelopment or maintenance activities involving intrusive work at the Site will be required to prepare a site-specific, activity-specific Health and Safety Plan. In order to facilitate the creation of an appropriate Health and Safety Plan by the contractor(s) performing work, the ranges of concentrations of contaminants detected in samples of Site media collected during the site investigation are shown in Tables 5-1 through 5-5.

MALCOLM PIRNIE

SECTION 11

References

Caldwell, D.H. and R.J. Dineen, 1986, Surficial Geological Map of New York, Niagara Sheet, New York State Museum-Geological Survey, Map and Chart Series No. 40, Scale 1:250,000.

County of Erie, New York, 2005, Internet Mapping System, online access:

http://erie-gis.co.erie.ny.us./website/erie_help/help.htm

Fisher, D.W., Rickard, L.V., 1970, Geologic Map of New York- Niagara Sheet, The University of New York, The State Education Department, Map and Chart Series No. 15, Scale 1:250,000.

Malcolm Pirnie, Inc., 2005, Site Investigation Work Plan.

United States Department of Agriculture – Soil Conservation Service (USDA-SCS), 1992, Soil Survey of Erie County, New York.

United States Fish and Wildlife Services, 2005, National Wetlands Inventory, Wetlands Mapper. Access Online: http://wetlandsfws.er.usgs.gov/wtlnds/launch.html

MALCOLM PIRNIE

Boring Logs/Monitoring Well Construction Diagrams/Summary

APPENDIX

A

MALCOLM PIRNIE
40 Centre Drive
Orchard Park, NY 14127
Telephone: (716) 667-0900
Fax: (716) 667-0279

BORING/WELL CONSTRUCTION LOG

BORING/WELL No. **MW-1**

PROJECT NAME	Former Incinerator Site	DATE STARTED / COMPLETED	4/4/2005 / 4/7/2005
PROJECT NUMBER	4852-001	SURFACE ELEVATION	595.48 ft.
CLIENT	City of Lackawanna	DEPTH TO GROUNDWATER	ft. bgs
LOCATION	Reddon Street, Lackawanna, NY	DRILLING CONTRACTOR	SLC Environmental
TYPE OF RIG	CME-75	DRILLING METHOD	4 1/4" HSA
DRILLERS	R. Brown	LOGGED BY	B. Walker

ELEV. (ft.)	DEPTH (ft. BGS)	SAMPLER	SAMPLE ID.	BLOW COUNTS	RECOVERY (ft.) / RQD	PID (ppm)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
			SS-1	3 4 7 14	1.2	2.3		0.0': Fill: Brown - dark brown, Clay, some Silt, tr. cs. Sand, tr. Slag (blue-gray), PID reading taken from slag, moist.	
			SS-2	5 9 4 4	1	0		2.0': Fill: dark gray Slag, Gravel, Silt and Clay, moist.	3.0
								3.0': SILT, and Clay, dark gray, tr. Organic Matter, moist	3.5
								3.5': SILT, and f. Sand, brown, little Clay, moist.	4.5
590.5	5		SS-3	2 4 5 7	1	0		4.5': Clay, and Silt, brown-gray mottled, tr. f. Sand, moderate plasticity, moist ▼	
			SS-4	8 10 14 14	2	0		6.0': CLAY as above 6.5': SILT, and f. Sand, brown-gray, saturated	6.5 7.8
			SS-5	7 9 15 18	1.5	0		7.8': CLAY and Silt, brown-gray, very stiff, moderate plasticity, moist	
585.5	10		SS-6	3 4 7 12	2	0		10.0': Same as above with vertical to near vertical oxidized "fractures", tr. Gravel, moist	
			SS-7	14 18 25 25	1.2	0		12.0': Same as above 12.5': SILT, and f. Sand, brown-gray, saturated 13.0': CLAY, dark gray, some Silt, very stiff, moist 13.5': SILT, gray, tr. very fine Sand, moist	12.5 13.0 13.5
580.5	15		SS-8	7 9 8 7	2	0		14.0': Same as above	15.5
			SS-9	2 2 1 2	1.1	0		15.5': CLAY, and Silt, gray to brown, laminated, soft, saturated 16.0': Same as above	
			SS-10	1 1 1 1	1.2	0		18.0': Same as above	
575.5	20		SS-11	3 2 1 2	0.4	0		20.0': Same as above	22.0
570.5								22.0': END OF BORING	

WELL DIAGRAM

-1.0
0.0 — Backfill: Cement/Bentonite Grout
6.0 — Secondary Sandpack
7.0 — Seal: Med. Bentonite Chips
9.0 — Sandpack #0
11.0 — Screen: 2" ID Sch 40 PVC, 0.010" Slot
21.0
22.0

Notes:
SS = 2" OD Split Spoon SSS = 3" OD Split Spoon

▽ Water Level Reading at time of drilling.
▼ Water Level Reading after drilling.

MALCOLM PIRNIE
40 Centre Drive
Orchard Park, NY 14127
Telephone: (716) 667-0900
Fax: (716) 667-0279

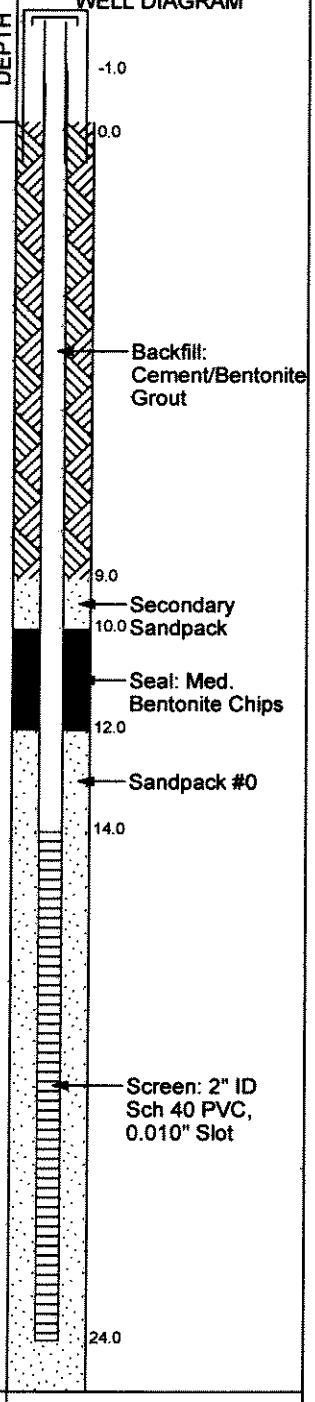
BORING/WELL CONSTRUCTION LOG

BORING/WELL No. **MW-2**

PROJECT NAME	Former Incinerator Site	DATE STARTED / COMPLETED	4/4/2005 / 4/7/2005
PROJECT NUMBER	4852-001	SURFACE ELEVATION	598.03 ft.
CLIENT	City of Lackawanna	DEPTH TO GROUNDWATER	ft. bgs
LOCATION	Reddon Street, Lackawanna, NY	DRILLING CONTRACTOR	SLC Environmental
TYPE OF RIG	CME-75	DRILLING METHOD	4 1/4" HSA
DRILLERS	R. Brown	LOGGED BY	B. Walker

ELEV. (ft.)	DEPTH (ft. BGS)	SAMPLER	SAMPLE ID.	BLOW COUNTS	RECOVERY (ft.) / RQD	PID (ppm)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
			SS-1	3 4 4 6	1.2	0		0.0': Topsoil: dark brown, f. Sand and Silt, tr. Organic Matter, moist	0.2
								0.2': Fill: Brown - dark brown to rust-orange, Cinders, Glass, Silt, Ash, Woody fragments, moist.	
			SS-2	2 2 2 2	0.2	0		2.0': Same as above	
593.0	5		SS-3	2 1 1 1	0.3	0		4.0': Same as above	
			SS-4	1 1 4 8	1.2	0		6.0': Same as above	6.8
								6.8': CLAY, brown with gray Clay partings, some Silt, stiff, moist.	
			SS-5	3 6 10 14	2	0		8.0': Same as above with iron-stained "fractures"	
588.0	10		SS-6	2 2 6 9	2	0		10.0': Same as above	
			SS-7	12 16 14 10	2	0		12.0': Same as above, gray	
583.0	15		SS-8	2 3 2 4	2	0		14.0': Same as above, wet	
			SS-9	2 2 3 2	2	0		16.0': Same as above, soft	
			SS-10	wh 1 1 1	2	0		18.0': Same as above, saturated	
578.0	20		SS-11	wh 1 1 1	2	0		20.0': Same as above, saturated	
			SS-12	wh wh wh wh	2	0		22.0': Same as above, saturated	
573.0	25								25.0

WELL DIAGRAM



Notes:
SS = 2" OD Split Spoon SSS = 3" OD Split Spoon

▽ Water Level Reading at time of drilling.

▼ Water Level Reading after drilling.

Continued Next Page

MALCOLM PIRNIE
40 Centre Drive
Orchard Park, NY 14127
Telephone: (716) 667-0900
Fax: (716) 667-0279

BORING/WELL CONSTRUCTION LOG

BORING/WELL No.
MW-2

PROJECT NAME **Former Incinerator Site**
PROJECT NUMBER **4852-001**
DATE STARTED / COMPLETED **4/4/2005 / 4/7/2005**
SURFACE ELEVATION **598.03 ft.**

ELEV. (ft.)	DEPTH (ft. BGS)	SAMPLER	SAMPLE ID.	BLOW COUNTS	RECOVERY (ft.) / RQD	PID (ppm)	GRAPHIC LOG	*Continued from Previous Page* LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								25.0': END OF BORING		25.0
568.0										
563.0										
558.0										
553.0										
548.0										
543.0										

MALCOLM PIRNIE
40 Centre Drive
Orchard Park, NY 14127
Telephone: (716) 667-0900
Fax: (716) 667-0279

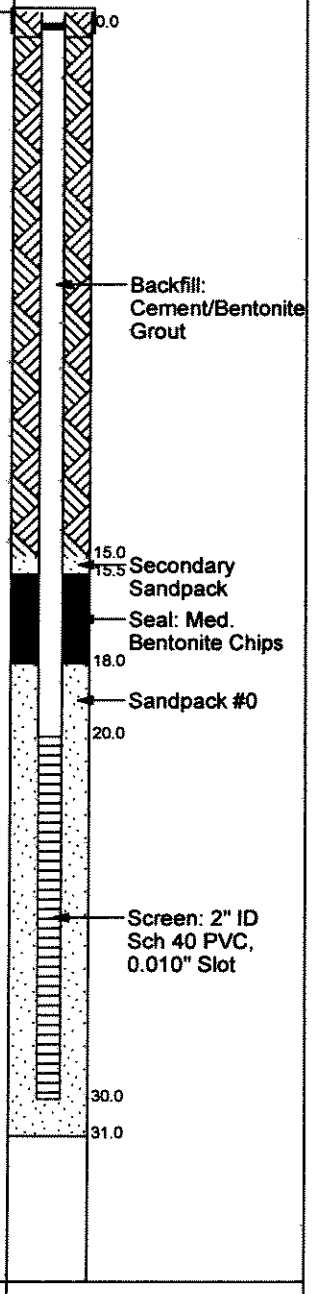
BORING/WELL CONSTRUCTION LOG

BORING/WELL No. **MW-3**

PROJECT NAME	Former Incinerator Site	DATE STARTED / COMPLETED	4/5/2005 / 4/5/2005
PROJECT NUMBER	4852-001	SURFACE ELEVATION	596.01 ft.
CLIENT	City of Lackawanna	DEPTH TO GROUNDWATER	ft. bgs
LOCATION	Reddon Street, Lackawanna, NY	DRILLING CONTRACTOR	SLC Environmental
TYPE OF RIG	CME-75	DRILLING METHOD	4 1/4" HSA
DRILLERS	R. Brown	LOGGED BY	B. Walker

ELEV. (ft.)	DEPTH (ft. BGS)	SAMPLER	SAMPLE ID.	BLOW COUNTS	RECOVERY (ft.) / RQD	PID (ppm)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
			SS-					0.0': Fill: Gravel, black, and Slag, and Silty Clay, tr. Brick, tr. Glass, tr. Ash, moist	
			SS-						3.5
591.0	5		SS-1	2 3 2 4	1.6	0		3.5': Silt, brown-gray, and Clay, tr. Organic Matter, moderate plasticity, wet 4.5': SILT, and f. Sand, brown, saturated.	4.5 5.5
			SS-2	4 5 8 10	2	0		5.5': CLAY, brown-gray, some Silt, moderate plasticity, wet. 6.0': Same as above, stiff, moist	
			SS-3	5 11 13 14	2	0		8.0': Same as above, color changes to gray-brown at 9.2' bgs	
586.0	10		SS-4	3 3 4 7	1.8	0		10.0': Same as above	
			SS-5	11 14 14 16	1.8	0		12.0': Same as above, laminated	
581.0	15		SS-6	2 4 4 7	2	0		14.0': Same as above, moist-wet	
			SS-7	11 13 13 13	2	0		16.0': Same as above	
			SS-8	2 3 5 9	2	0		18.0': Same as above	
576.0	20		SS-9	5 10 8 4	1.6	0		19.5': Dry/powdery 20.0': Same as above, dry-moist	
			SS-10	6 5 3 2	2	0		22.0': Same as above, soft, with dark gray-black laminations, wet-saturated	
571.0	25		SS-11	1 2 1 1	1.9	0		24.0': Same as above, saturated	
			SS-12	1 1 2 2	2	0		26.0': Same as above, saturated	
			SS-13	wh wh wh wh	2	0		28.0': Same as above, saturated	
566.0	30								31.0
561.0								31.0': END OF BORING	

WELL DIAGRAM



Notes:
SS = 2" OD Split Spoon SSS = 3" OD Split Spoon. Hand excavated to 4.0' bgs due to unknown utility locations.

▽ Water Level Reading at time of drilling.

▼ Water Level Reading after drilling.

MALCOLM PIRNIE
40 Centre Drive
Orchard Park, NY 14127
Telephone: (716) 667-0900
Fax: (716) 667-0279

TEST BORING LOG

BORING/WELL No.
SB-1

PROJECT NAME	Former Incinerator Site	DATE STARTED / COMPLETED	4/5/2005 / 4/5/2005
PROJECT NUMBER	4852-001	SURFACE ELEVATION	595.73 ft.
CLIENT	City of Lackawanna	DEPTH TO GROUNDWATER	ft. bgs
LOCATION	Reddon Street, Lackawanna, NY	DRILLING CONTRACTOR	SLC Environmental
TYPE OF RIG	N/A	DRILLING METHOD	Hand Excavation
DRILLERS	R. Brown	LOGGED BY	B. Walker

ELEV. (ft.)	DEPTH (ft. BGS)	SAMPLE ID.	BLOW COUNTS	RECOVERY (ft.)	PID (ppm)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
							0.0': Fill: Dark brown, Silt and Gravel, wet.	0.5
							0.5': Fill: Gray, f. Gravel and Slag, tr. Organic Matter, wet.	1.0
							1.0': Fill: Silt and f. Sand, dark gray, tr. Gravel, tr. Organic Matter, moist.	2.3
							2.3': SILT, gray-green, mottled, little Clay, moist	2.6
							2.6': END OF BORING	
590.7								
585.7								
580.7								
575.7								
570.7								

Notes:
Boring hand excavated due to unknown utility locations.

▽ Water Level Reading at time of drilling.

▼ Water Level Reading after drilling.

MALCOLM PIRNIE
40 Centre Drive
Orchard Park, NY 14127
Telephone: (716) 667-0900
Fax: (716) 667-0279

TEST BORING LOG

BORING/WELL No. **SB-2**

PROJECT NAME	Former Incinerator Site	DATE STARTED / COMPLETED	4/6/2005 / 4/6/2005
PROJECT NUMBER	4852-001	SURFACE ELEVATION	613.39 ft.
CLIENT	City of Lackawanna	DEPTH TO GROUNDWATER	ft. bgs
LOCATION	Reddon Street, Lackawanna, NY	DRILLING CONTRACTOR	SLC Environmental
TYPE OF RIG	CME-75	DRILLING METHOD	4 1/4" HSA
DRILLERS	R. Brown	LOGGED BY	B. Walker

ELEV. (ft.)	DEPTH (ft. BGS)	SAMPLE ID.	BLOW COUNTS	RECOVERY (ft.)	PID (ppm)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
		SS-1	2 2 4 4	1	0		0.0': Fill: Clay, dark brown, little Gravel, tr. Slag, tr. Organic Matter, moist	
		SS-2	4 5 4 4	0.6	0		2.0': Same as above, tr. red brick, tr. Cinders	
608.4	5	SS-3	3 3 2 2	0.6	0		4.0': Same as above	
		SS-4	3 2 3 5	0.2	0		6.0': No Recovery, slag lodged in end of spoon	
		SS-5	2 3 3 5	1	0		8.0': Fill: Clay, brown, tr. Slag, tr. Cinders as intermittenet layers 1-2" thick, tr. ceramics, tr. Glass, wet.	
603.4	10	SS-6	2 2 2 4	1.2	0		10.0': Fill as above	
		SS-7	3 3 3 3	1.5	0		12.0': Fill as above, gray-green, little Cinders and Ash	
598.4	15	SS-8	1 2 3 3	1.6	0		14.0': Fill as above, with f. Sand and Silt, wet.	
		SS-9	3 4 4 5	1.1	0		16.0': Fill as above, gray-black, f. Sand lens ~3" thick at 17' bgs, wet - saturated	
		SS-10	3 2 5 2	1.3	0		18.0': Fill as above	
593.4	20	SS-11	2 5 11 6	1.7	0		20.0': Fill as above	
								21.5
		SS-12	8 9 11 12	1.5	0		21.5': CLAY, gray-green, and Silt, moderate plasticity, wet. 22.0': Same as above	
588.4							24.0': END OF BORING	24.0

Notes:
SS = 2" OD Split Spoon SSS = 3" OD Split Spoon

▽ Water Level Reading at time of drilling.

▼ Water Level Reading after drilling.

MALCOLM PIRNIE
40 Centre Drive
Orchard Park, NY 14127
Telephone: (716) 667-0900
Fax: (716) 667-0279

TEST BORING LOG

BORING/WELL No.
SB-3

PROJECT NAME	Former Incinerator Site	DATE STARTED / COMPLETED	4/6/2005 / 4/6/2005
PROJECT NUMBER	4852-001	SURFACE ELEVATION	611.50 ft.
CLIENT	City of Lackawanna	DEPTH TO GROUNDWATER	ft. bgs
LOCATION	Reddon Street, Lackawanna, NY	DRILLING CONTRACTOR	SLC Environmental
TYPE OF RIG	CME-75	DRILLING METHOD	4 1/4" HSA
DRILLERS	R. Brown	LOGGED BY	B. Walker

ELEV. (ft.)	DEPTH (ft. BGS)	SAMPLE ID.	BLOW COUNTS	RECOVERY (ft.)	PID (ppm)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
		SS-1	6 10 6 5	1	0		0.0': Fill: Clay, gray-brown, some Silt, little Gravel, little Slag, moist	
		SS-2	5 8 4 3	0.6	0		2.0': Fill: Cinders and Slag, little Silt, little Clay, tr, Gravel, moist	2.0
606.5	5	SS-3	3 1 1 1	0.4	0		4.0': Same as above, with Ash and Glass, wet	
		SS-4	3 2 2 1	0.5	0		6.0': Fill: Cinders and Ash, dark gray to deep red, tr. Glass, wet	6.0
		SS-5	3 1 1 1	0.4	0		8.0': Same as above	
601.5	10	SS-6	3 2 2 2	0.5	0		10.0': Same as above	
		SS-7	1 1 1 1	0	-		12.0': No Recovery, slag lodged in end of spoon	
596.5	15	SSS-8	3 1 1 1	0.5	0		14.0': Fill as above, wet	
		SSS-9	3 2 3 4	1	0		16.0': Fill as above, wet	
		SS-10	3 5 7 8	1.1	0		17.5': Fill: Silty Clay, gray-green, tr. Gravel, tr. Glass, moderate plasticity, wet. Glass and Cinders inclusion at 19' bgs.	17.5
591.5	20	SS-11	7 8 10 11	1.4	0		19.0': CLAY, gray-green, and Silt, moderate plasticity, laminated, wet. 20.0': Same as above	19.0
586.5							22.0': END OF BORING	22.0

Notes:
SS = 2" OD Split Spoon SSS = 3" OD Split Spoon

▽ Water Level Reading at time of drilling.
▼ Water Level Reading after drilling.

MALCOLM PIRNIE
40 Centre Drive
Orchard Park, NY 14127
Telephone: (716) 667-0900
Fax: (716) 667-0279

TEST BORING LOG

BORING/WELL No. **SB-4**

PROJECT NAME	Former Incinerator Site	DATE STARTED / COMPLETED	4/5/2005 / 4/5/2005
PROJECT NUMBER	4852-001	SURFACE ELEVATION	606.36 ft.
CLIENT	City of Lackawanna	DEPTH TO GROUNDWATER	ft. bgs
LOCATION	Reddon Street, Lackawanna, NY	DRILLING CONTRACTOR	SLC Environmental
TYPE OF RIG	CME-75	DRILLING METHOD	4 1/4" HSA
DRILLERS	R. Brown	LOGGED BY	B. Walker

ELEV. (ft.)	DEPTH (ft. BGS)	SAMPLE ID.	BLOW COUNTS	RECOVERY (ft.)	PID (ppm)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
		SS-1	2 2 3 2	0.5	0		0.0': Fill: Clay, dark brown, little Gravel, little Silt, tr. Brick, tr. Slag, moist	
		SS-2	2 2 3 4	1.2	0		2.0': Same as above	
601.4	5	SS-3	4 4 3 4	1	0		4.0': Same as above, tr. Glass, tr. f/c Sand, tr. Ceramics, moist-wet.	
		SS-4	2 2 3 4	0.3	0		6.0': Same as above, wet	
		SS-5	wh 1 1 3	0.6	0		8.0': Same as above, little f/c Sand, brown-orange brown, wet.	
596.4	10	SS-6	3 4 8 32	1	0		10.0': Same as above	11.0
		SS-7	35 18 12 15	1.9	0		11.0': Fill: Cinders, black, tr. Ash, tr. Glass, tr. Brick, tr. Slag, wet.	13.7
591.4	15	SS-8	10 11 15 154	1.5	0		13.7': SILT, gray-green mottled, little f. Sand, tr. Clay, wet. 14.0': Same as above	16.0
586.4							16.0': END OF BORING	
581.4								

Notes:
SS = 2" OD Split Spoon SSS = 3" OD Split Spoon

▽ Water Level Reading at time of drilling.

▼ Water Level Reading after drilling.

MALCOLM PIRNIE

• Well Development/Purge Forms
• Field Soil Sampling Forms

APPENDIX

B

MALCOLM PIRNIE

WELL DEVELOPMENT FORM

WELL NO.: MW-1

PROJECT TITLE: Endeavor Site, Lackawanna, NY

PROJECT NO.: ~~B~~ 4852-001

DATE: 4/15/05 STAFF: BCW

PURGE METHOD: Bailer

PURGING DATA:

1. Total Casing and Sceen Length (ft.) 22.88
2. Casing Internal Diameter (in.) 2"
3. Water Level Below Top of Casing (ft.) 7.58
4. Volume of Water in Casing (gal.) 2.6
5. Photoionization Detector at Wellhaed (ppm) —

(Vol = 0.0408 [(2)^2 x { (1) - (3) }])

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

PARAMETER	ACCUMULATED VOLUME PURGED										
Gallons	*Initial*	2.5	5.0	7.0							
Time (24 hr. clock)	0921	0927	0933	0942							
pH (s.u.)	6.8	6.8	6.8	6.9							
Conductivity (mS/cm)	3.28	3.32	3.16	2.97							
Turbidity (NTUs)	36	>1000	>1000	>1000							
Dissolved Oxygen (mg/l)	4.70	6.57	6.87	4.89							
Temperature (^{0}C)	10.1	9.4	10.1	10.6							
Eh (mV)	95	97	105	105							
Depth to Water (ft.)											
Purge (Flow) Rate											
Appearance	Clear	Cloudy Gray									

Notes: Surged w/ bailer. Bailed dry at 7.0 gal.

MALCOLM PIRNIE

WELL DEVELOPMENT FORM

WELL NO.: MW-1

PROJECT TITLE: Incinerator Site

PROJECT NO.: 4852-001

DATE: 4/8/05 STAFF: BW

PURGE METHOD:

PURGING DATA

1. Total Casing and Sceen Length (ft.) 22.88
2. Casing Internal Diameter (in.) 2"
3. Water Level Below Top of Casing (ft.) 7.66'
4. Volume of Water in Casing (gal.) 2.6
5. Photoionization Detector at Wellhaed (ppm) —

(Vol = 0.0408 [(2)^2 x [(1) - (3)]])

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

4/13/05

PARAMETER	ACCUMULATED VOLUME PURGED										
Gallons	*Initial*	~~0950~~ 2.5	5.0	7.0	Initial	2.5	5.0	7.5			
Time (24 hr. clock)	0948	0950	0953	0958	1056	1101	1106	1113			
pH (s.u.)	6.40	6.15	6.22	6.0	6.6	6.6	6.6	6.6			
Conductivity (mS/cm)	1.76	1.90	1.43	2.01	3.16	3.18	3.07	2.70			
Turbidity (NTUs)	>1000	>1000	>1000	>1000	250	>1000	>1000	>1000			
Dissolved Oxygen (mg/l)	3.34	5.76	4.83	5.50	4.16	5.18	5.14	4.77			
Temperature (^{0}C)	11.4	10.4	11.4	11.6	10.7	9.9	10.3	10.6			
Eh (mV)	90	93	79	87	96	96	100	92			
Depth to Water (ft.)					7.10						
Purge (Flow) Rate	v. Turbid Gray					v. Turbid Brown					
Appearance	✓										

Notes: Surged well w/ Whale pump during purging. Purged dry at 5.0 gal. Poor recovery

MALCOLM PIRNIE

WELL DEVELOPMENT FORM

WELL NO.: MW-2

PROJECT TITLE: Incinerator Site, Lackawanna, NY
PROJECT NO.: 4852-001
DATE: 4/8/05 STAFF: DW
PURGE METHOD: Whale Pump / Disposable Bailer

PURGING DATA

1. Total Casing and Sceen Length (ft.) 26.22
2. Casing Internal Diameter (in.) 2"
3. Water Level Below Top of Casing (ft.) 11.88
4. Volume of Water in Casing (gal.) 2.4
5. Photoionization Detector at Wellhaed (ppm) —

(Vol = 0.0408 [(2)^2 x { (1) - (3) }])

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

← Whale Pump → | Bailer → 4/13/05

PARAMETER	ACCUMULATED VOLUME PURGED									
Gallons	Initial	4	6	7.5	10		Initial	2.5	5.0	7.5
Time (24 hr. clock)	0903	0905	0909	0922	1135		1119	1127	1131	1139
pH (s.u.)	~~5.5~~ 5.4	5.3	5.3	5.4	6.3		7.0	6.9	6.9	7.0
Conductivity (mS/cm)	1.31	1.22	1.24	1.04	0.96		0.97	0.674	0.626	0.635
Turbidity (NTUs)	>1000	>1000	>1000	>1000	>1000		283	>1000	>1000	>1000
Dissolved Oxygen (mg/l)	6.80	6.14	5.93	5.59	5.30		4.06	5.31	6.01	5.10
Temperature (^{0}C)	10.2	10.2	10.7	11.3	11.3		10.3	10.0	10.3	10.6
Eh (mV)	19	38	59	79	44		93	100	104	111
Depth to Water (ft.)							11.88			
Purge (Flow) Rate										
Appearance	Cloudy Brn	→								

Notes: Purged dry at 5.0 gal. Surged well w/ whale pump during purging to loosen fines. Purged dry again at 7.5 gal, 10 gal

Poor Recovery

2.5

MALCOLM PIRNIE

WELL DEVELOPMENT FORM

WELL NO.: MW-2

PROJECT TITLE: Incinerator Site, LackAwanna, NY

PROJECT NO.: 4852-001

DATE: 4/15/05 STAFF: BW

PURGE METHOD: Bailer

PURGING DATA

1. Total Casing and Sceen Length (ft.) 26.22
2. Casing Internal Diameter (in.) 2"
3. Water Level Below Top of Casing (ft.) 12.24
4. Volume of Water in Casing (gal.) 2.4
5. Photoionization Detector at Wellhaed (ppm)

(Vol = 0.0408 [(2)^2 x [(1) - (3)]])

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

PARAMETER	ACCUMULATED VOLUME PURGED										
Gallons	*Initial*	2.5	5.0	6.5							
Time (24 hr. clock)	0952	0956	1002	1011							
pH (s.u.)	7.1	7.1	7.0	7.0							
Conductivity (mS/cm)	0.644	0.617	0.623	0.64							
Turbidity (NTUs)	>1000	952	>1000	>1000							
Dissolved Oxygen (mg/l)	4.86	5.73	5.71	4.46							
Temperature (^{o}C)	10.3	9.8	10.4	10.8							
Eh (mV)	84	96	93	89							
Depth to Water (ft.)											
Purge (Flow) Rate											
Appearance	Cloudy Grey	—	—	—							

otes: Purged dry @ 6.5 gal.

MALCOLM PIRNIE

WELL DEVELOPMENT FORM

WELL NO.: MW-3

PROJECT TITLE: Incinerator Site

PROJECT NO.: 4852-001

DATE: 4/8/05 STAFF: BW

PURGE METHOD: Bailer

PURGING DATA

1. Total Casing and Sceen Length (ft.) 30.18
2. Casing Internal Diameter (in.) 2"
3. Water Level Below Top of Casing (ft.) 9.90'
4. Volume of Water in Casing (gal.) 3.45
5. Photoionization Detector at Wellhaed (ppm) —

(Vol = 0.0408 [(2)^2 x [(1) - (3)]])

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

4/13/05

PARAMETER	ACCUMULATED VOLUME PURGED										
Gallons	*Initial*	3.5	7.0	Initial	2.5	5.0	7.5	9.0			
Time (24 hr. clock)	1045	1056	1107	1023	1029	1037	1044	1156			
pH (s.u.)	6.4	5.9	6.2	7.10	7.0	6.8	6.9	7.3			
Conductivity (mS/cm)	2.11	2.35	1.54	1.45	0.907	1.42	1.09	1.08			
Turbidity (NTUs)	179	>1000	>1000	113	>1000	>1000	>1000	>1000			
Dissolved Oxygen (mg/l)	2.19	3.84	2.79	1.45	3.81	3.28	3.32	3.8			
Temperature (^{0}C)	12.0	11.7	12.0	12.3	11.3	11.8	11.8	11.3			
Eh (mV)	52	32	44	63	62	79	75	103			
Depth to Water (ft.)				7.74				15.20			
Purge (Flow) Rate											
Appearance	Clear - sl. cldy	Cloudy brn Gray	→	Sl. Cldy	Cloudy Gray-Brown						

es: Purged dry at 7.0 gal. Poor recovery

MALCOLM PIRNIE

WELL DEVELOPMENT FORM

WELL NO.: MW-3 (cont'd)

PROJECT TITLE: Incinerator Site, Lackawanna, NY

PROJECT NO.: 4852-001

DATE: 4/15/05 STAFF: BW

PURGE METHOD: Bailer

PURGING DATA

1. Total Casing and Sceen Length (ft.) 30.18
2. Casing Internal Diameter (in.) 2"
3. Water Level Below Top of Casing (ft.) 9.12
4. Volume of Water in Casing (gal.) 3.6
5. Photoionization Detector at Wellhaed (ppm)

(Vol = 0.0408 [(2)^2 x [(1) - (3)]])

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

PARAMETER	ACCUMULATED VOLUME PURGED										
Gallons	*Initial*	2.5	5.0	7.5							
Time (24 hr. clock)	0850	0856	0905	0909							
pH (s.u.)	7.2	7.2	7.2	7.2							
Conductivity (mS/cm)	1.08	0.648	0.695	0.712							
Turbidity (NTUs)	6	>1000	>1000	>1000							
Dissolved Oxygen (mg/l)	3.19	4.46	4.38	3.87							
Temperature (^{0}C)	10.6	10.6	11.4	11.5							
Eh (mV)	61	65	80	77							
Depth to Water (ft.)											
Purge (Flow) Rate											
Appearance	Clear	Cloudy Grey	→	→							

Notes: Surged bailer up & down in well during purging.
Bailed dry at 7.5 gallons.

MALCOLM PIRNIE

WELL NO.: mw-1

WELL PURGING AND SAMPLING LOG

PROJECT TITLE: Incinerator Site

PROJECT NO.: 4852-001

DATE: 4/28/05 STAFF: BW

PURGE METHOD: Bailer

SAMPLE METHOD: Bailer TIME COLLECTED: 13:00

Sampled MS/MSD at this location.

PURGING and SAMPLING DATA:

1. Total Casing and Sceen Length (ft.) ____
2. Casing Internal Diameter (in.) 2"
3. Water Level Below Top of Casing (ft.) ____
4. Volume of Water in Casing (gal.) ____
5. Photoionization Detector at Wellhaed (ppm) ____

(Vol = 0.0408 [(2)^2 x{ (1) - (3) }])

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

PARAMETER	ACCUMULATED VOLUME PURGED 4/28/05										
Gallons	Initial	2	4	6.5				Sample			
Time (24 hr. clock)	1535	1542	1546	1554				1300	1335		
pH (s.u.)	6.4	6.4	6.4	6.5				6.5	6.5		
Conductivity (mS/cm)	3.64	3.70	3.86	3.66				3.54	3.80		
Turbidity (NTUs)	0	>1000	>1000	>1000				14	>1000		
Dissolved Oxygen (mg/l)	3.18	5.13	5.38	5.99				6.0	7.36		
Temperature (°C)	9.0	9.1	9.5	9.5				10.1	10.6		
Eh (mV)	50	58	63	67				—	—		
Depth to Water (ft.)								9.02			
Purge (Flow) Rate											
Appearance		Cloudy Gray									

Notes: Purged dry at 6.5 gallons. Sampled w/ bailer. Collected VOC samples from initial bailer and first parameter measurement. Sampled metals from 2nd & 3rd bailers. Took turb. measurement following metals sample. Turbidity = 43 NTU.

MALCOLM PIRNIE

WELL PURGING AND SAMPLING LOG

WELL NO.: MW-2

PROJECT TITLE: Incinerator Site

PROJECT NO.:

DATE: 4/28/05 STAFF: BW

PURGE METHOD: Bailer

SAMPLE METHOD: Bailer TIME COLLECTED: 14:00

PURGING and SAMPLING DATA:

1. Total Casing and Sceen Length (ft.) _____
2. Casing Internal Diameter (in.) _____
3. Water Level Below Top of Casing (ft.) _____
4. Volume of Water in Casing (gal.) _____
5. Photoionization Detector at Wellhaed (ppm) _____

(Vol = 0.0408 [(2)^2 x { (1) - (3) }])

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

PARAMETER	ACCUMULATED VOLUME PURGED								4/29/05		
Gallons	*Initial*	2	4	6.5					SAMPLE		
Time (24 hr. clock)	1600	1605	1610	1616					14:00	14:25	
pH (s.u.)	6.8	6.7	6.7	6.7					7.3	7.0	
Conductivity (mS/cm)	0.677	0.679	0.667	0.634					0.621	0.638	
Turbidity (NTUs)	0	331	>1000	>1000					35	315	
Dissolved Oxygen (mg/l)	1.25	2.85	3.50	3.57					4.94	5.17	
Temperature (°C)	9.5	9.2	9.5	9.9					11.1	10.1	
Eh (mV)	56	52	54	53					—	—	
Depth to Water (ft.)									12.58		
Purge (Flow) Rate											
Appearance	Clear										

Notes: Collected GW-DUP1

MALCOLM PIRNIE

WELL PURGING AND SAMPLING LOG

WELL NO.: MW-3

PROJECT TITLE: Incinerator Site

PROJECT NO.: 41852-001

DATE: 4/28/05 STAFF: BW

PURGE METHOD: Bailer

SAMPLE METHOD: _____ TIME COLLECTED: _____

PURGING and SAMPLING DATA:

1. Total Casing and Sceen Length (ft.) _____
2. Casing Internal Diameter (in.) 2"
3. Water Level Below Top of Casing (ft.) _____
4. Volume of Water in Casing (gal.) _____
5. Photoionization Detector at Wellhaed (ppm) _____

(Vol = 0.0408 [(2)^2 x { (1) - (3) }])

Constants for Calculating Borehole and Well Water Volumes							
Well Diam.	1"	2"	3"	4"	5"	6"	8"
Vol. (gal/ft)	0.04	0.17	0.38	0.66	1.04	1.50	2.60

Low Flow Stabilization Criteria	
pH	+/- 0.1
Cond.	3%
Turb.	10% if > 1 NTU
DO	10%
Temp.	3%
Eh	+/- 10 mV

PARAMETER	ACCUMULATED VOLUME PURGED 4/29/05										
Gallons	*Initial*	2	4	6					Sample		
Time (24 hr. clock)	1445	1455	1500	1507					1230	1241	
pH (s.u.)	6.8	7.0	6.8	6.8					7.0	7.0	
Conductivity (mS/cm)	1.03	0.663	.692	0.714					0.534	0.599	
Turbidity (NTUs)	0	24	894	>1000					47	50	
Dissolved Oxygen (mg/l)	1.02	—	3.39	—					1.23	2.46	
Temperature (°C)	11.0	14.3	11.0	11.1					10.6	10.7	
Eh (mV)	-13	15	28	20					—	—	
Depth to Water (ft.)									10.80		
Purge (Flow) Rate											
Appearance	Clear	Sl. cldy Grey		v. cldy Grey							

Notes: Purged dry at 7.5 gallons.

MALCOLM PIRNIE

FIELD SAMPLING LOG

PROJECT: Incinerator Site
PROJECT NUMBER: 4852-001

DATE	TIME	SAMPLE ID	DEPTH	MATRIX	SAMPLE LOCATION	SAMPLE DESCRIPTION	ANALYSIS	FIELD MEASUREMENTS	NOTES
4/7/05	1215	SD-3		Sediment		Brown, f. Sand and Silt, tr. Org. matter sat	TCL VOCs ☒ TCL SVOCs ☒ TAL Metals ☒ Cyanide ☒ Pesticides ☒ PCBs ☒ Other ☐ RCRA Haz. Waste ☐ Dioxins ☐ Grain Size ☐ Atterberg ☐ TOC ☐ Permeability ☐		Sampled w/hand auger, Advanced through soft sediments to top of gray-green silty clay stiff.
↓	1230	SD-2		↓		DK brn w/ black silt, f. Sand, tr. Organic matter, tr. Glass, tr. plastic	TCL VOCs ☒ TCL SVOCs ☒ TAL Metals ☒ Cyanide ☒ Pesticides ☒ PCBs ☒ Other ☐ RCRA Haz. Waste ☐ Dioxins ☐ Grain Size ☐ Atterberg ☐ TOC ☐ Permeability ☐		↓
	1315	SD-3		↓		Brn f. Sand and Silt, firm	TCL VOCs ☒ TCL SVOCs ☒ TAL Metals ☒ Cyanide ☒ Pesticides ☒ PCBs ☒ Other ☐ RCRA Haz. Waste ☐ Dioxins ☐ Grain Size ☐ Atterberg ☐ TOC ☐ Permeability ☐		↓
							TCL VOCs ☐ TCL SVOCs ☐ TAL Metals ☐ Cyanide ☐ Pesticides ☐ PCBs ☐ Other ☐ RCRA Haz. Waste ☐ Dioxins ☐ Grain Size ☐ Atterberg ☐ TOC ☐ Permeability ☐		
							TCL VOCs ☐ TCL SVOCs ☐ TAL Metals ☐ Cyanide ☐ Pesticides ☐ PCBs ☐ Other ☐ RCRA Haz. Waste ☐ Dioxins ☐ Grain Size ☐ Atterberg ☐ TOC ☐ Permeability ☐		
							TCL VOCs ☐ TCL SVOCs ☐ TAL Metals ☐ Cyanide ☐ Pesticides ☐ PCBs ☐ Other ☐ RCRA Haz. Waste ☐ Dioxins ☐ Grain Size ☐ Atterberg ☐ TOC ☐ Permeability ☐		

MALCOLM PIRNIE

Lead Paint Assessment Report

APPENDIX

C

LEAD Paint-Chip Assessment

Location:

Former Incinerator Site
2960 South Park Ave
Lackawanna, NY 14218

April 6, 2005

Prepared For:

Malcolm Pirnie, Inc
40 Centre Drive
Orchard Park, NY 14219

May 6, 2005

AACTION ENVIRONMENTAL SERVICES INC.

May 6, 2005

Malcolm Pirnie, Inc.
Bradley Walker
40 Centre Dr
Orchard Park, NY 14219.

Project Name: Lead Paint-Chip Assessment/ The Former Incinerator Site

Project Location: 2960 South Park, Lackawanna, NY, 14218

Parameters Tested: Lead (Pb)- EPA SW846 7420

Dear Mr. Walker,

Please find enclosed the Laboratory Lead Results, Chain of Custodies and Map/sample locations for the above referenced project. The Lead Paint-Chip Assessment consisted of random paint-chip sampling of homogeneous paints distributed throughout the interior of the buildings. It is presumed that materials of like composition, color, texture and appearance are homogeneous. It is assumed that the material is consistent throughout its application.

Malcolm Pirnie, Inc. retained Aaction Environmental Services, Inc. for a Lead Paint-Chip Assessment at The Former Incinerator Site, 2960 South Park, Lackawanna, NY. Aaction Environmental Services, Inc. performed the sampling and reporting. Samples were analyzed by laboratory method; EPA SW846 7420, FAA (Flame Atomic Absorption) by Environmental Hazards Services L.L.C. NY ELAP # 11714 & AIHA Accreditation # 100420.

The enclosed results are submitted pursuant to Aaction Environmental Services, Inc.'s current terms and conditions of sale. No responsibility or liability is assumed for the manner in which these results are used or interpreted. Unless notified in writing, Aaction Environmental Services, Inc. will discard what remains of the samples for this project after ninety days of storage. I have enclosed The Federal Lead Standards from USHUD as a general guideline.

Should you have any questions regarding the enclosed reports or require additional information, please contact me at 716-677-8813/716-818-1212.

Sincerely,

Kevin Zielinski

Kevin Zielinski
President

41 SAINT JOAN LN • CHEEKTOWAGA, NY 14227 • Phone: (716) 677-8813 • Fax: (716) 677-8813 • Cell: (716) 818-1212

14-Pb paint

CHAIN OF CUSTODY

EHS 04-05-1012

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

SURVEY X BULK SAMPLING ____ OTHER ____
ASBESTOS ____ LEAD X OTHER ____

Malcolm Pirnie — CLIENT NAME
40 Centre Dr — CLIENT ADDRESS
Orchard Park, NY — CLIENT PHONE/CELL
CLIENT FAX

Former Incinerator Buildings — PROJECT NAME
2960 South Park Ave, Lackawanna NY (NY AA): — PROJECT LOCATION
(North + South Blds)
P.O. #
COMMENTS

CIRCLE TURN AROUND TIME
72 HR (48 HR) 24 HR RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	LBP-1	Paint	(North Building): Top Floor (2nd Floor) west wall	Light Blue		
2.	LBP-2	Paint	" " " East wall	"		
3.	GRP-3	Paint	" " " Ceiling	Gray		
4.	RP-4	Paint	" " " Base of wall	Red		
5.	YP-5	Paint	" " " Top of Stairwell wall	Yellow		
6.	YP-6	Paint	(North Building): Middle floor (1st floor) Stairwell wall	Yellow		
7.	MP-7	Paint	" " " Stairs	Maroon		
8.	DBP-8	Paint	" " West wall	Dark Blue		
9.	DBP-9	Paint	" " South wall	"		
10.	GRP-10	Paint	" " Incinerator surface	Silver		

SAMPLE CONDITION
Acceptable ✓
Unacceptable ____

SAMPLED BY Kevin Zielinski — DATE 04 | 06 | 05
RECEIVED BY D Peters — DATE

DATE SEALED / TRANSPORTED 04 | 07 | 05
RECEIVED IN LAB BY — DATE

CHAIN OF CUSTODY

SURVEY X BULK SAMPLING ____ OTHER ____

ASBESTOS ____ LEAD X ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

Malcolm Pirnie — CLIENT NAME
Former Incinerator Buildings — PROJECT NAME
40 Centre Dr — CLIENT ADDRESS
2960 South Park Ave, Lackawanna, NY (NY AA): — PROJECT LOCATION
Orchard Park, NY — CLIENT PHONE/CELL
(North + South Blds) — P.O. #
CLIENT FAX
COMMENTS

CIRCLE TURN AROUND TIME

72 HR (48 HR) 24 HR RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	BP-11	Paint	Bottom Floor, (Basement) South Wall	Brown		
2.	BLP-12	Paint	South Building – Ceiling	Black		
3.	LAP-13	Paint	" " – Front Door	Light Gray		
4.	GRP-14	Paint	North Building – Incinerator Surface	Silver		
5.	04/8/05					
6.						
7.						
8.						
9.						
10.						

SAMPLED BY Kevin Zielinski — DATE 04/06/05

RECEIVED BY — DATE

DATE SEALED / TRANSPORTED 04/07/05

RECEIVED IN LAB BY — DATE

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237
804-275-4788 FAX 804-275-4907

LEAD IN PAINT ANALYSIS SUMMARY

CLIENT: Aaction Environmental
41 St. Joan Lane
Cheektowaga, NY 14227

DATE OF RECEIPT: 08 APR 2005
DATE OF ANALYSIS: 08 APR 2005
DATE OF REPORT: 09 APR 2005

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1012
PROJECT: Former Incinerator Buildings

EHS SAMPLE#	CLIENT SAMPLE#	SAMPLE WEIGHT (g)	CONCENTRATION (% BY WEIGHT)
01	LBP-1	0.294	0.020
02	LBP-2	0.300	0.028
03	GRP-3	0.225	1.3
04	RP-4	0.300	0.20
05	YP-5	0.220	0.030
06	YP-6	0.282	0.011
07	MP-7	0.300	1.7
08	DBP-8	0.298	0.030
09	DBP-9	0.224	0.012
10	GRP-10	0.248	8.5
11	BP-11	0.299	0.014
12	BLP-12	0.242	<0.009
13	LAP-13	0.232	1.6
14	GRP-14	0.283	9.2

QUALITY CONTROL DATA

BATCH#:	040805P-1
INCLUSIVE EHS SAMPLE NUMBERS:	01-14
Initial Calibration Verification (5.00ppm Pb)	96.4% Recovery
Continuing Calibration Verification 10 (10.0ppm Pb)	99.7% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	95.4% Recovery
Laboratory Control Standard	113% Recovery
Matrix Spike	113% Recovery
Duplicate Relative Percent Difference	2.11 RPD
Reporting Limit	20ug
Method Detection Limit	2.9ug

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1012
PROJECT: Former Incinerator Buildings

PREPARATION METHOD: EPA 600/R-93/200
ANALYSIS METHOD: EPA SW846 7420

ANALYST: Bayard Vandegrift

Reviewed By Authorized Signatory: _____

Michael A. Mueller, MPH, Laboratory Director
Howard Varner, General Manager
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Technical Director

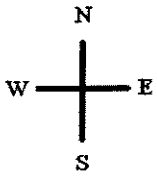
This method has been validated for sample weights of 0.020g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations.

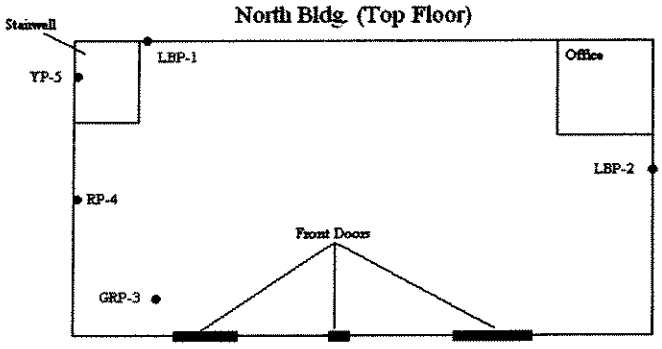
Sample results denoted with a "less than" (<) sign contain less than 20ug total lead, based on a 40ml sample volume.

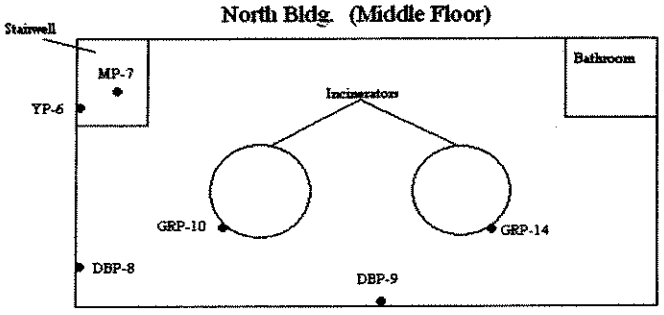
The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319 NY ELAP #11714

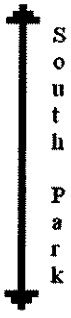
LEGEND	g = gram	ug = microgram	ppm = parts per million
	ml = milliliter	Pb = lead	

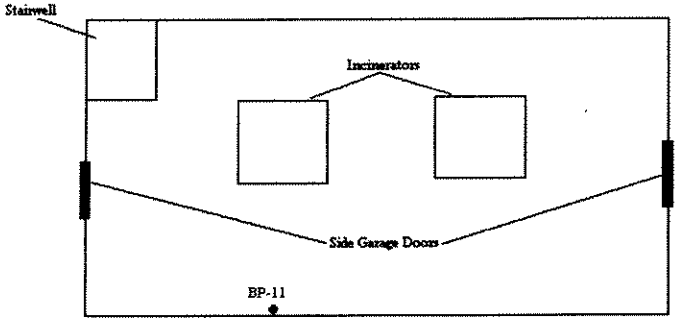
Lackawanna DPW
Incinerator-Lead
Assessment

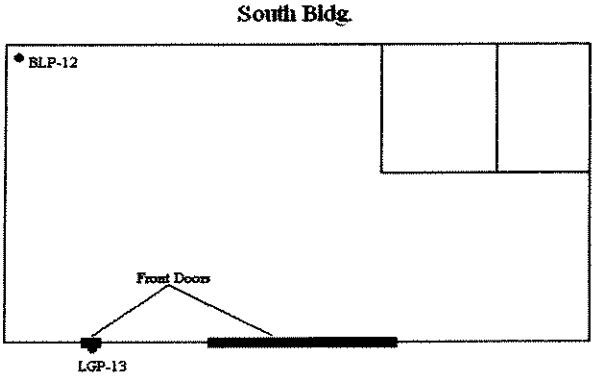












Federal Lead Standards*

1.	**Paint:**	1.0 mg/cm2 or 0.5% (by weight)	
2.	**Dust Levels for Risk Assessment** (by wipe sampling)	100 ug/ft2	- floors
		500 ug/ft2	- window sills
		800 ug/ft2	- wells (troughs)
3.	**Dust Levels for Lead Hazard Screen** (by wipe sampling)	50 ug/ft2	- floors
		400 ug/ft2	- window troughs
4.	**Lead Dust Clearance Levels** (by wipe sampling)	100 ug/ft2	- floors
		500 ug/ft2	- window sills
		800 ug/ft2	- wells (troughs)
		800 ug/ft2	- ext. concrete surfaces
5.	**Bare Residential Soil**	5,000 ppm	- paving or removal criteria
		2,000 ppm	- building perimeter & yard
		400 ppm	- play area for children
6.	**Airborne Particulate**	30 ug/m3	- OSHA Action level
		50 ug/m3	- OSHA P.E.L.
7.	**Elevated Blood Level**	10 ug/dl	- Children
		40 ug/dl	- Adults
8.	**Hazardous Waste**	5 ppm	- by TCLP test
9.	**Potable Water**	15 ppb	- Safe Drinking Water Standard (USEPA)

* from the USHUD "Guidelines for the Identification and Control of Lead-Based Hazards in Housing" (June 1995)

MALCOLM PIRNIE

APPENDIX

Asbestos Survey Report

D

MALCOLM PIRNIE

Table D-1
Summary Of Suspect Asbestos Containing Material (SACM) Sampling
Site Investigation Report
Former Incinerator Site
Lackawanna, New York

Sample ID	Location	Type of Material	Color	Friable / NOB	Result *(% Asbestos)*	Estimated Quantity
North Incinerator Bluilding						
BM-4	North Incinerator Bldg, Chimney Stack, outside layer	Brick Mortar	Gray	Non-Friable / Non-NOB	NAD	N/A
BM-5	North Incinerator Bldg, Chimney Stack, Porthole Seal	Brick Mortar	Gray	Non-Friable / Non-NOB	NAD	N/A
BM-6	North Incinerator Bldg, Chimney Stack, back side flat landing	Brick Mortar	Gray	Non-Friable / Non-NOB	NAD	N/A
CC-8	North Incinerator Bldg, 3rd floor, east wall	Surface Cement	Gray/brown	Friable	NAD	N/A
CG-11	North Incinerator Bldg, 3rd floor, ceiling exhaust holes	Gasket	Black	Friable	NAD	N/A
CIC-20	North Incinerator Bldg, 2nd floor, Bathroom ceiling	Ceiling Paint	Gray	Non-Friable / Non-NOB	NAD	N/A
CP-10	North Incinerator Bldg, 3rd floor, west ceiling	Ceiling Plaster	Gray	Friable	NAD	N/A
CP-9	North Incinerator Bldg, 3rd floor, east ceiling	Ceiling Plaster	Gray	Friable	NAD	N/A
CPT-13	North Incinerator Bldg, 3rd floor, ceiling	Ceiling Paint	Silver	Friable	NAD	N/A
CR-55	North Incinerator Bldg, Roof Core	Roof Deck	White	NOB	NAD	N/A
CR-56	North Incinerator Bldg, Roof Core	Bottom Layer (Field Ply)	Black	NOB	non-ACM	N/A
CR-57	North Incinerator Bldg, Roof Core	Pitch Layer	Black	NOB	NAD	N/A
CR-58	North Incinerator Bldg, Roof Core	Middle Layer	Black	NOB	NAD	N/A
CR-59	North Incinerator Bldg, Roof Core	Top Layer	Black	NOB	NAD	N/A
CR-60	North Incinerator Bldg, Roof Core	Roof Deck	White	NOB	non-ACM	N/A
CR-61	North Incinerator Bldg, Roof Core	Bottom Layer (Field Ply)	Black	NOB	non-ACM	N/A
CR-62	North Incinerator Bldg, Roof Core	Pitch Layer	Black	NOB	NAD	N/A
CR-63	North Incinerator Bldg, Roof Core	Middle Layer	Black	NOB	NAD	N/A
CR-64	North Incinerator Bldg, Roof Core	Top Layer	Black	NOB	NAD	N/A
FB-21	North Incinerator Bldg, 2nd floor, Incinerator Brick	Fire Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
FB-29	North Incinerator Bldg, 1st floor, West Incinerator	Fire Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
FB-3	North Incinerator Bldg, Chimney Stack	Fire Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
FB-31	North Incinerator Bldg, 1st floor, East Incinerator	Fire Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
FB-71	North Incinerator Bldg, 2nd floor, West Incinerator Top	Fire Brick	Tan	Friable	NAD	N/A

MALCOLM PIRNIE

Table D-1
Summary Of Suspect Asbestos Containing Material (SACM) Sampling
Site Investigation Report
Former Incinerator Site
Lackawanna, New York

Sample ID	Location	Type of Material	Color	Friable / NOB	Result *(% Asbestos)*	Estimated Quantity
FBL-33	North Incinerator Bldg, 1st floor, East Incinerator, between fire brick	Fire Brick Liner	Brown	Non-Friable / Non-NOB	NAD	N/A
FBL-36	North Incinerator Bldg, 1st floor, West Incinerator between fire brick	Fire Brick Liner	Brown	Non-Friable / Non-NOB	NAD	N/A
G-74	North Incinerator Bldg, 2nd floor, West Incinerator Side Door	Door Gasket	Brown	Friable	NAD	N/A
G-77	East Incinerator bottom gasket of side door	Gasket	Black / brown	Friable	NAD	N/A
IAS-35	North Incinerator Bldg, 1st floor, East Incinerator Ash	Incinerator Ash	Gray	Friable	NAD	N/A
IAS-38	North Incinerator Bldg, 1st floor, West Incinerator Ash	Incinerator Ash	Brown	Friable	NAD	N/A
IDL-34	North Incinerator Bldg, 1st floor, East Incinerator, Main door	Door Liner	Brown	Friable	NAD	N/A
IDL-37	North Incinerator Bldg, 1st floor, West Incinerator , Main Door	Door Liner	Brown	Friable	NAD	N/A
IG-22	North Incinerator Bldg, 2nd floor, Incinerator Gasket	Gasket	Brown	Non-Friable / Non-NOB	< 0.25% Chrisotile	N/A
IG-30	North Incinerator Bldg, 1st floor, West Incinerator	Gasket	Gray	Friable	NAD	N/A
IG-32	North Incinerator Bldg, 1st floor, East Incinerator	Gasket	Brown	Friable	NAD	N/A
IPT-16	North Incinerator Bldg, 2nd floor, west incinerator	Surface Paint	Silver	Friable	NAD	N/A
MJP-19	North Incinerator Bldg, 2nd floor, Bathroom 1" Pipe	Mud-Joint Packing	Gray	Friable	57.14% Chrisotile	75 linear feet
MJP-26	North Incinerator Bldg, 1st floor, SW Side	Mud-Joint Packing	Gray	Friable	16.67% Chrisotile	
MJP-27	North Incinerator Bldg, 1st floor, South Side	Mud-Joint Packing	Gray	Friable	44.44% Chrisotile	
MJP-28	North Incinerator Bldg, 1st floor, East Side	Mud-Joint Packing	Gray	Friable	35.71% Chrisotile	
MP-69	North Incinerator Bldg, 2nd floor, East Incinerator Top	Mud Packing Top Insulation	Gray	Friable	NAD	N/A
MP-70	North Incinerator Bldg, 2nd floor, West Incinerator 2nd lining	Mud Packing Top Insulation	Gray	Friable	NAD	N/A
PI-18	North Incinerator Bldg, 2nd floor, Bathroom 1" Pipe	Pipe Insulation	Yellow	Friable	NAD	N/A
PI-23	North Incinerator Bldg, 1st floor, SW Side	Pipe Insulation	Gray	Friable	3.42% Chrisotile	300 linear feet
PI-24	North Incinerator Bldg, 1st floor, South Side	Pipe Insulation	Gray	Friable	4.40% Chrisotile	
PI-25	North Incinerator Bldg, 1st floor, SE Side	Pipe Insulation	Gray	Friable	1.98% Chrisotile	
PI-40	North Incinerator Bldg, 1st floor, Northeast end	Pipe Insulation	Gray	Friable	28.57% Chrisotile	
RC-67	North Incinerator Bldg Roof, Caps around exhaust vents	Roof Cap	Black	NOB	6.45% Chrysotile	50 sq feet

Created by: BW Date: 6/3/2005
Checked by: Date:

MALCOLM PIRNIE

Table D-1
Summary Of Suspect Asbestos Containing Material (SACM) Sampling
Site Investigation Report
Former Incinerator Site
Lackawanna, New York

Sample ID	Location	Type of Material	Color	Friable / NOB	Result *(% Asbestos)*	Estimated Quantity
RF-65	North Incinerator Bldg, Roof Parapet-Flashing	Roof Flashing	Black	NOB	10.24% Chrysotile	700 sq feet
RF-66	North Incinerator Bldg, Roof Parapet-Flashing	Roof Flashing	Black	NOB	8.83% Chrysotile	
SO-72	North Incinerator Bldg, 2nd floor, West Incinerator Inner lining of top	Spray-on Insulation	Tan	Friable	NAD	N/A
SO-73	North Incinerator Bldg, 2nd floor, East Incinerator Inner lining of top	Spray-on Insulation	Tan	Friable	NAD	N/A
SO-75	North Incinerator Bldg, 2nd floor, East Incinerator Inner lining of top	Spray-on Insulation	Tan	Friable	NAD	N/A
SO-76	North Incinerator Bldg, 2nd floor, East Incinerator Inner lining of top	Spray-on Insulation	Tan	Friable	NAD	N/A
TC-68	Section between Chimney Stack and Main bldg.	Tar Covering	Black	NOB	1.73% Chrysotile	500 sq feet
TP-39	North Incinerator Bldg, 1st floor, Southeast end	Transite pipe	Gray	Non-Friable / Non-NOB	8.89% Chrisotile 5.48% Crocidolite 14.37% Total Asbestos	700 linear feet
WG-12	North Incinerator Bldg, 3rd floor, Stairwell door	Window Glaze	White	Non-Friable / Non-NOB	NAD	N/A
WG-7	North Incinerator Bldg, 3rd floor, east windows	Window Glaze	White	Friable	NAD	N/A
WPT-14	North Incinerator Bldg, 3rd floor, west wall	Wall Paint	Light Blue	Friable	NAD	N/A
WPT-15	North Incinerator Bldg, 3rd floor, stairwell wall	Wall Paint	Yellow	Friable	NAD	N/A
WPT-17	North Incinerator Bldg, 2nd floor, North wall	Wall Paint	Dark Blue	Friable	NAD	N/A
South Incinerator Bluiding						N/A
BC-49	South Incinerator Bldg, Basement ceiling	Ceiling plaster	Gray/black	Non-Friable / Non-NOB	NAD	N/A
BM-43	South Incinerator Bldg, Chimney Mortar	Brick Mortar	Gray	Non-Friable / Non-NOB	NAD	N/A
BM-80	South Incinerator Bldg, Chimney stack, inner lining brick mortar	Brick Mortar	Red	Non-Friable / Non-NOB	NAD	N/A
BM-81	South Incinerator Bldg, Chimney stack, inner lining brick mortar	Brick Mortar	Red	Non-Friable / Non-NOB	NAD	N/A
BML-83	South Incinerator Bldg, Chimney stack, Outside brick mortar	Brick Mortar	Gray	Non-Friable / Non-NOB	NAD	N/A
CA-44	South Incinerator Bldg, Chimney Ash	Incinerator Ash	Black	Friable	NAD	N/A
CB-78	South Incinerator Bldg, Chimney stack, inner lining	Chimney Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
CB-79	South Incinerator Bldg, Chimney stack, inner lining	Chimney Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
CB-88	South Incinerator Bldg, Chimney stack, outer layer	Chimney Brick	Red	Non-Friable / Non-NOB	NAD	N/A
CL-84	South Incinerator Bldg, Chimney stack, outer layer, port-hole opening	Chimney Lining	Gray	Non-Friable / Non-NOB	NAD	N/A

Created by: BW Date: 6/3/2005
Checked by: Date:

MALCOLM PIRNIE

Table D-1
Summary Of Suspect Asbestos Containing Material (SACM) Sampling
Site Investigation Report
Former Incinerator Site
Lackawanna, New York

Sample ID	Location	Type of Material	Color	Friable / NOB	Result *(% Asbestos)*	Estimated Quantity
CL-85	stack, outer layer over concrete, port-hole opening	Chimney Lining	Gray	Non-Friable / Non-NOB	NAD	N/A
CP-41	South Incinerator Bldg, Main Floor, Ceiling	Ceiling Plaster	Gray	Non-Friable / Non-NOB	NAD	N/A
CR-52	South Incinerator Bldg, Roof Core	Flashing Paper	White	NOB	NAD	N/A
CR-53	South Incinerator Bldg, Roof Core	Middle Layer	Black	NOB	NAD	N/A
CR-54	South Incinerator Bldg, Roof Core	Top layer Rubber	Black	NOB	non-ACM	N/A
FB-45	South Incinerator Bldg, Chimney stack, ouside opening	Fire Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
FB-48	South Incinerator Bldg, Basement area debris	Fire Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
FBL-46	South Incinerator Bldg, Chimney stack, ouside opening	Fire Brick Liner (top layer)	Black	Non-Friable / Non-NOB	NAD	N/A
FBL-47	South Incinerator Bldg, Chimney stack, ouside opening	Fire Brick Liner (inner layer)	Black	Non-Friable / Non-NOB	NAD	N/A
FC-42	South Incinerator Bldg, Main Floor, SW Wall Exhaust Pipe	Furnace Cement	Gray	Friable	25.0% Chrisotile	5 sq. feet
GD-82	South Incinerator Bldg, Chimney stack, ground debris	Ground debris	Brown	Non-Friable / Non-NOB	NAD	N/A
IBM-86	South Incinerator Bldg, Chimney stack, 2nd layer of bricks	Inner fire brick mortar	Gray	Non-Friable / Non-NOB	NAD	N/A
OBM-87	South Incinerator Bldg, Chimney stack, outer layer	Brick Mortar	Gray	Non-Friable / Non-NOB	NAD	N/A
RD-51	South Incinerator Bldg, Roof Deck Drywall	Roof Deck	White	NOB	NAD	N/A
RS-50	South Incinerator Bldg, Roof exhaust vent caps	Roofing Shingle	Black	NOB	NAD	N/A
Fill Ramp						N/A
FB-1	West side of fill ramp	Fire Brick	Tan	Non-Friable / Non-NOB	NAD	N/A
FB-2	West side of fill ramp	Fire Brick	Tan	Non-Friable / Non-NOB	NAD	N/A

Notes:
NOB - Non-Friable Organically Bound
NAD - No Asbestos Detected
ACM - Asbestos Containing Material

Created by: BW Date: 6/3/2005
Checked by: Date:

ASBESTOS SURVEY REPORT

Location:

Former Incinerator Site
2960 South Park Ave
Lackawanna, NY 14218

April 07, 22, & 28 2005

Prepared For:

Malcolm Pirnie, Inc
40 Centre Drive
Orchard Park, NY 14219

May 6, 2005

AACTION ENVIRONMENTAL SERVICES, INC.

AACTION ENVIRONMENTAL SERVICES, INC.

ASBESTOS SURVEY

Document Contents:

Conditions:

Information derived from this building survey must be immediately transmitted by the building owner to the Commissioner of Labor through the Department's Division of Safety and Health, Asbestos Control Bureau, and to the local government entity charged with issuing a permit for such demolition under applicable State or local laws. Please note if no permit is required, to the town or city clerk where the building is located.

State of New York- Department of Labor
Division of Safety and Health
Asbestos Control Bureau
State Campus- Building 12, Room 157
Albany, NY 12240.

1. INTRODUCTION

Asbestos is the common name for a group of fibrous hydrated mineral silicates displaying high thermal stability, resistance to chemical attack, great tensile strength, electrical resistance and an ability to be subdivided into progressively smaller bundles and fine fibers. This group of minerals has been widely used in modern times and its employment has been recorded as long ago as the great civilizations of Rome and Greece. Asbestos has commonly been used as an insulator, fireproofing, and as a reinforcing addition to many products. It is commonly found in insulation, flooring materials, roofing materials, and sprayed- or trowelled-on surfacing materials as well as many other products in every-day use. Unfortunately, all asbestiform minerals, serpentine (chrysotile) and amphibole (amosite, crocidolite, anthophyllite, fibrous actinolite, and fibrous tremolite) groups alike, are hazardous when airborne and have been classified as human carcinogens as well as a causative agent in mesothelioma, pleurisy, and other respiratory ailments. Its positive and safe identification must be undertaken if proper precautions are to be taken to protect persons who may be exposed as a result of the disturbance of asbestos-containing materials.

DEFINITIONS:

Asbestos containing material (ACM)- Any material containing asbestos greater than one percent (1%) by weight.

PACM- Presumed asbestos containing material.

Friable- Any material that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure, or is capable of being released into the air by hand pressure.

Non Friable- Any material that when dry, CAN NOT be crumbled, pulverized, or reduced to powder by hand pressure, and is NOT capable of being released into the air by hand pressure.

Non Friable Organically Bound (NOB)- A wide variety of non-friable asbestos materials embedded in flexible-to-rigid asphalt or vinyl matrices, including but not limited to flooring materials, adhesives, mastics, tars, asphalt shingles, roofing materials and caulks.

Sq Ft- Square Feet, **Lin Ft**- Linear Feet.

Inspection- Inspection requires compliance with USEPA 40 CFR 61.145(a)-NESHAP and USOSHA 29 CFR 1926.1101(K)(2) and (K)(15).

Survey - Requires an inspection protocol, which conforms to USEPA 40 CFR 763-AHERA. NYSDOL ICR 56-1.9 does not require a minimum number of samples and has no definitive sampling protocol.

2. OVERVIEW

Aaction Environmental Services, Inc. was retained by Malcolm Pirnie, Inc to perform a Pre-Demolition asbestos survey at The Former Lackawanna Incinerator Buildings Site, 2960 South Park Ave, Lackawanna, NY. The survey was performed at the above location to identify, assess, and approximate the quantities of suspect asbestos containing material (ACM). These materials were then sampled to ascertain the asbestos content. The survey was performed on April 07, 22 & 28 2005 by Kevin Zielinski (Inspector/Cert # AH 99-21358) and Kenneth Stephens (Inspector/Cert # 04-06962) with protocols and guidelines commonly used and accepted in New York State following 12 NYCRR Part 56. Please note a pre-demolition survey is not the same as an OSHA/AHERA Inspection pursuant to 29 CFR 1926 and 40 CFR Part 763. However, this survey does meet the requirements of NYSDOL ICR 56-1.9.

A visual assessment was initially performed to observe and record locations of potential asbestos containing building materials used in the construction and/or renovation of the buildings and chimneys. Subsequently the inspectors proceeded by sampling suspect asbestos containing material (ACM).

The framework of the survey provides for an organized and systematic approach to observe, record locations and list materials that have the potential of containing asbestos. The materials sampled were selected on the understanding of the potential and historical uses of asbestos in building materials and systems, by two (2) trained, certified and NY State licensed asbestos inspectors.

The sampling process proceeds as follows: a) the material is wetted with amended water b) an air tight plastic collection bag is labeled with a unique identifying number and positioned at the sample collection area c) a representative sample is detached from the material and transferred directly into the sample bag and sealed d) samples and sample information are recorded on a Chain of Custody form and transferred under strict chain of custody procedures to a NYSDOH and ELAP certified laboratory for analysis. All samples were first analyzed using Polarized Light Microscopy (PLM) in accordance with US EPA Interim Method, 40 CFR 763. New York State Department of Health Method 198.1. Non-Friable and Semi-Friable samples require additional sample preparation to improve the likelihood of exposing fibrous components. Additional analysis is often necessary to detect asbestos fibers in Non-Friable Organically Bound bulk material (NOB) with Transmission Electron Microscopy (TEM) in accordance with NYS DOH ELAP Item no. 198.4. Polarized Light Microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing. The results of the above described laboratory procedures confirm that a suspect asbestos containing material (ACM) actually contains asbestos. The U.S. EPA regulated asbestos containing material (ACM) as material containing 1% or greater asbestos content. Anything less than 1% is denoted as a trace concentration.

3. SUMMARY

The range of services provided during the pre-demolition asbestos survey included locating, identifying, assessing, mapping and sampling of suspect asbestos containing materials (ACM) to determine their content and quantities.

Suspect asbestos containing materials (ACM) were sampled in areas and spaces accessible to the inspectors. No assumptions or conclusions can be made as to the content of materials and other potential ACM in spaces unknown or not reasonably accessible.

A total of Eighty-Eight (88) samples were collected from various substances/matrixes and homogeneous materials distributed throughout and on the exterior of the buildings and chimneys. It is presumed that materials of like composition, color, texture and appearance are homogeneous. It is assumed that the materials are consistent throughout their application.

Samples taken of suspect ACM included chimney & incinerator fire brick, chimney & incinerator fire brick mortar, chimney & incinerator fire brick lining, chimney & incinerator ash, internal & external incinerator insulations/materials, chimney brick mortar, gaskets, window glaze, surfacing cement, ceiling plaster, paints, pipe insulation, mud (elbow) joint packing, furnace cement/mud packing, transite piping and roofing materials.

All collected samples were transported with Chain of Custody documents to a certified laboratory for analysis.

Samples were first analyzed by Environmental Hazards Services, L.L.C., NVLAP # 101882-0, and NY ELAP # 11714 using Polarized Light Microscopy (PLM) in compliance with US EPA Interim Method 40 CFR 763, New York State Department of Health Method 198.1. Negative PLM samples that required analysis under Transmission Electron Microscopy (TEM), as per NYS DOH ELAP Item #198.4 to determine asbestos content suspended in a non-friable organically bound matrix were sub-contracted to ATC Associates, NVLAP # 101187-0, NY ELAP # 10879.

4. SURVEY ASSESSMENT

On April 22, 2005 the team revisited the areas where asbestos containing material (ACM) was identified to perform a hazard assessment and determine (approximate) quantities. Please note, all quantities should be field verified by a licensed abatement firm prior to the bidding and removal process.

The hazard assessment is based on the AHERA criteria in 40 CFR 763. This criterion includes the condition of material at the time of the survey and the potential for the material to be disturbed, which includes location, accessibility and friability.

Factors regarding the condition of ACM are Intact, Damaged and Significantly Damaged. Three condition classifications were used:

1) Intact - Refers to material in good condition.

2) Damaged - Refers to material which has up to 10 percent damage, which can be abated, encapsulated and/or repaired.

3) Significantly Damaged - Refers to material in very poor condition that generally cannot be repaired or encapsulated and should be completely removed in order to abate the hazard.

Based on the aforementioned activities, coupled with the laboratory analysis results, Aaction Environmental, Inc. assessed the hazard and potential hazard for all confirmed ACM based upon the condition classifications set forth above (hazard assessment). Factors considered were friability, no potential for damage (low), potential for damage (moderate) and potential for significant damage (high), location and accessibility. When preparing the hazard assessment, Aaction Environmental considered only those circumstances likely to be encountered during normal operations and maintenance activities. Percentages of asbestos within confirmed ACM and friability are presented in the laboratory bulk asbestos sample reports.

5. CONCLUSIONS

The materials listed below were found to contain asbestos greater than one percent (1%) by weight and are Asbestos Containing Material (ACM):

Former Incinerator Buildings, 2960 South Park Ave						
Sample ID	**Type of Material**	**Color**	**Location**	**I, D, SD**	**NPD, PD, PSD**	**Quantity**
				(Condition)	**(Damage)**	
19/MJP-19 26/MJP-26 27/MJP-27 28/MJP-28	Mud (elbow) Joint Packing on Pipes	White	North Building; Transite Pipes: Elbows, Breaks/Bends and Insulated Piping- (All Floors)	SD	PSD	75 Lin Ft
23/PI-23 24/PI-24 25/PI-25 40/PI-40	Pipe Insulation	White	North Building; Insulated & Painted Piping- (All Floors)	SD	PSD	300 Lin Ft
39/TP-39	Transite Pipes	Gray	North Building; Piping & Exhaust Pipes through out building	I	PD	700 Lin Ft
42/FC-42	Furnace Cement (Mud Packing)	Gray/White	South Building; Upper South/West Wall- Exhaust Pipe Packing	D	PD	5 Sq Ft
16/RF-65 17/RF-66	Roof Flashing	Black	North Building; Roof- Parapets & Roof Top, Fascias/Flashing	D	PD	700 Sq Ft
18/RC-67	Roof Caps	Black	North Building; Roof Caps around Vents & Exhaust Pipes	I	PD	50 Sq Ft
19/TC-68	Tar Covering	Black	North Building, Top of Back Crane Pad/Landing	SD	PSD	500 Sq Ft

KEY:

I = Intact, D = Damaged, SD = Significant Damage

NPD = No Potential For Damage, PD = Potential For Damage, PSD = Potential For Significant Damage

Notes:

All confirmed ACM is listed above, other **(suspect)** PACM that could not be sampled without further destructive or mechanical sampling include internal equipment gaskets, mechanical/piping gaskets, electrical wiring insulation, electrical backer boards, electrical panel boxes, electrical conduits and core incinerator(s) & chimney insulation/linings. Due to accessibility and structural integrity concerns, only base sampling was performed on the chimneys.

If demolition reveals any suspect ACM or layers that were not sampled, work should stop immediately to allow for additional sampling.

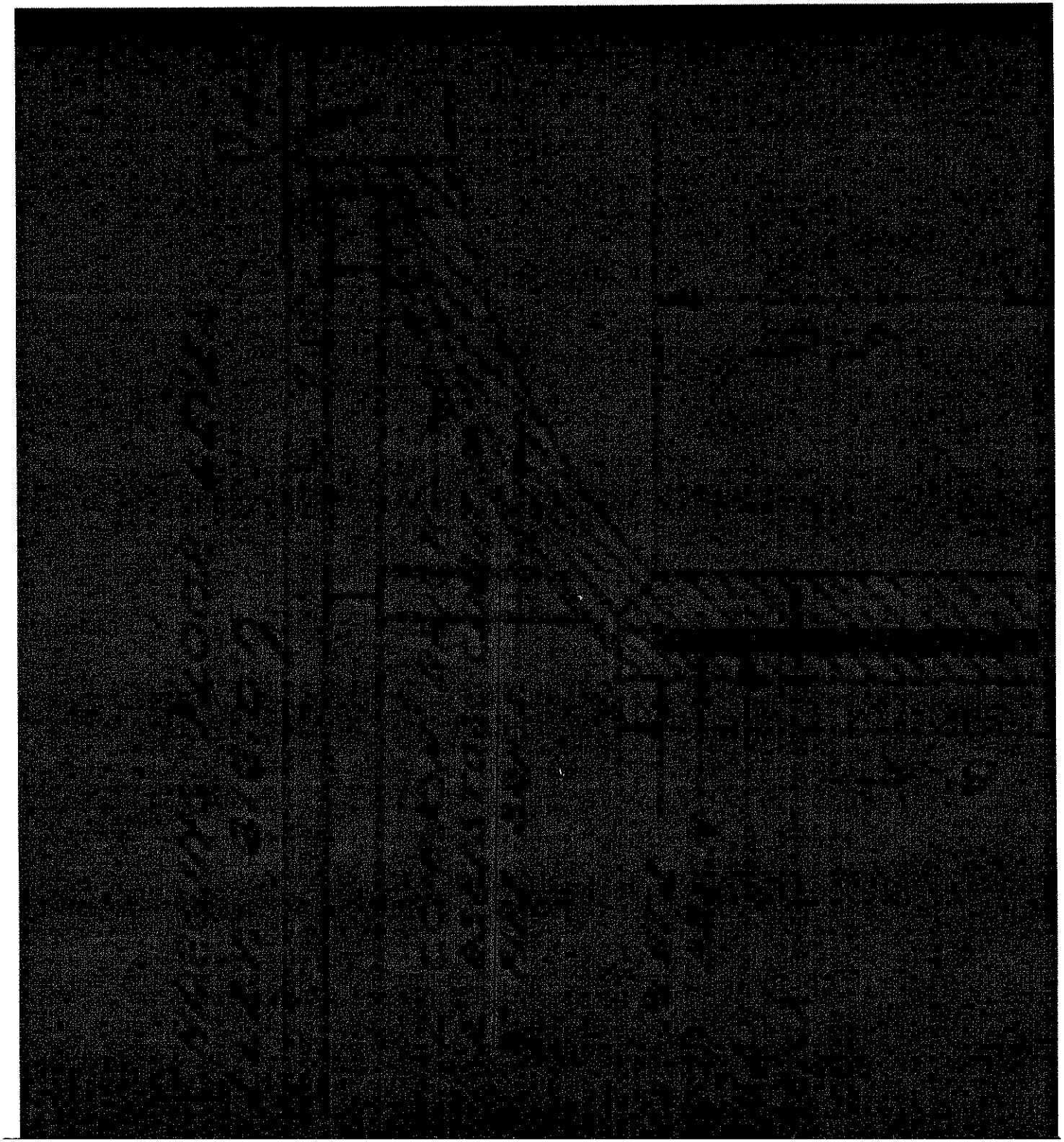
Notes (continued):

On April 22 & 28, 2005 the team revisited the site to perform additional exploratory bulk sampling and investigation of the incinerators and south chimney. Analysis for all samples taken of the chimneys and incinerators has tested NAD, No Asbestos Detected. After reviewing information and blue prints provided by Malcolm Pirine, Inc it appears asbestos cement was used as an insulation/lining between the common surface bricks and firebricks within the incinerators. This material also has the possibility of being present within the same areas of the chimneys.
Please note, a copy of the blueprint in question is provided on the next page.

Recommendations:

Incinerators- mechanical core sampling or asbestos abatement documentation would confirm the absence of ACM.

Chimneys- destructive mechanical sampling, blueprints or records to confirm the absence of ACM. A licensed Architect or Structural Engineer would be required to design and sign off on the project specification before any mechanical equipment and (penetrating) destructive sampling could be implemented.



6. CHAIN OF CUSTODIES/ LABORATORY REPORTS

CHAIN OF CUSTODY

EHS 04-05-1013

SURVEY X BULK SAMPLING ____ OTHER ____

ASBESTOS X LEAD ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

Malcolm Pirnie — CLIENT NAME

40 Centre Dr — CLIENT ADDRESS

Orchard Park, NY — CLIENT PHONE/CELL

CLIENT FAX

Former Incinerator Buildings — PROJECT NAME

2960 South Park Ave, Lackawanna, NY — PROJECT LOCATION

(North + South Blds)

P.O. #

COMMENTS

NY PLM + TEM:

CIRCLE TURN AROUND TIME

72 HR 48 HR (24 HR) RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	FB-1	Fire Brick	North Building (North) - Side of Debris Pile	Tan		
2.	FB-2	Fire Brick	" " - South Side " "	Tan		
3.	FB-3	Fire Brick	" " - Back Chimney - inside port hole	Tan		
4.	BM-4	Brick Mortar	" " - " " - outside mortar	Gray		
5.	BM-5	Brick Mortar	" " - " Port Hole Sealer	Gray		
6.	BM-6	Brick Mortar	" " - Back Built up Flat Landing	Gray		
7.	WG-7	Window Glaze	North Building - Top Floor, (2nd) East windows	White		
8.	CC-8	Surface Cement	" " " East Wall	Gray / Brown		
9.	CP-9	Ceiling Plaster	" " East Ceiling	Gray		
10.	CP-10	Ceiling Plaster	" " West Ceiling	Gray		

SAMPLE CONDITION
Acceptable ✓
Unacceptable ____

SAMPLED BY Kevin Zielinski — DATE 04/07/05

RECEIVED BY — DATE

DATE SEALED / TRANSPORTED 04/07/05

RECEIVED IN LAB BY N Peton — DATE 4/8/05

CHAIN OF CUSTODY

SURVEY X BULK SAMPLING ____ OTHER ____
ASBESTOS X LEAD ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

Malcolm Pirnie — CLIENT NAME
Former Incinerator Buildings — PROJECT NAME
40 Centre Dr — CLIENT ADDRESS
2960 South Park Ave, Lackawanna, NY — PROJECT LOCATION
Orchard Park, NY — CLIENT PHONE/CELL
(North + South Bldg) — P.O. #
CLIENT FAX — COMMENTS

NY PLM + TEM:

CIRCLE TURN AROUND TIME
72 HR 48 HR (24 HR) RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	CG-11	Ceiling Gasket	North Building – Ceiling Exhaust holes	Black		
2.	WG-12	Window Glaze	" " – Stairwell Door	White		
3.	CPT-13	Ceiling Paint	" " Top Floor (2nd) – Ceiling	Silver		
4.	WPT-14	Wall Paint	" " " " – West Wall	light Blue		
5.	WPT-15	Wall Paint	" " " Stairwell Wall	Yellow		
6.	IPT-16	Incinerator Paint	" " Middle Floor (1st) West – Incinerator	Silver		
7.	WPT-17	Wall Paint	" " " – Back Wall	Dark Blue		
8.	PI-18	Pipe Insulation	" " " Bathroom 1" Pipe	Yellow		
9.	MJP-19	Mud Joint Packing	" " " " " "	Gray		
10.	CIC-20	Ceiling Cement	" " " – Ceiling	Gray		

SAMPLED BY Kenneth R Stephan — DATE 4/7/05
RECEIVED BY — DATE

DATE SEALED / TRANSPORTED 04/07/05
RECEIVED IN LAB BY — DATE

CHAIN OF CUSTODY

SURVEY X BULK SAMPLING ____ OTHER ____
ASBESTOS X LEAD ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

Malcolm Pirnie — CLIENT NAME
40 Centre Dr — CLIENT ADDRESS
Orchard Park, NY — CLIENT PHONE/CELL
CLIENT FAX

Former Incinerator Buildings — PROJECT NAME
2960 South Park Ave, Lackawanna, NY (North + South Bldg) — PROJECT LOCATION
P.O. #
COMMENTS

NY PLM + TEM:

CIRCLE TURN AROUND TIME
72 HR 48 HR (24 HR) RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	FB-21	Fire Brick	North Building - Middle Floor - Incinerator Fire Brick	Tan		
2.	IG-22	Gasket	" " " - Incinerator Gasket	Brown		
3.	PI-23	Pipe Insulation	" " - Basement - South West side	Gray		
4.	PI-24	"	" " - " - South Area	Gray		
5.	PI-25	"	" " - " - South East End	Gray		
6.	MJP-26	Mud joint Packing	" " - " - Southwest Side	Gray		
7.	MJP-27	"	" " - " - South Side	Gray		
8.	MJP-28	"	" " - " - East End	Gray		
9.	FB-29	Fire Brick	" " - " - West Incinerator	Tan		
10.	IG-30	Incinerator Gasket	" " " "	Gray		

SAMPLED BY Kenneth R Stephan — DATE 4/7/05
RECEIVED BY — DATE

DATE SEALED / TRANSPORTED 04/07/05
RECEIVED IN LAB BY — DATE

CHAIN OF CUSTODY

SURVEY X BULK SAMPLING ____ OTHER ____
ASBESTOS X LEAD ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

Malcolm Pirnie — CLIENT NAME
Former Incinerator Buildings — PROJECT NAME
40 Centre Dr — CLIENT ADDRESS
2960 South Park Ave, Lackawanna, NY — PROJECT LOCATION
Orchard Park, NY — CLIENT PHONE/CELL
(North + South Bldg) — P.O. #
CLIENT FAX
COMMENTS

NY PLM + TEM:

CIRCLE TURN AROUND TIME
72 HR 48 HR (24 HR) RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	FB-31	Fire Brick	North Bldg - Basement - East Incinerator	Tan		
2.	IG-32	Incinerator Gasket	" " - " - "	Brown		
3.	FBL-33	Fire Brick Liner	" " - " - " Between Fire Brick	"		
4.	IDL-34	Incinerator Door Liner	" " - " - " main Door	"		
5.	IAS-35	Incinerator Ash	" " - " - " Floor Ash	Gray		
6.	FBL-36	Fire Brick Liner	" " - " - West Between Fire Brick Incinerator	Brown		
7.	IDL-37	Incinerator Door Liner	" " - " - " main Door	"		
8.	IAS-38	Incinerator Ash	" " - " - " Floor Ash	Brown		
9.	TP-39	Transite Pipe	" " - " - South East End	Gray		
10.	PI-40	Pipe Insulation	" " - " - North East End	Gray	1"	

SAMPLED BY Kenneth R Stephan — DATE 4/7/05
RECEIVED BY — DATE

DATE SEALED / TRANSPORTED 04/07/05
RECEIVED IN LAB BY — DATE

CHAIN OF CUSTODY

SURVEY X BULK SAMPLING ____ OTHER ____
ASBESTOS X LEAD ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax (716) 677-8813

Malcolm Pirnie — CLIENT NAME
Former Incinerator Buildings — PROJECT NAME
40 Centre Dr — CLIENT ADDRESS
2960 South Park Ave, Lackawanna, NY — PROJECT LOCATION
Orchard Park, NY — CLIENT PHONE/CELL
(North + South Bldg) — P.O. #
CLIENT FAX
COMMENTS

NY PLM + TEM:

CIRCLE TURN AROUND TIME
72 HR 48 HR (24 HR) RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	CP-41	Ceiling Plaster	South Building – Ceiling	Gray		
2.	FC-42	Furnace Cement	" " – Wall South West Exhaust Pipe	Gray		
3.	BM-43	Brick Mortar	" " – Chimney Mortar	Gray		
4.	CA-44	Chimney Ash	" " " Inside Chimney (Ground)	Black		
5.	FB-45	Fire Brick	" " " – Outside opening	Tan		
6.	FBL-46	Fire Brick Lining	" " " " Top layer	Black		
7.	FBL-47	Fire Brick Lining	" " " " Inner layer	Black		
8.	FB-48	Fire Brick	" " Inside Basement Ground Debris	Tan		
9.	BC-49	Basement Ceiling	" " Basement Ceiling	Gray / Black		
10.	RS-50	Roofing Shingle	Exhaust Vent Caps x 2	Black		

SAMPLED BY Kevin Zieluski — DATE 04/07/05 — DATE SEALED / TRANSPORTED 04/07/05
RECEIVED BY — DATE — RECEIVED IN LAB BY — DATE

CHAIN OF CUSTODY

SURVEY X BULK SAMPLING ____ OTHER ____
ASBESTOS X LEAD ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

Malcolm Pirnie — CLIENT NAME
40 Centre Dr — CLIENT ADDRESS
Orchard Park, NY — CLIENT PHONE/CELL
CLIENT FAX

Former Incinerator Buildings — PROJECT NAME
2960 South Park Ave, Lackawanna, NY (North + South Bldg) — PROJECT LOCATION
P.O. #
COMMENTS

NY PLM + TEM:

CIRCLE TURN AROUND TIME
72 HR 48 HR (24 HR) RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	RD-51	Roof Deck	South Building – Roof / (Deck) Dry wall	White		
2.	CR-52	Core Roof	" " " Flashing Paper	Black		
3.	CR-53	Core Roof	" " Middle layer	Black		
4.	CR-54	Core Roof	" " Top layer / Rubber	Black		
5.	CR-55	Core Roof	North Building Roof – Roof Deck,	White		
6.	CR-56	Core Roof	" " " (Field Ply) Bottom layer 2	Black		
7.	CR-57	Core Roof	" " " Pitch layer 3	Black		
8.	CR-58	Core Roof	" " " Middle layer 4	Black		
9.	CR-59	Core Roof	" " " Top layer 5	Black		
10.	CR-60	Core Roof	North Building Roof – Roof Deck,	White		

SAMPLED BY Kevin Zielinski — DATE 04/07/05
RECEIVED BY — DATE

DATE SEALED / TRANSPORTED 04/07/05
RECEIVED IN LAB BY — DATE

CHAIN OF CUSTODY

SURVEY X BULK SAMPLING ____ OTHER ____
ASBESTOS X LEAD ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

Malcolm Pirnie — CLIENT NAME
Former Incinerator Buildings — PROJECT NAME
40 Centre Dr — CLIENT ADDRESS
2960 South Park Ave, Lackawanna, NY — PROJECT LOCATION
Orchard Park, NY — CLIENT PHONE/CELL
(North + South Blds) — P.O. #
CLIENT FAX
COMMENTS

NY PLM + TEM:

CIRCLE TURN AROUND TIME
72 HR 48 HR (24 HR) RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	CR-61	Core Roof	North Building Roof - Field Ply Bottom layer 2	Black		
2.	CR-62	Core Roof	" " " - Pitch layer 3	Black		
3.	CR-63	Core Roof	" " " - Middle layer 4	Black		
4.	CR-64	Core Roof	" " " - Top layer 5	Black		
5.	RF-65	Roof Flashing	" " Flashing - Roof Parapet	Black		
6.	RF-66	Roof Flashing	" " Flashing - Roof Parapet	Black		
7.	RC-67	Roof Cap	" " Roof - Caps over/around Exhaust Vents	Black		
8.	TC-68	Tar Covering	" " Back Crane Surface of the Concrete Pad	Black		
9.						
10.						

SAMPLED BY Kevin Zielinski — DATE 04/07/05
DATE SEALED / TRANSPORTED 04/07/05
RECEIVED BY — DATE
RECEIVED IN LAB BY — DATE

CHAIN OF CUSTODY

EHS 04-05-2985

SURVEY X BULK SAMPLING ____ OTHER ____

ASBESTOS X LEAD ____ OTHER ____

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

Malcolm Pirnie — CLIENT NAME
Former Incinerator Buildings — PROJECT NAME
40 Centre Dr — CLIENT ADDRESS
2960 South Park, Lackawanna NY — PROJECT LOCATION
Orchard Park, NY 14219 — CLIENT PHONE/CELL
NY PLM — P.O. #
CLIENT FAX
COMMENTS

CIRCLE TURN AROUND TIME

72 HR 48 HR (24 HR) RUSH ____

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	MP-69	Mud packing Top Insulation	North Building - Middle Floor, Top East Incinerator	Gray		
2.	MP-70	" "	" " - West Incinerator Top	Gray		
3.	FB-71	Fire Brick	" " West Incinerator - 2nd lining of Fire Brick	Tan		
4.	SO-72	Spray on Insulation	" " " - Inner lining of the Top - west	Tan		
5.	SO-73	" "	" " " " " - East	Tan		
6.	G-74	Door Gasket	" " " - Side Door, inner Gasket	Brown		
7.	SO-75	Spray on Insulation	" " East Incinerator - Inner lining of Top - west	Tan		
8.	SO-76	Spray on Insulation	" " " " - East	Tan		
9.	G-77	Gasket	" " " Bottom Gasket of Side Door	Black / Brown		
10.						

SAMPLE CONDITION
Acceptable ✓
Unacceptable ____

SAMPLED BY Kevin Zielinski — DATE 04/22/05

RECEIVED BY — DATE

DATE SEALED / TRANSPORTED 04/22/05 - KZ

RECEIVED IN LAB BY — DATE

11 NY PLM EHS 04-05-3918

CHAIN OF CUSTODY

ACTION ENVIRONMENTAL SERVICES INC.
41 SAINT JOAN LANE • CHEEKTOWAGA, NY 14227
Phone: (716) 677-8813 • Fax: (716) 677-8813

SURVEY X BULK SAMPLING OTHER
ASBESTOS X LEAD OTHER

Malcolm Pirnie — CLIENT NAME
Former Incinerator Buildings — PROJECT NAME
40 Centre Dr — CLIENT ADDRESS
2960 South Park Ave — PROJECT LOCATION
Orchard Park, NY — CLIENT PHONE/CELL
Lackawanna, NY — P.O. #
CLIENT FAX — COMMENTS

NY PLM

CIRCLE TURN AROUND TIME
72 HR 48 HR (24 HR) RUSH

	SAMPLE ID	TYPE OF MATERIAL	SAMPLING LOCATION	COLOR	MATERIAL SIZE	LAB I.D.
1.	CB-78	Chimney Brick	Inside South Chimney – Inner Lining	Tan		
2.	CB-79	" "	" " " "	"		
3.	BM-80	Brick Mortar	" " Inner Lining – Brick mortar	Red		
4.	BM-81	" "	" " " " " "	"		
5.	GD-82	Ground Debris	" " " " – Ground	Brown		
6.	BML-83	Brick Mortar Lining	Outside South Chimney Between Surface Bricks	Gray		
7.	CL-84	Chimney Port Lining	" " " Port opening, hole – outer layer	Gray		
8.	CL-85	" " " "	" " " " – over concrete	Gray	SAMPLE CONDITION ACCEPTED [illegible]	✓
9.	IBM-86	Inner Brick Mortar	" " " 2nd layer of Chimney Bricks	Gray		
10.	OBM-87	Outer Brick Mortar	" " " 1st layer/outer	Gray		
11.	CB-88	Chimney Brick	" " outside Chimney Brick	Red		

SAMPLED BY Kevin Zielinski — DATE 04/28/05 — DATE SEALED / TRANSPORTED 04/28/05 – KZ

RECEIVED BY — DATE — RECEIVED IN LAB BY — DATE 4-29-05 10a

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237
804-275-4788 FAX 804-275-4907

NEW YORK ASBESTOS ANALYSIS SUMMARY

CLIENT: Aaction Environmental
41 St. Joan Lane
Cheektowaga, NY 14227

DATE OF RECEIPT: 08 APR 2005
DATE OF ANALYSIS: 11 APR 2005
DATE OF REPORT: 12 APR 2005

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1121
PROJECT: Former Incinerator Buildings; 2960 South Park Ave.; Lackawanna, NY

EHS SAMPLE #	CLIENT SAMPLE #/ LAB. GROSS DESCRIPTION	FRIABLE/ NOB	METHODOLOGY	% ASBESTOS
01	FB-1/ Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
02	FB-2/ Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
03	FB-3/ Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
04	BM-4/ Off-White/Gray Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
05	BM-5/ Off-White/Gray Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
06	BM-6/ Off-White/Gray Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
07	WG-7/ Off-White/Gray Brittle	Friable	Negative Scan	NAD
08	CC-8/ Beige Cementitious; Coarse Powder	Friable	Negative Scan	NAD
09	CP-9/ Pale Beige Brittle	Friable	Negative Scan	NAD
10	CP-10/ Beige Brittle	Friable	Negative Scan	NAD
11	CG-11/ Dark Brown Brittle	Friable	Negative Scan	NAD
12	WG-12/ Off-White Pliable	Non-Friable Non-NOB	Negative Scan	NAD

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1121
PROJECT: Former Incinerator Buildings; 2960 South Park Ave.; Lackawanna, NY

EHS SAMPLE #	CLIENT SAMPLE #/ LAB. GROSS DESCRIPTION	FRIABLE/ NOB	METHODOLOGY	% ASBESTOS
13	CPT-13/ Silver Brittle	Friable	Negative Scan	NAD
14	WPT-14/ Blue Brittle	Friable	Negative Scan	NAD
15	WPT-15/ Pale Yellow Brittle	Friable	Negative Scan	NAD
16	IPT-16/ Silver/Dark Red Brittle	Friable	Negative Scan	NAD
17	WPT-17/ Blue Brittle	Friable	Negative Scan	NAD
18	PI-18/ Pale Gold/Beige Fib.; Silver Metallic	Friable	Negative Scan	NAD
19	MJP-19/ Off-White Fib.; Beige/Green Brittle	Friable	Stratified Point Count	57.14% Chrysotile
20	CIC-20/ Tan/Gray Cementitious; Silver Brittle	Non-Friable Non-NOB	Negative Scan	NAD
21	FB-21/ Off-White/Gray Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
22	IG-22/ Gray Cementitious	Non-Friable Non-NOB	Stratified Point Count	<0.25% Chrysotile ★ ★Chrysotile fibers observed but did not fall under any counted points.
23	PI-23/ Tan/Off-White Fib.	Friable	Stratified Point Count	3.42% Chrysotile
24	PI-24/ Tan/Off-White Fib.	Friable	Stratified Point Count	4.40% Chrysotile
25	PI-25/ Tan/Off-White Fib.	Friable	Stratified Point Count	1.98% Chrysotile

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1121
PROJECT: Former Incinerator Buildings; 2960 South Park Ave.; Lackawanna, NY

EHS SAMPLE #	CLIENT SAMPLE #/ LAB. GROSS DESCRIPTION	FRIABLE/ NOB	METHODOLOGY	% ASBESTOS
26	MJP-26/ Off-White Fib.; Brown/Gray Brittle	Friable	Stratified Point Count	16.67% Chrysotile
27	MJP-27/ Pale Gray Fib.; Green Brittle	Friable	Stratified Point Count	44.44% Chrysotile
28	MJP-28/ Off-White/Tan Fib.	Friable	Stratified Point Count	35.71% Chrysotile
29	FB-29/ Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
30	IG-30/ Brown/Beige Cementitious; Off-White Fib.	Friable	Negative Scan	NAD
31	FB-31/ Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
32	IG-32/ Beige/Gray Brittle	Friable	Negative Scan	NAD
33	FBL-33/ Pale Pink Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
34	IDL-34/ Tan Brittle	Friable	Negative Scan	NAD
35	IAS-35/ Off-White/Gray Brittle	Friable	Negative Scan	NAD
36	FBL-36/ Tan/Pale Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
37	IDL-37/ Beige Brittle	Friable	Negative Scan	NAD
38	IAS-38/ Beige Brittle	Friable	Negative Scan	NAD
39	TP-39/ Pale Gray Brittle	Non-Friable Non-NOB	Stratified Point Count	8.89% Chrysotile 5.48% Crocidolite 14.37% Total Asbestos
40	PI-40/ Off-White Fib.; Silver/Green Brittle	Friable	Stratified Point Count	28.57% Chrysotile

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1121
PROJECT: Former Incinerator Buildings; 2960 South Park Ave.; Lackawanna, NY

EHS SAMPLE #	CLIENT SAMPLE #/ LAB. GROSS DESCRIPTION	FRIABLE/ NOB	METHODOLOGY	% ASBESTOS
41	CP-41/ Pale Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
42	FC-42/ Off-White Brittle	Friable	Stratified Point Count	25.0% Chrysotile
43	BM-43/ Pale Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
44	CA-44/ Gray Coarse Powder	Friable	Negative Scan	NAD
45	FB-45/ Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
46	FBL-46/ Gray Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
47	FBL-47/ Gray Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
48	FB-48/ Beige Cementitious	Non-Friable Non-NOB	Negative Scan	NAD
49	BC-49/ Gray Cementitious; Off-White Brittle	Non-Friable Non-NOB	Negative Scan	NAD

REPORTING LIMIT: 1.0% Asbestos

METHOD: Polarized Light Microscopy,
New York State Department of Health Method 198.1

ANALYST: Mark Case

Reviewed By Authorized Signatory: _____

Michael A. Mueller, MPH, Laboratory Director
Howard Varner, General Manager
Irma Faszewski, Quality Assurance Coordinator
Feng Jiang, MS, Technical Director

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1121
PROJECT: Former Incinerator Buildings; 2960 South Park Ave.; Lackawanna, NY

NON ACM represents <1% by gravimetric analysis.
The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319 NY ELAP #11714

LEGEND	NAD = no asbestos detected	Strat. Pt. Ct. = Stratified Point Count	ACM = Asbestos Containing Material
	Grav. = Gravimetric	NOB = Non Friable Organically Bound	

nyasb.dot/07MAR2005/REV1/pd

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237
804-275-4788 FAX 804-275-4907

NEW YORK ASBESTOS ANALYSIS SUMMARY

CLIENT: Aaction Environmental
41 St. Joan Lane
Cheektowaga, NY 14227

DATE OF RECEIPT: 08 APR 2005
DATE OF ANALYSIS: 12 APR 2005
DATE OF REPORT: 12 APR 2005

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1013
PROJECT: Former Incinerator Buildings; 2960 South Park Ave, Lackawanna, NY

EHS SAMPLE #	CLIENT SAMPLE #/ LAB. GROSS DESCRIPTION	FRIABLE/ NOB	METHODOLOGY	% ASBESTOS
01	RS-50/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★
02	RD-51/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★
03	CR-52/ Black Fib.	NOB	Gravimetric Prep PLM	NAD ★
04	CR-53/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★
05	CR-54/ Black Tar-Like	NOB	Gravimetric Prep	NON-ACM
06	CR-55/ Black Fib.	NOB	Gravimetric Prep PLM	NAD ★
07	CR-56/ Black Tar-Like	NOB	Gravimetric Prep	NON-ACM
08	CR-57/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★
09	CR-58/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★
10	CR-59/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★
11	CR-60/ Black Tar-Like	NOB	Gravimetric Prep	NON-ACM
12	CR-61/ Black Tar-Like	NOB	Gravimetric Prep	NON-ACM
13	CR-62/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-1013
PROJECT: Former Incinerator Buildings; 2960 South Park Ave, Lackawanna, NY

EHS SAMPLE #	CLIENT SAMPLE #/ LAB. GROSS DESCRIPTION	FRIABLE/ NOB	METHODOLOGY	% ASBESTOS
14	CR-63/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★
15	CR-64/ Black Tar-Like	NOB	Gravimetric Prep PLM	NAD ★
16	RF-65/ Black Tar-Like	NOB	Gravimetric Prep PLM	10.24% Chrysotile
17	RF-66/ Black Tar-Like	NOB	Gravimetric Prep PLM	8.83% Chrysotile
18	RC-67/ Black Tar-Like	NOB	Gravimetric Prep PLM	6.45% Chrysotile
19	TC-68/ Black Tar-Like	NOB	Gravimetric Prep PLM	1.73% Chrysotile

REPORTING LIMIT: 1.0% Asbestos

METHOD: Polarized Light Microscopy,
New York State Department of Health Method 198.1

ANALYST: Feng Jiang, M.S.

Reviewed By Authorized Signatory:

Michael A. Mueller, MPH, Laboratory Director
Howard Varner, General Manager
Irma Faszewski, Quality Assurance Coordinator
Feng Jiang, MS, Technical Director

★ Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

NON ACM represents <1% by gravimetric analysis.
The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319 NY ELAP #11714

LEGEND NAD = no asbestos detected | Strat. Pt. Ct. = Stratified Point Count | ACM = Asbestos Containing Material
Grav. = Gravimetric | NOB = Non Friable Organically Bound

yasb.dot/07MAR2005/REV1/th

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237
804-275-4788 FAX 804-275-4907

NEW YORK ASBESTOS ANALYSIS SUMMARY

CLIENT: Aaction Environmental
41 St. Joan Lane
Cheektowaga, NY 14227

DATE OF RECEIPT: 23 APR 2005
DATE OF ANALYSIS: 25 APR 2005
DATE OF REPORT: 25 APR 2005

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-2985
PROJECT: Former Incinerator Buildings

EHS SAMPLE #	CLIENT SAMPLE #/ LAB. GROSS DESCRIPTION	FRIABLE/ NOB	METHODOLOGY	% ASBESTOS
1	MP-69/ Gray Gran.	Friable	Negative Scan	NAD
2	MP-70/ Gray Gran.	Friable	Negative Scan	NAD
3	FB-71/ Beige Gran.	Friable	Negative Scan	NAD
4	SO-72/ Beige Gran.	Friable	Negative Scan	NAD
5	SO-73/ Beige Gran.	Friable	Negative Scan	NAD
6	G-74/ Brown Powder	Friable	Negative Scan	NAD
7	SO-75/ Beige Gran.	Friable	Negative Scan	NAD
8	SO-76/ Beige Gran.	Friable	Negative Scan	NAD
9	G-77/ Beige Gran.	Friable	Negative Scan	NAD

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-2985
PROJECT: Former Incinerator Buildings

REPORTING LIMIT: 1.0% Asbestos

METHOD: Polarized Light Microscopy,
New York State Department of Health Method 198.1

ANALYST: Laura Holder

Reviewed By Authorized Signatory: _____

Michael A. Mueller, MPH, Laboratory Director
Howard Varner, General Manager
Irma Faszewski, Quality Assurance Coordinator
Feng Jiang, MS, Technical Director

NON ACM represents <1% by gravimetric analysis.
The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319 NY ELAP #11714

LEGEND NAD = no asbestos detected; Strat. Pt. Ct. = Stratified Point Count; ACM = Asbestos Containing Material; Grav. = Gravimetric; NOB = Non Friable Organically Bound

nyasb.dot/07MAR2005/REV1/MR

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237
804-275-4788 FAX 804-275-4907

NEW YORK ASBESTOS ANALYSIS SUMMARY

CLIENT: Aaction Environmental
41 St. Joan Lane
Cheektowaga, NY 14227

DATE OF RECEIPT: 29 APR 2005
DATE OF ANALYSIS: 29 APR 2005
DATE OF REPORT: 29 APR 2005

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-3918
PROJECT: Former Incinerator Buildings; 2960 South Park Ave.; Lackawanna, NY

EHS SAMPLE #	CLIENT SAMPLE #/ LAB. GROSS DESCRIPTION	FRIABLE/ NOB	METHODOLOGY	% ASBESTOS
01	CB-78/ Brown Gran.	Non-Friable Non-NOB	Negative Scan	NAD
02	CB-79/ Brown Gran.	Non-Friable Non-NOB	Negative Scan	NAD
03	BM-80/ Brick Red Gran.	Non-Friable Non-NOB	Negative Scan	NAD
04	BM-81/ Brick Red Gran.	Non-Friable Non-NOB	Negative Scan	NAD
05	GD-82/ Brown Gran.	Non-Friable Non-NOB	Negative Scan	NAD
06	BML-83/ Gray Gran.	Non-Friable Non-NOB	Negative Scan	NAD
07	CL-84/ Brown Gran.	Non-Friable Non-NOB	Negative Scan	NAD
08	CL-85/ Brown Gran.	Non-Friable Non-NOB	Negative Scan	NAD
09	IBM-86/ Beige Gran.	Non-Friable Non-NOB	Negative Scan	NAD
10	OBM-87/ Beige Gran.	Non-Friable Non-NOB	Negative Scan	NAD
11	CB-88/ Brick Red Gran.	Non-Friable Non-NOB	Negative Scan	NAD

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 33-5605 S
EHS PROJECT #: 04-05-3918
PROJECT: Former Incinerator Buildings; 2960 South Park Ave.; Lackawanna, NY

REPORTING LIMIT: 1.0% Asbestos

METHOD: Polarized Light Microscopy,
New York State Department of Health Method 198.1

ANALYST: Laura Holder

Reviewed By Authorized Signatory:

Michael A. Mueller, MPH, Laboratory Director
Howard Varner, General Manager
Irma Faszewski, Quality Assurance Coordinator
Feng Jiang, MS, Technical Director

NON ACM represents <1% by gravimetric analysis.
The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319 NY ELAP #11714

LEGEND NAD = no asbestos detected; Strat. Pt. Ct. = Stratified Point Count; ACM = Asbestos Containing Material; Grav. = Gravimetric; NOB = Non Friable Organically Bound

nyasb.dot/07MAR2005/REV1/pd

ATC Associates

104 East 25 Street, New York, NY 10010

Phone: (212) 353-8280 Fax: (212) 353-8306

Attn:

National Testing Laboratories, Ltd
6555 Wilson Mills Rd.
Cleveland OH 44143

Fax: (440) 449-8585 **Phone:** (440) 449-2525

Project: Aaction Env. SVCS.
Former Incinerator Buildings

Received: 4/13/05 10:15:00 AM
ATC Group #: 16492
Analysis Date: 4/25/05

Summary of Bulk Asbestos Analysis Results

Sample	*HG Area*	*Insoluble Non Asbestos Inorganic %*	*Asb % By PLM*	*Asbestos Type(s) By PLM*	*Asb % By TEM*	*Asbestos Type(s) By TEM*	*Total % Asbestos By TEM*
RS-50 *16492-1*		30.9			0	None Detected	NAD
RD-51 *16492-2*		17.1			0	None Detected	NAD
CR-52 *16492-3*		1.04			0	None Detected	NAD
CR-53 *16492-4*		18.01			0	None Detected	NAD
CR-55 *16492-5*		1.49			0	None Detected	NAD
CR-57 *16492-6*		72.41			0	None Detected	NAD

MARK PEYSAKHOV
Analyzed by:

MILENA LOWD
Approved by:

Attn:

National Testing Laboratories, Ltd
6555 Wilson Mills Rd.
Cleveland OH 44143

Fax: (440) 449-8585 **Phone:** (440) 449-2525

Project: Aaction Env. SVCS.
Former Incinerator Buildings

Received: 4/13/05 10:15:00 AM
ATC Group #: 16492
Analysis Date: 4/25/05

Summary of Bulk Asbestos Analysis Results

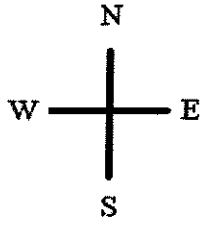
Sample	*HG Area*	*Insoluble Non Asbestos Inorganic %*	*Asb % By PLM*	*Asbestos Type(s) By PLM*	*Asb % By TEM*	*Asbestos Type(s) By TEM*	*Total % Asbestos By TEM*
CR-58 *16492-7*		4.15			0	None Detected	NAD
CR-59 *16492-8*		7.05			0	None Detected	NAD
CR-62 *16492-9*		63.7			0	None Detected	NAD
CR-63 *16492-10*		3.63			0	None Detected	NAD
CR-64 *16492-11*		12.98			0	None Detected	NAD

MARK PEYSAKHOV
Analyzed by:

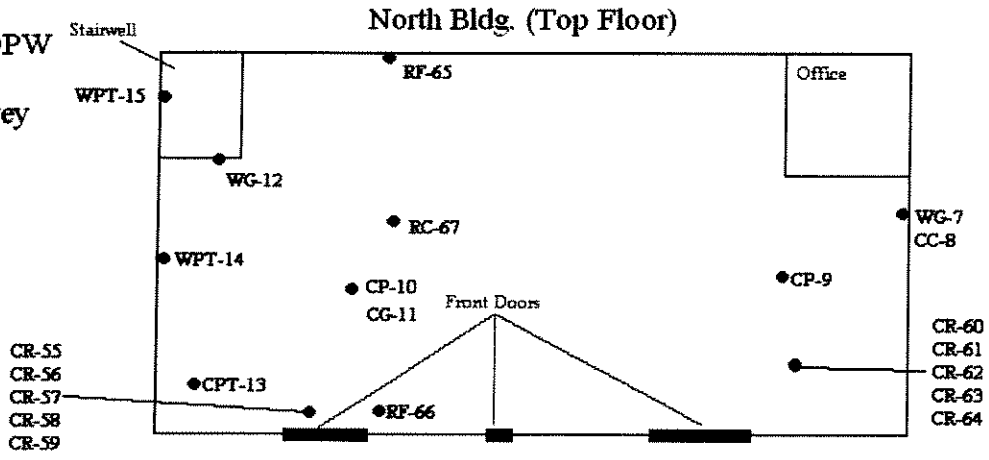
MILENA LOWD
Approved by:

7. SAMPLE LOCATIONS/MAPS

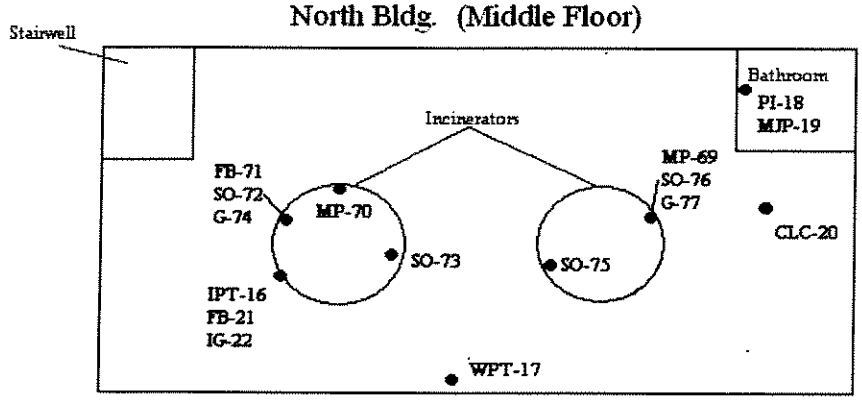
Lackawanna DPW
Incinerator
Asbestos Survey
North Bldg.



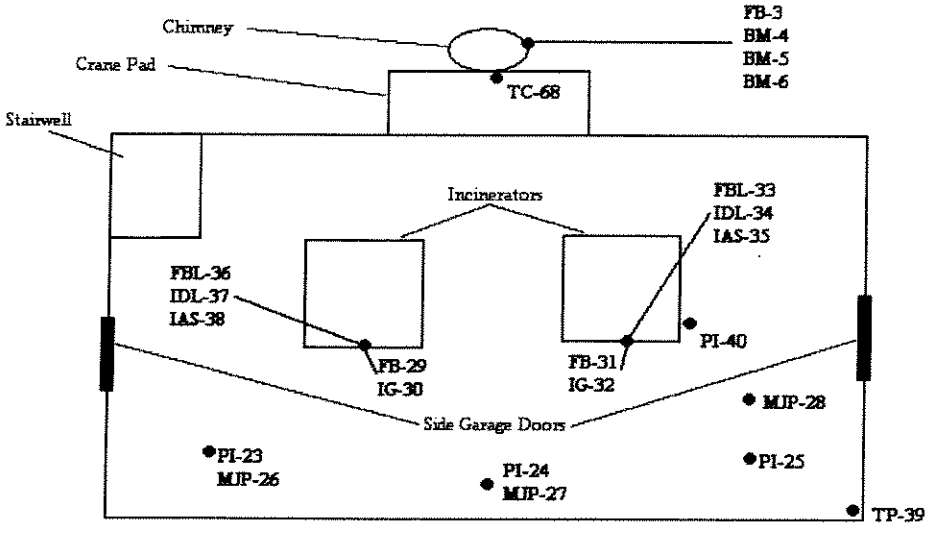
North Bldg. (Top Floor)



North Bldg. (Middle Floor)



North Bldg. (Bottom Floor/Basement)

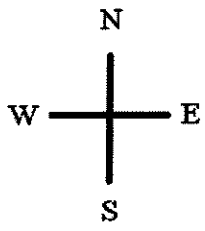


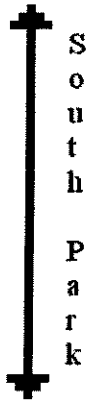
FB-2

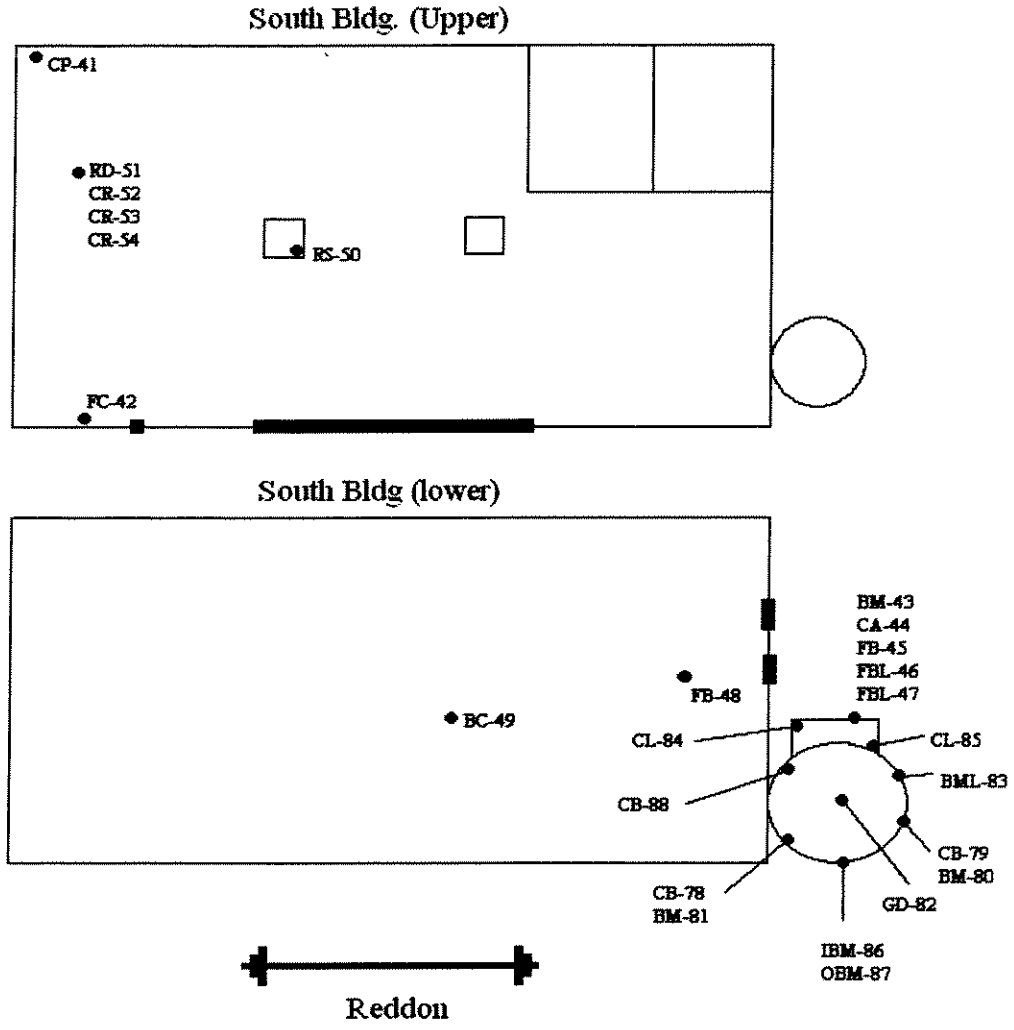
Reddon

FB-1

Lackawanna DPW
Incinerator
Asbestos Survey
South Bldg







8. LICENSE/CERTIFICATIONS

STATE OF NEW YORK - DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH
License and Certificate Unit
BUILDING 12, STATE CAMPUS
ALBANY, NY 12240

ASBESTOS HANDLING LICENSE

RESTRICTED LICENSE-ASBESTOS REMOVAL NOT PERMITTED

LICENSE NUMBER: **03-0116**
DATE OF ISSUE: **Jan. 28, 2005**
EXPIRATION DATE: **Feb. 28, 2006**

Contractor: **AACTION ENVIRONMENTAL SERVICES, INC.**
Address: **41 Saint Joan Lane**
Cheektowaga, NY 14227

Duly Authorized Representative: **KEVIN ZIELINSKI**

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State d of the New York State Codes, Rules and Regulations (12NYCRR Part 56). It is subject to suspension or revocation for a serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack responsibility in the conduct of any job involving asbestos or asbestos material.

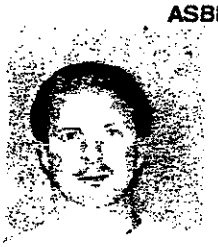
This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New rk State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State partment of Labor.

Anthony Germano, Acting Director
FOR THE COMMISSIONER OF LABOR

432 (6-03)

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE



KEVIN P ZIELINSKI
CLASS(EXPIRES)
C A/TEC(05/05) D INSP(05/05)
H PM (05/05)

CERT# 99-21358

MUST BE CARRIED ON ASBESTOS PROJECTS

DMV# 966120442
EYES BLU
HAIR BLN
HGT 5' 07"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161 BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

KENNETH STEPHENS
CLASSIFICATION:
C ASBC(09/05) B INSP(09/05)

CERT# 04-06962

MUST BE CARRIED ON ASBESTOS PROJECTS

DMV# 100820428
EYES BRO
HAIR BRO
HGT 5' 08"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161 BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

MALCOLM PIRNIE

Data Validation Reports

APPENDIX

E

June 27, 2005

Malcolm Pirnie, Inc.
Att: Mr. James Richert
40 Centre Drive
Orchard Park, New York 14127-4102

Re: Former Incinerator Site, Lackawanna, NY Data Deliverables;
Non-Aqueous Samples Collected April 05, 2005

Malcolm Pirnie Project No. : 4852-001

Dear Mr. Richert,

Enclosed with this cover letter are the results of our data review of the laboratory deliverables pertaining to the referenced site. The review was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review ('DUSR') process.

Site Name: Former Incinerator Site, Lackawanna, NY

Fractions:

Volatile Organics	Laboratory:	ChemTech, New Jersey
Semi-volatile Organics	Matrix:	Non-Aqueous
Pesticide & PCB Organics	Lab No.:	T2253
TAL Metals + Cyanide		

Reviewer: Chris Taylor

Prepared By: Environmental Quality Associates, Inc.

SECTION A
Sample Information

The above-noted laboratory project was analyzed by ChemTech, Mountainside, NJ. Samples were collected April 05, 2005, and received at the laboratory (VTSR) on April 07, 2005. Samples were analyzed for volatile organics (9), semivolatile organics (8), chlorinated pesticides (8), polychlorinated biphenyls ('PCBs', 8), TAL metals (8) and cyanide (8). Samples were received at the laboratory in good condition, and within the acceptable temperature range of 0 to 6 degrees Centigrade. Volatile trip blank (1) was at acceptable aqueous preserved pH level (<2) per laboratory sample receipt and prep logs.

SECTION B
General Comments

Summary of data completeness and overall quality of data deliverables package
Data deliverables were complete as received.

Overall data quality

Data quality was acceptable, incorporating applied data qualifiers as detailed in the accompanying QC and calibration summary forms. No data rejections were necessary. Data qualifiers applied by the reviewer are accompanied by a supporting footnote which indicates the reason for the qualifier and any potential bias direction associated with the qualifier; each footnote is specific to the particular analytical fraction and associated QA review spreadsheets. It is noted that 'J' qualifiers applied by the laboratory to indicate a positive result >MDL but <RL are not footnoted by the data reviewer unless there is an additional qualifier affecting that particular analyte result.

SECTION C
Volatile Organic Fraction

NYSDEC-ASP holding times from lab receipt to analysis were met for all samples.

Surrogate recoveries, blank spike recoveries, instrument tune parameters and internal standard recoveries and retention times were within acceptable limits, except for sample T2253-02 [IS-MW2-(5.5-6.0)]; this sample, its re-analysis, and matrix spike duplicate (MSD) exhibited low recoveries of surrogate 4-bromofluorobenzene (BFB), while BFB recovery in the matrix spike (MS) was at the lower limit of 75%. It is noted that this sample and its MSD exhibited low recoveries of internal standard (IS) 1,4-dichlorobenzene-d4, while sample re-analysis showed low recoveries of all IS compounds, confirming sample matrix effects. All target compound results in the native (unspiked) sample were qualified 'UJ' or 'J', with negative bias suggested due to matrix effects.

Percent RSD (%RSD) values for 19 target compounds exceeded the allowable maximum of 15.0% in the aqueous initial calibration (ICAL) of 04/13/05, while chloroethane, acetone, methyl acetate and methylene chloride exhibited %RSD above 15.0% in the non-aqueous ICAL of 04/10/05. The data user is referred to the attached ICAL summary for specific details; since none of these compounds were indicated as being quantitated via linear regression, positive results for these compounds in associated samples were qualified 'J', with no bias direction inferred. Continuing calibrations (CCAL) on 04/15 and 04/16/05 exhibited RRF %D values for several target analytes which exceeded 20%, with responses for these compounds both negative and positive relative to the ICAL average RRFs (the data user is referred to the attached calibration summary spreadsheet for specific details). All compounds which were negative relative to ICAL RRFs were qualified 'UJ', with negative bias suggested, while any affected compound positive results were qualified 'J', with positive bias suggested.

Method blanks for non-aqueous samples exhibited low levels of acetone and/or methylene chloride. Positive results for these compounds in associated samples were negated with 'U' qualifier if present below 10x corresponding blank concentrations. The aqueous trip blank was free of contamination, as was the associated method blank for this sample.

Reported recovery was low for chlorobenzene in the MSD of T2253-02; this compound was qualified 'UJ' in the native sample only, with potential negative bias suggested.

SECTION D
Semi-volatile Organics

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples. Instrument tune parameters were within acceptable limits.

Surrogate recoveries for terphenyl-d14 and 2,4,6-tribromophenol were above acceptable limits (273/137 and 167/122%, respectively) in sample IS-MW-3 (0-4); therefore, reported positive results for both base/neutral and acid fraction analytes were qualified 'J', with potential positive bias suggested.

Sample IS-MW-2 (0-6) matrix spike recoveries were below acceptable limits for 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol and indeno(1,2,3-cd)pyrene. These compounds were qualified 'UJ' in the native sample only, with negative bias suggested due to matrix effects. Also, the reported %RPD value for 4-chloroaniline was above the allowable limit; since this compound was not positive in the native sample, no data qualifiers were applicable. It is noted that the lab spike recovery summary (p. 11) listed this compound as below limits in the MSD; however, the recovery was 21% against a lower limit of 15%.

Recoveries of internal standard compound perylene-d12 were low (<50%) relative to the corresponding CCV recovery in the matrix spike and spike duplicate of IS-MW-2 (0-6). Since the native sample IS recoveries were acceptable, no data qualifiers were assigned.

The method blank was free of target compound contamination. An aldol-condensate by-product of acetone (4-OH-4-methyl-2-pentanone) was present in the method blank, at 1200 J ug/Kg. This non-target analyte was red-lined and rejected ('R') when present in associated field samples.

Calibration parameters were within acceptable limits in the ICAL of 04/06/05, with the exception of several compounds whose RRF values exceeded 15.0% RSD; since these compounds were not reported as positive in any associated field samples, no data qualifiers were applicable. The CCALs on 04/12 and 04/15/05 exhibited %D values above (+ or -) 20% for several compounds; associated compounds which were positive for > +20%D exceedances were qualified 'J', with positive bias suggested, while compounds which were >- 20%D were qualified 'UJ' or 'J', with negative bias suggested. The data user is directed to the attached calibration summary spreadsheet for details.

SECTION E
Chlorinated Pesticides

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Blank spike recoveries were within acceptable limits, and the method (prep) blank was free of contamination.

Surrogate recoveries for both decachlorobiphenyl (DCBP) and tetrachloro-m-xylene (TCMX) were below acceptable limits in samples IS-MW-2 (0-6) and IS-SB-1 (0-2); recoveries of both DCBP and TCMX in the spike and spike duplicate of –MW-2 were also low, while no re-analysis of –SB-1 was indicated. Reported results for all target compounds in these samples were qualified 'UJ', with negative bias suggested.

Recoveries of all spiked compounds in IS-MW-2 (0-6) were low. Reported results of these compounds in the native sample only were qualified 'UJ', with negative bias suggested.

No indication of DDT / Endrin breakdown standard assessment was found. This is a requirement of SW-846 Method 8081 (Sect. 8.4.6). Since no positives for these compounds were reported, no data qualifiers were assigned.

Continuing calibration standard %D values exceeded 15.0%, and were negative (i.e., less sensitive) relative to the corresponding initial calibration average RRF values for 4,4'-DDT. Reported results for DDT in all SDG samples were qualified 'UJ', with negative bias suggested.

No positive pesticide detections were found in associated field samples.

SECTION F
Polychlorinated Biphenyls (PCBs)

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Recovery of surrogate decachlorobiphenyl (DCBP) was low in sample IS-MW-3 (0-4). Since DCBP is directly representative of the Aroclors, all reported target Aroclors in this sample were qualified 'UJ', with negative bias suggested.

The method (prep) blank was free of contamination. Blank spike recoveries were within acceptable limits. Matrix spike and spike duplicate recoveries were within acceptable limits. The precision value for Aroclor 1260 exceeded the allowable %RPD (88/20%); since no positive Aroclors were reported, no QA action was necessary.

Continuing calibration standard %D values exceeded 15.0%, and were negative (i.e., less sensitive) relative to the corresponding initial calibration average RRF values for Aroclor-1016. Reported results for this analyte in associated samples were qualified 'UJ', with negative bias suggested.

No positive PCB detections were found.

SECTION G
Metals / Wet Chemistry

NYSDEC-ASP holding times from lab receipt to analysis, were met for all samples.

Spike recoveries for chromium were above acceptable limits in the MS/MSD [IS-MW-2- (0-6); 172%, 166%]. Positive results for Cr were qualified 'J' in all samples, with positive bias suggested due to matrix effects. Post-digestion spike recoveries for chromium were also above acceptable limits (173%).
Spike recoveries for silver in both MS and MSD and for barium in the MSD were below 75% (26,38%; 74%); positive and non-detect results for Ag and Ba were qualified 'UJ' or 'J', with negative bias suggested.

Spike recoveries for mercury in both MS and MSD were very low (-48%, -54%), indicative of severe matrix suppression effects; non-detect and positive results for Hg were qualified 'UJ' or 'J', with significant negative bias suggested.

It is noted that acceptable spike recovery ranges were listed by the laboratory as 80% to 120%. The acceptance range used by the reviewer for data qualification was from 75% to 125%, which is 'standard industry practice' for metals analysis spike recovery, as defined by both EPA CLP and SW-846 methods, and NYSDEC-ASP protocols. It is also noted that EPA Region II data validation guidance for non-aqueous samples of 100% RPD between matrix duplicate sample results was used as a qualification threshold for analytes with %RPD criteria based on concentration.

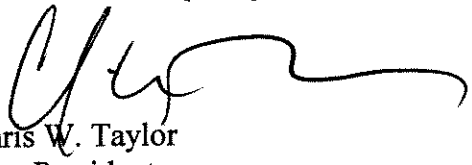
The serial-dilution sample precision values for all target analytes except thallium, silver and potassium exceeded the 10.0%D limit in the reported serial dilution sample. Positive results for these analytes which exceeded 10x analyte MDL values were qualified 'J'. It is noted that the laboratory did not qualify any reported results on the basis of serial-dilution %D exceedances. With the exception of antimony and cadmium, all affected analytes were lower in concentration in the undiluted samples than in the dilution analyses, indicating negative bias due to sample matrix effects. The data user is directed to the serial dilution summary forms which have been appended to the inorganics QC summary forms for specific details and linkages.

NYSDEC-ASP holding times and QC and calibration parameters for wet-chemistry analyte cyanide were within applicable limits; no data qualifiers were necessary for this analyte.

SECTION H
Overall Recommendations

The results of the review and qualification process for the above analytical fractions and associated samples are summarized on the attached QC and Calibration summary tables for each specific analytical fraction, in order to facilitate the end-user's' review of these data. Data qualifiers have been applied directly to the laboratory Form 1s, with associated numeric footnotes which are detailed in the corresponding QC / Calibration summaries.

Very truly yours,
Environmental Quality Associates, Inc.



Chris W. Taylor
Vice President

/cwt

Attachments

VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. | Project: Incinerator Site, Lackawanna, NY | Project No.: 4852-001

Review Level: NYSDEC 'DUSR' | Laboratory: ChemTech, NJ | Lab Project No.: T2253

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	10 DAYS MAX. FROM VTSR TO ANALYSIS, IF PRESERVED TO pH <2 & 4 DEGREES C
AQUEOUS MATRIX:	7 DAYS MAX. FROM VTSR TO ANALYSIS, IF NOT PRESERVED TO pH <2 & 4 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAXIMUM FROM VTSR TO ANALYSIS, IF PRESERVED TO 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	7 DAYS MAXIMUM FROM VTSR TO ANALYSIS, IF NOT PRESERVED TO 4 +/- 2 DEGREES C

All samples were analyzed within 9 days of VTSR.

B. METHOD BLANKS

Date Analyzed	Blank ID	File ID	Matrix	Analytes Present	Conc., ppb	Affected Samples
04/15/05	VBLK03	VD041418	water	none	n/a	Trip Blank
04/15/05	VBLK01	VK041505	soil	acetone	6.4 J	VLCS01,
				methylene chloride	5.8	T2253- 02-05, 14-16
04/16/05	VBLK02	VK041605	soil	acetone	6.6 J	T2253-01, -02RE
				methylene chloride	2.4 J	

QA Action : 1) methylene chloride, acetone: negate positives <10x blank values — **FOOTNOTE = 1a**
2) non-target compounds: Reject positives < 5x blank values — **FOOTNOTE = 1b**

C. SURROGATE RECOVERY

Sample ID	Surrogate	Bias	QA Action	
IS-MW-2 (5.5-6.0), RE	BFB	low (62/75)	Qualify reported results 'UJ' or 'J'; negative bias	**FOOTNOTE = 2**

D. MATRIX SPIKE / DUPLICATE

Sample ID	Compound	Bias	QA Action	
IS-MW-2 (5.5-6.0)	chlorobenzene	low (73/80)	qualify U or UJ in native sample only	**FOOTNOTE = 3**

E. BLANK SPIKE — VLCS01

All reported recoveries were within acceptable limits.

F. INTERNAL STANDARDS

Sample ID	IS Compound	Bias	QA Action	
IS-MW-2 (5.5-6.0)	1,4-dichlorobenzene-d4	low (<50%)	Qualify associated compounds 'UJ' or 'J'	**FOOTNOTE = 4**
IS-MW-2 (5.5-6.0)MSD	1,4-dichlorobenzene-d4	low (<50%)	n/a; affects matrix spike only	

Note: re-analysis of IS-MW2 (5.5-6.0) yielded low recovery of all IS compounds, confirming matrix effects.

VOLATILE ORGANICS
CALIBRATION SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2253

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ

A. INSTRUMENT PERFORMANCE (BFB TUNE)

TUNE DATE:	04/13/05	04/15/05	04/10/05	04/15/05	04/16/05
BFB INJECTION TIME:	17:15	10:21	13:07	6:10	6:49
LAST SAMPLE INJECTION:	19:26	11:55	15:14	17:11	11:24
m/z RATIOS ACCEPTABLE ?	Yes	Yes	Yes	Yes	Yes

B. INITIAL CALIBRATION

CALIBRATION DATE :	04/13/05 (aqueous)	04/10/05 (non-aqueous)
FILE IDs :	VD041310 - 14	VK041002 - 06
ALL target RRFs > 0.05 ?	Yes	Yes
SPCC RRFs > min.values?	Yes	Yes
CCC %RSDs < 30% ?	Yes	Yes
All Targets < 15% RSD?	No	No
If No, regression r > 0.99 ?	regression not listed	regression not listed
(If No, list compounds)===>	See attached summary; 19 target compounds exhibited %RSD >15.0%	chloroethane acetone methyl acetate methylene chloride

ACTION

If average RRF <0.050, REJECT non-detects, and qualify positive values 'J' for the non-compliant compound(s).

If %RSD > 15%, and regression not used, qualify positive values 'J' for the non-compliant compound(s).

FOOTNOTE = 5

C. CONTINUING CALIBRATIONS

CALIBRATION DATE :	04/15/05	04/15/05	04/16/05
FILE ID :	VD041415	VK041502	VK041602
SPCC RRFs > min. values?	Yes	Yes	Yes
CCC %Ds < 20% ?	Yes	Yes	Yes
All Targets < 20%D?	No	No	No
(If No, list compounds)===>	See attached summary; 9 target compounds exhibited %D >20.0% Affects: VBLK03, Trip Blank	triClFmethane -20.3% methylene chloride +31% 4-Me-2-pentanone +34% 1,2-diBr-3-Clpropane +24% 1,2,4-triClbenzene -27% Affects: T2253-02-05, -14-16	carbon disulfide -22% 4-Me-2-pentanone +23% tetrachloroethene -23% 1,2,4-triClbenzene -28% Affects: T2253-01, -02RE

QA ACTION

If any CCAL RRF <0.050, REJECT non-detects, and qualify positive values 'J' for the non-compliant compound(s).

For positive compounds with %D >+20%; qualify 'J'; positive bias suggested. **FOOTNOTE = 6a**

For non-detect compounds with >D >-20%, qualify 'UJ'; negative bias suggested. **FOOTNOTE = 6b**

VOLATILE ORGANICS
CALIBRATION SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2253

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ

D. SAMPLE RESULT VERIFICATION

SAMPLE ID : T2253-05 [IS-SB-4 (12-13)]
COMPOUND : toluene Int. Std. : 1,4-difluorobenzene
REPORTED VALUE : 9.9 ug/Kg

		Ax	Is		Non-Aqueous (lLow-level)
ug/Kg =		58476	250		(Ax) (Is)
	323747	1.145	5.00	0.800	(Ais) (RRF) (Ws) (D)
	Ais	RRF	Ws	D	

ug/Kg = 9.86 Result verified ? Yes

Where :
Ax = area of characteristic quant ion (EICP) for target compound
Is = internal standard added, ng
Ais = area of characteristic quant ion (EICP) for internal standard
RRF = relative response factor of target compound from ambient purge calibration
Ws = wet weight of soil or sediment sample extracted, gm
D = sample %solids, expressed as decimal (e.g., 85% solids = 0.85)

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: MALC05

Lab Code: CHEM Case No.: T2253 SAS No.: T2253 SDG No.: T2253

Instrument ID: MSVOAD Calibration Date(s): 4/13/05 4/13/05

Heated Purge: (Y/N) N Calibration Time(s): 17:51 19:26

GC Column: RTX624 ID: 0.18 (mm)

LAB FILE ID:

RRF005 = VD041310.D RRF020 = VD041311.D

RRF050 = VD041312.D RRF100 = VD041313.D RRF200 = VD041314.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD	
Dichlorodifluoromethane	0.557	0.549	0.484	0.517	0.452	0.512	8.6	
Chloromethane *	0.622	0.671	0.596	0.592	0.573	0.611	6.2	*
Vinyl Chloride *	0.641	0.573	0.544	0.533	0.480	0.554	10.7	*
Bromomethane	0.271	0.152	0.151	0.184	0.108	0.173	35.2	
Chloroethane	0.409	0.259	0.263	0.242	0.143	0.263	36.2	
Trichlorofluoromethane	0.411	0.408	0.413	0.390	0.262	0.377	17.2	
1,1,2-Trichlorotrifluor	0.463	0.426	0.342	0.278	0.277	0.357	23.8	
1,1-Dichloroethene *	0.470	0.427	0.369	0.288	0.292	0.369	21.9	*
Acetone	0.331	0.181	0.271	0.182	0.226	0.238	26.8	
Carbon Disulfide	1.499	1.119	1.022	0.777	1.012	1.086	24.2	
Methyl tert-butyl Ether	1.778	1.607	1.584	1.426	1.418	1.563	9.5	
Methyl Acetate	1.141	0.995	1.061	0.572	1.113	0.976	23.9	
Methylene Chloride	0.667	0.561	0.536	0.489	0.282	0.507	27.9	
trans-1,2-Dichloroethen	0.592	0.555	0.529	0.435	0.456	0.513	12.9	
1,1-Dichloroethane *	1.201	1.083	1.097	0.965	0.982	1.066	9.0	*
Cyclohexane	0.967	0.920	0.843	0.795	0.888	0.883	7.6	
2-Butanone	0.500	0.463	0.507	0.400	0.484	0.471	9.1	
Carbon Tetrachloride *	0.461	0.407	0.360	0.361	0.295	0.377	16.4	*
cis-1,2-Dichloroethene	0.639	0.581	0.565	0.511	0.513	0.562	9.5	
Chloroform *	1.227	1.129	1.066	0.969	0.952	1.069	10.7	*
1,1,1-Trichloroethane *	0.900	0.788	0.708	0.647	0.588	0.726	16.8	*
Methylcyclohexane	0.521	0.468	0.441	0.380	0.375	0.437	14.1	
Benzene *	1.231	1.129	1.097	0.944	0.922	1.065	12.2	*
1,2-Dichloroethane *	0.859	0.703	0.668	0.560	0.535	0.665	19.5	*
Trichloroethene *	0.419	0.356	0.333	0.296	0.273	0.335	16.9	*
1,2-Dichloropropane *	0.372	0.329	0.341	0.310	0.308	0.332	7.9	*
Bromodichloromethane *	0.567	0.528	0.484	0.448	0.440	0.493	10.9	*
4-Methyl-2-Pentanone	0.523	0.450	0.456	0.373	0.392	0.439	13.5	
Toluene *	0.742	0.671	0.642	0.581	0.546	0.636	12.1	*
t-1,3-Dichloropropene *	0.440	0.459	0.493	0.444	0.437	0.455	5.1	*
cis-1,3-Dichloropropene*	0.503	0.508	0.509	0.474	0.463	0.491	4.4	*
1,1,2-Trichloroethane *	0.338	0.298	0.287	0.260	0.233	0.283	14.0	*
2-Hexanone	0.344	0.341	0.356	0.300	0.298	0.328	8.2	
Dibromochloromethane *	0.377	0.328	0.327	0.295	0.271	0.320	12.5	*
1,2-Dibromoethane	0.377	0.338	0.332	0.291	0.296	0.327	10.7	
Tetrachloroethene *	0.463	0.432	0.400	0.372	0.326	0.399	13.3	*
Chlorobenzene *	0.925	0.808	0.722	0.659	0.647	0.752	15.4	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: MALC05

Lab Code: CHEM Case No.: T2253 SAS No.: T2253 SDG No.: T2253

Instrument ID: MSVOAD Calibration Date(s): 4/13/05 4/13/05

Heated Purge: (Y/N) N Calibration Time(s): 17:51 19:26

GC Column: RTX624 ID: 0.18 (mm)

LAB FILE ID: RRF005 = VD041310.D RRF020 = VD041311.D

RRF050 = VD041312.D RRF100 = VD041313.D RRF200 = VD041314.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD	
Ethyl Benzene *	0.431	0.419	0.378	0.351	0.329	0.382	11.4	*
m/p-Xylenes *	0.547	0.467	0.442	0.404	0.357	0.443	16.1	*
o-Xylene *	0.530	0.491	0.471	0.412	0.389	0.459	12.6	*
Styrene *	0.778	0.769	0.770	0.697	0.660	0.735	7.2	*
Bromoform *	0.241	0.233	0.226	0.214	0.204	0.224	6.6	*
Isopropylbenzene	2.982	2.704	2.428	2.178	2.157	2.490	14.2	
1,1,2,2-Tetrachloroetha *	1.111	0.906	0.781	0.743	0.750	0.858	18.2	*
1,3-Dichlorobenzene *	1.342	1.151	1.022	0.913	0.830	1.052	19.2	*
1,4-Dichlorobenzene *	1.469	1.207	1.072	0.993	1.004	1.149	17.2	*
1,2-Dichlorobenzene *	1.267	1.106	0.973	0.910	0.900	1.031	15.1	*
1,2-Dibromo-3-Chloropro	0.233	0.188	0.209	0.183	0.189	0.200	10.4	
1,2,4-Trichlorobenzene *	0.756	0.645	0.623	0.599	0.665	0.658	9.2	*
1,2-Dichloroethane-d4	1.160	1.175	1.240	1.128	1.166	1.174	3.5	
Dibromofluoromethane	0.423	0.406	0.407	0.388	0.356	0.396	6.5	
Toluene-d8	1.164	1.180	1.180	1.183	1.149	1.171	1.2	
4-Bromofluorobenzene *	0.533	0.553	0.592	0.569	0.522	0.554	5.1	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: MALC05

Lab Code: CHEM Case No.: T2253 SAS No.: T2253 SDG No.: T2253

Instrument ID: MSVOAD Calibration Date/Time: 4/15/05 10:45

Lab File ID: VD041415.D Init. Calib. Date(s): 4/13/05 4/13/05

Heated Purge: (Y/N) N Init. Calib. Time(s): 17:51 19:26

GC Column: RTX624 ID: 0.18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.512	0.382		25.4	
Chloromethane	0.611	0.643	0.100	5.2	
Vinyl Chloride	0.554	0.522		5.8	20.0
Bromomethane	0.173	0.105		39.3	
Chloroethane	0.263	0.165		37.3	
Trichlorofluoromethane	0.377	0.252		33.2	
1,1,2-Trichlorotrifluoroethane	0.357	0.266		25.5	
1,1-Dichloroethene	0.369	0.324		12.2	20.0
Acetone	0.238	0.383		60.9	
Carbon Disulfide	1.086	1.101		1.4	
Methyl tert-butyl Ether	1.563	1.642		5.1	
Methyl Acetate	0.976	1.735		77.8	
Methylene Chloride	0.507	0.607		19.7	
trans-1,2-Dichloroethene	0.513	0.530		3.3	
1,1-Dichloroethane	1.066	1.187	0.100	11.4	
Cyclohexane	0.883	0.903		2.3	
2-Butanone	0.471	0.681		44.6	
Carbon Tetrachloride	0.377	0.342		9.3	
cis-1,2-Dichloroethene	0.562	0.585		4.1	
Chloroform	1.069	1.122		5.0	20.0
1,1,1-Trichloroethane	0.726	0.712		1.9	
Methylcyclohexane	0.437	0.404		7.6	
Benzene	1.065	1.133		6.4	
1,2-Dichloroethane	0.665	0.676		1.7	
Trichloroethene	0.335	0.369		10.1	
1,2-Dichloropropane	0.332	0.380		14.5	20.0
Bromodichloromethane	0.493	0.507		2.8	
4-Methyl-2-Pentanone	0.439	0.546		24.4	
Toluene	0.636	0.703		10.5	20.0
t-1,3-Dichloropropene	0.455	0.487		7.0	
cis-1,3-Dichloropropene	0.491	0.537		9.4	
1,1,2-Trichloroethane	0.283	0.310		9.5	
2-Hexanone	0.328	0.416		26.8	
Dibromochloromethane	0.320	0.330		3.1	
1,2-Dibromoethane	0.327	0.355		8.6	
Tetrachloroethene	0.399	0.443		11.0	
Chlorobenzene	0.752	0.741	0.300	1.5	
Ethyl Benzene	0.382	0.389		1.8	20.0
m/p-Xylenes	0.443	0.450		1.6	
o-Xylene	0.459	0.478		4.1	
Styrene	0.735	0.759		3.3	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2253
Lab Sample ID:	T2253-06	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD041419.D	1	4/15/05	VD041305

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U J	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U J	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U J	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U J	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U J	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

QUAL FOOTNOTE 6b

6b

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2253
Lab Sample ID:	T2253-06	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Wol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD041419.D	1	4/15/05	VD041305

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.38	103 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	50.05	100 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	51.89	104 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	52.18	104 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	308770	4.27			
540-36-3	1,4-Difluorobenzene	525818	4.98			
3114-55-4	Chlorobenzene-d5	509236	8.25			
3855-82-1	1,4-Dichlorobenzene-d4	230254	10.41			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW-1-(2-2.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-01	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	14
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041609.D	1	4/16/05	VK041005

DUAL, FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
75-71-8	Dichlorodifluoromethane	1.0	U	5.8	1.0	ug/Kg	
74-87-3	Chloromethane	0.99	U	5.8	0.99	ug/Kg	
75-01-4	Vinyl chloride	0.96	U	5.8	0.96	ug/Kg	
74-83-9	Bromomethane	2.4	U	5.8	2.4	ug/Kg	
75-00-3	Chloroethane	2.5	U	5.8	2.5	ug/Kg	
75-69-4	Trichlorofluoromethane	1.4	U	5.8	1.4	ug/Kg	
76-13-1	1,1,2-Trichlorotrifluoroethane	0.77	U	5.8	0.77	ug/Kg	
75-35-4	1,1-Dichloroethene	0.67	U	5.8	0.67	ug/Kg	
67-64-1	Acetone	11	U ~~B~~	29	3.9	ug/Kg	1a
75-15-0	Carbon disulfide	4.2	J	5.8	0.43	ug/Kg	6b
1634-04-4	Methyl tert-butyl Ether	0.43	U	5.8	0.43	ug/Kg	
79-20-9	Methyl Acetate	1.0	U	5.8	1.0	ug/Kg	
75-09-2	Methylene Chloride	6.9	U ~~B~~	5.8	2.1	ug/Kg	1a
156-60-5	trans-1,2-Dichloroethene	0.74	U	5.8	0.74	ug/Kg	
75-34-3	1,1-Dichloroethane	0.31	U	5.8	0.31	ug/Kg	
110-82-7	Cyclohexane	0.38	U	5.8	0.38	ug/Kg	
78-93-3	2-Butanone	3.3	U	29	3.3	ug/Kg	
56-23-5	Carbon Tetrachloride	0.52	U	5.8	0.52	ug/Kg	
156-59-2	cis-1,2-Dichloroethene	0.38	U	5.8	0.38	ug/Kg	
67-66-3	Chloroform	0.40	U	5.8	0.40	ug/Kg	
71-55-6	1,1,1-Trichloroethane	0.49	U	5.8	0.49	ug/Kg	
108-87-2	Methylcyclohexane	0.49	U	5.8	0.49	ug/Kg	
71-43-2	Benzene	0.46	U	5.8	0.46	ug/Kg	
107-06-2	1,2-Dichloroethane	0.36	U	5.8	0.36	ug/Kg	
79-01-6	Trichloroethene	0.36	U	5.8	0.36	ug/Kg	
78-87-5	1,2-Dichloropropane	0.46	U	5.8	0.46	ug/Kg	
75-27-4	Bromodichloromethane	0.39	U	5.8	0.39	ug/Kg	
108-10-1	4-Methyl-2-Pentanone	2.3	U	29	2.3	ug/Kg	
108-88-3	Toluene	2.6	J	5.8	0.47	ug/Kg	
10061-02-6	t-1,3-Dichloropropene	0.42	U	5.8	0.42	ug/Kg	
10061-01-5	cis-1,3-Dichloropropene	0.38	U	5.8	0.38	ug/Kg	
79-00-5	1,1,2-Trichloroethane	0.34	U	5.8	0.34	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

06/21/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW-1-(2-2.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-01	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	14
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041609.D	1	4/16/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.2	U	29	4.2	ug/Kg
124-48-1	Dibromochloromethane	0.27	U	5.8	0.27	ug/Kg
106-93-4	1,2-Dibromoethane	0.47	U	5.8	0.47	ug/Kg
127-18-4	Tetrachloroethene	0.85	U J	5.8	0.85	ug/Kg 6b
108-90-7	Chlorobenzene	0.42	U	5.8	0.42	ug/Kg
100-41-4	Ethyl Benzene	0.41	U	5.8	0.41	ug/Kg
126777-61-2	m/p-Xylenes	3.0	J	5.8	1.0	ug/Kg
95-47-6	o-Xylene	0.45	U	5.8	0.45	ug/Kg
100-42-5	Styrene	0.53	U	5.8	0.53	ug/Kg
75-25-2	Bromoform	0.36	U	5.8	0.36	ug/Kg
98-82-8	Isopropylbenzene	0.48	U	5.8	0.48	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.36	U	5.8	0.36	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.65	U	5.8	0.65	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.63	U	5.8	0.63	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.45	U	5.8	0.45	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.1	U	5.8	1.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.79	U J	5.8	0.79	ug/Kg 6b
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.97	98 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	49.47	99 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	47.19	94 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	41.12	82 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	225986	4.28			
540-36-3	1,4-Difluorobenzene	305826	4.74			
3114-55-4	Chlorobenzene-d5	255750	7.63			
3855-82-1	1,4-Dichlorobenzene-d4	114218	9.65			

QUALS CORRECT

12/7/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW2-(5.5-6.0)	**SDG No.:**	T2253
Lab Sample ID:	T2253-02	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041508.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.1	U J	6.2	1.1	ug/Kg
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg
67-64-1	Acetone	4.2	U	31	4.2	ug/Kg
75-15-0	Carbon disulfide	0.46	U	6.2	0.46	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg
75-09-2	Methylene Chloride	12	U B	6.2	2.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg
78-93-3	2-Butanone	3.5	U	31	3.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg
108-87-2	Methylcyclohexane	0.52	U	6.2	0.52	ug/Kg
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg
108-88-3	Toluene	10		6.2	0.51	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg

QUAL: FOOTNOTE

6b

1a

2

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW2-(5.5-6.0)	**SDG No.:**	T2253
Lab Sample ID:	T2253-02	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041508.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	1.5	J	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.73	101 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	54.06	108 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	47.59	95 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	30.82	62 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	232102	4.30			
540-36-3	1,4-Difluorobenzene	296151	4.75			
3114-55-4	Chlorobenzene-d5	207602	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	78854	9.65			

QUAL FOOTNOTE

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW2-(5.5-6.0)RE	**SDG No.:**	T2253
Lab Sample ID:	T2253-02RE	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

USE INITIAL RUN

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041610.D	1	4/16/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg
67-64-1	Acetone	4.2	U	31	4.2	ug/Kg
75-15-0	Carbon disulfide	0.46	U	6.2	0.46	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg
75-09-2	Methylene Chloride	17	B	6.2	2.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg
78-93-3	2-Butanone	3.5	U	31	3.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg
108-87-2	Methylcyclohexane	0.52	U	6.2	0.52	ug/Kg
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg
108-88-3	Toluene	1.6	J	6.2	0.51	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW2-(5.5-6.0)RE	**SDG No.:**	T2253
Lab Sample ID:	T2253-02RE	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

USE INITIAL RUN

cn-5 06/7/05

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041610.D	1	4/16/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	1.7	J	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.87	108 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	56.52	113 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	47.07	94 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	31.14	62 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	80860	4.29			
540-36-3	1,4-Difluorobenzene	103210	4.74			
3114-55-4	Chlorobenzene-d5	73062	7.63			
3855-82-1	1,4-Dichlorobenzene-d4	28161	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW3-(2-2.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	17
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041509.D	1	4/15/05	VK041005

QUAL FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
75-71-8	Dichlorodifluoromethane	1.0	U	6.0	1.0	ug/Kg	
74-87-3	Chloromethane	1.0	U	6.0	1.0	ug/Kg	
75-01-4	Vinyl chloride	0.99	U	6.0	0.99	ug/Kg	
74-83-9	Bromomethane	2.4	U	6.0	2.4	ug/Kg	
75-00-3	Chloroethane	2.6	U	6.0	2.6	ug/Kg	
75-69-4	Trichlorofluoromethane	1.5	U J	6.0	1.5	ug/Kg	6b
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	6.0	0.80	ug/Kg	
75-35-4	1,1-Dichloroethene	0.69	U	6.0	0.69	ug/Kg	
67-64-1	Acetone	6.5	U ~~JB~~	30	4.0	ug/Kg	1a
75-15-0	Carbon disulfide	0.44	U	6.0	0.44	ug/Kg	
1634-04-4	Methyl tert-butyl Ether	0.44	U	6.0	0.44	ug/Kg	
79-20-9	Methyl Acetate	1.0	U	6.0	1.0	ug/Kg	
75-09-2	Methylene Chloride	3.7	U ~~JB~~	6.0	2.2	ug/Kg	1a
156-60-5	trans-1,2-Dichloroethene	0.77	U	6.0	0.77	ug/Kg	
75-34-3	1,1-Dichloroethane	0.32	U	6.0	0.32	ug/Kg	
110-82-7	Cyclohexane	0.39	U	6.0	0.39	ug/Kg	
78-93-3	2-Butanone	3.4	U	30	3.4	ug/Kg	
56-23-5	Carbon Tetrachloride	0.53	U	6.0	0.53	ug/Kg	
156-59-2	cis-1,2-Dichloroethene	0.39	U	6.0	0.39	ug/Kg	
67-66-3	Chloroform	0.42	U	6.0	0.42	ug/Kg	
71-55-6	1,1,1-Trichloroethane	0.50	U	6.0	0.50	ug/Kg	
108-87-2	Methylcyclohexane	0.51	U	6.0	0.51	ug/Kg	
71-43-2	Benzene	0.48	U	6.0	0.48	ug/Kg	
107-06-2	1,2-Dichloroethane	0.37	U	6.0	0.37	ug/Kg	
79-01-6	Trichloroethene	0.37	U	6.0	0.37	ug/Kg	
78-87-5	1,2-Dichloropropane	0.48	U	6.0	0.48	ug/Kg	
75-27-4	Bromodichloromethane	0.40	U	6.0	0.40	ug/Kg	
108-10-1	4-Methyl-2-Pentanone	2.4	U	30	2.4	ug/Kg	
108-88-3	Toluene	3.3	J	6.0	0.49	ug/Kg	
10061-02-6	t-1,3-Dichloropropene	0.44	U	6.0	0.44	ug/Kg	
10061-01-5	cis-1,3-Dichloropropene	0.40	U	6.0	0.40	ug/Kg	
79-00-5	1,1,2-Trichloroethane	0.35	U	6.0	0.35	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

MT 05/11/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW3-(2-2.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	17
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041509.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.3	U	30	4.3	ug/Kg
124-48-1	Dibromochloromethane	0.28	U	6.0	0.28	ug/Kg
106-93-4	1,2-Dibromoethane	0.48	U	6.0	0.48	ug/Kg
127-18-4	Tetrachloroethene	0.88	U	6.0	0.88	ug/Kg
108-90-7	Chlorobenzene	0.44	U	6.0	0.44	ug/Kg
100-41-4	Ethyl Benzene	0.43	U	6.0	0.43	ug/Kg
126777-61-2	m/p-Xylenes	1.0	U	6.0	1.0	ug/Kg
95-47-6	o-Xylene	0.46	U	6.0	0.46	ug/Kg
100-42-5	Styrene	0.55	U	6.0	0.55	ug/Kg
75-25-2	Bromoform	0.37	U	6.0	0.37	ug/Kg
98-82-8	Isopropylbenzene	0.50	U	6.0	0.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.37	U	6.0	0.37	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.67	U	6.0	0.67	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.66	U	6.0	0.66	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.47	U	6.0	0.47	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.1	U	6.0	1.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.82	U J	6.0	0.82	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.57	97 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	49.76	100 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	46.17	92 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	37.34	75 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	243456	4.30			
540-36-3	1,4-Difluorobenzene	329180	4.75			
3114-55-4	Chlorobenzene-d5	250144	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	106696	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SB1(1-1.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-04	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041510.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	QUAL FOOTNOTE
TARGETS							
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg	
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg	
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg	
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg	
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg	
75-69-4	Trichlorofluoromethane	1.6	U J	6.2	1.6	ug/Kg	6b
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg	
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg	
67-64-1	Acetone	19	U B	31	4.2	ug/Kg	1a
75-15-0	Carbon disulfide	0.46	U	6.2	0.46	ug/Kg	
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg	
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg	
75-09-2	Methylene Chloride	7.8	U B	6.2	2.3	ug/Kg	1a
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg	
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg	
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg	
78-93-3	2-Butanone	3.5	U	31	3.5	ug/Kg	
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg	
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg	
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg	
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg	
108-87-2	Methylcyclohexane	0.52	U	6.2	0.52	ug/Kg	
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg	
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg	
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg	
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg	
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg	
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg	
108-88-3	Toluene	2.8	J	6.2	0.51	ug/Kg	
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg	
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg	
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

Confirmed on [illegible]

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SB1(1-1.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-04	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041510.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U J	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.17	102 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.37	101 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.55	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	50.59	101 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	244164	4.30			
540-36-3	1,4-Difluorobenzene	332813	4.75			
3114-55-4	Chlorobenzene-d5	291969	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	170738	9.65			

QUAL FOOTNOTE

6b

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SB-4(12-13)	**SDG No.:**	T2253
Lab Sample ID:	T2253-05	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041511.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	QUAL FOOTNOT
TARGETS							
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg	
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg	
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg	
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg	
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg	
75-69-4	Trichlorofluoromethane	1.6	U J	6.2	1.6	ug/Kg	6b
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg	
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg	
67-64-1	Acetone	250		31	4.2	ug/Kg	
75-15-0	Carbon disulfide	8.8		6.2	0.46	ug/Kg	
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg	
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg	
75-09-2	Methylene Chloride	11	U B	6.2	2.3	ug/Kg	1a
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg	
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg	
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg	
78-93-3	2-Butanone	27	J	31	3.5	ug/Kg	
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg	
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg	
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg	
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg	
108-87-2	Methylcyclohexane	4.6	J	6.2	0.52	ug/Kg	
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg	
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg	
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg	
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg	
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg	
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg	
108-88-3	Toluene	9.9		6.2	0.51	ug/Kg	
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg	
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg	
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

4/27/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SB-4(12-13)	**SDG No.:**	T2253
Lab Sample ID:	T2253-05	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041511.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U J	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.78	96 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.92	102 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.09	96 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	40.47	81 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	243775	4.30			
540-36-3	1,4-Difluorobenzene	323747	4.75			
3114-55-4	Chlorobenzene-d5	258619	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	117667	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041512.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	QUAL FOOTNOTES
TARGETS							
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg	
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg	
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg	
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg	
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg	
75-69-4	Trichlorofluoromethane	1.6	U J	6.2	1.6	ug/Kg	6b
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg	
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg	
67-64-1	Acetone	14	U ~~JB~~	31	4.2	ug/Kg	1a
75-15-0	Carbon disulfide	3.5	J	6.2	0.46	ug/Kg	
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg	
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg	
75-09-2	Methylene Chloride	5.1	U ~~JB~~	6.2	2.3	ug/Kg	1a
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg	
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg	
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg	
78-93-3	2-Butanone	3.5	U	31	3.5	ug/Kg	
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg	
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg	
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg	
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg	
108-87-2	Methylcyclohexane	2.8	J	6.2	0.52	ug/Kg	
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg	
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg	
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg	
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg	
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg	
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg	
108-88-3	Toluene	1.4	J	6.2	0.51	ug/Kg	
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg	
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg	
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

06/28/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041512.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.53	97 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	51.97	104 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	50.25	101 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	51.83	104 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	133250	4.30			
540-36-3	1,4-Difluorobenzene	176024	4.75			
3114-55-4	Chlorobenzene-d5	161793	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	91381	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

SEMI-VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW846 8270

CLIENT: Malcolm Pirnie, Inc. | Project: Incinerator Site, Lackawanna, NY | Project No.: 4852-001

Review Level: NYSDEC - DUSR | Laboratory: ChemTech, NJ | Lab Project No.: T2253

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

Samples were collected on 04/05/05 and received at the lab (VTSR) on 04/07/05 at 4 degrees C, with ice present, per COC.
Samples were extracted on 04/11/05 and analyzed on 04/12-14/05, meeting all preservation and holding time requirements.

B. METHOD BLANKS

Blank ID	Date Analyzed	Matrix	Analytes Present	Conc., ppb	Affects
SBLK01	04/12/05	soil	none	n/a	All SDG samples

Note: non-target (4-OH-4-Me-2-pentanone; aldol-condensate) present at RT=4.29 minutes, est. conc. = 1200 ug/Kg; unknown at RT= 31.8, m/z= 152, 179, 360, est. conc. = 200 ug/Kg

ACTION: If sample concentration >CRQL, but <10x Blank value, flag result with 'U'
If sample concentration <CRQL, and <10x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >10x Blank value, no qualification necessary

FOOTNOTE = 1 QA Action: Red-line (Reject, 'R') 4-OH-4-Me-2-pentanone and unknown at 31.8 RT present in associated samples

FIELD BLANKS
No field blanks were submitted for this sample delivery group; therefore, no assessment of potential field-based contamination may be made.

C. SURROGATE RECOVERY

Sample ID	Surrogate Compound	Bias
IS-MW-3 (0-4)	2,4,6-tribromophenol	high
	terphenyl-d14	high

FOOTNOTE = 2 QA Action: Qualify positive phenolics and base/neutral compounds 'J'; potential positive bias suggested

D. MATRIX SPIKE / DUPLICATE IS-SD-1

Sample ID	Spike Compound	Bias	Comments
IS-MW2-MS	2,4-dinitrophenol	low	Low recoveries are indicative of sample matrix effects.
	4,6-dinitro-2-methylphenol	low	
	indeno(1,2,3-cd)pyrene	low	
IS-MW2-MSD	4-chloroaniline	n/a (RPD high)	No bias direction inferred

FOOTNOTE = 3 QA Action: Qualify above compounds 'UJ' or 'J'. Negative bias suggested due to sample matrix.

The precision (%RPD) value for 4-chloroaniline exceeded the allowable limit of 50% (at 65%); no positives for 4-chloroaniline were reported, therefore no data qualification was applicable.

E. BLANK SPIKE (LCS)

All reported LCS recoveries were within acceptable limits.

F. INTERNAL STANDARDS (IS)

IS perylene-d12 was below 50% of the associated CCV recovery in the MS and MSD of IS-MW2. No re-analysis of the unspiked sample was reported. No data qualifiers were applied, since all IS recoveries in the native (unspiked) sample were acceptable.

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2253

Review Level: NYSDEC 'DUSR' Laboratory : ChemTech, NJ

A. INSTRUMENT PERFORMANCE (DFTPP TUNE)

TUNE DATE:	04/06/05	04/12/05	04/12/05	04/14/05
TUNE FILE:	BE022649	BB022803	BB022811	BB022847
DFTPP INJECTION TIME:	16:33	18:16	23:53	3:10
LAST INJECTION WITHIN 12-HR. WINDOW ?	Yes	Yes	Yes	Yes
m/z RATIOS ACCEPTABLE ?	Yes	Yes	Yes	Yes

B. INITIAL CALIBRATION

SPCC Compounds		
Base/Neutrals	CALIBRATION DATE :	04/06/05
N-Nitroso-di-n-propylamine	FILE ID:	BB022651 - 55
Hexachlorocyclopentadiene	SPCC RRFs >0.05 ?	Yes
Acids	CCC %RSDs < 30% ?	Yes
2,4-Dinitrophenol	All targets < 15% RSD ?	NO
4-Nitrophenol	(If No, list compounds) ==>	benzaldehyde 1,1'-biphenyl 2,4-dinitrophenol 4-Clphenyl-phenylether fluorene
MINIMUM RRF = 0.050	Regression performed ?	NO
	Correlation acceptable ?	n/a

CCC Compounds
Base/Neutrals
Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
Diphenylamine
Di-n-octylphthalate
Fluoranthene
Benzo(a)pyrene
Acids
4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol
MAXIMUM %RSD = 30.0%
MAXIMUM %D = 20.0%

QA ACTION: Apply 'J' flag to positives which do not meet specifications.
FOOTNOTE = 4

C. CONTINUING CALIBRATIONS

CALIBRATION DATE :	04/12/05	04/12/05	04/14/05
FILE ID:	BB022804	BB022812	BB022848
SPCC RRFs >0.05 ?	Yes	Yes	Yes
CCC %Ds < 20% ?	Yes	Yes	Yes
All targets +/- 20%D or 80 -120% True Value?	NO	NO	NO
(If No, list compounds) ==>	2,4-dinitrophenol +26%	benzaldehyde -20.2%	benzaldehyde -32.1%
Affects samples:	SBLK01	2,4-dinitrophenol +24%	2,4-dinitrophenol +24%
		indeno(123cd)pyrene -20.1%	4-nitrophenol -24%
Affects samples:		08, 09, 11, 12, 14	4-nitroaniline -21%
			pyrene +22%
			b2ehp +20.5%
			benzo(k)fluoranthene +22%
			indeno(123cd)pyrene -29%
			benzo(ghi)perylene +24%
			terphenyl-d14 (surr) +20.6%
Affects samples:			07, 10, 13

QA Action : (1) for surr. Terphenyl-d14, qualify positive base/neutral fraction compounds in associated samples; positive bias **FOOTNOTE = 5**
(2) qualify positives of compounds noted w/ '+' RRF values in associated samples; positive bias **FOOTNOTE = 6**
(3) qualify positives & non-detects of compounds noted w/ '-' RRF values in associated samples; negative bias **FOOTNOTE = 7**

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site Lackawanna, NY Lab SDG No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory : STL Buffalo Job No.: T2253

D. SAMPLE RESULT VERIFICATION

SAMPLE ID: T2253-09 [IS-MW3-(0-4)]
COMPOUND: pyrene Int. Std.: chrysene-d12
REPORTED VALUE: 2500 ug/Kg

	Ax	Is	Vt	Df	GPC
ug/Kg =	90880	40	5000	2.0	1.0
	363667	1.6750	2.0	15.10	0.78
	Ais	RRF	Vi	Ws	D

ug/Kg = **2533** Result verified ? **Yes**

Where :

Ax	=	area of quant ion for target compound
Is	=	amount of internal standard injected, ng
Vt	=	volume of extract concentrate, uL
Df	=	Extract dilution factor
GPC	=	GPC factor (1.0 for no cleanup; 2.0 for GPC cleanup)
Ais	=	area of quant ion for internal standard
RRF	=	relative response factor, average from ICAL
Vi	=	extract volume injected, uL
Ws	=	sample mass extracted, gm (wet)
D	=	% Solids / 100

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	18
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022862.D	1	4/11/2005	4/14/2005	BB040605

QUAL FOOTNOTE 7

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	160	U	800	160	ug/Kg
108-95-2	Phenol	120	U	800	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	130	U	800	130	ug/Kg
95-57-8	2-Chlorophenol	130	U	800	130	ug/Kg
95-48-7	2-Methylphenol	130	U	800	130	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	130	U	800	130	ug/Kg
98-86-2	Acetophenone	120	U	800	120	ug/Kg
106-44-5	3+4-Methylphenols	130	U	800	130	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	130	U	800	130	ug/Kg
67-72-1	Hexachloroethane	140	U	800	140	ug/Kg
98-95-3	Nitrobenzene	170	U	800	170	ug/Kg
78-59-1	Isophorone	120	U	800	120	ug/Kg
88-75-5	2-Nitrophenol	120	U	800	120	ug/Kg
105-67-9	2,4-Dimethylphenol	130	U	800	130	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	130	U	800	130	ug/Kg
120-83-2	2,4-Dichlorophenol	150	U	800	150	ug/Kg
91-20-3	Naphthalene	140	U	800	140	ug/Kg
106-47-8	4-Chloroaniline	95	U	800	95	ug/Kg
87-68-3	Hexachlorobutadiene	120	U	800	120	ug/Kg
105-60-2	Caprolactam	130	U	800	130	ug/Kg
59-50-7	4-Chloro-3-methylphenol	110	U	800	110	ug/Kg
91-57-6	2-Methylnaphthalene	130	U	800	130	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	800	130	ug/Kg
88-06-2	2,4,6-Trichlorophenol	120	U	800	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	120	U	2000	120	ug/Kg
92-52-4	1,1-Biphenyl	130	U	800	130	ug/Kg
91-58-7	2-Chloronaphthalene	130	U	800	130	ug/Kg
88-74-4	2-Nitroaniline	100	U	2000	100	ug/Kg
131-11-3	Dimethylphthalate	130	U	800	130	ug/Kg
208-96-8	Acenaphthylene	130	U	800	130	ug/Kg
606-20-2	2,6-Dinitrotoluene	110	U	800	110	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	Date Collected:	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	Date Received:	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	SDG No.:	T2253
Lab Sample ID:	T2253-07	Matrix:	SOIL
Analytical Method:	8270	% Moisture:	18
Sample Wt/Wol:	15.1 g	Extract Vol:	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022862.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
99-09-2	3-Nitroaniline	100	U	2000	100	ug/Kg	
83-32-9	Acenaphthene	140	U	800	140	ug/Kg	
51-28-5	2,4-Dinitrophenol	690	U	2000	690	ug/Kg	
100-02-7	4-Nitrophenol	99	U J	2000	99	ug/Kg	7
132-64-9	Dibenzofuran	130	U	800	130	ug/Kg	
121-14-2	2,4-Dinitrotoluene	120	U	800	120	ug/Kg	
84-66-2	Diethylphthalate	140	U	800	140	ug/Kg	
7005-72-3	4-Chlorophenyl-phenylether	130	U	800	130	ug/Kg	
86-73-7	Fluorene	140	U	800	140	ug/Kg	
100-01-6	4-Nitroaniline	140	U J	2000	140	ug/Kg	
534-52-1	4,6-Dinitro-2-methylphenol	160	U	2000	160	ug/Kg	
86-30-6	N-Nitrosodiphenylamine	130	U	800	130	ug/Kg	
101-55-3	4-Bromophenyl-phenylether	120	U	800	120	ug/Kg	
118-74-1	Hexachlorobenzene	130	U	800	130	ug/Kg	
1912-24-9	Atrazine	120	U	800	120	ug/Kg	
87-86-5	Pentachlorophenol	190	U	2000	190	ug/Kg	
85-01-8	Phenanthrene	130	U	800	130	ug/Kg	
120-12-7	Anthracene	120	U	800	120	ug/Kg	
86-74-8	Carbazole	120	U	800	120	ug/Kg	
84-74-2	Di-n-butylphthalate	120	U	800	120	ug/Kg	
206-44-0	Fluoranthene	130	J	800	120	ug/Kg	5
129-00-0	Pyrene	140	U	800	140	ug/Kg	
85-68-7	Butylbenzylphthalate	130	U	800	130	ug/Kg	
91-94-1	3,3-Dichlorobenzidine	140	U	800	140	ug/Kg	
56-55-3	Benzo(a)anthracene	110	U	800	110	ug/Kg	
218-01-9	Chrysene	140	U	800	140	ug/Kg	
117-81-7	bis(2-Ethylhexyl)phthalate	150	U	800	150	ug/Kg	
117-84-0	Di-n-octyl phthalate	140	U	800	140	ug/Kg	
205-99-2	Benzo(b)fluoranthene	93	J	800	88	ug/Kg	5
207-08-9	Benzo(k)fluoranthene	180	U	800	180	ug/Kg	
50-32-8	Benzo(a)pyrene	130	U	800	130	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	18
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022862.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	100	U J	800	100	ug/Kg
53-70-3	Dibenz(a,h)anthracene	100	U	800	100	ug/Kg
191-24-2	Benzo(g,h,i)perylene	130	U	800	130	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	133.34	44 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	133.91	45 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	91.36	46 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	98.96	49 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	101.12	34 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	102.09	51 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	305968	6.73			
1146-65-2	Naphthalene-d8	1298367	9.06			
15067-26-2	Acenaphthene-d10	665888	12.56			
1517-22-2	Phenanthrene-d10	784693	15.56			
1719-03-5	Chrysene-d12	460201	20.93			
1520-96-3	Perylene-d12	297807	24.44			
TENTITIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~1600~~	~~AB~~	~~4.22~~ R		ug/Kg
13151912	Tridecane 6-cyclohexyl-, 6-cycloh	170	J	20.71		ug/Kg
55401757	Anthracene, 9-dodecyltetradecahy	400	J	26.33		ug/Kg

6/27/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW2-(0-6)	**SDG No.:**	T2253
Lab Sample ID:	T2253-08	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	24
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022817.D	1	4/11/2005	4/13/2005	BB040605

QUAL, FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
100-52-7	Benzaldehyde	89	U J	430	89	ug/Kg	7
108-95-2	Phenol	66	U	430	66	ug/Kg	
111-44-4	bis(2-Chloroethyl)ether	69	U	430	69	ug/Kg	
95-57-8	2-Chlorophenol	69	U	430	69	ug/Kg	
95-48-7	2-Methylphenol	72	U	430	72	ug/Kg	
108-60-1	2,2-oxybis(1-Chloropropane)	70	U	430	70	ug/Kg	
98-86-2	Acetophenone	63	U	430	63	ug/Kg	
106-44-5	3+4-Methylphenols	68	U	430	68	ug/Kg	
621-64-7	N-Nitroso-di-n-propylamine	72	U	430	72	ug/Kg	
67-72-1	Hexachloroethane	74	U	430	74	ug/Kg	
98-95-3	Nitrobenzene	95	U	430	95	ug/Kg	
78-59-1	Isophorone	65	U	430	65	ug/Kg	
88-75-5	2-Nitrophenol	67	U	430	67	ug/Kg	
105-67-9	2,4-Dimethylphenol	69	U	430	69	ug/Kg	
111-91-1	bis(2-Chloroethoxy)methane	71	U	430	71	ug/Kg	
120-83-2	2,4-Dichlorophenol	80	U	430	80	ug/Kg	
91-20-3	Naphthalene	74	U	430	74	ug/Kg	
106-47-8	4-Chloroaniline	52	U	430	52	ug/Kg	
87-68-3	Hexachlorobutadiene	67	U	430	67	ug/Kg	
105-60-2	Caprolactam	70	U	430	70	ug/Kg	
59-50-7	4-Chloro-3-methylphenol	60	U	430	60	ug/Kg	
91-57-6	2-Methylnaphthalene	73	U	430	73	ug/Kg	
77-47-4	Hexachlorocyclopentadiene	69	U	430	69	ug/Kg	
88-06-2	2,4,6-Trichlorophenol	64	U	430	64	ug/Kg	
95-95-4	2,4,5-Trichlorophenol	66	U	1100	66	ug/Kg	
92-52-4	1,1-Biphenyl	71	U	430	71	ug/Kg	
91-58-7	2-Chloronaphthalene	72	U	430	72	ug/Kg	
88-74-4	2-Nitroaniline	55	U	1100	55	ug/Kg	
131-11-3	Dimethylphthalate	70	U	430	70	ug/Kg	
208-96-8	Acenaphthylene	70	U	430	70	ug/Kg	
606-20-2	2,6-Dinitrotoluene	61	U	430	61	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

4/21/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW2-(0-6)	**SDG No.:**	T2253
Lab Sample ID:	T2253-08	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	24
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022817.D	1	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	57	U	1100	57	ug/Kg
83-32-9	Acenaphthene	77	U	430	77	ug/Kg
51-28-5	2,4-Dinitrophenol	370	U J	1100	370	ug/Kg 3
100-02-7	4-Nitrophenol	54	U	1100	54	ug/Kg
132-64-9	Dibenzofuran	72	U	430	72	ug/Kg
121-14-2	2,4-Dinitrotoluene	64	U	430	64	ug/Kg
84-66-2	Diethylphthalate	75	U	430	75	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	69	U	430	69	ug/Kg
86-73-7	Fluorene	73	U	430	73	ug/Kg
100-01-6	4-Nitroaniline	74	U	1100	74	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	84	U J	1100	84	ug/Kg 3
86-30-6	N-Nitrosodiphenylamine	71	U	430	71	ug/Kg
101-55-3	4-Bromophenyl-phenylether	65	U	430	65	ug/Kg
118-74-1	Hexachlorobenzene	69	U	430	69	ug/Kg
1912-24-9	Atrazine	66	U	430	66	ug/Kg
87-86-5	Pentachlorophenol	100	U	1100	100	ug/Kg
85-01-8	Phenanthrene	72	J	430	69	ug/Kg
120-12-7	Anthracene	65	U	430	65	ug/Kg
86-74-8	Carbazole	66	U	430	66	ug/Kg
84-74-2	Di-n-butylphthalate	66	U	430	66	ug/Kg
206-44-0	Fluoranthene	140	J	430	65	ug/Kg
129-00-0	Pyrene	140	J	430	77	ug/Kg
85-68-7	Butylbenzylphthalate	70	U	430	70	ug/Kg
91-94-1	3,3-Dichlorobenzidine	74	U	430	74	ug/Kg
56-55-3	Benzo(a)anthracene	90	J	430	61	ug/Kg
218-01-9	Chrysene	95	J	430	78	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	240	J	430	83	ug/Kg
117-84-0	Di-n-octyl phthalate	74	U	430	74	ug/Kg
205-99-2	Benzo(b)fluoranthene	110	J	430	48	ug/Kg
207-08-9	Benzo(k)fluoranthene	95	U	430	95	ug/Kg
50-32-8	Benzo(a)pyrene	88	J	430	69	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW2-(0-6)	**SDG No.:**	T2253
Lab Sample ID:	T2253-08	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	24
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022817.D	1	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	55	U J	430	55	ug/Kg
53-70-3	Dibenz(a,h)anthracene	54	U	430	54	ug/Kg
191-24-2	Benzo(g,h,i)perylene	72	U	430	72	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	236.92	79 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	255.55	85 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	178.61	89 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	161.75	81 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	206.94	69 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	190.97	95 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	124817	6.77			
1146-65-2	Naphthalene-d8	531826	9.09			
15067-26-2	Acenaphthene-d10	301736	12.59			
1517-22-2	Phenanthrene-d10	434907	15.60			
1719-03-5	Chrysene-d12	279185	20.98			
1520-96-3	Perylene-d12	197126	24.51			
TENTATIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~1700~~	~~AB~~	~~4.28~~ R		ug/Kg
629787	Heptadecane	140	J	20.09		ug/Kg
1599673	1-Docosene	470	J	20.74		ug/Kg
	Unknown	110	JB	21.41		ug/Kg
	Unknown1	190	J	22.12		ug/Kg
544763	Hexadecane	160	J	22.91		ug/Kg
	Unknown2	180	J	23.80		ug/Kg
629629	Pentadecane	180	J	24.87		ug/Kg
629947	Heneicosane	170	J	26.13		ug/Kg
	Unknown3	220	J	27.64		ug/Kg
	Unknown4	290	J	30.40		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

06/21/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	22
Sample Wt/Vol:	15.1 g	**Extract Vol:**	5000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022821.D	2	4/11/2005	4/13/2005	BB040605

SURR FOOTNOTE 7

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1700	U J	8400	1700	ug/Kg
108-95-2	Phenol	1300	U	8400	1300	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1300	U	8400	1300	ug/Kg
95-57-8	2-Chlorophenol	1300	U	8400	1300	ug/Kg
95-48-7	2-Methylphenol	1400	U	8400	1400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1400	U	8400	1400	ug/Kg
98-86-2	Acetophenone	1200	U	8400	1200	ug/Kg
106-44-5	3+4-Methylphenols	1300	U	8400	1300	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1400	U	8400	1400	ug/Kg
67-72-1	Hexachloroethane	1400	U	8400	1400	ug/Kg
98-95-3	Nitrobenzene	1800	U	8400	1800	ug/Kg
78-59-1	Isophorone	1300	U	8400	1300	ug/Kg
88-75-5	2-Nitrophenol	1300	U	8400	1300	ug/Kg
105-67-9	2,4-Dimethylphenol	1300	U	8400	1300	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1400	U	8400	1400	ug/Kg
120-83-2	2,4-Dichlorophenol	1600	U	8400	1600	ug/Kg
91-20-3	Naphthalene	1400	U	8400	1400	ug/Kg
106-47-8	4-Chloroaniline	1000	U	8400	1000	ug/Kg
87-68-3	Hexachlorobutadiene	1300	U	8400	1300	ug/Kg
105-60-2	Caprolactam	1400	U	8400	1400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1200	U	8400	1200	ug/Kg
91-57-6	2-Methylnaphthalene	1400	U	8400	1400	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1300	U	8400	1300	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200	U	8400	1200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1300	U	21000	1300	ug/Kg
92-52-4	1,1-Biphenyl	1400	U	8400	1400	ug/Kg
91-58-7	2-Chloronaphthalene	1400	U	8400	1400	ug/Kg
88-74-4	2-Nitroaniline	1100	U	21000	1100	ug/Kg
131-11-3	Dimethylphthalate	1400	U	8400	1400	ug/Kg
208-96-8	Acenaphthylene	1400	U	8400	1400	ug/Kg
606-20-2	2,6-Dinitrotoluene	1200	U	8400	1200	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

4/21/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	22
Sample Wt/Vol:	15.1 g	**Extract Vol:**	5000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022821.D	2	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
99-09-2	3-Nitroaniline	1100	U	21000	1100	ug/Kg	
83-32-9	Acenaphthene	1500	U	8400	1500	ug/Kg	
51-28-5	2,4-Dinitrophenol	7200	U	21000	7200	ug/Kg	
100-02-7	4-Nitrophenol	1000	U	21000	1000	ug/Kg	
132-64-9	Dibenzofuran	1400	U	8400	1400	ug/Kg	
121-14-2	2,4-Dinitrotoluene	1200	U	8400	1200	ug/Kg	
84-66-2	Diethylphthalate	1500	U	8400	1500	ug/Kg	
7005-72-3	4-Chlorophenyl-phenylether	1300	U	8400	1300	ug/Kg	
86-73-7	Fluorene	1400	U	8400	1400	ug/Kg	
100-01-6	4-Nitroaniline	1400	U	21000	1400	ug/Kg	
534-52-1	4,6-Dinitro-2-methylphenol	1600	U	21000	1600	ug/Kg	
86-30-6	N-Nitrosodiphenylamine	1400	U	8400	1400	ug/Kg	
101-55-3	4-Bromophenyl-phenylether	1300	U	8400	1300	ug/Kg	
118-74-1	Hexachlorobenzene	1300	U	8400	1300	ug/Kg	
1912-24-9	Atrazine	1300	U	8400	1300	ug/Kg	
87-86-5	Pentachlorophenol	1900	U	21000	1900	ug/Kg	
85-01-8	Phenanthrene	1900	J	8400	1300	ug/Kg	2
120-12-7	Anthracene	1300	U	8400	1300	ug/Kg	
86-74-8	Carbazole	1300	U	8400	1300	ug/Kg	
84-74-2	Di-n-butylphthalate	1300	J	8400	1300	ug/Kg	2
206-44-0	Fluoranthene	2200	J	8400	1200	ug/Kg	2
129-00-0	Pyrene	2500	J	8400	1500	ug/Kg	2
85-68-7	Butylbenzylphthalate	1400	U	8400	1400	ug/Kg	
91-94-1	3,3-Dichlorobenzidine	1400	U	8400	1400	ug/Kg	
56-55-3	Benzo(a)anthracene	1600	J	8400	1200	ug/Kg	2
218-01-9	Chrysene	1900	J	8400	1500	ug/Kg	2
117-81-7	bis(2-Ethylhexyl)phthalate	1800	J	8400	1600	ug/Kg	2
117-84-0	Di-n-octyl phthalate	1400	U	8400	1400	ug/Kg	
205-99-2	Benzo(b)fluoranthene	1900	J	8400	920	ug/Kg	2
207-08-9	Benzo(k)fluoranthene	1900	J	8400	1800	ug/Kg	2
50-32-8	Benzo(a)pyrene	1700	J	8400	1300	ug/Kg	2

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CMA 06/27/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	22
Sample Wt/Vol:	15.1 g	**Extract Vol:**	5000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022821.D	2	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	1100	U J	8400	1100	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1100	U	8400	1100	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1400	U	8400	1400	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	283	94 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	311	104 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	203	102 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	225	113 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	506	167 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	546	273 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	165706	6.75			
1146-65-2	Naphthalene-d8	715701	9.08			
15067-26-2	Acenaphthene-d10	403313	12.58			
1517-22-2	Phenanthrene-d10	581838	15.58			
1719-03-5	Chrysene-d12	363667	20.96			
1520-96-3	Perylene-d12	207647	24.49			
TENTATIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~1900~~	~~AB~~	~~4.25~~ R		ug/Kg
84662	Diethyl Phthalate	580	J	13.50		ug/Kg
1707751	Hydrazine, 1,1-diphenyl-2-(2,4,6-	630	J	13.95		ug/Kg
	Unknown	600	JB	19.13		ug/Kg
	Unknown1	550	J	19.46		ug/Kg
123795	Hexanedioic acid, dioctyl ester	1700	J	20.01		ug/Kg
40710427	1-Hentetracontanol	1400	J	20.74		ug/Kg
	Unknown2	780	J	21.39		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022861.D	1	4/11/2005	4/14/2005	BB040605

QUAL FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	83	U J	400	83	ug/Kg 7
108-95-2	Phenol	61	U	400	61	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	64	U	400	64	ug/Kg
95-57-8	2-Chlorophenol	65	U	400	65	ug/Kg
95-48-7	2-Methylphenol	67	U	400	67	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	65	U	400	65	ug/Kg
98-86-2	Acetophenone	59	U	400	59	ug/Kg
106-44-5	3+4-Methylphenols	64	U	400	64	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	67	U	400	67	ug/Kg
67-72-1	Hexachloroethane	69	U	400	69	ug/Kg
98-95-3	Nitrobenzene	88	U	400	88	ug/Kg
78-59-1	Isophorone	61	U	400	61	ug/Kg
88-75-5	2-Nitrophenol	62	U	400	62	ug/Kg
105-67-9	2,4-Dimethylphenol	64	U	400	64	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	67	U	400	67	ug/Kg
120-83-2	2,4-Dichlorophenol	75	U	400	75	ug/Kg
91-20-3	Naphthalene	69	U	400	69	ug/Kg
106-47-8	4-Chloroaniline	48	U	400	48	ug/Kg
87-68-3	Hexachlorobutadiene	62	U	400	62	ug/Kg
105-60-2	Caprolactam	65	U	400	65	ug/Kg
59-50-7	4-Chloro-3-methylphenol	56	U	400	56	ug/Kg
91-57-6	2-Methylnaphthalene	68	U	400	68	ug/Kg
77-47-4	Hexachlorocyclopentadiene	65	U	400	65	ug/Kg
88-06-2	2,4,6-Trichlorophenol	60	U	400	60	ug/Kg
95-95-4	2,4,5-Trichlorophenol	62	U	1000	62	ug/Kg
92-52-4	1,1-Biphenyl	67	U	400	67	ug/Kg
91-58-7	2-Chloronaphthalene	67	U	400	67	ug/Kg
88-74-4	2-Nitroaniline	51	U	1000	51	ug/Kg
131-11-3	Dimethylphthalate	65	U	400	65	ug/Kg
208-96-8	Acenaphthylene	66	U	400	66	ug/Kg
606-20-2	2,6-Dinitrotoluene	57	U	400	57	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

06/27/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022861.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
99-09-2	3-Nitroaniline	53	U	1000	53	ug/Kg	
83-32-9	Acenaphthene	72	U	400	72	ug/Kg	
51-28-5	2,4-Dinitrophenol	350	U	1000	350	ug/Kg	
100-02-7	4-Nitrophenol	50	U J	1000	50	ug/Kg	7
132-64-9	Dibenzofuran	67	U	400	67	ug/Kg	
121-14-2	2,4-Dinitrotoluene	60	U	400	60	ug/Kg	
84-66-2	Diethylphthalate	70	U	400	70	ug/Kg	
7005-72-3	4-Chlorophenyl-phenylether	64	U	400	64	ug/Kg	
86-73-7	Fluorene	68	U	400	68	ug/Kg	
100-01-6	4-Nitroaniline	69	U J	1000	69	ug/Kg	7
534-52-1	4,6-Dinitro-2-methylphenol	79	U	1000	79	ug/Kg	
86-30-6	N-Nitrosodiphenylamine	67	U	400	67	ug/Kg	
101-55-3	4-Bromophenyl-phenylether	61	U	400	61	ug/Kg	
118-74-1	Hexachlorobenzene	65	U	400	65	ug/Kg	
1912-24-9	Atrazine	62	U	400	62	ug/Kg	
87-86-5	Pentachlorophenol	94	U	1000	94	ug/Kg	
85-01-8	Phenanthrene	350	J	400	65	ug/Kg	5
120-12-7	Anthracene	68	J	400	61	ug/Kg	5
86-74-8	Carbazole	62	U	400	62	ug/Kg	
84-74-2	Di-n-butylphthalate	62	U	400	62	ug/Kg	
206-44-0	Fluoranthene	390	J	400	60	ug/Kg	5
129-00-0	Pyrene	420	J	400	72	ug/Kg	6, 5
85-68-7	Butylbenzylphthalate	66	U	400	66	ug/Kg	
91-94-1	3,3-Dichlorobenzidine	69	U	400	69	ug/Kg	
56-55-3	Benzo(a)anthracene	210	J	400	57	ug/Kg	5
218-01-9	Chrysene	240	J	400	73	ug/Kg	5
117-81-7	bis(2-Ethylhexyl)phthalate	78	U	400	78	ug/Kg	
117-84-0	Di-n-octyl phthalate	69	U	400	69	ug/Kg	
205-99-2	Benzo(b)fluoranthene	250	J	400	45	ug/Kg	5
207-08-9	Benzo(k)fluoranthene	100	J	400	89	ug/Kg	6, 5
50-32-8	Benzo(a)pyrene	180	J	400	65	ug/Kg	5

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

05/22/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022861.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
193-39-5	Indeno(1,2,3-cd)pyrene	61	J	400	51	ug/Kg	7,5
53-70-3	Dibenz(a,h)anthracene	51	U	400	51	ug/Kg	
191-24-2	Benzo(g,h,i)perylene	81	J	400	67	ug/Kg	6,5
SURROGATES							
367-12-4	2-Fluorophenol	251.7	84 %	25 - 121		SPK: 30	
13127-88-3	Phenol-d5	253.18	84 %	24 - 113		SPK: 30	
4165-60-0	Nitrobenzene-d5	164.19	82 %	23 - 120		SPK: 20	
321-60-8	2-Fluorobiphenyl	173.21	87 %	30 - 116		SPK: 20	
118-79-6	2,4,6-Tribromophenol	181.45	60 %	19 - 122		SPK: 30	
1718-51-0	Terphenyl-d14	210.58	105 %	18 - 137		SPK: 20	
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	297499	6.73				
1146-65-2	Naphthalene-d8	1348309	9.06				
15067-26-2	Acenaphthene-d10	709887	12.56				
1517-22-2	Phenanthrene-d10	866863	15.56				
1719-03-5	Chrysene-d12	444163	20.94				
1520-96-3	Perylene-d12	317782	24.43				
TENTITIVE IDENTIFIED COMPOUNDS							
	~~ACP~~	~~1600~~	~~AB~~	~~4.24~~		~~ug/Kg~~ R	1
18435455	1-Nonadecene	150	J	20.71		ug/Kg	

0~5 ok 4/27/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	16
Sample Wt/Vol:	15.2 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022860.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	80	U J	390	80	ug/Kg
108-95-2	Phenol	59	U	390	59	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	61	U	390	61	ug/Kg
95-57-8	2-Chlorophenol	62	U	390	62	ug/Kg
95-48-7	2-Methylphenol	65	U	390	65	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	63	U	390	63	ug/Kg
98-86-2	Acetophenone	57	U	390	57	ug/Kg
106-44-5	3+4-Methylphenols	61	U	390	61	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	64	U	390	64	ug/Kg
67-72-1	Hexachloroethane	66	U	390	66	ug/Kg
98-95-3	Nitrobenzene	85	U	390	85	ug/Kg
78-59-1	Isophorone	58	U	390	58	ug/Kg
88-75-5	2-Nitrophenol	60	U	390	60	ug/Kg
105-67-9	2,4-Dimethylphenol	62	U	390	62	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	64	U	390	64	ug/Kg
120-83-2	2,4-Dichlorophenol	72	U	390	72	ug/Kg
91-20-3	Naphthalene	66	U	390	66	ug/Kg
106-47-8	4-Chloroaniline	46	U	390	46	ug/Kg
87-68-3	Hexachlorobutadiene	60	U	390	60	ug/Kg
105-60-2	Caprolactam	62	U	390	62	ug/Kg
59-50-7	4-Chloro-3-methylphenol	54	U	390	54	ug/Kg
91-57-6	2-Methylnaphthalene	65	U	390	65	ug/Kg
77-47-4	Hexachlorocyclopentadiene	62	U	390	62	ug/Kg
88-06-2	2,4,6-Trichlorophenol	57	U	390	57	ug/Kg
95-95-4	2,4,5-Trichlorophenol	59	U	980	59	ug/Kg
92-52-4	1,1-Biphenyl	64	U	390	64	ug/Kg
91-58-7	2-Chloronaphthalene	64	U	390	64	ug/Kg
88-74-4	2-Nitroaniline	49	U	980	49	ug/Kg
131-11-3	Dimethylphthalate	62	U	390	62	ug/Kg
208-96-8	Acenaphthylene	63	U	390	63	ug/Kg
606-20-2	2,6-Dinitrotoluene	55	U	390	55	ug/Kg

QUAL FOOTNOTE 7

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

4/21/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	16
Sample Wt/Vol:	15.2 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022860.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
99-09-2	3-Nitroaniline	51	U	980	51	ug/Kg	
83-32-9	Acenaphthene	69	U	390	69	ug/Kg	
51-28-5	2,4-Dinitrophenol	330	U	980	330	ug/Kg	
100-02-7	4-Nitrophenol	48	U J	980	48	ug/Kg	7
132-64-9	Dibenzofuran	64	U	390	64	ug/Kg	
121-14-2	2,4-Dinitrotoluene	57	U	390	57	ug/Kg	
84-66-2	Diethylphthalate	67	U	390	67	ug/Kg	
7005-72-3	4-Chlorophenyl-phenylether	61	U	390	61	ug/Kg	
86-73-7	Fluorene	66	U	390	66	ug/Kg	
100-01-6	4-Nitroaniline	66	U J	980	66	ug/Kg	7
534-52-1	4,6-Dinitro-2-methylphenol	75	U	980	75	ug/Kg	
86-30-6	N-Nitrosodiphenylamine	64	U	390	64	ug/Kg	
101-55-3	4-Bromophenyl-phenylether	58	U	390	58	ug/Kg	
118-74-1	Hexachlorobenzene	62	U	390	62	ug/Kg	
1912-24-9	Atrazine	60	U	390	60	ug/Kg	
87-86-5	Pentachlorophenol	90	U	980	90	ug/Kg	
85-01-8	Phenanthrene	90	J	390	62	ug/Kg	5
120-12-7	Anthracene	59	U	390	59	ug/Kg	
86-74-8	Carbazole	59	U	390	59	ug/Kg	
84-74-2	Di-n-butylphthalate	71	J	390	59	ug/Kg	5
206-44-0	Fluoranthene	160	J	390	58	ug/Kg	5
129-00-0	Pyrene	200	J	390	69	ug/Kg	6,5
85-68-7	Butylbenzylphthalate	63	U	390	63	ug/Kg	
91-94-1	3,3-Dichlorobenzidine	66	U	390	66	ug/Kg	
56-55-3	Benzo(a)anthracene	110	J	390	54	ug/Kg	5
218-01-9	Chrysene	130	J	390	70	ug/Kg	5
117-81-7	bis(2-Ethylhexyl)phthalate	110	J	390	75	ug/Kg	6,5
117-84-0	Di-n-octyl phthalate	66	U	390	66	ug/Kg	
205-99-2	Benzo(b)fluoranthene	160	J	390	43	ug/Kg	5
207-08-9	Benzo(k)fluoranthene	86	U	390	86	ug/Kg	
50-32-8	Benzo(a)pyrene	120	J	390	62	ug/Kg	5

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	16
Sample Wt/Vol:	15.2 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022860.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	57	J	390	49	ug/Kg 5,7
53-70-3	Dibenz(a,h)anthracene	49	U	390	49	ug/Kg
191-24-2	Benzo(g,h,i)perylene	88	J	390	64	ug/Kg 5,6
SURROGATES						
367-12-4	2-Fluorophenol	246.26	82 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	253.1	84 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	157.29	79 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	169.25	85 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	184.48	61 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	222.52	111 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	286877	6.73			
1146-65-2	Naphthalene-d8	1296070	9.06			
15067-26-2	Acenaphthene-d10	734450	12.55			
1517-22-2	Phenanthrene-d10	922744	15.56			
1719-03-5	Chrysene-d12	430230	20.94			
1520-96-3	Perylene-d12	331544	24.43			
TENTITIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~1400~~	~~AB~~	~~4.25~~ R		ug/Kg 1
10544500	Sulfur, mol. (S8)	140	J	13.09		ug/Kg
	Unknown	85	JB	14.58		ug/Kg
	Unknown1	90	J	18.15		ug/Kg
629970	Docosane	120	J	18.64		ug/Kg
638675	Tricosane	250	J	19.36		ug/Kg
629925	Nonadecane	190	J	20.04		ug/Kg
544854	Dotriacontane	310	J	20.72		ug/Kg
630068	Hexatriacontane	160	J	21.37		ug/Kg
629787	Heptadecane	180	J	22.06		ug/Kg
630035	Nonacosane	190	J	23.73		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022816.D	1	4/11/2005	4/13/2005	BB040605

QUAL FOOTNOTE 7

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	84	U J	410	84	ug/Kg
108-95-2	Phenol	62	U	410	62	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	65	U	410	65	ug/Kg
95-57-8	2-Chlorophenol	66	U	410	66	ug/Kg
95-48-7	2-Methylphenol	68	U	410	68	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	66	U	410	66	ug/Kg
98-86-2	Acetophenone	60	U	410	60	ug/Kg
106-44-5	3+4-Methylphenols	65	U	410	65	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	68	U	410	68	ug/Kg
67-72-1	Hexachloroethane	70	U	410	70	ug/Kg
98-95-3	Nitrobenzene	90	U	410	90	ug/Kg
78-59-1	Isophorone	62	U	410	62	ug/Kg
88-75-5	2-Nitrophenol	63	U	410	63	ug/Kg
105-67-9	2,4-Dimethylphenol	65	U	410	65	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	68	U	410	68	ug/Kg
120-83-2	2,4-Dichlorophenol	76	U	410	76	ug/Kg
91-20-3	Naphthalene	70	U	410	70	ug/Kg
106-47-8	4-Chloroaniline	49	U	410	49	ug/Kg
87-68-3	Hexachlorobutadiene	63	U	410	63	ug/Kg
105-60-2	Caprolactam	66	U	410	66	ug/Kg
59-50-7	4-Chloro-3-methylphenol	57	U	410	57	ug/Kg
91-57-6	2-Methylnaphthalene	69	U	410	69	ug/Kg
77-47-4	Hexachlorocyclopentadiene	66	U	410	66	ug/Kg
88-06-2	2,4,6-Trichlorophenol	60	U	410	60	ug/Kg
95-95-4	2,4,5-Trichlorophenol	63	U	1000	63	ug/Kg
92-52-4	1,1-Biphenyl	68	U	410	68	ug/Kg
91-58-7	2-Chloronaphthalene	68	U	410	68	ug/Kg
88-74-4	2-Nitroaniline	52	U	1000	52	ug/Kg
131-11-3	Dimethylphthalate	66	U	410	66	ug/Kg
208-96-8	Acenaphthylene	67	U	410	67	ug/Kg
606-20-2	2,6-Dinitrotoluene	58	U	410	58	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

4/21/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022816.D	1	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	54	U	1000	54	ug/Kg
83-32-9	Acenaphthene	73	U	410	73	ug/Kg
51-28-5	2,4-Dinitrophenol	350	U	1000	350	ug/Kg
100-02-7	4-Nitrophenol	51	U	1000	51	ug/Kg
132-64-9	Dibenzofuran	68	U	410	68	ug/Kg
121-14-2	2,4-Dinitrotoluene	60	U	410	60	ug/Kg
84-66-2	Diethylphthalate	71	U	410	71	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	65	U	410	65	ug/Kg
86-73-7	Fluorene	69	U	410	69	ug/Kg
100-01-6	4-Nitroaniline	70	U	1000	70	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	80	U	1000	80	ug/Kg
86-30-6	N-Nitrosodiphenylamine	68	U	410	68	ug/Kg
101-55-3	4-Bromophenyl-phenylether	61	U	410	61	ug/Kg
118-74-1	Hexachlorobenzene	66	U	410	66	ug/Kg
1912-24-9	Atrazine	63	U	410	63	ug/Kg
87-86-5	Pentachlorophenol	95	U	1000	95	ug/Kg
85-01-8	Phenanthrene	280	J	410	65	ug/Kg
120-12-7	Anthracene	64	J	410	62	ug/Kg
86-74-8	Carbazole	63	U	410	63	ug/Kg
84-74-2	Di-n-butylphthalate	63	U	410	63	ug/Kg
206-44-0	Fluoranthene	440		410	61	ug/Kg
129-00-0	Pyrene	400	J	410	73	ug/Kg
85-68-7	Butylbenzylphthalate	66	U	410	66	ug/Kg
91-94-1	3,3-Dichlorobenzidine	70	U	410	70	ug/Kg
56-55-3	Benzo(a)anthracene	210	J	410	58	ug/Kg
218-01-9	Chrysene	240	J	410	74	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	79	U	410	79	ug/Kg
117-84-0	Di-n-octyl phthalate	70	U	410	70	ug/Kg
205-99-2	Benzo(b)fluoranthene	300	J	410	45	ug/Kg
207-08-9	Benzo(k)fluoranthene	120	J	410	90	ug/Kg
50-32-8	Benzo(a)pyrene	220	J	410	66	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

04/7/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022816.D	1	4/11/05	4/13/05	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	52	U J	410	52	ug/Kg
53-70-3	Dibenz(a,h)anthracene	52	U	410	52	ug/Kg
191-24-2	Benzo(g,h,i)perylene	140	J	410	68	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	237.65	79 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	256.92	86 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	175.75	88 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	160.83	80 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	202.58	68 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	174.83	87 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	126345	6.75			
1146-65-2	Naphthalene-d8	521777	9.08			
15067-26-2	Acenaphthene-d10	306587	12.58			
1517-22-2	Phenanthrene-d10	447690	15.59			
1719-03-5	Chrysene-d12	307022	20.96			
1520-96-3	Perylene-d12	221034	24.49			
TENTITIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~1700~~	~~AB~~	~~4.28~~ R		ug/Kg
	Unknown	90	JB	13.12		ug/Kg
14064825	Benzenamine, 3-(2-phenylethenyl	88	J	15.42		ug/Kg
629629	Pentadecane	88	J	17.91		ug/Kg
	Unknown1	100	JB	18.18		ug/Kg
629787	Heptadecane	80	J	18.67		ug/Kg
243174	11H-Benzo[b]fluorene	110	J	19.19		ug/Kg
638675	Tricosane	120	J	19.38		ug/Kg
646311	Tetracosane	110	J	20.07		ug/Kg
1599673	1-Docosene	310	J	20.73		ug/Kg
629629	Pentadecane	92	J	21.39		ug/Kg
544763	Hexadecane	120	J	22.10		ug/Kg
629925	Nonadecane	120	J	23.78		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022816.D	1	4/11/05	4/13/05	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TENTITIVE IDENTIFIED COMPOUNDS						
	Unknown2	180	J	24.16		ug/Kg
0	1,12-Benzperylene	160	J	28.36		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

PESTICIDE / PCB ANALYSIS
QC PARAMETER / QUALIFIER SUMMARY
SW846 Method 8081

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2253

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

All samples were extracted within 4 days of VTSR; all samples were analyzed within 5 days of extraction.

B. METHOD BLANKS

Blank ID	Date Analyzed	File ID	Matrix	Analytes Present	Conc., ppb
PB04708B	04/16/05	5PS7403	soil	none	n/a

ACTION: If sample concentration >CRQL, but <5x Blank value, flag result with 'U'
If sample concentration <CRQL, and <5x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >5x Blank value, no qualification necessary

C. SURROGATE RECOVERY

Sample ID	OUTLIERS	BIAS	QA ACTION
IS-MW-2 (0-6)	TCMX, DCBP	low	Qualify all reported results 'UJ'; negative bias suggested.
IS-SB-1 (0-2)	TCMX, DCBP	low	Qualify all reported results 'UJ'; negative bias suggested. **FOOTNOTE = 1**

D. MATRIX SPIKE / DUPLICATE IS-MW-2 (0-6)

Sample ID	OUTLIERS	BIAS	QA ACTION
IS-MW-2 (0-6) MS	gamma-BHC	low	Qualify 'UJ' in native sample only; negative bias suggested.
	Heptachlor	low	Qualify 'UJ' in native sample only; negative bias suggested.
	Aldrin	low	Qualify 'UJ' in native sample only; negative bias suggested.
	Dieldrin	low	Qualify 'UJ' in native sample only; negative bias suggested.
	Endrin	low	Qualify 'UJ' in native sample only; negative bias suggested.
	4,4'-DDT	low	Qualify 'UJ' in native sample only; negative bias suggested.
IS-MW-2 (0-6) MSD	gamma-BHC	low	Qualify 'UJ' in native sample only; negative bias suggested. **FOOTNOTE = 2**
IS-MW-2 (0-6) MSD	Endrin	RPD high	No positives reported; no action necessary.

E. BLANK SPIKE (LCS)

Recoveries were within acceptable limits in the blank spike.

ORGANOCHLORINE PESTICIDES
CALIBRATION SUMMARY
SW846 METHOD 8081A

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2253

A. INITIAL CALIBRATION

CALIBRATION DATE :	03/30/05	
FILE IDs :	5PS6849 - 52; 5PS6854	
Mean RSD < 20%?	No	DDD, DDT
If Lin Regression r >0.99?	n/a	
If 2nd-order, COD >0.99?	n/a	
Affects:		

ACTION: No QA action necessary.

B. CALIBRATION VERIFICATION

At beginning of each 12-hour shift, prior to sample analysis; after every 20 samples. Note: samples with positives >RL must be bracketed by acceptable calibration verifications.
%D (or %Drift, if linear regression) for all analytes must be < 15% on both columns.

CALIBRATION DATE :	04/16/05	04/16/05
FILE ID :	CCAL01	CCAL02
After every 20 samples?	n/a	n/a
At end of sequence?	n/a	Yes
%D < 15?	NO	
If %D > 15%, list analytes:	DDT (-16%)	
Associated Samples :	All SDG samples	

QA Action : Qualify DDT ('UJ') in all SDG samples; negative bias suggested. **FOOTNOTE = 3**

C. BREAKDOWN CHECK

DDT and Endrin breakdown checks were not found in the data deliverables.
No assessment of DDT or Endrin breakdown may be made. Since no positives were reported for these compounds, no data qualifiers were applicable.

D. QUALITATIVE CONFIRMATION

No positive compounds were reported above analyte RL values; therefore, confirmation was unnecessary.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	18
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7406.D	1	4/11/2005	4/16/2005	5PS033005

QUAL FOOTNOT

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.77	U	3.6	0.77	ug/Kg
319-85-7	beta-BHC	1.1	U	3.6	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.6	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.87	U	3.6	0.87	ug/Kg
76-44-8	Heptachlor	1.1	U	3.6	1.1	ug/Kg
309-00-2	Aldrin	1.5	U	3.6	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.6	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.6	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.6	1.0	ug/Kg
72-55-9	4,4'-DDE	0.95	U	3.6	0.95	ug/Kg
72-20-8	Endrin	1.0	U	3.6	1.0	ug/Kg
33213-65-9	Endosulfan II	1.1	U	3.6	1.1	ug/Kg
72-54-8	4,4'-DDD	0.85	U	3.6	0.85	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.6	1.3	ug/Kg
50-29-3	4,4'-DDT	0.87	U J	3.6	0.87	ug/Kg 3
72-43-5	Methoxychlor	1.0	U	3.6	1.0	ug/Kg
53494-70-5	Endrin ketone	0.99	U	3.6	0.99	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.6	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.6	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.6	1.1	ug/Kg
8001-35-2	Toxaphene	4.3	U	20	4.3	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.91	40 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	14.87	74 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW2-(0-6)	**SDG No.:**	T2253
Lab Sample ID:	T2253-08	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	24
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7407.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.84	U	3.9	0.84	ug/Kg
319-85-7	beta-BHC	1.1	U	3.9	1.1	ug/Kg
319-86-8	delta-BHC	2.1	U	3.9	2.1	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.94	U	3.9	0.94	ug/Kg
76-44-8	Heptachlor	1.2	U	3.9	1.2	ug/Kg
309-00-2	Aldrin	1.6	U	3.9	1.6	ug/Kg
1024-57-3	Heptachlor epoxide	1.4	U	3.9	1.4	ug/Kg
959-98-8	Endosulfan I	1.2	U	3.9	1.2	ug/Kg
60-57-1	Dieldrin	1.1	U	3.9	1.1	ug/Kg
72-55-9	4,4'-DDE	1.0	U	3.9	1.0	ug/Kg
72-20-8	Endrin	1.1	U	3.9	1.1	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.9	1.2	ug/Kg
72-54-8	4,4'-DDD	0.92	U	3.9	0.92	ug/Kg
1031-07-8	Endosulfan sulfate	1.4	U	3.9	1.4	ug/Kg
50-29-3	4,4'-DDT	0.94	U	3.9	0.94	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.9	1.1	ug/Kg
53494-70-5	Endrin ketone	1.1	U	3.9	1.1	ug/Kg
7421-93-4	Endrin aldehyde	1.3	U	3.9	1.3	ug/Kg
5103-71-9	alpha-Chlordane	1.1	U	3.9	1.1	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.9	1.1	ug/Kg
8001-35-2	Toxaphene	4.7	U	22	4.7	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	9.35	47 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	6.88	34 %	50 - 132		SPK: 20

QUAL. FOOTNOTE

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	22
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7408.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.81	U	3.8	0.81	ug/Kg
319-85-7	beta-BHC	1.1	U	3.8	1.1	ug/Kg
319-86-8	delta-BHC	2.1	U	3.8	2.1	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.91	U	3.8	0.91	ug/Kg
76-44-8	Heptachlor	1.2	U	3.8	1.2	ug/Kg
309-00-2	Aldrin	1.5	U	3.8	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.8	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.8	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.8	1.0	ug/Kg
72-55-9	4,4'-DDE	0.99	U	3.8	0.99	ug/Kg
72-20-8	Endrin	1.1	U	3.8	1.1	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.8	1.2	ug/Kg
72-54-8	4,4'-DDD	0.89	U	3.8	0.89	ug/Kg
1031-07-8	Endosulfan sulfate	1.4	U	3.8	1.4	ug/Kg
50-29-3	4,4'-DDT	0.91	U J	3.8	0.91	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.8	1.1	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.8	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.3	U	3.8	1.3	ug/Kg
5103-71-9	alpha-Chlordane	1.1	U	3.8	1.1	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.8	1.1	ug/Kg
8001-35-2	Toxaphene	4.5	U	21	4.5	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.94	40 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	18.11	91 %	50 - 132		SPK: 20

QUAL. DOUBLE CHECK

3

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

QUAL 04/27/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	19
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7409.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.78	U	3.7	0.78	ug/Kg
319-85-7	beta-BHC	1.1	U	3.7	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.7	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.88	U	3.7	0.88	ug/Kg
76-44-8	Heptachlor	1.1	U	3.7	1.1	ug/Kg
309-00-2	Aldrin	1.5	U	3.7	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.7	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.7	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.7	1.0	ug/Kg
72-55-9	4,4'-DDE	0.96	U	3.7	0.96	ug/Kg
72-20-8	Endrin	1.0	U	3.7	1.0	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.7	1.2	ug/Kg
72-54-8	4,4'-DDD	0.86	U	3.7	0.86	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.7	1.3	ug/Kg
50-29-3	4,4'-DDT	0.88	U	3.7	0.88	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.7	1.1	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.7	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.7	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.7	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.7	1.1	ug/Kg
8001-35-2	Toxaphene	4.4	U	21	4.4	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.31	37 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	5.92	30 %	50 - 132		SPK: 20

QUAL FOOTNOTE

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

06/27/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	16
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7410.D	1	4/11/2005	4/16/2005	5PS033005

QUAL FOOTNOTE

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.75	U	3.5	0.75	ug/Kg
319-85-7	beta-BHC	1.0	U	3.5	1.0	ug/Kg
319-86-8	delta-BHC	1.9	U	3.5	1.9	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.85	U	3.5	0.85	ug/Kg
76-44-8	Heptachlor	1.1	U	3.5	1.1	ug/Kg
309-00-2	Aldrin	1.4	U	3.5	1.4	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.5	1.3	ug/Kg
959-98-8	Endosulfan I	1.0	U	3.5	1.0	ug/Kg
60-57-1	Dieldrin	0.97	U	3.5	0.97	ug/Kg
72-55-9	4,4'-DDE	0.93	U	3.5	0.93	ug/Kg
72-20-8	Endrin	1.0	U	3.5	1.0	ug/Kg
33213-65-9	Endosulfan II	1.1	U	3.5	1.1	ug/Kg
72-54-8	4,4'-DDD	0.83	U	3.5	0.83	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.5	1.3	ug/Kg
50-29-3	4,4'-DDT	0.85	U J	3.5	0.85	ug/Kg 3
72-43-5	Methoxychlor	1.0	U	3.5	1.0	ug/Kg
53494-70-5	Endrin ketone	0.97	U	3.5	0.97	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.5	1.2	ug/Kg
5103-71-9	alpha-Chlordane	0.99	U	3.5	0.99	ug/Kg
5103-74-2	gamma-Chlordane	1.0	U	3.5	1.0	ug/Kg
8001-35-2	Toxaphene	4.2	U	20	4.2	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	8.47	42 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	25.83	129 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

6/12/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	20
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7411.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.79	U	3.7	0.79	ug/Kg
319-85-7	beta-BHC	1.1	U	3.7	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.7	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.89	U	3.7	0.89	ug/Kg
76-44-8	Heptachlor	1.1	U	3.7	1.1	ug/Kg
309-00-2	Aldrin	1.5	U	3.7	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.7	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.7	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.7	1.0	ug/Kg
72-55-9	4,4'-DDE	0.97	U	3.7	0.97	ug/Kg
72-20-8	Endrin	1.1	U	3.7	1.1	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.7	1.2	ug/Kg
72-54-8	4,4'-DDD	0.87	U	3.7	0.87	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.7	1.3	ug/Kg
50-29-3	4,4'-DDT	0.89	U	3.7	0.89	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.7	1.1	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.7	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.7	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.7	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.7	1.1	ug/Kg
8001-35-2	Toxaphene	4.4	U	21	4.4	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	5.4	27 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	10.8	54 %	50 - 132		SPK: 20

QUALS FOOTNOTES

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

4/27/05

PCB ANALYSIS
QC PARAMETER / QUALIFIER SUMMARY
SW-846 Method 8082

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2253

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

All samples were extracted within 4 days of VTSR; all samples were analyzed within 4 days of extraction.

B. METHOD BLANKS

Blank ID	Date Analyzed	File ID	Matrix	Analytes Present	Conc., ppb
PB04707B	04/15/05	4PC2090	soil	none	n/a

ACTION: If sample concentration >CRQL, but <5x Blank value, flag result with 'U'
If sample concentration <CRQL, and <5x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >5x Blank value, no qualification necessary

C. INSTRUMENT BLANKS

Instrument blanks through the analytical sequence were free of target analytes at below 0.5x target analyte CRQL values.

D. SURROGATE RECOVERY

Sample ID	Surrogate	Bias	QA Action
IS-MW3- (0-4)	DCBP	low (57/58%)	Qualify reported Aroclors 'UJ'; negative bias suggested.

FOOTNOTE = 1

E. MATRIX SPIKE / DUPLICATE — IS-MW-2 (0-6)

Sample ID	Analyte	Bias	QA Action
MSD	Aroclor 1260	RPD high (88/20%)	No positives reported; therefore, no QA action taken

F. BLANK SPIKE (LCS)

Recoveries were within acceptable limits in the blank spike sample.

G. SAMPLE QUALITATIVE & QUANTITATIVE VERIFICATION

No positive results for target compounds in field samples were reported.

PCB ANALYSIS
CALIBRATION SUMMARY
SW-846 Method 8082

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2253

A. INITIAL CALIBRATION

CALIBRATION DATE :	04/09/05
FILE IDs :	4PC1858 - 62
Mean RSD < 20%?	Yes
Lin Regression r^2>0.995?	n/a
2nd-order COD >0.990 ?	n/a

B. INITIAL CALIBRATION VERIFICATION

Daily, before sample analysis; all analytes must recover within + 15% of true value.

FILE ID : CCAL01
DATE : 04/15/05
OUTLIERS : none

ACTION: If outliers - and unsuccessful or no CA = apply R to all results for specific analytes associated with the calibration.

C. CONTINUING CALIBRATIONS (CCV)

CALIBRATION DATE :	04/15/05	04/15/05	04/15/05
FILE IDs :	CCAL01	CCAL02	CCAL03
After every 10 samples?	Yes	Yes	Yes
At end of sequence?	Yes	Yes	Yes
|%D| < 15?	No	No	Yes
If No, list compounds ===>	1016 (-), 1260 (+)	AR1260 (+)	
Affects:	IS- MW3, SB1, SB4, SOILDUP		

QA Action : Qualify AR1016 'UJ' in above samples; potential negative bias suggested. **FOOTNOTE = 2**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie		**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY		**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)		**SDG No.:**	T2253
Lab Sample ID:	T2253-07		**Matrix:**	SOIL
Analytical Method:	8082		**% Moisture:**	18
Sample Wt/Vol:	15	g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2112.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.8	U	21	4.8	ug/Kg
11141-16-5	AROCLOR 1232	7.1	U	21	7.1	ug/Kg
53469-21-9	AROCLOR 1242	6.3	U	21	6.3	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260	5.1	U	21	5.1	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	11.4	57 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	12.92	65 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie		**Date Collected:**	4/5/2005	
Project:	Incinerator Site-Lackawanna, NY		**Date Received:**	4/7/2005	
Client Sample ID:	IS-MW2-(0-6)		**SDG No.:**	T2253	
Lab Sample ID:	T2253-08		**Matrix:**	SOIL	
Analytical Method:	8082		**% Moisture:**	24	
Sample Wt/Vol:	15	g	**Extract Vol:**	5000	uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2113.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.3	U	22	3.3	ug/Kg
11104-28-2	AROCLOR 1221	5.1	U	22	5.1	ug/Kg
11141-16-5	AROCLOR 1232	7.7	U	22	7.7	ug/Kg
53469-21-9	AROCLOR 1242	6.8	U	22	6.8	ug/Kg
12672-29-6	AROCLOR 1248	3.3	U	22	3.3	ug/Kg
11097-69-1	AROCLOR 1254	2.2	U	22	2.2	ug/Kg
11096-82-5	AROCLOR 1260	5.5	U	22	5.5	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	10.02	50 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	12.48	62 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	22
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2094.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.2	U J	21	3.2	ug/Kg
11104-28-2	AROCLOR 1221	5.0	U	21	5.0	ug/Kg
11141-16-5	AROCLOR 1232	7.4	U	21	7.4	ug/Kg
53469-21-9	AROCLOR 1242	6.6	U	21	6.6	ug/Kg
12672-29-6	AROCLOR 1248	3.2	U	21	3.2	ug/Kg
11097-69-1	AROCLOR 1254	2.1	U	21	2.1	ug/Kg
11096-82-5	AROCLOR 1260	5.3	U	21	5.3	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	10.68	53 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	11.36	57 %	58 - 125		SPK: 20

QUAL FOOTNOTE 2 1

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	19
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2095.D	1	4/11/2005	4/15/2005	4PC040905

QUAL FOOTNOTE

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units	
TARGETS							
12674-11-2	AROCLOR 1016	3.1	U J	21	3.1	ug/Kg	2
11104-28-2	AROCLOR 1221	4.8	U	21	4.8	ug/Kg	
11141-16-5	AROCLOR 1232	7.2	U	21	7.2	ug/Kg	
53469-21-9	AROCLOR 1242	6.4	U	21	6.4	ug/Kg	
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg	
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg	
11096-82-5	AROCLOR 1260	5.2	U	21	5.2	ug/Kg	
SURROGATES							
877-09-8	Tetrachloro-m-xylene	12.03	60 %	50 - 132		SPK: 20	
2051-24-3	Decachlorobiphenyl	12.74	64 %	58 - 125		SPK: 20	

4/27/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	16
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2098.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.0	U J	20	3.0	ug/Kg
11104-28-2	AROCLOR 1221	4.6	U	20	4.6	ug/Kg
11141-16-5	AROCLOR 1232	6.9	U	20	6.9	ug/Kg
53469-21-9	AROCLOR 1242	6.2	U	20	6.2	ug/Kg
12672-29-6	AROCLOR 1248	3.0	U	20	3.0	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	20	2.0	ug/Kg
11096-82-5	AROCLOR 1260	5.0	U	20	5.0	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	10.62	53 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	12.76	64 %	58 - 125		SPK: 20

QUAL. FOOTNOTE 2

06/21/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	20
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2099.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.9	U	21	4.9	ug/Kg
11141-16-5	AROCLOR 1232	7.3	U	21	7.3	ug/Kg
53469-21-9	AROCLOR 1242	6.5	U	21	6.5	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260	5.2	U	21	5.2	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	13.48	67 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	15.9	79 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

INORGANICS / METALS ANALYSIS
QC PARAMETER / CALIBRATION / QUALIFIER SUMMARY

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2253

Review Level: NYSDEC 'DUSR Laboratory: ChemTech, NJ

A. CALIBRATION

	ICV	CCV	Outliers ?
ICP & AA Analytes	90 -110%	90 -110%	none
Mercury	80 - 120%	80 - 120%	none
Cyanide	85 - 115%	85 - 115%	none
Mercury	Blank + 5 Standards, r^2 >/ = 0.995		none
Cyanide	Blank + 4 Standards, r^2 >/ = 0.995		none

CRDL Standards		% Recovery	Outliers ?
ICP Analytes	CRI	70 - 130%	none
Mercury	CRA	70 - 130%	none
Cyanide	Mid-Range	70 - 130%	none

B. BLANKS

		Outliers ?
ICB / CCB	< RL	none
PrepBlank	< RL	none

C. ICP INTERELEMENT CORRECTION (ICSA / ICSAB)

		Outliers ?
ICSA	<2x RL for RL <10 ug/L	n/a
ICSAB	80 - 120% recovery	none

D. MATRIX SPIKE IS-MW-2 (0-6)

75 - 125% recovery (if sample conc. < 4x spike conc.)

Outliers ?
Cr (172, 166%)
Ag (26, 38%)
Ba (74%)
Hg (-48, -54%)

QA Action: (1) Recovery above 125% : qualify positives 'J'; positive bias suggested due to matrix effects **FOOTNOTE = 1**
(2) Recovery below 75% : qualify non-detects 'UJ' and positives 'J'; negative bias suggested **FOOTNOTE = 2**

E. POST-DIGESTION SPIKE (PDS)

ICP [only required for non-compliant matrix spike analytes]
75 - 125% recovery; PDS conc. should be 2x RL or 2x sample conc., whichever is >.

Outliers ?
Cr (173%) **FOOTNOTE = 3**

F. MATRIX DUPLICATE IS-MW-2 (0-6)

	Outliers ?
Max. 100% RPD * for non-aqueous samples > 5x CRDL	none
Max. (+/-) CRDL value if either sample < 5x CRDL	none

* EPA Region II data validation guidance uses a 100% RPD threshhold for non-aqueous data qualification.

G. LABORATORY CONTROL SAMPLE

Recovery within range for non-aqueous samples — Outliers ? none

Note: Form 7 listed inconsistent acceptance limit ranges for Ba, Ca & Cr, based on true values.

H. SERIAL DILUTION SAMPLE IS-MW-2 (0-6)

Maximum 10.0% D if undiluted sample > 10x MDL — Outliers ? See below — QA Action See below

All analytes except Tl, Ag and K recovered outside the acceptable range in the serial dilution reported.
Please refer to the attached serial dilution summary form for details.

QA Action: Precision value >10.0%D : qualify positives >10x MDL 'J'; negative bias suggested, since undiluted sample results were below dilution sample results. Note: positive bias suggested for Cd only. **FOOTNOTE = 4**

I. RESULTS >MDL <RL

Positive analyte concentrations above MDL values but below RL values were qualified 'J' by the laboratory, as quantitatively estimated values. No bias direction is inferred. No footnote is assigned, since this is the only lab-applied 'J' qualifier.

INORGANICS / METALS ANALYSIS
QC PARAMETER / CALIBRATION / QUALIFIER SUMMARY

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2253

Review Level: NYSDEC 'DUSR Laboratory: ChemTech, NJ

J. NYSDEC-ASP HOLDING TIMES (from VTSR)

Metals except mercury	6 months
Mercury	26 days
Cyanide	12 days

All samples were analyzed within allowable holding times.

K. VERIFICATION OF INSTRUMENTAL PARAMETERS

	Frequency	Outliers ?
Method / Instrument Detection Limits	every 6 months	none
Interelement Correction Factors	every 6 months	none
Linear Range Analysis	every 6 months	none

L. VERIFICATION OF REPORTED RESULTS

Sample ID : IS-MW-2 (0-6) Analyte: As

Reported value: 38.9 mg/Kg

$$mg/Kg = \frac{\text{conc. mg/L}}{\text{wet wgt, gm}} \times \frac{\text{final volume, mL}}{\%\text{solids}/100}$$

$$mg/Kg = \frac{0.29551}{1.00} \times \frac{100}{0.759}$$

mg/Kg = 38.9

Result verified ? Yes

Reported % solids: 75.9

$$\%\ solids = \frac{\text{dry wgt., gm}}{\text{wet wgt., gm}} \times 100$$

% solids = #DIV/0!

Result verified ? See Note

Note: no raw data for % solids determination found in general chemistry section; reported value used for above calculation.

Metals

- 9 -

SERIAL DILUTION SAMPLE SUMMARY

Client: Malcolm Pirnie **SDG No.:** T2253

Contract: Malcolm Pirnie **Lab Code:** CHEMED **Case No.:** T2253 **SAS No.:** T2253

Matrix: WATER **Level:** LOW **Client ID:** IS-MW2-(0-6)L

Sample ID: T2253-08 **Serial Dilution ID:** T2253-08L

Analyte	10X MDL	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Aluminum	53	81373.50		121718.00		49.6		10.00 %	P
Antimony	32	75.55	J	3.17	U	100.0		10.00 %	P
Arsenic	33	213.30		325.25	J	52.5		10.00 %	P
Barium	7.0	3856.65		6033.25	J	56.4		10.00 %	P
Beryllium	1.0	3.80	J	33.25	J	775.0		10.00 %	P
Cadmium	3.0	28.45	J	18.75	J	34.1		10.00 %	P
Calcium	12	226674.90		351566.80		55.1		10.00 %	P
Chromium	3.0	549.95		1009.75		83.6		10.00 %	P
Cobalt	4.0	145.20	J	247.50	J	70.5		10.00 %	P
Copper	36	4220.90		6321.25		49.8		10.00 %	P
Iron	270	1106800.00		1707548.00		54.3		10.00 %	P
Lead	22	9738.80		15283.50		56.9		10.00 %	P
Magnesium	83	24085.10	J	37976.00	J	57.7		10.00 %	P
Manganese	1.0	8383.75		12968.75		54.7		10.00 %	P
Mercury	0.33	6.87		8.00		16.4		10.00 %	CV
Nickel	16	529.40		942.50	J	78.0		10.00 %	P
Potassium	618	5516.95	J	5420.75	J	1.7 1.70K		10.00 %	P
Selenium	30	51.95	J	439.00	J	745.0		10.00 %	P
Silver	16	1.64	U	1.64	U			10.00 %	P
Sodium	3320	5059.85	J	16826.50	J	232.5		10.00 %	P
Thallium	31	3.05	U	3.05	U			10.00 %	P
Vanadium	7.0	99.35	J	214.25	J	115.7		10.00 %	P
Zinc	6.0	13421.40		21111.75		57.3		10.00 %	P

ug/L

All except: Tl, Ag, K

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
		% Solids:	81.80

QUAL FOOTNOTE

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	
7429-90-5	Aluminum	12400	J	mg/Kg	0.708	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-36-0	Antimony	0.397	U	mg/Kg	0.397	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-38-2	Arsenic	5.520	J	mg/Kg	0.474	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-39-3	Barium	118	J N	mg/Kg	0.087	1	4/15/2005	4/15/2005	EPA SW-846 6010	2,4
7440-41-7	Beryllium	1.290	J	mg/Kg	0.007	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-43-9	Cadmium	0.298	J	mg/Kg	0.040	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-70-2	Calcium	49500	J	mg/Kg	0.045	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-47-3	Chromium	17.3	J N	mg/Kg	0.107	1	4/15/2005	4/15/2005	EPA SW-846 6010	1,3,4
7440-48-4	Cobalt	5.610	J	mg/Kg	0.117	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-50-8	Copper	24.0	J	mg/Kg	0.079	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-89-6	Iron	17500	J	mg/Kg	1.860	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-92-1	Lead	77.5	J	mg/Kg	0.349	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-95-4	Magnesium	12100	J	mg/Kg	1.150	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-96-5	Manganese	909	J	mg/Kg	0.034	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-97-6	Mercury	0.007	U J N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471	2
7440-02-0	Nickel	17.3	J	mg/Kg	0.148	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-09-7	Potassium	1340		mg/Kg	6.420	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7782-49-2	Selenium	1.240		mg/Kg	0.413	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-22-4	Silver	0.096	U	mg/Kg	0.096	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-23-5	Sodium	317	J	mg/Kg	31.2	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-28-0	Thallium	0.638	U	mg/Kg	0.638	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-62-2	Vanadium	16.1	J	mg/Kg	0.073	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-66-6	Zinc	130	J	mg/Kg	0.087	1	4/15/2005	4/15/2005	EPA SW-846 6010	4

Comments:

05/29/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW2-(0-6)	**SDG No.:**	T2253
Lab Sample ID:	T2253-08	**Matrix:**	SOIL
		% Solids:	75.90

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUAL FOOTNOTE
7429-90-5	Aluminum	13400	J	mg/Kg	0.771	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-36-0	Antimony	19.3		mg/Kg	0.432	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-38-2	Arsenic	38.9		mg/Kg	0.516	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-39-3	Barium	604	N	mg/Kg	0.095	1	4/15/2005	4/15/2005	EPA SW-846 6010	2, 4
7440-41-7	Beryllium	0.511	J	mg/Kg	0.008	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-43-9	Cadmium	6.200	J	mg/Kg	0.043	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-70-2	Calcium	33700	J	mg/Kg	0.049	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-47-3	Chromium	84.1	N	mg/Kg	0.116	1	4/15/2005	4/15/2005	EPA SW-846 6010	1, 3, 4
7440-48-4	Cobalt	21.6		mg/Kg	0.128	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-50-8	Copper	703		mg/Kg	0.086	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-89-6	Iron	146000	D	mg/Kg	20.2	10	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-92-1	Lead	1450		mg/Kg	0.379	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-95-4	Magnesium	3810		mg/Kg	1.250	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-96-5	Manganese	1240		mg/Kg	0.037	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.453	N	mg/Kg	0.008	1	4/14/2005	4/14/2005	EPA SW-846 7471	2, 4
7440-02-0	Nickel	78.0		mg/Kg	0.161	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-09-7	Potassium	1770		mg/Kg	6.980	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7782-49-2	Selenium	6.450		mg/Kg	0.449	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-22-4	Silver	6.360	J	mg/Kg	0.104	1	4/15/2005	4/15/2005	EPA SW-846 6010	2
7440-23-5	Sodium	1710	J	mg/Kg	34.0	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-28-0	Thallium	0.694	U	mg/Kg	0.694	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-62-2	Vanadium	15.9	J	mg/Kg	0.079	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-66-6	Zinc	1810	J	mg/Kg	0.095	1	4/15/2005	4/15/2005	EPA SW-846 6010	4

Comments:

06/25/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
		% Solids:	78.10

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUAL, FOOTNOTE
7429-90-5	Aluminum	14900		mg/Kg	0.749	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-36-0	Antimony	4.920	J	mg/Kg	0.420	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-38-2	Arsenic	21.3		mg/Kg	0.502	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-39-3	Barium	287	N	mg/Kg	0.092	1	4/15/2005	4/15/2005	EPA SW-846 6010	2, 4
7440-41-7	Beryllium	1.960		mg/Kg	0.008	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-43-9	Cadmium	1.510		mg/Kg	0.042	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-70-2	Calcium	65300		mg/Kg	0.047	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-47-3	Chromium	55.0	N	mg/Kg	0.113	1	4/15/2005	4/15/2005	EPA SW-846 6010	1, 3, 4
7440-48-4	Cobalt	9.340		mg/Kg	0.124	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-50-8	Copper	108		mg/Kg	0.083	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-89-6	Iron	107000		mg/Kg	1.960	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-92-1	Lead	572		mg/Kg	0.369	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-95-4	Magnesium	13200		mg/Kg	1.220	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-96-5	Manganese	1500		mg/Kg	0.036	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.072	N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471	2, 4
7440-02-0	Nickel	21.2		mg/Kg	0.156	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-09-7	Potassium	1360		mg/Kg	6.790	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7782-49-2	Selenium	5.020		mg/Kg	0.437	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-22-4	Silver	0.476	J	mg/Kg	0.101	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-23-5	Sodium	1490		mg/Kg	33.0	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-28-0	Thallium	0.675	U	mg/Kg	0.675	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-62-2	Vanadium	14.2		mg/Kg	0.077	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-66-6	Zinc	495		mg/Kg	0.092	1	4/15/2005	4/15/2005	EPA SW-846 6010	4

Comments:

06/27/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-SB1(0-2)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-10**	**Matrix:**	**SOIL**
		% Solids:	**81.30**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	20200	J	mg/Kg	0.720	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-36-0	Antimony	0.403	U	mg/Kg	0.403	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-38-2	Arsenic	4.410	J	mg/Kg	0.482	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-39-3	Barium	137	J N	mg/Kg	0.089	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-41-7	Beryllium	3.020	J	mg/Kg	0.007	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.041	U	mg/Kg	0.041	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-70-2	Calcium	135000	J D	mg/Kg	0.455	10	4/15/2005	4/15/2005	EPA SW-846 6010
7440-47-3	Chromium	13.1	J N	mg/Kg	0.108	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-48-4	Cobalt	2.940	J	mg/Kg	0.119	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-50-8	Copper	16.1	J	mg/Kg	0.080	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-89-6	Iron	13100		mg/Kg	1.890	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-92-1	Lead	60.8		mg/Kg	0.354	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-95-4	Magnesium	22100		mg/Kg	1.170	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-96-5	Manganese	1360		mg/Kg	0.034	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-97-6	Mercury	0.007	U J N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471
7440-02-0	Nickel	10.1	J	mg/Kg	0.150	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-09-7	Potassium	1890		mg/Kg	6.520	1	4/15/2005	4/15/2005	EPA SW-846 6010
7782-49-2	Selenium	1.670		mg/Kg	0.419	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-22-4	Silver	0.097	U	mg/Kg	0.097	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-23-5	Sodium	3140	J	mg/Kg	31.7	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-28-0	Thallium	0.648	U	mg/Kg	0.648	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-62-2	Vanadium	9.700	J	mg/Kg	0.074	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-66-6	Zinc	109	J	mg/Kg	0.089	1	4/15/2005	4/15/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
		% Solids:	84.00

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUAL FOOTNOT
7429-90-5	Aluminum	9670	J	mg/Kg	0.696	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-36-0	Antimony	13.7		mg/Kg	0.390	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-38-2	Arsenic	17.4		mg/Kg	0.467	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-39-3	Barium	727	N	mg/Kg	0.086	1	4/15/2005	4/15/2005	EPA SW-846 6010	2,4
7440-41-7	Beryllium	0.602		mg/Kg	0.007	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-43-9	Cadmium	4.410		mg/Kg	0.039	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-70-2	Calcium	44900		mg/Kg	0.044	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-47-3	Chromium	101	N	mg/Kg	0.105	1	4/15/2005	4/15/2005	EPA SW-846 6010	1,3,4
7440-48-4	Cobalt	11.3		mg/Kg	0.115	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-50-8	Copper	364		mg/Kg	0.077	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-89-6	Iron	70600		mg/Kg	1.830	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-92-1	Lead	1020		mg/Kg	0.343	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-95-4	Magnesium	7370		mg/Kg	1.130	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-96-5	Manganese	2500		mg/Kg	0.033	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.023	N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471	2
7440-02-0	Nickel	47.3		mg/Kg	0.145	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-09-7	Potassium	1620		mg/Kg	6.310	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7782-49-2	Selenium	2.690		mg/Kg	0.406	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-22-4	Silver	8.200	J N	mg/Kg	0.094	1	4/15/2005	4/15/2005	EPA SW-846 6010	2
7440-23-5	Sodium	2080	J	mg/Kg	30.7	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-28-0	Thallium	0.627	U	mg/Kg	0.627	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-62-2	Vanadium	40.3	J	mg/Kg	0.071	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-66-6	Zinc	1220	J	mg/Kg	0.086	1	4/15/2005	4/15/2005	EPA SW-846 6010	4

Comments:

06/27/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
		% Solids:	80.00

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUAL FOOTNOTE
7429-90-5	Aluminum	12000	J	mg/Kg	0.731	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-36-0	Antimony	12.2		mg/Kg	0.410	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-38-2	Arsenic	16.0		mg/Kg	0.490	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-39-3	Barium	726	N	mg/Kg	0.090	1	4/15/2005	4/15/2005	EPA SW-846 6010	2, 4
7440-41-7	Beryllium	0.689		mg/Kg	0.008	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-43-9	Cadmium	2.790		mg/Kg	0.041	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-70-2	Calcium	43600		mg/Kg	0.046	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-47-3	Chromium	60.2	N	mg/Kg	0.110	1	4/15/2005	4/15/2005	EPA SW-846 6010	1, 3, 4
7440-48-4	Cobalt	9.440		mg/Kg	0.121	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-50-8	Copper	342		mg/Kg	0.081	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-89-6	Iron	53700		mg/Kg	1.920	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7439-92-1	Lead	767		mg/Kg	0.360	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-95-4	Magnesium	8000		mg/Kg	1.190	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-96-5	Manganese	1540		mg/Kg	0.035	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.104	N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471	2, 4
7440-02-0	Nickel	43.4	J	mg/Kg	0.152	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-09-7	Potassium	1790		mg/Kg	6.620	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7782-49-2	Selenium	2.590		mg/Kg	0.426	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-22-4	Silver	0.236	J N	mg/Kg	0.099	1	4/15/2005	4/15/2005	EPA SW-846 6010	2
7440-23-5	Sodium	1820	J	mg/Kg	32.3	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-28-0	Thallium	0.659	U	mg/Kg	0.659	1	4/15/2005	4/15/2005	EPA SW-846 6010	
7440-62-2	Vanadium	30.0	J	mg/Kg	0.075	1	4/15/2005	4/15/2005	EPA SW-846 6010	4
7440-66-6	Zinc	1020	J	mg/Kg	0.090	1	4/15/2005	4/15/2005	EPA SW-846 6010	

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
% Solids:	81.80		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.611	U	0.611	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-MW2-(0-6)	**SDG No.:**	T2253
Lab Sample ID:	T2253-08	**Matrix:**	SOIL
% Solids:	75.90		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	1.050		0.659	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
% Solids:	78.10		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.640	U	0.640	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
% Solids:	81.30		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.750		0.615	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
% Solids:	84.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.595	U	0.595	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
% Solids:	80.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.625	U	0.625	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

July 01, 2005

Malcolm Pirnie, Inc.
Att: Mr. James Richert
40 Centre Drive
Orchard Park, New York 14127-4102

Re: Former Incinerator Site, Lackawanna, NY Data Deliverables;
Non-Aqueous Samples Collected April 06, 2005

Malcolm Pirnie Project No. : 4852-001

Dear Mr. Richert,

Enclosed with this cover letter are the results of our data review of the laboratory deliverables pertaining to the referenced site. The review was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review ('DUSR') process.

Site Name: Former Incinerator Site, Lackawanna, NY

Fractions:

Volatile Organics	Laboratory:	ChemTech, New Jersey
Semi-volatile Organics	Matrix:	Non-Aqueous
Pesticide & PCB Organics	Lab No.:	T2275
TAL Metals + Cyanide		

Reviewer: Chris Taylor

Prepared By: Environmental Quality Associates, Inc.

SECTION A
Sample Information

The above-noted laboratory project was analyzed by ChemTech, Mountainside, NJ. Samples were collected April 06, 2005, and received at the laboratory (VTSR) on April 08, 2005. Samples were analyzed for volatile organics (3), semivolatile organics (2), chlorinated pesticides (2), polychlorinated biphenyls ('PCBs', 2), TAL metals (2) and cyanide (2). Samples were received at the laboratory in good condition, and within the acceptable temperature range of 0 to 6 degrees Centigrade. Volatile trip blank (1) was at acceptable aqueous preserved pH level (<2) per laboratory sample receipt and prep logs.

SECTION B
General Comments

Summary of data completeness and overall quality of data deliverables package
Data deliverables were complete as received.

Overall data quality

Data quality was acceptable, incorporating applied data qualifiers as detailed in the accompanying QC and calibration summary forms. No data rejections were necessary. Data qualifiers applied by the reviewer are accompanied by a supporting footnote which indicates the reason for the qualifier and any potential bias direction associated with the qualifier; each footnote is specific to the particular analytical fraction and associated QA review spreadsheets. It is noted that 'J' qualifiers applied by the laboratory to indicate a positive result >MDL but <RL are not footnoted by the data reviewer unless there is an additional qualifier affecting that particular analyte result.

SECTION C
Volatile Organic Fraction

NYSDEC-ASP holding time of 10 days from lab receipt to analysis was exceeded by two days for IS-SB3 (14-16); all reported results for this sample were qualified 'UJ' or 'J', with potential negative bias suggested.

Surrogate recoveries, blank spike recoveries, instrument tune parameters and internal standard recoveries and retention times were within acceptable limits. It is noted that the reported matrix spike / duplicate sample was not from this SDG; therefore no assessment of potential sample matrix effects could be made, since the reported sample spike matrix is of unknown composition and may not be representative of this SDG's samples.

Percent RSD (%RSD) values for 12 target compounds exceeded the allowable maximum of 15.0% in the aqueous initial calibration (ICAL) of 04/06/05, while chloroethane, acetone, methyl acetate and methylene chloride exhibited %RSD above 15.0% in the non-aqueous ICAL of 04/10/05. The data user is referred to the attached ICAL summary for specific details; since none of these compounds were indicated as being quantitated via linear regression, any positive results for these compounds in associated samples were qualified 'J', with no bias direction inferred. Continuing calibrations (CCAL) on 04/12, 04/14 and 04/20/05 exhibited RRF %D values for several target analytes which exceeded 20%, with responses for these compounds negative relative to the ICAL average RRFs (the data user is referred to the attached calibration summary spreadsheet for specific details). All non-detect compounds which were negative relative to ICAL RRFs were qualified 'UJ', with negative bias suggested, while any affected compound positive results were qualified 'J', with positive bias suggested.

Method blanks for non-aqueous samples exhibited low levels of acetone and/or methylene chloride. Positive results for these compounds in associated samples were negated with 'U' qualifier if present below 10x corresponding blank concentrations. The aqueous trip blank was free of contamination, as was the associated method blank for this sample.

SECTION D
Semi-volatile Organics

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples. Instrument tune parameters were within acceptable limits.

It is noted that the reported matrix spike / duplicate sample was not from this SDG; therefore no assessment of potential sample matrix effects could be made, since the reported sample spike matrix is of unknown composition and may not be representative of this SDG's samples.

Recoveries of internal standard compound perylene-d12 were low (<50%) relative to the corresponding CCV recovery in both samples IS-SB3 (0-19) and IS-SB2 (0-21.5). Re-analysis of these samples yielded similar low recoveries of perylene-d12. Target compounds quantitated from this IS were qualified 'UJ' or 'J', as quantitatively estimated values.

The method blank was free of target compound contamination. An aldol-condensate by-product of acetone (4-OH-4-methyl-2-pentanone) was present in the method blank, at 1300 J ug/Kg. This non-target analyte was red-lined and rejected ('R') when present in associated field samples.

Calibration parameters were within acceptable limits in the ICAL of 04/06/05, with the exception of several compounds whose RRF values exceeded 15.0% RSD; since these compounds were not reported as positive in any associated field samples, no data qualifiers were applicable. The CCALs on 04/13 and 04/15/05 exhibited %D values above (+ or -) 20% for several compounds; associated compounds which were positive for > +20%D exceedances were qualified 'J', with positive bias suggested, while compounds which were > -20%D were qualified 'UJ' or 'J', with negative bias suggested. The data user is directed to the attached calibration summary spreadsheet for details.

SECTION E
Chlorinated Pesticides

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Blank spike recoveries were within acceptable limits, and the method (prep) blank was free of contamination.

It is noted that the reported matrix spike / duplicate sample was not from this SDG; therefore no assessment of potential sample matrix effects could be made, since the reported sample spike matrix is of unknown composition and may not be representative of this SDG's samples.

No indication of DDT / Endrin breakdown standard assessment was found. This is a requirement of SW-846 Method 8081 (Sect. 8.4.6). Since no positives for these compounds were reported, no data qualifiers were assigned.

Continuing calibration standard %D values exceeded 15.0%, and were negative (i.e., less sensitive) relative to the corresponding initial calibration average RRF values for 4,4'-DDT. Reported results for DDT in all SDG samples were qualified 'UJ', with negative bias suggested.

No positive pesticide detections were found in associated field samples.

SECTION F
Polychlorinated Biphenyls (PCBs)

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Recovery of surrogate decachlorobiphenyl (DCBP) was high in the 10x dilution analysis of sample IS-SB2 (0-21.5). No QA action was taken due to dilution effects.

The method (prep) blank was free of contamination. Blank spike recoveries were within acceptable limits.

It is noted that the reported matrix spike / duplicate sample was not from this SDG; therefore no assessment of potential sample matrix effects could be made, since the reported sample spike matrix is of unknown composition and may not be representative of this SDG's samples.

Continuing calibration standard %D values exceeded 15.0%, and were negative (i.e., less sensitive) relative to the corresponding initial calibration average RRF values for Aroclor-1260. Reported results for this analyte in associated samples were qualified 'J', with potential negative bias suggested.

SECTION G
Metals / Wet Chemistry

NYSDEC-ASP holding times from lab receipt to analysis, were met for all samples.

Calibration and blank criteria were met for all analytes. CRI / CRA standard recoveries, ICP interference check standard and LCS recoveries were all within acceptable limits.

It is noted that the reported matrix spike / duplicate sample was not from this SDG; therefore no assessment of potential sample matrix effects could be made, since the reported sample spike matrix is of unknown composition and may not be representative of this SDG's samples. It is further noted that the serial dilution sample was not from this SDG; the same inability to characterize this samples matrix composition as noted above also prevents drawing any inferences from the reported results. Therefore, no data qualifiers were applied on the basis of reported spike or serial dilution recoveries and precision results.

NYSDEC-ASP holding times and QC and calibration parameters for wet-chemistry analyte cyanide were within applicable limits; no data qualifiers were necessary for this analyte.

SECTION H
Overall Recommendations

The results of the review and qualification process for the above analytical fractions and associated samples are summarized on the attached QC and Calibration summary tables for each specific analytical fraction, in order to facilitate the end-user's' review of these data. Data qualifiers have been applied directly to the laboratory Form 1s, with associated numeric footnotes which are detailed in the corresponding QC / Calibration summaries.

Very truly yours,
Environmental Quality Associates, Inc.

Chris W. Taylor
Vice President

/cwt

Attachments

VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. | Project: Incinerator Site, Lackawanna, NY | Project No.: 4852-001 | Lab Project No.: T2275

Review Level: NYSDEC 'DUSR' | Laboratory: ChemTech, NJ

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	10 DAYS MAX. FROM VTSR TO ANALYSIS, IF PRESERVED TO pH <2 & 4 DEGREES C
AQUEOUS MATRIX:	7 DAYS MAX. FROM VTSR TO ANALYSIS, IF NOT PRESERVED TO pH <2 & 4 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAXIMUM FROM VTSR TO ANALYSIS, IF PRESERVED TO 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	7 DAYS MAXIMUM FROM VTSR TO ANALYSIS, IF NOT PRESERVED TO 4 +/- 2 DEGREES C

IS-SB-3 (14-16) [T2275-03] was analyzed 12 days from VTSR, on 04/20/05

QA Action: Qualify all reported results for IS-SB-3 (14-16) 'UJ' or 'J'; negative bias suggested. **FOOTNOTE = 1**

B. METHOD BLANKS

Date Analyzed	Blank ID	File ID	Matrix	Analytes Present	Conc., ppb	Affected Samples
04/12/05	VBLK03	VBH0412W1	water	none	n/a	Trip Blank
04/14/05	VBLK01	VBK0414S2	soil	acetone	5.4 J	SB-2 (12.5)
04/20/05	VBLK02	VBK0420S2	soil	acetone	5.0 J	SB-3 (14-16)
				methylene chloride	2.6 J	

QA Action : methylene chloride, acetone: negate positives <10x blank values **FOOTNOTE = 2**

C. SURROGATE RECOVERY

All reported surrogate recoveries were within acceptable limits.

D. MATRIX SPIKE / DUPLICATE

The reported MS/MSD samples were not from this SDG.

E. BLANK SPIKE BSK0420S1

All reported recoveries were within acceptable limits.

F. INTERNAL STANDARDS

IS recoveries & RTs for all SDG samples were within acceptable limits.

VOLATILE ORGANICS
CALIBRATION SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2275

A. INSTRUMENT PERFORMANCE (BFB TUNE)

TUNE DATE:	04/06/05	04/12/05	04/10/05	04/14/05	04/20/05
BFB INJECTION TIME:	17:51	16:11	13:07	6:02	7:32
LAST SAMPLE INJECTION:	20:46	20:44	15:14	16:49	15:56
m/z RATIOS ACCEPTABLE ?	Yes	Yes	Yes	Yes	Yes
	water ICAL	VBLK03, TB	soil ICAL	VBLK01, -01	VBLK02, -03

B. INITIAL CALIBRATION

CALIBRATION DATE :	04/06/05 (aqueous)	04/10/05 (non-aqueous)
FILE IDs :	VH040602, 04, 06-08	VK041002 - 06
ALL target RRFs > 0.05 ?	Yes	Yes
SPCC RRFs > min.values?	Yes *	Yes
CCC %RSDs < 30% ?	Yes	Yes
All Targets < 15% RSD?	No	No
If No, regression r > 0.99 ?	regression not listed	regression not listed
(If No, list compounds)===>	See attached summary; 12 target compounds exhibited %RSD >15.0% but only 3 of 12 shown by regression	chloroethane acetone methyl acetate methylene chloride

ACTION
If average RRF <0.050, REJECT non-detects, and qualify positive values 'J' for the non-compliant compound(s).
If %RSD > 15%, and regression not used, qualify positive values 'J' for the non-compliant compound(s).

FOOTNOTE = 3

C. CONTINUING CALIBRATIONS

CALIBRATION DATE :	04/12/05	04/14/05	04/20/05
FILE ID :	VH041202	VK041403	VK042003
SPCC RRFs > min. values?	Yes	Yes	Yes
CCC %Ds < 20% ?	Yes	Yes	Yes
All Targets < 20%D?	No	No	No
(If No, list compounds)===>	methyl acetate -26% tetrachloroethene -27% Affects: VBLK03, Trip Blank	112triCltriFethane -25% acetone -38% carbon disulfide -31% methyl acetate +21% trans-1,2-dce -21% cyclohexane -23% methylcyclohexane -25% 1,2,4-triClbenzene -22% Affects: T2275-01, VBLK01	diCldiFmethane -34% 1,2,4-triClbenzene -27% Affects: T2275-03, VBLK02

ACTION
If any CCAL RRF <0.050, REJECT non-detects, and qualify positive values 'J' for the non-compliant compound(s).
Qualify all values 'UJ' or 'J' for negative RRFs for affected compound(s).

FOOTNOTE = 4

VOLATILE ORGANICS
CALIBRATION SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2275

D. SAMPLE RESULT VERIFICATION

SAMPLE ID : IS-SB2 (12.5)
COMPOUND : toluene Int. Std. : 1,4-diFbenzene
REPORTED VALUE : 3.6 J ug/Kg

		Ax	Is		Non-Aqueous (lLow-level)
ug/Kg =		22893	250		(Ax) (Is)
	347379	1.145	5.00	0.800	(Ais) (RRF) (Ws) (D)
	Ais	RRF	Ws	D	

ug/Kg = 3.60 Result verified ? Yes

Where :
- Ax = area of characteristic quant ion (EICP) for target compound
- Is = internal standard added, ng
- Ais = area of characteristic quant ion (EICP) for internal standard
- RRF = relative response factor of target compound from ambient purge calibration
- Ws = wet weight of soil or sediment sample extracted, gm
- D = sample %solids, expressed as decimal (e.g., 85% solids = 0.85)

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: MALC05

Lab Code: CHEM Case No.: T2275 SAS No.: T2275 SDG No.: T2275

Instrument ID: MSVOAH Calibration Date(s): 4/6/05 4/6/05

Heated Purge: (Y/N) N Calibration Time(s): 18:16 20:46

GC Column: RTX624 ID: 0.53 (mm)

LAB FILE ID:

RRF001 = VH040602.D RRF010 = VH040604.D

RRF050 = VH040606.D RRF100 = VH040607.D RRF200 = VH040608.D

COMPOUND	RRF001	RRF010	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD	
Dichlorodifluoromethane	0.690	0.701	0.656	0.544	0.612	0.641	10.0	
Chloromethane *	1.082	0.837	0.837	0.777	0.817	0.870	13.9	*
Vinyl Chloride *	0.781	0.758	0.698	0.637	0.660	0.707	8.7	*
Bromomethane	0.598	0.480	0.386	0.359	0.344	0.433	24.5	
Chloroethane	0.550	0.332	0.263	0.249	0.256	0.330	38.6	
Trichlorofluoromethane	0.341	0.384	0.253	0.265	0.275	0.304	18.6	
1,1,2-Trichlorotrifluor	0.607	0.559	0.463	0.462	0.468	0.512	13.1	
1,1-Dichloroethene *	0.625	0.506	0.474	0.483	0.499	0.517	11.9	*
Acetone	1.098	0.784	0.710	0.719	0.727	0.808	20.4	
Carbon Disulfide	1.109	1.294	1.392	1.540	1.554	1.378	13.4	
Methyl tert-butyl Ether	2.100	2.102	2.091	2.114	2.242	2.130	3.0	
Methyl Acetate	1.653	1.409	1.530	1.424	1.706	1.544	8.6	
Methylene Chloride	0.825	0.670	0.632	0.640	0.621	0.678	12.4	
trans-1,2-Dichloroethen	0.686	0.602	0.602	0.618	0.633	0.628	5.5	
1,1-Dichloroethane *	1.424	1.389	1.405	1.417	1.433	1.414	1.2	*
Cyclohexane	1.293	1.189	1.185	1.155	1.157	1.196	4.7	
2-Butanone	0.922	0.805	0.807	0.806	0.794	0.827	6.5	
Carbon Tetrachloride *	0.355	0.387	0.435	0.449	0.493	0.424	12.7	*
cis-1,2-Dichloroethene	0.703	0.691	0.675	0.663	0.699	0.686	2.5	
Chloroform *	1.322	1.307	1.302	1.290	1.346	1.313	1.6	*
1,1,1-Trichloroethane *	1.018	0.980	1.030	1.000	0.969	0.999	2.5	*
Methylcyclohexane	0.503	0.475	0.495	0.492	0.492	0.491	2.1	
Benzene *	1.425	1.315	1.365	1.371	1.380	1.371	2.9	*
1,2-Dichloroethane *	0.838	0.768	0.790	0.787	0.845	0.806	4.2	*
Trichloroethene *	0.310	0.326	0.352	0.351	0.357	0.339	6.0	*
1,2-Dichloropropane *	0.450	0.391	0.408	0.418	0.425	0.418	5.2	*
Bromodichloromethane *	0.377	0.421	0.526	0.543	0.582	0.490	17.7	*
4-Methyl-2-Pentanone	0.490	0.630	0.620	0.578	0.543	0.572	10.1	
Toluene *	0.729	0.757	0.799	0.785	0.801	0.774	4.0	*
t-1,3-Dichloropropene *	0.343	0.385	0.538	0.551	0.570	0.477	22.1	*
cis-1,3-Dichloropropene*	0.342	0.442	0.558	0.587	0.620	0.510	22.6	*
1,1,2-Trichloroethane *	0.294	0.276	0.284	0.288	0.306	0.290	3.9	*
2-Hexanone	0.281	0.516	0.548	0.528	0.492	0.473	23.1	
Dibromochloromethane *	0.159	0.248	0.332	0.337	0.349	0.285	28.4	*
1,2-Dibromoethane	0.182	0.289	0.321	0.332	0.346	0.294	22.5	
Tetrachloroethene *	0.449	0.453	0.492	0.487	0.509	0.478	5.4	*
Chlorobenzene *	0.994	1.011	0.976	0.972	0.965	0.984	1.9	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: MALC05

Lab Code: CHEM Case No.: T2275 SAS No.: T2275 SDG No.: T2275

Instrument ID: MSVOAH Calibration Date(s): 4/6/05 4/6/05

Heated Purge: (Y/N) N Calibration Time(s): 18:16 20:46

GC Column: RTX624 ID: 0.53 (mm)

LAB FILE ID:

RRF001 = VH040602.D RRF010 = VH040604.D

RRF050 = VH040606.D RRF100 = VH040607.D RRF200 = VH040608.D

COMPOUND		RRF001	RRF010	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD	
Ethyl Benzene	*	0.472	0.514	0.511	0.485	0.487	0.494	3.7	*
m/p-Xylenes	*	0.541	0.645	0.627	0.592	0.588	0.599	6.7	*
o-Xylene	*	0.527	0.614	0.592	0.586	0.603	0.584	5.8	*
Styrene	*	0.755	0.921	1.041	1.040	1.059	0.963	13.4	*
Bromoform	*	0.050	0.158	0.213	0.240	0.252	0.183	45.1	*
Isopropylbenzene		3.346	3.542	3.815	3.876	3.654	3.647	5.9	
1,1,2,2-Tetrachloroetha	*	0.983	1.051	1.009	1.030	1.000	1.015	2.6	*
1,3-Dichlorobenzene	*	1.148	1.219	1.378	1.413	1.436	1.319	9.7	*
1,4-Dichlorobenzene	*	1.776	1.552	1.496	1.564	1.505	1.579	7.2	*
1,2-Dichlorobenzene	*	1.407	1.290	1.408	1.420	1.403	1.386	3.9	*
1,2-Dibromo-3-Chloropro		0.173	0.158	0.184	0.202	0.238	0.191	16.1	
1,2,4-Trichlorobenzene	*	0.573	0.677	0.722	0.772	0.851	0.719	14.5	*
1,2-Dichloroethane-d4		1.358	1.166	1.148	1.109	1.085	1.173	9.2	
Dibromofluoromethane		0.369	0.360	0.390	0.379	0.373	0.374	3.0	
Toluene-d8		1.093	1.096	1.191	1.161	1.187	1.146	4.2	
4-Bromofluorobenzene	*	0.432	0.493	0.508	0.471	0.450	0.471	6.6	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	IS-SB2(12.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-01	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041426.D	1	4/14/05	VK041005

QUAL FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg	
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg	
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg	
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg	
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg	
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg	
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U J	6.2	0.83	ug/Kg	4
75-35-4	1,1-Dichloroethene	0.71	U	6.2	0.71	ug/Kg	
67-64-1	Acetone	97	B J	31	4.2	ug/Kg	4
75-15-0	Carbon disulfide	6.7	J	6.2	0.46	ug/Kg	4
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg	
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg	
75-09-2	Methylene Chloride	14		6.2	2.3	ug/Kg	
156-60-5	trans-1,2-Dichloroethene	0.80	U J	6.2	0.80	ug/Kg	4
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg	
110-82-7	Cyclohexane	0.40	U J	6.2	0.40	ug/Kg	4
78-93-3	2-Butanone	11	J	31	3.5	ug/Kg	
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg	
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg	
67-66-3	Chloroform	0.43	U	6.2	0.43	ug/Kg	
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg	
108-87-2	Methylcyclohexane	0.52	U J	6.2	0.52	ug/Kg	4
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg	
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg	
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg	
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg	
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg	
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg	
108-88-3	Toluene	3.6	J	6.2	0.51	ug/Kg	
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg	
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg	
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CMX 07/01/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	IS-SB2(12.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-01	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041426.D	1	4/14/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	1.4	J	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	5.8	J	6.2	1.1	ug/Kg
95-47-6	o-Xylene	2.1	J	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.7	103 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	49.37	99 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	46.76	94 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	42.42	85 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	248183	4.32			
540-36-3	1,4-Difluorobenzene	347379	4.77			
3114-55-4	Chlorobenzene-d5	281134	7.66			
3855-82-1	1,4-Dichlorobenzene-d4	134769	9.67			

4

5/10/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	IS-SB3(14-16)	**SDG No.:**	T2275
Lab Sample ID:	T2275-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	13
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK042020.D	1	4/20/05 See Footnote 1	VK041005

QUAL, FootNote

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.98	U	5.7	0.98	ug/Kg 4
74-87-3	Chloromethane	0.98	U	5.7	0.98	ug/Kg
75-01-4	Vinyl chloride	0.94	U	5.7	0.94	ug/Kg
74-83-9	Bromomethane	2.3	U	5.7	2.3	ug/Kg
75-00-3	Chloroethane	2.4	U	5.7	2.4	ug/Kg
75-69-4	Trichlorofluoromethane	1.4	U	5.7	1.4	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.76	U	5.7	0.76	ug/Kg
75-35-4	1,1-Dichloroethene	0.66	U	5.7	0.66	ug/Kg
67-64-1	Acetone	5.3	U ~~JB~~	29	3.8	ug/Kg 2
75-15-0	Carbon disulfide	0.42	U	5.7	0.42	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.42	U	5.7	0.42	ug/Kg
79-20-9	Methyl Acetate	0.99	U	5.7	0.99	ug/Kg
75-09-2	Methylene Chloride	3.1	U ~~JB~~	5.7	2.1	ug/Kg 2
156-60-5	trans-1,2-Dichloroethene	0.73	U	5.7	0.73	ug/Kg
75-34-3	1,1-Dichloroethane	0.31	U	5.7	0.31	ug/Kg
110-82-7	Cyclohexane	0.37	U	5.7	0.37	ug/Kg
78-93-3	2-Butanone	3.2	U	29	3.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.51	U	5.7	0.51	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.37	U	5.7	0.37	ug/Kg
67-66-3	Chloroform	0.40	U	5.7	0.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.48	U	5.7	0.48	ug/Kg
108-87-2	Methylcyclohexane	0.48	U	5.7	0.48	ug/Kg
71-43-2	Benzene	0.46	U	5.7	0.46	ug/Kg
107-06-2	1,2-Dichloroethane	0.35	U	5.7	0.35	ug/Kg
79-01-6	Trichloroethene	0.35	U	5.7	0.35	ug/Kg
78-87-5	1,2-Dichloropropane	0.45	U	5.7	0.45	ug/Kg
75-27-4	Bromodichloromethane	0.38	U	5.7	0.38	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.3	U	29	2.3	ug/Kg
108-88-3	Toluene	2.8	J	5.7	0.46	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.42	U	5.7	0.42	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.38	U	5.7	0.38	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.34	U	5.7	0.34	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

4/10/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	IS-SB3(14-16)	**SDG No.:**	T2275
Lab Sample ID:	T2275-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	13
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK042020.D	1	4/20/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.1	U	29	4.1	ug/Kg
124-48-1	Dibromochloromethane	0.26	U	5.7	0.26	ug/Kg
106-93-4	1,2-Dibromoethane	0.46	U	5.7	0.46	ug/Kg
127-18-4	Tetrachloroethene	1.3	J	5.7	0.84	ug/Kg
108-90-7	Chlorobenzene	0.41	U	5.7	0.41	ug/Kg
100-41-4	Ethyl Benzene	1.5	J	5.7	0.41	ug/Kg
126777-61-2	m/p-Xylenes	5.4	J	5.7	0.99	ug/Kg
95-47-6	o-Xylene	1.3	J	5.7	0.44	ug/Kg
100-42-5	Styrene	0.53	U	5.7	0.53	ug/Kg
75-25-2	Bromoform	0.35	U	5.7	0.35	ug/Kg
98-82-8	Isopropylbenzene	0.48	U	5.7	0.48	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.36	U	5.7	0.36	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.64	U	5.7	0.64	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.62	U	5.7	0.62	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.44	U	5.7	0.44	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.1	U	5.7	1.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.78	U	5.7	0.78	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.48	101 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.66	101 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.64	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	41.01	82 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	351428	4.34			
540-36-3	1,4-Difluorobenzene	499463	4.79			
3114-55-4	Chlorobenzene-d5	410251	7.67			
3855-82-1	1,4-Dichlorobenzene-d4	181177	9.68			

07/01/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2275
Lab Sample ID:	T2275-05	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH041212.D	1	4/12/05	VH040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U J	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

QUAL FOOTNOTE 4

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

OK 4/10/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2275
Lab Sample ID:	T2275-05	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH041212.D	1	4/12/05	VH040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.39	119 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	56.27	113 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	50.85	102 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	54.16	108 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	528048	6.43			
540-36-3	1,4-Difluorobenzene	870828	7.08			
3114-55-4	Chlorobenzene-d5	713515	10.75			
3855-82-1	1,4-Dichlorobenzene-d4	281129	13.01			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

SEMI-VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW846 8270

CLIENT: Malcolm Pirnie, Inc. | Project: Incinerator Site, Lackawanna, NY | Project No.: 4852-001

Review Level: NYSDEC - DUSR | Laboratory: ChemTech, NJ | Lab Project No.: T2275

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

Samples were collected on 04/06/05 and received at the lab (VTSR) on 04/08/05 at 4 degrees C, with ice present, per COC.
Samples were extracted on 04/12/05 and analyzed on 04/14-15/05, meeting all preservation and holding time requirements.

B. METHOD BLANKS

Blank ID	Date Analyzed	Matrix	Analytes Present	Conc., ppb	Affects
SBLK01	04/12/05	soil	none	n/a	All SDG samples

Note: non-target (4-OH-4-Me-2-pentanone; aldol-condensate) present at RT=3.18 minutes, estimated concentration 1300 ug/Kg

ACTION: If sample concentration >CRQL, but <10x Blank value, flag result with 'U'
If sample concentration <CRQL, and <10x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >10x Blank value, no qualification necessary
Red-line (Reject, 'R') 4-OH-4-Me-2-pentanone present in associated samples **FOOTNOTE = 1**

FIELD BLANKS
No field blanks were submitted for this sample delivery group; therefore, no assessment of potential field-based contamination may be made.

C. SURROGATE RECOVERY

All reported surrogate recoveries were within acceptable limits.

D. MATRIX SPIKE / DUPLICATE

The reported MS/MSD samples were not from this SDG, and are of unknown matrix composition which may not be representative of this SDG's sample matrix. Therefore, no assessment could be made of potential sample matrix effects, and no QA action was taken on the basis of reported spike recoveries.

E. BLANK SPIKE (LCS)

Sample ID	Spike Compound	Bias	Comments
PB04731BS	4,6-dinitro-2-methylphenol	high	No positives found in associated samples; no data qualifiers necessary

F. INTERNAL STANDARDS (IS)

IS perylene-d12 was below 50% of the associated CCV recovery in both samples. Re-analysis yielded similar low recoveries for both samples. Reported results for target compounds quantitated from perylene-d12 in the initial analyses were qualified 'UJ' or 'J', as quantitatively estimated values. **FOOTNOTE = 2**

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory : ChemTech, NJ Lab Project No.: T2275

A. INSTRUMENT PERFORMANCE (DFTPP TUNE)

TUNE DATE:	04/06/05	04/13/05	04/14/05
TUNE FILE:	BE020609	BE020832	BE020877
DFTPP INJECTION TIME:	20:33	23:31	23:45
LAST INJECTION WITHIN 12-HR. WINDOW ?	Yes	Yes	Yes
m/z RATIOS ACCEPTABLE ?	Yes	Yes	Yes

B. INITIAL CALIBRATION

SPCC Compounds	CALIBRATION DATE :	04/06/05
Base/Neutrals	FILE ID:	BE020610 - 14
N-Nitroso-di-n-propylamine	SPCC RRFs >0.05 ?	Yes *
Hexachlorocyclopentadiene	CCC %RSDs < 30% ?	Yes
Acids	All targets < 15% RSD ?	NO
2,4-Dinitrophenol	(If No, list compounds) ==>	benzaldehyde
4-Nitrophenol		hexaClcyclopentadiene
MINIMUM RRF = 0.050		4,6-dinitro-2-methylphenol
		2,4,6-tribromophenol (surr)

CCC Compounds	Regression performed ?	NO
Base/Neutrals	Correlation acceptable ?	n/a
Acenaphthene		
1,4-Dichlorobenzene		
Hexachlorobutadiene		
Diphenylamine		
Di-n-octylphthalate		
Fluoranthene		
Benzo(a)pyrene		
Acids		
4-Chloro-3-methylphenol		
2,4-Dichlorophenol		
2-Nitrophenol		
Phenol		
Pentachlorophenol		
2,4,6-Trichlorophenol		
MAXIMUM %RSD = 30.0%		
MAXIMUM %D = 20.0%		

* Note: 20 ppb RRFs for 2,4-dinitrophenol and 4,6-dinitro-2-methylphenol were below 0.050 (0.043 and 0.044, resp.). Since average RRF values for both compounds were >0.050, no data qualifiers were assigned.

QA ACTION: Apply 'J' flag to positives which do not meet specifications in associated samples.
FOOTNOTE = 3

NOTE: Linear or non-linear regression acceptable alternatives for compounds w/ %RSD >15%.
Linear regression r^2 values must be 0.995 minimum for these compounds.
Non-linear COD values must be 0.99 minimum for these compounds, with minimum 6-pts. for second-order, and minimum 7-pts. for third-order equations.

C. CONTINUING CALIBRATIONS

	CALIBRATION DATE :	04/13/05	04/15/05
	FILE ID:	BE020833	BE020878
	SPCC RRFs >0.05 ?	Yes	Yes
	CCC %Ds < 20% ?	Yes	Yes
All targets	+/- 20%D or 80 -120% True Value?	NO	NO
	(If No, list compounds) ==>	benzaldehyde -51% 2,4-dinitrophenol +161% 4,6-dinitro-2-methylphenol +52% dibenzo(a,h)anthracene +32% benzo(g,h,i)perylene +29%	benzaldehyde -46% 2,4-dinitrophenol +66% 4,6-dinitro-2-methylphenol +21%
	Affects samples:	T2275-02, -04	T2275-02RE, -04RE

QA Action : Qualify positives of compounds noted "+ xx%" 'J' in associated samples; positive bias; qualify non-detects and positives of compounds noted "-xx%" 'UJ' or 'J', with negative bias. **FOOTNOTE = 4**

Note: Since re-analysis replicated low IS recoveries, the original sample analysis runs should be used.

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: Malcolm Pirnie, Inc.
PROJECT: Incinerator Site, Lackawanna, NY
Lab SDG No.: 4852-001
Job No.: T2275
Review Level: NYSDEC 'DUSR'
Laboratory : STL Buffalo

D. SAMPLE RESULT VERIFICATION

SAMPLE ID: IS-SB2 (0-21.5) (T2275-02)
COMPOUND: fluoranthene
Int. Std.: phenanthrene-d10
REPORTED VALUE: 1400 ug/Kg

	Ax	Is	Vt	Df	GPC
ug/Kg =	615064	40	1000	1.0	1.0
	598967	1.212	2.0	15.1	0.81
	Ais	RRF	Vi	Ws	D

ug/Kg = 1385 Result verified ? Yes

Where :

Ax	=	area of quant ion for target compound
Is	=	amount of internal standard injected, ng
Vt	=	volume of extract concentrate, uL
Df	=	Extract dilution factor
GPC	=	GPC factor (1.0 for no cleanup; 2.0 for GPC cleanup)
Ais	=	area of quant ion for internal standard
RRF	=	relative response factor, average from ICAL
Vi	=	extract volume injected, uL
Ws	=	sample mass extracted, gm (wet)
D	=	% Solids / 100

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020852.D	1	4/12/2005	4/14/2005	BE040605

DUAL POSTING 4

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	170	U J	810	170	ug/Kg
108-95-2	Phenol	120	U	810	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	130	U	810	130	ug/Kg
95-57-8	2-Chlorophenol	130	U	810	130	ug/Kg
95-48-7	2-Methylphenol	130	U	810	130	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	130	U	810	130	ug/Kg
98-86-2	Acetophenone	120	U	810	120	ug/Kg
106-44-5	3+4-Methylphenols	130	U	810	130	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	130	U	810	130	ug/Kg
67-72-1	Hexachloroethane	140	U	810	140	ug/Kg
98-95-3	Nitrobenzene	180	U	810	180	ug/Kg
78-59-1	Isophorone	120	U	810	120	ug/Kg
88-75-5	2-Nitrophenol	120	U	810	120	ug/Kg
105-67-9	2,4-Dimethylphenol	130	U	810	130	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	130	U	810	130	ug/Kg
120-83-2	2,4-Dichlorophenol	150	U	810	150	ug/Kg
91-20-3	Naphthalene	140	U	810	140	ug/Kg
106-47-8	4-Chloroaniline	97	U	810	97	ug/Kg
87-68-3	Hexachlorobutadiene	120	U	810	120	ug/Kg
105-60-2	Caprolactam	130	U	810	130	ug/Kg
59-50-7	4-Chloro-3-methylphenol	110	U	810	110	ug/Kg
91-57-6	2-Methylnaphthalene	140	U	810	140	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	810	130	ug/Kg
88-06-2	2,4,6-Trichlorophenol	120	U	810	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	120	U	2000	120	ug/Kg
92-52-4	1,1-Biphenyl	130	U	810	130	ug/Kg
91-58-7	2-Chloronaphthalene	130	U	810	130	ug/Kg
88-74-4	2-Nitroaniline	100	U	2000	100	ug/Kg
131-11-3	Dimethylphthalate	130	U	810	130	ug/Kg
208-96-8	Acenaphthylene	130	U	810	130	ug/Kg
606-20-2	2,6-Dinitrotoluene	110	U	810	110	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

07/01/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020852.D	1	4/12/2005	4/14/2005	BE040605

QUALIFIERS

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	110	U	2000	110	ug/Kg
83-32-9	Acenaphthene	140	U	810	140	ug/Kg
51-28-5	2,4-Dinitrophenol	690	U	2000	690	ug/Kg
100-02-7	4-Nitrophenol	100	U	2000	100	ug/Kg
132-64-9	Dibenzofuran	130	U	810	130	ug/Kg
121-14-2	2,4-Dinitrotoluene	120	U	810	120	ug/Kg
84-66-2	Diethylphthalate	140	U	810	140	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	130	U	810	130	ug/Kg
86-73-7	Fluorene	140	U	810	140	ug/Kg
100-01-6	4-Nitroaniline	140	U	2000	140	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	160	U	2000	160	ug/Kg
86-30-6	N-Nitrosodiphenylamine	130	U	810	130	ug/Kg
101-55-3	4-Bromophenyl-phenylether	120	U	810	120	ug/Kg
118-74-1	Hexachlorobenzene	130	U	810	130	ug/Kg
1912-24-9	Atrazine	120	U	810	120	ug/Kg
87-86-5	Pentachlorophenol	190	U	2000	190	ug/Kg
85-01-8	Phenanthrene	910		810	130	ug/Kg
120-12-7	Anthracene	160	J	810	120	ug/Kg
86-74-8	Carbazole	170	J	810	120	ug/Kg
84-74-2	Di-n-butylphthalate	120	U	810	120	ug/Kg
206-44-0	Fluoranthene	1400		810	120	ug/Kg
129-00-0	Pyrene	1200		810	140	ug/Kg
85-68-7	Butylbenzylphthalate	130	U	810	130	ug/Kg
91-94-1	3,3-Dichlorobenzidine	140	U	810	140	ug/Kg
56-55-3	Benzo(a)anthracene	470	J	810	110	ug/Kg
218-01-9	Chrysene	460	J	810	150	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	160	U	810	160	ug/Kg
117-84-0	Di-n-octyl phthalate	140	U	810	140	ug/Kg
205-99-2	Benzo(b)fluoranthene	690	J	810	89	ug/Kg
207-08-9	Benzo(k)fluoranthene	250	J	810	180	ug/Kg
50-32-8	Benzo(a)pyrene	440	J	810	130	ug/Kg

} 2

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

07/01/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020852.D	1	4/12/2005	4/14/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
193-39-5	Indeno(1,2,3-cd)pyrene	100	U	810	100	ug/Kg	2
53-70-3	Dibenz(a,h)anthracene	100	U	810	100	ug/Kg	2
191-24-2	Benzo(g,h,i)perylene	190	J	810	130	ug/Kg	4, 2
SURROGATES							
367-12-4	2-Fluorophenol	152.79	51 %	25 - 121		SPK: 30	
13127-88-3	Phenol-d5	155.04	52 %	24 - 113		SPK: 30	
4165-60-0	Nitrobenzene-d5	107.17	54 %	23 - 120		SPK: 20	
321-60-8	2-Fluorobiphenyl	104.51	52 %	30 - 116		SPK: 20	
118-79-6	2,4,6-Tribromophenol	146.92	49 %	19 - 122		SPK: 30	
1718-51-0	Terphenyl-d14	133.85	67 %	18 - 137		SPK: 20	
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	185218	4.13				
1146-65-2	Naphthalene-d8	687957	4.92				
15067-26-2	Acenaphthene-d10	369217	6.04				
1517-22-2	Phenanthrene-d10	598967	7.08				
1719-03-5	Chrysene-d12	458414	9.42				
1520-96-3	Perylene-d12	158900	11.81				
TENTATIVE IDENTIFIED COMPOUNDS							
	~~ACP~~	~~1800~~	~~AB~~	~~3.17~~ R		ug/Kg	1
38380039	1,1-Biphenyl, 2,3,3,4,6-pentachlor	170	J	8.51		ug/Kg	
243469	Benzo[b]naphtho[2,3-d]thiophene	290	J	9.12		ug/Kg	

7/10/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-02RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020896.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	170	U	810	170	ug/Kg
108-95-2	Phenol	120	U	810	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	130	U	810	130	ug/Kg
95-57-8	2-Chlorophenol	130	U	810	130	ug/Kg
95-48-7	2-Methylphenol	130	U	810	130	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	130	U	810	130	ug/Kg
98-86-2	Acetophenone	120	U	810	120	ug/Kg
106-44-5	3+4-Methylphenols	130	U	810	130	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	130	U	810	130	ug/Kg
67-72-1	Hexachloroethane	140	U	810	140	ug/Kg
98-95-3	Nitrobenzene	180	U	810	180	ug/Kg
78-59-1	Isophorone	120	U	810	120	ug/Kg
88-75-5	2-Nitrophenol	120	U	810	120	ug/Kg
105-67-9	2,4-Dimethylphenol	130	U	810	130	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	130	U	810	130	ug/Kg
120-83-2	2,4-Dichlorophenol	150	U	810	150	ug/Kg
91-20-3	Naphthalene	140	U	810	140	ug/Kg
106-47-8	4-Chloroaniline	97	U	810	97	ug/Kg
87-68-3	Hexachlorobutadiene	120	U	810	120	ug/Kg
105-60-2	Caprolactam	130	U	810	130	ug/Kg
59-50-7	4-Chloro-3-methylphenol	110	U	810	110	ug/Kg
91-57-6	2-Methylnaphthalene	140	U	810	140	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	810	130	ug/Kg
88-06-2	2,4,6-Trichlorophenol	120	U	810	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	120	U	2000	120	ug/Kg
92-52-4	1,1-Biphenyl	130	U	810	130	ug/Kg
91-58-7	2-Chloronaphthalene	130	U	810	130	ug/Kg
88-74-4	2-Nitroaniline	100	U	2000	100	ug/Kg
131-11-3	Dimethylphthalate	130	U	810	130	ug/Kg
208-96-8	Acenaphthylene	130	U	810	130	ug/Kg
606-20-2	2,6-Dinitrotoluene	110	U	810	110	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-02RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020896.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	110	U	2000	110	ug/Kg
83-32-9	Acenaphthene	140	U	810	140	ug/Kg
51-28-5	2,4-Dinitrophenol	690	U	2000	690	ug/Kg
100-02-7	4-Nitrophenol	100	U	2000	100	ug/Kg
132-64-9	Dibenzofuran	130	U	810	130	ug/Kg
121-14-2	2,4-Dinitrotoluene	120	U	810	120	ug/Kg
84-66-2	Diethylphthalate	140	U	810	140	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	130	U	810	130	ug/Kg
86-73-7	Fluorene	140	U	810	140	ug/Kg
100-01-6	4-Nitroaniline	140	U	2000	140	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	160	U	2000	160	ug/Kg
86-30-6	N-Nitrosodiphenylamine	130	U	810	130	ug/Kg
101-55-3	4-Bromophenyl-phenylether	120	U	810	120	ug/Kg
118-74-1	Hexachlorobenzene	130	U	810	130	ug/Kg
1912-24-9	Atrazine	120	U	810	120	ug/Kg
87-86-5	Pentachlorophenol	190	U	2000	190	ug/Kg
85-01-8	Phenanthrene	900		810	130	ug/Kg
120-12-7	Anthracene	160	J	810	120	ug/Kg
86-74-8	Carbazole	160	J	810	120	ug/Kg
84-74-2	Di-n-butylphthalate	120	U	810	120	ug/Kg
206-44-0	Fluoranthene	1300		810	120	ug/Kg
129-00-0	Pyrene	1200		810	140	ug/Kg
85-68-7	Butylbenzylphthalate	130	U	810	130	ug/Kg
91-94-1	3,3-Dichlorobenzidine	140	U	810	140	ug/Kg
56-55-3	Benzo(a)anthracene	490	J	810	110	ug/Kg
218-01-9	Chrysene	440	J	810	150	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	160	U	810	160	ug/Kg
117-84-0	Di-n-octyl phthalate	140	U	810	140	ug/Kg
205-99-2	Benzo(b)fluoranthene	670	J	810	89	ug/Kg
207-08-9	Benzo(k)fluoranthene	290	J	810	180	ug/Kg
50-32-8	Benzo(a)pyrene	440	J	810	130	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-02RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020896.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	100	U	810	100	ug/Kg
53-70-3	Dibenz(a,h)anthracene	100	U	810	100	ug/Kg
191-24-2	Benzo(g,h,i)perylene	190	J	810	130	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	156.97	52 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	159.13	53 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	106	53 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	105.6	53 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	156.49	52 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	140.02	70 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	174853	4.12			
1146-65-2	Naphthalene-d8	685504	4.91			
15067-26-2	Acenaphthene-d10	354871	6.03			
1517-22-2	Phenanthrene-d10	598177	7.06			
1719-03-5	Chrysene-d12	436204	9.37			
1520-96-3	Perylene-d12	151302	11.75			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020851.D	1	4/12/2005	4/14/2005	BE040605

QUAL. FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
100-52-7	Benzaldehyde	85	U J	410	85	ug/Kg	4
108-95-2	Phenol	62	U	410	62	ug/Kg	
111-44-4	bis(2-Chloroethyl)ether	65	U	410	65	ug/Kg	
95-57-8	2-Chlorophenol	66	U	410	66	ug/Kg	
95-48-7	2-Methylphenol	69	U	410	69	ug/Kg	
108-60-1	2,2-oxybis(1-Chloropropane)	66	U	410	66	ug/Kg	
98-86-2	Acetophenone	60	U	410	60	ug/Kg	
106-44-5	3+4-Methylphenols	65	U	410	65	ug/Kg	
621-64-7	N-Nitroso-di-n-propylamine	68	U	410	68	ug/Kg	
67-72-1	Hexachloroethane	70	U	410	70	ug/Kg	
98-95-3	Nitrobenzene	90	U	410	90	ug/Kg	
78-59-1	Isophorone	62	U	410	62	ug/Kg	
88-75-5	2-Nitrophenol	63	U	410	63	ug/Kg	
105-67-9	2,4-Dimethylphenol	65	U	410	65	ug/Kg	
111-91-1	bis(2-Chloroethoxy)methane	68	U	410	68	ug/Kg	
120-83-2	2,4-Dichlorophenol	76	U	410	76	ug/Kg	
91-20-3	Naphthalene	70	U	410	70	ug/Kg	
106-47-8	4-Chloroaniline	49	U	410	49	ug/Kg	
87-68-3	Hexachlorobutadiene	63	U	410	63	ug/Kg	
105-60-2	Caprolactam	66	U	410	66	ug/Kg	
59-50-7	4-Chloro-3-methylphenol	57	U	410	57	ug/Kg	
91-57-6	2-Methylnaphthalene	69	U	410	69	ug/Kg	
77-47-4	Hexachlorocyclopentadiene	66	U	410	66	ug/Kg	
88-06-2	2,4,6-Trichlorophenol	61	U	410	61	ug/Kg	
95-95-4	2,4,5-Trichlorophenol	63	U	1000	63	ug/Kg	
92-52-4	1,1-Biphenyl	68	U	410	68	ug/Kg	
91-58-7	2-Chloronaphthalene	68	U	410	68	ug/Kg	
88-74-4	2-Nitroaniline	52	U	1000	52	ug/Kg	
131-11-3	Dimethylphthalate	66	U	410	66	ug/Kg	
208-96-8	Acenaphthylene	80	J	410	67	ug/Kg	
606-20-2	2,6-Dinitrotoluene	58	U	410	58	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CAS number

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020851.D	1	4/12/2005	4/14/2005	BE040605

QUAL, FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	54	U	1000	54	ug/Kg
83-32-9	Acenaphthene	73	U	410	73	ug/Kg
51-28-5	2,4-Dinitrophenol	350	U	1000	350	ug/Kg
100-02-7	4-Nitrophenol	51	U	1000	51	ug/Kg
132-64-9	Dibenzofuran	68	U	410	68	ug/Kg
121-14-2	2,4-Dinitrotoluene	61	U	410	61	ug/Kg
84-66-2	Diethylphthalate	71	U	410	71	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	65	U	410	65	ug/Kg
86-73-7	Fluorene	70	U	410	70	ug/Kg
100-01-6	4-Nitroaniline	70	U	1000	70	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	80	U	1000	80	ug/Kg
86-30-6	N-Nitrosodiphenylamine	68	U	410	68	ug/Kg
101-55-3	4-Bromophenyl-phenylether	62	U	410	62	ug/Kg
118-74-1	Hexachlorobenzene	66	U	410	66	ug/Kg
1912-24-9	Atrazine	63	U	410	63	ug/Kg
87-86-5	Pentachlorophenol	95	U	1000	95	ug/Kg
85-01-8	Phenanthrene	350	J	410	66	ug/Kg
120-12-7	Anthracene	81	J	410	62	ug/Kg
86-74-8	Carbazole	63	U	410	63	ug/Kg
84-74-2	Di-n-butylphthalate	63	U	410	63	ug/Kg
206-44-0	Fluoranthene	820		410	61	ug/Kg
129-00-0	Pyrene	710		410	73	ug/Kg
85-68-7	Butylbenzylphthalate	67	U	410	67	ug/Kg
91-94-1	3,3-Dichlorobenzidine	71	U	410	71	ug/Kg
56-55-3	Benzo(a)anthracene	410		410	58	ug/Kg
218-01-9	Chrysene	390	J	410	74	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	100	J	410	79	ug/Kg
117-84-0	Di-n-octyl phthalate	70	U	410	70	ug/Kg
205-99-2	Benzo(b)fluoranthene	500	J	410	45	ug/Kg
207-08-9	Benzo(k)fluoranthene	200	J	410	91	ug/Kg
50-32-8	Benzo(a)pyrene	310	J	410	66	ug/Kg

2

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020851.D	1	4/12/2005	4/14/2005	BE040605

QUAL, FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
193-39-5	Indeno(1,2,3-cd)pyrene	60	J	410	52	ug/Kg	2
53-70-3	Dibenz(a,h)anthracene	52	U J	410	52	ug/Kg	2
191-24-2	Benzo(g,h,i)perylene	120	J	410	68	ug/Kg	4, 2
SURROGATES							
367-12-4	2-Fluorophenol	289.8	97 %	25 - 121		SPK: 30	
13127-88-3	Phenol-d5	294.39	98 %	24 - 113		SPK: 30	
4165-60-0	Nitrobenzene-d5	209.43	105 %	23 - 120		SPK: 20	
321-60-8	2-Fluorobiphenyl	193.38	97 %	30 - 116		SPK: 20	
118-79-6	2,4,6-Tribromophenol	332.79	111 %	19 - 122		SPK: 30	
1718-51-0	Terphenyl-d14	233.81	117 %	18 - 137		SPK: 20	
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	338117	4.13				
1146-65-2	Naphthalene-d8	1263574	4.92				
15067-26-2	Acenaphthene-d10	662385	6.04				
1517-22-2	Phenanthrene-d10	1082815	7.09				
1719-03-5	Chrysene-d12	933012	9.43				
1520-96-3	Perylene-d12	409466	11.84				
TENTATIVE IDENTIFIED COMPOUNDS							
	~~ACP~~	~~1900~~	~~AB~~	~~3.17~~	R	ug/Kg	1
243174	11H-Benzo[b]fluorene	170	J	8.52		ug/Kg	
239350	Benzo[b]naphtho[2,1-d]thiophene	260	J	9.14		ug/Kg	
	Unknown	330	J	11.60		ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-04RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020897.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	85	U	410	85	ug/Kg
108-95-2	Phenol	62	U	410	62	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	65	U	410	65	ug/Kg
95-57-8	2-Chlorophenol	66	U	410	66	ug/Kg
95-48-7	2-Methylphenol	69	U	410	69	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	66	U	410	66	ug/Kg
98-86-2	Acetophenone	60	U	410	60	ug/Kg
106-44-5	3+4-Methylphenols	65	U	410	65	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	68	U	410	68	ug/Kg
67-72-1	Hexachloroethane	70	U	410	70	ug/Kg
98-95-3	Nitrobenzene	90	U	410	90	ug/Kg
78-59-1	Isophorone	62	U	410	62	ug/Kg
88-75-5	2-Nitrophenol	63	U	410	63	ug/Kg
105-67-9	2,4-Dimethylphenol	65	U	410	65	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	68	U	410	68	ug/Kg
120-83-2	2,4-Dichlorophenol	76	U	410	76	ug/Kg
91-20-3	Naphthalene	70	U	410	70	ug/Kg
106-47-8	4-Chloroaniline	49	U	410	49	ug/Kg
87-68-3	Hexachlorobutadiene	63	U	410	63	ug/Kg
105-60-2	Caprolactam	66	U	410	66	ug/Kg
59-50-7	4-Chloro-3-methylphenol	57	U	410	57	ug/Kg
91-57-6	2-Methylnaphthalene	69	U	410	69	ug/Kg
77-47-4	Hexachlorocyclopentadiene	66	U	410	66	ug/Kg
88-06-2	2,4,6-Trichlorophenol	61	U	410	61	ug/Kg
95-95-4	2,4,5-Trichlorophenol	63	U	1000	63	ug/Kg
92-52-4	1,1-Biphenyl	68	U	410	68	ug/Kg
91-58-7	2-Chloronaphthalene	68	U	410	68	ug/Kg
88-74-4	2-Nitroaniline	52	U	1000	52	ug/Kg
131-11-3	Dimethylphthalate	66	U	410	66	ug/Kg
208-96-8	Acenaphthylene	78	J	410	67	ug/Kg
606-20-2	2,6-Dinitrotoluene	58	U	410	58	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-04RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020897.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	54	U	1000	54	ug/Kg
83-32-9	Acenaphthene	73	U	410	73	ug/Kg
51-28-5	2,4-Dinitrophenol	350	U	1000	350	ug/Kg
100-02-7	4-Nitrophenol	51	U	1000	51	ug/Kg
132-64-9	Dibenzofuran	68	U	410	68	ug/Kg
121-14-2	2,4-Dinitrotoluene	61	U	410	61	ug/Kg
84-66-2	Diethylphthalate	71	U	410	71	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	65	U	410	65	ug/Kg
86-73-7	Fluorene	70	U	410	70	ug/Kg
100-01-6	4-Nitroaniline	70	U	1000	70	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	80	U	1000	80	ug/Kg
86-30-6	N-Nitrosodiphenylamine	68	U	410	68	ug/Kg
101-55-3	4-Bromophenyl-phenylether	62	U	410	62	ug/Kg
118-74-1	Hexachlorobenzene	66	U	410	66	ug/Kg
1912-24-9	Atrazine	63	U	410	63	ug/Kg
87-86-5	Pentachlorophenol	95	U	1000	95	ug/Kg
85-01-8	Phenanthrene	350	J	410	66	ug/Kg
120-12-7	Anthracene	83	J	410	62	ug/Kg
86-74-8	Carbazole	63	U	410	63	ug/Kg
84-74-2	Di-n-butylphthalate	63	U	410	63	ug/Kg
206-44-0	Fluoranthene	810		410	61	ug/Kg
129-00-0	Pyrene	780		410	73	ug/Kg
85-68-7	Butylbenzylphthalate	67	U	410	67	ug/Kg
91-94-1	3,3-Dichlorobenzidine	71	U	410	71	ug/Kg
56-55-3	Benzo(a)anthracene	400	J	410	58	ug/Kg
218-01-9	Chrysene	390	J	410	74	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	110	J	410	79	ug/Kg
117-84-0	Di-n-octyl phthalate	70	U	410	70	ug/Kg
205-99-2	Benzo(b)fluoranthene	520		410	45	ug/Kg
207-08-9	Benzo(k)fluoranthene	190	J	410	91	ug/Kg
50-32-8	Benzo(a)pyrene	330	J	410	66	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-04RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020897.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	52	U	410	52	ug/Kg
53-70-3	Dibenz(a,h)anthracene	52	U	410	52	ug/Kg
191-24-2	Benzo(g,h,i)perylene	120	J	410	68	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	296.77	99 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	296.13	99 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	206.92	103 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	190.85	95 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	319.73	107 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	259.08	130 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	327864	4.12			
1146-65-2	Naphthalene-d8	1246861	4.91			
15067-26-2	Acenaphthene-d10	674730	6.03			
1517-22-2	Phenanthrene-d10	1064643	7.06			
1719-03-5	Chrysene-d12	824320	9.35			
1520-96-3	Perylene-d12	304983	11.72			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

PESTICIDE / PCB ANALYSIS
QC PARAMETER / QUALIFIER SUMMARY
SW846 Method 8081

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2275

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACT ON TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

All samples were extracted within 4 days of VTSR; all samples were analyzed within 6 days of extraction.

B. METHOD BLANKS

Blank ID	Date Analyzed	File ID	Matrix	Analytes Present	Conc., ppb
PB04732B	04/17/05	5PS7457	soil	none	n/a

ACTION: If sample concentration >CRQL, but <5x Blank value, flag result with 'U'
If sample concentration <CRQL, and <5x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >5x Blank value, no qualification necessary

C. SURROGATE RECOVERY

Surrogate recoveries were within acceptable limits for all SDG samples.

D. MATRIX SPIKE / DUPLICATE

The reported MS/MSD samples were not from this SDG, and are of unknown matrix composition which may not be representative of this SDG's sample matrix. Therefore, no assessment could be made of potential sample matrix effects, and no QA action was taken on the basis of reported spike recoveries.

E. BLANK SPIKE (LCS)

Recoveries were within acceptable limits in the blank spike.

ORGANOCHLORINE PESTICIDES
CALIBRATION SUMMARY
SW846 METHOD 8081A

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2275

A. INITIAL CALIBRATION

CALIBRATION DATE :	03/30/05	
FILE IDs :	5PS6849 - 52; 5PS6854	
Mean RSD ≤ 20%?	No	DDD, DDT
If Lin Regression r >0.99?	n/a	
If 2nd-order, COD >0.99?	n/a	
Affects:		

ACTION: No QA action necessary (no positives for DDD or DDT found in SDG samples).

B. CALIBRATION VERIFICATION

At beginning of each 12-hour shift, prior to sample analysis; after every 20 samples. Note: samples with positives >RL must be bracketed by acceptable calibration verifications.
%D (or %Drift, if linear regression) for all analytes must be < 15% on both columns.

CALIBRATION DATE :	04/17/05	04/18/05	04/18/05	04/18/05
FILE ID :	CCAL01	CCAL02	CCAL02	CCAL03
After every 20 samples?	n/a	n/a	n/a	n/a
At end of sequence?	n/a	n/a	n/a	Yes
%D ≤ 15?	No	No	No	No
If %D > 15%, list analytes:	DDT -32%	DDT -22%	DDT -22%	DDT -16%
	MethoxyCl -22%			
Associated Samples :	PB, LCS		IS-SB2 (0-21.5), IS-SB3 (0-19)	

QA Action : Qualify DDT ('UJ') in both field samples above; negative bias suggested. **FOOTNOTE = 1**

C. BREAKDOWN CHECK

DDT and Endrin breakdown checks were not found in the data deliverables.
No assessment of DDT or Endrin breakdown may be made. Since no positives were reported for these compounds, no data qualifiers were applicable.

D. QUALITATIVE CONFIRMATION

No positive compounds were reported above analyte RL values; therefore, confirmation was unnecessary.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	19
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7476.D	1	4/12/2005	4/18/2005	5PS033005

QUAL Footnote

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.78	U	3.7	0.78	ug/Kg
319-85-7	beta-BHC	1.1	U	3.7	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.7	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.87	U	3.7	0.87	ug/Kg
76-44-8	Heptachlor	1.1	U	3.7	1.1	ug/Kg
309-00-2	Aldrin	1.5	U	3.7	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.7	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.7	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.7	1.0	ug/Kg
72-55-9	4,4'-DDE	0.96	U	3.7	0.96	ug/Kg
72-20-8	Endrin	1.0	U	3.7	1.0	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.7	1.2	ug/Kg
72-54-8	4,4'-DDD	0.85	U	3.7	0.85	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.7	1.3	ug/Kg
50-29-3	4,4'-DDT	0.88	U-J	3.7	0.88	ug/Kg
72-43-5	Methoxychlor	1.0	U	3.7	1.0	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.7	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.7	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.7	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.7	1.1	ug/Kg
8001-35-2	Toxaphene	4.4	U	21	4.4	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.79	79 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	23.03	115 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Continuation

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	20
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7477.D	1	4/12/2005	4/18/2005	5PS033005

DUAL Footnote

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.79	U	3.7	0.79	ug/Kg
319-85-7	beta-BHC	1.1	U	3.7	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.7	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.89	U	3.7	0.89	ug/Kg
76-44-8	Heptachlor	1.2	U	3.7	1.2	ug/Kg
309-00-2	Aldrin	1.5	U	3.7	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.7	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.7	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.7	1.0	ug/Kg
72-55-9	4,4'-DDE	0.97	U	3.7	0.97	ug/Kg
72-20-8	Endrin	1.1	U	3.7	1.1	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.7	1.2	ug/Kg
72-54-8	4,4'-DDD	0.87	U	3.7	0.87	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.7	1.3	ug/Kg
50-29-3	4,4'-DDT	0.89	U J	3.7	0.89	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.7	1.1	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.7	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.7	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.7	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.7	1.1	ug/Kg
8001-35-2	Toxaphene	4.4	U	21	4.4	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	14.46	72 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	14.32	72 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

PCB ANALYSIS
QC PARAMETER / QUALIFIER SUMMARY
SW-846 Method 8082

For: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2275

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

All samples were extracted within 4 days of VTSR; all samples were analyzed within 8 days of extraction.

B. METHOD BLANKS

Blank ID	Date Analyzed	File ID	Matrix	Analytes Present	Conc., ppb
PB04742B	04/16/05	4PC2138	soil	none	n/a

ACTION: If sample concentration >CRQL, but <5x Blank value, flag result with 'U'
If sample concentration <CRQL, and <5x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >5x Blank value, no qualification necessary

C. SURROGATE RECOVERY

Surrogate recovery of DCBP for the 10x dilution analysis of T2275-02 exceeded allowable limits.
No QA action was taken due to dilution effects.

D. MATRIX SPIKE / DUPLICATE

The reported MS/MSD samples were not from this SDG, and are of unknown matrix composition which may not be representative of this SDG's sample matrix. Therefore, no assessment could be made of potential sample matrix effects, and no QA action was taken on the basis of reported spike recoveries.

E. BLANK SPIKE (LCS)

Recoveries were within acceptable limits in the blank spike sample.

F. SAMPLE QUALITATIVE & QUANTITATIVE VERIFICATION

The %D values between primary and secondary column results for positive Aroclor 1260 in the initial and dilution runs indicated acceptable quantitative agreement.

PCB ANALYSIS
CALIBRATION SUMMARY
SW-846 Method 8082

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2275

A. INITIAL CALIBRATION

CALIBRATION DATE :	04/16/05
FILE IDs :	4PC2158 - 62
Mean RSD < 20%?	Yes
Lin Regression r^2>0.995?	n/a
2nd-order COD >0.990 ?	n/a

B. INITIAL CALIBRATION VERIFICATION

Daily, before sample analysis; all analytes must recover within + 15% of true value.

FILE ID : CCAL04
DATE : 04/19/05
OUTLIERS : 1260-1 -17.4%

QA Action : Qualify AR1260 'UJ' or 'J' in associated samples; negative bias sugges **FOOTNOTE = 1**

C. CONTINUING CALIBRATIONS (CCV)

CALIBRATION DATE :	04/19/05
FILE IDs :	CCAL05
After every 10 samples?	Yes
At end of sequence?	Yes
|%D| < 15?	No
If No, list compounds ===>	AR1260 (+)
Affects:	T2275-02, -04

04/20/05	04/20/05
CCAL06	CCAL07
Yes	Yes
Yes	Yes
No	No
AR1016 (+)	AR1260 (-)
T2275-02DL	

QA Action : Qualify AR1260 'J' in T2275-02DL; potential negative bias suggested. **FOOTNOTE = 2**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	Date Collected:	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	Date Received:	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	SDG No.:	T2275
Lab Sample ID:	T2275-02	Matrix:	SOIL
Analytical Method:	8082	% Moisture:	19
Sample Wt/Vol:	15 g	Extract Vol:	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2298.D	1	4/12/2005	4/19/2005	4PC041605

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.8	U	21	4.8	ug/Kg
11141-16-5	AROCLOR 1232	7.2	U	21	7.2	ug/Kg
53469-21-9	AROCLOR 1242	6.4	U	21	6.4	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260 *	800 ~~680~~	~~E~~ J	21	5.1	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	16.27	81 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	18.36	92 %	58 - 125		SPK: 20

QUAL. FOOTNOT

2

* value is from 10x dilution run

04/21/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	Date Collected:	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	Date Received:	4/8/2005
Client Sample ID:	IS-SB3(0-19)	SDG No.:	T2275
Lab Sample ID:	T2275-04	Matrix:	SOIL
Analytical Method:	8082	% Moisture:	20
Sample Wt/Vol:	15 g	Extract Vol:	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2299.D	1	4/12/2005	4/19/2005	4PC041605

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.9	U	21	4.9	ug/Kg
11141-16-5	AROCLOR 1232	7.3	U	21	7.3	ug/Kg
53469-21-9	AROCLOR 1242	6.5	U	21	6.5	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260	93		21	5.2	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	15.9	79 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	17.46	87 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

INORGANICS / METALS ANALYSIS
QC PARAMETER / CALIBRATION / QUALIFIER SUMMARY

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2275

Review Level: NYSDEC 'DUSR Laboratory: ChemTech, NJ

A. CALIBRATION

	ICV	CCV	Outliers ?
ICP & AA Analytes	90 -110%	90 -110%	none
Mercury	80 - 120%	80 - 120%	none
Cyanide	85 - 115%	85 - 115%	none
Mercury	Blank + 5 Standards, r^2 >/ = 0.995		none
Cyanide	Blank + 4 Standards, r^2 >/ = 0.995		none

CRDL Standards		% Recovery	Outliers ?
ICP Analytes	CRI	70 - 130%	none
Mercury	CRA	70 - 130%	none
Cyanide	Mid-Range	70 - 130%	none

B. BLANKS

		Outliers ?
ICB / CCB	< RL	none
PrepBlank	< RL	none

C. ICP INTERELEMENT CORRECTION (ICSA / ICSAB)

		Outliers ?
ICSA	<2x RL for RL <10 ug/L	n/a
ICSAB	80 - 120% recovery	none

D. MATRIX SPIKE

75 - 125% recovery (if sample conc. < 4x spike conc.) — Outliers ? N/A

The reported MS/MSD samples were not from this SDG, and are of unknown matrix composition which may not be representative of this SDG's sample matrix. Therefore, no assessment could be made of potential sample matrix effects, and no QA action was taken on the basis of reported spike recoveries.

E. POST-DIGESTION SPIKE (PDS)

ICP [only required for non-compliant matrix spike analytes] — Outliers ? N/A

75 - 125% recovery; PDS conc. should be 2x RL or 2x sample conc., whichever is >.

F. MATRIX DUPLICATE

	Outliers ?
Max. 100% RPD * for non-aqueous samples > 5x CRDL	N/A
Max. (+/-) CRDL value if either sample < 5x CRDL	N/A

* EPA Region II data validation guidance uses a 100% RPD threshhold for non-aqueous data qualification.

G. LABORATORY CONTROL SAMPLE

Recovery within range for non-aqueous samples — Outliers ? none

H. SERIAL DILUTION SAMPLE

Maximum 10.0% D if undiluted sample > 10x MDL — Outliers ? N/A — QA Action See below

The reported serial dilution samples were not from this SDG, and are of unknown matrix composition which may not be representative of this SDG's sample matrix. Therefore, no assessment could be made of potential sample matrix effects, and no QA action was taken on the basis of reported serial dilution recovery precision values.

I. RESULTS >MDL <RL

Positive analyte concentrations above MDL values but below RL values were qualified 'J' by the laboratory, as quantitatively estimated values. No bias direction is inferred; no footnotes were applied for this qualifier, since it is the only lab-applied qualifier.

INORGANICS / METALS ANALYSIS
QC PARAMETER / CALIBRATION / QUALIFIER SUMMARY

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2275

Review Level: NYSDEC 'DUSR Laboratory: ChemTech, NJ

J. NYSDEC-ASP HOLDING TIMES (from VTSR)

Metals except mercury	6 months
Mercury	26 days
Cyanide	12 days

All samples were analyzed within allowable holding times.

K. VERIFICATION OF INSTRUMENTAL PARAMETERS

	Frequency	Outliers ?
Method / Instrument Detection Limits	every 6 months	none
Interelement Correction Factors	every 6 months	none
Linear Range Analysis	every 6 months	none

L. VERIFICATION OF REPORTED RESULTS

Sample ID : IS-SB3 (0-19) Analyte: Pb

Reported value: 1820 mg/Kg

$$mg/Kg = \frac{\text{conc. mg/L}}{\text{wet wgt, gm}} \times \frac{\text{final volume, mL}}{\%\text{solids}/100}$$

$$mg/Kg = \frac{14.795}{1.00} \times \frac{100}{0.814}$$

mg/Kg = 1817.6

Result verified ? Yes

Reported % solids: 64.4

$$\% \text{ solids} = \frac{\text{dry wgt., gm}}{\text{wet wgt., gm}} \times 100$$

% solids =

Result verified ? See Note

Note: no raw data for % solids determination found in general chemistry section; reported value used for above calculation.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
		% Solids:	81.40

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	9550		mg/Kg	0.765	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	2.500	J	mg/Kg	0.685	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	10.6		mg/Kg	0.288	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	205		mg/Kg	0.027	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.630		mg/Kg	0.005	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.934		mg/Kg	0.056	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	31900		mg/Kg	0.045	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	53.7	N	mg/Kg	0.116	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	9.720		mg/Kg	0.096	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	92.7		mg/Kg	0.139	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	33200		mg/Kg	2.140	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	323		mg/Kg	0.125	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	6830		mg/Kg	0.019	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	750		mg/Kg	0.976	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.064		mg/Kg	0.007	1	4/12/2005	4/17/2005	EPA SW-846 7471
7440-02-0	Nickel	30.6		mg/Kg	0.184	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	1210		mg/Kg	4.000	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.460	J	mg/Kg	0.381	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	2.120		mg/Kg	0.128	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	744		mg/Kg	45.2	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	1.290		mg/Kg	0.401	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	22.6		mg/Kg	0.124	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	683		mg/Kg	0.068	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
		% Solids:	79.80

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	11200		mg/Kg	0.773	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	15.8		mg/Kg	0.692	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	26.6		mg/Kg	0.291	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	494		mg/Kg	0.027	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.408	J	mg/Kg	0.005	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	4.220		mg/Kg	0.057	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	44100		mg/Kg	0.045	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	63.6	N	mg/Kg	0.117	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	18.7		mg/Kg	0.097	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	529		mg/Kg	0.140	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	172000	D	mg/Kg	21.6	10	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	1820		mg/Kg	0.127	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	5410		mg/Kg	0.020	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	2340		mg/Kg	0.985	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.046		mg/Kg	0.007	1	4/12/2005	4/17/2005	EPA SW-846 7471
7440-02-0	Nickel	181		mg/Kg	0.186	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	2160		mg/Kg	4.040	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	1.210	J	mg/Kg	0.385	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	0.129	U	mg/Kg	0.129	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	2330		mg/Kg	45.7	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	0.509	J	mg/Kg	0.405	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	10.6		mg/Kg	0.125	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	2300		mg/Kg	0.069	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/6/2005**
Project:		**Date Received:**	**4/8/2005**
Client Sample ID:	**IS-SB2(0-21.5)**	**SDG No.:**	**T2275**
Lab Sample ID:	**T2275-02**	**Matrix:**	**SOIL**
% Solids:	**81.40**		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.612	U	0.612	mg/Kg	1	4/13/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/6/2005**
Project:		**Date Received:**	**4/8/2005**
Client Sample ID:	**IS-SB3(0-19)**	**SDG No.:**	**T2275**
Lab Sample ID:	**T2275-04**	**Matrix:**	**SOIL**
% Solids:	**79.80**		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.626	U	0.626	mg/Kg	1	4/13/2005	9012 Cyanide

Comment

June 23, 2005

Malcolm Pirnie, Inc.
Att: Mr. James Richert
40 Centre Drive
Orchard Park, New York 14127-4102

Re: Former Incinerator Site, Lackawanna, NY Data Deliverables;
Non-Aqueous Samples Collected April 07, 2005

Malcolm Pirnie Project No. : 4852-001

Dear Mr. Richert,

Enclosed with this cover letter are the results of our data review of the laboratory deliverables pertaining to the referenced site. The review was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review ('DUSR') process.

Site Name: Former Incinerator Site, Lackawanna, NY

Fractions:

Volatile Organics	Laboratory:	ChemTech, New Jersey
Semi-volatile Organics	Matrix:	Non-Aqueous
Pesticide & PCB Organics	Lab No.:	T2287
TAL Metals + Cyanide		

Reviewer: Chris Taylor

Prepared By: Environmental Quality Associates, Inc.

SECTION A
Sample Information

The above-noted laboratory project was analyzed by ChemTech, Mountainside, NJ. Samples were collected April 07, 2005, and received at the laboratory (VTSR) on April 11, 2005. Samples were analyzed for volatile organics (7), semivolatile organics (6), chlorinated pesticides (6), polychlorinated biphenyls ('PCBs', 6), TAL metals (12) and cyanide (12). Samples were received at the laboratory in good condition, and within the acceptable temperature range of 0 to 6 degrees Centigrade. Volatile trip blank (1) was at acceptable aqueous preserved pH levels (<2) per laboratory sample receipt and prep logs.

SECTION B
General Comments

Summary of data completeness and overall quality of data deliverables package
Data deliverables were complete as received.

Overall data quality
Data quality was acceptable, incorporating applied data qualifiers as detailed in the accompanying QC and calibration summary forms. No data rejections were necessary.

SECTION C
Volatile Organic Fraction

NYSDEC-ASP holding times from lab receipt to analysis were met for all samples.

Surrogate recoveries, blank spike recoveries, instrument tune parameters and internal standard recoveries and retention times were within acceptable limits for all field samples. It is noted that surrogate bromofluorobenzene recovered low in the matrix spike of IS-SD-1, and two internal standard (IS) recoveries in this same sample were low. Since all surrogate and IS recoveries in the native (unspiked) sample and the matrix spike duplicate were within acceptable limits, no QA action was taken.

Calibration parameters were within acceptable limits in the initial calibrations (ICAL) of 04/06 and 04/10/05, with the exception of several target compounds whose RRF values exceeded 15.0% RSD; since none of these compounds were calibrated via linear regression, positive results for these compounds in associated samples were qualified 'J', with no bias direction inferred. Continuing calibrations (CCAL) on 04/12, 04/17, 04/18 and 04/19/05 exhibited RRF %D values for several target analytes which exceeded 20%, with responses for these compounds both negative and positive relative to the ICAL average RRFs (the data user is referred to the attached calibration summary spreadsheet for specific details). All compounds which were negative relative to ICAL RRFs were qualified 'UJ', with negative bias suggested. Since no positive target compounds were reported in the samples, no data qualifiers for positively-biased RRF values were applicable.

Method blanks for non-aqueous samples exhibited low levels of acetone and/or methylene chloride. Since no positives were reported in associated samples, no data qualifiers were applicable. The aqueous trip blank was free of contamination, as was the associated method blank for this sample.

Reported recoveries were low for benzene, chlorobenzene, 1,1-dichloroethene, toluene and trichloroethene in the matrix spike of IS-SD-1. These compounds were qualified 'UJ' in the native sample only, with potential negative bias suggested.

SECTION D
Semi-volatile Organics

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Surrogate recoveries and instrument tune parameters were within acceptable limits.
Blank spike (LCS) recovery for 4,6-dinitro-2-methylphenol was high; since no positives for this compound were reported, no data qualifiers were applicable. Sample IS-SD-1 matrix spike and spike duplicate recoveries for hexachlorocyclopentadiene, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol and indeno(1,2,3-cd)pyrene were low, and matrix spike recoveries for atrazine and benzo(a)pyrene were low. These compounds were qualified 'UJ' in the native sample only, with negative bias suggested due to matrix effects.

Recoveries of internal standard compound perylene-d12 were low (<50%) relative to the corresponding CCV recovery in the matrix spike and spike duplicate of IS-SD-1. Since the native sample IS recoveries were acceptable, no data qualifiers were assigned.

The method blank was free of target compound contamination. An aldol-condensate by-product of acetone (4-OH-4-methyl-2-pentanone) was present in the method blank, at 1000 J ug/Kg. This non-target analyte was red-lined and rejected ('R') when present in associated field samples.

Calibration parameters were within acceptable limits in the ICAL of 04/06/05, with the exception of several compounds whose RRF values exceeded 15.0% RSD; since these compounds were not reported as positive in any associated field samples, no data qualifiers were applicable. The CCALs on 04/13 and 04/15/05 exhibited %D values above 20% for several compounds; since the RRFs for these compounds were positive relative to their respective ICAL average values, and no positives were present in the associated field samples, no data qualifiers were necessary.

SECTION E
Chlorinated Pesticides

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Blank spike recoveries, matrix spike and spike duplicate recoveries and precision values were within acceptable limits.

No indication of DDT / Endrin breakdown standard assessment was found. This is a requirement of SW-846 Method 8081 (Sect. 8.4.6). Since no positives for these compounds were reported, no data qualifiers were assigned.

Continuing calibration standard %D values exceeded 15.0%, and were negative (i.e., less sensitive) relative to the corresponding initial calibration average RRF values for DDT and Methoxychlor. Reported results for these analytes in associated samples were qualified 'UJ', with negative bias suggested.

No positive pesticide detections were found in associated field samples.

SECTION F
Polychlorinated Biphenyls (PCBs)

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Surrogate recoveries, blank spike recoveries, matrix spike and spike duplicate recoveries and precision values were within acceptable limits.

Continuing calibration standard %D values exceeded 15.0%, and were negative (i.e., less sensitive) relative to the corresponding initial calibration average RRF values for Aroclor-1016. Reported results for this analyte in associated samples were qualified 'UJ', with negative bias suggested.

No positive PCB detections were found.

SECTION G
Metals / Wet Chemistry

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Spike recoveries for chromium were above acceptable limits in all four reported MS/MSD samples (IS-SD-1 and IS-ASH-1 pairs). Positive results for Cr were qualified 'J' in all samples, with positive bias suggested due to matrix effects. Post-digestion spike recoveries for chromium were also above acceptable limits. It is noted that acceptable spike recovery ranges were listed by the laboratory as 80% to 120%. The acceptance range used by the reviewer for data qualification was from 75% to 125%, which is 'standard industry practice' for metals analysis spike recovery, as defined by both EPA CLP and SW-846 methods, and NYSDEC-ASP protocols. The lab 'N'-qualified potassium results on Form 1s for all samples due to K MS/MSD recoveries above 120% (at 123%, sample IS-ASH-1); however, the recoveries for K were all <125%. Therefore, the reviewer lined-out the N qualifiers for K applied by the lab, and the reported results for K should be considered as unqualified for spike recovery.

It is also noted that EPA Region II data validation guidance for non-aqueous samples of 100% RPD between matrix duplicate sample results was used as a qualification threshold for analytes with %RPD criteria based on concentration.

The serial-dilution sample precision values for several analytes exceeded the 10.0%D limit in the reported serial dilution samples. Positive results for these analytes which exceeded 10x analyte MDL values were qualified 'J'. It is noted that the laboratory did not qualify any reported results on the basis of serial-dilution %D exceedances. All affected analytes were lower in concentration in the undiluted samples than in the dilution analyses, indicating negative bias due to sample matrix effects. The data user is directed to the serial dilution summary forms which have been appended to the inorganics QC summary forms for specific details and linkages.

Laboratory control sample (LCS) recoveries for barium, calcium and chromium exceeded the allowable range limits for non-aqueous samples; positive results for these analytes were qualified 'J', with positive bias suggested. The data user is referred to the attached QC / Calibration summary spreadsheet for details.

NYSDEC-ASP holding times and QC and calibration parameters for wet-chemistry analyte cyanide were within applicable limits; no data qualifiers were necessary for this analyte, and no positives for cyanide were found.

SECTION H
Overall Recommendations

The results of the review and qualification process for the above analytical fractions and associated samples are summarized on the attached QC and Calibration summary tables for each specific analytical fraction, in order to facilitate the end-user's' review of these data. Data qualifiers have been applied directly to the laboratory Form 1s, with associated numeric footnotes which are detailed in the corresponding QC / Calibration summaries.

Very truly yours,
Environmental Quality Associates, Inc.

Chris W. Taylor
Vice President

/cwt

Attachments

VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2287

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	10 DAYS MAX. FROM VTSR TO ANALYSIS, IF PRESERVED TO pH <2 & 4 DEGREES C
AQUEOUS MATRIX:	7 DAYS MAX. FROM VTSR TO ANALYSIS, IF NOT PRESERVED TO pH <2 & 4 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAXIMUM FROM VTSR TO ANALYSIS, IF PRESERVED TO 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	7 DAYS MAXIMUM FROM VTSR TO ANALYSIS, IF NOT PRESERVED TO 4 +/- 2 DEGREES C

All samples were analyzed within 8 days of VTSR.

B. METHOD BLANKS

Date Analyzed	Blank ID	File ID	Matrix	Analytes Present	Conc., ppb	Affected Samples
04/12/05	VBLK04	VH041203	water	none	n/a	Trip Blank
04/17/05	VBLK01	VK041705	soil	acetone	6.3 J	VLCS01, SD-1MS, MSD
04/18/05	VBLK02	VK041733	soil	acetone	6.9 J	SD-1, SD-2, SD-DUP
				methylene chloride	2.2 J	
04/19/05	VBLK03	VK041932	soil	acetone	4.9 J	SD-3
				methylene chloride	3.2 J	

QA Action : No positives found in associated field samples; no QA action necessary.

C. SURROGATE RECOVERY

Sample ID	Surrogate	Bias	QA Action
IS-SD-1 **MS**	BFB	low (48/75)	n/a; affects matrix spike only

D. MATRIX SPIKE / DUPLICATE

Sample ID	Compound	Bias	QA Action	
IS-SD-1	1,1-dichloroethene	low	qualify U or UJ in IS-SD-1 only	**FOOTNOTE = 1**
	benzene	low, RPD high	qualify U or UJ in IS-SD-1 only	
	trichloroethene	low, RPD high	qualify U or UJ in IS-SD-1 only	
	toluene	low, RPD high	qualify U or UJ in IS-SD-1 only	
	chlorobenzene	low, RPD high	qualify U or UJ in IS-SD-1 only	

E. BLANK SPIKE VLCS01

All reported recoveries were within acceptable limits.

F. INTERNAL STANDARDS

Sample ID	IS Compound	Bias	QA Action
IS-SD-1 **MS**	chlorobenzene-d5	low (<50%)	n/a; affects matrix spike only
	1,4-dichlorobenzene-d4	low (<50%)	

VOLATILE ORGANICS
CALIBRATION SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2287

A. INSTRUMENT PERFORMANCE (BFB TUNE)

TUNE DATE:	04/06/05	04/12/05	04/10/05	04/17/05	04/18/05	04/19/05
BFB INJECTION TIME:	17:51	16:11	13:07	13:59	2:26	19:30
LAST SAMPLE INJECTION:	20:46	21:09	15:14	20:24	7:00	2:38
m/z RATIOS ACCEPTABLE ?	Yes	Yes	Yes	Yes	Yes	Yes

B. INITIAL CALIBRATION

CALIBRATION DATE :	04/06/05	04/10/05
FILE IDs :	VH040602 - 08 (excl. 03, 05)	VK041002 - 06
ALL target RRFs > 0.05 ?	Yes	Yes
SPCC RRFs > min.values?	Yes *	Yes
CCC %RSDs < 30% ?	Yes	Yes
All Targets < 15% RSD?	No	No
If No, regression r > 0.99 ?	regression for Clethane, bromoform and 1,2,3-triClpropane only	regression not listed
(If No, list compounds)===>	bromomethane, triClFmethane, acetone, t-1,3-diClpropene, c-1,3-diClpropene, 2-hexanone, diBrClmethane, 1,2-diBrethane, 1,2-diBr-3-Cl-propane	chloroethane, acetone, methyl acetate, methylene chloride

If average RRF <0.050, REJECT non-detects, and qualify positive values 'J' for the non-compliant compound(s).
If %RSD > 15%, and regression not used, qualify positive values 'J' for the non-compliant compound(s).

C. CONTINUING CALIBRATIONS

CALIBRATION DATE :	04/12/05	04/17/05	04/18/05
FILE ID :	VH041202	VK041702	VK041730
SPCC RRFs > min. values?	Yes	Yes	Yes
CCC %Ds < 20% ?	Yes	Yes	Yes
All Targets < 20%D?	No	No	No
(If No, list compounds)===>	methyl acetate -26% tetrachloroethene -27% Affects: Trip Blank	acetone +24% carbon disulfide -20% methyl acetate -22% tetrachloroethene -21% 1,2,4-triClbenzene -24% Affects: IS-SD-1 MS, MSD	acetone +28% carbon disulfide -24% MTBE +21% cyclohexane -20% 2-butanone +23% 4-Me-2-pentanone +35% 2-hexanone +22% 1,2-diBr-3-Clpropane +21% 1,2,4-triClbenzene -29% Affects: IS-SD-1, -2, -DUP

CALIBRATION DATE :	04/19/05
FILE ID :	VK041930
SPCC RRFs > min. values?	Yes
CCC %Ds < 20% ?	Yes
All Targets < 20%D?	No
(If No, list compounds)===>	diCldiFmethane -46% chloromethane -29% bromomethane -28% chloroethane -29% acetone +27% Affects: IS-SD-3

ACTION
If any CCAL RRF <0.050, REJECT non-detects, and qualify positive values 'J' for the non-compliant compound(s).
No positives were reported in field samples; qualify all values 'UJ' for negative RRFs for affected compound(s).

FOOTNOTE = 2

VOLATILE ORGANICS
CALIBRATION SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2287

D. SAMPLE RESULT VERIFICATION

SAMPLE ID : T2287-01 **MS** (IS-SD-1 matrix spike)
COMPOUND : chlorobenzene Int. Std. : chlorobenzene-d5
REPORTED VALUE : 46 ug/L

	Ax	Is		Non-Aqueous (lLow-level)
ug/Kg =	99208	250		(Ax) (Is)
172226	1.053	5.00	0.600	(Ais) (RRF) (Ws) (D)
Ais	RRF	Ws	D	

ug/Kg = **45.6** Result verified ? **Yes**

Where :
Ax = area of characteristic quant ion (EICP) for target compound
Is = internal standard added, ng
Ais = area of characteristic quant ion (EICP) for internal standard
RRF = relative response factor of target compound from ambient purge calibration
Ws = wet weight of soil or sediment sample extracted, gm
D = sample %solids, expressed as decimal (e.g., 85% solids = 0.85)

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	40
Sample Wt/Vol:	4.9 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041739.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
75-71-8	Dichlorodifluoromethane	1.4	U	8.4	1.4	ug/Kg	QUALIFOOTNG
74-87-3	Chloromethane	1.4	U	8.4	1.4	ug/Kg	
75-01-4	Vinyl chloride	1.4	U	8.4	1.4	ug/Kg	
74-83-9	Bromomethane	3.4	U	8.4	3.4	ug/Kg	
75-00-3	Chloroethane	3.6	U	8.4	3.6	ug/Kg	
75-69-4	Trichlorofluoromethane	2.1	U	8.4	2.1	ug/Kg	
76-13-1	1,1,2-Trichlorotrifluoroethane	1.1	U	8.4	1.1	ug/Kg	
75-35-4	1,1-Dichloroethene	0.96	U J	8.4	0.96	ug/Kg	1
67-64-1	Acetone	5.7	U	42	5.7	ug/Kg	
75-15-0	Carbon disulfide	0.62	U J	8.4	0.62	ug/Kg	2
1634-04-4	Methyl tert-butyl Ether	0.62	U	8.4	0.62	ug/Kg	
79-20-9	Methyl Acetate	1.5	U	8.4	1.5	ug/Kg	2
75-09-2	Methylene Chloride	3.1	U	8.4	3.1	ug/Kg	2
156-60-5	trans-1,2-Dichloroethene	1.1	U	8.4	1.1	ug/Kg	
75-34-3	1,1-Dichloroethane	0.45	U	8.4	0.45	ug/Kg	
110-82-7	Cyclohexane	0.55	U J	8.4	0.55	ug/Kg	2
78-93-3	2-Butanone	4.8	U	42	4.8	ug/Kg	
56-23-5	Carbon Tetrachloride	0.75	U	8.4	0.75	ug/Kg	
156-59-2	cis-1,2-Dichloroethene	0.55	U	8.4	0.55	ug/Kg	
67-66-3	Chloroform	0.59	U	8.4	0.59	ug/Kg	
71-55-6	1,1,1-Trichloroethane	0.70	U	8.4	0.70	ug/Kg	
108-87-2	Methylcyclohexane	0.71	U	8.4	0.71	ug/Kg	
71-43-2	Benzene	0.67	U J	8.4	0.67	ug/Kg	1
107-06-2	1,2-Dichloroethane	0.52	U	8.4	0.52	ug/Kg	
79-01-6	Trichloroethene	0.52	U J	8.4	0.52	ug/Kg	1
78-87-5	1,2-Dichloropropane	0.67	U	8.4	0.67	ug/Kg	
75-27-4	Bromodichloromethane	0.56	U	8.4	0.56	ug/Kg	
108-10-1	4-Methyl-2-Pentanone	3.3	U	42	3.3	ug/Kg	
108-88-3	Toluene	0.68	U J	8.4	0.68	ug/Kg	1
10061-02-6	t-1,3-Dichloropropene	0.61	U	8.4	0.61	ug/Kg	
10061-01-5	cis-1,3-Dichloropropene	0.56	U	8.4	0.56	ug/Kg	
79-00-5	1,1,2-Trichloroethane	0.49	U	8.4	0.49	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

05/12/10

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	40
Sample Wt/Vol:	4.9 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041739.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	QUAL FOOTN
591-78-6	2-Hexanone	6.1	U	42	6.1	ug/Kg	
124-48-1	Dibromochloromethane	0.39	U	8.4	0.39	ug/Kg	
106-93-4	1,2-Dibromoethane	0.68	U	8.4	0.68	ug/Kg	
127-18-4	Tetrachloroethene	1.2	U	8.4	1.2	ug/Kg	Z
108-90-7	Chlorobenzene	0.61	U J	8.4	0.61	ug/Kg	1
100-41-4	Ethyl Benzene	0.60	U	8.4	0.60	ug/Kg	
126777-61-2	m/p-Xylenes	1.5	U	8.4	1.5	ug/Kg	
95-47-6	o-Xylene	0.65	U	8.4	0.65	ug/Kg	
100-42-5	Styrene	0.77	U	8.4	0.77	ug/Kg	
75-25-2	Bromoform	0.52	U	8.4	0.52	ug/Kg	
98-82-8	Isopropylbenzene	0.70	U	8.4	0.70	ug/Kg	
79-34-5	1,1,2,2-Tetrachloroethane	0.52	U	8.4	0.52	ug/Kg	
541-73-1	1,3-Dichlorobenzene	0.94	U	8.4	0.94	ug/Kg	
106-46-7	1,4-Dichlorobenzene	0.92	U	8.4	0.92	ug/Kg	
95-50-1	1,2-Dichlorobenzene	0.65	U	8.4	0.65	ug/Kg	
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	8.4	1.6	ug/Kg	
120-82-1	1,2,4-Trichlorobenzene	1.1	U J	8.4	1.1	ug/Kg	Z
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52.16	104 %	75 - 125		SPK: 50	
1868-53-7	Dibromofluoromethane	50.83	102 %	75 - 125		SPK: 50	
2037-26-5	Toluene-d8	47.8	96 %	75 - 125		SPK: 50	
460-00-4	4-Bromofluorobenzene	47.51	95 %	75 - 125		SPK: 50	
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	241672	4.32				
540-36-3	1,4-Difluorobenzene	337573	4.77				
3114-55-4	Chlorobenzene-d5	286021	7.65				
3855-82-1	1,4-Dichlorobenzene-d4	154953	9.66				

QUAL 04/25/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	51
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041738.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
75-71-8	Dichlorodifluoromethane	1.8	U	10	1.8	ug/Kg	QUA FOOTN
74-87-3	Chloromethane	1.8	U	10	1.8	ug/Kg	
75-01-4	Vinyl chloride	1.7	U	10	1.7	ug/Kg	
74-83-9	Bromomethane	4.2	U	10	4.2	ug/Kg	
75-00-3	Chloroethane	4.4	U	10	4.4	ug/Kg	
75-69-4	Trichlorofluoromethane	2.6	U	10	2.6	ug/Kg	
76-13-1	1,1,2-Trichlorotrifluoroethane	1.4	U	10	1.4	ug/Kg	
75-35-4	1,1-Dichloroethene	1.2	U	10	1.2	ug/Kg	
67-64-1	Acetone	6.9	U	51	6.9	ug/Kg	
75-15-0	Carbon disulfide	0.76	U J	10	0.76	ug/Kg	2
1634-04-4	Methyl tert-butyl Ether	0.76	U	10	0.76	ug/Kg	
79-20-9	Methyl Acetate	1.8	U	10	1.8	ug/Kg	
75-09-2	Methylene Chloride	3.7	U	10	3.7	ug/Kg	
156-60-5	trans-1,2-Dichloroethene	1.3	U	10	1.3	ug/Kg	
75-34-3	1,1-Dichloroethane	0.55	U	10	0.55	ug/Kg	
110-82-7	Cyclohexane	0.67	U J	10	0.67	ug/Kg	2
78-93-3	2-Butanone	5.8	U	51	5.8	ug/Kg	
56-23-5	Carbon Tetrachloride	0.91	U	10	0.91	ug/Kg	
156-59-2	cis-1,2-Dichloroethene	0.67	U	10	0.67	ug/Kg	
67-66-3	Chloroform	0.71	U	10	0.71	ug/Kg	
71-55-6	1,1,1-Trichloroethane	0.86	U	10	0.86	ug/Kg	
108-87-2	Methylcyclohexane	0.86	U	10	0.86	ug/Kg	
71-43-2	Benzene	0.82	U	10	0.82	ug/Kg	
107-06-2	1,2-Dichloroethane	0.63	U	10	0.63	ug/Kg	
79-01-6	Trichloroethene	0.63	U	10	0.63	ug/Kg	
78-87-5	1,2-Dichloropropane	0.82	U	10	0.82	ug/Kg	
75-27-4	Bromodichloromethane	0.69	U	10	0.69	ug/Kg	
108-10-1	4-Methyl-2-Pentanone	4.1	U	51	4.1	ug/Kg	
108-88-3	Toluene	0.83	U	10	0.83	ug/Kg	
10061-02-6	t-1,3-Dichloropropene	0.75	U	10	0.75	ug/Kg	
10061-01-5	cis-1,3-Dichloropropene	0.68	U	10	0.68	ug/Kg	
79-00-5	1,1,2-Trichloroethane	0.60	U	10	0.60	ug/Kg	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/05**
Client Sample ID:	**IS-SD-2**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-02**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**51**
Sample Wt/Vol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041738.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	7.4	U	51	7.4	ug/Kg
124-48-1	Dibromochloromethane	0.47	U	10	0.47	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	10	0.83	ug/Kg
127-18-4	Tetrachloroethene	1.5	U	10	1.5	ug/Kg
108-90-7	Chlorobenzene	0.74	U	10	0.74	ug/Kg
100-41-4	Ethyl Benzene	0.73	U	10	0.73	ug/Kg
126777-61-2	m/p-Xylenes	1.8	U	10	1.8	ug/Kg
95-47-6	o-Xylene	0.79	U	10	0.79	ug/Kg
100-42-5	Styrene	0.94	U	10	0.94	ug/Kg
75-25-2	Bromoform	0.64	U	10	0.64	ug/Kg
98-82-8	Isopropylbenzene	0.85	U	10	0.85	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.64	U	10	0.64	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.1	U	10	1.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.1	U	10	1.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.79	U	10	0.79	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.9	U	10	1.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.4	U	10	1.4	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.09	102 %	75 - 125	SPK: 50	
1868-53-7	Dibromofluoromethane	50.94	102 %	75 - 125	SPK: 50	
2037-26-5	Toluene-d8	48.26	97 %	75 - 125	SPK: 50	
460-00-4	4-Bromofluorobenzene	47.4	95 %	75 - 125	SPK: 50	
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	240136	4.32			
540-36-3	1,4-Difluorobenzene	329576	4.77			
3114-55-4	Chlorobenzene-d5	282133	7.65			
3855-82-1	1,4-Dichlorobenzene-d4	150892	9.66			

QUAL. FOOTN. 2

06/22/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	32
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041944.D	1	4/20/05	VK041005

DUP FOOTN

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.3	U J	7.3	1.3	ug/Kg
74-87-3	Chloromethane	1.2	U J	7.3	1.2	ug/Kg
75-01-4	Vinyl chloride	1.2	U	7.3	1.2	ug/Kg
74-83-9	Bromomethane	3.0	U J	7.3	3.0	ug/Kg
75-00-3	Chloroethane	3.1	U J	7.3	3.1	ug/Kg
75-69-4	Trichlorofluoromethane	1.8	U	7.3	1.8	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.97	U	7.3	0.97	ug/Kg
75-35-4	1,1-Dichloroethene	0.84	U	7.3	0.84	ug/Kg
67-64-1	Acetone	4.9	U	37	4.9	ug/Kg
75-15-0	Carbon disulfide	0.54	U	7.3	0.54	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.54	U	7.3	0.54	ug/Kg
79-20-9	Methyl Acetate	1.3	U	7.3	1.3	ug/Kg
75-09-2	Methylene Chloride	2.7	U	7.3	2.7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.94	U	7.3	0.94	ug/Kg
75-34-3	1,1-Dichloroethane	0.39	U	7.3	0.39	ug/Kg
110-82-7	Cyclohexane	0.47	U	7.3	0.47	ug/Kg
78-93-3	2-Butanone	4.1	U	37	4.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.65	U	7.3	0.65	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.48	U	7.3	0.48	ug/Kg
67-66-3	Chloroform	0.51	U	7.3	0.51	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.61	U	7.3	0.61	ug/Kg
108-87-2	Methylcyclohexane	0.62	U	7.3	0.62	ug/Kg
71-43-2	Benzene	0.58	U	7.3	0.58	ug/Kg
107-06-2	1,2-Dichloroethane	0.45	U	7.3	0.45	ug/Kg
79-01-6	Trichloroethene	0.45	U	7.3	0.45	ug/Kg
78-87-5	1,2-Dichloropropane	0.58	U	7.3	0.58	ug/Kg
75-27-4	Bromodichloromethane	0.49	U	7.3	0.49	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.9	U	37	2.9	ug/Kg
108-88-3	Toluene	0.59	U	7.3	0.59	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.53	U	7.3	0.53	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.48	U	7.3	0.48	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.43	U	7.3	0.43	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	32
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041944.D	1	4/20/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	5.3	U	37	5.3	ug/Kg
124-48-1	Dibromochloromethane	0.34	U	7.3	0.34	ug/Kg
106-93-4	1,2-Dibromoethane	0.59	U	7.3	0.59	ug/Kg
127-18-4	Tetrachloroethene	1.1	U	7.3	1.1	ug/Kg
108-90-7	Chlorobenzene	0.53	U	7.3	0.53	ug/Kg
100-41-4	Ethyl Benzene	0.52	U	7.3	0.52	ug/Kg
126777-61-2	m/p-Xylenes	1.3	U	7.3	1.3	ug/Kg
95-47-6	o-Xylene	0.56	U	7.3	0.56	ug/Kg
100-42-5	Styrene	0.67	U	7.3	0.67	ug/Kg
75-25-2	Bromoform	0.45	U	7.3	0.45	ug/Kg
98-82-8	Isopropylbenzene	0.61	U	7.3	0.61	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.46	U	7.3	0.46	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.82	U	7.3	0.82	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.80	U	7.3	0.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.57	U	7.3	0.57	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.4	U	7.3	1.4	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.0	U	7.3	1.0	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.43	103 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.05	100 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.5	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	48.93	98 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	243718	4.31			
540-36-3	1,4-Difluorobenzene	339716	4.76			
3114-55-4	Chlorobenzene-d5	302870	7.65			
3855-82-1	1,4-Dichlorobenzene-d4	163150	9.67			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	40
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041736.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.4	U	8.4	1.4	ug/Kg
74-87-3	Chloromethane	1.4	U	8.4	1.4	ug/Kg
75-01-4	Vinyl chloride	1.4	U	8.4	1.4	ug/Kg
74-83-9	Bromomethane	3.4	U	8.4	3.4	ug/Kg
75-00-3	Chloroethane	3.6	U	8.4	3.6	ug/Kg
75-69-4	Trichlorofluoromethane	2.1	U	8.4	2.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.1	U	8.4	1.1	ug/Kg
75-35-4	1,1-Dichloroethene	0.96	U	8.4	0.96	ug/Kg
67-64-1	Acetone	5.6	U	42	5.6	ug/Kg
75-15-0	Carbon disulfide	0.62	U	8.4	0.62	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.62	U	8.4	0.62	ug/Kg
79-20-9	Methyl Acetate	1.4	U	8.4	1.4	ug/Kg
75-09-2	Methylene Chloride	3.1	U	8.4	3.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1.1	U	8.4	1.1	ug/Kg
75-34-3	1,1-Dichloroethane	0.45	U	8.4	0.45	ug/Kg
110-82-7	Cyclohexane	0.54	U	8.4	0.54	ug/Kg
78-93-3	2-Butanone	4.7	U	42	4.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.74	U	8.4	0.74	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.54	U	8.4	0.54	ug/Kg
67-66-3	Chloroform	0.58	U	8.4	0.58	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.70	U	8.4	0.70	ug/Kg
108-87-2	Methylcyclohexane	0.70	U	8.4	0.70	ug/Kg
71-43-2	Benzene	0.67	U	8.4	0.67	ug/Kg
107-06-2	1,2-Dichloroethane	0.51	U	8.4	0.51	ug/Kg
79-01-6	Trichloroethene	0.52	U	8.4	0.52	ug/Kg
78-87-5	1,2-Dichloropropane	0.66	U	8.4	0.66	ug/Kg
75-27-4	Bromodichloromethane	0.56	U	8.4	0.56	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.3	U	42	3.3	ug/Kg
108-88-3	Toluene	0.68	U	8.4	0.68	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.61	U	8.4	0.61	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.55	U	8.4	0.55	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.49	U	8.4	0.49	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	40
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041736.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	6.0	U	42	6.0	ug/Kg
124-48-1	Dibromochloromethane	0.38	U	8.4	0.38	ug/Kg
106-93-4	1,2-Dibromoethane	0.67	U	8.4	0.67	ug/Kg
127-18-4	Tetrachloroethene	1.2	U	8.4	1.2	ug/Kg
108-90-7	Chlorobenzene	0.61	U	8.4	0.61	ug/Kg
100-41-4	Ethyl Benzene	0.59	U	8.4	0.59	ug/Kg
126777-61-2	m/p-Xylenes	1.4	U	8.4	1.4	ug/Kg
95-47-6	o-Xylene	0.64	U	8.4	0.64	ug/Kg
100-42-5	Styrene	0.77	U	8.4	0.77	ug/Kg
75-25-2	Bromoform	0.52	U	8.4	0.52	ug/Kg
98-82-8	Isopropylbenzene	0.70	U	8.4	0.70	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.52	U	8.4	0.52	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.93	U	8.4	0.93	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.91	U	8.4	0.91	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.65	U	8.4	0.65	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	8.4	1.6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.1	U J	8.4	1.1	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.37	97 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	49.9	100 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.56	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	45.76	92 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	262590	4.32			
540-36-3	1,4-Difluorobenzene	351253	4.77			
3114-55-4	Chlorobenzene-d5	302608	7.65			
3855-82-1	1,4-Dichlorobenzene-d4	158442	9.66			

QUAL (FOOTN: 2)

06/23/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2287
Lab Sample ID:	T2287-07	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	0
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH041213.D	1	4/12/05	VH040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

QUAL. FOOTN.

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/05**
Client Sample ID:	**TRIPBLANK**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-07**	**Matrix:**	**WATER**
Analytical Method:	**8260**	**% Moisture:**	**0**
Sample Wt/Vol:	**5.0 Units: mL**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH041213.D	1	4/12/05	VH040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.42	113 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	54.74	109 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	49.99	100 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	56.1	112 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	563060	6.43			
540-36-3	1,4-Difluorobenzene	883739	7.07			
3114-55-4	Chlorobenzene-d5	711921	10.75			
3855-82-1	1,4-Dichlorobenzene-d4	327419	13.01			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

SEMI-VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW846 8270

CLIENT: Malcolm Pirnie, Inc. | Project: Incinerator Site, Lackawanna, NY | Project No.: 4852-001

Review Level: NYSDEC - DUSR | Laboratory: ChemTech, NJ | Lab Project No.: T2287

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

Samples were collected on 04/07/05 and received at the lab (VTSR) on 04/11/05 at 5 degrees C, with ice present, per COC.
Samples were extracted on 04/13/05 and analyzed on 04/15-16/05, meeting all preservation and holding time requirements.

B. METHOD BLANKS

Blank ID	Date Analyzed	Matrix	Analytes Present	Conc., ppb	Affects
SBLK01	04/13/05	soil	none	n/a	All SDG samples

Note: non-target (4-OH-4-Me-2-pentanone; aldol-condensate) present at RT=3.17 minutes, estimated concentration 1000 ug/Kg

ACTION: If sample concentration >CRQL, but <10x Blank value, flag result with 'U'
If sample concentration <CRQL, and <10x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >10x Blank value, no qualification necessary
Red-line (Reject, 'R') 4-OH-4-Me-2-pentanone present in associated samples **FOOTNOTE = 5**

FIELD BLANKS
No field blanks were submitted for this sample delivery group; therefore, no assessment of potential field-based contamination may be made.

C. SURROGATE RECOVERY

All reported surrogate recoveries were within acceptable limits.

D. MATRIX SPIKE / DUPLICATE IS-SD-1

Sample ID	Spike Compound	Bias	Comments
SD-1 MS & MSD	hexaClcyclopentadiene	low	Low recoveries are indicative of sample matrix effects.
SD-1 MS & MSD	2,4-dinitrophenol	low	
SD-1 MS & MSD	4,6-dinitro-2-methylphenol	low	
SD-1 MS	atrazine	low	
SD-1 MS & MSD	indeno(1,2,3-cd)pyrene	low	
SD-1 MS	benzo(a)pyrene	low	

QA Action: Qualify above compounds 'UJ' or 'J'. Negative bias suggested due to sample matrix.
FOOTNOTE = 2

The precision (%RPD) values for 4,6-dinitro-2-methylphenol and atrazine exceeded the allowable limit of 50% (at 200 and 188%, resp.); no positive values for these compounds in the native spike sample were found, therefore no data qualifiers were necessary.

E. BLANK SPIKE (LCS)

Sample ID	Spike Compound	Bias	Comments
SLCS01	4,6-dinitro-2-methylphenol	high	No positives found in associated samples; no data qualifiers necessary

F. INTERNAL STANDARDS (IS)

IS perylene-d12 was below 50% of the associated CCV recovery in the MS and MSD of SD-1. No re-analysis of the unspiked sample was reported. No data qualifiers were applied

G. OTHER QC ACTIONS

FOOTNOTE = 1
Reported positive values which are above the compound's MDL, but below PQL, have been qualified 'J' by the laboratory.
The data reviewer has applied a numeric footnote to indicate the reason for the qualifier; no bias direction is inferred.

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory : ChemTech, NJ Lab Project No.: T2287

A. INSTRUMENT PERFORMANCE (DFTPP TUNE)

TUNE DATE:	04/06/05	04/13/05	04/15/05
TUNE FILE:	BE020609	BE020818	BE020914
DFTPP INJECTION TIME:	20:33	17:20	21:14
LAST INJECTION WITHIN 12-HR. WINDOW ?	Yes	Yes	Yes
m/z RATIOS ACCEPTABLE ?	Yes	Yes	Yes

B. INITIAL CALIBRATION

SPCC Compounds
Base/Neutrals
N-Nitroso-di-n-propylamine
Hexachlorocyclopentadiene
Acids
2,4-Dinitrophenol
4-Nitrophenol
MINIMUM RRF = 0.050

CCC Compounds
Base/Neutrals
Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
Diphenylamine
Di-n-octylphthalate
Fluoranthene
Benzo(a)pyrene
Acids
4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol
MAXIMUM %RSD = 30.0%
MAXIMUM %D = 20.0%

CALIBRATION DATE :	04/06/05
FILE ID:	BE020610 - 14
SPCC RRFs >0.05 ?	Yes *
CCC %RSDs < 30% ?	Yes
All targets < 15% RSD ?	NO
(if No, list compounds) ==>	benzaldehyde hexaCicyclopentadiene 4,6-dinitro-2-methylphenol 2,4,6-tribromophenol (surr)
Regression performed ?	NO
Correlation acceptable ?	n/a

* Note: 20 ppb RRFs for 2,4-dinitrophenol and 4,6-dinitro-2-methylphenol were below 0.050 (0.043 and 0.044, resp.). Since average RRF values for both compounds were >0.050, no data qualifiers were assigned.

QA ACTION: Apply 'J' flag to positives which do not meet specifications in associated samples.
FOOTNOTE = 3

NOTE: Linear or non-linear regression acceptable alternatives for compounds w/ %RSD >15%.
Linear regression r^2 values must be 0.995 minimum for these compounds.
Non-linear COD values must be 0.99 minimum for these compounds, with minimum 6-pts. for second-order, and minimum 7-pts. for third-order equations.

C. CONTINUING CALIBRATIONS

CALIBRATION DATE :	04/13/05			04/15/05	
FILE ID:	BE020819			BE020915	
SPCC RRFs >0.05 ?	Yes			Yes	
CCC %Ds < 20% ?	Yes			Yes	
All targets +/- 20%D or 80 -120% True Value?	NO			NO	
(If No, list compounds) ==>	benzaldehyde	RRF neg. vs. ICAL		2,4-dinitrophenol	RRF pos. vs. ICAL
	2,4-dinitrophenol	RRF pos. vs. ICAL		4,6-dinitro-2-methylphen	RRF pos. vs. ICAL
	4,6-dinitro-2-methylphenol	RRF pos. vs. ICAL		dibenzo(a,h)anthracene	RRF pos. vs. ICAL
	dibenzo(a,h)anthracene	RRF pos. vs. ICAL		benzo(g,h,i)perylene	RRF pos. vs. ICAL
	benzo(g,h,i)perylene	RRF pos. vs. ICAL		Affects samples:	SD-1, 2, 3 & DUP
	Affects samples:	Prep Blank, LCS			

QA Action : Qualify positives of compounds noted " RRF pos. vs. ICAL" in associated samples; positive bias. **FOOTNOTE = 4**

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: Malcolm Pirnie, Inc.
PROJECT: Incinerator Site Lackawanna, NY
Lab SDG No.: 4852-001
Job No.: T2287
Review Level: NYSDEC 'DUSR'
Laboratory : STL Buffalo

D. SAMPLE RESULT VERIFICATION

SAMPLE ID: SD-1 **MS** (matrix spike sample)
COMPOUND: benzo(a)pyrene
Int. Std.: perylene-d12
REPORTED VALUE: 2900 ug/Kg

	Ax	Is	Vt	Df	GPC
ug/Kg =	822706	40	500	1.0	1.0
	216724	1.4570	2.0	15.20	0.6
	Ais	RRF	Vi	Ws	D

ug/Kg = **2857** Result verified ? **Yes**

Where :

Ax	=	area of quant ion for target compound
Is	=	amount of internal standard injected, ng
Vt	=	volume of extract concentrate, uL
Df	=	Extract dilution factor
GPC	=	GPC factor (1.0 for no cleanup; 2.0 for GPC cleanup)
Ais	=	area of quant ion for internal standard
RRF	=	relative response factor, average from ICAL
Vi	=	extract volume injected, uL
Ws	=	sample mass extracted, gm (wet)
D	=	% Solids / 100

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	40
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020919.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	110	U	550	110	ug/Kg
108-95-2	Phenol	83	U	550	83	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	87	U	550	87	ug/Kg
95-57-8	2-Chlorophenol	88	U	550	88	ug/Kg
95-48-7	2-Methylphenol	91	U	550	91	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	88	U	550	88	ug/Kg
98-86-2	Acetophenone	80	U	550	80	ug/Kg
106-44-5	3+4-Methylphenols	87	U	550	87	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	91	U	550	91	ug/Kg
67-72-1	Hexachloroethane	93	U	550	93	ug/Kg
98-95-3	Nitrobenzene	120	U	550	120	ug/Kg
78-59-1	Isophorone	82	U	550	82	ug/Kg
88-75-5	2-Nitrophenol	84	U	550	84	ug/Kg
105-67-9	2,4-Dimethylphenol	87	U	550	87	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	90	U	550	90	ug/Kg
120-83-2	2,4-Dichlorophenol	100	U	550	100	ug/Kg
91-20-3	Naphthalene	94	U	550	94	ug/Kg
106-47-8	4-Chloroaniline	65	U	550	65	ug/Kg
87-68-3	Hexachlorobutadiene	84	U	550	84	ug/Kg
105-60-2	Caprolactam	88	U	550	88	ug/Kg
59-50-7	4-Chloro-3-methylphenol	76	U	550	76	ug/Kg
91-57-6	2-Methylnaphthalene	92	U	550	92	ug/Kg
77-47-4	Hexachlorocyclopentadiene	88	U	550	88	ug/Kg
88-06-2	2,4,6-Trichlorophenol	81	U	550	81	ug/Kg
95-95-4	2,4,5-Trichlorophenol	84	U	1400	84	ug/Kg
92-52-4	1,1-Biphenyl	90	U	550	90	ug/Kg
91-58-7	2-Chloronaphthalene	91	U	550	91	ug/Kg
88-74-4	2-Nitroaniline	70	U	1400	70	ug/Kg
131-11-3	Dimethylphthalate	88	U	550	88	ug/Kg
208-96-8	Acenaphthylene	89	U	550	89	ug/Kg
606-20-2	2,6-Dinitrotoluene	78	U	550	78	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	40
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020919.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	QUAL FOUTN
TARGETS							
99-09-2	3-Nitroaniline	71	U	1400	71	ug/Kg	
83-32-9	Acenaphthene	98	U	550	98	ug/Kg	
51-28-5	2,4-Dinitrophenol	470	U J	1400	470	ug/Kg	Z
100-02-7	4-Nitrophenol	68	U	1400	68	ug/Kg	
132-64-9	Dibenzofuran	91	U	550	91	ug/Kg	
121-14-2	2,4-Dinitrotoluene	81	U	550	81	ug/Kg	
84-66-2	Diethylphthalate	95	U	550	95	ug/Kg	
7005-72-3	4-Chlorophenyl-phenylether	87	U	550	87	ug/Kg	
86-73-7	Fluorene	93	U	550	93	ug/Kg	
100-01-6	4-Nitroaniline	94	U	1400	94	ug/Kg	
534-52-1	4,6-Dinitro-2-methylphenol	110	U J	1400	110	ug/Kg	Z
86-30-6	N-Nitrosodiphenylamine	90	U	550	90	ug/Kg	
101-55-3	4-Bromophenyl-phenylether	82	U	550	82	ug/Kg	
118-74-1	Hexachlorobenzene	88	U	550	88	ug/Kg	
1912-24-9	Atrazine	84	U J	550	84	ug/Kg	Z
87-86-5	Pentachlorophenol	130	U	1400	130	ug/Kg	
85-01-8	Phenanthrene	87	U	550	87	ug/Kg	
120-12-7	Anthracene	83	U	550	83	ug/Kg	
86-74-8	Carbazole	84	U	550	84	ug/Kg	
84-74-2	Di-n-butylphthalate	84	U	550	84	ug/Kg	
206-44-0	Fluoranthene	82	U	550	82	ug/Kg	
129-00-0	Pyrene	97	U	550	97	ug/Kg	
85-68-7	Butylbenzylphthalate	89	U	550	89	ug/Kg	
91-94-1	3,3-Dichlorobenzidine	94	U	550	94	ug/Kg	
56-55-3	Benzo(a)anthracene	77	U	550	77	ug/Kg	
218-01-9	Chrysene	99	U	550	99	ug/Kg	
117-81-7	bis(2-Ethylhexyl)phthalate	110	U	550	110	ug/Kg	
117-84-0	Di-n-octyl phthalate	93	U	550	93	ug/Kg	
205-99-2	Benzo(b)fluoranthene	60	U	550	60	ug/Kg	
207-08-9	Benzo(k)fluoranthene	120	U	550	120	ug/Kg	
50-32-8	Benzo(a)pyrene	88	U J	550	88	ug/Kg	Z

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

06/21/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	40
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020919.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	70	U J	550	70	ug/Kg
53-70-3	Dibenz(a,h)anthracene	69	U	550	69	ug/Kg
191-24-2	Benzo(g,h,i)perylene	91	U	550	91	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	252.46	84 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	256.53	86 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	180.68	90 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	167.75	84 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	276.17	92 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	187.41	94 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	167033	4.12			
1146-65-2	Naphthalene-d8	636941	4.90			
15067-26-2	Acenaphthene-d10	339410	6.02			
1517-22-2	Phenanthrene-d10	540740	7.05			
1719-03-5	Chrysene-d12	482589	9.33			
1520-96-3	Perylene-d12	422094	11.70			
TENTITIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~2600~~	~~AD~~	~~9.16~~ R		ug/Kg
6624799	1-Dotriacontanol	170	J	9.03		ug/Kg
502625	.Psi.,.psi.-Carotene, 7,7,8,8,11,11,1:	2600	J	10.52		ug/Kg
295658	Cyclohexadecane	270	J	16.14		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	51
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020921.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	140	U	670	140	ug/Kg
108-95-2	Phenol	100	U	670	100	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	110	U	670	110	ug/Kg
95-57-8	2-Chlorophenol	110	U	670	110	ug/Kg
95-48-7	2-Methylphenol	110	U	670	110	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	110	U	670	110	ug/Kg
98-86-2	Acetophenone	98	U	670	98	ug/Kg
106-44-5	3+4-Methylphenols	110	U	670	110	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	110	U	670	110	ug/Kg
67-72-1	Hexachloroethane	110	U	670	110	ug/Kg
98-95-3	Nitrobenzene	150	U	670	150	ug/Kg
78-59-1	Isophorone	100	U	670	100	ug/Kg
88-75-5	2-Nitrophenol	100	U	670	100	ug/Kg
105-67-9	2,4-Dimethylphenol	110	U	670	110	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	110	U	670	110	ug/Kg
120-83-2	2,4-Dichlorophenol	120	U	670	120	ug/Kg
91-20-3	Naphthalene	110	U	670	110	ug/Kg
106-47-8	4-Chloroaniline	80	U	670	80	ug/Kg
87-68-3	Hexachlorobutadiene	100	U	670	100	ug/Kg
105-60-2	Caprolactam	110	U	670	110	ug/Kg
59-50-7	4-Chloro-3-methylphenol	92	U	670	92	ug/Kg
91-57-6	2-Methylnaphthalene	110	U	670	110	ug/Kg
77-47-4	Hexachlorocyclopentadiene	110	U	670	110	ug/Kg
88-06-2	2,4,6-Trichlorophenol	98	U	670	98	ug/Kg
95-95-4	2,4,5-Trichlorophenol	100	U	1700	100	ug/Kg
92-52-4	1,1-Biphenyl	110	U	670	110	ug/Kg
91-58-7	2-Chloronaphthalene	110	U	670	110	ug/Kg
88-74-4	2-Nitroaniline	85	U	1700	85	ug/Kg
131-11-3	Dimethylphthalate	110	U	670	110	ug/Kg
208-96-8	Acenaphthylene	110	U	670	110	ug/Kg
606-20-2	2,6-Dinitrotoluene	95	U	670	95	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	51
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020921.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	87	U	1700	87	ug/Kg
83-32-9	Acenaphthene	120	U	670	120	ug/Kg
51-28-5	2,4-Dinitrophenol	570	U	1700	570	ug/Kg
100-02-7	4-Nitrophenol	83	U	1700	83	ug/Kg
132-64-9	Dibenzofuran	110	U	670	110	ug/Kg
121-14-2	2,4-Dinitrotoluene	98	U	670	98	ug/Kg
84-66-2	Diethylphthalate	120	U	670	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	110	U	670	110	ug/Kg
86-73-7	Fluorene	110	U	670	110	ug/Kg
100-01-6	4-Nitroaniline	110	U	1700	110	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	130	U	1700	130	ug/Kg
86-30-6	N-Nitrosodiphenylamine	110	U	670	110	ug/Kg
101-55-3	4-Bromophenyl-phenylether	100	U	670	100	ug/Kg
118-74-1	Hexachlorobenzene	110	U	670	110	ug/Kg
1912-24-9	Atrazine	100	U	670	100	ug/Kg
87-86-5	Pentachlorophenol	150	U	1700	150	ug/Kg
85-01-8	Phenanthrene	110	U	670	110	ug/Kg
120-12-7	Anthracene	100	U	670	100	ug/Kg
86-74-8	Carbazole	100	U	670	100	ug/Kg
84-74-2	Di-n-butylphthalate	100	U	670	100	ug/Kg
206-44-0	Fluoranthene	99	U	670	99	ug/Kg
129-00-0	Pyrene	120	U	670	120	ug/Kg
85-68-7	Butylbenzylphthalate	110	U	670	110	ug/Kg
91-94-1	3,3-Dichlorobenzidine	110	U	670	110	ug/Kg
56-55-3	Benzo(a)anthracene	94	U	670	94	ug/Kg
218-01-9	Chrysene	120	U	670	120	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	340	J	670	130	ug/Kg
117-84-0	Di-n-octyl phthalate	110	U	670	110	ug/Kg
205-99-2	Benzo(b)fluoranthene	74	U	670	74	ug/Kg
207-08-9	Benzo(k)fluoranthene	150	U	670	150	ug/Kg
50-32-8	Benzo(a)pyrene	110	U	670	110	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	51
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020921.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	85	U	670	85	ug/Kg
53-70-3	Dibenz(a,h)anthracene	84	U	670	84	ug/Kg
191-24-2	Benzo(g,h,i)perylene	110	U	670	110	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	257.76	86 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	261.28	87 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	193.19	97 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	168.95	84 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	287.03	96 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	189.15	95 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	171027	4.12			
1146-65-2	Naphthalene-d8	620723	4.90			
15067-26-2	Acenaphthene-d10	333907	6.01			
1517-22-2	Phenanthrene-d10	554847	7.02			
1719-03-5	Chrysene-d12	491456	9.25			
1520-96-3	Perylene-d12	413277	11.60			
TENTATIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~3100~~	~~AB~~	~~3.16~~	R	ug/Kg

FOOTNO 5

06/23/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	32
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020920.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	99	U	480	99	ug/Kg
108-95-2	Phenol	73	U	480	73	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	76	U	480	76	ug/Kg
95-57-8	2-Chlorophenol	77	U	480	77	ug/Kg
95-48-7	2-Methylphenol	80	U	480	80	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	78	U	480	78	ug/Kg
98-86-2	Acetophenone	71	U	480	71	ug/Kg
106-44-5	3+4-Methylphenols	76	U	480	76	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	80	U	480	80	ug/Kg
67-72-1	Hexachloroethane	82	U	480	82	ug/Kg
98-95-3	Nitrobenzene	110	U	480	110	ug/Kg
78-59-1	Isophorone	72	U	480	72	ug/Kg
88-75-5	2-Nitrophenol	74	U	480	74	ug/Kg
105-67-9	2,4-Dimethylphenol	77	U	480	77	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	79	U	480	79	ug/Kg
120-83-2	2,4-Dichlorophenol	89	U	480	89	ug/Kg
91-20-3	Naphthalene	82	U	480	82	ug/Kg
106-47-8	4-Chloroaniline	57	U	480	57	ug/Kg
87-68-3	Hexachlorobutadiene	74	U	480	74	ug/Kg
105-60-2	Caprolactam	78	U	480	78	ug/Kg
59-50-7	4-Chloro-3-methylphenol	67	U	480	67	ug/Kg
91-57-6	2-Methylnaphthalene	81	U	480	81	ug/Kg
77-47-4	Hexachlorocyclopentadiene	77	U	480	77	ug/Kg
88-06-2	2,4,6-Trichlorophenol	71	U	480	71	ug/Kg
95-95-4	2,4,5-Trichlorophenol	74	U	1200	74	ug/Kg
92-52-4	1,1-Biphenyl	79	U	480	79	ug/Kg
91-58-7	2-Chloronaphthalene	80	U	480	80	ug/Kg
88-74-4	2-Nitroaniline	61	U	1200	61	ug/Kg
131-11-3	Dimethylphthalate	78	U	480	78	ug/Kg
208-96-8	Acenaphthylene	78	U	480	78	ug/Kg
606-20-2	2,6-Dinitrotoluene	68	U	480	68	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-3**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-03**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**32**
Sample Wt/Wol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020920.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	63	U	1200	63	ug/Kg
83-32-9	Acenaphthene	86	U	480	86	ug/Kg
51-28-5	2,4-Dinitrophenol	410	U	1200	410	ug/Kg
100-02-7	4-Nitrophenol	60	U	1200	60	ug/Kg
132-64-9	Dibenzofuran	80	U	480	80	ug/Kg
121-14-2	2,4-Dinitrotoluene	71	U	480	71	ug/Kg
84-66-2	Diethylphthalate	83	U	480	83	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	76	U	480	76	ug/Kg
86-73-7	Fluorene	81	U	480	81	ug/Kg
100-01-6	4-Nitroaniline	82	U	1200	82	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	94	U	1200	94	ug/Kg
86-30-6	N-Nitrosodiphenylamine	79	U	480	79	ug/Kg
101-55-3	4-Bromophenyl-phenylether	72	U	480	72	ug/Kg
118-74-1	Hexachlorobenzene	77	U	480	77	ug/Kg
1912-24-9	Atrazine	74	U	480	74	ug/Kg
87-86-5	Pentachlorophenol	110	U	1200	110	ug/Kg
85-01-8	Phenanthrene	77	U	480	77	ug/Kg
120-12-7	Anthracene	73	U	480	73	ug/Kg
86-74-8	Carbazole	74	U	480	74	ug/Kg
84-74-2	Di-n-butylphthalate	73	U	480	73	ug/Kg
206-44-0	Fluoranthene	72	U	480	72	ug/Kg
129-00-0	Pyrene	85	U	480	85	ug/Kg
85-68-7	Butylbenzylphthalate	78	U	480	78	ug/Kg
91-94-1	3,3-Dichlorobenzidine	83	U	480	83	ug/Kg
56-55-3	Benzo(a)anthracene	68	U	480	68	ug/Kg
218-01-9	Chrysene	87	U	480	87	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	93	U	480	93	ug/Kg
117-84-0	Di-n-octyl phthalate	82	U	480	82	ug/Kg
205-99-2	Benzo(b)fluoranthene	53	U	480	53	ug/Kg
207-08-9	Benzo(k)fluoranthene	110	U	480	110	ug/Kg
50-32-8	Benzo(a)pyrene	77	U	480	77	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	32
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020920.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	61	U	480	61	ug/Kg
53-70-3	Dibenz(a,h)anthracene	61	U	480	61	ug/Kg
191-24-2	Benzo(g,h,i)perylene	80	U	480	80	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	253.93	85 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	241.74	81 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	169.29	85 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	156.55	78 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	252.74	84 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	178.34	89 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	198116	4.12			
1146-65-2	Naphthalene-d8	744854	4.90			
15067-26-2	Acenaphthene-d10	397027	6.02			
1517-22-2	Phenanthrene-d10	628149	7.04			
1719-03-5	Chrysene-d12	563554	9.30			
1520-96-3	Perylene-d12	503716	11.67			
TENTITIVE IDENTIFIED COMPOUNDS						
~~ACP~~	~~2200~~	~~AB~~	~~3.16~~	R		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	40
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020922.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	110	U	550	110	ug/Kg
108-95-2	Phenol	83	U	550	83	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	87	U	550	87	ug/Kg
95-57-8	2-Chlorophenol	88	U	550	88	ug/Kg
95-48-7	2-Methylphenol	91	U	550	91	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	88	U	550	88	ug/Kg
98-86-2	Acetophenone	80	U	550	80	ug/Kg
106-44-5	3+4-Methylphenols	87	U	550	87	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	91	U	550	91	ug/Kg
67-72-1	Hexachloroethane	93	U	550	93	ug/Kg
98-95-3	Nitrobenzene	120	U	550	120	ug/Kg
78-59-1	Isophorone	82	U	550	82	ug/Kg
88-75-5	2-Nitrophenol	84	U	550	84	ug/Kg
105-67-9	2,4-Dimethylphenol	87	U	550	87	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	90	U	550	90	ug/Kg
120-83-2	2,4-Dichlorophenol	100	U	550	100	ug/Kg
91-20-3	Naphthalene	94	U	550	94	ug/Kg
106-47-8	4-Chloroaniline	65	U	550	65	ug/Kg
87-68-3	Hexachlorobutadiene	84	U	550	84	ug/Kg
105-60-2	Caprolactam	88	U	550	88	ug/Kg
59-50-7	4-Chloro-3-methylphenol	76	U	550	76	ug/Kg
91-57-6	2-Methylnaphthalene	92	U	550	92	ug/Kg
77-47-4	Hexachlorocyclopentadiene	88	U	550	88	ug/Kg
88-06-2	2,4,6-Trichlorophenol	81	U	550	81	ug/Kg
95-95-4	2,4,5-Trichlorophenol	84	U	1400	84	ug/Kg
92-52-4	1,1-Biphenyl	90	U	550	90	ug/Kg
91-58-7	2-Chloronaphthalene	91	U	550	91	ug/Kg
88-74-4	2-Nitroaniline	70	U	1400	70	ug/Kg
131-11-3	Dimethylphthalate	88	U	550	88	ug/Kg
208-96-8	Acenaphthylene	89	U	550	89	ug/Kg
606-20-2	2,6-Dinitrotoluene	78	U	550	78	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-DUP**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-04**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**40**
Sample Wt/Wol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020922.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	71	U	1400	71	ug/Kg
83-32-9	Acenaphthene	98	U	550	98	ug/Kg
51-28-5	2,4-Dinitrophenol	470	U	1400	470	ug/Kg
100-02-7	4-Nitrophenol	68	U	1400	68	ug/Kg
132-64-9	Dibenzofuran	91	U	550	91	ug/Kg
121-14-2	2,4-Dinitrotoluene	81	U	550	81	ug/Kg
84-66-2	Diethylphthalate	95	U	550	95	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	87	U	550	87	ug/Kg
86-73-7	Fluorene	93	U	550	93	ug/Kg
100-01-6	4-Nitroaniline	94	U	1400	94	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	1400	110	ug/Kg
86-30-6	N-Nitrosodiphenylamine	90	U	550	90	ug/Kg
101-55-3	4-Bromophenyl-phenylether	82	U	550	82	ug/Kg
118-74-1	Hexachlorobenzene	88	U	550	88	ug/Kg
1912-24-9	Atrazine	84	U	550	84	ug/Kg
87-86-5	Pentachlorophenol	130	U	1400	130	ug/Kg
85-01-8	Phenanthrene	87	U	550	87	ug/Kg
120-12-7	Anthracene	83	U	550	83	ug/Kg
86-74-8	Carbazole	84	U	550	84	ug/Kg
84-74-2	Di-n-butylphthalate	84	U	550	84	ug/Kg
206-44-0	Fluoranthene	82	U	550	82	ug/Kg
129-00-0	Pyrene	97	U	550	97	ug/Kg
85-68-7	Butylbenzylphthalate	89	U	550	89	ug/Kg
91-94-1	3,3-Dichlorobenzidine	94	U	550	94	ug/Kg
56-55-3	Benzo(a)anthracene	77	U	550	77	ug/Kg
218-01-9	Chrysene	98	U	550	98	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	110	U	550	110	ug/Kg
117-84-0	Di-n-octyl phthalate	93	U	550	93	ug/Kg
205-99-2	Benzo(b)fluoranthene	60	U	550	60	ug/Kg
207-08-9	Benzo(k)fluoranthene	120	U	550	120	ug/Kg
50-32-8	Benzo(a)pyrene	88	U	550	88	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	40
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020922.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	70	U	550	70	ug/Kg
53-70-3	Dibenz(a,h)anthracene	69	U	550	69	ug/Kg
191-24-2	Benzo(g,h,i)perylene	91	U	550	91	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	248.94	83 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	259.2	86 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	184.86	92 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	171.31	86 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	280.9	94 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	191.04	96 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	155852	4.12			
1146-65-2	Naphthalene-d8	568792	4.90			
15067-26-2	Acenaphthene-d10	312092	6.02			
1517-22-2	Phenanthrene-d10	497623	7.05			
1719-03-5	Chrysene-d12	450651	9.35			
1520-96-3	Perylene-d12	372109	11.72			
TENTITIVE IDENTIFIED COMPOUNDS						
~~ACP~~		~~2400~~	~~AB~~	~~3.16~~	R	ug/Kg

FOOTNOTE 5

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

PESTICIDE / PCB ANALYSIS
QC PARAMETER / QUALIFIER SUMMARY
SW846 Method 8081

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2287

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

All samples were extracted within 2 days of VTSR; all samples were analyzed within 4 days of extraction.

B. METHOD BLANKS

Blank ID	Date Analyzed	File ID	Matrix	Analytes Present	Conc., ppb
PB04765B	04/16/05	5PS7401	soil	none	n/a

ACTION: If sample concentration >CRQL, but <5x Blank value, flag result with 'U'
If sample concentration <CRQL, and <5x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >5x Blank value, no qualification necessary

C. SURROGATE RECOVERY

The recoveries for DCB in samples IS-SD-2, IS-SD-3 and IS-SD-DUP were < the lower limit due to sample matrix interference. No QA action was necessary, since only one surrogate was affected.

D. MATRIX SPIKE / DUPLICATE IS-SD-1

Recoveries and precision values were within acceptable limits in the matrix spike and matrix spike duplicate.

E. BLANK SPIKE (LCS)

Recoveries were within acceptable limits in the blank spike.

ORGANOCHLORINE PESTICIDES
CALIBRATION SUMMARY
SW846 METHOD 8081A

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2287

A. INITIAL CALIBRATION

CALIBRATION DATE :	03/30/05	
FILE IDs :	5PS6849 - 52; 5PS6854	
Mean RSD ≤ 20%?	No	DDD, DDT
If Lin Regression r >0.99?	n/a	
If 2nd-order, COD >0.99?	n/a	
Affects:		

ACTION: No QA action necessary.

B. CALIBRATION VERIFICATION

At beginning of each 12-hour shift, prior to sample analysis; after every 20 samples. Note: samples with positives >RL must be bracketed by acceptable calibration verifications.
%D (or %Drift, if linear regression) for all analytes must be < 15% on both columns.

CALIBRATION DATE :	04/16/05	04/16/05	04/17/05	04/17/05
FILE ID :	CCAL01	CCAL02	CCAL03	CCAL04
After every 20 samples?	n/a	n/a	n/a	n/a
At end of sequence?	n/a	n/a	n/a	Yes
%D ≤ 15?	Yes	NO	NO	NO
If %D > 15%, list analytes:		DDT (-16%)	DDT (-16%)	alpha-BHC (16%), DDE (16%)
Associated Samples :	IS-SD-1, -MS, -MSD			DDT (-32%), MethoxyCl (-22%)
			IS-SD-2, -3, -DUP	

QA Action : Qualify DDT ('UJ') in sample IS-SD-1; negative bias suggested. **FOOTNOTE = 1**

QA Action : Qualify DDT and Methoxychlor ('UJ') in samples IS-SD-2, -3, -DUP; negative bias suggeste **FOOTNOTE = 1**

C. BREAKDOWN CHECK

DDT and Endrin breakdown checks were not found in the data deliverables.
No assessment of DDT or Endrin breakdown may be made. Since no positives were reported for these compounds, no data qualifiers were applicable.

D. QUALITATIVE CONFIRMATION

No positive compounds were reported above analyte RL values; therefore, confirmation was unnecessary.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	40
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7398.D	1	4/13/05	4/16/05	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	1.1	U	4.9	1.1	ug/Kg
319-85-7	beta-BHC	1.4	U	4.9	1.4	ug/Kg
319-86-8	delta-BHC	2.7	U	4.9	2.7	ug/Kg
58-89-9	gamma-BHC (Lindane)	1.2	U	4.9	1.2	ug/Kg
76-44-8	Heptachlor	1.5	U	4.9	1.5	ug/Kg
309-00-2	Aldrin	2.0	U	4.9	2.0	ug/Kg
1024-57-3	Heptachlor epoxide	1.8	U	4.9	1.8	ug/Kg
959-98-8	Endosulfan I	1.5	U	4.9	1.5	ug/Kg
60-57-1	Dieldrin	1.4	U	4.9	1.4	ug/Kg
72-55-9	4,4'-DDE	1.3	U	4.9	1.3	ug/Kg
72-20-8	Endrin	1.4	U	4.9	1.4	ug/Kg
33213-65-9	Endosulfan II	1.6	U	4.9	1.6	ug/Kg
72-54-8	4,4'-DDD	1.2	U	4.9	1.2	ug/Kg
1031-07-8	Endosulfan sulfate	1.8	U	4.9	1.8	ug/Kg
50-29-3	4,4'-DDT	1.2	U J	4.9	1.2	ug/Kg
72-43-5	Methoxychlor	1.4	U	4.9	1.4	ug/Kg
53494-70-5	Endrin ketone	1.4	U	4.9	1.4	ug/Kg
7421-93-4	Endrin aldehyde	1.7	U	4.9	1.7	ug/Kg
5103-71-9	alpha-Chlordane	1.4	U	4.9	1.4	ug/Kg
5103-74-2	gamma-Chlordane	1.4	U	4.9	1.4	ug/Kg
8001-35-2	Toxaphene	5.9	U	28	5.9	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.07	95 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	12.36	62 %	50 - 132		SPK: 20

QUAL FOOTN

06/22/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	51
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7448.D	1	4/13/05	4/17/05	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	1.3	U	6.1	1.3	ug/Kg
319-85-7	beta-BHC	1.8	U	6.1	1.8	ug/Kg
319-86-8	delta-BHC	3.3	U	6.1	3.3	ug/Kg
58-89-9	gamma-BHC (Lindane)	1.5	U	6.1	1.5	ug/Kg
76-44-8	Heptachlor	1.9	U	6.1	1.9	ug/Kg
309-00-2	Aldrin	2.5	U	6.1	2.5	ug/Kg
1024-57-3	Heptachlor epoxide	2.1	U	6.1	2.1	ug/Kg
959-98-8	Endosulfan I	1.8	U	6.1	1.8	ug/Kg
60-57-1	Dieldrin	1.7	U	6.1	1.7	ug/Kg
72-55-9	4,4'-DDE	1.6	U	6.1	1.6	ug/Kg
72-20-8	Endrin	1.7	U	6.1	1.7	ug/Kg
33213-65-9	Endosulfan II	1.9	U	6.1	1.9	ug/Kg
72-54-8	4,4'-DDD	1.4	U	6.1	1.4	ug/Kg
1031-07-8	Endosulfan sulfate	2.2	U	6.1	2.2	ug/Kg
50-29-3	4,4'-DDT	1.5	U	6.1	1.5	ug/Kg
72-43-5	Methoxychlor	1.7	U	6.1	1.7	ug/Kg
53494-70-5	Endrin ketone	1.7	U	6.1	1.7	ug/Kg
7421-93-4	Endrin aldehyde	2.0	U	6.1	2.0	ug/Kg
5103-71-9	alpha-Chlordane	1.7	U	6.1	1.7	ug/Kg
5103-74-2	gamma-Chlordane	1.8	U	6.1	1.8	ug/Kg
8001-35-2	Toxaphene	7.2	U	34	7.2	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	10.75	54 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	14.16	71 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	32
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7449.D	1	4/13/05	4/17/05	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.93	U	4.4	0.93	ug/Kg
319-85-7	beta-BHC	1.3	U	4.4	1.3	ug/Kg
319-86-8	delta-BHC	2.4	U	4.4	2.4	ug/Kg
58-89-9	gamma-BHC (Lindane)	1.0	U	4.4	1.0	ug/Kg
76-44-8	Heptachlor	1.3	U	4.4	1.3	ug/Kg
309-00-2	Aldrin	1.8	U	4.4	1.8	ug/Kg
1024-57-3	Heptachlor epoxide	1.5	U	4.4	1.5	ug/Kg
959-98-8	Endosulfan I	1.3	U	4.4	1.3	ug/Kg
60-57-1	Dieldrin	1.2	U	4.4	1.2	ug/Kg
72-55-9	4,4'-DDE	1.1	U	4.4	1.1	ug/Kg
72-20-8	Endrin	1.2	U	4.4	1.2	ug/Kg
33213-65-9	Endosulfan II	1.4	U	4.4	1.4	ug/Kg
72-54-8	4,4'-DDD	1.0	U	4.4	1.0	ug/Kg
1031-07-8	Endosulfan sulfate	1.6	U	4.4	1.6	ug/Kg
50-29-3	4,4'-DDT	1.0	U J	4.4	1.0	ug/Kg
72-43-5	Methoxychlor	1.2	U J	4.4	1.2	ug/Kg
53494-70-5	Endrin ketone	1.2	U	4.4	1.2	ug/Kg
7421-93-4	Endrin aldehyde	1.5	U	4.4	1.5	ug/Kg
5103-71-9	alpha-Chlordane	1.2	U	4.4	1.2	ug/Kg
5103-74-2	gamma-Chlordane	1.3	U	4.4	1.3	ug/Kg
8001-35-2	Toxaphene	5.2	U	25	5.2	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	10.16	51 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	13.58	68 %	50 - 132		SPK: 20

QUAL FROM

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	33
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7450.D	1	4/13/05	4/17/05	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.95	U	4.4	0.95	ug/Kg
319-85-7	beta-BHC	1.3	U	4.4	1.3	ug/Kg
319-86-8	delta-BHC	2.4	U	4.4	2.4	ug/Kg
58-89-9	gamma-BHC (Lindane)	1.1	U	4.4	1.1	ug/Kg
76-44-8	Heptachlor	1.4	U	4.4	1.4	ug/Kg
309-00-2	Aldrin	1.8	U	4.4	1.8	ug/Kg
1024-57-3	Heptachlor epoxide	1.6	U	4.4	1.6	ug/Kg
959-98-8	Endosulfan I	1.3	U	4.4	1.3	ug/Kg
60-57-1	Dieldrin	1.2	U	4.4	1.2	ug/Kg
72-55-9	4,4'-DDE	1.2	U	4.4	1.2	ug/Kg
72-20-8	Endrin	1.3	U	4.4	1.3	ug/Kg
33213-65-9	Endosulfan II	1.4	U	4.4	1.4	ug/Kg
72-54-8	4,4'-DDD	1.0	U	4.4	1.0	ug/Kg
1031-07-8	Endosulfan sulfate	1.6	U	4.4	1.6	ug/Kg
50-29-3	4,4'-DDT	1.1	U	4.4	1.1	ug/Kg
72-43-5	Methoxychlor	1.3	U	4.4	1.3	ug/Kg
53494-70-5	Endrin ketone	1.2	U	4.4	1.2	ug/Kg
7421-93-4	Endrin aldehyde	1.5	U	4.4	1.5	ug/Kg
5103-71-9	alpha-Chlordane	1.2	U	4.4	1.2	ug/Kg
5103-74-2	gamma-Chlordane	1.3	U	4.4	1.3	ug/Kg
8001-35-2	Toxaphene	5.3	U	25	5.3	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	10.06	50 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	13.32	67 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

PCB ANALYSIS
QC PARAMETER / QUALIFIER SUMMARY
SW-846 Method 8082

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2287

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

All samples were extracted within 2 days of VTSR; all samples were analyzed within 3 days of extraction.

B. METHOD BLANKS

Blank ID	Date Analyzed	File ID	Matrix	Analytes Present	Conc., ppb
PB04764B	04/15/05	4PC2123	soil	none	n/a

ACTION: If sample concentration >CRQL, but <5x Blank value, flag result with 'U'
If sample concentration <CRQL, and <5x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >5x Blank value, no qualification necessary

C. INSTRUMENT BLANKS

Instrument blanks through the analytical sequence were free of target analytes at below 0.5x target analyte CRQL values.

D. SURROGATE RECOVERY

Surrogate recoveries for all samples were within acceptable limits.

E. MATRIX SPIKE / DUPLICATE IS-SD-1

Recoveries of spiked compounds, and %RPD between MS and MSD, were within acceptable limits.

F. BLANK SPIKE (LCS)

Recoveries were within acceptable limits in the blank spike sample.

G. SAMPLE QUALITATIVE & QUANTITATIVE VERIFICATION

No positive results for target compounds in field samples were reported. Reported %D values between analytical columns were below 40% for positive compounds in the matrix and blank spike samples.

PCB ANALYSIS
CALIBRATION SUMMARY
SW-846 Method 8082

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2287

A. INITIAL CALIBRATION

CALIBRATION DATE :	04/09/05
FILE IDs :	4PC1858 - 62
Mean RSD < 20%?	Yes
Lin Regression r^2>0.995?	n/a
2nd-order COD >0.990 ?	n/a

B. INITIAL CALIBRATION VERIFICATION

Daily, before sample analysis; all analytes must recover within + 15% of true value.

FILE ID : CCAL01
DATE : 04/15/05
OUTLIERS : none

ACTION: If outliers - and unsuccessful or no CA = apply R to all results for specific analytes associated with the calibration.

C. CONTINUING CALIBRATIONS (CCV)

CALIBRATION DATE :	04/16/05	04/16/05	04/16/05
FILE IDs :	CCAL02	CCAL03	CCAL04
After every 10 samples?	Yes	Yes	Yes
At end of sequence?	Yes	Yes	Yes
|%D| < 15?	No	No	No
If No, list compounds ===>	AR1016 (-)	AR1260 (+)	AR1016 (+) AR1260 (+)
Affects:	IS-SD-1	IS-SD-2, -3, -DUP	

QA Action : Qualify AR1016 'UJ' in all samples; potential negative bias suggested. **FOOTNOTE = 1**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	40
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2128.D	1	4/13/05	4/15/05	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	4.2	U	28	4.2	ug/Kg
11104-28-2	AROCLOR 1221	6.5	U	28	6.5	ug/Kg
11141-16-5	AROCLOR 1232	9.7	U	28	9.7	ug/Kg
53469-21-9	AROCLOR 1242	8.6	U	28	8.6	ug/Kg
12672-29-6	AROCLOR 1248	4.2	U	28	4.2	ug/Kg
11097-69-1	AROCLOR 1254	2.7	U	28	2.7	ug/Kg
11096-82-5	AROCLOR 1260	7.0	U	28	7.0	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	15.76	79 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	17.62	88 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	51
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2135.D	1	4/13/05	4/16/05	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	5.1	U J	34	5.1	ug/Kg
11104-28-2	AROCLOR 1221	8.0	U	34	8.0	ug/Kg
11141-16-5	AROCLOR 1232	12	U	34	12	ug/Kg
53469-21-9	AROCLOR 1242	11	U	34	11	ug/Kg
12672-29-6	AROCLOR 1248	5.2	U	34	5.2	ug/Kg
11097-69-1	AROCLOR 1254	3.4	U	34	3.4	ug/Kg
11096-82-5	AROCLOR 1260	8.5	U	34	8.5	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	16.33	82 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	17.52	88 %	58 - 125		SPK: 20

a-6 04/28/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	32
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2136.D	1	4/13/05	4/16/05	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.7	U J	25	3.7	ug/Kg
11104-28-2	AROCLOR 1221	5.7	U	25	5.7	ug/Kg
11141-16-5	AROCLOR 1232	8.5	U	25	8.5	ug/Kg
53469-21-9	AROCLOR 1242	7.6	U	25	7.6	ug/Kg
12672-29-6	AROCLOR 1248	3.7	U	25	3.7	ug/Kg
11097-69-1	AROCLOR 1254	2.4	U	25	2.4	ug/Kg
11096-82-5	AROCLOR 1260	6.1	U	25	6.1	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	17.08	85 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	16.84	84 %	58 - 125		SPK: 20

QUAL FOOTNOTE

06/23/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	33
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2137.D	1	4/13/05	4/16/05	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.7	U	25	3.7	ug/Kg
11104-28-2	AROCLOR 1221	5.8	U	25	5.8	ug/Kg
11141-16-5	AROCLOR 1232	8.7	U	25	8.7	ug/Kg
53469-21-9	AROCLOR 1242	7.7	U	25	7.7	ug/Kg
12672-29-6	AROCLOR 1248	3.8	U	25	3.8	ug/Kg
11097-69-1	AROCLOR 1254	2.5	U	25	2.5	ug/Kg
11096-82-5	AROCLOR 1260	6.2	U	25	6.2	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	16.43	82 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	17.46	87 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

INORGANICS / METALS ANALYSIS
QC PARAMETER / CALIBRATION / QUALIFIER SUMMARY

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2287

Review Level: NYSDEC 'DUSR Laboratory: ChemTech, NJ

A. CALIBRATION

	ICV	CCV	Outliers ?
ICP & AA Analytes	90 -110%	90 -110%	none
Mercury	80 - 120%	80 - 120%	none
Cyanide	85 - 115%	85 - 115%	none
Mercury	Blank + 5 Standards, r^2 >/ = 0.995		none
Cyanide	Blank + 4 Standards, r^2 >/ = 0.995		none

CRDL Standards		% Recovery	Outliers ?
ICP Analytes	CRI	70 - 130%	none
Mercury	CRA	70 - 130%	none
Cyanide	Mid-Range	70 - 130%	none

B. BLANKS

		Outliers ?
ICB / CCB	< RL	none
PrepBlank	< RL	none

C. ICP INTERELEMENT CORRECTION (ICSA / ICSAB)

		Outliers ?
ICSA	<2x RL for RL <10 ug/L	n/a
ICSAB	80 - 120% recovery	none

D. MATRIX SPIKE IS-ASH-1 IS-SD-1 Outliers ?

75 - 125% recovery (if sample conc. < 4x spike conc.) Cr (175, 176, 171, 171%)

QA Action: Recovery above 125% : qualify positives 'J'; positive bias suggested due to matrix effects. **FOOTNOTE = 1**

E. POST-DIGESTION SPIKE (PDS) Outliers ?

ICP [only required for non-compliant matrix spike analytes] Cr (172, 175%) **FOOTNOTE = 2**

75 - 125% recovery; PDS conc. should be 2x RL or 2x sample conc., whichever is >.

F. MATRIX DUPLICATE IS-ASH-1 IS-SD-1 Outliers ?

Max. 100% RPD * for non-aqueous samples > 5x CRDL none

Max. (+/-) CRDL value if either sample < 5x CRDL none

* EPA Region II data validation guidance uses a 100% RPD threshhold for non-aqueous data qualification.

G. LABORATORY CONTROL SAMPLE Outliers ?

Recovery within range for non-aqueous samples

Ba	191 mg/Kg vs. 60 upper limit
Ca	1036 mg/Kg vs. 600 upper limit
Cr	74 mg/Kg vs. 48 upper limit

QA Action: Qualify positives for Ba, Ca, Cr 'J'; positive bias suggested due to instrument effects. **FOOTNOTE = 3**

H. SERIAL DILUTION SAMPLE IS-ASH-1 IS-SD-1 Outliers ? QA Action

Maximum 10.0% D if undiluted sample > 10x MDL See below See below

There were a number of analytes recovering outside the acceptable range in the serial dilutions reported. Please refer to the attached serial dilution summary forms for details; applicable data qualifiers were assigned to all samples of a similar matrix type (i.e., ash or soil) as the associated serial dilution samples.

QA Action: Precision value >10.0%D : qualify positives >10x MDL 'J'; negative bias suggested, since undiluted sample results were below dilution sample results. **FOOTNOTE = 4**

I. RESULTS >MDL <RL

Positive analyte concentrations above MDL values but below RL values were qualified 'J' by the laboratory, as quantitatively estimated values. No bias direction is inferred. **FOOTNOTE = 5**

INORGANICS / METALS ANALYSIS
QC PARAMETER / CALIBRATION / QUALIFIER SUMMARY

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2287

Review Level: NYSDEC 'DUSR Laboratory: ChemTech, NJ

J. NYSDEC-ASP HOLDING TIMES (from VTSR)

Metals except mercury	6 months
Mercury	26 days
Cyanide	12 days

All samples were analyzed within allowable holding times.

K. VERIFICATION OF INSTRUMENTAL PARAMETERS

	Frequency	Outliers ?
Method / Instrument Detection Limits	every 6 months	none
Interelement Correction Factors	every 6 months	none
Linear Range Analysis	every 6 months	none

L. VERIFICATION OF REPORTED RESULTS

Sample ID : IS-ASH-1 Analyte: Pb

Reported value: 19300 mg/Kg

Note: Cu, Pb & Zn analyzed at 100x dilution

$$\text{mg/Kg} = \frac{\text{conc. mg/L}}{\text{wet wgt, gm}} \times \frac{\text{final volume, mL}}{\text{\%solids/100}}$$

$$\text{mg/Kg} = \frac{124.44}{1.00} \times \frac{100}{0.644} = 19331.6$$

Result verified ? Yes

Reported % solids: 64.4

$$\text{\% solids} = \frac{\text{dry wgt., gm}}{\text{wet wgt., gm}} \times 100$$

$$\text{\% solids} = \frac{4.30}{6.68} \times 100 = 64.37$$

Result verified ? Yes

Metals

- 9 -

SERIAL DILUTION SAMPLE SUMMARY

Client: Malcolm Pirnie **SDG No.:** T2287

Contract: Malcolm Pirnie **Lab Code:** CHEMED **Case No.:** T2287 **SAS No.:** T2287

Matrix: ~~WATER~~ **Level:** LOW **Client ID:** IS-ASH1L

Sample ID: T2287-08 MCH **Serial Dilution ID:** T2287-08L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Aluminum	79012.31		68280.50		13.6		10.00 %	P
Antimony	62.87		49.70	J	20.9		10.00 %	P
Arsenic	62.97		41.23	J	34.5		10.00 %	P
Barium	5137.65		4527.95		11.9		10.00 %	P
Beryllium	1.55	J	1.07	U	100.0		10.00 %	P
Cadmium	47.07		36.53		22.4		10.00 %	P
Calcium	259108.10		246024.80		5.0		10.00 %	P
Chromium	334.50		316.50		5.4		10.00 %	P
Cobalt	44.66	J	38.00	J	14.9		10.00 %	P
Copper	363457.00		362727.50		0.2		10.00 %	P
Iron	357829.80		332593.50		7.1		10.00 %	P
Lead	124440.50		126555.00		1.7		10.00 %	P
Magnesium	22490.64		20935.30	J	6.9		10.00 %	P
Manganese	3366.31		3563.18		5.8		10.00 %	P
Mercury	1.36		1.62		19.1		10.00 %	CV
Nickel	271.31		258.78		4.6		10.00 %	P
Potassium	3569.95	J	2626.63	J	26.4		10.00 %	P
Selenium	5.24	U	5.24	U			10.00 %	P
Silver	10.53		3.38	U	100.0		10.00 %	P
Sodium	196075.90		186126.60		5.1		10.00 %	P
Thallium	6.52	J	5.78	U	100.0		10.00 %	P
Vanadium	197.13		173.00	J	12.2		10.00 %	P
Zinc	703958.50		752200.00		6.9		10.00 %	P

Metals

- 9 -

SERIAL DILUTION SAMPLE SUMMARY

Client: Malcolm Pirnie **SDG No.:** T2287

Contract: Malcolm Pirnie **Lab Code:** CHEMED **Case No.:** T2287 **SAS No.:** T2287

Matrix: WATER **Level:** LOW **Client ID:** IS-SD-1L

Sample ID: T2287-01 SD-1 **Serial Dilution ID:** T2287-01L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Aluminum	47495.86		42273.57		11.0		10.00 %	P
Antimony	6.60	U	6.60	U			10.00 %	P
Arsenic	36.66		31.78	J	13.3		10.00 %	P
Barium	450.91		393.75	J	12.7		10.00 %	P
Beryllium	3.01	J	1.07	U	100.0		10.00 %	P
Cadmium	0.99	U	0.99	U			10.00 %	P
Calcium	111057.50		104016.80		6.3		10.00 %	P
Chromium	84.92		79.35		6.6		10.00 %	P
Cobalt	52.56		47.75	J	9.2		10.00 %	P
Copper	177.52		147.65		16.8		10.00 %	P
Iron	104448.40		97438.80		6.7		10.00 %	P
Lead	140.00		125.60		10.3		10.00 %	P
Magnesium	30918.33		28537.40		7.7		10.00 %	P
Manganese	4007.80		3753.20		6.4		10.00 %	P
Mercury	0.65		0.37	J	43.1		10.00 %	CV
Nickel	144.91		137.68	J	5.0		10.00 %	P
Potassium	5893.73		4200.63	J	28.7		10.00 %	P
Selenium	5.24	U	5.24	U			10.00 %	P
Silver	3.38	U	3.38	U			10.00 %	P
Sodium	1107.84	J	1778.73	J	60.6		10.00 %	P
Thallium	5.78	U	56.15		100.0		10.00 %	P
Vanadium	92.62		82.88	J	10.5		10.00 %	P
Zinc	726.46		680.55		6.3		10.00 %	P

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-1**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-01**	**Matrix:**	**SOIL**
		% Solids:	**59.60**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUAL FOOTN
7429-90-5	Aluminum	7970 J		mg/Kg	1.060	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-36-0	Antimony	0.945	U	mg/Kg	0.945	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-38-2	Arsenic	6.150		mg/Kg	0.398	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-39-3	Barium	75.7 J		mg/Kg	0.037	1	4/13/2005	4/13/2005	EPA SW-846 6010	3,4
7440-41-7	Beryllium	0.504	J	mg/Kg	0.007	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-43-9	Cadmium	0.077	U	mg/Kg	0.077	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-70-2	Calcium	18600 J		mg/Kg	0.062	1	4/13/2005	4/13/2005	EPA SW-846 6010	3
7440-47-3	Chromium	14.2 J	N	mg/Kg	0.159	1	4/13/2005	4/13/2005	EPA SW-846 6010	1,2,
7440-48-4	Cobalt	8.820		mg/Kg	0.133	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-50-8	Copper	29.8 J		mg/Kg	0.191	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7439-89-6	Iron	17500		mg/Kg	2.960	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-92-1	Lead	23.5 J		mg/Kg	0.173	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7439-95-4	Magnesium	5190		mg/Kg	0.027	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-96-5	Manganese	672		mg/Kg	1.350	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.055		mg/Kg	0.010	1	4/15/2005	4/16/2005	EPA SW-846 7471	
7440-02-0	Nickel	24.3		mg/Kg	0.253	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-09-7	Potassium	989 J	N	mg/Kg	5.520	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7782-49-2	Selenium	0.525	U	mg/Kg	0.525	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-22-4	Silver	0.176	U	mg/Kg	0.176	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-23-5	Sodium	186	J	mg/Kg	62.4	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-28-0	Thallium	0.554	U	mg/Kg	0.554	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-62-2	Vanadium	15.5 J		mg/Kg	0.171	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-66-6	Zinc	122		mg/Kg	0.094	1	4/13/2005	4/13/2005	EPA SW-846 6010	

Comments:

06/23/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-2**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-02**	**Matrix:**	**SOIL**
		% Solids:	**49.20**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUALIFIER FOOT
7429-90-5	Aluminum	11400 J		mg/Kg	1.280	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-36-0	Antimony	3.880	J	mg/Kg	1.140	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-38-2	Arsenic	35.0		mg/Kg	0.482	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-39-3	Barium	158 J		mg/Kg	0.045	1	4/13/2005	4/13/2005	EPA SW-846 6010	4, 3
7440-41-7	Beryllium	1.010	J	mg/Kg	0.008	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-43-9	Cadmium	1.250		mg/Kg	0.093	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-70-2	Calcium	56700 J		mg/Kg	0.075	1	4/13/2005	4/13/2005	EPA SW-846 6010	3
7440-47-3	Chromium	45.7 J	N	mg/Kg	0.193	1	4/13/2005	4/13/2005	EPA SW-846 6010	1, 2, 3
7440-48-4	Cobalt	12.2		mg/Kg	0.161	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-50-8	Copper	160 J		mg/Kg	0.232	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7439-89-6	Iron	99000		mg/Kg	3.580	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-92-1	Lead	345 J		mg/Kg	0.209	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7439-95-4	Magnesium	9050		mg/Kg	0.033	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-96-5	Manganese	1180		mg/Kg	1.630	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.129 J		mg/Kg	0.012	1	4/15/2005	4/16/2005	EPA SW-846 7471	4
7440-02-0	Nickel	34.2		mg/Kg	0.307	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-09-7	Potassium	1870 J	N	mg/Kg	6.680	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7782-49-2	Selenium	0.800	J	mg/Kg	0.636	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-22-4	Silver	1.370	J	mg/Kg	0.213	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-23-5	Sodium	1640		mg/Kg	75.5	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-28-0	Thallium	1.710	J	mg/Kg	0.671	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-62-2	Vanadium	19.4 J		mg/Kg	0.207	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-66-6	Zinc	671		mg/Kg	0.114	1	4/13/2005	4/13/2005	EPA SW-846 6010	

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-3**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-03**	**Matrix:**	**SOIL**
		% Solids:	**68.20**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	
7429-90-5	Aluminum	7220 J		mg/Kg	0.904	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-36-0	Antimony	0.809	U	mg/Kg	0.809	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-38-2	Arsenic	5.150		mg/Kg	0.341	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-39-3	Barium	61.0 J		mg/Kg	0.032	1	4/13/2005	4/13/2005	EPA SW-846 6010	4, 3
7440-41-7	Beryllium	0.443	J	mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-43-9	Cadmium	0.066	U	mg/Kg	0.066	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-70-2	Calcium	16100 J		mg/Kg	0.053	1	4/13/2005	4/13/2005	EPA SW-846 6010	3
7440-47-3	Chromium	12.2 J	~~N~~	mg/Kg	0.137	1	4/13/2005	4/13/2005	EPA SW-846 6010	1, 2, 3
7440-48-4	Cobalt	7.690		mg/Kg	0.114	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-50-8	Copper	25.1 J		mg/Kg	0.164	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7439-89-6	Iron	15500		mg/Kg	2.530	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-92-1	Lead	22.7 J		mg/Kg	0.148	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7439-95-4	Magnesium	4780		mg/Kg	0.023	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-96-5	Manganese	546		mg/Kg	1.150	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.054		mg/Kg	0.009	1	4/15/2005	4/16/2005	EPA SW-846 7471	
7440-02-0	Nickel	21.5		mg/Kg	0.217	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-09-7	Potassium	1040 J	~~N~~	mg/Kg	4.730	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7782-49-2	Selenium	0.450	U	mg/Kg	0.450	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-22-4	Silver	0.151	U	mg/Kg	0.151	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-23-5	Sodium	244	J	mg/Kg	53.4	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-28-0	Thallium	0.668	J	mg/Kg	0.474	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-62-2	Vanadium	14.1 J		mg/Kg	0.147	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-66-6	Zinc	113		mg/Kg	0.081	1	4/13/2005	4/13/2005	EPA SW-846 6010	

Comments:

5
04/23/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-DUP**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-04**	**Matrix:**	**SOIL**
		% Solids:	**67.00**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUALIFIER (FOOTN
7429-90-5	Aluminum	12500 J		mg/Kg	0.930	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-36-0	Antimony	53.7		mg/Kg	0.832	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-38-2	Arsenic	12.5		mg/Kg	0.350	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-39-3	Barium	199 J		mg/Kg	0.033	1	4/13/2005	4/13/2005	EPA SW-846 6010	3,4
7440-41-7	Beryllium	0.926		mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-43-9	Cadmium	1.280		mg/Kg	0.068	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-70-2	Calcium	36900 J		mg/Kg	0.055	1	4/13/2005	4/13/2005	EPA SW-846 6010	3
7440-47-3	Chromium	29.4 J	N	mg/Kg	0.140	1	4/13/2005	4/13/2005	EPA SW-846 6010	1,2,3
7440-48-4	Cobalt	10.4		mg/Kg	0.117	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-50-8	Copper	90.2 J		mg/Kg	0.168	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7439-89-6	Iron	32900		mg/Kg	2.600	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-92-1	Lead	3580 J		mg/Kg	0.152	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7439-95-4	Magnesium	10500		mg/Kg	0.024	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-96-5	Manganese	1300		mg/Kg	1.190	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.106		mg/Kg	0.009	1	4/15/2005	4/16/2005	EPA SW-846 7471	
7440-02-0	Nickel	28.0		mg/Kg	0.223	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-09-7	Potassium	2270 J	N	mg/Kg	4.860	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7782-49-2	Selenium	1.300	J	mg/Kg	0.463	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-22-4	Silver	1.470	J	mg/Kg	0.155	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-23-5	Sodium	1330		mg/Kg	54.9	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-28-0	Thallium	0.978	J	mg/Kg	0.488	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-62-2	Vanadium	21.9 J		mg/Kg	0.151	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-66-6	Zinc	436		mg/Kg	0.083	1	4/13/2005	4/13/2005	EPA SW-846 6010	

Comments:

4/23/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-ASH1**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-08**	**Matrix:**	**SOIL**
		% Solids:	**64.40**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method	QUALIFIER CODE(S)
7429-90-5	Aluminum	12300	J		mg/Kg	0.977	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-36-0	Antimony	9.760			mg/Kg	0.874	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-38-2	Arsenic	9.780	J		mg/Kg	0.368	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-39-3	Barium	798	J		mg/Kg	0.034	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-41-7	Beryllium	0.240	J		mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-43-9	Cadmium	7.310	J		mg/Kg	0.071	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-70-2	Calcium	40200			mg/Kg	0.057	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-47-3	Chromium	51.9	J	N	mg/Kg	0.148	1	4/13/2005	4/13/2005	EPA SW-846 6010	1, 2, 3
7440-48-4	Cobalt	6.930	J		mg/Kg	0.123	1	4/13/2005	4/13/2005	EPA SW-846 6010	5, 4
7440-50-8	Copper	56400		D	mg/Kg	17.7	100	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-89-6	Iron	55600			mg/Kg	2.740	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-92-1	Lead	19300		D	mg/Kg	16.0	100	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-95-4	Magnesium	3490			mg/Kg	0.025	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-96-5	Manganese	523			mg/Kg	1.250	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.106			mg/Kg	0.009	1	4/15/2005	4/16/2005	EPA SW-846 7471	
7440-02-0	Nickel	42.1			mg/Kg	0.234	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-09-7	Potassium	554	J	N	mg/Kg	5.110	1	4/13/2005	4/13/2005	EPA SW-846 6010	6
7782-49-2	Selenium	0.672	J		mg/Kg	0.486	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-22-4	Silver	1.640			mg/Kg	0.163	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-23-5	Sodium	30400			mg/Kg	57.7	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-28-0	Thallium	1.010	J		mg/Kg	0.512	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-62-2	Vanadium	30.6	J		mg/Kg	0.158	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-66-6	Zinc	109000		D	mg/Kg	8.700	100	4/13/2005	4/13/2005	EPA SW-846 6010	

Comments:

4/23/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/11/2005
Client Sample ID:	IS-ASH2	**SDG No.:**	T2287
Lab Sample ID:	T2287-11	**Matrix:**	SOIL
		% Solids:	69.10

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUAL FOOTN
7429-90-5	Aluminum	11600 J		mg/Kg	0.910	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-36-0	Antimony	8.260	J	mg/Kg	0.815	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-38-2	Arsenic	13.3 J		mg/Kg	0.343	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-39-3	Barium	395 J		mg/Kg	0.032	1	4/13/2005	4/13/2005	EPA SW-846 6010	4, 3
7440-41-7	Beryllium	1.090		mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-43-9	Cadmium	3.290		mg/Kg	0.067	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-70-2	Calcium	47800 J		mg/Kg	0.054	1	4/13/2005	4/13/2005	EPA SW-846 6010	3
7440-47-3	Chromium	26.3 J	N	mg/Kg	0.137	1	4/13/2005	4/13/2005	EPA SW-846 6010	1, 2,
7440-48-4	Cobalt	7.700 J		mg/Kg	0.114	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-50-8	Copper	179		mg/Kg	0.165	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-89-6	Iron	43200		mg/Kg	2.550	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-92-1	Lead	479		mg/Kg	0.149	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-95-4	Magnesium	7990		mg/Kg	0.023	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-96-5	Manganese	744		mg/Kg	1.160	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.127		mg/Kg	0.008	1	4/15/2005	4/16/2005	EPA SW-846 7471	
7440-02-0	Nickel	26.0		mg/Kg	0.219	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-09-7	Potassium	2440 J	N	mg/Kg	4.760	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7782-49-2	Selenium	0.532	J	mg/Kg	0.453	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-22-4	Silver	0.695	J	mg/Kg	0.152	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-23-5	Sodium	6040		mg/Kg	53.8	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-28-0	Thallium	1.690		mg/Kg	0.478	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-62-2	Vanadium	16.9 J		mg/Kg	0.148	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-66-6	Zinc	2050		mg/Kg	0.081	1	4/13/2005	4/13/2005	EPA SW-846 6010	

Comments:

04/23/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-ASH3**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-12**	**Matrix:**	**SOIL**
		% Solids:	**80.30**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUALIFIER FOOTNOTE
7429-90-5	Aluminum	9270 J		mg/Kg	0.776	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-36-0	Antimony	1.280	J	mg/Kg	0.694	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-38-2	Arsenic	13.1 J		mg/Kg	0.292	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-39-3	Barium	106 J		mg/Kg	0.027	1	4/13/2005	4/13/2005	EPA SW-846 6010	3, 4
7440-41-7	Beryllium	0.694		mg/Kg	0.005	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-43-9	Cadmium	0.586	J	mg/Kg	0.057	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-70-2	Calcium	44800		mg/Kg	0.046	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-47-3	Chromium	43.3 J	N	mg/Kg	0.117	1	4/13/2005	4/13/2005	EPA SW-846 6010	1, 2, 3
7440-48-4	Cobalt	6.860 J		mg/Kg	0.097	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-50-8	Copper	72.0		mg/Kg	0.141	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-89-6	Iron	31600		mg/Kg	2.170	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-92-1	Lead	238		mg/Kg	0.127	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-95-4	Magnesium	6340		mg/Kg	0.020	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-96-5	Manganese	749		mg/Kg	0.989	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.052		mg/Kg	0.007	1	4/15/2005	4/16/2005	EPA SW-846 7471	
7440-02-0	Nickel	20.6		mg/Kg	0.186	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-09-7	Potassium	1250 J	N	mg/Kg	4.060	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7782-49-2	Selenium	0.386	U	mg/Kg	0.386	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-22-4	Silver	0.129	U	mg/Kg	0.129	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-23-5	Sodium	556	J	mg/Kg	45.8	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-28-0	Thallium	2.950		mg/Kg	0.407	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-62-2	Vanadium	20.1 J		mg/Kg	0.126	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-66-6	Zinc	451		mg/Kg	0.069	1	4/13/2005	4/13/2005	EPA SW-846 6010	

Comments:

4/13/2005

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/11/2005
Client Sample ID:	IS-ASHDUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-13	**Matrix:**	SOIL
		% Solids:	70.10

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	QUALIFIER CODE
7429-90-5	Aluminum	9650 J		mg/Kg	0.897	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-36-0	Antimony	0.803	U	mg/Kg	0.803	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-38-2	Arsenic	7.280 J		mg/Kg	0.338	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-39-3	Barium	676 J		mg/Kg	0.031	1	4/13/2005	4/13/2005	EPA SW-846 6010	3, 4
7440-41-7	Beryllium	0.202	J	mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-43-9	Cadmium	5.680 J		mg/Kg	0.066	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-70-2	Calcium	36700 J		mg/Kg	0.053	1	4/13/2005	4/13/2005	EPA SW-846 6010	3
7440-47-3	Chromium	44.9 J	N	mg/Kg	0.136	1	4/13/2005	4/13/2005	EPA SW-846 6010	1, 2, 3
7440-48-4	Cobalt	5.680	J	mg/Kg	0.113	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-50-8	Copper	39300	D	mg/Kg	16.3	100	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-89-6	Iron	45200		mg/Kg	2.510	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-92-1	Lead	23600	D	mg/Kg	14.7	100	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-95-4	Magnesium	2900		mg/Kg	0.023	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-96-5	Manganese	405		mg/Kg	1.140	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7439-97-6	Mercury	0.051		mg/Kg	0.008	1	4/15/2005	4/16/2005	EPA SW-846 7471	
7440-02-0	Nickel	31.0		mg/Kg	0.215	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-09-7	Potassium	433	J N	mg/Kg	4.690	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7782-49-2	Selenium	0.447	U	mg/Kg	0.447	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-22-4	Silver	0.758	J	mg/Kg	0.150	1	4/13/2005	4/13/2005	EPA SW-846 6010	5
7440-23-5	Sodium	39900		mg/Kg	53.0	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-28-0	Thallium	2.120		mg/Kg	0.471	1	4/13/2005	4/13/2005	EPA SW-846 6010	
7440-62-2	Vanadium	23.7 J		mg/Kg	0.146	1	4/13/2005	4/13/2005	EPA SW-846 6010	4
7440-66-6	Zinc	146000	D	mg/Kg	7.990	100	4/13/2005	4/13/2005	EPA SW-846 6010	

Comments:

Anne 10/28/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
% Solids:	59.60		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.839	U	0.839	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
% Solids:	49.20		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	1.016	U	1.016	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
% Solids:	68.20		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.733	U	0.733	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
% Solids:	59.60		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.839	U	0.839	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-ASH1	**SDG No.:**	T2287
Lab Sample ID:	T2287-08	**Matrix:**	SOIL
% Solids:	64.40		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.776	U	0.776	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-ASH2	**SDG No.:**	T2287
Lab Sample ID:	T2287-11	**Matrix:**	SOIL
% Solids:	69.10		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.724	U	0.724	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-ASH3	**SDG No.:**	T2287
Lab Sample ID:	T2287-12	**Matrix:**	SOIL
% Solids:	80.30		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.623	U	0.623	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-ASHDUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-13	**Matrix:**	SOIL
% Solids:	70.10		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.713	U	0.713	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

June 30, 2005

Malcolm Pirnie, Inc.
Att: Mr. James Richert
40 Centre Drive
Orchard Park, New York 14127-4102

Re: Former Incinerator Site, Lackawanna, NY Data Deliverables;
Aqueous Samples Collected April 29, 2005

Malcolm Pirnie Project No. : 4852-001

Dear Mr. Richert,

Enclosed with this cover letter are the results of our data review of the laboratory deliverables pertaining to the referenced site. The review was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review ('DUSR') process.

Site Name: Former Incinerator Site, Lackawanna, NY

Fractions:

Volatile Organics		Laboratory:	ChemTech, New Jersey
Semi-volatile Organics		Matrix:	Aqueous
Pesticide & PCB Organics		Lab No.:	T2648
TAL Metals + Cyanide			

Reviewer: Chris Taylor

Prepared By: Environmental Quality Associates, Inc.

SECTION A
Sample Information

The above-noted laboratory project was analyzed by ChemTech, Mountainside, NJ. Samples were collected April 29, 2005, and received at the laboratory (VTSR) on May 03, 2005. Samples were analyzed for volatile organics (8), semivolatile organics (7), chlorinated pesticides (7), polychlorinated biphenyls ('PCBs', 7), TAL metals (7) and cyanide (7). No sample temperature was listed on the chain-of-custody (COC), but the COC did indicate that ice was present in the sample cooler. Volatile samples were at acceptable aqueous preserved pH levels (<2) per laboratory sample prep logs.

SECTION B
General Comments

Summary of data completeness and overall quality of data deliverables package
Data deliverables were complete as received.

Overall data quality

Data quality was acceptable, incorporating applied data qualifiers as detailed in the accompanying QC and calibration summary forms. No data rejections were necessary. Data qualifiers applied by the reviewer are accompanied by a supporting footnote which indicates the reason for the qualifier and any potential bias direction associated with the qualifier; each footnote is specific to the particular analytical fraction and associated QA review spreadsheets. It is noted that 'J' qualifiers applied by the laboratory to indicate a positive result >MDL but <RL are not footnoted by the data reviewer unless there is an additional qualifier affecting that particular analyte result. Also, all reported results are quantified at analyte method detection limit (MDL) levels, as opposed to practical quantitation limit (PQL or RL) concentrations, which is typically standard practice. The laboratory was contacted regarding this practice, and responded that project sensitivity limits for many analytes would not be covered at the PQL (RL) concentrations; therefore, the MDL values are reported as the non-detect levels, with any positive results above MDLs but below PQLs assigned a 'J' (estimated value) qualifier by the laboratory. This practice should have no deleterious effects on the overall data quality.

SECTION C
Volatile Organic Fraction

NYSDEC-ASP holding times from lab receipt to analysis were met for all samples.

Surrogate recoveries, blank spike recoveries, matrix spike and spike duplicate recoveries, duplicate precision values, instrument tune parameters and internal standard recoveries and retention times were within acceptable limits.

Percent RSD (%RSD) values for 17 target compounds exceeded the allowable maximum of 15.0% in the aqueous initial calibration (ICAL) of 04/20/05, and only six of these 17 were indicated as being calibrated via linear regression. Since no positives were reported, no data qualifiers were applicable due to these excursions. Continuing calibration (CCAL) on 05/10/05 exhibited RRF %D values for several target analytes which exceeded 20%, with responses for these compounds both negative and positive relative to the ICAL average RRFs ; only methylcyclohexane RRF was negative relative to ICAL RRF. This compound was qualified 'UJ' in all field samples.

The aqueous method blank exhibited methylene chloride at low level (1.6 J ug/L); since no positives were reported, no QA action was necessary.

SECTION D
Semi-volatile Organics

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples. Instrument tune parameters were within acceptable limits.

Surrogate recoveries, and internal standard recoveries and retention times were within acceptable limits for all samples.

Sample MW-1 matrix spike recoveries were below acceptable limits for isophorone, bis(2-chloroethoxy)methane, 4-bromophenyl-phenylether and hexachlorobenzene. These compounds were qualified 'UJ' in the native sample only, with negative bias suggested due to matrix effects. Also, bis(2-chloroethoxy)methane and dimethylphthalate recovered below limits in the blank spike (LCS) sample, and were qualified 'UJ' in all samples, with negative bias suggested, since the LCS is prepared in a clean matrix free of interferences.

The method blank was free of target compound contamination. An aldol-condensate by-product of acetone (4-OH-4-methyl-2-pentanone) was present in the method blank, at 15 J ug/L. This non-target analyte was red-lined and rejected ('R') when present in associated field samples.

Percent RSD (%RSD) values for 17 target compounds exceeded the allowable maximum of 15.0% in the ICAL of 04/26/05, and none of these 17 were indicated as being calibrated via linear regression. Since no positives were reported, no data qualifiers were applicable due to these excursions.
CCAL on 05/07/05 exhibited RRF %D values for seven target analytes and two surrogate compounds (both phenolic compounds) which exceeded 20%, with responses for these compounds all negative relative to the ICAL average RRFs (see attached calibration summary). The target compounds were qualified 'UJ' in all field samples, with negative bias suggested. Further, based on low response of the two acid fraction surrogates, all target phenolic compounds were qualified 'UJ', with negative bias suggested, in all field samples.

SECTION E
Chlorinated Pesticides

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Blank spike recoveries were within acceptable limits, and the method (prep) blank was free of contamination.

Surrogate recoveries for decachlorobiphenyl (DCBP) were below acceptable limits in all SDG samples except MW-3; recoveries of DCBP in the spike and spike duplicate of MW-1 were also low. Since only one of the two surrogates recovered low, no QA action was taken.

Recoveries of all spiked compounds in MW-1 were low. Reported results of all target compounds in the native sample only were qualified 'UJ', with negative bias suggested.

No indication of DDT / Endrin breakdown standard assessment was found. This is a requirement of SW-846 Method 8081 (Sect. 8.4.6). Since no positives for these compounds were reported, no data qualifiers were assigned. The laboratory subsequently furnished documentation indicating that DDT/Endrin assessments are being performed; however, these data are typically not included in the deliverables sets for this project.

Continuing calibration standard %D value for alpha-BHC exceeded 15.0%, but was positive (i.e., more sensitive) relative to the corresponding initial calibration average RRF value. Since no positives for this compound were reported, no QA action was necessary.

No positive pesticide detections were found in associated field samples.

SECTION F
Polychlorinated Biphenyls (PCBs)

NYSDEC-ASP holding times from lab receipt to extraction, and from extraction to analysis, were met for all samples.

Recoveries of surrogate decachlorobiphenyl (DCBP) were low in samples MW-1, MW-2 and Field Blank. Since DCBP is directly representative of the Aroclors, all reported target Aroclors in these samples were qualified 'UJ', with negative bias suggested.

The method (prep) blank was free of contamination. Blank spike recoveries were within acceptable limits.

Aroclor 1260 recovered below acceptable limits in the matrix spike (55/60%) and spike duplicate (55/60%) of sample MW-1; therefore, reported results for this Aroclor were qualified 'UJ' in the native (unspiked) sample only. Negative bias is suggested.

Continuing calibration standard %D values exceeded 15.0%, and were negative (i.e., less sensitive) relative to the corresponding initial calibration average RRF values for Aroclor-1260 in the opening calibration on 05/13/05. Reported results for this analyte in all samples were qualified 'UJ', with negative bias suggested.

No positive PCB detections were found.

SECTION G
Metals / Wet Chemistry

NYSDEC-ASP holding times from lab receipt to analysis, were met for all samples.

Spike recoveries for potassium were above acceptable limits in the MS/MSD [MW-1 ; 163%, 161%]. All positive results for K were qualified 'J' in all samples, with positive bias suggested due to matrix effects. Post-digestion spike recoveries for K were also above acceptable limits (163%).
Spike recoveries for barium, chromium, iron and manganese in both MS and MSD were below 75% (9, 9%; 43, 43%; 73, 71%; 73, 71%); both positive and non-detect results for Ba, Cr, Fe and Mn were qualified 'UJ' or 'J', with negative bias suggested. For Ba, significant matrix suppression and therefore significant negative bias is suggested due to the very low recoveries exhibited. Also, post-digestion spike (PDS) recoveries for all above analytes were outside acceptable limits. In the case of chromium, which showed PDS recovery of 87%, it is noted that the PDS concentration added was 400 ppb, while the native sample Cr concentration was at 3 ppb; therefore, the reported acceptable recovery is questionable due to the relative high concentration added.

It is noted that acceptable spike recovery ranges were listed by the laboratory as 80% to 120%. The acceptance range used by the reviewer for data qualification was from 75% to 125%, which is 'standard industry practice' for metals analysis spike recovery, as defined by both EPA CLP and SW-846 methods, and NYSDEC-ASP protocols. It is also noted that EPA Region II data validation guidance for aqueous samples of 50% RPD between matrix duplicate sample results was used as a qualification threshold for analytes with %RPD criteria based on concentration.

The serial-dilution sample precision values for barium, cobalt, potassium, sodium and zinc exceeded the 10.0%D limit in the reported serial dilution sample. Positive results for these analytes which exceeded 10x analyte MDL values were qualified 'J'. It is noted that the laboratory did not qualify any reported results on the basis of serial-dilution %D exceedances. The data user is directed to the serial dilution summary forms which have been appended to the inorganics QC summary forms for specific details and linkages.

NYSDEC-ASP holding times and QC and calibration parameters for wet-chemistry analyte cyanide were within applicable limits; no data qualifiers were necessary for this analyte.

SECTION H
Overall Recommendations

The results of the review and qualification process for the above analytical fractions and associated samples are summarized on the attached QC and Calibration summary tables for each specific analytical fraction, in order to facilitate the end-user's' review of these data. Data qualifiers have been applied directly to the laboratory Form 1s, with associated numeric footnotes which are detailed in the corresponding QC / Calibration summaries.

Very truly yours,
Environmental Quality Associates, Inc.

Chris W. Taylor
Vice President

/cwt

Attachments

VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2648

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	10 DAYS MAX. FROM VTSR TO ANALYSIS, IF PRESERVED TO pH <2 & 4 DEGREES C
AQUEOUS MATRIX:	7 DAYS MAX. FROM VTSR TO ANALYSIS, IF NOT PRESERVED TO pH <2 & 4 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAXIMUM FROM VTSR TO ANALYSIS, IF PRESERVED TO 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	7 DAYS MAXIMUM FROM VTSR TO ANALYSIS, IF NOT PRESERVED TO 4 +/- 2 DEGREES C

All samples were analyzed within 7 days of VTSR.

Note: *No sample temperatures were recorded on the COC. Ice was noted as being present.*

B. METHOD BLANKS

Date Analyzed	Blank ID	File ID	Matrix	Analytes Present	Conc., ppb	Affected Samples
05/10/05	VBLK01	VH050933	water	methylene chloride	1.6 J	ALL

QA Action : No positives found in associated field samples; no QA action necessary.

C. SURROGATE RECOVERY

All reported surrogate recoveries were within acceptable limits

D. MATRIX SPIKE / DUPLICATE MW-1

All reported spike recoveries and precision values were within acceptable limits.

E. BLANK SPIKE VLCS01

All reported recoveries were within acceptable limits.

F. INTERNAL STANDARDS

IS recoveries & RTs for all SDG samples were within acceptable limits.

VOLATILE ORGANICS
CALIBRATION SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2648

A. INSTRUMENT PERFORMANCE (BFB TUNE)

TUNE DATE:	04/20/05	05/10/05
BFB INJECTION TIME:	13:33	4:40
LAST SAMPLE INJECTION:	16:27	9:37
m/z RATIOS ACCEPTABLE ?	Yes	Yes

B. INITIAL CALIBRATION

CALIBRATION DATE :	04/20/05	(aqueous)	
FILE IDs :	VH042002, 4, 6, 7, 8		
ALL target RRFs > 0.05 ?	Yes		
SPCC RRFs > min.values?	NO *	bromoform	*average RRF > 0.100
CCC %RSDs < 30% ?	Yes		
All Targets < 15% RSD?	No		
If No, regression r > 0.99 ?	6 of 17 targets >15%RSD by regress.		
(If No, list compounds)===>	See attached summary; 17 target compounds exhibited %RSD >15.0% but only 6 shown by regression		

ACTION
If average RRF <0.050, REJECT non-detects, and qualify positive values 'J' for the non-compliant compound(s).
If %RSD > 15%, and regression not used, qualify positive values 'J' for the non-compliant compound(s).

Note: No positive targets were reported in field samples; therefore, no QA action necessary.

C. CONTINUING CALIBRATIONS

CALIBRATION DATE :	05/10/05
FILE ID :	VH050932
SPCC RRFs > min. values?	Yes
CCC %Ds < 20% ?	Yes
All Targets < 20%D?	No
(If No, list compounds)===>	acetone +26% methyl acetate +27% methylcyclohexane -22% tetrachloroethene +37%
	Affects: all SDG samples

ACTION
If any CCAL RRF <0.050, REJECT non-detects, and qualify positive values 'J' for the non-compliant compound(s).
No positives were reported in field samples; qualify all values 'UJ' for negative RRFs for affected compound(s).

FOOTNOTE = 1

VOLATILE ORGANICS
CALIBRATION SUMMARY
SW-846, Method 8260

Client: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2648

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ

D. SAMPLE RESULT VERIFICATION

SAMPLE ID : T2648-02 **MS** (MW-1 matrix spike)
COMPOUND : chlorobenzene Int. Std. : chlorobenzene-d5
REPORTED VALUE : 46 ug/L

	Ax	Is	
ug/L =	454267	250	
	509773	0.968	5.00
	Ais	RRF	Vo

Aqueous Quantitation
(Ax) (Is) (DF)
(Ais) (RRF) (Vo)

ug/L = **46.0** Result verified ? **Yes**

Where :
Ax = area of characteristic quant ion (EICP) for target compound
Is = internal standard added, ng
Ais = area of characteristic quant ion (EICP) for internal standard
RRF = relative response factor of target compound from ambient purge calibration
Vo = sample volume purged, mL

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050938.D	1	5/10/2005	VH042005

QUAL FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050938.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.53	101 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	48.42	97 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.45	105 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	50.47	101 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	335314	6.41			
540-36-3	1,4-Difluorobenzene	581401	7.06			
3114-55-4	Chlorobenzene-d5	468057	10.74			
3855-82-1	1,4-Dichlorobenzene-d4	205886	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Wol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050941.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

QUAL FOOTNOTE

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

U Default

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050941.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.46	99 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	47.56	95 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.1	104 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	51.11	102 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	345173	6.42			
540-36-3	1,4-Difluorobenzene	598575	7.06			
3114-55-4	Chlorobenzene-d5	465289	10.73			
3855-82-1	1,4-Dichlorobenzene-d4	205484	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050942.D	1	5/10/2005	VH042005

QUAL FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Wol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050942.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.88	102 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	48.58	97 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.95	106 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	48.01	96 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	340369	6.41			
540-36-3	1,4-Difluorobenzene	595269	7.06			
3114-55-4	Chlorobenzene-d5	458608	10.74			
3855-82-1	1,4-Dichlorobenzene-d4	212804	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050943.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

QUAL FOOTNOTE

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CONF 05/12/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050943.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.49	99 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	49.13	98 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	53.94	108 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	50.48	101 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	330475	6.42			
540-36-3	1,4-Difluorobenzene	555497	7.06			
3114-55-4	Chlorobenzene-d5	450903	10.74			
3855-82-1	1,4-Dichlorobenzene-d4	184052	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050935.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050935.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.35	101 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	48.37	97 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.58	105 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	51.29	103 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	326220	6.42			
540-36-3	1,4-Difluorobenzene	569405	7.06			
3114-55-4	Chlorobenzene-d5	451311	10.73			
3855-82-1	1,4-Dichlorobenzene-d4	190444	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-08	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050936.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U J	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

QUAL FOOTNOTE

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

QA 5 06/28/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-08	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050936.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.99	100 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	49.59	99 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.22	104 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	49.61	99 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	291825	6.42			
540-36-3	1,4-Difluorobenzene	509090	7.06			
3114-55-4	Chlorobenzene-d5	398843	10.74			
3855-82-1	1,4-Dichlorobenzene-d4	162562	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

SEMI-VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW846 8270

CLIENT: Malcolm Pirnie, Inc. | Project: Incinerator Site, Lackawanna, NY | Project No.: 4852-001

Review Level: NYSDEC - DUSR | Laboratory: ChemTech, NJ | Lab Project No.: T2648

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

Samples were collected on 04/29/05 and received at the lab (VTSR) on 05/03/05. No temperature listed, but ice noted as present. Samples were extracted on 05/06/05 and analyzed on 05/08/05, meeting preservation and holding time requirements.

B. METHOD BLANKS

Blank ID	Date Analyzed	Matrix	Analytes Present	Conc., ppb	Affects
SBLK01	05/08/05	water	none	n/a	All SDG samples

Note: non-target (4-OH-4-Me-2-pentanone; aldol-condensate) present at RT=3.09 minutes, estimated concentration 15 ug/L

ACTION: If sample concentration >CRQL, but <10x Blank value, flag result with 'U'
If sample concentration <CRQL, and <10x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >10x Blank value, no qualification necessary
FOOTNOTE = 1 Red-line (Reject, 'R') 4-OH-4-Me-2-pentanone present in associated samples

FIELD BLANKS

The field blank submitted with this SDG was free of contamination.

C. SURROGATE RECOVERY

All reported surrogate recoveries were within acceptable limits.

D. MATRIX SPIKE / DUPLICATE MW-1

Sample ID	Spike Compound	Bias	Comments
MS & MSD	isophorone	low	Low recoveries are indicative of sample matrix effects.
MS & MSD	bis(2-Clethoxy)methane	low	
MS	4-Brphenyl-phenylether	low	
MS	hexaClbenzene	low	

QA Action: Qualify above compounds 'UJ' in native sample only ; negative bias suggested.
FOOTNOTE = 2

E. BLANK SPIKE (LCS)

Sample ID	Spike Compound	Bias
SLCS01	bis(2-Clethoxy)methane	low
	dimethylphthalate	low

QA Action: Qualify above compounds 'UJ' in all samples ; negative bias suggested.
FOOTNOTE = 3

F. INTERNAL STANDARDS (IS)

IS recoveries & RTs for all SDG samples were within acceptable limits.

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2648

Review Level: NYSDEC 'DUSR' Laboratory : ChemTech, NJ

A. INSTRUMENT PERFORMANCE (DFTPP TUNE)

TUNE DATE:	04/26/05	05/07/05
TUNE FILE:	BE021303	BE021766
DFTPP INJECTION TIME:	20:10	20:53
LAST INJECTION WITHIN 12-HR. WINDOW ?	Yes	Yes
m/z RATIOS ACCEPTABLE ?	Yes	Yes

B. INITIAL CALIBRATION

SPCC Compounds		
Base/Neutrals	CALIBRATION DATE :	04/26/05
N-Nitroso-di-n-propylamine	FILE ID:	BE021304 - 08
Hexachlorocyclopentadiene	SPCC RRFs >0.05 ?	Yes
Acids	CCC %RSDs < 30% ?	Yes
2,4-Dinitrophenol	All targets < 15% RSD ?	NO
4-Nitrophenol	(If No, list compounds) ==>	17 compounds exhibited %RSD >15.0% See attached calibration summary for details
MINIMUM RRF = 0.050		

CCC Compounds		
Base/Neutrals	Regression performed ?	NO
Acenaphthene	Correlation acceptable ?	n/a
1,4-Dichlorobenzene		
Hexachlorobutadiene		
Diphenylamine		
Di-n-octylphthalate		
Fluoranthene		
Benzo(a)pyrene		
Acids		
4-Chloro-3-methylphenol		
2,4-Dichlorophenol		
2-Nitrophenol		
Phenol		
Pentachlorophenol		
2,4,6-Trichlorophenol		
MAXIMUM %RSD = 30.0%		
MAXIMUM %D = 20.0%		

QA ACTION: No QA action necessary, since no positive target compounds were reported in field samples

NOTE: Linear or non-linear regression acceptable alternatives for compounds w/ %RSD >15%.
Linear regression r^2 values must be 0.995 minimum for these compounds.
Non-linear COD values must be 0.99 minimum for these compounds, with minimum 6-pts. for second-order, and minimum 7-pts. for third-order equations.

C. CONTINUING CALIBRATIONS

CALIBRATION DATE :	05/07/05	
FILE ID:	BE021768	
SPCC RRFs >0.05 ?	Yes	
CCC %Ds < 20% ?	Yes	
All targets +/- 20%D or 80 -120% True Value?	NO	
(If No, list compounds) ==>	bis(2-Clethyl)ether -24%	hexaClbenzene -20.4%
	caprolactam -23%	indeno(123cd)pyrene -20.1%
	hexaClcyclopentadiene -47%	2-Fphenol (surr.) -27%
	2,4-dinitrophenol -35%	2,4,6-triBrphenol (surr.) -27%
	4,6-dinitro-2-Mephenol -25%	
Affects samples:	All SDG samples	

QA Action : 1) Qualify above non-surrogate compounds 'UJ', negative bias suggested **FOOTNOTE = 4**
2) Qualify all phenolics 'UJ' due to decreased calibration sensitivity of 2 acid-fraction surrogates; negative bias **FOOTNOTE = 5**

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site Lackawanna, NY Lab SDG No.: 4852-001

Job No.: T2648

Review Level: NYSDEC 'DUSR' Laboratory : STL Buffalo

D. SAMPLE RESULT VERIFICATION

SAMPLE ID: MW-1 MS (matrix spike sample)

COMPOUND: benzo(a)pyrene Int. Std.: perylene-d12

REPORTED VALUE: 42 ug/L

	Ax	Is	Vt	Df	GPC
ug/L =	1091090	40	1000	1.0	1.0
	368815	1.4630	960	2.0	
	Ais	RRF	Vo	Vi	

ug/L = 42.1 Result verified ? Yes

Where :

Ax	=	area of quant ion for target compound
Is	=	amount of internal standard injected, ng
Vt	=	volume of extract concentrate, uL
Df	=	Extract dilution factor
GPC	=	GPC factor (1.0 for no cleanup; 2.0 for GPC cleanup)
Ais	=	area of quant ion for internal standard
RRF	=	relative response factor, average from ICAL
Vo	=	volume of water extracted, mL
Vi	=	extract volume injected, uL

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Consulting Group Contract: MALC05

Lab Code: CHEM Case No.: T2648 SAS No.: T2648 SDG No.: T2648

Instrument ID: BNAB Calibration Date(s): 4/26/2005 4/26/2005

Calibration Time(s): 21:03 23:47

LAB FILE ID: RRF020 = BE021308.D RRF050 = BE021307.D
RRF080 = BE021304.D RRF120 = BE021306.D RRF160 = BE021305.D

COMPOUND		RRF020	RRF050	RRF080	RRF120	RRF160	$\overline{RRF}$	% RSD	
2,4-Dinitrotoluene	*	0.310	0.369	0.353	0.395	0.436	0.373	12.6	*
Diethylphthalate	*	1.227	1.226	1.168	1.324	1.342	1.257	5.8	*
4-Chlorophenyl-phenylet	*	0.598	0.645	0.735	0.731	0.806	0.703	11.6	*
Fluorene	*	1.412	1.471	1.738	1.502	1.557	1.536	8.1	*
4-Nitroaniline	*	0.302	0.354	0.340	0.354	0.382	0.346	8.4	*
4,6-Dinitro-2-methylphe	*	0.070	0.103	0.110	0.127	0.140	0.110	24.2	*
n-Nitrosodiphenylamine	*	0.720	0.782	0.825	0.797	0.813	0.787	5.2	*
4-Bromophenyl-phenyleth	*	0.244	0.282	0.280	0.315	0.352	0.295	13.8	*
Hexachlorobenzene	*	0.321	0.331	0.388	0.405	0.417	0.372	11.8	*
Atrazine	*	0.207	0.212	0.227	0.245	0.247	0.228	8.1	*
Pentachlorophenol	*	0.114	0.129	0.130	0.164	0.197	0.147	22.8	*
Phenanthrene	*	1.250	1.360	1.520	1.543	1.487	1.432	8.7	*
Anthracene	*	1.268	1.333	1.475	1.460	1.434	1.394	6.4	*
Carbazole	*	0.916	0.963	1.043	1.075	1.125	1.024	8.3	*
Di-n-butylphthalate	*	1.403	1.316	1.495	1.396	1.350	1.392	4.9	*
Fluoranthene	*	1.199	1.293	1.599	1.533	1.579	1.441	12.7	*
Pyrene	*	1.366	1.510	1.586	1.524	1.430	1.483	5.8	*
Butylbenzylphthalate	*	0.585	0.622	0.600	0.594	0.562	0.593	3.7	*
3,3-Dichlorobenzidine	*	0.360	0.462	0.445	0.500	0.537	0.461	14.5	*
Benzo(a)anthracene	*	1.261	1.427	1.421	1.606	1.601	1.463	9.9	*
Chrysene	*	1.167	1.332	1.364	1.444	1.447	1.351	8.5	*
Bis(2-ethylhexyl)phthal	*	0.717	0.856	0.764	0.800	0.792	0.786	6.5	*
Di-n-octyl phthalate	*	1.050	1.373	1.261	1.317	1.342	1.269	10.2	*
Benzo(b)fluoranthene	*	1.176	1.640	1.636	1.729	2.089	1.654	19.7	*
Benzo(k)fluoranthene	*	1.166	1.712	1.574	1.874	1.946	1.654	18.7	*
Benzo(a)pyrene	*	1.036	1.435	1.477	1.594	1.774	1.463	18.6	*
Indeno(1,2,3-cd)pyrene	*	0.911	1.158	1.228	1.293	1.346	1.187	14.3	*
Dibenzo(a,h)anthracene	*	0.834	1.253	1.368	1.418	1.564	1.287	21.5	*
Benzo(g,h,i)perylene	*	0.809	1.075	1.185	1.240	1.352	1.132	18.2	*
2-Fluorophenol	*	1.093	1.252	1.394	1.272	1.302	1.263	8.7	*
Phenol-d5	*	1.630	1.925	1.744	1.849	1.837	1.797	6.3	*
Nitrobenzene-d5	*	0.356	0.502	0.458	0.523	0.495	0.467	14.2	*
2-Fluorobiphenyl	*	1.337	1.473	1.584	1.546	1.610	1.510	7.3	*
2,4,6-Tribromophenol	*	0.223	0.277	0.275	0.350	0.400	0.305	22.9	*
Terphenyl-d14	*	0.932	1.066	1.130	1.109	1.034	1.054	7.4	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Consulting Group Contract: MALC05

Lab Code: CHEM Case No.: T2648 SAS No.: T2648 SDG No.: T2648

Instrument ID: BNAB Calibration Date(s): 4/26/2005 4/26/2005

Calibration Time(s): 21:03 23:47

LAB FILE ID: RRF020 = BE021308.D RRF050 = BE021307.D
RRF080 = BE021304.D RRF120 = BE021306.D RRF160 = BE021305.D

COMPOUND		RRF020	RRF050	RRF080	RRF120	RRF160	RRF	% RSD	
Benzaldehyde	*	0.967	1.005	0.715	0.647	0.609	0.789	23.4	*
Phenol	*	1.736	2.091	1.965	2.123	1.940	1.971	7.8	*
bis(2-Chloroethyl)ether	*	1.018	1.532	1.728	1.503	1.182	1.393	20.6	*
2-Chlorophenol	*	1.192	1.456	1.399	1.509	1.514	1.414	9.4	*
2-Methylphenol	*	0.952	1.251	1.148	1.150	1.118	1.124	9.6	*
2,2-oxybis(1-Chloroprop	*	1.566	1.893	1.921	1.552	1.161	1.619	19.1	*
Acetophenone	*	0.413	0.589	0.482	0.581	0.508	0.515	14.2	*
3+4-Methylphenols	*	1.434	1.664	1.735	1.447	1.405	1.537	9.8	*
n-Nitroso-di-n-propylam	*	1.114	1.257	1.307	1.070	0.832	1.116	16.7	*
Hexachloroethane	*	0.560	0.659	0.609	0.619	0.650	0.619	6.3	*
Nitrobenzene	*	0.354	0.498	0.439	0.545	0.487	0.465	15.6	*
Isophorone	*	0.649	0.864	0.766	0.858	0.881	0.804	12.1	*
2-Nitrophenol	*	0.176	0.203	0.195	0.214	0.202	0.198	7.1	*
2,4-Dimethylphenol	*	0.334	0.399	0.338	0.369	0.346	0.357	7.6	*
bis(2-Chloroethoxy)meth	*	0.398	0.552	0.498	0.572	0.532	0.510	13.4	*
2,4-Dichlorophenol	*	0.235	0.330	0.296	0.331	0.333	0.305	13.8	*
Naphthalene	*	1.031	1.241	1.110	1.207	1.093	1.136	7.6	*
4-Chloroaniline	*	0.355	0.457	0.403	0.488	0.423	0.425	12.0	*
Hexachlorobutadiene	*	0.176	0.217	0.200	0.241	0.224	0.212	11.7	*
Caprolactam	*	0.090	0.113	0.106	0.107	0.119	0.107	10.1	*
4-Chloro-3-methylphenol	*	0.269	0.376	0.293	0.375	0.359	0.334	15.0	*
2-Methylnaphthalene	*	0.614	0.768	0.764	0.814	0.742	0.740	10.2	*
Hexachlorocyclopentadie	*	0.638	0.528	0.350	0.400	0.399	0.463	25.5	*
2,4,6-Trichlorophenol	*	0.340	0.387	0.429	0.488	0.530	0.435	17.5	*
2,4,5-Trichlorophenol	*	0.356	0.401	0.452	0.472	0.541	0.444	15.9	*
1,1-Biphenyl	*	1.572	1.672	1.832	1.681	1.770	1.705	5.8	*
2-Chloronaphthalene	*	1.160	1.326	1.389	1.349	1.435	1.332	7.9	*
2-Nitroaniline	*	0.398	0.473	0.499	0.460	0.496	0.465	8.8	*
Dimethylphthalate	*	1.266	1.257	1.265	1.249	1.340	1.275	2.9	*
Acenaphthylene	*	1.919	2.064	2.271	2.222	2.197	2.135	6.7	*
2,6-Dinitrotoluene	*	0.264	0.281	0.269	0.294	0.308	0.283	6.4	*
3-Nitroaniline	*	0.305	0.322	0.322	0.344	0.365	0.332	7.0	*
Acenaphthene	*	1.213	1.400	1.562	1.464	1.485	1.425	9.2	*
2,4-Dinitrophenol	*	0.074	0.093	0.116	0.115	0.126	0.105	20.0	*
4-Nitrophenol	*	0.167	0.225	0.237	0.246	0.270	0.229	16.8	*
Dibenzofuran	*	1.596	1.789	1.855	1.829	1.926	1.799	6.9	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021773.D	1	5/6/2005	5/7/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	11	1.7	ug/L
108-95-2	Phenol	1.3	U	11	1.3	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	11	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	11	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	11	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	11	1.3	ug/L
98-86-2	Acetophenone	1.3	U	11	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	11	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.5	U	11	1.5	ug/L
67-72-1	Hexachloroethane	1.2	U	11	1.2	ug/L
98-95-3	Nitrobenzene	1.7	U	11	1.7	ug/L
78-59-1	Isophorone	1.3	U	11	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	11	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.2	U	11	1.2	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.4	U	11	1.4	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	11	1.5	ug/L
91-20-3	Naphthalene	1.5	U	11	1.5	ug/L
106-47-8	4-Chloroaniline	0.900	U	11	0.900	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	11	1.4	ug/L
105-60-2	Caprolactam	1.3	U	11	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	11	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.1	U	11	1.1	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	11	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	11	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	11	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	11	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.5	U	11	1.5	ug/L
88-74-4	2-Nitroaniline	1.1	U	11	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	11	1.3	ug/L
208-96-8	Acenaphthylene	1.4	U	11	1.4	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	11	1.3	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021773.D	1	5/6/2005	5/7/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	1.1	U	11	1.1	ug/L
83-32-9	Acenaphthene	1.4	U	11	1.4	ug/L
51-28-5	2,4-Dinitrophenol	3.7	U J	11	3.7	ug/L
100-02-7	4-Nitrophenol	3.3	U J	11	3.3	ug/L
132-64-9	Dibenzofuran	1.4	U	11	1.4	ug/L
121-14-2	2,4-Dinitrotoluene	1.3	U	11	1.3	ug/L
84-66-2	Diethylphthalate	1.4	U	11	1.4	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	11	1.4	ug/L
86-73-7	Fluorene	1.5	U	11	1.5	ug/L
100-01-6	4-Nitroaniline	1.2	U	11	1.2	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U J	11	1.7	ug/L
86-30-6	N-Nitrosodiphenylamine	1.3	U	11	1.3	ug/L
101-55-3	4-Bromophenyl-phenylether	1.6	U J	11	1.6	ug/L
118-74-1	Hexachlorobenzene	1.3	U J	11	1.3	ug/L
1912-24-9	Atrazine	1.3	U	11	1.3	ug/L
87-86-5	Pentachlorophenol	1.7	U J	11	1.7	ug/L
85-01-8	Phenanthrene	1.5	U	11	1.5	ug/L
120-12-7	Anthracene	1.5	U	11	1.5	ug/L
86-74-8	Carbazole	1.3	U	11	1.3	ug/L
84-74-2	Di-n-butylphthalate	1.4	U	11	1.4	ug/L
206-44-0	Fluoranthene	1.3	U	11	1.3	ug/L
129-00-0	Pyrene	1.5	U	11	1.5	ug/L
85-68-7	Butylbenzylphthalate	1.5	U	11	1.5	ug/L
91-94-1	3,3-Dichlorobenzidine	1.1	U	11	1.1	ug/L
56-55-3	Benzo(a)anthracene	1.2	U	11	1.2	ug/L
218-01-9	Chrysene	1.8	U	11	1.8	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	11	1.6	ug/L
117-84-0	Di-n-octyl phthalate	1.4	U	11	1.4	ug/L
205-99-2	Benzo(b)fluoranthene	0.790	U	11	0.790	ug/L
207-08-9	Benzo(k)fluoranthene	2.0	U	11	2.0	ug/L
50-32-8	Benzo(a)pyrene	1.2	U	11	1.2	ug/L

QUAL FOOTNOTE

4 J 5

5, 4

2

2, 4

5

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

06/15/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021773.D	1	5/6/2005	5/7/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.870	U J	11	0.870	ug/L
53-70-3	Dibenz(a,h)anthracene	0.910	U	11	0.910	ug/L
191-24-2	Benzo(g,h,i)perylene	1.1	U	11	1.1	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	105.75	35 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	73.45	24 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	141.18	71 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	106.57	53 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	185.05	62 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	154.57	77 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	140073	4.07			
1146-65-2	Naphthalene-d8	559717	4.87			
15067-26-2	Acenaphthene-d10	338553	5.99			
1517-22-2	Phenanthrene-d10	542753	6.98			
1719-03-5	Chrysene-d12	438573	9.18			
1520-96-3	Perylene-d12	343407	11.52			
TENTITIVE IDENTIFIED COMPOUNDS						
~~ACP~~		~~7.4~~	~~AB~~	~~3.09~~ R		ug/L

06/30/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021776.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	11	1.7	ug/L
108-95-2	Phenol	1.3	U	11	1.3	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	11	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	11	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	11	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	11	1.3	ug/L
98-86-2	Acetophenone	1.3	U	11	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	11	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.5	U	11	1.5	ug/L
67-72-1	Hexachloroethane	1.2	U	11	1.2	ug/L
98-95-3	Nitrobenzene	1.7	U	11	1.7	ug/L
78-59-1	Isophorone	1.3	U	11	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	11	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.2	U	11	1.2	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.4	U	11	1.4	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	11	1.5	ug/L
91-20-3	Naphthalene	1.5	U	11	1.5	ug/L
106-47-8	4-Chloroaniline	0.900	U	11	0.900	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	11	1.4	ug/L
105-60-2	Caprolactam	1.3	U	11	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	11	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.1	U	11	1.1	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	11	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	11	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	11	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	11	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.5	U	11	1.5	ug/L
88-74-4	2-Nitroaniline	1.1	U	11	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	11	1.3	ug/L
208-96-8	Acenaphthylene	1.4	U	11	1.4	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	11	1.3	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021776.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	QUAL FOOTNOTE
TARGETS							
99-09-2	3-Nitroaniline	1.1	U	11	1.1	ug/L	
83-32-9	Acenaphthene	1.4	U	11	1.4	ug/L	
51-28-5	2,4-Dinitrophenol	3.7	U J	11	3.7	ug/L	4, 5
100-02-7	4-Nitrophenol	3.3	U J	11	3.3	ug/L	5
132-64-9	Dibenzofuran	1.4	U	11	1.4	ug/L	
121-14-2	2,4-Dinitrotoluene	1.3	U	11	1.3	ug/L	
84-66-2	Diethylphthalate	1.4	U	11	1.4	ug/L	
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	11	1.4	ug/L	
86-73-7	Fluorene	1.5	U	11	1.5	ug/L	
100-01-6	4-Nitroaniline	1.2	U	11	1.2	ug/L	
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U J	11	1.7	ug/L	4, 5
86-30-6	N-Nitrosodiphenylamine	1.3	U	11	1.3	ug/L	
101-55-3	4-Bromophenyl-phenylether	1.6	U	11	1.6	ug/L	
118-74-1	Hexachlorobenzene	1.3	U J	11	1.3	ug/L	4
1912-24-9	Atrazine	1.3	U	11	1.3	ug/L	
87-86-5	Pentachlorophenol	1.7	U J	11	1.7	ug/L	5
85-01-8	Phenanthrene	1.5	U	11	1.5	ug/L	
120-12-7	Anthracene	1.5	U	11	1.5	ug/L	
86-74-8	Carbazole	1.3	U	11	1.3	ug/L	
84-74-2	Di-n-butylphthalate	1.4	U	11	1.4	ug/L	
206-44-0	Fluoranthene	1.3	U	11	1.3	ug/L	
129-00-0	Pyrene	1.5	U	11	1.5	ug/L	
85-68-7	Butylbenzylphthalate	1.5	U	11	1.5	ug/L	
91-94-1	3,3-Dichlorobenzidine	1.1	U	11	1.1	ug/L	
56-55-3	Benzo(a)anthracene	1.2	U	11	1.2	ug/L	
218-01-9	Chrysene	1.8	U	11	1.8	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	11	1.6	ug/L	
117-84-0	Di-n-octyl phthalate	1.4	U	11	1.4	ug/L	
205-99-2	Benzo(b)fluoranthene	0.790	U	11	0.790	ug/L	
207-08-9	Benzo(k)fluoranthene	2.0	U	11	2.0	ug/L	
50-32-8	Benzo(a)pyrene	1.2	U	11	1.2	ug/L	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Wol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021776.D	1	5/6/2005	5/8/2005	BE042605

QUAL ROTH

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.870	U J	11	0.870	ug/L 4
53-70-3	Dibenz(a,h)anthracene	0.910	U	11	0.910	ug/L
191-24-2	Benzo(g,h,i)perylene	1.1	U	11	1.1	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	119.99	40 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	69.91	23 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	121.61	61 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	99.8	50 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	188.84	63 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	144.94	72 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	151221	4.07			
1146-65-2	Naphthalene-d8	596926	4.86			
15067-26-2	Acenaphthene-d10	356576	5.99			
1517-22-2	Phenanthrene-d10	557319	6.99			
1719-03-5	Chrysene-d12	460743	9.21			
1520-96-3	Perylene-d12	359049	11.57			
TENTITIVE IDENTIFIED COMPOUNDS						
~~ACP~~		~~7.2~~	~~AB~~	~~5.09~~ R		ug/L 1

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	940.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021777.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	11	1.7	ug/L
108-95-2	Phenol	1.4	U	11	1.4	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	11	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	11	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	11	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	11	1.3	ug/L
98-86-2	Acetophenone	1.3	U	11	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	11	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.5	U	11	1.5	ug/L
67-72-1	Hexachloroethane	1.2	U	11	1.2	ug/L
98-95-3	Nitrobenzene	1.7	U	11	1.7	ug/L
78-59-1	Isophorone	1.3	U	11	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	11	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.3	U	11	1.3	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.5	U	11	1.5	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	11	1.5	ug/L
91-20-3	Naphthalene	1.5	U	11	1.5	ug/L
106-47-8	4-Chloroaniline	0.910	U	11	0.910	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	11	1.4	ug/L
105-60-2	Caprolactam	1.3	U	11	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	11	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.2	U	11	1.2	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	11	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	11	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	11	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	11	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.5	U	11	1.5	ug/L
88-74-4	2-Nitroaniline	1.1	U	11	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	11	1.3	ug/L
208-96-8	Acenaphthylene	1.4	U	11	1.4	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	11	1.3	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	940.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021777.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							QUAL ROUTINE
99-09-2	3-Nitroaniline	1.1	U	11	1.1	ug/L	
83-32-9	Acenaphthene	1.4	U	11	1.4	ug/L	
51-28-5	2,4-Dinitrophenol	3.7	U J	11	3.7	ug/L	4,5
100-02-7	4-Nitrophenol	3.3	U J	11	3.3	ug/L	5
132-64-9	Dibenzofuran	1.4	U	11	1.4	ug/L	
121-14-2	2,4-Dinitrotoluene	1.3	U	11	1.3	ug/L	
84-66-2	Diethylphthalate	1.4	U	11	1.4	ug/L	
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	11	1.4	ug/L	
86-73-7	Fluorene	1.5	U	11	1.5	ug/L	
100-01-6	4-Nitroaniline	1.2	U	11	1.2	ug/L	
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U J	11	1.7	ug/L	4,5
86-30-6	N-Nitrosodiphenylamine	1.3	U	11	1.3	ug/L	
101-55-3	4-Bromophenyl-phenylether	1.6	U	11	1.6	ug/L	
118-74-1	Hexachlorobenzene	1.3	U J	11	1.3	ug/L	4
1912-24-9	Atrazine	1.3	U	11	1.3	ug/L	
87-86-5	Pentachlorophenol	1.7	U J	11	1.7	ug/L	5
85-01-8	Phenanthrene	1.5	U	11	1.5	ug/L	
120-12-7	Anthracene	1.5	U	11	1.5	ug/L	
86-74-8	Carbazole	1.4	U	11	1.4	ug/L	
84-74-2	Di-n-butylphthalate	1.4	U	11	1.4	ug/L	
206-44-0	Fluoranthene	1.3	U	11	1.3	ug/L	
129-00-0	Pyrene	1.5	U	11	1.5	ug/L	
85-68-7	Butylbenzylphthalate	1.5	U	11	1.5	ug/L	
91-94-1	3,3-Dichlorobenzidine	1.1	U	11	1.1	ug/L	
56-55-3	Benzo(a)anthracene	1.2	U	11	1.2	ug/L	
218-01-9	Chrysene	1.8	U	11	1.8	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	11	1.6	ug/L	
117-84-0	Di-n-octyl phthalate	1.4	U	11	1.4	ug/L	
205-99-2	Benzo(b)fluoranthene	0.800	U	11	0.800	ug/L	
207-08-9	Benzo(k)fluoranthene	2.0	U	11	2.0	ug/L	
50-32-8	Benzo(a)pyrene	1.2	U	11	1.2	ug/L	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	940.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021777.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.880	U ~~J~~	11	0.880	ug/L
53-70-3	Dibenz(a,h)anthracene	0.920	U	11	0.920	ug/L
191-24-2	Benzo(g,h,i)perylene	1.2	U	11	1.2	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	85.95	29 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	44.41	15 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	103.37	52 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	91.07	46 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	155.3	52 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	128.69	64 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	145389	4.07			
1146-65-2	Naphthalene-d8	574736	4.87			
15067-26-2	Acenaphthene-d10	340980	5.99			
1517-22-2	Phenanthrene-d10	567979	6.98			
1719-03-5	Chrysene-d12	451345	9.19			
1520-96-3	Perylene-d12	355208	11.53			
TENTITIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~5.0~~	~~AB~~	~~3.09~~ R		ug/L

QUALIFIER FOOTNOTE 4

5/30/12

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021778.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	11	1.7	ug/L
108-95-2	Phenol	1.3	U 4	11	1.3	ug/L 5
111-44-4	bis(2-Chloroethyl)ether	1.5	U 4 4	11	1.5	ug/L 4
95-57-8	2-Chlorophenol	1.2	U 4 4	11	1.2	ug/L 4 5
95-48-7	2-Methylphenol	1.6	U 4	11	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	11	1.3	ug/L
98-86-2	Acetophenone	1.3	U	11	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U 4	11	1.4	ug/L 5
621-64-7	N-Nitroso-di-n-propylamine	1.5	U	11	1.5	ug/L
67-72-1	Hexachloroethane	1.2	U	11	1.2	ug/L
98-95-3	Nitrobenzene	1.7	U	11	1.7	ug/L
78-59-1	Isophorone	1.3	U	11	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U 4 4	11	1.4	ug/L 5
105-67-9	2,4-Dimethylphenol	1.2	U 4 4	11	1.2	ug/L 5
111-91-1	bis(2-Chloroethoxy)methane	1.4	U 4 4	11	1.4	ug/L 5
120-83-2	2,4-Dichlorophenol	1.5	U 4 4	11	1.5	ug/L 5
91-20-3	Naphthalene	1.5	U	11	1.5	ug/L
106-47-8	4-Chloroaniline	0.900	U	11	0.900	ug/L
87-68-3	Hexachlorobutadiene	1.4	U 4 4	11	1.4	ug/L
105-60-2	Caprolactam	1.3	U 4 4	11	1.3	ug/L 4
59-50-7	4-Chloro-3-methylphenol	1.4	U 4	11	1.4	ug/L 5
91-57-6	2-Methylnaphthalene	1.1	U	11	1.1	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U 4 4 4	11	1.2	ug/L 4
88-06-2	2,4,6-Trichlorophenol	1.2	U 4 4 4	11	1.2	ug/L 4 5
95-95-4	2,4,5-Trichlorophenol	1.3	U 4 4	11	1.3	ug/L 4 5
92-52-4	1,1-Biphenyl	1.5	U	11	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.5	U	11	1.5	ug/L
88-74-4	2-Nitroaniline	1.1	U	11	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U 4	11	1.3	ug/L 3
208-96-8	Acenaphthylene	1.4	U	11	1.4	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	11	1.3	ug/L

DUAL COLUMN FOOTNOTE

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

06/30/05

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021778.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	QUAL FOOTNOT
TARGETS							
99-09-2	3-Nitroaniline	1.1	U	11	1.1	ug/L	
83-32-9	Acenaphthene	1.4	U	11	1.4	ug/L	
51-28-5	2,4-Dinitrophenol	3.7	UJ	11	3.7	ug/L	4,5
100-02-7	4-Nitrophenol	3.3	UJ	11	3.3	ug/L	5
132-64-9	Dibenzofuran	1.4	U	11	1.4	ug/L	
121-14-2	2,4-Dinitrotoluene	1.3	U	11	1.3	ug/L	
84-66-2	Diethylphthalate	1.4	U	11	1.4	ug/L	
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	11	1.4	ug/L	
86-73-7	Fluorene	1.5	U	11	1.5	ug/L	
100-01-6	4-Nitroaniline	1.2	U	11	1.2	ug/L	
534-52-1	4,6-Dinitro-2-methylphenol	1.7	UJ	11	1.7	ug/L	4,5
86-30-6	N-Nitrosodiphenylamine	1.3	U	11	1.3	ug/L	
101-55-3	4-Bromophenyl-phenylether	1.6	U	11	1.6	ug/L	
118-74-1	Hexachlorobenzene	1.3	UJ	11	1.3	ug/L	4
1912-24-9	Atrazine	1.3	U	11	1.3	ug/L	
87-86-5	Pentachlorophenol	1.7	UJ	11	1.7	ug/L	5
85-01-8	Phenanthrene	1.5	U	11	1.5	ug/L	
120-12-7	Anthracene	1.5	U	11	1.5	ug/L	
86-74-8	Carbazole	1.3	U	11	1.3	ug/L	
84-74-2	Di-n-butylphthalate	1.4	U	11	1.4	ug/L	
206-44-0	Fluoranthene	1.3	U	11	1.3	ug/L	
129-00-0	Pyrene	1.5	U	11	1.5	ug/L	
85-68-7	Butylbenzylphthalate	1.5	U	11	1.5	ug/L	
91-94-1	3,3-Dichlorobenzidine	1.1	U	11	1.1	ug/L	
56-55-3	Benzo(a)anthracene	1.2	U	11	1.2	ug/L	
218-01-9	Chrysene	1.8	U	11	1.8	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	11	1.6	ug/L	
117-84-0	Di-n-octyl phthalate	1.4	U	11	1.4	ug/L	
205-99-2	Benzo(b)fluoranthene	0.790	U	11	0.790	ug/L	
207-08-9	Benzo(k)fluoranthene	2.0	U	11	2.0	ug/L	
50-32-8	Benzo(a)pyrene	1.2	U	11	1.2	ug/L	

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

06/30/06

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021778.D	1	5/6/2005	5/8/2005	BE042605

QUAL FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.870	U J	11	0.870	ug/L 4
53-70-3	Dibenz(a,h)anthracene	0.910	U	11	0.910	ug/L
191-24-2	Benzo(g,h,i)perylene	1.1	U	11	1.1	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	127.48	42 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	67.33	22 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	124.89	62 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	98.41	49 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	198.79	66 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	150.62	75 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	150638	4.07			
1146-65-2	Naphthalene-d8	605525	4.87			
15067-26-2	Acenaphthene-d10	358389	5.98			
1517-22-2	Phenanthrene-d10	592637	6.98			
1719-03-5	Chrysene-d12	467511	9.17			
1520-96-3	Perylene-d12	361704	11.51			
TENTITIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~6.8~~	~~AB~~	~~3.09~~ R		ug/L 1

06/30/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	960.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021779.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	10	1.7	ug/L
108-95-2	Phenol	1.3	U	10	1.3	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	10	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	10	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	10	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	10	1.3	ug/L
98-86-2	Acetophenone	1.3	U	10	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	10	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.4	U	10	1.4	ug/L
67-72-1	Hexachloroethane	1.2	U	10	1.2	ug/L
98-95-3	Nitrobenzene	1.6	U	10	1.6	ug/L
78-59-1	Isophorone	1.3	U	10	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	10	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.2	U	10	1.2	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.4	U	10	1.4	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	10	1.5	ug/L
91-20-3	Naphthalene	1.4	U	10	1.4	ug/L
106-47-8	4-Chloroaniline	0.890	U	10	0.890	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	10	1.4	ug/L
105-60-2	Caprolactam	1.3	U	10	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	10	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.1	U	10	1.1	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	10	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	10	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	10	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	10	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.4	U	10	1.4	ug/L
88-74-4	2-Nitroaniline	1.1	U	10	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	10	1.3	ug/L
208-96-8	Acenaphthylene	1.3	U	10	1.3	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	10	1.3	ug/L

QUAL FOOTNOTE

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

06/30/06

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Wol:	960.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021779.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	1.1	U	10	1.1	ug/L
83-32-9	Acenaphthene	1.4	U	10	1.4	ug/L
51-28-5	2,4-Dinitrophenol	3.6	U	10	3.6	ug/L
100-02-7	4-Nitrophenol	3.2	U	10	3.2	ug/L
132-64-9	Dibenzofuran	1.3	U	10	1.3	ug/L
121-14-2	2,4-Dinitrotoluene	1.3	U	10	1.3	ug/L
84-66-2	Diethylphthalate	1.4	U	10	1.4	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	10	1.4	ug/L
86-73-7	Fluorene	1.5	U	10	1.5	ug/L
100-01-6	4-Nitroaniline	1.2	U	10	1.2	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U	10	1.7	ug/L
86-30-6	N-Nitrosodiphenylamine	1.3	U	10	1.3	ug/L
101-55-3	4-Bromophenyl-phenylether	1.5	U	10	1.5	ug/L
118-74-1	Hexachlorobenzene	1.3	U	10	1.3	ug/L
1912-24-9	Atrazine	1.3	U	10	1.3	ug/L
87-86-5	Pentachlorophenol	1.6	U	10	1.6	ug/L
85-01-8	Phenanthrene	1.5	U	10	1.5	ug/L
120-12-7	Anthracene	1.5	U	10	1.5	ug/L
86-74-8	Carbazole	1.3	U	10	1.3	ug/L
84-74-2	Di-n-butylphthalate	1.4	U	10	1.4	ug/L
206-44-0	Fluoranthene	1.3	U	10	1.3	ug/L
129-00-0	Pyrene	1.5	U	10	1.5	ug/L
85-68-7	Butylbenzylphthalate	1.5	U	10	1.5	ug/L
91-94-1	3,3-Dichlorobenzidine	1.1	U	10	1.1	ug/L
56-55-3	Benzo(a)anthracene	1.2	U	10	1.2	ug/L
218-01-9	Chrysene	1.7	U	10	1.7	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	10	1.6	ug/L
117-84-0	Di-n-octyl phthalate	1.3	U	10	1.3	ug/L
205-99-2	Benzo(b)fluoranthene	0.780	U	10	0.780	ug/L
207-08-9	Benzo(k)fluoranthene	2.0	U	10	2.0	ug/L
50-32-8	Benzo(a)pyrene	1.2	U	10	1.2	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Wol:	960.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021779.D	1	5/6/2005	5/8/2005	BE042605

QUAL FOOTNOTE

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.860	U J	10	0.860	ug/L 4
53-70-3	Dibenz(a,h)anthracene	0.900	U	10	0.900	ug/L
191-24-2	Benzo(g,h,i)perylene	1.1	U	10	1.1	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	98.98	33 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	49.86	17 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	135.35	68 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	112.09	56 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	200.31	67 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	166.44	83 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	125576	4.07			
1146-65-2	Naphthalene-d8	490337	4.86			
15067-26-2	Acenaphthene-d10	297007	5.99			
1517-22-2	Phenanthrene-d10	474696	6.97			
1719-03-5	Chrysene-d12	383804	9.12			
1520-96-3	Perylene-d12	293194	11.44			
TENTITIVE IDENTIFIED COMPOUNDS						
	~~ACP~~	~~6.9~~	~~AB~~	~~3.10~~ R		ug/L 1

5/5 06/30/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

PESTICIDE / PCB ANALYSIS
QC PARAMETER / QUALIFIER SUMMARY
SW846 Method 8081

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2648

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

All samples were extracted within 3 days of VTSR; all samples were analyzed within 6 days of extraction.

B. METHOD BLANKS

Blank ID	Date Analyzed	File ID	Matrix	Analytes Present	Conc., ppb
PB05212B	05/12/05	5PS8378	water	none	n/a

ACTION: If sample concentration >CRQL, but <5x Blank value, flag result with 'U'
If sample concentration <CRQL, and <5x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >5x Blank value, no qualification necessary

C. SURROGATE RECOVERY

The recoveries for decachlorobiphenyl (DCBP) in all samples except MW-3 were < the lower limit due to sample matrix interference. No QA action was necessary, since only one surrogate was affected.

D. MATRIX SPIKE / DUPLICATE MW-1

All spiked compounds recovered low in the MS and MSD; all reported analytes were qualified 'UJ' in the native sample only. Matrix interference indicated; negative bias suggested. **FOOTNOTE = 1**

E. BLANK SPIKE (LCS)

Recoveries were within acceptable limits in the blank spike.

ORGANOCHLORINE PESTICIDES
CALIBRATION SUMMARY
SW846 METHOD 8081A

CLIENT: Malcolm Pirnie, Inc. PROJECT: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2648

A. INITIAL CALIBRATION

CALIBRATION DATE :	05/10/05	
FILE IDs :	5PS8310 - 14	
Mean RSD ≤ 20%?	No	DDT
If Lin Regression r >0.99?	n/a	
If 2nd-order, COD >0.99?	n/a	
Affects:	All samples	

ACTION: No QA action necessary (no positives in associated samples).

B. CALIBRATION VERIFICATION

At beginning of each 12-hour shift, prior to sample analysis; after every 20 samples. Note: samples with positives >RL must be bracketed by acceptable calibration verifications.
%D (or %Drift, if linear regression) for all analytes must be < 15% on both columns.

CALIBRATION DATE :	05/11/05	05/12/05	05/12/05
FILE ID :	CCAL01	CCAL02	CCAL03
After every 20 samples?	n/a	n/a	n/a
At end of sequence?	n/a	n/a	Yes
%D ≤ 15?	No	Yes	No
If %D > 15%, list analytes:	EndoSO4 -21%		alpha-BHC +23%
Associated Samples :	Blank, LCS	All field samples, MS, MSD	

QA Action : Since no positives for alpha-BHC were found in field samples, no QA action was necessary.

C. BREAKDOWN CHECK

DDT and Endrin breakdown check summary for 05/10/05 was present in the data deliverables.
However, method requirements (8081, Sect. 8.4.6.2) requires assessment prior to sample analysis and at beginning of each 12-hour shift. Since no positives were reported for these compounds, no QA action necessary.

D. QUALITATIVE CONFIRMATION

No positive compounds were reported above analyte RL values; therefore, confirmation was unnecessary.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8382.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.007	U	0.053	0.007	ug/L
319-85-7	beta-BHC	0.007	U	0.053	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.053	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.053	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.053	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.053	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.053	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.053	0.008	ug/L
60-57-1	Dieldrin	0.008	U	0.053	0.008	ug/L
72-55-9	4,4'-DDE	0.008	U	0.053	0.008	ug/L
72-20-8	Endrin	0.007	U	0.053	0.007	ug/L
33213-65-9	Endosulfan II	0.008	U	0.053	0.008	ug/L
72-54-8	4,4'-DDD	0.007	U	0.053	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.053	0.009	ug/L
50-29-3	4,4'-DDT	0.007	U	0.053	0.007	ug/L
72-43-5	Methoxychlor	0.008	U	0.053	0.008	ug/L
53494-70-5	Endrin ketone	0.008	U	0.053	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.053	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.053	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.053	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.53	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.06	35 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	11.74	59 %	40 - 135		SPK: 20

QUAL FOOTNOT

06/30/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8383.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.007	U	0.053	0.007	ug/L
319-85-7	beta-BHC	0.007	U	0.053	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.053	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.053	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.053	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.053	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.053	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.053	0.008	ug/L
60-57-1	Dieldrin	0.008	U	0.053	0.008	ug/L
72-55-9	4,4'-DDE	0.008	U	0.053	0.008	ug/L
72-20-8	Endrin	0.007	U	0.053	0.007	ug/L
33213-65-9	Endosulfan II	0.008	U	0.053	0.008	ug/L
72-54-8	4,4'-DDD	0.007	U	0.053	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.053	0.009	ug/L
50-29-3	4,4'-DDT	0.007	U	0.053	0.007	ug/L
72-43-5	Methoxychlor	0.008	U	0.053	0.008	ug/L
53494-70-5	Endrin ketone	0.008	U	0.053	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.053	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.053	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.053	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.53	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	6.93	35 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	10.97	55 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	Date Collected:	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	Date Received:	5/3/2005
Client Sample ID:	MW-3	SDG No.:	T2648
Lab Sample ID:	T2648-05	Matrix:	WATER
Analytical Method:	8081	% Moisture:	100
Sample Wt/Vol:	500 mL	Extract Vol:	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8384.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.006	U	0.050	0.006	ug/L
319-85-7	beta-BHC	0.007	U	0.050	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.050	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.050	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.050	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.050	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.050	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.050	0.008	ug/L
60-57-1	Dieldrin	0.007	U	0.050	0.007	ug/L
72-55-9	4,4'-DDE	0.007	U	0.050	0.007	ug/L
72-20-8	Endrin	0.007	U	0.050	0.007	ug/L
33213-65-9	Endosulfan II	0.007	U	0.050	0.007	ug/L
72-54-8	4,4'-DDD	0.007	U	0.050	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.050	0.009	ug/L
50-29-3	4,4'-DDT	0.006	U	0.050	0.006	ug/L
72-43-5	Methoxychlor	0.007	U	0.050	0.007	ug/L
53494-70-5	Endrin ketone	0.008	U	0.050	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.050	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.050	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.050	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.50	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	9.99	50 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	12.02	60 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	960 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8385.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.007	U	0.052	0.007	ug/L
319-85-7	beta-BHC	0.007	U	0.052	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.052	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.052	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.052	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.052	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.052	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.052	0.008	ug/L
60-57-1	Dieldrin	0.008	U	0.052	0.008	ug/L
72-55-9	4,4'-DDE	0.007	U	0.052	0.007	ug/L
72-20-8	Endrin	0.007	U	0.052	0.007	ug/L
33213-65-9	Endosulfan II	0.008	U	0.052	0.008	ug/L
72-54-8	4,4'-DDD	0.007	U	0.052	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.052	0.009	ug/L
50-29-3	4,4'-DDT	0.007	U	0.052	0.007	ug/L
72-43-5	Methoxychlor	0.007	U	0.052	0.007	ug/L
53494-70-5	Endrin ketone	0.008	U	0.052	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.052	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.052	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.052	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.52	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.33	37 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	12.38	62 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	960 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8386.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.007	U	0.052	0.007	ug/L
319-85-7	beta-BHC	0.007	U	0.052	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.052	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.052	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.052	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.052	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.052	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.052	0.008	ug/L
60-57-1	Dieldrin	0.008	U	0.052	0.008	ug/L
72-55-9	4,4'-DDE	0.007	U	0.052	0.007	ug/L
72-20-8	Endrin	0.007	U	0.052	0.007	ug/L
33213-65-9	Endosulfan II	0.008	U	0.052	0.008	ug/L
72-54-8	4,4'-DDD	0.007	U	0.052	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.052	0.009	ug/L
50-29-3	4,4'-DDT	0.007	U	0.052	0.007	ug/L
72-43-5	Methoxychlor	0.007	U	0.052	0.007	ug/L
53494-70-5	Endrin ketone	0.008	U	0.052	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.052	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.052	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.052	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.52	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	5.15	26 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	11.66	58 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

PCB ANALYSIS
QC PARAMETER / QUALIFIER SUMMARY
SW-846 Method 8082

For: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2648

A. HOLDING TIMES (NYSDEC-ASP)

AQUEOUS MATRIX:	5 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C
NON-AQUEOUS MATRIX:	10 DAYS MAX. VTSR TO EXTRACTION / 40 DAYS MAX. EXTRACTION TO ANALYSIS SAMPLES AND EXTRACTS MUST BE MAINTAINED AT 4 +/- 2 DEGREES C

All samples were extracted within 3 days of VTSR; all samples were analyzed within 7 days of extraction.

B. METHOD BLANKS

Blank ID	Date Analyzed	File ID	Matrix	Analytes Present	Conc., ppb
PB05211B	05/13/05	8PC01472	water	none	n/a

ACTION: If sample concentration >CRQL, but <5x Blank value, flag result with 'U'
If sample concentration <CRQL, and <5x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >5x Blank value, no qualification necessary

C. SURROGATE RECOVERY

Sample ID	Surrogate	Bias	QA Action
MW-1	DCBP	low (38/42%)	Qualify reported Aroclors 'UJ'; negative bias suggested.
MW-2	DCBP	low (40/42%)	Qualify reported Aroclors 'UJ'; negative bias suggested.
Field Blank	DCBP	low (38/42%)	Qualify reported Aroclors 'UJ'; negative bias suggested.
			FOOTNOTE = 1

D. MATRIX SPIKE / DUPLICATE

MW-1

Sample ID	Aroclor	Bias	QA Action
MS	1260	low (55/60%)	Qualify Aroclor 1260 'UJ' in native sample only
MSD	1260	low (55/60%)	Qualify Aroclor 1260 'UJ' in native sample only
			FOOTNOTE = 2

E. BLANK SPIKE (LCS)

Recoveries were within acceptable limits in the blank spike sample.

F. SAMPLE QUALITATIVE & QUANTITATIVE VERIFICATION

No positive results for target compounds in field samples were reported.

PCB ANALYSIS
CALIBRATION SUMMARY
SW-846 Method 8082

For: Malcolm Pirnie, Inc. Project: Incinerator Site Lackawanna, NY Project No.: 4852-001

Review Level: NYSDEC 'DUSR' Laboratory: ChemTech, NJ Lab Project No.: T2648

A. INITIAL CALIBRATION

CALIBRATION DATE :	04/29/05
FILE IDs :	8PC00979 - 83
Mean RSD ≤ 20%?	Yes
Lin Regression r^2>0.995?	n/a
2nd-order COD >0.990 ?	n/a

B. INITIAL CALIBRATION VERIFICATION

Daily, before sample analysis; all analytes must recover within + 15% of true value.

FILE ID : CCAL01
DATE : 05/13/05
OUTLIERS : Aroclor 1260 -18%

QA Action : Qualify AR1260 'UJ' in associated samples; negative bias suggested.
FOOTNOTE = 3

C. CONTINUING CALIBRATIONS (CCV)

CALIBRATION DATE :	05/13/05		
FILE IDs :	CCAL02		
After every 10 samples?	Yes		
At end of sequence?	Yes		
|%D| ≤ 15?	No		
If No, list compounds ===>	1016 (+)		
Affects:	All samples		

QA Action : No QA action necessary (no positive Aroclors reported).

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01474.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U J	0.53	0.150	ug/L
11104-28-2	AROCLOR 1221	0.180	U	0.53	0.180	ug/L
11141-16-5	AROCLOR 1232	0.120	U	0.53	0.120	ug/L
53469-21-9	AROCLOR 1242	0.090	U	0.53	0.090	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.53	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.53	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U J	0.53	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	11.65	58 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	7.67	38 %	42 - 133		SPK: 20

QUAL FOOTNOTE

1, 2, 3

5/20/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	960 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01475.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.52	0.150	ug/L
11104-28-2	AROCLOR 1221	0.180	U	0.52	0.180	ug/L
11141-16-5	AROCLOR 1232	0.110	U	0.52	0.110	ug/L
53469-21-9	AROCLOR 1242	0.090	U	0.52	0.090	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.52	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.52	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.52	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	12.04	60 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	8.04	40 %	42 - 133		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	500 mL	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01476.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.50	0.150	ug/L
11104-28-2	AROCLOR 1221	0.170	U	0.50	0.170	ug/L
11141-16-5	AROCLOR 1232	0.110	U	0.50	0.110	ug/L
53469-21-9	AROCLOR 1242	0.080	U	0.50	0.080	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.50	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.50	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.50	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	12.83	64 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	11.77	59 %	42 - 133		SPK: 20

QUAL FOOTNOTE

3

06/20/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01477.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.53	0.150	ug/L
11104-28-2	AROCLOR 1221	0.180	U	0.53	0.180	ug/L
11141-16-5	AROCLOR 1232	0.120	U	0.53	0.120	ug/L
53469-21-9	AROCLOR 1242	0.090	U	0.53	0.090	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.53	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.53	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.53	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	12.81	64 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	8.89	44 %	42 - 133		SPK: 20

QUAL FOOTNOTE

3

06/20/05

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01478.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.53	0.150	ug/L
11104-28-2	AROCLOR 1221	0.180	U	0.53	0.180	ug/L
11141-16-5	AROCLOR 1232	0.120	U	0.53	0.120	ug/L
53469-21-9	AROCLOR 1242	0.090	U	0.53	0.090	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.53	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.53	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.53	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	13.1	66 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	7.5	38 %	42 - 133		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

INORGANICS / METALS ANALYSIS
QC PARAMETER / CALIBRATION / QUALIFIER SUMMARY

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2648

Review Level: NYSDEC 'DUSR Laboratory: ChemTech, NJ

A. CALIBRATION

	ICV	CCV	Outliers ?
ICP & AA Analytes	90 -110%	90 -110%	none
Mercury	80 - 120%	80 - 120%	none
Cyanide	85 - 115%	85 - 115%	none
Mercury	Blank + 5 Standards, r^2 >/ = 0.995		none
Cyanide	Blank + 4 Standards, r^2 >/ = 0.995		none

CRDL Standards		% Recovery	Outliers ?
ICP Analytes	CRI	70 - 130%	none
Mercury	CRA	70 - 130%	none
Cyanide	Mid-Range	70 - 130%	none

B. BLANKS

		Outliers ?
ICB / CCB	< RL	none
PrepBlank	< RL	none

C. ICP INTERELEMENT CORRECTION (ICSA / ICSAB)

		Outliers ?
ICSA	<2x RL for RL <10 ug/L	n/a
ICSAB	80 - 120% recovery	none

D. MATRIX SPIKE MW-1

75 - 125% recovery (if sample conc. < 4x spike conc.)

Outliers ?
Ba **(9, 9%)**
Cr (43, 43%)
Fe (73, 71%
Mn (73, 71%)
K (163, 161%)

QA Action: (1) Recovery above 125% : qualify positives 'J'; positive bias suggested due to matrix effects **FOOTNOTE = 1**
(2) Recovery below 75% : qualify non-detects 'UJ' and positives 'J'; negative bias suggested. **FOOTNOTE = 2**

E. POST-DIGESTION SPIKE (PDS)

ICP [only required for non-compliant matrix spike analytes]
75 - 125% recovery; PDS conc. should be 2x RL or 2x sample conc., whichever is >.
* Cr was post-spiked at 400 ppb against 3 J ppb in sample; this amount may produce an artificially high recovery.

Outliers ?
Ba **(9.5%)**
Cr (87% *)
Fe (74.6%
Mn (74.7%)
K (163%)

FOOTNOTE = 3

F. MATRIX DUPLICATE MW-1

	Outliers ?
Max. 50% RPD * for aqueous samples > 5x CRDL	none
Max. (+/-) CRDL value if either sample < 5x CRDL	none

* EPA Region II data validation guidance uses a 50% RPD threshhold for aqueous data qualification.

G. LABORATORY CONTROL SAMPLE

Recovery within range for non-aqueous samples — Outliers ? none

H. SERIAL DILUTION SAMPLE MW-1

Maximum 10.0% D if undiluted sample > 10x MDL

Outliers ? Ba, Co, K, Na, Zn

QA Action: See below

QA Action: Precision value >10.0%D : qualify positives >10x MDL 'J'. **FOOTNOTE = 4**

I. RESULTS >MDL <RL

Positive analyte concentrations above MDL values but below RL values were qualified 'J' by the laboratory, as quantitatively estimated values. No bias direction is inferred. No footnote is assigned, since this is the only lab-applied 'J' qualifier.

INORGANICS / METALS ANALYSIS
QC PARAMETER / CALIBRATION / QUALIFIER SUMMARY

For: Malcolm Pirnie, Inc. Project: Incinerator Site, Lackawanna, NY Project No.: 4852-001

Lab Project No.: T2648

Review Level: NYSDEC 'DUSR Laboratory: ChemTech, NJ

J. NYSDEC-ASP HOLDING TIMES (from VTSR)

Metals except mercury	6 months
Mercury	26 days
Cyanide	12 days

All samples were analyzed within allowable holding times.

K. VERIFICATION OF INSTRUMENTAL PARAMETERS

	Frequency	Outliers ?
Method / Instrument Detection Limits	every 6 months	none
Interelement Correction Factors	every 6 months	none
Linear Range Analysis	every 6 months	none

L. VERIFICATION OF REPORTED RESULTS

Sample ID : Analyte:

Reported value: mg/Kg

$$mg/Kg = \frac{\text{conc. mg/L}}{\text{wet wgt, gm}} \times \frac{\text{final volume, mL}}{\%\text{solids}/100}$$

mg/Kg = #DIV/0!

Result verified ?

Reported % solids:

$$\% \text{ solids} = \frac{\text{dry wgt., gm}}{\text{wet wgt., gm}} \times 100$$

% solids = #DIV/0!

Result verified ?

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lacka	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
		% Solids:	0.00

QUAL FOOTNOTES

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	
7429-90-5	Aluminum	2180		ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-36-0	Antimony	3.170	U	ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-38-2	Arsenic	3.320	U	ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-39-3	Barium	49.7	J ~~N~~	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3, 4
7440-41-7	Beryllium	0.165	J	ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-43-9	Cadmium	0.327	U	ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-70-2	Calcium	258000		ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-47-3	Chromium	2.680	J ~~N~~	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7440-48-4	Cobalt	4.140	J	ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010	4
7440-50-8	Copper	10.7	J	ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-89-6	Iron	4600	J ~~N~~	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-92-1	Lead	2.180	U	ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-95-4	Magnesium	102000		ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-96-5	Manganese	750	J ~~N~~	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-97-6	Mercury	0.0500	J	ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470	
7440-02-0	Nickel	8.570	J	ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-09-7	Potassium	4770	J ~~N~~	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010	1, 3, 4
7782-49-2	Selenium	3.040	U	ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-22-4	Silver	1.640	U	ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-23-5	Sodium	441000	J	ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010	4
7440-28-0	Thallium	3.050	U	ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-62-2	Vanadium	3.580	J	ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-66-6	Zinc	55.6	J	ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010	4

Comments:

06/20/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-2**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-04**	**Matrix:**	**WATER**
		% Solids:	**0.00**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method	QUAL FOOTNOTE
7429-90-5	Aluminum	259			ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-36-0	Antimony	3.170	U		ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-38-2	Arsenic	13.4			ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-39-3	Barium	119	J	N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010	2,3,4
7440-41-7	Beryllium	0.235	J		ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-43-9	Cadmium	0.327	U		ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-70-2	Calcium	73600			ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-47-3	Chromium	0.343	U	J N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7440-48-4	Cobalt	0.910	J		ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-50-8	Copper	4.280	J		ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-89-6	Iron	880	J	N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010	2,3
7439-92-1	Lead	2.180	U		ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-95-4	Magnesium	39600			ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-96-5	Manganese	151	J	N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-97-6	Mercury	0.0300	U		ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470	
7440-02-0	Nickel	2.740	J		ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-09-7	Potassium	2020	J	N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010	1, 3, 4
7782-49-2	Selenium	3.040	U		ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-22-4	Silver	1.640	U		ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-23-5	Sodium	39400	J		ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010	4
7440-28-0	Thallium	3.050	U		ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-62-2	Vanadium	0.701	U		ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-66-6	Zinc	23.3	J		ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010	4

Comments:

and blanks

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lacka	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
		% Solids:	0.00

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method	
7429-90-5	Aluminum	1170			ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-36-0	Antimony	3.170	U		ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-38-2	Arsenic	43.6			ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-39-3	Barium	230	J	N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3, 4
7440-41-7	Beryllium	0.110	J		ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-43-9	Cadmium	0.327	U		ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-70-2	Calcium	67300			ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-47-3	Chromium	0.735	J	N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7440-48-4	Cobalt	0.875	J		ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-50-8	Copper	5.400	J		ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-89-6	Iron	3510	J	N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-92-1	Lead	2.180	U		ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-95-4	Magnesium	43900			ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-96-5	Manganese	149	J	N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-97-6	Mercury	0.0500	J		ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470	
7440-02-0	Nickel	2.370	J		ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-09-7	Potassium	2070	J	N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010	1, 3, 4
7782-49-2	Selenium	3.040	U		ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-22-4	Silver	1.640	U		ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-23-5	Sodium	41300	J		ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010	4
7440-28-0	Thallium	3.050	U		ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-62-2	Vanadium	1.250	J		ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-66-6	Zinc	29.0	J		ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010	4

QUAL FOOTNOTE

Comments:

06/30/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**5/3/2005**
Client Sample ID:	**GW-DUP1**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-06**	**Matrix:**	**WATER**
		% Solids:	**0.00**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	
7429-90-5	Aluminum	311		ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-36-0	Antimony	3.170	U	ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-38-2	Arsenic	17.3		ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-39-3	Barium	119	J N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3, 4
7440-41-7	Beryllium	0.125	J	ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-43-9	Cadmium	0.327	U	ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-70-2	Calcium	72900		ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-47-3	Chromium	0.580	J N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7440-48-4	Cobalt	2.700	J	ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-50-8	Copper	5.650	J	ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-89-6	Iron	719 J	N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-92-1	Lead	2.180	U	ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-95-4	Magnesium	39200		ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-96-5	Manganese	150 J	N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-97-6	Mercury	0.0300	U	ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470	
7440-02-0	Nickel	1.740	J	ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-09-7	Potassium	2110	J N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010	1, 3, 4
7782-49-2	Selenium	3.040	U	ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-22-4	Silver	1.640	U	ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-23-5	Sodium	39800 J		ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010	4
7440-28-0	Thallium	3.610	J	ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-62-2	Vanadium	1.820	J	ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-66-6	Zinc	28.9 J		ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010	4

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lacka	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
		% Solids:	0.00

QUAL FOOTNOTE

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method	
7429-90-5	Aluminum	6.640	J	ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-36-0	Antimony	3.170	U	ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-38-2	Arsenic	3.320	U	ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-39-3	Barium	0.723	U J N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7440-41-7	Beryllium	0.090	U	ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-43-9	Cadmium	0.327	U	ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-70-2	Calcium	1.170	U	ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-47-3	Chromium	0.343	U J N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7440-48-4	Cobalt	0.880	J	ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-50-8	Copper	3.640	U	ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-89-6	Iron	27.0	U J N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-92-1	Lead	2.180	U	ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-95-4	Magnesium	8.300	U	ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7439-96-5	Manganese	0.106	U J N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010	2, 3
7439-97-6	Mercury	0.0300	U	ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470	
7440-02-0	Nickel	1.560	U	ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-09-7	Potassium	61.8	U N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7782-49-2	Selenium	3.040	U	ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-22-4	Silver	1.640	U	ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-23-5	Sodium	332	U	ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-28-0	Thallium	3.050	U	ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-62-2	Vanadium	0.701	U	ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010	
7440-66-6	Zinc	0.611	U	ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010	

Comments:

06/20/05

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

MALCOLM PIRNIE

Laboratory Analytical Data Reports

APPENDIX

F

CHEMTECH 284 Sheffield Street • Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

ANALYTICAL RESULTS SUMMARY

PROJECT NAME: Incinerator Site-Lackawanna, NY

MALCOLM PIRNIE
40 CENTER DRIVE
ORCHARD PARK, NY 14127
7166676640

CHEMTECH PROJECT NO. **T2253**
ATTENTION: **Brad Walker**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**IS-MW-1-(2-2.5)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-01**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**14**
Sample Wt/Wol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041609.D	1	4/16/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.0	U	5.8	1.0	ug/Kg
74-87-3	Chloromethane	0.99	U	5.8	0.99	ug/Kg
75-01-4	Vinyl chloride	0.96	U	5.8	0.96	ug/Kg
74-83-9	Bromomethane	2.4	U	5.8	2.4	ug/Kg
75-00-3	Chloroethane	2.5	U	5.8	2.5	ug/Kg
75-69-4	Trichlorofluoromethane	1.4	U	5.8	1.4	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.77	U	5.8	0.77	ug/Kg
75-35-4	1,1-Dichloroethene	0.67	U	5.8	0.67	ug/Kg
67-64-1	Acetone	11	JB	29	3.9	ug/Kg
75-15-0	Carbon disulfide	4.2	J	5.8	0.43	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.43	U	5.8	0.43	ug/Kg
79-20-9	Methyl Acetate	1.0	U	5.8	1.0	ug/Kg
75-09-2	Methylene Chloride	6.9	B	5.8	2.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.74	U	5.8	0.74	ug/Kg
75-34-3	1,1-Dichloroethane	0.31	U	5.8	0.31	ug/Kg
110-82-7	Cyclohexane	0.38	U	5.8	0.38	ug/Kg
78-93-3	2-Butanone	3.3	U	29	3.3	ug/Kg
56-23-5	Carbon Tetrachloride	0.52	U	5.8	0.52	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.38	U	5.8	0.38	ug/Kg
67-66-3	Chloroform	0.40	U	5.8	0.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.49	U	5.8	0.49	ug/Kg
108-87-2	Methylcyclohexane	0.49	U	5.8	0.49	ug/Kg
71-43-2	Benzene	0.46	U	5.8	0.46	ug/Kg
107-06-2	1,2-Dichloroethane	0.36	U	5.8	0.36	ug/Kg
79-01-6	Trichloroethene	0.36	U	5.8	0.36	ug/Kg
78-87-5	1,2-Dichloropropane	0.46	U	5.8	0.46	ug/Kg
75-27-4	Bromodichloromethane	0.39	U	5.8	0.39	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.3	U	29	2.3	ug/Kg
108-88-3	Toluene	2.6	J	5.8	0.47	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.42	U	5.8	0.42	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.38	U	5.8	0.38	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.34	U	5.8	0.34	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**IS-MW-1-(2-2.5)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-01**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**14**
Sample Wt/Vol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041609.D	1	4/16/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.2	U	29	4.2	ug/Kg
124-48-1	Dibromochloromethane	0.27	U	5.8	0.27	ug/Kg
106-93-4	1,2-Dibromoethane	0.47	U	5.8	0.47	ug/Kg
127-18-4	Tetrachloroethene	0.85	U	5.8	0.85	ug/Kg
108-90-7	Chlorobenzene	0.42	U	5.8	0.42	ug/Kg
100-41-4	Ethyl Benzene	0.41	U	5.8	0.41	ug/Kg
126777-61-2	m/p-Xylenes	3.0	J	5.8	1.0	ug/Kg
95-47-6	o-Xylene	0.45	U	5.8	0.45	ug/Kg
100-42-5	Styrene	0.53	U	5.8	0.53	ug/Kg
75-25-2	Bromoform	0.36	U	5.8	0.36	ug/Kg
98-82-8	Isopropylbenzene	0.48	U	5.8	0.48	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.36	U	5.8	0.36	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.65	U	5.8	0.65	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.63	U	5.8	0.63	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.45	U	5.8	0.45	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.1	U	5.8	1.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.79	U	5.8	0.79	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.97	98 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	49.47	99 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	47.19	94 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	41.12	82 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	225986	4.28			
540-36-3	1,4-Difluorobenzene	305826	4.74			
3114-55-4	Chlorobenzene-d5	255750	7.63			
3855-82-1	1,4-Dichlorobenzene-d4	114218	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**IS-MW2-(5.5-6.0)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-02**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**20**
Sample Wt/Vol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041508.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg
67-64-1	Acetone	4.2	U	31	4.2	ug/Kg
75-15-0	Carbon disulfide	0.46	U	6.2	0.46	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg
75-09-2	Methylene Chloride	12	B	6.2	2.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg
78-93-3	2-Butanone	3.5	U	31	3.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg
108-87-2	Methylcyclohexane	0.52	U	6.2	0.52	ug/Kg
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg
108-88-3	Toluene	10		6.2	0.51	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**IS-MW2-(5.5-6.0)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-02**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**20**
Sample Wt/Vol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041508.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	1.5	J	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.73	101 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	54.06	108 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	47.59	95 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	30.82	62 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	232102	4.30			
540-36-3	1,4-Difluorobenzene	296151	4.75			
3114-55-4	Chlorobenzene-d5	207602	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	78854	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**IS-MW2-(5.5-6.0)RE**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-02RE**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**20**
Sample Wt/Wol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041610.D	1	4/16/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg
67-64-1	Acetone	4.2	U	31	4.2	ug/Kg
75-15-0	Carbon disulfide	0.46	U	6.2	0.46	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg
75-09-2	Methylene Chloride	17	B	6.2	2.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg
78-93-3	2-Butanone	3.5	U	31	3.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg
108-87-2	Methylcyclohexane	0.52	U	6.2	0.52	ug/Kg
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg
108-88-3	Toluene	1.6	J	6.2	0.51	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW2-(5.5-6.0)RE	**SDG No.:**	T2253
Lab Sample ID:	T2253-02RE	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041610.D	1	4/16/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	1.7	J	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.87	108 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	56.52	113 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	47.07	94 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	31.14	62 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	80860	4.29			
540-36-3	1,4-Difluorobenzene	103210	4.74			
3114-55-4	Chlorobenzene-d5	73062	7.63			
3855-82-1	1,4-Dichlorobenzene-d4	28161	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW3-(2-2.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	17
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041509.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.0	U	6.0	1.0	ug/Kg
74-87-3	Chloromethane	1.0	U	6.0	1.0	ug/Kg
75-01-4	Vinyl chloride	0.99	U	6.0	0.99	ug/Kg
74-83-9	Bromomethane	2.4	U	6.0	2.4	ug/Kg
75-00-3	Chloroethane	2.6	U	6.0	2.6	ug/Kg
75-69-4	Trichlorofluoromethane	1.5	U	6.0	1.5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	6.0	0.80	ug/Kg
75-35-4	1,1-Dichloroethene	0.69	U	6.0	0.69	ug/Kg
67-64-1	Acetone	6.5	JB	30	4.0	ug/Kg
75-15-0	Carbon disulfide	0.44	U	6.0	0.44	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.44	U	6.0	0.44	ug/Kg
79-20-9	Methyl Acetate	1.0	U	6.0	1.0	ug/Kg
75-09-2	Methylene Chloride	3.7	JB	6.0	2.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.77	U	6.0	0.77	ug/Kg
75-34-3	1,1-Dichloroethane	0.32	U	6.0	0.32	ug/Kg
110-82-7	Cyclohexane	0.39	U	6.0	0.39	ug/Kg
78-93-3	2-Butanone	3.4	U	30	3.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.53	U	6.0	0.53	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.39	U	6.0	0.39	ug/Kg
67-66-3	Chloroform	0.42	U	6.0	0.42	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.50	U	6.0	0.50	ug/Kg
108-87-2	Methylcyclohexane	0.51	U	6.0	0.51	ug/Kg
71-43-2	Benzene	0.48	U	6.0	0.48	ug/Kg
107-06-2	1,2-Dichloroethane	0.37	U	6.0	0.37	ug/Kg
79-01-6	Trichloroethene	0.37	U	6.0	0.37	ug/Kg
78-87-5	1,2-Dichloropropane	0.48	U	6.0	0.48	ug/Kg
75-27-4	Bromodichloromethane	0.40	U	6.0	0.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.4	U	30	2.4	ug/Kg
108-88-3	Toluene	3.3	J	6.0	0.49	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.44	U	6.0	0.44	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.40	U	6.0	0.40	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.35	U	6.0	0.35	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-MW3-(2-2.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	17
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041509.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.3	U	30	4.3	ug/Kg
124-48-1	Dibromochloromethane	0.28	U	6.0	0.28	ug/Kg
106-93-4	1,2-Dibromoethane	0.48	U	6.0	0.48	ug/Kg
127-18-4	Tetrachloroethene	0.88	U	6.0	0.88	ug/Kg
108-90-7	Chlorobenzene	0.44	U	6.0	0.44	ug/Kg
100-41-4	Ethyl Benzene	0.43	U	6.0	0.43	ug/Kg
126777-61-2	m/p-Xylenes	1.0	U	6.0	1.0	ug/Kg
95-47-6	o-Xylene	0.46	U	6.0	0.46	ug/Kg
100-42-5	Styrene	0.55	U	6.0	0.55	ug/Kg
75-25-2	Bromoform	0.37	U	6.0	0.37	ug/Kg
98-82-8	Isopropylbenzene	0.50	U	6.0	0.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.37	U	6.0	0.37	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.67	U	6.0	0.67	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.66	U	6.0	0.66	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.47	U	6.0	0.47	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.1	U	6.0	1.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.82	U	6.0	0.82	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.57	97 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	49.76	100 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	46.17	92 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	37.34	75 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	243456	4.30			
540-36-3	1,4-Difluorobenzene	329180	4.75			
3114-55-4	Chlorobenzene-d5	250144	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	106696	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SB1(1-1.5)	**SDG No.:**	T2253
Lab Sample ID:	T2253-04	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041510.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg
67-64-1	Acetone	19	JB	31	4.2	ug/Kg
75-15-0	Carbon disulfide	0.46	U	6.2	0.46	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg
75-09-2	Methylene Chloride	7.8	B	6.2	2.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg
78-93-3	2-Butanone	3.5	U	31	3.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg
108-87-2	Methylcyclohexane	0.52	U	6.2	0.52	ug/Kg
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg
108-88-3	Toluene	2.8	J	6.2	0.51	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**IS-SB1(1-1.5)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-04**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**20**
Sample Wt/Vol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041510.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.17	102 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.37	101 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.55	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	50.59	101 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	244164	4.30			
540-36-3	1,4-Difluorobenzene	332813	4.75			
3114-55-4	Chlorobenzene-d5	291969	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	170738	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SB-4(12-13)	**SDG No.:**	T2253
Lab Sample ID:	T2253-05	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041511.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg
67-64-1	Acetone	250	B	31	4.2	ug/Kg
75-15-0	Carbon disulfide	8.8		6.2	0.46	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg
75-09-2	Methylene Chloride	11	B	6.2	2.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg
78-93-3	2-Butanone	27	J	31	3.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg
108-87-2	Methylcyclohexane	4.6	J	6.2	0.52	ug/Kg
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg
108-88-3	Toluene	9.9		6.2	0.51	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**IS-SB-4(12-13)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-05**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**20**
Sample Wt/Wol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041511.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.78	96 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.92	102 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.09	96 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	40.47	81 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	243775	4.30			
540-36-3	1,4-Difluorobenzene	323747	4.75			
3114-55-4	Chlorobenzene-d5	258619	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	117667	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2253
Lab Sample ID:	T2253-06	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD041419.D	1	4/15/05	VD041305

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**TRIPBLANK**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-06**	**Matrix:**	**WATER**
Analytical Method:	**8260**	**% Moisture:**	**100**
Sample Wt/Wol:	**5.0 Units: mL**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD041419.D	1	4/15/05	VD041305

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.38	103 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	50.05	100 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	51.89	104 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	52.18	104 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	308770	4.27			
540-36-3	1,4-Difluorobenzene	525818	4.98			
3114-55-4	Chlorobenzene-d5	509236	8.25			
3855-82-1	1,4-Dichlorobenzene-d4	230254	10.41			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041512.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg
75-35-4	1,1-Dichloroethene	0.72	U	6.2	0.72	ug/Kg
67-64-1	Acetone	14	JB	31	4.2	ug/Kg
75-15-0	Carbon disulfide	3.5	J	6.2	0.46	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg
75-09-2	Methylene Chloride	5.1	JB	6.2	2.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg
78-93-3	2-Butanone	3.5	U	31	3.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg
67-66-3	Chloroform	0.44	U	6.2	0.44	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg
108-87-2	Methylcyclohexane	2.8	J	6.2	0.52	ug/Kg
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg
108-88-3	Toluene	1.4	J	6.2	0.51	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/05**
Client Sample ID:	**IS-SOILDUP**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-14**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**20**
Sample Wt/Wol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041512.D	1	4/15/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	1.1	U	6.2	1.1	ug/Kg
95-47-6	o-Xylene	0.48	U	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.53	97 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	51.97	104 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	50.25	101 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	51.83	104 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	133250	4.30			
540-36-3	1,4-Difluorobenzene	176024	4.75			
3114-55-4	Chlorobenzene-d5	161793	7.64			
3855-82-1	1,4-Dichlorobenzene-d4	91381	9.65			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech

Summary Sheet
SW-846

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** MALC05

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-MW-1-(2-2.5)**							
T2253-01	IS-MW-1-(2-2.5)	SOIL	Acetone	11	JB	29	3.9	ug/Kg
T2253-01	IS-MW-1-(2-2.5)	SOIL	Carbon disulfide	4.2	J	5.8	0.43	ug/Kg
T2253-01	IS-MW-1-(2-2.5)	SOIL	Methylene Chloride	6.9	B	5.8	2.1	ug/Kg
T2253-01	IS-MW-1-(2-2.5)	SOIL	Toluene	2.6	J	5.8	0.47	ug/Kg
T2253-01	IS-MW-1-(2-2.5)	SOIL	m/p-Xylenes	3.0	J	5.8	1.0	ug/Kg
			Total VOC's:	27.70				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	27.70				
Client ID:	**IS-MW2-(5.5-6.0)**							
T2253-02	IS-MW2-(5.5-6.0)	SOIL	Methylene Chloride	12	B	6.2	2.3	ug/Kg
T2253-02	IS-MW2-(5.5-6.0)	SOIL	Toluene	10		6.2	0.51	ug/Kg
T2253-02	IS-MW2-(5.5-6.0)	SOIL	Tetrachloroethene	1.5	J	6.2	0.91	ug/Kg
			Total VOC's:	23.50				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	23.50				
Client ID:	**IS-MW2-(5.5-6.0)RE**							
T2253-02RE	IS-MW2-(5.5-6.0)RE	SOIL	Methylene Chloride	17	B	6.2	2.3	ug/Kg
T2253-02RE	IS-MW2-(5.5-6.0)RE	SOIL	Toluene	1.6	J	6.2	0.51	ug/Kg
T2253-02RE	IS-MW2-(5.5-6.0)RE	SOIL	Tetrachloroethene	1.7	J	6.2	0.91	ug/Kg
			Total VOC's:	20.30				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	20.30				
Client ID:	**IS-MW3-(2-2.5)**							
T2253-03	IS-MW3-(2-2.5)	SOIL	Acetone	6.5	JB	30	4.0	ug/Kg
T2253-03	IS-MW3-(2-2.5)	SOIL	Methylene Chloride	3.7	JB	6.0	2.2	ug/Kg
T2253-03	IS-MW3-(2-2.5)	SOIL	Toluene	3.3	J	6.0	0.49	ug/Kg
			Total VOC's:	13.50				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	13.50				
Client ID:	**IS-SB1(1-1.5)**							
T2253-04	IS-SB1(1-1.5)	SOIL	Acetone	19	JB	31	4.2	ug/Kg
T2253-04	IS-SB1(1-1.5)	SOIL	Methylene Chloride	7.8	B	6.2	2.3	ug/Kg
T2253-04	IS-SB1(1-1.5)	SOIL	Toluene	2.8	J	6.2	0.51	ug/Kg
			Total VOC's:	29.60				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	29.60				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Summary Sheet
SW-846

SDG No.: T2253 Order ID: T2253

Client: Malcolm Pirnie Project ID: MALC05

ample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
lient ID:	IS-SB-4(12-13)							
2253-05	IS-SB-4(12-13)	SOIL	Acetone	250	B	31	4.2	ug/Kg
2253-05	IS-SB-4(12-13)	SOIL	Carbon disulfide	8.8		6.2	0.46	ug/Kg
2253-05	IS-SB-4(12-13)	SOIL	Methylene Chloride	11	B	6.2	2.3	ug/Kg
2253-05	IS-SB-4(12-13)	SOIL	2-Butanone	27	J	31	3.5	ug/Kg
2253-05	IS-SB-4(12-13)	SOIL	Methylcyclohexane	4.6	J	6.2	0.52	ug/Kg
2253-05	IS-SB-4(12-13)	SOIL	Toluene	9.9		6.2	0.51	ug/Kg
			Total VOC's:	311.30				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	311.30				
lient ID:	IS-SOILDUP							
2253-14	IS-SOILDUP	SOIL	Acetone	14	JB	31	4.2	ug/Kg
2253-14	IS-SOILDUP	SOIL	Carbon disulfide	3.5	J	6.2	0.46	ug/Kg
2253-14	IS-SOILDUP	SOIL	Methylene Chloride	5.1	JB	6.2	2.3	ug/Kg
2253-14	IS-SOILDUP	SOIL	Methylcyclohexane	2.8	J	6.2	0.52	ug/Kg
2253-14	IS-SOILDUP	SOIL	Toluene	1.4	J	6.2	0.51	ug/Kg
			Total VOC's:	26.80				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	26.80				

te: The asterisk "*" flag next to a parameter signifies a TIC parameter.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW1-(0.3)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-07**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**18**
Sample Wt/Vol:	**15.1 g**	**Extract Vol:**	**1000 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022862.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	160	U	800	160	ug/Kg
108-95-2	Phenol	120	U	800	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	130	U	800	130	ug/Kg
95-57-8	2-Chlorophenol	130	U	800	130	ug/Kg
95-48-7	2-Methylphenol	130	U	800	130	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	130	U	800	130	ug/Kg
98-86-2	Acetophenone	120	U	800	120	ug/Kg
106-44-5	3+4-Methylphenols	130	U	800	130	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	130	U	800	130	ug/Kg
67-72-1	Hexachloroethane	140	U	800	140	ug/Kg
98-95-3	Nitrobenzene	170	U	800	170	ug/Kg
78-59-1	Isophorone	120	U	800	120	ug/Kg
88-75-5	2-Nitrophenol	120	U	800	120	ug/Kg
105-67-9	2,4-Dimethylphenol	130	U	800	130	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	130	U	800	130	ug/Kg
120-83-2	2,4-Dichlorophenol	150	U	800	150	ug/Kg
91-20-3	Naphthalene	140	U	800	140	ug/Kg
106-47-8	4-Chloroaniline	95	U	800	95	ug/Kg
87-68-3	Hexachlorobutadiene	120	U	800	120	ug/Kg
105-60-2	Caprolactam	130	U	800	130	ug/Kg
59-50-7	4-Chloro-3-methylphenol	110	U	800	110	ug/Kg
91-57-6	2-Methylnaphthalene	130	U	800	130	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	800	130	ug/Kg
88-06-2	2,4,6-Trichlorophenol	120	U	800	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	120	U	2000	120	ug/Kg
92-52-4	1,1-Biphenyl	130	U	800	130	ug/Kg
91-58-7	2-Chloronaphthalene	130	U	800	130	ug/Kg
88-74-4	2-Nitroaniline	100	U	2000	100	ug/Kg
131-11-3	Dimethylphthalate	130	U	800	130	ug/Kg
208-96-8	Acenaphthylene	130	U	800	130	ug/Kg
606-20-2	2,6-Dinitrotoluene	110	U	800	110	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	18
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022862.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	100	U	2000	100	ug/Kg
83-32-9	Acenaphthene	140	U	800	140	ug/Kg
51-28-5	2,4-Dinitrophenol	690	U	2000	690	ug/Kg
100-02-7	4-Nitrophenol	99	U	2000	99	ug/Kg
132-64-9	Dibenzofuran	130	U	800	130	ug/Kg
121-14-2	2,4-Dinitrotoluene	120	U	800	120	ug/Kg
84-66-2	Diethylphthalate	140	U	800	140	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	130	U	800	130	ug/Kg
86-73-7	Fluorene	140	U	800	140	ug/Kg
100-01-6	4-Nitroaniline	140	U	2000	140	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	160	U	2000	160	ug/Kg
86-30-6	N-Nitrosodiphenylamine	130	U	800	130	ug/Kg
101-55-3	4-Bromophenyl-phenylether	120	U	800	120	ug/Kg
118-74-1	Hexachlorobenzene	130	U	800	130	ug/Kg
1912-24-9	Atrazine	120	U	800	120	ug/Kg
87-86-5	Pentachlorophenol	190	U	2000	190	ug/Kg
85-01-8	Phenanthrene	130	U	800	130	ug/Kg
120-12-7	Anthracene	120	U	800	120	ug/Kg
86-74-8	Carbazole	120	U	800	120	ug/Kg
84-74-2	Di-n-butylphthalate	120	U	800	120	ug/Kg
206-44-0	Fluoranthene	130	J	800	120	ug/Kg
129-00-0	Pyrene	140	U	800	140	ug/Kg
85-68-7	Butylbenzylphthalate	130	U	800	130	ug/Kg
91-94-1	3,3-Dichlorobenzidine	140	U	800	140	ug/Kg
56-55-3	Benzo(a)anthracene	110	U	800	110	ug/Kg
218-01-9	Chrysene	140	U	800	140	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	150	U	800	150	ug/Kg
117-84-0	Di-n-octyl phthalate	140	U	800	140	ug/Kg
205-99-2	Benzo(b)fluoranthene	93	J	800	88	ug/Kg
207-08-9	Benzo(k)fluoranthene	180	U	800	180	ug/Kg
50-32-8	Benzo(a)pyrene	130	U	800	130	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	18
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022862.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	100	U	800	100	ug/Kg
53-70-3	Dibenz(a,h)anthracene	100	U	800	100	ug/Kg
191-24-2	Benzo(g,h,i)perylene	130	U	800	130	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	133.34	44 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	133.91	45 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	91.36	46 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	98.96	49 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	101.12	34 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	102.09	51 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	305968	6.73			
1146-65-2	Naphthalene-d8	1298367	9.06			
15067-26-2	Acenaphthene-d10	665888	12.56			
1517-22-2	Phenanthrene-d10	784693	15.56			
1719-03-5	Chrysene-d12	460201	20.93			
1520-96-3	Perylene-d12	297807	24.44			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	1600	AB	4.23		ug/Kg
13151912	Tridecane 6-cyclohexyl-, 6-cycloh	170	J	20.71		ug/Kg
55401757	Anthracene, 9-dodecyltetradecahy	400	J	26.33		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW2-(0-6)	**SDG No.:**	T2253
Lab Sample ID:	T2253-08	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	24
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022817.D	1	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	89	U	430	89	ug/Kg
108-95-2	Phenol	66	U	430	66	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	69	U	430	69	ug/Kg
95-57-8	2-Chlorophenol	69	U	430	69	ug/Kg
95-48-7	2-Methylphenol	72	U	430	72	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	70	U	430	70	ug/Kg
98-86-2	Acetophenone	63	U	430	63	ug/Kg
106-44-5	3+4-Methylphenols	68	U	430	68	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	72	U	430	72	ug/Kg
67-72-1	Hexachloroethane	74	U	430	74	ug/Kg
98-95-3	Nitrobenzene	95	U	430	95	ug/Kg
78-59-1	Isophorone	65	U	430	65	ug/Kg
88-75-5	2-Nitrophenol	67	U	430	67	ug/Kg
105-67-9	2,4-Dimethylphenol	69	U	430	69	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	71	U	430	71	ug/Kg
120-83-2	2,4-Dichlorophenol	80	U	430	80	ug/Kg
91-20-3	Naphthalene	74	U	430	74	ug/Kg
106-47-8	4-Chloroaniline	52	U	430	52	ug/Kg
87-68-3	Hexachlorobutadiene	67	U	430	67	ug/Kg
105-60-2	Caprolactam	70	U	430	70	ug/Kg
59-50-7	4-Chloro-3-methylphenol	60	U	430	60	ug/Kg
91-57-6	2-Methylnaphthalene	73	U	430	73	ug/Kg
77-47-4	Hexachlorocyclopentadiene	69	U	430	69	ug/Kg
88-06-2	2,4,6-Trichlorophenol	64	U	430	64	ug/Kg
95-95-4	2,4,5-Trichlorophenol	66	U	1100	66	ug/Kg
92-52-4	1,1-Biphenyl	71	U	430	71	ug/Kg
91-58-7	2-Chloronaphthalene	72	U	430	72	ug/Kg
88-74-4	2-Nitroaniline	55	U	1100	55	ug/Kg
131-11-3	Dimethylphthalate	70	U	430	70	ug/Kg
208-96-8	Acenaphthylene	70	U	430	70	ug/Kg
606-20-2	2,6-Dinitrotoluene	61	U	430	61	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW2-(0-6)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-08**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**24**
Sample Wt/Vol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022817.D	1	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	57	U	1100	57	ug/Kg
83-32-9	Acenaphthene	77	U	430	77	ug/Kg
51-28-5	2,4-Dinitrophenol	370	U	1100	370	ug/Kg
100-02-7	4-Nitrophenol	54	U	1100	54	ug/Kg
132-64-9	Dibenzofuran	72	U	430	72	ug/Kg
121-14-2	2,4-Dinitrotoluene	64	U	430	64	ug/Kg
84-66-2	Diethylphthalate	75	U	430	75	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	69	U	430	69	ug/Kg
86-73-7	Fluorene	73	U	430	73	ug/Kg
100-01-6	4-Nitroaniline	74	U	1100	74	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	84	U	1100	84	ug/Kg
86-30-6	N-Nitrosodiphenylamine	71	U	430	71	ug/Kg
101-55-3	4-Bromophenyl-phenylether	65	U	430	65	ug/Kg
118-74-1	Hexachlorobenzene	69	U	430	69	ug/Kg
1912-24-9	Atrazine	66	U	430	66	ug/Kg
87-86-5	Pentachlorophenol	100	U	1100	100	ug/Kg
85-01-8	Phenanthrene	72	J	430	69	ug/Kg
120-12-7	Anthracene	65	U	430	65	ug/Kg
86-74-8	Carbazole	66	U	430	66	ug/Kg
84-74-2	Di-n-butylphthalate	66	U	430	66	ug/Kg
206-44-0	Fluoranthene	140	J	430	65	ug/Kg
129-00-0	Pyrene	140	J	430	77	ug/Kg
85-68-7	Butylbenzylphthalate	70	U	430	70	ug/Kg
91-94-1	3,3-Dichlorobenzidine	74	U	430	74	ug/Kg
56-55-3	Benzo(a)anthracene	90	J	430	61	ug/Kg
218-01-9	Chrysene	95	J	430	78	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	240	J	430	83	ug/Kg
117-84-0	Di-n-octyl phthalate	74	U	430	74	ug/Kg
205-99-2	Benzo(b)fluoranthene	110	J	430	48	ug/Kg
207-08-9	Benzo(k)fluoranthene	95	U	430	95	ug/Kg
50-32-8	Benzo(a)pyrene	88	J	430	69	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW2-(0-6)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-08**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**24**
Sample Wt/Wol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022817.D	1	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	55	U	430	55	ug/Kg
53-70-3	Dibenz(a,h)anthracene	54	U	430	54	ug/Kg
191-24-2	Benzo(g,h,i)perylene	72	U	430	72	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	236.92	79 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	255.55	85 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	178.61	89 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	161.75	81 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	206.94	69 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	190.97	95 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	124817	6.77			
1146-65-2	Naphthalene-d8	531826	9.09			
15067-26-2	Acenaphthene-d10	301736	12.59			
1517-22-2	Phenanthrene-d10	434907	15.60			
1719-03-5	Chrysene-d12	279185	20.98			
1520-96-3	Perylene-d12	197126	24.51			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	1700	AB	4.28		ug/Kg
629787	Heptadecane	140	J	20.09		ug/Kg
1599673	1-Docosene	470	J	20.74		ug/Kg
	Unknown	110	JB	21.41		ug/Kg
	Unknown1	190	J	22.12		ug/Kg
544763	Hexadecane	160	J	22.91		ug/Kg
	Unknown2	180	J	23.80		ug/Kg
629629	Pentadecane	180	J	24.87		ug/Kg
629947	Heneicosane	170	J	26.13		ug/Kg
	Unknown3	220	J	27.64		ug/Kg
	Unknown4	290	J	30.40		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW3-(0-4)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-09**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**22**
Sample Wt/Vol:	**15.1 g**	**Extract Vol:**	**5000 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022821.D	2	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1700	U	8400	1700	ug/Kg
108-95-2	Phenol	1300	U	8400	1300	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1300	U	8400	1300	ug/Kg
95-57-8	2-Chlorophenol	1300	U	8400	1300	ug/Kg
95-48-7	2-Methylphenol	1400	U	8400	1400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1400	U	8400	1400	ug/Kg
98-86-2	Acetophenone	1200	U	8400	1200	ug/Kg
106-44-5	3+4-Methylphenols	1300	U	8400	1300	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1400	U	8400	1400	ug/Kg
67-72-1	Hexachloroethane	1400	U	8400	1400	ug/Kg
98-95-3	Nitrobenzene	1800	U	8400	1800	ug/Kg
78-59-1	Isophorone	1300	U	8400	1300	ug/Kg
88-75-5	2-Nitrophenol	1300	U	8400	1300	ug/Kg
105-67-9	2,4-Dimethylphenol	1300	U	8400	1300	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1400	U	8400	1400	ug/Kg
120-83-2	2,4-Dichlorophenol	1600	U	8400	1600	ug/Kg
91-20-3	Naphthalene	1400	U	8400	1400	ug/Kg
106-47-8	4-Chloroaniline	1000	U	8400	1000	ug/Kg
87-68-3	Hexachlorobutadiene	1300	U	8400	1300	ug/Kg
105-60-2	Caprolactam	1400	U	8400	1400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1200	U	8400	1200	ug/Kg
91-57-6	2-Methylnaphthalene	1400	U	8400	1400	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1300	U	8400	1300	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200	U	8400	1200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1300	U	21000	1300	ug/Kg
92-52-4	1,1-Biphenyl	1400	U	8400	1400	ug/Kg
91-58-7	2-Chloronaphthalene	1400	U	8400	1400	ug/Kg
88-74-4	2-Nitroaniline	1100	U	21000	1100	ug/Kg
131-11-3	Dimethylphthalate	1400	U	8400	1400	ug/Kg
208-96-8	Acenaphthylene	1400	U	8400	1400	ug/Kg
606-20-2	2,6-Dinitrotoluene	1200	U	8400	1200	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	22
Sample Wt/Wol:	15.1 g	**Extract Vol:**	5000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022821.D	2	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	1100	U	21000	1100	ug/Kg
83-32-9	Acenaphthene	1500	U	8400	1500	ug/Kg
51-28-5	2,4-Dinitrophenol	7200	U	21000	7200	ug/Kg
100-02-7	4-Nitrophenol	1000	U	21000	1000	ug/Kg
132-64-9	Dibenzofuran	1400	U	8400	1400	ug/Kg
121-14-2	2,4-Dinitrotoluene	1200	U	8400	1200	ug/Kg
84-66-2	Diethylphthalate	1500	U	8400	1500	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1300	U	8400	1300	ug/Kg
86-73-7	Fluorene	1400	U	8400	1400	ug/Kg
100-01-6	4-Nitroaniline	1400	U	21000	1400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1600	U	21000	1600	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1400	U	8400	1400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1300	U	8400	1300	ug/Kg
118-74-1	Hexachlorobenzene	1300	U	8400	1300	ug/Kg
1912-24-9	Atrazine	1300	U	8400	1300	ug/Kg
87-86-5	Pentachlorophenol	1900	U	21000	1900	ug/Kg
85-01-8	Phenanthrene	1900	J	8400	1300	ug/Kg
120-12-7	Anthracene	1300	U	8400	1300	ug/Kg
86-74-8	Carbazole	1300	U	8400	1300	ug/Kg
84-74-2	Di-n-butylphthalate	1300	J	8400	1300	ug/Kg
206-44-0	Fluoranthene	2200	J	8400	1200	ug/Kg
129-00-0	Pyrene	2500	J	8400	1500	ug/Kg
85-68-7	Butylbenzylphthalate	1400	U	8400	1400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1400	U	8400	1400	ug/Kg
56-55-3	Benzo(a)anthracene	1600	J	8400	1200	ug/Kg
218-01-9	Chrysene	1900	J	8400	1500	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1800	J	8400	1600	ug/Kg
117-84-0	Di-n-octyl phthalate	1400	U	8400	1400	ug/Kg
205-99-2	Benzo(b)fluoranthene	1900	J	8400	920	ug/Kg
207-08-9	Benzo(k)fluoranthene	1900	J	8400	1800	ug/Kg
50-32-8	Benzo(a)pyrene	1700	J	8400	1300	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW3-(0-4)	**SDG No.:**	T2253
Lab Sample ID:	T2253-09	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	22
Sample Wt/Vol:	15.1 g	**Extract Vol:**	5000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022821.D	2	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	1100	U	8400	1100	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1100	U	8400	1100	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1400	U	8400	1400	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	283	94 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	311	104 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	203	102 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	225	113 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	506	167 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	546	273 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	165706	6.75			
1146-65-2	Naphthalene-d8	715701	9.08			
15067-26-2	Acenaphthene-d10	403313	12.58			
1517-22-2	Phenanthrene-d10	581838	15.58			
1719-03-5	Chrysene-d12	363667	20.96			
1520-96-3	Perylene-d12	207647	24.49			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	1900	AB	4.25		ug/Kg
84662	Diethyl Phthalate	580	J	13.50		ug/Kg
1707751	Hydrazine, 1,1-diphenyl-2-(2,4,6-	630	J	13.95		ug/Kg
	Unknown	600	JB	19.13		ug/Kg
	Unknown1	550	J	19.46		ug/Kg
123795	Hexanedioic acid, dioctyl ester	1700	J	20.01		ug/Kg
40710427	1-Hentetracontanol	1400	J	20.74		ug/Kg
	Unknown2	780	J	21.39		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022861.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	83	U	400	83	ug/Kg
108-95-2	Phenol	61	U	400	61	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	64	U	400	64	ug/Kg
95-57-8	2-Chlorophenol	65	U	400	65	ug/Kg
95-48-7	2-Methylphenol	67	U	400	67	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	65	U	400	65	ug/Kg
98-86-2	Acetophenone	59	U	400	59	ug/Kg
106-44-5	3+4-Methylphenols	64	U	400	64	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	67	U	400	67	ug/Kg
67-72-1	Hexachloroethane	69	U	400	69	ug/Kg
98-95-3	Nitrobenzene	88	U	400	88	ug/Kg
78-59-1	Isophorone	61	U	400	61	ug/Kg
88-75-5	2-Nitrophenol	62	U	400	62	ug/Kg
105-67-9	2,4-Dimethylphenol	64	U	400	64	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	67	U	400	67	ug/Kg
120-83-2	2,4-Dichlorophenol	75	U	400	75	ug/Kg
91-20-3	Naphthalene	69	U	400	69	ug/Kg
106-47-8	4-Chloroaniline	48	U	400	48	ug/Kg
87-68-3	Hexachlorobutadiene	62	U	400	62	ug/Kg
105-60-2	Caprolactam	65	U	400	65	ug/Kg
59-50-7	4-Chloro-3-methylphenol	56	U	400	56	ug/Kg
91-57-6	2-Methylnaphthalene	68	U	400	68	ug/Kg
77-47-4	Hexachlorocyclopentadiene	65	U	400	65	ug/Kg
88-06-2	2,4,6-Trichlorophenol	60	U	400	60	ug/Kg
95-95-4	2,4,5-Trichlorophenol	62	U	1000	62	ug/Kg
92-52-4	1,1-Biphenyl	67	U	400	67	ug/Kg
91-58-7	2-Chloronaphthalene	67	U	400	67	ug/Kg
88-74-4	2-Nitroaniline	51	U	1000	51	ug/Kg
131-11-3	Dimethylphthalate	65	U	400	65	ug/Kg
208-96-8	Acenaphthylene	66	U	400	66	ug/Kg
606-20-2	2,6-Dinitrotoluene	57	U	400	57	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022861.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	53	U	1000	53	ug/Kg
83-32-9	Acenaphthene	72	U	400	72	ug/Kg
51-28-5	2,4-Dinitrophenol	350	U	1000	350	ug/Kg
100-02-7	4-Nitrophenol	50	U	1000	50	ug/Kg
132-64-9	Dibenzofuran	67	U	400	67	ug/Kg
121-14-2	2,4-Dinitrotoluene	60	U	400	60	ug/Kg
84-66-2	Diethylphthalate	70	U	400	70	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	64	U	400	64	ug/Kg
86-73-7	Fluorene	68	U	400	68	ug/Kg
100-01-6	4-Nitroaniline	69	U	1000	69	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	79	U	1000	79	ug/Kg
86-30-6	N-Nitrosodiphenylamine	67	U	400	67	ug/Kg
101-55-3	4-Bromophenyl-phenylether	61	U	400	61	ug/Kg
118-74-1	Hexachlorobenzene	65	U	400	65	ug/Kg
1912-24-9	Atrazine	62	U	400	62	ug/Kg
87-86-5	Pentachlorophenol	94	U	1000	94	ug/Kg
85-01-8	Phenanthrene	350	J	400	65	ug/Kg
120-12-7	Anthracene	68	J	400	61	ug/Kg
86-74-8	Carbazole	62	U	400	62	ug/Kg
84-74-2	Di-n-butylphthalate	62	U	400	62	ug/Kg
206-44-0	Fluoranthene	390	J	400	60	ug/Kg
129-00-0	Pyrene	420		400	72	ug/Kg
85-68-7	Butylbenzylphthalate	66	U	400	66	ug/Kg
91-94-1	3,3-Dichlorobenzidine	69	U	400	69	ug/Kg
56-55-3	Benzo(a)anthracene	210	J	400	57	ug/Kg
218-01-9	Chrysene	240	J	400	73	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	78	U	400	78	ug/Kg
117-84-0	Di-n-octyl phthalate	69	U	400	69	ug/Kg
205-99-2	Benzo(b)fluoranthene	250	J	400	45	ug/Kg
207-08-9	Benzo(k)fluoranthene	100	J	400	89	ug/Kg
50-32-8	Benzo(a)pyrene	180	J	400	65	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022861.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	61	J	400	51	ug/Kg
53-70-3	Dibenz(a,h)anthracene	51	U	400	51	ug/Kg
191-24-2	Benzo(g,h,i)perylene	81	J	400	67	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	251.7	84 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	253.18	84 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	164.19	82 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	173.21	87 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	181.45	60 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	210.58	105 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	297499	6.73			
1146-65-2	Naphthalene-d8	1348309	9.06			
15067-26-2	Acenaphthene-d10	709887	12.56			
1517-22-2	Phenanthrene-d10	866863	15.56			
1719-03-5	Chrysene-d12	444163	20.94			
1520-96-3	Perylene-d12	317782	24.43			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	1600	AB	4.24		ug/Kg
18435455	1-Nonadecene	150	J	20.71		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	16
Sample Wt/Vol:	15.2 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022860.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	80	U	390	80	ug/Kg
108-95-2	Phenol	59	U	390	59	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	61	U	390	61	ug/Kg
95-57-8	2-Chlorophenol	62	U	390	62	ug/Kg
95-48-7	2-Methylphenol	65	U	390	65	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	63	U	390	63	ug/Kg
98-86-2	Acetophenone	57	U	390	57	ug/Kg
106-44-5	3+4-Methylphenols	61	U	390	61	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	64	U	390	64	ug/Kg
67-72-1	Hexachloroethane	66	U	390	66	ug/Kg
98-95-3	Nitrobenzene	85	U	390	85	ug/Kg
78-59-1	Isophorone	58	U	390	58	ug/Kg
88-75-5	2-Nitrophenol	60	U	390	60	ug/Kg
105-67-9	2,4-Dimethylphenol	62	U	390	62	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	64	U	390	64	ug/Kg
120-83-2	2,4-Dichlorophenol	72	U	390	72	ug/Kg
91-20-3	Naphthalene	66	U	390	66	ug/Kg
106-47-8	4-Chloroaniline	46	U	390	46	ug/Kg
87-68-3	Hexachlorobutadiene	60	U	390	60	ug/Kg
105-60-2	Caprolactam	62	U	390	62	ug/Kg
59-50-7	4-Chloro-3-methylphenol	54	U	390	54	ug/Kg
91-57-6	2-Methylnaphthalene	65	U	390	65	ug/Kg
77-47-4	Hexachlorocyclopentadiene	62	U	390	62	ug/Kg
88-06-2	2,4,6-Trichlorophenol	57	U	390	57	ug/Kg
95-95-4	2,4,5-Trichlorophenol	59	U	980	59	ug/Kg
92-52-4	1,1-Biphenyl	64	U	390	64	ug/Kg
91-58-7	2-Chloronaphthalene	64	U	390	64	ug/Kg
88-74-4	2-Nitroaniline	49	U	980	49	ug/Kg
131-11-3	Dimethylphthalate	62	U	390	62	ug/Kg
208-96-8	Acenaphthylene	63	U	390	63	ug/Kg
606-20-2	2,6-Dinitrotoluene	55	U	390	55	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	16
Sample Wt/Vol:	15.2 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022860.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	51	U	980	51	ug/Kg
83-32-9	Acenaphthene	69	U	390	69	ug/Kg
51-28-5	2,4-Dinitrophenol	330	U	980	330	ug/Kg
100-02-7	4-Nitrophenol	48	U	980	48	ug/Kg
132-64-9	Dibenzofuran	64	U	390	64	ug/Kg
121-14-2	2,4-Dinitrotoluene	57	U	390	57	ug/Kg
84-66-2	Diethylphthalate	67	U	390	67	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	61	U	390	61	ug/Kg
86-73-7	Fluorene	66	U	390	66	ug/Kg
100-01-6	4-Nitroaniline	66	U	980	66	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	75	U	980	75	ug/Kg
86-30-6	N-Nitrosodiphenylamine	64	U	390	64	ug/Kg
101-55-3	4-Bromophenyl-phenylether	58	U	390	58	ug/Kg
118-74-1	Hexachlorobenzene	62	U	390	62	ug/Kg
1912-24-9	Atrazine	60	U	390	60	ug/Kg
87-86-5	Pentachlorophenol	90	U	980	90	ug/Kg
85-01-8	Phenanthrene	90	J	390	62	ug/Kg
120-12-7	Anthracene	59	U	390	59	ug/Kg
86-74-8	Carbazole	59	U	390	59	ug/Kg
84-74-2	Di-n-butylphthalate	71	J	390	59	ug/Kg
206-44-0	Fluoranthene	160	J	390	58	ug/Kg
129-00-0	Pyrene	200	J	390	69	ug/Kg
85-68-7	Butylbenzylphthalate	63	U	390	63	ug/Kg
91-94-1	3,3-Dichlorobenzidine	66	U	390	66	ug/Kg
56-55-3	Benzo(a)anthracene	110	J	390	54	ug/Kg
218-01-9	Chrysene	130	J	390	70	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	110	J	390	75	ug/Kg
117-84-0	Di-n-octyl phthalate	66	U	390	66	ug/Kg
205-99-2	Benzo(b)fluoranthene	160	J	390	43	ug/Kg
207-08-9	Benzo(k)fluoranthene	86	U	390	86	ug/Kg
50-32-8	Benzo(a)pyrene	120	J	390	62	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	16
Sample Wt/Wol:	15.2 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022860.D	1	4/11/2005	4/14/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	57	J	390	49	ug/Kg
53-70-3	Dibenz(a,h)anthracene	49	U	390	49	ug/Kg
191-24-2	Benzo(g,h,i)perylene	88	J	390	64	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	246.26	82 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	253.1	84 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	157.29	79 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	169.25	85 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	184.48	61 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	222.52	111 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	286877	6.73			
1146-65-2	Naphthalene-d8	1296070	9.06			
15067-26-2	Acenaphthene-d10	734450	12.55			
1517-22-2	Phenanthrene-d10	922744	15.56			
1719-03-5	Chrysene-d12	430230	20.94			
1520-96-3	Perylene-d12	331544	24.43			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	1400	AB	4.25		ug/Kg
10544500	Sulfur, mol. (S8)	140	J	13.09		ug/Kg
	Unknown	85	JB	14.58		ug/Kg
	Unknown1	90	J	18.15		ug/Kg
629970	Docosane	120	J	18.64		ug/Kg
638675	Tricosane	250	J	19.36		ug/Kg
629925	Nonadecane	190	J	20.04		ug/Kg
544854	Dotriacontane	310	J	20.72		ug/Kg
630068	Hexatriacontane	160	J	21.37		ug/Kg
629787	Heptadecane	180	J	22.06		ug/Kg
630035	Nonacosane	190	J	23.73		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022816.D	1	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	84	U	410	84	ug/Kg
108-95-2	Phenol	62	U	410	62	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	65	U	410	65	ug/Kg
95-57-8	2-Chlorophenol	66	U	410	66	ug/Kg
95-48-7	2-Methylphenol	68	U	410	68	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	66	U	410	66	ug/Kg
98-86-2	Acetophenone	60	U	410	60	ug/Kg
106-44-5	3+4-Methylphenols	65	U	410	65	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	68	U	410	68	ug/Kg
67-72-1	Hexachloroethane	70	U	410	70	ug/Kg
98-95-3	Nitrobenzene	90	U	410	90	ug/Kg
78-59-1	Isophorone	62	U	410	62	ug/Kg
88-75-5	2-Nitrophenol	63	U	410	63	ug/Kg
105-67-9	2,4-Dimethylphenol	65	U	410	65	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	68	U	410	68	ug/Kg
120-83-2	2,4-Dichlorophenol	76	U	410	76	ug/Kg
91-20-3	Naphthalene	70	U	410	70	ug/Kg
106-47-8	4-Chloroaniline	49	U	410	49	ug/Kg
87-68-3	Hexachlorobutadiene	63	U	410	63	ug/Kg
105-60-2	Caprolactam	66	U	410	66	ug/Kg
59-50-7	4-Chloro-3-methylphenol	57	U	410	57	ug/Kg
91-57-6	2-Methylnaphthalene	69	U	410	69	ug/Kg
77-47-4	Hexachlorocyclopentadiene	66	U	410	66	ug/Kg
88-06-2	2,4,6-Trichlorophenol	60	U	410	60	ug/Kg
95-95-4	2,4,5-Trichlorophenol	63	U	1000	63	ug/Kg
92-52-4	1,1-Biphenyl	68	U	410	68	ug/Kg
91-58-7	2-Chloronaphthalene	68	U	410	68	ug/Kg
88-74-4	2-Nitroaniline	52	U	1000	52	ug/Kg
131-11-3	Dimethylphthalate	66	U	410	66	ug/Kg
208-96-8	Acenaphthylene	67	U	410	67	ug/Kg
606-20-2	2,6-Dinitrotoluene	58	U	410	58	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022816.D	1	4/11/2005	4/13/2005	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	54	U	1000	54	ug/Kg
83-32-9	Acenaphthene	73	U	410	73	ug/Kg
51-28-5	2,4-Dinitrophenol	350	U	1000	350	ug/Kg
100-02-7	4-Nitrophenol	51	U	1000	51	ug/Kg
132-64-9	Dibenzofuran	68	U	410	68	ug/Kg
121-14-2	2,4-Dinitrotoluene	60	U	410	60	ug/Kg
84-66-2	Diethylphthalate	71	U	410	71	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	65	U	410	65	ug/Kg
86-73-7	Fluorene	69	U	410	69	ug/Kg
100-01-6	4-Nitroaniline	70	U	1000	70	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	80	U	1000	80	ug/Kg
86-30-6	N-Nitrosodiphenylamine	68	U	410	68	ug/Kg
101-55-3	4-Bromophenyl-phenylether	61	U	410	61	ug/Kg
118-74-1	Hexachlorobenzene	66	U	410	66	ug/Kg
1912-24-9	Atrazine	63	U	410	63	ug/Kg
87-86-5	Pentachlorophenol	95	U	1000	95	ug/Kg
85-01-8	Phenanthrene	280	J	410	65	ug/Kg
120-12-7	Anthracene	64	J	410	62	ug/Kg
86-74-8	Carbazole	63	U	410	63	ug/Kg
84-74-2	Di-n-butylphthalate	63	U	410	63	ug/Kg
206-44-0	Fluoranthene	440		410	61	ug/Kg
129-00-0	Pyrene	400	J	410	73	ug/Kg
85-68-7	Butylbenzylphthalate	66	U	410	66	ug/Kg
91-94-1	3,3-Dichlorobenzidine	70	U	410	70	ug/Kg
56-55-3	Benzo(a)anthracene	210	J	410	58	ug/Kg
218-01-9	Chrysene	240	J	410	74	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	79	U	410	79	ug/Kg
117-84-0	Di-n-octyl phthalate	70	U	410	70	ug/Kg
205-99-2	Benzo(b)fluoranthene	300	J	410	45	ug/Kg
207-08-9	Benzo(k)fluoranthene	120	J	410	90	ug/Kg
50-32-8	Benzo(a)pyrene	220	J	410	66	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022816.D	1	4/11/05	4/13/05	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	52	U	410	52	ug/Kg
53-70-3	Dibenz(a,h)anthracene	52	U	410	52	ug/Kg
191-24-2	Benzo(g,h,i)perylene	140	J	410	68	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	237.65	79 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	256.92	86 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	175.75	88 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	160.83	80 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	202.58	68 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	174.83	87 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	126345	6.75			
1146-65-2	Naphthalene-d8	521777	9.08			
15067-26-2	Acenaphthene-d10	306587	12.58			
1517-22-2	Phenanthrene-d10	447690	15.59			
1719-03-5	Chrysene-d12	307022	20.96			
1520-96-3	Perylene-d12	221034	24.49			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	1700	AB	4.28		ug/Kg
	Unknown	90	JB	13.12		ug/Kg
14064825	Benzenamine, 3-(2-phenylethenyl	88	J	15.42		ug/Kg
629629	Pentadecane	88	J	17.91		ug/Kg
	Unknown1	100	JB	18.18		ug/Kg
629787	Heptadecane	80	J	18.67		ug/Kg
243174	11H-Benzo[b]fluorene	110	J	19.19		ug/Kg
638675	Tricosane	120	J	19.38		ug/Kg
646311	Tetracosane	110	J	20.07		ug/Kg
1599673	1-Docosene	310	J	20.73		ug/Kg
629629	Pentadecane	92	J	21.39		ug/Kg
544763	Hexadecane	120	J	22.10		ug/Kg
629925	Nonadecane	120	J	23.78		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/05
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BB022816.D	1	4/11/05	4/13/05	BB040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TENTITIVE IDENTIFIED COMPOUNDS						
	Unknown2	180	J	24.16		ug/Kg
0	1,12-Benzperylene	160	J	28.36		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech

Hit Summary Report

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: SVOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-MW1-(0.3)**							
T2253-07	IS-MW1-(0.3)	SOIL	Fluoranthene	130	J	800	120	ug/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Benzo(b)fluoranthene	93	J	800	88	ug/Kg
T2253-07	IS-MW1-(0.3)	SOIL	ACP	* 1600	AB	0	0	ug/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Tridecane 6-cyclohexyl-, 6-cy	* 170	J	0	0	ug/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Anthracene, 9-dodecyltetrade	* 400	J	0	0	ug/Kg
			Total SVOC's:	223.00				
			Total TIC's:	2170.00				
			Total SVOC's and TIC's:	2393.00				
Client ID:	**IS-MW2-(0-6)**							
T2253-08	IS-MW2-(0-6)	SOIL	Phenanthrene	72	J	430	69	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Fluoranthene	140	J	430	65	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Pyrene	140	J	430	77	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Benzo(a)anthracene	90	J	430	61	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Chrysene	95	J	430	78	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	bis(2-Ethylhexyl)phthalate	240	J	430	83	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Benzo(b)fluoranthene	110	J	430	48	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Benzo(a)pyrene	88	J	430	69	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	ACP	* 1700	AB	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Heptadecane	* 140	J	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	1-Docosene	* 470	J	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Unknown	* 110	JB	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Unknown1	* 190	J	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Hexadecane	* 160	J	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Unknown2	* 180	J	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Pentadecane	* 180	J	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Heneicosane	* 170	J	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Unknown3	* 220	J	0	0	ug/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Unknown4	* 290	J	0	0	ug/Kg
			Total SVOC's:	975.00				
			Total TIC's:	3810.00				
			Total SVOC's and TIC's:	4785.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: SVOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-MW3-(0-4)**							
T2253-09	IS-MW3-(0-4)	SOIL	Phenanthrene	1900	J	8400	1300	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Di-n-butylphthalate	1300	J	8400	1300	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Fluoranthene	2200	J	8400	1200	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Pyrene	2500	J	8400	1500	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Benzo(a)anthracene	1600	J	8400	1200	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Chrysene	1900	J	8400	1500	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	bis(2-Ethylhexyl)phthalate	1800	J	8400	1600	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Benzo(b)fluoranthene	1900	J	8400	920	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Benzo(k)fluoranthene	1900	J	8400	1800	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Benzo(a)pyrene	1700	J	8400	1300	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	ACP	* 1900	AB	0	0	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Diethyl Phthalate	* 580	J	0	0	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Hydrazine, 1,1-diphenyl-2-(2,	* 630	J	0	0	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Unknown	* 600	JB	0	0	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Unknown1	* 550	J	0	0	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Hexanedioic acid, dioctyl ester	* 1700	J	0	0	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	1-Hentetracontanol	* 1400	J	0	0	ug/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Unknown2	* 780	J	0	0	ug/Kg
			Total SVOC's:	18700.00				
			Total TIC's:	8140.00				
			Total SVOC's and TIC's:	26840.00				
Client ID:	**IS-SB1(0-2)**							
T2253-10	IS-SB1(0-2)	SOIL	Phenanthrene	350	J	400	65	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Anthracene	68	J	400	61	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Fluoranthene	390	J	400	60	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Pyrene	420		400	72	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Benzo(a)anthracene	210	J	400	57	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Chrysene	240	J	400	73	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Benzo(b)fluoranthene	250	J	400	45	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Benzo(k)fluoranthene	100	J	400	89	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Benzo(a)pyrene	180	J	400	65	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Indeno(1,2,3-cd)pyrene	61	J	400	51	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	Benzo(g,h,i)perylene	81	J	400	67	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	ACP	* 1600	AB	0	0	ug/Kg
T2253-10	IS-SB1(0-2)	SOIL	1-Nonadecene	* 150	J	0	0	ug/Kg
			Total SVOC's:	2350.00				
			Total TIC's:	1750.00				
			Total SVOC's and TIC's:	4100.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: SVOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-SB-4(0-13.7)**							
T2253-13	IS-SB-4(0-13.7)	SOIL	Phenanthrene	90	J	390	62	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Di-n-butylphthalate	71	J	390	59	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Fluoranthene	160	J	390	58	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Pyrene	200	J	390	69	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Benzo(a)anthracene	110	J	390	54	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Chrysene	130	J	390	70	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	bis(2-Ethylhexyl)phthalate	110	J	390	75	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Benzo(b)fluoranthene	160	J	390	43	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Benzo(a)pyrene	120	J	390	62	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Indeno(1,2,3-cd)pyrene	57	J	390	49	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Benzo(g,h,i)perylene	88	J	390	64	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	ACP	* 1400	AB	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Sulfur, mol. (S8)	* 140	J	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Unknown	* 85	JB	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Unknown1	* 90	J	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Docosane	* 120	J	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Tricosane	* 250	J	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Nonadecane	* 190	J	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Dotriacontane	* 310	J	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Hexatriacontane	* 160	J	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Heptadecane	* 180	J	0	0	ug/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Nonacosane	* 190	J	0	0	ug/Kg

Total SVOC's:	1296.00
Total TIC's:	3115.00
Total SVOC's and TIC's:	4411.00

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: SVOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-SOILDUP							
T2253-14	IS-SOILDUP	SOIL	Phenanthrene	280	J	410	65	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Anthracene	64	J	410	62	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Fluoranthene	440		410	61	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Pyrene	400	J	410	73	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Benzo(a)anthracene	210	J	410	58	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Chrysene	240	J	410	74	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Benzo(b)fluoranthene	300	J	410	45	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Benzo(k)fluoranthene	120	J	410	90	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Benzo(a)pyrene	220	J	410	66	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Benzo(g,h,i)perylene	140	J	410	68	ug/Kg
T2253-14	IS-SOILDUP	SOIL	ACP	* 1700	AB	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Unknown	* 90	JB	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Benzenamine, 3-(2-phenyleth	* 88	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Pentadecane	* 88	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Unknown	* 100	JB	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Heptadecane	* 80	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	11H-Benzo[b]fluorene	* 110	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Tricosane	* 120	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Tetracosane	* 110	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	1-Docosene	* 310	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Pentadecane	* 92	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Hexadecane	* 120	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Nonadecane	* 120	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	Unknown1	* 180	J	0	0	ug/Kg
T2253-14	IS-SOILDUP	SOIL	1,12-Benzperylene	* 160	J	0	0	ug/Kg

Total SVOC's:	2414.00
Total TIC's:	3468.00
Total SVOC's and TIC's:	5882.00

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW1-(0.3)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-07**	**Matrix:**	**SOIL**
Analytical Method:	**8082**	**% Moisture:**	**18**
Sample Wt/Vol:	**15 g**	**Extract Vol:**	**5000 uL**

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2112.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.8	U	21	4.8	ug/Kg
11141-16-5	AROCLOR 1232	7.1	U	21	7.1	ug/Kg
53469-21-9	AROCLOR 1242	6.3	U	21	6.3	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260	5.1	U	21	5.1	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	11.4	57 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	12.92	65 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW2-(0-6)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-08**	**Matrix:**	**SOIL**
Analytical Method:	**8082**	**% Moisture:**	**24**
Sample Wt/Vol:	**15 g**	**Extract Vol:**	**5000 uL**

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2113.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.3	U	22	3.3	ug/Kg
11104-28-2	AROCLOR 1221	5.1	U	22	5.1	ug/Kg
11141-16-5	AROCLOR 1232	7.7	U	22	7.7	ug/Kg
53469-21-9	AROCLOR 1242	6.8	U	22	6.8	ug/Kg
12672-29-6	AROCLOR 1248	3.3	U	22	3.3	ug/Kg
11097-69-1	AROCLOR 1254	2.2	U	22	2.2	ug/Kg
11096-82-5	AROCLOR 1260	5.5	U	22	5.5	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	10.02	50 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	12.48	62 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW3-(0-4)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-09**	**Matrix:**	**SOIL**
Analytical Method:	**8082**	**% Moisture:**	**22**
Sample Wt/Vol:	**15 g**	**Extract Vol:**	**5000 uL**

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2094.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.2	U	21	3.2	ug/Kg
11104-28-2	AROCLOR 1221	5.0	U	21	5.0	ug/Kg
11141-16-5	AROCLOR 1232	7.4	U	21	7.4	ug/Kg
53469-21-9	AROCLOR 1242	6.6	U	21	6.6	ug/Kg
12672-29-6	AROCLOR 1248	3.2	U	21	3.2	ug/Kg
11097-69-1	AROCLOR 1254	2.1	U	21	2.1	ug/Kg
11096-82-5	AROCLOR 1260	5.3	U	21	5.3	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	10.68	53 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	11.36	57 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	19
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2095.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.8	U	21	4.8	ug/Kg
11141-16-5	AROCLOR 1232	7.2	U	21	7.2	ug/Kg
53469-21-9	AROCLOR 1242	6.4	U	21	6.4	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260	5.2	U	21	5.2	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	12.03	60 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	12.74	64 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	16
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2098.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.0	U	20	3.0	ug/Kg
11104-28-2	AROCLOR 1221	4.6	U	20	4.6	ug/Kg
11141-16-5	AROCLOR 1232	6.9	U	20	6.9	ug/Kg
53469-21-9	AROCLOR 1242	6.2	U	20	6.2	ug/Kg
12672-29-6	AROCLOR 1248	3.0	U	20	3.0	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	20	2.0	ug/Kg
11096-82-5	AROCLOR 1260	5.0	U	20	5.0	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	10.62	53 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	12.76	64 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	20
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2099.D	1	4/11/2005	4/15/2005	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.9	U	21	4.9	ug/Kg
11141-16-5	AROCLOR 1232	7.3	U	21	7.3	ug/Kg
53469-21-9	AROCLOR 1242	6.5	U	21	6.5	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260	5.2	U	21	5.2	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	13.48	67 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	15.9	79 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	18
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7406.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.77	U	3.6	0.77	ug/Kg
319-85-7	beta-BHC	1.1	U	3.6	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.6	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.87	U	3.6	0.87	ug/Kg
76-44-8	Heptachlor	1.1	U	3.6	1.1	ug/Kg
309-00-2	Aldrin	1.5	U	3.6	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.6	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.6	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.6	1.0	ug/Kg
72-55-9	4,4'-DDE	0.95	U	3.6	0.95	ug/Kg
72-20-8	Endrin	1.0	U	3.6	1.0	ug/Kg
33213-65-9	Endosulfan II	1.1	U	3.6	1.1	ug/Kg
72-54-8	4,4'-DDD	0.85	U	3.6	0.85	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.6	1.3	ug/Kg
50-29-3	4,4'-DDT	0.87	U	3.6	0.87	ug/Kg
72-43-5	Methoxychlor	1.0	U	3.6	1.0	ug/Kg
53494-70-5	Endrin ketone	0.99	U	3.6	0.99	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.6	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.6	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.6	1.1	ug/Kg
8001-35-2	Toxaphene	4.3	U	20	4.3	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.91	40 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	14.87	74 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW2-(0-6)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-08**	**Matrix:**	**SOIL**
Analytical Method:	**8081**	**% Moisture:**	**24**
Sample Wt/Vol:	**15 g**	**Extract Vol:**	**5000 uL**

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7407.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.84	U	3.9	0.84	ug/Kg
319-85-7	beta-BHC	1.1	U	3.9	1.1	ug/Kg
319-86-8	delta-BHC	2.1	U	3.9	2.1	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.94	U	3.9	0.94	ug/Kg
76-44-8	Heptachlor	1.2	U	3.9	1.2	ug/Kg
309-00-2	Aldrin	1.6	U	3.9	1.6	ug/Kg
1024-57-3	Heptachlor epoxide	1.4	U	3.9	1.4	ug/Kg
959-98-8	Endosulfan I	1.2	U	3.9	1.2	ug/Kg
60-57-1	Dieldrin	1.1	U	3.9	1.1	ug/Kg
72-55-9	4,4'-DDE	1.0	U	3.9	1.0	ug/Kg
72-20-8	Endrin	1.1	U	3.9	1.1	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.9	1.2	ug/Kg
72-54-8	4,4'-DDD	0.92	U	3.9	0.92	ug/Kg
1031-07-8	Endosulfan sulfate	1.4	U	3.9	1.4	ug/Kg
50-29-3	4,4'-DDT	0.94	U	3.9	0.94	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.9	1.1	ug/Kg
53494-70-5	Endrin ketone	1.1	U	3.9	1.1	ug/Kg
7421-93-4	Endrin aldehyde	1.3	U	3.9	1.3	ug/Kg
5103-71-9	alpha-Chlordane	1.1	U	3.9	1.1	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.9	1.1	ug/Kg
8001-35-2	Toxaphene	4.7	U	22	4.7	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	9.35	47 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	6.88	34 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW3-(0-4)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-09**	**Matrix:**	**SOIL**
Analytical Method:	**8081**	**% Moisture:**	**22**
Sample Wt/Vol:	**15 g**	**Extract Vol:**	**5000 uL**

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7408.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.81	U	3.8	0.81	ug/Kg
319-85-7	beta-BHC	1.1	U	3.8	1.1	ug/Kg
319-86-8	delta-BHC	2.1	U	3.8	2.1	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.91	U	3.8	0.91	ug/Kg
76-44-8	Heptachlor	1.2	U	3.8	1.2	ug/Kg
309-00-2	Aldrin	1.5	U	3.8	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.8	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.8	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.8	1.0	ug/Kg
72-55-9	4,4'-DDE	0.99	U	3.8	0.99	ug/Kg
72-20-8	Endrin	1.1	U	3.8	1.1	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.8	1.2	ug/Kg
72-54-8	4,4'-DDD	0.89	U	3.8	0.89	ug/Kg
1031-07-8	Endosulfan sulfate	1.4	U	3.8	1.4	ug/Kg
50-29-3	4,4'-DDT	0.91	U	3.8	0.91	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.8	1.1	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.8	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.3	U	3.8	1.3	ug/Kg
5103-71-9	alpha-Chlordane	1.1	U	3.8	1.1	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.8	1.1	ug/Kg
8001-35-2	Toxaphene	4.5	U	21	4.5	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.94	40 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	18.11	91 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	19
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7409.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.78	U	3.7	0.78	ug/Kg
319-85-7	beta-BHC	1.1	U	3.7	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.7	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.88	U	3.7	0.88	ug/Kg
76-44-8	Heptachlor	1.1	U	3.7	1.1	ug/Kg
309-00-2	Aldrin	1.5	U	3.7	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.7	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.7	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.7	1.0	ug/Kg
72-55-9	4,4'-DDE	0.96	U	3.7	0.96	ug/Kg
72-20-8	Endrin	1.0	U	3.7	1.0	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.7	1.2	ug/Kg
72-54-8	4,4'-DDD	0.86	U	3.7	0.86	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.7	1.3	ug/Kg
50-29-3	4,4'-DDT	0.88	U	3.7	0.88	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.7	1.1	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.7	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.7	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.7	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.7	1.1	ug/Kg
8001-35-2	Toxaphene	4.4	U	21	4.4	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.31	37 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	5.92	30 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	16
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7410.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.75	U	3.5	0.75	ug/Kg
319-85-7	beta-BHC	1.0	U	3.5	1.0	ug/Kg
319-86-8	delta-BHC	1.9	U	3.5	1.9	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.85	U	3.5	0.85	ug/Kg
76-44-8	Heptachlor	1.1	U	3.5	1.1	ug/Kg
309-00-2	Aldrin	1.4	U	3.5	1.4	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.5	1.3	ug/Kg
959-98-8	Endosulfan I	1.0	U	3.5	1.0	ug/Kg
60-57-1	Dieldrin	0.97	U	3.5	0.97	ug/Kg
72-55-9	4,4'-DDE	0.93	U	3.5	0.93	ug/Kg
72-20-8	Endrin	1.0	U	3.5	1.0	ug/Kg
33213-65-9	Endosulfan II	1.1	U	3.5	1.1	ug/Kg
72-54-8	4,4'-DDD	0.83	U	3.5	0.83	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.5	1.3	ug/Kg
50-29-3	4,4'-DDT	0.85	U	3.5	0.85	ug/Kg
72-43-5	Methoxychlor	1.0	U	3.5	1.0	ug/Kg
53494-70-5	Endrin ketone	0.97	U	3.5	0.97	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.5	1.2	ug/Kg
5103-71-9	alpha-Chlordane	0.99	U	3.5	0.99	ug/Kg
5103-74-2	gamma-Chlordane	1.0	U	3.5	1.0	ug/Kg
8001-35-2	Toxaphene	4.2	U	20	4.2	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	8.47	42 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	25.83	129 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	20
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7411.D	1	4/11/2005	4/16/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.79	U	3.7	0.79	ug/Kg
319-85-7	beta-BHC	1.1	U	3.7	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.7	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.89	U	3.7	0.89	ug/Kg
76-44-8	Heptachlor	1.1	U	3.7	1.1	ug/Kg
309-00-2	Aldrin	1.5	U	3.7	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.7	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.7	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.7	1.0	ug/Kg
72-55-9	4,4'-DDE	0.97	U	3.7	0.97	ug/Kg
72-20-8	Endrin	1.1	U	3.7	1.1	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.7	1.2	ug/Kg
72-54-8	4,4'-DDD	0.87	U	3.7	0.87	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.7	1.3	ug/Kg
50-29-3	4,4'-DDT	0.89	U	3.7	0.89	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.7	1.1	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.7	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.7	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.7	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.7	1.1	ug/Kg
8001-35-2	Toxaphene	4.4	U	21	4.4	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	5.4	27 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	10.8	54 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW1-(0.3)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-07**	**Matrix:**	**SOIL**
		% Solids:	**81.80**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	12400			mg/Kg	0.708	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-36-0	Antimony	0.397	U		mg/Kg	0.397	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-38-2	Arsenic	5.520			mg/Kg	0.474	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-39-3	Barium	118		N	mg/Kg	0.087	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-41-7	Beryllium	1.290			mg/Kg	0.007	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.298	J		mg/Kg	0.040	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-70-2	Calcium	49500			mg/Kg	0.045	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-47-3	Chromium	17.3		N	mg/Kg	0.107	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-48-4	Cobalt	5.610	J		mg/Kg	0.117	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-50-8	Copper	24.0			mg/Kg	0.079	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-89-6	Iron	17500			mg/Kg	1.860	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-92-1	Lead	77.5			mg/Kg	0.349	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-95-4	Magnesium	12100			mg/Kg	1.150	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-96-5	Manganese	909			mg/Kg	0.034	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-97-6	Mercury	0.007	U	N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471
7440-02-0	Nickel	17.3			mg/Kg	0.148	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-09-7	Potassium	1340			mg/Kg	6.420	1	4/15/2005	4/15/2005	EPA SW-846 6010
7782-49-2	Selenium	1.240			mg/Kg	0.413	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-22-4	Silver	0.096	U		mg/Kg	0.096	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-23-5	Sodium	317	J		mg/Kg	31.2	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-28-0	Thallium	0.638	U		mg/Kg	0.638	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-62-2	Vanadium	16.1			mg/Kg	0.073	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-66-6	Zinc	130			mg/Kg	0.087	1	4/15/2005	4/15/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW2-(0-6)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-08**	**Matrix:**	**SOIL**
		% Solids:	**75.90**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	13400		mg/Kg	0.771	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-36-0	Antimony	19.3		mg/Kg	0.432	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-38-2	Arsenic	38.9		mg/Kg	0.516	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-39-3	Barium	604	N	mg/Kg	0.095	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.511	J	mg/Kg	0.008	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-43-9	Cadmium	6.200		mg/Kg	0.043	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-70-2	Calcium	33700		mg/Kg	0.049	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-47-3	Chromium	84.1	N	mg/Kg	0.116	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-48-4	Cobalt	21.6		mg/Kg	0.128	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-50-8	Copper	703		mg/Kg	0.086	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-89-6	Iron	146000	D	mg/Kg	20.2	10	4/15/2005	4/15/2005	EPA SW-846 6010
7439-92-1	Lead	1450		mg/Kg	0.379	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-95-4	Magnesium	3810		mg/Kg	1.250	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-96-5	Manganese	1240		mg/Kg	0.037	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-97-6	Mercury	0.453	N	mg/Kg	0.008	1	4/14/2005	4/14/2005	EPA SW-846 7471
7440-02-0	Nickel	78.0		mg/Kg	0.161	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-09-7	Potassium	1770		mg/Kg	6.980	1	4/15/2005	4/15/2005	EPA SW-846 6010
7782-49-2	Selenium	6.450		mg/Kg	0.449	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-22-4	Silver	6.360		mg/Kg	0.104	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-23-5	Sodium	1710		mg/Kg	34.0	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-28-0	Thallium	0.694	U	mg/Kg	0.694	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-62-2	Vanadium	15.9		mg/Kg	0.079	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-66-6	Zinc	1810		mg/Kg	0.095	1	4/15/2005	4/15/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW3-(0-4)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-09**	**Matrix:**	**SOIL**
		% Solids:	**78.10**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	14900		mg/Kg	0.749	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-36-0	Antimony	4.920	J	mg/Kg	0.420	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-38-2	Arsenic	21.3		mg/Kg	0.502	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-39-3	Barium	287	N	mg/Kg	0.092	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-41-7	Beryllium	1.960		mg/Kg	0.008	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-43-9	Cadmium	1.510		mg/Kg	0.042	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-70-2	Calcium	65300		mg/Kg	0.047	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-47-3	Chromium	55.0	N	mg/Kg	0.113	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-48-4	Cobalt	9.340		mg/Kg	0.124	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-50-8	Copper	108		mg/Kg	0.083	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-89-6	Iron	107000		mg/Kg	1.960	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-92-1	Lead	572		mg/Kg	0.369	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-95-4	Magnesium	13200		mg/Kg	1.220	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-96-5	Manganese	1500		mg/Kg	0.036	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-97-6	Mercury	0.072	N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471
7440-02-0	Nickel	21.2		mg/Kg	0.156	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-09-7	Potassium	1360		mg/Kg	6.790	1	4/15/2005	4/15/2005	EPA SW-846 6010
7782-49-2	Selenium	5.020		mg/Kg	0.437	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-22-4	Silver	0.476	J	mg/Kg	0.101	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-23-5	Sodium	1490		mg/Kg	33.0	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-28-0	Thallium	0.675	U	mg/Kg	0.675	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-62-2	Vanadium	14.2		mg/Kg	0.077	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-66-6	Zinc	495		mg/Kg	0.092	1	4/15/2005	4/15/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-SB1(0-2)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-10**	**Matrix:**	**SOIL**
		% Solids:	**81.30**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	20200			mg/Kg	0.720	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-36-0	Antimony	0.403	U		mg/Kg	0.403	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-38-2	Arsenic	4.410			mg/Kg	0.482	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-39-3	Barium	137		N	mg/Kg	0.089	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-41-7	Beryllium	3.020			mg/Kg	0.007	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.041	U		mg/Kg	0.041	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-70-2	Calcium	135000		D	mg/Kg	0.455	10	4/15/2005	4/15/2005	EPA SW-846 6010
7440-47-3	Chromium	13.1		N	mg/Kg	0.108	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-48-4	Cobalt	2.940	J		mg/Kg	0.119	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-50-8	Copper	16.1			mg/Kg	0.080	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-89-6	Iron	13100			mg/Kg	1.890	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-92-1	Lead	60.8			mg/Kg	0.354	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-95-4	Magnesium	22100			mg/Kg	1.170	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-96-5	Manganese	1360			mg/Kg	0.034	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-97-6	Mercury	0.007	U	N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471
7440-02-0	Nickel	10.1			mg/Kg	0.150	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-09-7	Potassium	1890			mg/Kg	6.520	1	4/15/2005	4/15/2005	EPA SW-846 6010
7782-49-2	Selenium	1.670			mg/Kg	0.419	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-22-4	Silver	0.097	U		mg/Kg	0.097	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-23-5	Sodium	3140			mg/Kg	31.7	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-28-0	Thallium	0.648	U		mg/Kg	0.648	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-62-2	Vanadium	9.700			mg/Kg	0.074	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-66-6	Zinc	109			mg/Kg	0.089	1	4/15/2005	4/15/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
		% Solids:	84.00

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	9670		mg/Kg	0.696	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-36-0	Antimony	13.7		mg/Kg	0.390	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-38-2	Arsenic	17.4		mg/Kg	0.467	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-39-3	Barium	727	N	mg/Kg	0.086	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.602		mg/Kg	0.007	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-43-9	Cadmium	4.410		mg/Kg	0.039	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-70-2	Calcium	44900		mg/Kg	0.044	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-47-3	Chromium	101	N	mg/Kg	0.105	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-48-4	Cobalt	11.3		mg/Kg	0.115	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-50-8	Copper	364		mg/Kg	0.077	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-89-6	Iron	70600		mg/Kg	1.830	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-92-1	Lead	1020		mg/Kg	0.343	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-95-4	Magnesium	7370		mg/Kg	1.130	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-96-5	Manganese	2500		mg/Kg	0.033	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-97-6	Mercury	0.023	N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471
7440-02-0	Nickel	47.3		mg/Kg	0.145	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-09-7	Potassium	1620		mg/Kg	6.310	1	4/15/2005	4/15/2005	EPA SW-846 6010
7782-49-2	Selenium	2.690		mg/Kg	0.406	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-22-4	Silver	8.200	N	mg/Kg	0.094	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-23-5	Sodium	2080		mg/Kg	30.7	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-28-0	Thallium	0.627	U	mg/Kg	0.627	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-62-2	Vanadium	40.3		mg/Kg	0.071	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-66-6	Zinc	1220		mg/Kg	0.086	1	4/15/2005	4/15/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
		% Solids:	80.00

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	12000			mg/Kg	0.731	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-36-0	Antimony	12.2			mg/Kg	0.410	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-38-2	Arsenic	16.0			mg/Kg	0.490	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-39-3	Barium	726		N	mg/Kg	0.090	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.689			mg/Kg	0.008	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-43-9	Cadmium	2.790			mg/Kg	0.041	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-70-2	Calcium	43600			mg/Kg	0.046	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-47-3	Chromium	60.2		N	mg/Kg	0.110	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-48-4	Cobalt	9.440			mg/Kg	0.121	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-50-8	Copper	342			mg/Kg	0.081	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-89-6	Iron	53700			mg/Kg	1.920	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-92-1	Lead	767			mg/Kg	0.360	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-95-4	Magnesium	8000			mg/Kg	1.190	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-96-5	Manganese	1540			mg/Kg	0.035	1	4/15/2005	4/15/2005	EPA SW-846 6010
7439-97-6	Mercury	0.104		N	mg/Kg	0.007	1	4/14/2005	4/14/2005	EPA SW-846 7471
7440-02-0	Nickel	43.4			mg/Kg	0.152	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-09-7	Potassium	1790			mg/Kg	6.620	1	4/15/2005	4/15/2005	EPA SW-846 6010
7782-49-2	Selenium	2.590			mg/Kg	0.426	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-22-4	Silver	0.236	J	N	mg/Kg	0.099	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-23-5	Sodium	1820			mg/Kg	32.3	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-28-0	Thallium	0.659	U		mg/Kg	0.659	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-62-2	Vanadium	30.0			mg/Kg	0.075	1	4/15/2005	4/15/2005	EPA SW-846 6010
7440-66-6	Zinc	1020			mg/Kg	0.090	1	4/15/2005	4/15/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-MW1-(0.3)							
T2253-07	IS-MW1-(0.3)	SOIL	Aluminum	12400		24.2	0.708	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Arsenic	5.520		1.210	0.474	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Barium	118		24.2	0.087	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Beryllium	1.290		0.605	0.007	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Cadmium	0.298	J	0.605	0.040	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Calcium	49500		605	0.045	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Chromium	17.3		1.210	0.107	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Cobalt	5.610	J	6.050	0.117	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Copper	24.0		3.030	0.079	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Iron	17500		12.1	1.860	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Lead	77.5		0.605	0.349	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Magnesium	12100		605	1.150	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Manganese	909		1.820	0.034	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Nickel	17.3		4.840	0.148	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Potassium	1340		605	6.420	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Selenium	1.240		1.210	0.413	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Sodium	317	J	605	31.2	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Vanadium	16.1		6.050	0.073	mg/Kg
T2253-07	IS-MW1-(0.3)	SOIL	Zinc	130		2.420	0.087	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-MW2-(0-6)							
T2253-08	IS-MW2-(0-6)	SOIL	Aluminum	13400		26.4	0.771	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Antimony	19.3		7.910	0.432	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Arsenic	38.9		1.320	0.516	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Barium	604		26.4	0.095	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Beryllium	0.511	J	0.659	0.008	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Cadmium	6.200		0.659	0.043	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Calcium	33700		659	0.049	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Chromium	84.1		1.320	0.116	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Cobalt	21.6		6.590	0.128	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Copper	703		3.290	0.086	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Iron	146000		132	20.2	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Lead	1450		0.659	0.379	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Magnesium	3810		659	1.250	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Manganese	1240		1.980	0.037	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Mercury	0.453		0.013	0.008	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Nickel	78.0		5.270	0.161	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Potassium	1770		659	6.980	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Selenium	6.450		1.320	0.449	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Silver	6.360		1.320	0.104	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Sodium	1710		659	34.0	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Vanadium	15.9		6.590	0.079	mg/Kg
T2253-08	IS-MW2-(0-6)	SOIL	Zinc	1810		2.640	0.095	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-MW3-(0-4)**							
T2253-09	IS-MW3-(0-4)	SOIL	Aluminum	14900		25.6	0.749	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Antimony	4.920	J	7.680	0.420	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Arsenic	21.3		1.280	0.502	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Barium	287		25.6	0.092	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Beryllium	1.960		0.640	0.008	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Cadmium	1.510		0.640	0.042	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Calcium	65300		640	0.047	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Chromium	55.0		1.280	0.113	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Cobalt	9.340		6.400	0.124	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Copper	108		3.200	0.083	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Iron	107000		12.8	1.960	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Lead	572		0.640	0.369	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Magnesium	13200		640	1.220	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Manganese	1500		1.920	0.036	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Mercury	0.072		0.013	0.007	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Nickel	21.2		5.120	0.156	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Potassium	1360		640	6.790	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Selenium	5.020		1.280	0.437	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Silver	0.476	J	1.280	0.101	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Sodium	1490		640	33.0	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Vanadium	14.2		6.400	0.077	mg/Kg
T2253-09	IS-MW3-(0-4)	SOIL	Zinc	495		2.560	0.092	mg/Kg
Client ID:	**IS-SB1(0-2)**							
T2253-10	IS-SB1(0-2)	SOIL	Aluminum	20200		24.6	0.720	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Arsenic	4.410		1.230	0.482	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Barium	137		24.6	0.089	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Beryllium	3.020		0.615	0.007	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Calcium	135000		6150	0.455	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Chromium	13.1		1.230	0.108	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Cobalt	2.940	J	6.150	0.119	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Copper	16.1		3.080	0.080	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Iron	13100		12.3	1.890	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Lead	60.8		0.615	0.354	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Magnesium	22100		615	1.170	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Manganese	1360		1.850	0.034	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Nickel	10.1		4.920	0.150	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Potassium	1890		615	6.520	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Selenium	1.670		1.230	0.419	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Sodium	3140		615	31.7	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Vanadium	9.700		6.150	0.074	mg/Kg
T2253-10	IS-SB1(0-2)	SOIL	Zinc	109		2.460	0.089	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-SB-4(0-13.7)							
T2253-13	IS-SB-4(0-13.7)	SOIL	Aluminum	9670		23.8	0.696	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Antimony	13.7		7.140	0.390	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Arsenic	17.4		1.190	0.467	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Barium	727		23.8	0.086	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Beryllium	0.602		0.595	0.007	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Cadmium	4.410		0.595	0.039	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Calcium	44900		595	0.044	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Chromium	101		1.190	0.105	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Cobalt	11.3		5.950	0.115	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Copper	364		2.980	0.077	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Iron	70600		11.9	1.830	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Lead	1020		0.595	0.343	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Magnesium	7370		595	1.130	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Manganese	2500		1.790	0.033	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Mercury	0.023		0.012	0.007	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Nickel	47.3		4.760	0.145	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Potassium	1620		595	6.310	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Selenium	2.690		1.190	0.406	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Silver	8.200		1.190	0.094	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Sodium	2080		595	30.7	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Vanadium	40.3		5.950	0.071	mg/Kg
T2253-13	IS-SB-4(0-13.7)	SOIL	Zinc	1220		2.380	0.086	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2253 **Order ID:** T2253

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-SOILDUP							
T2253-14	IS-SOILDUP	SOIL	Aluminum	12000		25.0	0.731	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Antimony	12.2		7.500	0.410	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Arsenic	16.0		1.250	0.490	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Barium	726		25.0	0.090	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Beryllium	0.689		0.625	0.008	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Cadmium	2.790		0.625	0.041	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Calcium	43600		625	0.046	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Chromium	60.2		1.250	0.110	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Cobalt	9.440		6.250	0.121	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Copper	342		3.120	0.081	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Iron	53700		12.5	1.920	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Lead	767		0.625	0.360	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Magnesium	8000		625	1.190	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Manganese	1540		1.880	0.035	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Mercury	0.104		0.012	0.007	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Nickel	43.4		5.000	0.152	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Potassium	1790		625	6.620	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Selenium	2.590		1.250	0.426	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Silver	0.236	J	1.250	0.099	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Sodium	1820		625	32.3	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Vanadium	30.0		6.250	0.075	mg/Kg
T2253-14	IS-SOILDUP	SOIL	Zinc	1020		2.500	0.090	mg/Kg

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-MW1-(0.3)	**SDG No.:**	T2253
Lab Sample ID:	T2253-07	**Matrix:**	SOIL
% Solids:	81.80		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.611	U	0.611	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:		**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW2-(0-6)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-08**	**Matrix:**	**SOIL**
% Solids:	**75.90**		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	1.050		0.659	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/5/2005**
Project:		**Date Received:**	**4/7/2005**
Client Sample ID:	**IS-MW3-(0-4)**	**SDG No.:**	**T2253**
Lab Sample ID:	**T2253-09**	**Matrix:**	**SOIL**
% Solids:	**78.10**		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.640	U	0.640	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-SB1(0-2)	**SDG No.:**	T2253
Lab Sample ID:	T2253-10	**Matrix:**	SOIL
% Solids:	81.30		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.750		0.615	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-SB-4(0-13.7)	**SDG No.:**	T2253
Lab Sample ID:	T2253-13	**Matrix:**	SOIL
% Solids:	84.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.595	U	0.595	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/5/2005
Project:		**Date Received:**	4/7/2005
Client Sample ID:	IS-SOILDUP	**SDG No.:**	T2253
Lab Sample ID:	T2253-14	**Matrix:**	SOIL
% Solids:	80.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.625	U	0.625	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street • Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

ANALYTICAL RESULTS SUMMARY

PROJECT NAME: Incinerator Site-Lackawanna, NY

MALCOLM PIRNIE
40 CENTER DRIVE
ORCHARD PARK, NY 14127
7166676640

CHEMTECH PROJECT NO. **T2275**
ATTENTION: **Jim Richert**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	IS-SB2(12.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-01	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	20
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041426.D	1	4/14/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.1	U	6.2	1.1	ug/Kg
74-87-3	Chloromethane	1.1	U	6.2	1.1	ug/Kg
75-01-4	Vinyl chloride	1.0	U	6.2	1.0	ug/Kg
74-83-9	Bromomethane	2.5	U	6.2	2.5	ug/Kg
75-00-3	Chloroethane	2.7	U	6.2	2.7	ug/Kg
75-69-4	Trichlorofluoromethane	1.6	U	6.2	1.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	6.2	0.83	ug/Kg
75-35-4	1,1-Dichloroethene	0.71	U	6.2	0.71	ug/Kg
67-64-1	Acetone	97	B	31	4.2	ug/Kg
75-15-0	Carbon disulfide	6.7		6.2	0.46	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	6.2	0.46	ug/Kg
79-20-9	Methyl Acetate	1.1	U	6.2	1.1	ug/Kg
75-09-2	Methylene Chloride	14		6.2	2.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.80	U	6.2	0.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.34	U	6.2	0.34	ug/Kg
110-82-7	Cyclohexane	0.40	U	6.2	0.40	ug/Kg
78-93-3	2-Butanone	11	J	31	3.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	6.2	0.55	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.41	U	6.2	0.41	ug/Kg
67-66-3	Chloroform	0.43	U	6.2	0.43	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	6.2	0.52	ug/Kg
108-87-2	Methylcyclohexane	0.52	U	6.2	0.52	ug/Kg
71-43-2	Benzene	0.50	U	6.2	0.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.38	U	6.2	0.38	ug/Kg
79-01-6	Trichloroethene	0.38	U	6.2	0.38	ug/Kg
78-87-5	1,2-Dichloropropane	0.50	U	6.2	0.50	ug/Kg
75-27-4	Bromodichloromethane	0.42	U	6.2	0.42	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.5	U	31	2.5	ug/Kg
108-88-3	Toluene	3.6	J	6.2	0.51	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.45	U	6.2	0.45	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.41	U	6.2	0.41	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.37	U	6.2	0.37	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/6/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/8/05**
Client Sample ID:	**IS-SB2(12.5)**	**SDG No.:**	**T2275**
Lab Sample ID:	**T2275-01**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**20**
Sample Wt/Vol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041426.D	1	4/14/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.5	U	31	4.5	ug/Kg
124-48-1	Dibromochloromethane	0.29	U	6.2	0.29	ug/Kg
106-93-4	1,2-Dibromoethane	0.50	U	6.2	0.50	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	6.2	0.91	ug/Kg
108-90-7	Chlorobenzene	0.45	U	6.2	0.45	ug/Kg
100-41-4	Ethyl Benzene	1.4	J	6.2	0.44	ug/Kg
126777-61-2	m/p-Xylenes	5.8	J	6.2	1.1	ug/Kg
95-47-6	o-Xylene	2.1	J	6.2	0.48	ug/Kg
100-42-5	Styrene	0.57	U	6.2	0.57	ug/Kg
75-25-2	Bromoform	0.39	U	6.2	0.39	ug/Kg
98-82-8	Isopropylbenzene	0.52	U	6.2	0.52	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.39	U	6.2	0.39	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.70	U	6.2	0.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.68	U	6.2	0.68	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	6.2	0.48	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	6.2	1.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.85	U	6.2	0.85	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.7	103 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	49.37	99 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	46.76	94 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	42.42	85 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	248183	4.32			
540-36-3	1,4-Difluorobenzene	347379	4.77			
3114-55-4	Chlorobenzene-d5	281134	7.66			
3855-82-1	1,4-Dichlorobenzene-d4	134769	9.67			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	IS-SB3(14-16)	**SDG No.:**	T2275
Lab Sample ID:	T2275-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	13
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK042020.D	1	4/20/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.98	U	5.7	0.98	ug/Kg
74-87-3	Chloromethane	0.98	U	5.7	0.98	ug/Kg
75-01-4	Vinyl chloride	0.94	U	5.7	0.94	ug/Kg
74-83-9	Bromomethane	2.3	U	5.7	2.3	ug/Kg
75-00-3	Chloroethane	2.4	U	5.7	2.4	ug/Kg
75-69-4	Trichlorofluoromethane	1.4	U	5.7	1.4	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.76	U	5.7	0.76	ug/Kg
75-35-4	1,1-Dichloroethene	0.66	U	5.7	0.66	ug/Kg
67-64-1	Acetone	5.3	JB	29	3.8	ug/Kg
75-15-0	Carbon disulfide	0.42	U	5.7	0.42	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.42	U	5.7	0.42	ug/Kg
79-20-9	Methyl Acetate	0.99	U	5.7	0.99	ug/Kg
75-09-2	Methylene Chloride	3.1	JB	5.7	2.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.73	U	5.7	0.73	ug/Kg
75-34-3	1,1-Dichloroethane	0.31	U	5.7	0.31	ug/Kg
110-82-7	Cyclohexane	0.37	U	5.7	0.37	ug/Kg
78-93-3	2-Butanone	3.2	U	29	3.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.51	U	5.7	0.51	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.37	U	5.7	0.37	ug/Kg
67-66-3	Chloroform	0.40	U	5.7	0.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.48	U	5.7	0.48	ug/Kg
108-87-2	Methylcyclohexane	0.48	U	5.7	0.48	ug/Kg
71-43-2	Benzene	0.46	U	5.7	0.46	ug/Kg
107-06-2	1,2-Dichloroethane	0.35	U	5.7	0.35	ug/Kg
79-01-6	Trichloroethene	0.35	U	5.7	0.35	ug/Kg
78-87-5	1,2-Dichloropropane	0.45	U	5.7	0.45	ug/Kg
75-27-4	Bromodichloromethane	0.38	U	5.7	0.38	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.3	U	29	2.3	ug/Kg
108-88-3	Toluene	2.8	J	5.7	0.46	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.42	U	5.7	0.42	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.38	U	5.7	0.38	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.34	U	5.7	0.34	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	IS-SB3(14-16)	**SDG No.:**	T2275
Lab Sample ID:	T2275-03	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	13
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK042020.D	1	4/20/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	4.1	U	29	4.1	ug/Kg
124-48-1	Dibromochloromethane	0.26	U	5.7	0.26	ug/Kg
106-93-4	1,2-Dibromoethane	0.46	U	5.7	0.46	ug/Kg
127-18-4	Tetrachloroethene	1.3	J	5.7	0.84	ug/Kg
108-90-7	Chlorobenzene	0.41	U	5.7	0.41	ug/Kg
100-41-4	Ethyl Benzene	1.5	J	5.7	0.41	ug/Kg
126777-61-2	m/p-Xylenes	5.4	J	5.7	0.99	ug/Kg
95-47-6	o-Xylene	1.3	J	5.7	0.44	ug/Kg
100-42-5	Styrene	0.53	U	5.7	0.53	ug/Kg
75-25-2	Bromoform	0.35	U	5.7	0.35	ug/Kg
98-82-8	Isopropylbenzene	0.48	U	5.7	0.48	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.36	U	5.7	0.36	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.64	U	5.7	0.64	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.62	U	5.7	0.62	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.44	U	5.7	0.44	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.1	U	5.7	1.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.78	U	5.7	0.78	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.48	101 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.66	101 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.64	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	41.01	82 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	351428	4.34			
540-36-3	1,4-Difluorobenzene	499463	4.79			
3114-55-4	Chlorobenzene-d5	410251	7.67			
3855-82-1	1,4-Dichlorobenzene-d4	181177	9.68			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2275
Lab Sample ID:	T2275-05	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Wol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH041212.D	1	4/12/05	VH040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2275
Lab Sample ID:	T2275-05	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH041212.D	1	4/12/05	VH040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.39	119 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	56.27	113 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	50.85	102 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	54.16	108 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	528048	6.43			
540-36-3	1,4-Difluorobenzene	870828	7.08			
3114-55-4	Chlorobenzene-d5	713515	10.75			
3855-82-1	1,4-Dichlorobenzene-d4	281129	13.01			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech

Summary Sheet
SW-846

SDG No.: T2275 **Order ID:** T2275

Client: Malcolm Pirnie **Project ID:** MALC05

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-SB2(12.5)							
T2275-01	IS-SB2(12.5)	SOIL	Acetone	97	B	31	4.2	ug/Kg
T2275-01	IS-SB2(12.5)	SOIL	Carbon disulfide	6.7		6.2	0.46	ug/Kg
T2275-01	IS-SB2(12.5)	SOIL	Methylene Chloride	14		6.2	2.3	ug/Kg
T2275-01	IS-SB2(12.5)	SOIL	2-Butanone	11	J	31	3.5	ug/Kg
T2275-01	IS-SB2(12.5)	SOIL	Toluene	3.6	J	6.2	0.51	ug/Kg
T2275-01	IS-SB2(12.5)	SOIL	Ethyl Benzene	1.4	J	6.2	0.44	ug/Kg
T2275-01	IS-SB2(12.5)	SOIL	m/p-Xylenes	5.8	J	6.2	1.1	ug/Kg
T2275-01	IS-SB2(12.5)	SOIL	o-Xylene	2.1	J	6.2	0.48	ug/Kg
			Total VOC's:	141.60				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	141.60				
Client ID:	IS-SB3(14-16)							
T2275-03	IS-SB3(14-16)	SOIL	Acetone	5.3	JB	29	3.8	ug/Kg
T2275-03	IS-SB3(14-16)	SOIL	Methylene Chloride	3.1	JB	5.7	2.1	ug/Kg
T2275-03	IS-SB3(14-16)	SOIL	Toluene	2.8	J	5.7	0.46	ug/Kg
T2275-03	IS-SB3(14-16)	SOIL	Tetrachloroethene	1.3	J	5.7	0.84	ug/Kg
T2275-03	IS-SB3(14-16)	SOIL	Ethyl Benzene	1.5	J	5.7	0.41	ug/Kg
T2275-03	IS-SB3(14-16)	SOIL	m/p-Xylenes	5.4	J	5.7	0.99	ug/Kg
T2275-03	IS-SB3(14-16)	SOIL	o-Xylene	1.3	J	5.7	0.44	ug/Kg
			Total VOC's:	20.70				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	20.70				

te: The asterisk "*" flag next to a parameter signifies a TIC parameter.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020852.D	1	4/12/2005	4/14/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	170	U	810	170	ug/Kg
108-95-2	Phenol	120	U	810	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	130	U	810	130	ug/Kg
95-57-8	2-Chlorophenol	130	U	810	130	ug/Kg
95-48-7	2-Methylphenol	130	U	810	130	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	130	U	810	130	ug/Kg
98-86-2	Acetophenone	120	U	810	120	ug/Kg
106-44-5	3+4-Methylphenols	130	U	810	130	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	130	U	810	130	ug/Kg
67-72-1	Hexachloroethane	140	U	810	140	ug/Kg
98-95-3	Nitrobenzene	180	U	810	180	ug/Kg
78-59-1	Isophorone	120	U	810	120	ug/Kg
88-75-5	2-Nitrophenol	120	U	810	120	ug/Kg
105-67-9	2,4-Dimethylphenol	130	U	810	130	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	130	U	810	130	ug/Kg
120-83-2	2,4-Dichlorophenol	150	U	810	150	ug/Kg
91-20-3	Naphthalene	140	U	810	140	ug/Kg
106-47-8	4-Chloroaniline	97	U	810	97	ug/Kg
87-68-3	Hexachlorobutadiene	120	U	810	120	ug/Kg
105-60-2	Caprolactam	130	U	810	130	ug/Kg
59-50-7	4-Chloro-3-methylphenol	110	U	810	110	ug/Kg
91-57-6	2-Methylnaphthalene	140	U	810	140	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	810	130	ug/Kg
88-06-2	2,4,6-Trichlorophenol	120	U	810	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	120	U	2000	120	ug/Kg
92-52-4	1,1-Biphenyl	130	U	810	130	ug/Kg
91-58-7	2-Chloronaphthalene	130	U	810	130	ug/Kg
88-74-4	2-Nitroaniline	100	U	2000	100	ug/Kg
131-11-3	Dimethylphthalate	130	U	810	130	ug/Kg
208-96-8	Acenaphthylene	130	U	810	130	ug/Kg
606-20-2	2,6-Dinitrotoluene	110	U	810	110	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020852.D	1	4/12/2005	4/14/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	110	U	2000	110	ug/Kg
83-32-9	Acenaphthene	140	U	810	140	ug/Kg
51-28-5	2,4-Dinitrophenol	690	U	2000	690	ug/Kg
100-02-7	4-Nitrophenol	100	U	2000	100	ug/Kg
132-64-9	Dibenzofuran	130	U	810	130	ug/Kg
121-14-2	2,4-Dinitrotoluene	120	U	810	120	ug/Kg
84-66-2	Diethylphthalate	140	U	810	140	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	130	U	810	130	ug/Kg
86-73-7	Fluorene	140	U	810	140	ug/Kg
100-01-6	4-Nitroaniline	140	U	2000	140	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	160	U	2000	160	ug/Kg
86-30-6	N-Nitrosodiphenylamine	130	U	810	130	ug/Kg
101-55-3	4-Bromophenyl-phenylether	120	U	810	120	ug/Kg
118-74-1	Hexachlorobenzene	130	U	810	130	ug/Kg
1912-24-9	Atrazine	120	U	810	120	ug/Kg
87-86-5	Pentachlorophenol	190	U	2000	190	ug/Kg
85-01-8	Phenanthrene	910		810	130	ug/Kg
120-12-7	Anthracene	160	J	810	120	ug/Kg
86-74-8	Carbazole	170	J	810	120	ug/Kg
84-74-2	Di-n-butylphthalate	120	U	810	120	ug/Kg
206-44-0	Fluoranthene	1400		810	120	ug/Kg
129-00-0	Pyrene	1200		810	140	ug/Kg
85-68-7	Butylbenzylphthalate	130	U	810	130	ug/Kg
91-94-1	3,3-Dichlorobenzidine	140	U	810	140	ug/Kg
56-55-3	Benzo(a)anthracene	470	J	810	110	ug/Kg
218-01-9	Chrysene	460	J	810	150	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	160	U	810	160	ug/Kg
117-84-0	Di-n-octyl phthalate	140	U	810	140	ug/Kg
205-99-2	Benzo(b)fluoranthene	690	J	810	89	ug/Kg
207-08-9	Benzo(k)fluoranthene	250	J	810	180	ug/Kg
50-32-8	Benzo(a)pyrene	440	J	810	130	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Vol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020852.D	1	4/12/2005	4/14/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	100	U	810	100	ug/Kg
53-70-3	Dibenz(a,h)anthracene	100	U	810	100	ug/Kg
191-24-2	Benzo(g,h,i)perylene	190	J	810	130	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	152.79	51 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	155.04	52 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	107.17	54 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	104.51	52 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	146.92	49 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	133.85	67 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	185218	4.13			
1146-65-2	Naphthalene-d8	687957	4.92			
15067-26-2	Acenaphthene-d10	369217	6.04			
1517-22-2	Phenanthrene-d10	598967	7.08			
1719-03-5	Chrysene-d12	458414	9.42			
1520-96-3	Perylene-d12	158900	11.81			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	1800	AB	3.17		ug/Kg
38380039	1,1-Biphenyl, 2,3,3,4,6-pentachlor	170	J	8.51		ug/Kg
243469	Benzo[b]naphtho[2,3-d]thiophene	290	J	9.12		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-02RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Wol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020896.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	170	U	810	170	ug/Kg
108-95-2	Phenol	120	U	810	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	130	U	810	130	ug/Kg
95-57-8	2-Chlorophenol	130	U	810	130	ug/Kg
95-48-7	2-Methylphenol	130	U	810	130	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	130	U	810	130	ug/Kg
98-86-2	Acetophenone	120	U	810	120	ug/Kg
106-44-5	3+4-Methylphenols	130	U	810	130	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	130	U	810	130	ug/Kg
67-72-1	Hexachloroethane	140	U	810	140	ug/Kg
98-95-3	Nitrobenzene	180	U	810	180	ug/Kg
78-59-1	Isophorone	120	U	810	120	ug/Kg
88-75-5	2-Nitrophenol	120	U	810	120	ug/Kg
105-67-9	2,4-Dimethylphenol	130	U	810	130	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	130	U	810	130	ug/Kg
120-83-2	2,4-Dichlorophenol	150	U	810	150	ug/Kg
91-20-3	Naphthalene	140	U	810	140	ug/Kg
106-47-8	4-Chloroaniline	97	U	810	97	ug/Kg
87-68-3	Hexachlorobutadiene	120	U	810	120	ug/Kg
105-60-2	Caprolactam	130	U	810	130	ug/Kg
59-50-7	4-Chloro-3-methylphenol	110	U	810	110	ug/Kg
91-57-6	2-Methylnaphthalene	140	U	810	140	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	810	130	ug/Kg
88-06-2	2,4,6-Trichlorophenol	120	U	810	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	120	U	2000	120	ug/Kg
92-52-4	1,1-Biphenyl	130	U	810	130	ug/Kg
91-58-7	2-Chloronaphthalene	130	U	810	130	ug/Kg
88-74-4	2-Nitroaniline	100	U	2000	100	ug/Kg
131-11-3	Dimethylphthalate	130	U	810	130	ug/Kg
208-96-8	Acenaphthylene	130	U	810	130	ug/Kg
606-20-2	2,6-Dinitrotoluene	110	U	810	110	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-02RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Wol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020896.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	110	U	2000	110	ug/Kg
83-32-9	Acenaphthene	140	U	810	140	ug/Kg
51-28-5	2,4-Dinitrophenol	690	U	2000	690	ug/Kg
100-02-7	4-Nitrophenol	100	U	2000	100	ug/Kg
132-64-9	Dibenzofuran	130	U	810	130	ug/Kg
121-14-2	2,4-Dinitrotoluene	120	U	810	120	ug/Kg
84-66-2	Diethylphthalate	140	U	810	140	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	130	U	810	130	ug/Kg
86-73-7	Fluorene	140	U	810	140	ug/Kg
100-01-6	4-Nitroaniline	140	U	2000	140	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	160	U	2000	160	ug/Kg
86-30-6	N-Nitrosodiphenylamine	130	U	810	130	ug/Kg
101-55-3	4-Bromophenyl-phenylether	120	U	810	120	ug/Kg
118-74-1	Hexachlorobenzene	130	U	810	130	ug/Kg
1912-24-9	Atrazine	120	U	810	120	ug/Kg
87-86-5	Pentachlorophenol	190	U	2000	190	ug/Kg
85-01-8	Phenanthrene	900		810	130	ug/Kg
120-12-7	Anthracene	160	J	810	120	ug/Kg
86-74-8	Carbazole	160	J	810	120	ug/Kg
84-74-2	Di-n-butylphthalate	120	U	810	120	ug/Kg
206-44-0	Fluoranthene	1300		810	120	ug/Kg
129-00-0	Pyrene	1200		810	140	ug/Kg
85-68-7	Butylbenzylphthalate	130	U	810	130	ug/Kg
91-94-1	3,3-Dichlorobenzidine	140	U	810	140	ug/Kg
56-55-3	Benzo(a)anthracene	490	J	810	110	ug/Kg
218-01-9	Chrysene	440	J	810	150	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	160	U	810	160	ug/Kg
117-84-0	Di-n-octyl phthalate	140	U	810	140	ug/Kg
205-99-2	Benzo(b)fluoranthene	670	J	810	89	ug/Kg
207-08-9	Benzo(k)fluoranthene	290	J	810	180	ug/Kg
50-32-8	Benzo(a)pyrene	440	J	810	130	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-02RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	19
Sample Wt/Wol:	15.1 g	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020896.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	100	U	810	100	ug/Kg
53-70-3	Dibenz(a,h)anthracene	100	U	810	100	ug/Kg
191-24-2	Benzo(g,h,i)perylene	190	J	810	130	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	156.97	52 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	159.13	53 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	106	53 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	105.6	53 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	156.49	52 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	140.02	70 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	174853	4.12			
1146-65-2	Naphthalene-d8	685504	4.91			
15067-26-2	Acenaphthene-d10	354871	6.03			
1517-22-2	Phenanthrene-d10	598177	7.06			
1719-03-5	Chrysene-d12	436204	9.37			
1520-96-3	Perylene-d12	151302	11.75			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020851.D	1	4/12/2005	4/14/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	85	U	410	85	ug/Kg
108-95-2	Phenol	62	U	410	62	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	65	U	410	65	ug/Kg
95-57-8	2-Chlorophenol	66	U	410	66	ug/Kg
95-48-7	2-Methylphenol	69	U	410	69	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	66	U	410	66	ug/Kg
98-86-2	Acetophenone	60	U	410	60	ug/Kg
106-44-5	3+4-Methylphenols	65	U	410	65	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	68	U	410	68	ug/Kg
67-72-1	Hexachloroethane	70	U	410	70	ug/Kg
98-95-3	Nitrobenzene	90	U	410	90	ug/Kg
78-59-1	Isophorone	62	U	410	62	ug/Kg
88-75-5	2-Nitrophenol	63	U	410	63	ug/Kg
105-67-9	2,4-Dimethylphenol	65	U	410	65	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	68	U	410	68	ug/Kg
120-83-2	2,4-Dichlorophenol	76	U	410	76	ug/Kg
91-20-3	Naphthalene	70	U	410	70	ug/Kg
106-47-8	4-Chloroaniline	49	U	410	49	ug/Kg
87-68-3	Hexachlorobutadiene	63	U	410	63	ug/Kg
105-60-2	Caprolactam	66	U	410	66	ug/Kg
59-50-7	4-Chloro-3-methylphenol	57	U	410	57	ug/Kg
91-57-6	2-Methylnaphthalene	69	U	410	69	ug/Kg
77-47-4	Hexachlorocyclopentadiene	66	U	410	66	ug/Kg
88-06-2	2,4,6-Trichlorophenol	61	U	410	61	ug/Kg
95-95-4	2,4,5-Trichlorophenol	63	U	1000	63	ug/Kg
92-52-4	1,1-Biphenyl	68	U	410	68	ug/Kg
91-58-7	2-Chloronaphthalene	68	U	410	68	ug/Kg
88-74-4	2-Nitroaniline	52	U	1000	52	ug/Kg
131-11-3	Dimethylphthalate	66	U	410	66	ug/Kg
208-96-8	Acenaphthylene	80	J	410	67	ug/Kg
606-20-2	2,6-Dinitrotoluene	58	U	410	58	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020851.D	1	4/12/2005	4/14/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	54	U	1000	54	ug/Kg
83-32-9	Acenaphthene	73	U	410	73	ug/Kg
51-28-5	2,4-Dinitrophenol	350	U	1000	350	ug/Kg
100-02-7	4-Nitrophenol	51	U	1000	51	ug/Kg
132-64-9	Dibenzofuran	68	U	410	68	ug/Kg
121-14-2	2,4-Dinitrotoluene	61	U	410	61	ug/Kg
84-66-2	Diethylphthalate	71	U	410	71	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	65	U	410	65	ug/Kg
86-73-7	Fluorene	70	U	410	70	ug/Kg
100-01-6	4-Nitroaniline	70	U	1000	70	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	80	U	1000	80	ug/Kg
86-30-6	N-Nitrosodiphenylamine	68	U	410	68	ug/Kg
101-55-3	4-Bromophenyl-phenylether	62	U	410	62	ug/Kg
118-74-1	Hexachlorobenzene	66	U	410	66	ug/Kg
1912-24-9	Atrazine	63	U	410	63	ug/Kg
87-86-5	Pentachlorophenol	95	U	1000	95	ug/Kg
85-01-8	Phenanthrene	350	J	410	66	ug/Kg
120-12-7	Anthracene	81	J	410	62	ug/Kg
86-74-8	Carbazole	63	U	410	63	ug/Kg
84-74-2	Di-n-butylphthalate	63	U	410	63	ug/Kg
206-44-0	Fluoranthene	820		410	61	ug/Kg
129-00-0	Pyrene	710		410	73	ug/Kg
85-68-7	Butylbenzylphthalate	67	U	410	67	ug/Kg
91-94-1	3,3-Dichlorobenzidine	71	U	410	71	ug/Kg
56-55-3	Benzo(a)anthracene	410		410	58	ug/Kg
218-01-9	Chrysene	390	J	410	74	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	100	J	410	79	ug/Kg
117-84-0	Di-n-octyl phthalate	70	U	410	70	ug/Kg
205-99-2	Benzo(b)fluoranthene	500		410	45	ug/Kg
207-08-9	Benzo(k)fluoranthene	200	J	410	91	ug/Kg
50-32-8	Benzo(a)pyrene	310	J	410	66	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/6/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/8/2005**
Client Sample ID:	**IS-SB3(0-19)**	**SDG No.:**	**T2275**
Lab Sample ID:	**T2275-04**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**20**
Sample Wt/Wol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020851.D	1	4/12/2005	4/14/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	60	J	410	52	ug/Kg
53-70-3	Dibenz(a,h)anthracene	52	U	410	52	ug/Kg
191-24-2	Benzo(g,h,i)perylene	120	J	410	68	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	289.8	97 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	294.39	98 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	209.43	105 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	193.38	97 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	332.79	111 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	233.81	117 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	338117	4.13			
1146-65-2	Naphthalene-d8	1263574	4.92			
15067-26-2	Acenaphthene-d10	662385	6.04			
1517-22-2	Phenanthrene-d10	1082815	7.09			
1719-03-5	Chrysene-d12	933012	9.43			
1520-96-3	Perylene-d12	409466	11.84			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	1900	AB	3.17		ug/Kg
243174	11H-Benzo[b]fluorene	170	J	8.52		ug/Kg
239350	Benzo[b]naphtho[2,1-d]thiophene	260	J	9.14		ug/Kg
	Unknown	330	J	11.60		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-04RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020897.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	85	U	410	85	ug/Kg
108-95-2	Phenol	62	U	410	62	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	65	U	410	65	ug/Kg
95-57-8	2-Chlorophenol	66	U	410	66	ug/Kg
95-48-7	2-Methylphenol	69	U	410	69	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	66	U	410	66	ug/Kg
98-86-2	Acetophenone	60	U	410	60	ug/Kg
106-44-5	3+4-Methylphenols	65	U	410	65	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	68	U	410	68	ug/Kg
67-72-1	Hexachloroethane	70	U	410	70	ug/Kg
98-95-3	Nitrobenzene	90	U	410	90	ug/Kg
78-59-1	Isophorone	62	U	410	62	ug/Kg
88-75-5	2-Nitrophenol	63	U	410	63	ug/Kg
105-67-9	2,4-Dimethylphenol	65	U	410	65	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	68	U	410	68	ug/Kg
120-83-2	2,4-Dichlorophenol	76	U	410	76	ug/Kg
91-20-3	Naphthalene	70	U	410	70	ug/Kg
106-47-8	4-Chloroaniline	49	U	410	49	ug/Kg
87-68-3	Hexachlorobutadiene	63	U	410	63	ug/Kg
105-60-2	Caprolactam	66	U	410	66	ug/Kg
59-50-7	4-Chloro-3-methylphenol	57	U	410	57	ug/Kg
91-57-6	2-Methylnaphthalene	69	U	410	69	ug/Kg
77-47-4	Hexachlorocyclopentadiene	66	U	410	66	ug/Kg
88-06-2	2,4,6-Trichlorophenol	61	U	410	61	ug/Kg
95-95-4	2,4,5-Trichlorophenol	63	U	1000	63	ug/Kg
92-52-4	1,1-Biphenyl	68	U	410	68	ug/Kg
91-58-7	2-Chloronaphthalene	68	U	410	68	ug/Kg
88-74-4	2-Nitroaniline	52	U	1000	52	ug/Kg
131-11-3	Dimethylphthalate	66	U	410	66	ug/Kg
208-96-8	Acenaphthylene	78	J	410	67	ug/Kg
606-20-2	2,6-Dinitrotoluene	58	U	410	58	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-04RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020897.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	54	U	1000	54	ug/Kg
83-32-9	Acenaphthene	73	U	410	73	ug/Kg
51-28-5	2,4-Dinitrophenol	350	U	1000	350	ug/Kg
100-02-7	4-Nitrophenol	51	U	1000	51	ug/Kg
132-64-9	Dibenzofuran	68	U	410	68	ug/Kg
121-14-2	2,4-Dinitrotoluene	61	U	410	61	ug/Kg
84-66-2	Diethylphthalate	71	U	410	71	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	65	U	410	65	ug/Kg
86-73-7	Fluorene	70	U	410	70	ug/Kg
100-01-6	4-Nitroaniline	70	U	1000	70	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	80	U	1000	80	ug/Kg
86-30-6	N-Nitrosodiphenylamine	68	U	410	68	ug/Kg
101-55-3	4-Bromophenyl-phenylether	62	U	410	62	ug/Kg
118-74-1	Hexachlorobenzene	66	U	410	66	ug/Kg
1912-24-9	Atrazine	63	U	410	63	ug/Kg
87-86-5	Pentachlorophenol	95	U	1000	95	ug/Kg
85-01-8	Phenanthrene	350	J	410	66	ug/Kg
120-12-7	Anthracene	83	J	410	62	ug/Kg
86-74-8	Carbazole	63	U	410	63	ug/Kg
84-74-2	Di-n-butylphthalate	63	U	410	63	ug/Kg
206-44-0	Fluoranthene	810		410	61	ug/Kg
129-00-0	Pyrene	780		410	73	ug/Kg
85-68-7	Butylbenzylphthalate	67	U	410	67	ug/Kg
91-94-1	3,3-Dichlorobenzidine	71	U	410	71	ug/Kg
56-55-3	Benzo(a)anthracene	400	J	410	58	ug/Kg
218-01-9	Chrysene	390	J	410	74	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	110	J	410	79	ug/Kg
117-84-0	Di-n-octyl phthalate	70	U	410	70	ug/Kg
205-99-2	Benzo(b)fluoranthene	520		410	45	ug/Kg
207-08-9	Benzo(k)fluoranthene	190	J	410	91	ug/Kg
50-32-8	Benzo(a)pyrene	330	J	410	66	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)RE	**SDG No.:**	T2275
Lab Sample ID:	T2275-04RE	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	20
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020897.D	1	4/12/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	52	U	410	52	ug/Kg
53-70-3	Dibenz(a,h)anthracene	52	U	410	52	ug/Kg
191-24-2	Benzo(g,h,i)perylene	120	J	410	68	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	296.77	99 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	296.13	99 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	206.92	103 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	190.85	95 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	319.73	107 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	259.08	130 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	327864	4.12			
1146-65-2	Naphthalene-d8	1246861	4.91			
15067-26-2	Acenaphthene-d10	674730	6.03			
1517-22-2	Phenanthrene-d10	1064643	7.06			
1719-03-5	Chrysene-d12	824320	9.35			
1520-96-3	Perylene-d12	304983	11.72			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech

Hit Summary Report

SDG No.: T2275 **Order ID:** T2275

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: SVOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-SB2(0-21.5)**							
T2275-02	IS-SB2(0-21.5)	SOIL	Phenanthrene	910		810	130	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Anthracene	160	J	810	120	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Carbazole	170	J	810	120	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Fluoranthene	1400		810	120	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Pyrene	1200		810	140	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Benzo(a)anthracene	470	J	810	110	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Chrysene	460	J	810	150	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Benzo(b)fluoranthene	690	J	810	89	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Benzo(k)fluoranthene	250	J	810	180	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Benzo(a)pyrene	440	J	810	130	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Benzo(g,h,i)perylene	190	J	810	130	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	ACP	* 1800	AB	0	0	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	1,1-Biphenyl, 2,3,3,4,6-pentac	* 170	J	0	0	ug/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Benzo[b]naphtho[2,3-d]thioph	* 290	J	0	0	ug/Kg
			Total SVOC's:	6340.00				
			Total TIC's:	2260.00				
			Total SVOC's and TIC's:	8600.00				
Client ID:	**IS-SB2(0-21.5)RE**							
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Phenanthrene	900		810	130	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Anthracene	160	J	810	120	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Carbazole	160	J	810	120	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Fluoranthene	1300		810	120	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Pyrene	1200		810	140	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Benzo(a)anthracene	490	J	810	110	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Chrysene	440	J	810	150	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Benzo(b)fluoranthene	670	J	810	89	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Benzo(k)fluoranthene	290	J	810	180	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Benzo(a)pyrene	440	J	810	130	ug/Kg
T2275-02RE	IS-SB2(0-21.5)RE	SOIL	Benzo(g,h,i)perylene	190	J	810	130	ug/Kg
			Total SVOC's:	6240.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	6240.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: T2275 **Order ID:** T2275

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: SVOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-SB3(0-19)**							
T2275-04	IS-SB3(0-19)	SOIL	Acenaphthylene	80	J	410	67	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Phenanthrene	350	J	410	66	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Anthracene	81	J	410	62	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Fluoranthene	820		410	61	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Pyrene	710		410	73	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Benzo(a)anthracene	410		410	58	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Chrysene	390	J	410	74	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	bis(2-Ethylhexyl)phthalate	100	J	410	79	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Benzo(b)fluoranthene	500		410	45	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Benzo(k)fluoranthene	200	J	410	91	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Benzo(a)pyrene	310	J	410	66	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Indeno(1,2,3-cd)pyrene	60	J	410	52	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Benzo(g,h,i)perylene	120	J	410	68	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	ACP	* 1900	AB	0	0	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	11H-Benzo[b]fluorene	* 170	J	0	0	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Benzo[b]naphtho[2,1-d]thioph	* 260	J	0	0	ug/Kg
T2275-04	IS-SB3(0-19)	SOIL	Unknown	* 330	J	0	0	ug/Kg
			Total SVOC's:	**4131.00**				
			Total TIC's:	**2660.00**				
			Total SVOC's and TIC's:	**6791.00**				
Client ID:	**IS-SB3(0-19)RE**							
T2275-04RE	IS-SB3(0-19)RE	SOIL	Acenaphthylene	78	J	410	67	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Phenanthrene	350	J	410	66	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Anthracene	83	J	410	62	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Fluoranthene	810		410	61	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Pyrene	780		410	73	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Benzo(a)anthracene	400	J	410	58	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Chrysene	390	J	410	74	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	bis(2-Ethylhexyl)phthalate	110	J	410	79	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Benzo(b)fluoranthene	520		410	45	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Benzo(k)fluoranthene	190	J	410	91	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Benzo(a)pyrene	330	J	410	66	ug/Kg
T2275-04RE	IS-SB3(0-19)RE	SOIL	Benzo(g,h,i)perylene	120	J	410	68	ug/Kg
			Total SVOC's:	**4161.00**				
			Total TIC's:	**0.00**				
			Total SVOC's and TIC's:	**4161.00**				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	19
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7476.D	1	4/12/2005	4/18/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.78	U	3.7	0.78	ug/Kg
319-85-7	beta-BHC	1.1	U	3.7	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.7	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.87	U	3.7	0.87	ug/Kg
76-44-8	Heptachlor	1.1	U	3.7	1.1	ug/Kg
309-00-2	Aldrin	1.5	U	3.7	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.7	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.7	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.7	1.0	ug/Kg
72-55-9	4,4'-DDE	0.96	U	3.7	0.96	ug/Kg
72-20-8	Endrin	1.0	U	3.7	1.0	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.7	1.2	ug/Kg
72-54-8	4,4'-DDD	0.85	U	3.7	0.85	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.7	1.3	ug/Kg
50-29-3	4,4'-DDT	0.88	U	3.7	0.88	ug/Kg
72-43-5	Methoxychlor	1.0	U	3.7	1.0	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.7	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.7	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.7	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.7	1.1	ug/Kg
8001-35-2	Toxaphene	4.4	U	21	4.4	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.79	79 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	23.03	115 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	20
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7477.D	1	4/12/2005	4/18/2005	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.79	U	3.7	0.79	ug/Kg
319-85-7	beta-BHC	1.1	U	3.7	1.1	ug/Kg
319-86-8	delta-BHC	2.0	U	3.7	2.0	ug/Kg
58-89-9	gamma-BHC (Lindane)	0.89	U	3.7	0.89	ug/Kg
76-44-8	Heptachlor	1.2	U	3.7	1.2	ug/Kg
309-00-2	Aldrin	1.5	U	3.7	1.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.3	U	3.7	1.3	ug/Kg
959-98-8	Endosulfan I	1.1	U	3.7	1.1	ug/Kg
60-57-1	Dieldrin	1.0	U	3.7	1.0	ug/Kg
72-55-9	4,4'-DDE	0.97	U	3.7	0.97	ug/Kg
72-20-8	Endrin	1.1	U	3.7	1.1	ug/Kg
33213-65-9	Endosulfan II	1.2	U	3.7	1.2	ug/Kg
72-54-8	4,4'-DDD	0.87	U	3.7	0.87	ug/Kg
1031-07-8	Endosulfan sulfate	1.3	U	3.7	1.3	ug/Kg
50-29-3	4,4'-DDT	0.89	U	3.7	0.89	ug/Kg
72-43-5	Methoxychlor	1.1	U	3.7	1.1	ug/Kg
53494-70-5	Endrin ketone	1.0	U	3.7	1.0	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	3.7	1.2	ug/Kg
5103-71-9	alpha-Chlordane	1.0	U	3.7	1.0	ug/Kg
5103-74-2	gamma-Chlordane	1.1	U	3.7	1.1	ug/Kg
8001-35-2	Toxaphene	4.4	U	21	4.4	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	14.46	72 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	14.32	72 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	19
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2298.D	1	4/12/2005	4/19/2005	4PC041605

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.8	U	21	4.8	ug/Kg
11141-16-5	AROCLOR 1232	7.2	U	21	7.2	ug/Kg
53469-21-9	AROCLOR 1242	6.4	U	21	6.4	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260	680	E	21	5.1	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	16.27	81 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	18.36	92 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)DL	**SDG No.:**	T2275
Lab Sample ID:	T2275-02DL	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	19
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2321.D	10	4/12/2005	4/20/2005	4PC041605

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	31	UD	210	31	ug/Kg
11104-28-2	AROCLOR 1221	48	UD	210	48	ug/Kg
11141-16-5	AROCLOR 1232	72	UD	210	72	ug/Kg
53469-21-9	AROCLOR 1242	64	UD	210	64	ug/Kg
12672-29-6	AROCLOR 1248	31	UD	210	31	ug/Kg
11097-69-1	AROCLOR 1254	20	UD	210	20	ug/Kg
11096-82-5	AROCLOR 1260	800	D	210	51	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	17.4	87 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	81.6	408 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	20
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2299.D	1	4/12/2005	4/19/2005	4PC041605

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.1	U	21	3.1	ug/Kg
11104-28-2	AROCLOR 1221	4.9	U	21	4.9	ug/Kg
11141-16-5	AROCLOR 1232	7.3	U	21	7.3	ug/Kg
53469-21-9	AROCLOR 1242	6.5	U	21	6.5	ug/Kg
12672-29-6	AROCLOR 1248	3.1	U	21	3.1	ug/Kg
11097-69-1	AROCLOR 1254	2.0	U	21	2.0	ug/Kg
11096-82-5	AROCLOR 1260	93		21	5.2	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	15.9	79 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	17.46	87 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech

Hit Summary Report

SDG No.: T2275 **Order ID:** T2275
Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: PCB

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-SB2(0-21.5)DL**							
T2275-02DL	IS-SB2(0-21.5)DL	SOIL	AROCLOR 1260	800	D	210	51	ug/K
			Total PCB's:	800.00				
Client ID:	**IS-SB3(0-19)**							
T2275-04	IS-SB3(0-19)	SOIL	AROCLOR 1260	93		21	5.2	ug/K
			Total PCB's:	93.00				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB2(0-21.5)	**SDG No.:**	T2275
Lab Sample ID:	T2275-02	**Matrix:**	SOIL
		% Solids:	81.40

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	9550		mg/Kg	0.765	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	2.500	J	mg/Kg	0.685	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	10.6		mg/Kg	0.288	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	205		mg/Kg	0.027	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.630		mg/Kg	0.005	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.934		mg/Kg	0.056	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	31900		mg/Kg	0.045	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	53.7	N	mg/Kg	0.116	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	9.720		mg/Kg	0.096	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	92.7		mg/Kg	0.139	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	33200		mg/Kg	2.140	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	323		mg/Kg	0.125	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	6830		mg/Kg	0.019	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	750		mg/Kg	0.976	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.064		mg/Kg	0.007	1	4/12/2005	4/17/2005	EPA SW-846 7471
7440-02-0	Nickel	30.6		mg/Kg	0.184	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	1210		mg/Kg	4.000	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.460	J	mg/Kg	0.381	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	2.120		mg/Kg	0.128	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	744		mg/Kg	45.2	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	1.290		mg/Kg	0.401	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	22.6		mg/Kg	0.124	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	683		mg/Kg	0.068	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/6/2005
Project:	Incinerator Site-Lacka	**Date Received:**	4/8/2005
Client Sample ID:	IS-SB3(0-19)	**SDG No.:**	T2275
Lab Sample ID:	T2275-04	**Matrix:**	SOIL
		% Solids:	79.80

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	11200		mg/Kg	0.773	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	15.8		mg/Kg	0.692	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	26.6		mg/Kg	0.291	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	494		mg/Kg	0.027	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.408	J	mg/Kg	0.005	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	4.220		mg/Kg	0.057	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	44100		mg/Kg	0.045	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	63.6	N	mg/Kg	0.117	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	18.7		mg/Kg	0.097	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	529		mg/Kg	0.140	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	172000	D	mg/Kg	21.6	10	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	1820		mg/Kg	0.127	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	5410		mg/Kg	0.020	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	2340		mg/Kg	0.985	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.046		mg/Kg	0.007	1	4/12/2005	4/17/2005	EPA SW-846 7471
7440-02-0	Nickel	181		mg/Kg	0.186	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	2160		mg/Kg	4.040	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	1.210	J	mg/Kg	0.385	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	0.129	U	mg/Kg	0.129	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	2330		mg/Kg	45.7	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	0.509	J	mg/Kg	0.405	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	10.6		mg/Kg	0.125	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	2300		mg/Kg	0.069	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2275 **Order ID:** T2275

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-SB2(0-21.5)							
T2275-02	IS-SB2(0-21.5)	SOIL	Aluminum	9550		24.3	0.765	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Antimony	2.500	J	7.300	0.685	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Arsenic	10.6		1.220	0.288	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Barium	205		24.3	0.027	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Beryllium	0.630		0.608	0.005	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Cadmium	0.934		0.608	0.056	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Calcium	31900		608	0.045	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Chromium	53.7		1.220	0.116	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Cobalt	9.720		6.080	0.096	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Copper	92.7		3.040	0.139	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Iron	33200		12.2	2.140	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Lead	323		0.608	0.125	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Magnesium	6830		608	0.019	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Manganese	750		1.820	0.976	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Mercury	0.064		0.012	0.007	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Nickel	30.6		4.870	0.184	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Potassium	1210		608	4.000	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Selenium	0.460	J	1.220	0.381	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Silver	2.120		1.220	0.128	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Sodium	744		608	45.2	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Thallium	1.290		1.220	0.401	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Vanadium	22.6		6.080	0.124	mg/Kg
T2275-02	IS-SB2(0-21.5)	SOIL	Zinc	683		2.430	0.068	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2275 **Order ID:** T2275

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-SB3(0-19)							
T2275-04	IS-SB3(0-19)	SOIL	Aluminum	11200		24.6	0.773	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Antimony	15.8		7.370	0.692	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Arsenic	26.6		1.230	0.291	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Barium	494		24.6	0.027	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Beryllium	0.408	J	0.614	0.005	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Cadmium	4.220		0.614	0.057	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Calcium	44100		614	0.045	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Chromium	63.6		1.230	0.117	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Cobalt	18.7		6.140	0.097	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Copper	529		3.070	0.140	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Iron	172000		123	21.6	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Lead	1820		0.614	0.127	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Magnesium	5410		614	0.020	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Manganese	2340		1.840	0.985	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Mercury	0.046		0.013	0.007	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Nickel	181		4.910	0.186	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Potassium	2160		614	4.040	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Selenium	1.210	J	1.230	0.385	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Sodium	2330		614	45.7	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Thallium	0.509	J	1.230	0.405	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Vanadium	10.6		6.140	0.125	mg/Kg
T2275-04	IS-SB3(0-19)	SOIL	Zinc	2300		2.460	0.069	mg/Kg

CHEMTECH 284 Sheffield Street • Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

ANALYTICAL RESULTS SUMMARY

PROJECT NAME: Incinerator Site-Lackawanna, NY

MALCOLM PIRNIE
40 CENTER DRIVE
ORCHARD PARK, NY 14127
7166676640

CHEMTECH PROJECT NO. **T2287**
ATTENTION: **Jim Richert**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	40
Sample Wt/Vol:	4.9 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041739.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.4	U	8.4	1.4	ug/Kg
74-87-3	Chloromethane	1.4	U	8.4	1.4	ug/Kg
75-01-4	Vinyl chloride	1.4	U	8.4	1.4	ug/Kg
74-83-9	Bromomethane	3.4	U	8.4	3.4	ug/Kg
75-00-3	Chloroethane	3.6	U	8.4	3.6	ug/Kg
75-69-4	Trichlorofluoromethane	2.1	U	8.4	2.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.1	U	8.4	1.1	ug/Kg
75-35-4	1,1-Dichloroethene	0.96	U	8.4	0.96	ug/Kg
67-64-1	Acetone	5.7	U	42	5.7	ug/Kg
75-15-0	Carbon disulfide	0.62	U	8.4	0.62	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.62	U	8.4	0.62	ug/Kg
79-20-9	Methyl Acetate	1.5	U	8.4	1.5	ug/Kg
75-09-2	Methylene Chloride	3.1	U	8.4	3.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1.1	U	8.4	1.1	ug/Kg
75-34-3	1,1-Dichloroethane	0.45	U	8.4	0.45	ug/Kg
110-82-7	Cyclohexane	0.55	U	8.4	0.55	ug/Kg
78-93-3	2-Butanone	4.8	U	42	4.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.75	U	8.4	0.75	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.55	U	8.4	0.55	ug/Kg
67-66-3	Chloroform	0.59	U	8.4	0.59	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.70	U	8.4	0.70	ug/Kg
108-87-2	Methylcyclohexane	0.71	U	8.4	0.71	ug/Kg
71-43-2	Benzene	0.67	U	8.4	0.67	ug/Kg
107-06-2	1,2-Dichloroethane	0.52	U	8.4	0.52	ug/Kg
79-01-6	Trichloroethene	0.52	U	8.4	0.52	ug/Kg
78-87-5	1,2-Dichloropropane	0.67	U	8.4	0.67	ug/Kg
75-27-4	Bromodichloromethane	0.56	U	8.4	0.56	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.3	U	42	3.3	ug/Kg
108-88-3	Toluene	0.68	U	8.4	0.68	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.61	U	8.4	0.61	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.56	U	8.4	0.56	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.49	U	8.4	0.49	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/05**
Client Sample ID:	**IS-SD-1**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-01**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**40**
Sample Wt/Vol:	**4.9 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041739.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	6.1	U	42	6.1	ug/Kg
124-48-1	Dibromochloromethane	0.39	U	8.4	0.39	ug/Kg
106-93-4	1,2-Dibromoethane	0.68	U	8.4	0.68	ug/Kg
127-18-4	Tetrachloroethene	1.2	U	8.4	1.2	ug/Kg
108-90-7	Chlorobenzene	0.61	U	8.4	0.61	ug/Kg
100-41-4	Ethyl Benzene	0.60	U	8.4	0.60	ug/Kg
126777-61-2	m/p-Xylenes	1.5	U	8.4	1.5	ug/Kg
95-47-6	o-Xylene	0.65	U	8.4	0.65	ug/Kg
100-42-5	Styrene	0.77	U	8.4	0.77	ug/Kg
75-25-2	Bromoform	0.52	U	8.4	0.52	ug/Kg
98-82-8	Isopropylbenzene	0.70	U	8.4	0.70	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.52	U	8.4	0.52	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.94	U	8.4	0.94	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.92	U	8.4	0.92	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.65	U	8.4	0.65	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	8.4	1.6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.1	U	8.4	1.1	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.16	104 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.83	102 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	47.8	96 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	47.51	95 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	241672	4.32			
540-36-3	1,4-Difluorobenzene	337573	4.77			
3114-55-4	Chlorobenzene-d5	286021	7.65			
3855-82-1	1,4-Dichlorobenzene-d4	154953	9.66			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	51
Sample Wt/Wol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041738.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.8	U	10	1.8	ug/Kg
74-87-3	Chloromethane	1.8	U	10	1.8	ug/Kg
75-01-4	Vinyl chloride	1.7	U	10	1.7	ug/Kg
74-83-9	Bromomethane	4.2	U	10	4.2	ug/Kg
75-00-3	Chloroethane	4.4	U	10	4.4	ug/Kg
75-69-4	Trichlorofluoromethane	2.6	U	10	2.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.4	U	10	1.4	ug/Kg
75-35-4	1,1-Dichloroethene	1.2	U	10	1.2	ug/Kg
67-64-1	Acetone	6.9	U	51	6.9	ug/Kg
75-15-0	Carbon disulfide	0.76	U	10	0.76	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.76	U	10	0.76	ug/Kg
79-20-9	Methyl Acetate	1.8	U	10	1.8	ug/Kg
75-09-2	Methylene Chloride	3.7	U	10	3.7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1.3	U	10	1.3	ug/Kg
75-34-3	1,1-Dichloroethane	0.55	U	10	0.55	ug/Kg
110-82-7	Cyclohexane	0.67	U	10	0.67	ug/Kg
78-93-3	2-Butanone	5.8	U	51	5.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.91	U	10	0.91	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.67	U	10	0.67	ug/Kg
67-66-3	Chloroform	0.71	U	10	0.71	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.86	U	10	0.86	ug/Kg
108-87-2	Methylcyclohexane	0.86	U	10	0.86	ug/Kg
71-43-2	Benzene	0.82	U	10	0.82	ug/Kg
107-06-2	1,2-Dichloroethane	0.63	U	10	0.63	ug/Kg
79-01-6	Trichloroethene	0.63	U	10	0.63	ug/Kg
78-87-5	1,2-Dichloropropane	0.82	U	10	0.82	ug/Kg
75-27-4	Bromodichloromethane	0.69	U	10	0.69	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.1	U	51	4.1	ug/Kg
108-88-3	Toluene	0.83	U	10	0.83	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.75	U	10	0.75	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.68	U	10	0.68	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.60	U	10	0.60	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	51
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041738.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	7.4	U	51	7.4	ug/Kg
124-48-1	Dibromochloromethane	0.47	U	10	0.47	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	10	0.83	ug/Kg
127-18-4	Tetrachloroethene	1.5	U	10	1.5	ug/Kg
108-90-7	Chlorobenzene	0.74	U	10	0.74	ug/Kg
100-41-4	Ethyl Benzene	0.73	U	10	0.73	ug/Kg
126777-61-2	m/p-Xylenes	1.8	U	10	1.8	ug/Kg
95-47-6	o-Xylene	0.79	U	10	0.79	ug/Kg
100-42-5	Styrene	0.94	U	10	0.94	ug/Kg
75-25-2	Bromoform	0.64	U	10	0.64	ug/Kg
98-82-8	Isopropylbenzene	0.85	U	10	0.85	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.64	U	10	0.64	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.1	U	10	1.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.1	U	10	1.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.79	U	10	0.79	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.9	U	10	1.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.4	U	10	1.4	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.09	102 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.94	102 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.26	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	47.4	95 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	240136	4.32			
540-36-3	1,4-Difluorobenzene	329576	4.77			
3114-55-4	Chlorobenzene-d5	282133	7.65			
3855-82-1	1,4-Dichlorobenzene-d4	150892	9.66			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/05**
Client Sample ID:	**IS-SD-3**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-03**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**32**
Sample Wt/Vol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041944.D	1	4/20/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.3	U	7.3	1.3	ug/Kg
74-87-3	Chloromethane	1.2	U	7.3	1.2	ug/Kg
75-01-4	Vinyl chloride	1.2	U	7.3	1.2	ug/Kg
74-83-9	Bromomethane	3.0	U	7.3	3.0	ug/Kg
75-00-3	Chloroethane	3.1	U	7.3	3.1	ug/Kg
75-69-4	Trichlorofluoromethane	1.8	U	7.3	1.8	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.97	U	7.3	0.97	ug/Kg
75-35-4	1,1-Dichloroethene	0.84	U	7.3	0.84	ug/Kg
67-64-1	Acetone	4.9	U	37	4.9	ug/Kg
75-15-0	Carbon disulfide	0.54	U	7.3	0.54	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.54	U	7.3	0.54	ug/Kg
79-20-9	Methyl Acetate	1.3	U	7.3	1.3	ug/Kg
75-09-2	Methylene Chloride	2.7	U	7.3	2.7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.94	U	7.3	0.94	ug/Kg
75-34-3	1,1-Dichloroethane	0.39	U	7.3	0.39	ug/Kg
110-82-7	Cyclohexane	0.47	U	7.3	0.47	ug/Kg
78-93-3	2-Butanone	4.1	U	37	4.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.65	U	7.3	0.65	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.48	U	7.3	0.48	ug/Kg
67-66-3	Chloroform	0.51	U	7.3	0.51	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.61	U	7.3	0.61	ug/Kg
108-87-2	Methylcyclohexane	0.62	U	7.3	0.62	ug/Kg
71-43-2	Benzene	0.58	U	7.3	0.58	ug/Kg
107-06-2	1,2-Dichloroethane	0.45	U	7.3	0.45	ug/Kg
79-01-6	Trichloroethene	0.45	U	7.3	0.45	ug/Kg
78-87-5	1,2-Dichloropropane	0.58	U	7.3	0.58	ug/Kg
75-27-4	Bromodichloromethane	0.49	U	7.3	0.49	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.9	U	37	2.9	ug/Kg
108-88-3	Toluene	0.59	U	7.3	0.59	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.53	U	7.3	0.53	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.48	U	7.3	0.48	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.43	U	7.3	0.43	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/05**
Client Sample ID:	**IS-SD-3**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-03**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**32**
Sample Wt/Vol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041944.D	1	4/20/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	5.3	U	37	5.3	ug/Kg
124-48-1	Dibromochloromethane	0.34	U	7.3	0.34	ug/Kg
106-93-4	1,2-Dibromoethane	0.59	U	7.3	0.59	ug/Kg
127-18-4	Tetrachloroethene	1.1	U	7.3	1.1	ug/Kg
108-90-7	Chlorobenzene	0.53	U	7.3	0.53	ug/Kg
100-41-4	Ethyl Benzene	0.52	U	7.3	0.52	ug/Kg
126777-61-2	m/p-Xylenes	1.3	U	7.3	1.3	ug/Kg
95-47-6	o-Xylene	0.56	U	7.3	0.56	ug/Kg
100-42-5	Styrene	0.67	U	7.3	0.67	ug/Kg
75-25-2	Bromoform	0.45	U	7.3	0.45	ug/Kg
98-82-8	Isopropylbenzene	0.61	U	7.3	0.61	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.46	U	7.3	0.46	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.82	U	7.3	0.82	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.80	U	7.3	0.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.57	U	7.3	0.57	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.4	U	7.3	1.4	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.0	U	7.3	1.0	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.43	103 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	50.05	100 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.5	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	48.93	98 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	243718	4.31			
540-36-3	1,4-Difluorobenzene	339716	4.76			
3114-55-4	Chlorobenzene-d5	302870	7.65			
3855-82-1	1,4-Dichlorobenzene-d4	163150	9.67			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8260	**% Moisture:**	40
Sample Wt/Vol:	5.0 Units: g	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041736.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.4	U	8.4	1.4	ug/Kg
74-87-3	Chloromethane	1.4	U	8.4	1.4	ug/Kg
75-01-4	Vinyl chloride	1.4	U	8.4	1.4	ug/Kg
74-83-9	Bromomethane	3.4	U	8.4	3.4	ug/Kg
75-00-3	Chloroethane	3.6	U	8.4	3.6	ug/Kg
75-69-4	Trichlorofluoromethane	2.1	U	8.4	2.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.1	U	8.4	1.1	ug/Kg
75-35-4	1,1-Dichloroethene	0.96	U	8.4	0.96	ug/Kg
67-64-1	Acetone	5.6	U	42	5.6	ug/Kg
75-15-0	Carbon disulfide	0.62	U	8.4	0.62	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.62	U	8.4	0.62	ug/Kg
79-20-9	Methyl Acetate	1.4	U	8.4	1.4	ug/Kg
75-09-2	Methylene Chloride	3.1	U	8.4	3.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1.1	U	8.4	1.1	ug/Kg
75-34-3	1,1-Dichloroethane	0.45	U	8.4	0.45	ug/Kg
110-82-7	Cyclohexane	0.54	U	8.4	0.54	ug/Kg
78-93-3	2-Butanone	4.7	U	42	4.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.74	U	8.4	0.74	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.54	U	8.4	0.54	ug/Kg
67-66-3	Chloroform	0.58	U	8.4	0.58	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.70	U	8.4	0.70	ug/Kg
108-87-2	Methylcyclohexane	0.70	U	8.4	0.70	ug/Kg
71-43-2	Benzene	0.67	U	8.4	0.67	ug/Kg
107-06-2	1,2-Dichloroethane	0.51	U	8.4	0.51	ug/Kg
79-01-6	Trichloroethene	0.52	U	8.4	0.52	ug/Kg
78-87-5	1,2-Dichloropropane	0.66	U	8.4	0.66	ug/Kg
75-27-4	Bromodichloromethane	0.56	U	8.4	0.56	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.3	U	42	3.3	ug/Kg
108-88-3	Toluene	0.68	U	8.4	0.68	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.61	U	8.4	0.61	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.55	U	8.4	0.55	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.49	U	8.4	0.49	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/05**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/05**
Client Sample ID:	**IS-SD-DUP**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-04**	**Matrix:**	**SOIL**
Analytical Method:	**8260**	**% Moisture:**	**40**
Sample Wt/Wol:	**5.0 Units: g**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**uL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VK041736.D	1	4/18/05	VK041005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	6.0	U	42	6.0	ug/Kg
124-48-1	Dibromochloromethane	0.38	U	8.4	0.38	ug/Kg
106-93-4	1,2-Dibromoethane	0.67	U	8.4	0.67	ug/Kg
127-18-4	Tetrachloroethene	1.2	U	8.4	1.2	ug/Kg
108-90-7	Chlorobenzene	0.61	U	8.4	0.61	ug/Kg
100-41-4	Ethyl Benzene	0.59	U	8.4	0.59	ug/Kg
126777-61-2	m/p-Xylenes	1.4	U	8.4	1.4	ug/Kg
95-47-6	o-Xylene	0.64	U	8.4	0.64	ug/Kg
100-42-5	Styrene	0.77	U	8.4	0.77	ug/Kg
75-25-2	Bromoform	0.52	U	8.4	0.52	ug/Kg
98-82-8	Isopropylbenzene	0.70	U	8.4	0.70	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.52	U	8.4	0.52	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.93	U	8.4	0.93	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.91	U	8.4	0.91	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.65	U	8.4	0.65	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	8.4	1.6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.1	U	8.4	1.1	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.37	97 %	75 - 125		SPK: 50
1868-53-7	Dibromofluoromethane	49.9	100 %	75 - 125		SPK: 50
2037-26-5	Toluene-d8	48.56	97 %	75 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	45.76	92 %	75 - 125		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	262590	4.32			
540-36-3	1,4-Difluorobenzene	351253	4.77			
3114-55-4	Chlorobenzene-d5	302608	7.65			
3855-82-1	1,4-Dichlorobenzene-d4	158442	9.66			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2287
Lab Sample ID:	T2287-07	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	0
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH041213.D	1	4/12/05	VH040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2287
Lab Sample ID:	T2287-07	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	0
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH041213.D	1	4/12/05	VH040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.42	113 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	54.74	109 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	49.99	100 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	56.1	112 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	563060	6.43			
540-36-3	1,4-Difluorobenzene	883739	7.07			
3114-55-4	Chlorobenzene-d5	711921	10.75			
3855-82-1	1,4-Dichlorobenzene-d4	327419	13.01			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	40
Sample Wt/Wol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020919.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	110	U	550	110	ug/Kg
108-95-2	Phenol	83	U	550	83	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	87	U	550	87	ug/Kg
95-57-8	2-Chlorophenol	88	U	550	88	ug/Kg
95-48-7	2-Methylphenol	91	U	550	91	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	88	U	550	88	ug/Kg
98-86-2	Acetophenone	80	U	550	80	ug/Kg
106-44-5	3+4-Methylphenols	87	U	550	87	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	91	U	550	91	ug/Kg
67-72-1	Hexachloroethane	93	U	550	93	ug/Kg
98-95-3	Nitrobenzene	120	U	550	120	ug/Kg
78-59-1	Isophorone	82	U	550	82	ug/Kg
88-75-5	2-Nitrophenol	84	U	550	84	ug/Kg
105-67-9	2,4-Dimethylphenol	87	U	550	87	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	90	U	550	90	ug/Kg
120-83-2	2,4-Dichlorophenol	100	U	550	100	ug/Kg
91-20-3	Naphthalene	94	U	550	94	ug/Kg
106-47-8	4-Chloroaniline	65	U	550	65	ug/Kg
87-68-3	Hexachlorobutadiene	84	U	550	84	ug/Kg
105-60-2	Caprolactam	88	U	550	88	ug/Kg
59-50-7	4-Chloro-3-methylphenol	76	U	550	76	ug/Kg
91-57-6	2-Methylnaphthalene	92	U	550	92	ug/Kg
77-47-4	Hexachlorocyclopentadiene	88	U	550	88	ug/Kg
88-06-2	2,4,6-Trichlorophenol	81	U	550	81	ug/Kg
95-95-4	2,4,5-Trichlorophenol	84	U	1400	84	ug/Kg
92-52-4	1,1-Biphenyl	90	U	550	90	ug/Kg
91-58-7	2-Chloronaphthalene	91	U	550	91	ug/Kg
88-74-4	2-Nitroaniline	70	U	1400	70	ug/Kg
131-11-3	Dimethylphthalate	88	U	550	88	ug/Kg
208-96-8	Acenaphthylene	89	U	550	89	ug/Kg
606-20-2	2,6-Dinitrotoluene	78	U	550	78	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-1**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-01**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**40**
Sample Wt/Vol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020919.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	71	U	1400	71	ug/Kg
83-32-9	Acenaphthene	98	U	550	98	ug/Kg
51-28-5	2,4-Dinitrophenol	470	U	1400	470	ug/Kg
100-02-7	4-Nitrophenol	68	U	1400	68	ug/Kg
132-64-9	Dibenzofuran	91	U	550	91	ug/Kg
121-14-2	2,4-Dinitrotoluene	81	U	550	81	ug/Kg
84-66-2	Diethylphthalate	95	U	550	95	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	87	U	550	87	ug/Kg
86-73-7	Fluorene	93	U	550	93	ug/Kg
100-01-6	4-Nitroaniline	94	U	1400	94	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	1400	110	ug/Kg
86-30-6	N-Nitrosodiphenylamine	90	U	550	90	ug/Kg
101-55-3	4-Bromophenyl-phenylether	82	U	550	82	ug/Kg
118-74-1	Hexachlorobenzene	88	U	550	88	ug/Kg
1912-24-9	Atrazine	84	U	550	84	ug/Kg
87-86-5	Pentachlorophenol	130	U	1400	130	ug/Kg
85-01-8	Phenanthrene	87	U	550	87	ug/Kg
120-12-7	Anthracene	83	U	550	83	ug/Kg
86-74-8	Carbazole	84	U	550	84	ug/Kg
84-74-2	Di-n-butylphthalate	84	U	550	84	ug/Kg
206-44-0	Fluoranthene	82	U	550	82	ug/Kg
129-00-0	Pyrene	97	U	550	97	ug/Kg
85-68-7	Butylbenzylphthalate	89	U	550	89	ug/Kg
91-94-1	3,3-Dichlorobenzidine	94	U	550	94	ug/Kg
56-55-3	Benzo(a)anthracene	77	U	550	77	ug/Kg
218-01-9	Chrysene	99	U	550	99	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	110	U	550	110	ug/Kg
117-84-0	Di-n-octyl phthalate	93	U	550	93	ug/Kg
205-99-2	Benzo(b)fluoranthene	60	U	550	60	ug/Kg
207-08-9	Benzo(k)fluoranthene	120	U	550	120	ug/Kg
50-32-8	Benzo(a)pyrene	88	U	550	88	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	40
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020919.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	70	U	550	70	ug/Kg
53-70-3	Dibenz(a,h)anthracene	69	U	550	69	ug/Kg
191-24-2	Benzo(g,h,i)perylene	91	U	550	91	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	252.46	84 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	256.53	86 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	180.68	90 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	167.75	84 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	276.17	92 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	187.41	94 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	167033	4.12			
1146-65-2	Naphthalene-d8	636941	4.90			
15067-26-2	Acenaphthene-d10	339410	6.02			
1517-22-2	Phenanthrene-d10	540740	7.05			
1719-03-5	Chrysene-d12	482589	9.33			
1520-96-3	Perylene-d12	422094	11.70			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	2600	AB	3.16		ug/Kg
6624799	1-Dotriacontanol	170	J	9.03		ug/Kg
502625	.Psi.,.psi.-Carotene, 7,7,8,8,11,11,1	2600	J	10.52		ug/Kg
295658	Cyclohexadecane	270	J	16.14		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-2**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-02**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**51**
Sample Wt/Vol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020921.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	140	U	670	140	ug/Kg
108-95-2	Phenol	100	U	670	100	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	110	U	670	110	ug/Kg
95-57-8	2-Chlorophenol	110	U	670	110	ug/Kg
95-48-7	2-Methylphenol	110	U	670	110	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	110	U	670	110	ug/Kg
98-86-2	Acetophenone	98	U	670	98	ug/Kg
106-44-5	3+4-Methylphenols	110	U	670	110	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	110	U	670	110	ug/Kg
67-72-1	Hexachloroethane	110	U	670	110	ug/Kg
98-95-3	Nitrobenzene	150	U	670	150	ug/Kg
78-59-1	Isophorone	100	U	670	100	ug/Kg
88-75-5	2-Nitrophenol	100	U	670	100	ug/Kg
105-67-9	2,4-Dimethylphenol	110	U	670	110	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	110	U	670	110	ug/Kg
120-83-2	2,4-Dichlorophenol	120	U	670	120	ug/Kg
91-20-3	Naphthalene	110	U	670	110	ug/Kg
106-47-8	4-Chloroaniline	80	U	670	80	ug/Kg
87-68-3	Hexachlorobutadiene	100	U	670	100	ug/Kg
105-60-2	Caprolactam	110	U	670	110	ug/Kg
59-50-7	4-Chloro-3-methylphenol	92	U	670	92	ug/Kg
91-57-6	2-Methylnaphthalene	110	U	670	110	ug/Kg
77-47-4	Hexachlorocyclopentadiene	110	U	670	110	ug/Kg
88-06-2	2,4,6-Trichlorophenol	98	U	670	98	ug/Kg
95-95-4	2,4,5-Trichlorophenol	100	U	1700	100	ug/Kg
92-52-4	1,1-Biphenyl	110	U	670	110	ug/Kg
91-58-7	2-Chloronaphthalene	110	U	670	110	ug/Kg
88-74-4	2-Nitroaniline	85	U	1700	85	ug/Kg
131-11-3	Dimethylphthalate	110	U	670	110	ug/Kg
208-96-8	Acenaphthylene	110	U	670	110	ug/Kg
606-20-2	2,6-Dinitrotoluene	95	U	670	95	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	51
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020921.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	87	U	1700	87	ug/Kg
83-32-9	Acenaphthene	120	U	670	120	ug/Kg
51-28-5	2,4-Dinitrophenol	570	U	1700	570	ug/Kg
100-02-7	4-Nitrophenol	83	U	1700	83	ug/Kg
132-64-9	Dibenzofuran	110	U	670	110	ug/Kg
121-14-2	2,4-Dinitrotoluene	98	U	670	98	ug/Kg
84-66-2	Diethylphthalate	120	U	670	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	110	U	670	110	ug/Kg
86-73-7	Fluorene	110	U	670	110	ug/Kg
100-01-6	4-Nitroaniline	110	U	1700	110	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	130	U	1700	130	ug/Kg
86-30-6	N-Nitrosodiphenylamine	110	U	670	110	ug/Kg
101-55-3	4-Bromophenyl-phenylether	100	U	670	100	ug/Kg
118-74-1	Hexachlorobenzene	110	U	670	110	ug/Kg
1912-24-9	Atrazine	100	U	670	100	ug/Kg
87-86-5	Pentachlorophenol	150	U	1700	150	ug/Kg
85-01-8	Phenanthrene	110	U	670	110	ug/Kg
120-12-7	Anthracene	100	U	670	100	ug/Kg
86-74-8	Carbazole	100	U	670	100	ug/Kg
84-74-2	Di-n-butylphthalate	100	U	670	100	ug/Kg
206-44-0	Fluoranthene	99	U	670	99	ug/Kg
129-00-0	Pyrene	120	U	670	120	ug/Kg
85-68-7	Butylbenzylphthalate	110	U	670	110	ug/Kg
91-94-1	3,3-Dichlorobenzidine	110	U	670	110	ug/Kg
56-55-3	Benzo(a)anthracene	94	U	670	94	ug/Kg
218-01-9	Chrysene	120	U	670	120	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	340	J	670	130	ug/Kg
117-84-0	Di-n-octyl phthalate	110	U	670	110	ug/Kg
205-99-2	Benzo(b)fluoranthene	74	U	670	74	ug/Kg
207-08-9	Benzo(k)fluoranthene	150	U	670	150	ug/Kg
50-32-8	Benzo(a)pyrene	110	U	670	110	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	51
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020921.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	85	U	670	85	ug/Kg
53-70-3	Dibenz(a,h)anthracene	84	U	670	84	ug/Kg
191-24-2	Benzo(g,h,i)perylene	110	U	670	110	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	257.76	86 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	261.28	87 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	193.19	97 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	168.95	84 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	287.03	96 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	189.15	95 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	171027	4.12			
1146-65-2	Naphthalene-d8	620723	4.90			
15067-26-2	Acenaphthene-d10	333907	6.01			
1517-22-2	Phenanthrene-d10	554847	7.02			
1719-03-5	Chrysene-d12	491456	9.25			
1520-96-3	Perylene-d12	413277	11.60			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	3100	AB	3.16		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-3**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-03**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**32**
Sample Wt/Vol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020920.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	99	U	480	99	ug/Kg
108-95-2	Phenol	73	U	480	73	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	76	U	480	76	ug/Kg
95-57-8	2-Chlorophenol	77	U	480	77	ug/Kg
95-48-7	2-Methylphenol	80	U	480	80	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	78	U	480	78	ug/Kg
98-86-2	Acetophenone	71	U	480	71	ug/Kg
106-44-5	3+4-Methylphenols	76	U	480	76	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	80	U	480	80	ug/Kg
67-72-1	Hexachloroethane	82	U	480	82	ug/Kg
98-95-3	Nitrobenzene	110	U	480	110	ug/Kg
78-59-1	Isophorone	72	U	480	72	ug/Kg
88-75-5	2-Nitrophenol	74	U	480	74	ug/Kg
105-67-9	2,4-Dimethylphenol	77	U	480	77	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	79	U	480	79	ug/Kg
120-83-2	2,4-Dichlorophenol	89	U	480	89	ug/Kg
91-20-3	Naphthalene	82	U	480	82	ug/Kg
106-47-8	4-Chloroaniline	57	U	480	57	ug/Kg
87-68-3	Hexachlorobutadiene	74	U	480	74	ug/Kg
105-60-2	Caprolactam	78	U	480	78	ug/Kg
59-50-7	4-Chloro-3-methylphenol	67	U	480	67	ug/Kg
91-57-6	2-Methylnaphthalene	81	U	480	81	ug/Kg
77-47-4	Hexachlorocyclopentadiene	77	U	480	77	ug/Kg
88-06-2	2,4,6-Trichlorophenol	71	U	480	71	ug/Kg
95-95-4	2,4,5-Trichlorophenol	74	U	1200	74	ug/Kg
92-52-4	1,1-Biphenyl	79	U	480	79	ug/Kg
91-58-7	2-Chloronaphthalene	80	U	480	80	ug/Kg
88-74-4	2-Nitroaniline	61	U	1200	61	ug/Kg
131-11-3	Dimethylphthalate	78	U	480	78	ug/Kg
208-96-8	Acenaphthylene	78	U	480	78	ug/Kg
606-20-2	2,6-Dinitrotoluene	68	U	480	68	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	32
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020920.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	63	U	1200	63	ug/Kg
83-32-9	Acenaphthene	86	U	480	86	ug/Kg
51-28-5	2,4-Dinitrophenol	410	U	1200	410	ug/Kg
100-02-7	4-Nitrophenol	60	U	1200	60	ug/Kg
132-64-9	Dibenzofuran	80	U	480	80	ug/Kg
121-14-2	2,4-Dinitrotoluene	71	U	480	71	ug/Kg
84-66-2	Diethylphthalate	83	U	480	83	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	76	U	480	76	ug/Kg
86-73-7	Fluorene	81	U	480	81	ug/Kg
100-01-6	4-Nitroaniline	82	U	1200	82	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	94	U	1200	94	ug/Kg
86-30-6	N-Nitrosodiphenylamine	79	U	480	79	ug/Kg
101-55-3	4-Bromophenyl-phenylether	72	U	480	72	ug/Kg
118-74-1	Hexachlorobenzene	77	U	480	77	ug/Kg
1912-24-9	Atrazine	74	U	480	74	ug/Kg
87-86-5	Pentachlorophenol	110	U	1200	110	ug/Kg
85-01-8	Phenanthrene	77	U	480	77	ug/Kg
120-12-7	Anthracene	73	U	480	73	ug/Kg
86-74-8	Carbazole	74	U	480	74	ug/Kg
84-74-2	Di-n-butylphthalate	73	U	480	73	ug/Kg
206-44-0	Fluoranthene	72	U	480	72	ug/Kg
129-00-0	Pyrene	85	U	480	85	ug/Kg
85-68-7	Butylbenzylphthalate	78	U	480	78	ug/Kg
91-94-1	3,3-Dichlorobenzidine	83	U	480	83	ug/Kg
56-55-3	Benzo(a)anthracene	68	U	480	68	ug/Kg
218-01-9	Chrysene	87	U	480	87	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	93	U	480	93	ug/Kg
117-84-0	Di-n-octyl phthalate	82	U	480	82	ug/Kg
205-99-2	Benzo(b)fluoranthene	53	U	480	53	ug/Kg
207-08-9	Benzo(k)fluoranthene	110	U	480	110	ug/Kg
50-32-8	Benzo(a)pyrene	77	U	480	77	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	32
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020920.D	1	4/13/2005	4/15/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	61	U	480	61	ug/Kg
53-70-3	Dibenz(a,h)anthracene	61	U	480	61	ug/Kg
191-24-2	Benzo(g,h,i)perylene	80	U	480	80	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	253.93	85 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	241.74	81 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	169.29	85 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	156.55	78 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	252.74	84 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	178.34	89 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	198116	4.12			
1146-65-2	Naphthalene-d8	744854	4.90			
15067-26-2	Acenaphthene-d10	397027	6.02			
1517-22-2	Phenanthrene-d10	628149	7.04			
1719-03-5	Chrysene-d12	563554	9.30			
1520-96-3	Perylene-d12	503716	11.67			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	2200	AB	3.16		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-DUP**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-04**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**40**
Sample Wt/Wol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020922.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	110	U	550	110	ug/Kg
108-95-2	Phenol	83	U	550	83	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	87	U	550	87	ug/Kg
95-57-8	2-Chlorophenol	88	U	550	88	ug/Kg
95-48-7	2-Methylphenol	91	U	550	91	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	88	U	550	88	ug/Kg
98-86-2	Acetophenone	80	U	550	80	ug/Kg
106-44-5	3+4-Methylphenols	87	U	550	87	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	91	U	550	91	ug/Kg
67-72-1	Hexachloroethane	93	U	550	93	ug/Kg
98-95-3	Nitrobenzene	120	U	550	120	ug/Kg
78-59-1	Isophorone	82	U	550	82	ug/Kg
88-75-5	2-Nitrophenol	84	U	550	84	ug/Kg
105-67-9	2,4-Dimethylphenol	87	U	550	87	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	90	U	550	90	ug/Kg
120-83-2	2,4-Dichlorophenol	100	U	550	100	ug/Kg
91-20-3	Naphthalene	94	U	550	94	ug/Kg
106-47-8	4-Chloroaniline	65	U	550	65	ug/Kg
87-68-3	Hexachlorobutadiene	84	U	550	84	ug/Kg
105-60-2	Caprolactam	88	U	550	88	ug/Kg
59-50-7	4-Chloro-3-methylphenol	76	U	550	76	ug/Kg
91-57-6	2-Methylnaphthalene	92	U	550	92	ug/Kg
77-47-4	Hexachlorocyclopentadiene	88	U	550	88	ug/Kg
88-06-2	2,4,6-Trichlorophenol	81	U	550	81	ug/Kg
95-95-4	2,4,5-Trichlorophenol	84	U	1400	84	ug/Kg
92-52-4	1,1-Biphenyl	90	U	550	90	ug/Kg
91-58-7	2-Chloronaphthalene	91	U	550	91	ug/Kg
88-74-4	2-Nitroaniline	70	U	1400	70	ug/Kg
131-11-3	Dimethylphthalate	88	U	550	88	ug/Kg
208-96-8	Acenaphthylene	89	U	550	89	ug/Kg
606-20-2	2,6-Dinitrotoluene	78	U	550	78	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8270	**% Moisture:**	40
Sample Wt/Vol:	15.1 g	**Extract Vol:**	500 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020922.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	71	U	1400	71	ug/Kg
83-32-9	Acenaphthene	98	U	550	98	ug/Kg
51-28-5	2,4-Dinitrophenol	470	U	1400	470	ug/Kg
100-02-7	4-Nitrophenol	68	U	1400	68	ug/Kg
132-64-9	Dibenzofuran	91	U	550	91	ug/Kg
121-14-2	2,4-Dinitrotoluene	81	U	550	81	ug/Kg
84-66-2	Diethylphthalate	95	U	550	95	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	87	U	550	87	ug/Kg
86-73-7	Fluorene	93	U	550	93	ug/Kg
100-01-6	4-Nitroaniline	94	U	1400	94	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	1400	110	ug/Kg
86-30-6	N-Nitrosodiphenylamine	90	U	550	90	ug/Kg
101-55-3	4-Bromophenyl-phenylether	82	U	550	82	ug/Kg
118-74-1	Hexachlorobenzene	88	U	550	88	ug/Kg
1912-24-9	Atrazine	84	U	550	84	ug/Kg
87-86-5	Pentachlorophenol	130	U	1400	130	ug/Kg
85-01-8	Phenanthrene	87	U	550	87	ug/Kg
120-12-7	Anthracene	83	U	550	83	ug/Kg
86-74-8	Carbazole	84	U	550	84	ug/Kg
84-74-2	Di-n-butylphthalate	84	U	550	84	ug/Kg
206-44-0	Fluoranthene	82	U	550	82	ug/Kg
129-00-0	Pyrene	97	U	550	97	ug/Kg
85-68-7	Butylbenzylphthalate	89	U	550	89	ug/Kg
91-94-1	3,3-Dichlorobenzidine	94	U	550	94	ug/Kg
56-55-3	Benzo(a)anthracene	77	U	550	77	ug/Kg
218-01-9	Chrysene	98	U	550	98	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	110	U	550	110	ug/Kg
117-84-0	Di-n-octyl phthalate	93	U	550	93	ug/Kg
205-99-2	Benzo(b)fluoranthene	60	U	550	60	ug/Kg
207-08-9	Benzo(k)fluoranthene	120	U	550	120	ug/Kg
50-32-8	Benzo(a)pyrene	88	U	550	88	ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-DUP**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-04**	**Matrix:**	**SOIL**
Analytical Method:	**8270**	**% Moisture:**	**40**
Sample Wt/Vol:	**15.1 g**	**Extract Vol:**	**500 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE020922.D	1	4/13/2005	4/16/2005	BE040605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	70	U	550	70	ug/Kg
53-70-3	Dibenz(a,h)anthracene	69	U	550	69	ug/Kg
191-24-2	Benzo(g,h,i)perylene	91	U	550	91	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	248.94	83 %	25 - 121		SPK: 30
13127-88-3	Phenol-d5	259.2	86 %	24 - 113		SPK: 30
4165-60-0	Nitrobenzene-d5	184.86	92 %	23 - 120		SPK: 20
321-60-8	2-Fluorobiphenyl	171.31	86 %	30 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	280.9	94 %	19 - 122		SPK: 30
1718-51-0	Terphenyl-d14	191.04	96 %	18 - 137		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	155852	4.12			
1146-65-2	Naphthalene-d8	568792	4.90			
15067-26-2	Acenaphthene-d10	312092	6.02			
1517-22-2	Phenanthrene-d10	497623	7.05			
1719-03-5	Chrysene-d12	450651	9.35			
1520-96-3	Perylene-d12	372109	11.72			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	2400	AB	3.16		ug/Kg

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech

Hit Summary Report

SDG No.: T2287 **Order ID:** T2287

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: SVOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-SD-1**							
T2287-01	IS-SD-1	SOIL	ACP	* 2600	AB	0	0	ug/Kg
T2287-01	IS-SD-1	SOIL	1-Dotriacontanol	* 170	J	0	0	ug/Kg
T2287-01	IS-SD-1	SOIL	.Psi.,.psi.-Carotene, 7,7,8,8,11,	* 2600	J	0	0	ug/Kg
T2287-01	IS-SD-1	SOIL	Cyclohexadecane	* 270	J	0	0	ug/Kg
			Total SVOC's:	0.00				
			Total TIC's:	5640.00				
			Total SVOC's and TIC's:	5640.00				
Client ID:	**IS-SD-2**							
T2287-02	IS-SD-2	SOIL	bis(2-Ethylhexyl)phthalate	340	J	670	130	ug/Kg
T2287-02	IS-SD-2	SOIL	ACP	* 3100	AB	0	0	ug/Kg
			Total SVOC's:	340.00				
			Total TIC's:	3100.00				
			Total SVOC's and TIC's:	3440.00				
Client ID:	**IS-SD-3**							
T2287-03	IS-SD-3	SOIL	ACP	* 2200	AB	0	0	ug/Kg
			Total SVOC's:	0.00				
			Total TIC's:	2200.00				
			Total SVOC's and TIC's:	2200.00				
Client ID:	**IS-SD-DUP**							
T2287-04	IS-SD-DUP	SOIL	ACP	* 2400	AB	0	0	ug/Kg
			Total SVOC's:	0.00				
			Total TIC's:	2400.00				
			Total SVOC's and TIC's:	2400.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	40
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2128.D	1	4/13/05	4/15/05	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	4.2	U	28	4.2	ug/Kg
11104-28-2	AROCLOR 1221	6.5	U	28	6.5	ug/Kg
11141-16-5	AROCLOR 1232	9.7	U	28	9.7	ug/Kg
53469-21-9	AROCLOR 1242	8.6	U	28	8.6	ug/Kg
12672-29-6	AROCLOR 1248	4.2	U	28	4.2	ug/Kg
11097-69-1	AROCLOR 1254	2.7	U	28	2.7	ug/Kg
11096-82-5	AROCLOR 1260	7.0	U	28	7.0	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	15.76	79 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	17.62	88 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	51
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2135.D	1	4/13/05	4/16/05	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	5.1	U	34	5.1	ug/Kg
11104-28-2	AROCLOR 1221	8.0	U	34	8.0	ug/Kg
11141-16-5	AROCLOR 1232	12	U	34	12	ug/Kg
53469-21-9	AROCLOR 1242	11	U	34	11	ug/Kg
12672-29-6	AROCLOR 1248	5.2	U	34	5.2	ug/Kg
11097-69-1	AROCLOR 1254	3.4	U	34	3.4	ug/Kg
11096-82-5	AROCLOR 1260	8.5	U	34	8.5	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	16.33	82 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	17.52	88 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	32
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2136.D	1	4/13/05	4/16/05	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.7	U	25	3.7	ug/Kg
11104-28-2	AROCLOR 1221	5.7	U	25	5.7	ug/Kg
11141-16-5	AROCLOR 1232	8.5	U	25	8.5	ug/Kg
53469-21-9	AROCLOR 1242	7.6	U	25	7.6	ug/Kg
12672-29-6	AROCLOR 1248	3.7	U	25	3.7	ug/Kg
11097-69-1	AROCLOR 1254	2.4	U	25	2.4	ug/Kg
11096-82-5	AROCLOR 1260	6.1	U	25	6.1	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	17.08	85 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	16.84	84 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8082	**% Moisture:**	33
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
4PC2137.D	1	4/13/05	4/16/05	4PC040905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	3.7	U	25	3.7	ug/Kg
11104-28-2	AROCLOR 1221	5.8	U	25	5.8	ug/Kg
11141-16-5	AROCLOR 1232	8.7	U	25	8.7	ug/Kg
53469-21-9	AROCLOR 1242	7.7	U	25	7.7	ug/Kg
12672-29-6	AROCLOR 1248	3.8	U	25	3.8	ug/Kg
11097-69-1	AROCLOR 1254	2.5	U	25	2.5	ug/Kg
11096-82-5	AROCLOR 1260	6.2	U	25	6.2	ug/Kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	16.43	82 %	50 - 132		SPK: 20
2051-24-3	Decachlorobiphenyl	17.46	87 %	58 - 125		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-1	**SDG No.:**	T2287
Lab Sample ID:	T2287-01	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	40
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7398.D	1	4/13/05	4/16/05	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	1.1	U	4.9	1.1	ug/Kg
319-85-7	beta-BHC	1.4	U	4.9	1.4	ug/Kg
319-86-8	delta-BHC	2.7	U	4.9	2.7	ug/Kg
58-89-9	gamma-BHC (Lindane)	1.2	U	4.9	1.2	ug/Kg
76-44-8	Heptachlor	1.5	U	4.9	1.5	ug/Kg
309-00-2	Aldrin	2.0	U	4.9	2.0	ug/Kg
1024-57-3	Heptachlor epoxide	1.8	U	4.9	1.8	ug/Kg
959-98-8	Endosulfan I	1.5	U	4.9	1.5	ug/Kg
60-57-1	Dieldrin	1.4	U	4.9	1.4	ug/Kg
72-55-9	4,4'-DDE	1.3	U	4.9	1.3	ug/Kg
72-20-8	Endrin	1.4	U	4.9	1.4	ug/Kg
33213-65-9	Endosulfan II	1.6	U	4.9	1.6	ug/Kg
72-54-8	4,4'-DDD	1.2	U	4.9	1.2	ug/Kg
1031-07-8	Endosulfan sulfate	1.8	U	4.9	1.8	ug/Kg
50-29-3	4,4'-DDT	1.2	U	4.9	1.2	ug/Kg
72-43-5	Methoxychlor	1.4	U	4.9	1.4	ug/Kg
53494-70-5	Endrin ketone	1.4	U	4.9	1.4	ug/Kg
7421-93-4	Endrin aldehyde	1.7	U	4.9	1.7	ug/Kg
5103-71-9	alpha-Chlordane	1.4	U	4.9	1.4	ug/Kg
5103-74-2	gamma-Chlordane	1.4	U	4.9	1.4	ug/Kg
8001-35-2	Toxaphene	5.9	U	28	5.9	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.07	95 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	12.36	62 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	51
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7448.D	1	4/13/05	4/17/05	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	1.3	U	6.1	1.3	ug/Kg
319-85-7	beta-BHC	1.8	U	6.1	1.8	ug/Kg
319-86-8	delta-BHC	3.3	U	6.1	3.3	ug/Kg
58-89-9	gamma-BHC (Lindane)	1.5	U	6.1	1.5	ug/Kg
76-44-8	Heptachlor	1.9	U	6.1	1.9	ug/Kg
309-00-2	Aldrin	2.5	U	6.1	2.5	ug/Kg
1024-57-3	Heptachlor epoxide	2.1	U	6.1	2.1	ug/Kg
959-98-8	Endosulfan I	1.8	U	6.1	1.8	ug/Kg
60-57-1	Dieldrin	1.7	U	6.1	1.7	ug/Kg
72-55-9	4,4'-DDE	1.6	U	6.1	1.6	ug/Kg
72-20-8	Endrin	1.7	U	6.1	1.7	ug/Kg
33213-65-9	Endosulfan II	1.9	U	6.1	1.9	ug/Kg
72-54-8	4,4'-DDD	1.4	U	6.1	1.4	ug/Kg
1031-07-8	Endosulfan sulfate	2.2	U	6.1	2.2	ug/Kg
50-29-3	4,4'-DDT	1.5	U	6.1	1.5	ug/Kg
72-43-5	Methoxychlor	1.7	U	6.1	1.7	ug/Kg
53494-70-5	Endrin ketone	1.7	U	6.1	1.7	ug/Kg
7421-93-4	Endrin aldehyde	2.0	U	6.1	2.0	ug/Kg
5103-71-9	alpha-Chlordane	1.7	U	6.1	1.7	ug/Kg
5103-74-2	gamma-Chlordane	1.8	U	6.1	1.8	ug/Kg
8001-35-2	Toxaphene	7.2	U	34	7.2	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	10.75	54 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	14.16	71 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	32
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7449.D	1	4/13/05	4/17/05	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.93	U	4.4	0.93	ug/Kg
319-85-7	beta-BHC	1.3	U	4.4	1.3	ug/Kg
319-86-8	delta-BHC	2.4	U	4.4	2.4	ug/Kg
58-89-9	gamma-BHC (Lindane)	1.0	U	4.4	1.0	ug/Kg
76-44-8	Heptachlor	1.3	U	4.4	1.3	ug/Kg
309-00-2	Aldrin	1.8	U	4.4	1.8	ug/Kg
1024-57-3	Heptachlor epoxide	1.5	U	4.4	1.5	ug/Kg
959-98-8	Endosulfan I	1.3	U	4.4	1.3	ug/Kg
60-57-1	Dieldrin	1.2	U	4.4	1.2	ug/Kg
72-55-9	4,4'-DDE	1.1	U	4.4	1.1	ug/Kg
72-20-8	Endrin	1.2	U	4.4	1.2	ug/Kg
33213-65-9	Endosulfan II	1.4	U	4.4	1.4	ug/Kg
72-54-8	4,4'-DDD	1.0	U	4.4	1.0	ug/Kg
1031-07-8	Endosulfan sulfate	1.6	U	4.4	1.6	ug/Kg
50-29-3	4,4'-DDT	1.0	U	4.4	1.0	ug/Kg
72-43-5	Methoxychlor	1.2	U	4.4	1.2	ug/Kg
53494-70-5	Endrin ketone	1.2	U	4.4	1.2	ug/Kg
7421-93-4	Endrin aldehyde	1.5	U	4.4	1.5	ug/Kg
5103-71-9	alpha-Chlordane	1.2	U	4.4	1.2	ug/Kg
5103-74-2	gamma-Chlordane	1.3	U	4.4	1.3	ug/Kg
8001-35-2	Toxaphene	5.2	U	25	5.2	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	10.16	51 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	13.58	68 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/05
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	4/11/05
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
Analytical Method:	8081	**% Moisture:**	33
Sample Wt/Vol:	15 g	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS7450.D	1	4/13/05	4/17/05	5PS033005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.95	U	4.4	0.95	ug/Kg
319-85-7	beta-BHC	1.3	U	4.4	1.3	ug/Kg
319-86-8	delta-BHC	2.4	U	4.4	2.4	ug/Kg
58-89-9	gamma-BHC (Lindane)	1.1	U	4.4	1.1	ug/Kg
76-44-8	Heptachlor	1.4	U	4.4	1.4	ug/Kg
309-00-2	Aldrin	1.8	U	4.4	1.8	ug/Kg
1024-57-3	Heptachlor epoxide	1.6	U	4.4	1.6	ug/Kg
959-98-8	Endosulfan I	1.3	U	4.4	1.3	ug/Kg
60-57-1	Dieldrin	1.2	U	4.4	1.2	ug/Kg
72-55-9	4,4'-DDE	1.2	U	4.4	1.2	ug/Kg
72-20-8	Endrin	1.3	U	4.4	1.3	ug/Kg
33213-65-9	Endosulfan II	1.4	U	4.4	1.4	ug/Kg
72-54-8	4,4'-DDD	1.0	U	4.4	1.0	ug/Kg
1031-07-8	Endosulfan sulfate	1.6	U	4.4	1.6	ug/Kg
50-29-3	4,4'-DDT	1.1	U	4.4	1.1	ug/Kg
72-43-5	Methoxychlor	1.3	U	4.4	1.3	ug/Kg
53494-70-5	Endrin ketone	1.2	U	4.4	1.2	ug/Kg
7421-93-4	Endrin aldehyde	1.5	U	4.4	1.5	ug/Kg
5103-71-9	alpha-Chlordane	1.2	U	4.4	1.2	ug/Kg
5103-74-2	gamma-Chlordane	1.3	U	4.4	1.3	ug/Kg
8001-35-2	Toxaphene	5.3	U	25	5.3	ug/Kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	10.06	50 %	69 - 124		SPK: 20
877-09-8	Tetrachloro-m-xylene	13.32	67 %	50 - 132		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-1**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-01**	**Matrix:**	**SOIL**
		% Solids:	**59.60**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	7970		mg/Kg	1.060	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	0.945	U	mg/Kg	0.945	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	6.150		mg/Kg	0.398	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	75.7		mg/Kg	0.037	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.504	J	mg/Kg	0.007	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.077	U	mg/Kg	0.077	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	18600		mg/Kg	0.062	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	14.2	N	mg/Kg	0.159	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	8.820		mg/Kg	0.133	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	29.8		mg/Kg	0.191	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	17500		mg/Kg	2.960	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	23.5		mg/Kg	0.173	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	5190		mg/Kg	0.027	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	672		mg/Kg	1.350	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.055		mg/Kg	0.010	1	4/15/2005	4/16/2005	EPA SW-846 7471
7440-02-0	Nickel	24.3		mg/Kg	0.253	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	989	N	mg/Kg	5.520	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.525	U	mg/Kg	0.525	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	0.176	U	mg/Kg	0.176	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	186	J	mg/Kg	62.4	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	0.554	U	mg/Kg	0.554	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	15.5		mg/Kg	0.171	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	122		mg/Kg	0.094	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-2**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-02**	**Matrix:**	**SOIL**
		% Solids:	**49.20**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	11400		mg/Kg	1.280	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	3.880	J	mg/Kg	1.140	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	35.0		mg/Kg	0.482	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	158		mg/Kg	0.045	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	1.010	J	mg/Kg	0.008	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	1.250		mg/Kg	0.093	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	56700		mg/Kg	0.075	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	45.7	N	mg/Kg	0.193	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	12.2		mg/Kg	0.161	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	160		mg/Kg	0.232	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	99000		mg/Kg	3.580	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	345		mg/Kg	0.209	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	9050		mg/Kg	0.033	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	1180		mg/Kg	1.630	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.129		mg/Kg	0.012	1	4/15/2005	4/16/2005	EPA SW-846 7471
7440-02-0	Nickel	34.2		mg/Kg	0.307	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	1870	N	mg/Kg	6.680	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.800	J	mg/Kg	0.636	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	1.370	J	mg/Kg	0.213	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	1640		mg/Kg	75.5	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	1.710	J	mg/Kg	0.671	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	19.4		mg/Kg	0.207	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	671		mg/Kg	0.114	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-3**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-03**	**Matrix:**	**SOIL**
		% Solids:	**68.20**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	7220		mg/Kg	0.904	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	0.809	U	mg/Kg	0.809	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	5.150		mg/Kg	0.341	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	61.0		mg/Kg	0.032	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.443	J	mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.066	U	mg/Kg	0.066	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	16100		mg/Kg	0.053	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	12.2	N	mg/Kg	0.137	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	7.690		mg/Kg	0.114	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	25.1		mg/Kg	0.164	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	15500		mg/Kg	2.530	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	22.7		mg/Kg	0.148	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	4780		mg/Kg	0.023	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	546		mg/Kg	1.150	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.054		mg/Kg	0.009	1	4/15/2005	4/16/2005	EPA SW-846 7471
7440-02-0	Nickel	21.5		mg/Kg	0.217	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	1040	N	mg/Kg	4.730	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.450	U	mg/Kg	0.450	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	0.151	U	mg/Kg	0.151	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	244	J	mg/Kg	53.4	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	0.668	J	mg/Kg	0.474	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	14.1		mg/Kg	0.147	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	113		mg/Kg	0.081	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-DUP**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-04**	**Matrix:**	**SOIL**
		% Solids:	**67.00**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	12500		mg/Kg	0.930	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	53.7		mg/Kg	0.832	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	12.5		mg/Kg	0.350	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	199		mg/Kg	0.033	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.926		mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	1.280		mg/Kg	0.068	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	36900		mg/Kg	0.055	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	29.4	N	mg/Kg	0.140	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	10.4		mg/Kg	0.117	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	90.2		mg/Kg	0.168	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	32900		mg/Kg	2.600	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	3580		mg/Kg	0.152	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	10500		mg/Kg	0.024	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	1300		mg/Kg	1.190	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.106		mg/Kg	0.009	1	4/15/2005	4/16/2005	EPA SW-846 7471
7440-02-0	Nickel	28.0		mg/Kg	0.223	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	2270	N	mg/Kg	4.860	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	1.300	J	mg/Kg	0.463	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	1.470	J	mg/Kg	0.155	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	1330		mg/Kg	54.9	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	0.978	J	mg/Kg	0.488	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	21.9		mg/Kg	0.151	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	436		mg/Kg	0.083	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-ASH1**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-08**	**Matrix:**	**SOIL**
		% Solids:	**64.40**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	12300			mg/Kg	0.977	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	9.760			mg/Kg	0.874	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	9.780			mg/Kg	0.368	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	798			mg/Kg	0.034	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.240	J		mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	7.310			mg/Kg	0.071	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	40200			mg/Kg	0.057	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	51.9		N	mg/Kg	0.148	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	6.930	J		mg/Kg	0.123	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	56400		D	mg/Kg	17.7	100	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	55600			mg/Kg	2.740	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	19300		D	mg/Kg	16.0	100	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	3490			mg/Kg	0.025	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	523			mg/Kg	1.250	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.106			mg/Kg	0.009	1	4/15/2005	4/16/2005	EPA SW-846 7471
7440-02-0	Nickel	42.1			mg/Kg	0.234	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	554	J	N	mg/Kg	5.110	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.672	J		mg/Kg	0.486	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	1.640			mg/Kg	0.163	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	30400			mg/Kg	57.7	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	1.010	J		mg/Kg	0.512	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	30.6			mg/Kg	0.158	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	109000		D	mg/Kg	8.700	100	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-ASH2**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-11**	**Matrix:**	**SOIL**
		% Solids:	**69.10**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	11600		mg/Kg	0.910	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	8.260	J	mg/Kg	0.815	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	13.3		mg/Kg	0.343	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	395		mg/Kg	0.032	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	1.090		mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	3.290		mg/Kg	0.067	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	47800		mg/Kg	0.054	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	26.3	N	mg/Kg	0.137	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	7.700		mg/Kg	0.114	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	179		mg/Kg	0.165	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	43200		mg/Kg	2.550	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	479		mg/Kg	0.149	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	7990		mg/Kg	0.023	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	744		mg/Kg	1.160	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.127		mg/Kg	0.008	1	4/15/2005	4/16/2005	EPA SW-846 7471
7440-02-0	Nickel	26.0		mg/Kg	0.219	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	2440	N	mg/Kg	4.760	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.532	J	mg/Kg	0.453	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	0.695	J	mg/Kg	0.152	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	6040		mg/Kg	53.8	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	1.690		mg/Kg	0.478	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	16.9		mg/Kg	0.148	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	2050		mg/Kg	0.081	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-ASH3**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-12**	**Matrix:**	**SOIL**
		% Solids:	**80.30**

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	9270		mg/Kg	0.776	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	1.280	J	mg/Kg	0.694	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	13.1		mg/Kg	0.292	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	106		mg/Kg	0.027	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.694		mg/Kg	0.005	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.586	J	mg/Kg	0.057	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	44800		mg/Kg	0.046	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	43.3	N	mg/Kg	0.117	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	6.860		mg/Kg	0.097	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	72.0		mg/Kg	0.141	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	31600		mg/Kg	2.170	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	238		mg/Kg	0.127	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	6340		mg/Kg	0.020	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	749		mg/Kg	0.989	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.052		mg/Kg	0.007	1	4/15/2005	4/16/2005	EPA SW-846 7471
7440-02-0	Nickel	20.6		mg/Kg	0.186	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	1250	N	mg/Kg	4.060	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.386	U	mg/Kg	0.386	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	0.129	U	mg/Kg	0.129	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	556	J	mg/Kg	45.8	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	2.950		mg/Kg	0.407	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	20.1		mg/Kg	0.126	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	451		mg/Kg	0.069	1	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-ASHDUP**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-13**	**Matrix:**	**SOIL**
		% Solids:	**70.10**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	9650			mg/Kg	0.897	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-36-0	Antimony	0.803	U		mg/Kg	0.803	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-38-2	Arsenic	7.280			mg/Kg	0.338	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-39-3	Barium	676			mg/Kg	0.031	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.202	J		mg/Kg	0.006	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-43-9	Cadmium	5.680			mg/Kg	0.066	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-70-2	Calcium	36700			mg/Kg	0.053	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-47-3	Chromium	44.9		N	mg/Kg	0.136	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-48-4	Cobalt	5.680	J		mg/Kg	0.113	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-50-8	Copper	39300		D	mg/Kg	16.3	100	4/13/2005	4/13/2005	EPA SW-846 6010
7439-89-6	Iron	45200			mg/Kg	2.510	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-92-1	Lead	23600		D	mg/Kg	14.7	100	4/13/2005	4/13/2005	EPA SW-846 6010
7439-95-4	Magnesium	2900			mg/Kg	0.023	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-96-5	Manganese	405			mg/Kg	1.140	1	4/13/2005	4/13/2005	EPA SW-846 6010
7439-97-6	Mercury	0.051			mg/Kg	0.008	1	4/15/2005	4/16/2005	EPA SW-846 7471
7440-02-0	Nickel	31.0			mg/Kg	0.215	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-09-7	Potassium	433	J	N	mg/Kg	4.690	1	4/13/2005	4/13/2005	EPA SW-846 6010
7782-49-2	Selenium	0.447	U		mg/Kg	0.447	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-22-4	Silver	0.758	J		mg/Kg	0.150	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-23-5	Sodium	39900			mg/Kg	53.0	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-28-0	Thallium	2.120			mg/Kg	0.471	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-62-2	Vanadium	23.7			mg/Kg	0.146	1	4/13/2005	4/13/2005	EPA SW-846 6010
7440-66-6	Zinc	146000		D	mg/Kg	7.990	100	4/13/2005	4/13/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2287 **Order ID:** T2287

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-ASH1							
T2287-08	IS-ASH1	SOIL	Aluminum	12300		31.1	0.977	mg/Kg
T2287-08	IS-ASH1	SOIL	Antimony	9.760		9.320	0.874	mg/Kg
T2287-08	IS-ASH1	SOIL	Arsenic	9.780		1.550	0.368	mg/Kg
T2287-08	IS-ASH1	SOIL	Barium	798		31.1	0.034	mg/Kg
T2287-08	IS-ASH1	SOIL	Beryllium	0.240	J	0.776	0.006	mg/Kg
T2287-08	IS-ASH1	SOIL	Cadmium	7.310		0.776	0.071	mg/Kg
T2287-08	IS-ASH1	SOIL	Calcium	40200		776	0.057	mg/Kg
T2287-08	IS-ASH1	SOIL	Chromium	51.9		1.550	0.148	mg/Kg
T2287-08	IS-ASH1	SOIL	Cobalt	6.930	J	7.760	0.123	mg/Kg
T2287-08	IS-ASH1	SOIL	Copper	56400		388	17.7	mg/Kg
T2287-08	IS-ASH1	SOIL	Iron	55600		15.5	2.740	mg/Kg
T2287-08	IS-ASH1	SOIL	Lead	19300		77.6	16.0	mg/Kg
T2287-08	IS-ASH1	SOIL	Magnesium	3490		776	0.025	mg/Kg
T2287-08	IS-ASH1	SOIL	Manganese	523		2.330	1.250	mg/Kg
T2287-08	IS-ASH1	SOIL	Mercury	0.106		0.016	0.009	mg/Kg
T2287-08	IS-ASH1	SOIL	Nickel	42.1		6.210	0.234	mg/Kg
T2287-08	IS-ASH1	SOIL	Potassium	554	J	776	5.110	mg/Kg
T2287-08	IS-ASH1	SOIL	Selenium	0.672	J	1.550	0.486	mg/Kg
T2287-08	IS-ASH1	SOIL	Silver	1.640		1.550	0.163	mg/Kg
T2287-08	IS-ASH1	SOIL	Sodium	30400		776	57.7	mg/Kg
T2287-08	IS-ASH1	SOIL	Thallium	1.010	J	1.550	0.512	mg/Kg
T2287-08	IS-ASH1	SOIL	Vanadium	30.6		7.760	0.158	mg/Kg
T2287-08	IS-ASH1	SOIL	Zinc	109000		311	8.700	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2287 **Order ID:** T2287

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-ASH2							
T2287-11	IS-ASH2	SOIL	Aluminum	11600		28.9	0.910	mg/Kg
T2287-11	IS-ASH2	SOIL	Antimony	8.260	J	8.680	0.815	mg/Kg
T2287-11	IS-ASH2	SOIL	Arsenic	13.3		1.450	0.343	mg/Kg
T2287-11	IS-ASH2	SOIL	Barium	395		28.9	0.032	mg/Kg
T2287-11	IS-ASH2	SOIL	Beryllium	1.090		0.724	0.006	mg/Kg
T2287-11	IS-ASH2	SOIL	Cadmium	3.290		0.724	0.067	mg/Kg
T2287-11	IS-ASH2	SOIL	Calcium	47800		724	0.054	mg/Kg
T2287-11	IS-ASH2	SOIL	Chromium	26.3		1.450	0.137	mg/Kg
T2287-11	IS-ASH2	SOIL	Cobalt	7.700		7.240	0.114	mg/Kg
T2287-11	IS-ASH2	SOIL	Copper	179		3.620	0.165	mg/Kg
T2287-11	IS-ASH2	SOIL	Iron	43200		14.5	2.550	mg/Kg
T2287-11	IS-ASH2	SOIL	Lead	479		0.724	0.149	mg/Kg
T2287-11	IS-ASH2	SOIL	Magnesium	7990		724	0.023	mg/Kg
T2287-11	IS-ASH2	SOIL	Manganese	744		2.170	1.160	mg/Kg
T2287-11	IS-ASH2	SOIL	Mercury	0.127		0.014	0.008	mg/Kg
T2287-11	IS-ASH2	SOIL	Nickel	26.0		5.790	0.219	mg/Kg
T2287-11	IS-ASH2	SOIL	Potassium	2440		724	4.760	mg/Kg
T2287-11	IS-ASH2	SOIL	Selenium	0.532	J	1.450	0.453	mg/Kg
T2287-11	IS-ASH2	SOIL	Silver	0.695	J	1.450	0.152	mg/Kg
T2287-11	IS-ASH2	SOIL	Sodium	6040		724	53.8	mg/Kg
T2287-11	IS-ASH2	SOIL	Thallium	1.690		1.450	0.478	mg/Kg
T2287-11	IS-ASH2	SOIL	Vanadium	16.9		7.240	0.148	mg/Kg
T2287-11	IS-ASH2	SOIL	Zinc	2050		2.890	0.081	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2287 **Order ID:** T2287

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-ASH3							
T2287-12	IS-ASH3	SOIL	Aluminum	9270		24.7	0.776	mg/Kg
T2287-12	IS-ASH3	SOIL	Antimony	1.280	J	7.400	0.694	mg/Kg
T2287-12	IS-ASH3	SOIL	Arsenic	13.1		1.230	0.292	mg/Kg
T2287-12	IS-ASH3	SOIL	Barium	106		24.7	0.027	mg/Kg
T2287-12	IS-ASH3	SOIL	Beryllium	0.694		0.616	0.005	mg/Kg
T2287-12	IS-ASH3	SOIL	Cadmium	0.586	J	0.616	0.057	mg/Kg
T2287-12	IS-ASH3	SOIL	Calcium	44800		616	0.046	mg/Kg
T2287-12	IS-ASH3	SOIL	Chromium	43.3		1.230	0.117	mg/Kg
T2287-12	IS-ASH3	SOIL	Cobalt	6.860		6.160	0.097	mg/Kg
T2287-12	IS-ASH3	SOIL	Copper	72.0		3.080	0.141	mg/Kg
T2287-12	IS-ASH3	SOIL	Iron	31600		12.3	2.170	mg/Kg
T2287-12	IS-ASH3	SOIL	Lead	238		0.616	0.127	mg/Kg
T2287-12	IS-ASH3	SOIL	Magnesium	6340		616	0.020	mg/Kg
T2287-12	IS-ASH3	SOIL	Manganese	749		1.850	0.989	mg/Kg
T2287-12	IS-ASH3	SOIL	Mercury	0.052		0.012	0.007	mg/Kg
T2287-12	IS-ASH3	SOIL	Nickel	20.6		4.930	0.186	mg/Kg
T2287-12	IS-ASH3	SOIL	Potassium	1250		616	4.060	mg/Kg
T2287-12	IS-ASH3	SOIL	Sodium	556	J	616	45.8	mg/Kg
T2287-12	IS-ASH3	SOIL	Thallium	2.950		1.230	0.407	mg/Kg
T2287-12	IS-ASH3	SOIL	Vanadium	20.1		6.160	0.126	mg/Kg
T2287-12	IS-ASH3	SOIL	Zinc	451		2.470	0.069	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2287 **Order ID:** T2287

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-ASHDUP**							
T2287-13	IS-ASHDUP	SOIL	Aluminum	9650		28.5	0.897	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Arsenic	7.280		1.430	0.338	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Barium	676		28.5	0.031	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Beryllium	0.202	J	0.713	0.006	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Cadmium	5.680		0.713	0.066	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Calcium	36700		713	0.053	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Chromium	44.9		1.430	0.136	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Cobalt	5.680	J	7.130	0.113	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Copper	39300		357	16.3	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Iron	45200		14.3	2.510	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Lead	23600		71.3	14.7	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Magnesium	2900		713	0.023	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Manganese	405		2.140	1.140	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Mercury	0.051		0.014	0.008	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Nickel	31.0		5.710	0.215	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Potassium	433	J	713	4.690	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Silver	0.758	J	1.430	0.150	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Sodium	39900		713	53.0	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Thallium	2.120		1.430	0.471	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Vanadium	23.7		7.130	0.146	mg/Kg
T2287-13	IS-ASHDUP	SOIL	Zinc	146000		285	7.990	mg/Kg
Client ID:	**IS-SD-1**							
T2287-01	IS-SD-1	SOIL	Aluminum	7970		33.6	1.060	mg/Kg
T2287-01	IS-SD-1	SOIL	Arsenic	6.150		1.680	0.398	mg/Kg
T2287-01	IS-SD-1	SOIL	Barium	75.7		33.6	0.037	mg/Kg
T2287-01	IS-SD-1	SOIL	Beryllium	0.504	J	0.839	0.007	mg/Kg
T2287-01	IS-SD-1	SOIL	Calcium	18600		839	0.062	mg/Kg
T2287-01	IS-SD-1	SOIL	Chromium	14.2		1.680	0.159	mg/Kg
T2287-01	IS-SD-1	SOIL	Cobalt	8.820		8.390	0.133	mg/Kg
T2287-01	IS-SD-1	SOIL	Copper	29.8		4.190	0.191	mg/Kg
T2287-01	IS-SD-1	SOIL	Iron	17500		16.8	2.960	mg/Kg
T2287-01	IS-SD-1	SOIL	Lead	23.5		0.839	0.173	mg/Kg
T2287-01	IS-SD-1	SOIL	Magnesium	5190		839	0.027	mg/Kg
T2287-01	IS-SD-1	SOIL	Manganese	672		2.520	1.350	mg/Kg
T2287-01	IS-SD-1	SOIL	Mercury	0.055		0.017	0.010	mg/Kg
T2287-01	IS-SD-1	SOIL	Nickel	24.3		6.710	0.253	mg/Kg
T2287-01	IS-SD-1	SOIL	Potassium	989		839	5.520	mg/Kg
T2287-01	IS-SD-1	SOIL	Sodium	186	J	839	62.4	mg/Kg
T2287-01	IS-SD-1	SOIL	Vanadium	15.5		8.390	0.171	mg/Kg
T2287-01	IS-SD-1	SOIL	Zinc	122		3.360	0.094	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2287 **Order ID:** T2287

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-SD-2							
T2287-02	IS-SD-2	SOIL	Aluminum	11400		40.7	1.280	mg/Kg
T2287-02	IS-SD-2	SOIL	Antimony	3.880	J	12.2	1.140	mg/Kg
T2287-02	IS-SD-2	SOIL	Arsenic	35.0		2.030	0.482	mg/Kg
T2287-02	IS-SD-2	SOIL	Barium	158		40.7	0.045	mg/Kg
T2287-02	IS-SD-2	SOIL	Beryllium	1.010	J	1.020	0.008	mg/Kg
T2287-02	IS-SD-2	SOIL	Cadmium	1.250		1.020	0.093	mg/Kg
T2287-02	IS-SD-2	SOIL	Calcium	56700		1020	0.075	mg/Kg
T2287-02	IS-SD-2	SOIL	Chromium	45.7		2.030	0.193	mg/Kg
T2287-02	IS-SD-2	SOIL	Cobalt	12.2		10.2	0.161	mg/Kg
T2287-02	IS-SD-2	SOIL	Copper	160		5.080	0.232	mg/Kg
T2287-02	IS-SD-2	SOIL	Iron	99000		20.3	3.580	mg/Kg
T2287-02	IS-SD-2	SOIL	Lead	345		1.020	0.209	mg/Kg
T2287-02	IS-SD-2	SOIL	Magnesium	9050		1020	0.033	mg/Kg
T2287-02	IS-SD-2	SOIL	Manganese	1180		3.050	1.630	mg/Kg
T2287-02	IS-SD-2	SOIL	Mercury	0.129		0.020	0.012	mg/Kg
T2287-02	IS-SD-2	SOIL	Nickel	34.2		8.130	0.307	mg/Kg
T2287-02	IS-SD-2	SOIL	Potassium	1870		1020	6.680	mg/Kg
T2287-02	IS-SD-2	SOIL	Selenium	0.800	J	2.030	0.636	mg/Kg
T2287-02	IS-SD-2	SOIL	Silver	1.370	J	2.030	0.213	mg/Kg
T2287-02	IS-SD-2	SOIL	Sodium	1640		1020	75.5	mg/Kg
T2287-02	IS-SD-2	SOIL	Thallium	1.710	J	2.030	0.671	mg/Kg
T2287-02	IS-SD-2	SOIL	Vanadium	19.4		10.2	0.207	mg/Kg
T2287-02	IS-SD-2	SOIL	Zinc	671		4.070	0.114	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2287 **Order ID:** T2287

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**IS-SD-3**							
T2287-03	IS-SD-3	SOIL	Aluminum	7220		28.8	0.904	mg/Kg
T2287-03	IS-SD-3	SOIL	Arsenic	5.150		1.440	0.341	mg/Kg
T2287-03	IS-SD-3	SOIL	Barium	61.0		28.8	0.032	mg/Kg
T2287-03	IS-SD-3	SOIL	Beryllium	0.443	J	0.719	0.006	mg/Kg
T2287-03	IS-SD-3	SOIL	Calcium	16100		719	0.053	mg/Kg
T2287-03	IS-SD-3	SOIL	Chromium	12.2		1.440	0.137	mg/Kg
T2287-03	IS-SD-3	SOIL	Cobalt	7.690		7.190	0.114	mg/Kg
T2287-03	IS-SD-3	SOIL	Copper	25.1		3.590	0.164	mg/Kg
T2287-03	IS-SD-3	SOIL	Iron	15500		14.4	2.530	mg/Kg
T2287-03	IS-SD-3	SOIL	Lead	22.7		0.719	0.148	mg/Kg
T2287-03	IS-SD-3	SOIL	Magnesium	4780		719	0.023	mg/Kg
T2287-03	IS-SD-3	SOIL	Manganese	546		2.160	1.150	mg/Kg
T2287-03	IS-SD-3	SOIL	Mercury	0.054		0.015	0.009	mg/Kg
T2287-03	IS-SD-3	SOIL	Nickel	21.5		5.750	0.217	mg/Kg
T2287-03	IS-SD-3	SOIL	Potassium	1040		719	4.730	mg/Kg
T2287-03	IS-SD-3	SOIL	Sodium	244	J	719	53.4	mg/Kg
T2287-03	IS-SD-3	SOIL	Thallium	0.668	J	1.440	0.474	mg/Kg
T2287-03	IS-SD-3	SOIL	Vanadium	14.1		7.190	0.147	mg/Kg
T2287-03	IS-SD-3	SOIL	Zinc	113		2.880	0.081	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2287 **Order ID:** T2287

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	IS-SD-DUP							
T2287-04	IS-SD-DUP	SOIL	Aluminum	12500		29.6	0.930	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Antimony	53.7		8.870	0.832	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Arsenic	12.5		1.480	0.350	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Barium	199		29.6	0.033	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Beryllium	0.926		0.739	0.006	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Cadmium	1.280		0.739	0.068	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Calcium	36900		739	0.055	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Chromium	29.4		1.480	0.140	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Cobalt	10.4		7.390	0.117	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Copper	90.2		3.690	0.168	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Iron	32900		14.8	2.600	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Lead	3580		0.739	0.152	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Magnesium	10500		739	0.024	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Manganese	1300		2.220	1.190	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Mercury	0.106		0.015	0.009	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Nickel	28.0		5.910	0.223	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Potassium	2270		739	4.860	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Selenium	1.300	J	1.480	0.463	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Silver	1.470	J	1.480	0.155	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Sodium	1330		739	54.9	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Thallium	0.978	J	1.480	0.488	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Vanadium	21.9		7.390	0.151	mg/Kg
T2287-04	IS-SD-DUP	SOIL	Zinc	436		2.960	0.083	mg/Kg

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/7/2005**
Project:		**Date Received:**	**4/11/2005**
Client Sample ID:	**IS-SD-1**	**SDG No.:**	**T2287**
Lab Sample ID:	**T2287-01**	**Matrix:**	**SOIL**
% Solids:	**59.60**		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.839	U	0.839	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-2	**SDG No.:**	T2287
Lab Sample ID:	T2287-02	**Matrix:**	SOIL
% Solids:	49.20		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	1.016	U	1.016	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-3	**SDG No.:**	T2287
Lab Sample ID:	T2287-03	**Matrix:**	SOIL
% Solids:	68.20		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.733	U	0.733	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-SD-DUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-04	**Matrix:**	SOIL
% Solids:	59.60		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.839	U	0.839	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-ASH1	**SDG No.:**	T2287
Lab Sample ID:	T2287-08	**Matrix:**	SOIL
% Solids:	64.40		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.776	U	0.776	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-ASH2	**SDG No.:**	T2287
Lab Sample ID:	T2287-11	**Matrix:**	SOIL
% Solids:	69.10		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.724	U	0.724	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-ASH3	**SDG No.:**	T2287
Lab Sample ID:	T2287-12	**Matrix:**	SOIL
% Solids:	80.30		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.623	U	0.623	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/7/2005
Project:		**Date Received:**	4/11/2005
Client Sample ID:	IS-ASHDUP	**SDG No.:**	T2287
Lab Sample ID:	T2287-13	**Matrix:**	SOIL
% Solids:	70.10		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.713	U	0.713	mg/Kg	1	4/14/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street • Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

ANALYTICAL RESULTS SUMMARY

PROJECT NAME: Incinerator Site-Lackawanna, NY

MALCOLM PIRNIE
40 CENTER DRIVE
ORCHARD PARK, NY 14127
7166676640

CHEMTECH PROJECT NO. **T2648**
ATTENTION: **Jim Richert**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050938.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-1**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-01**	**Matrix:**	**WATER**
Analytical Method:	**8260**	**% Moisture:**	**100**
Sample Wt/Wol:	**5.0 Units: mL**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**mL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050938.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.53	101 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	48.42	97 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.45	105 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	50.47	101 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	335314	6.41			
540-36-3	1,4-Difluorobenzene	581401	7.06			
3114-55-4	Chlorobenzene-d5	468057	10.74			
3855-82-1	1,4-Dichlorobenzene-d4	205886	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-2**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-04**	**Matrix:**	**WATER**
Analytical Method:	**8260**	**% Moisture:**	**100**
Sample Wt/Vol:	**5.0 Units: mL**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**mL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050941.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050941.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.46	99 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	47.56	95 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.1	104 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	51.11	102 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	345173	6.42			
540-36-3	1,4-Difluorobenzene	598575	7.06			
3114-55-4	Chlorobenzene-d5	465289	10.73			
3855-82-1	1,4-Dichlorobenzene-d4	205484	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-3**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-05**	**Matrix:**	**WATER**
Analytical Method:	**8260**	**% Moisture:**	**100**
Sample Wt/Vol:	**5.0 Units: mL**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**mL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050942.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050942.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.88	102 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	48.58	97 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.95	106 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	48.01	96 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	340369	6.41			
540-36-3	1,4-Difluorobenzene	595269	7.06			
3114-55-4	Chlorobenzene-d5	458608	10.74			
3855-82-1	1,4-Dichlorobenzene-d4	212804	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050943.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**GW-DUP1**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-06**	**Matrix:**	**WATER**
Analytical Method:	**8260**	**% Moisture:**	**100**
Sample Wt/Vol:	**5.0 Units: mL**	**Soil Extract Vol:**	**uL**
Soil Aliquot Vol:	**mL**		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050943.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.49	99 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	49.13	98 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	53.94	108 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	50.48	101 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	330475	6.42			
540-36-3	1,4-Difluorobenzene	555497	7.06			
3114-55-4	Chlorobenzene-d5	450903	10.74			
3855-82-1	1,4-Dichlorobenzene-d4	184052	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050935.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Wol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050935.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.35	101 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	48.37	97 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.58	105 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	51.29	103 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	326220	6.42			
540-36-3	1,4-Difluorobenzene	569405	7.06			
3114-55-4	Chlorobenzene-d5	451311	10.73			
3855-82-1	1,4-Dichlorobenzene-d4	190444	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-08	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Vol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050936.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	5.0	0.17	ug/L
74-87-3	Chloromethane	0.34	U	5.0	0.34	ug/L
75-01-4	Vinyl chloride	0.33	U	5.0	0.33	ug/L
74-83-9	Bromomethane	0.41	U	5.0	0.41	ug/L
75-00-3	Chloroethane	0.83	U	5.0	0.83	ug/L
75-69-4	Trichlorofluoromethane	0.22	U	5.0	0.22	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.3	U	5.0	1.3	ug/L
75-35-4	1,1-Dichloroethene	0.42	U	5.0	0.42	ug/L
67-64-1	Acetone	2.3	U	25	2.3	ug/L
75-15-0	Carbon disulfide	0.40	U	5.0	0.40	ug/L
1634-04-4	Methyl tert-butyl Ether	0.28	U	5.0	0.28	ug/L
79-20-9	Methyl Acetate	0.20	U	5.0	0.20	ug/L
75-09-2	Methylene Chloride	0.43	U	5.0	0.43	ug/L
156-60-5	trans-1,2-Dichloroethene	0.40	U	5.0	0.40	ug/L
75-34-3	1,1-Dichloroethane	0.38	U	5.0	0.38	ug/L
110-82-7	Cyclohexane	0.36	U	5.0	0.36	ug/L
78-93-3	2-Butanone	1.1	U	25	1.1	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.29	U	5.0	0.29	ug/L
67-66-3	Chloroform	0.33	U	5.0	0.33	ug/L
71-55-6	1,1,1-Trichloroethane	0.32	U	5.0	0.32	ug/L
108-87-2	Methylcyclohexane	0.34	U	5.0	0.34	ug/L
71-43-2	Benzene	0.39	U	5.0	0.39	ug/L
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34	ug/L
79-01-6	Trichloroethene	0.46	U	5.0	0.46	ug/L
78-87-5	1,2-Dichloropropane	0.40	U	5.0	0.40	ug/L
75-27-4	Bromodichloromethane	0.33	U	5.0	0.33	ug/L
108-10-1	4-Methyl-2-Pentanone	1.6	U	25	1.6	ug/L
108-88-3	Toluene	0.36	U	5.0	0.36	ug/L
10061-02-6	t-1,3-Dichloropropene	0.32	U	5.0	0.32	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.0	0.36	ug/L
79-00-5	1,1,2-Trichloroethane	0.41	U	5.0	0.41	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	TRIPBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-08	**Matrix:**	WATER
Analytical Method:	8260	**% Moisture:**	100
Sample Wt/Wol:	5.0 Units: mL	**Soil Extract Vol:**	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VH050936.D	1	5/10/2005	VH042005

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	1.7	U	25	1.7	ug/L
124-48-1	Dibromochloromethane	0.26	U	5.0	0.26	ug/L
106-93-4	1,2-Dibromoethane	0.32	U	5.0	0.32	ug/L
127-18-4	Tetrachloroethene	0.48	U	5.0	0.48	ug/L
108-90-7	Chlorobenzene	0.47	U	5.0	0.47	ug/L
100-41-4	Ethyl Benzene	0.45	U	5.0	0.45	ug/L
126777-61-2	m/p-Xylenes	1.2	U	5.0	1.2	ug/L
95-47-6	o-Xylene	0.46	U	5.0	0.46	ug/L
100-42-5	Styrene	0.41	U	5.0	0.41	ug/L
75-25-2	Bromoform	0.32	U	5.0	0.32	ug/L
98-82-8	Isopropylbenzene	0.44	U	5.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.30	U	5.0	0.30	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/L
106-46-7	1,4-Dichlorobenzene	0.54	U	5.0	0.54	ug/L
95-50-1	1,2-Dichlorobenzene	0.44	U	5.0	0.44	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.38	U	5.0	0.38	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.46	U	5.0	0.46	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.99	100 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	49.59	99 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	52.22	104 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	49.61	99 %	76 - 119		SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	291825	6.42			
540-36-3	1,4-Difluorobenzene	509090	7.06			
3114-55-4	Chlorobenzene-d5	398843	10.74			
3855-82-1	1,4-Dichlorobenzene-d4	162562	13.00			

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021773.D	1	5/6/2005	5/7/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	11	1.7	ug/L
108-95-2	Phenol	1.3	U	11	1.3	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	11	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	11	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	11	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	11	1.3	ug/L
98-86-2	Acetophenone	1.3	U	11	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	11	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.5	U	11	1.5	ug/L
67-72-1	Hexachloroethane	1.2	U	11	1.2	ug/L
98-95-3	Nitrobenzene	1.7	U	11	1.7	ug/L
78-59-1	Isophorone	1.3	U	11	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	11	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.2	U	11	1.2	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.4	U	11	1.4	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	11	1.5	ug/L
91-20-3	Naphthalene	1.5	U	11	1.5	ug/L
106-47-8	4-Chloroaniline	0.900	U	11	0.900	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	11	1.4	ug/L
105-60-2	Caprolactam	1.3	U	11	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	11	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.1	U	11	1.1	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	11	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	11	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	11	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	11	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.5	U	11	1.5	ug/L
88-74-4	2-Nitroaniline	1.1	U	11	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	11	1.3	ug/L
208-96-8	Acenaphthylene	1.4	U	11	1.4	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	11	1.3	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-1**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-01**	**Matrix:**	**WATER**
Analytical Method:	**8270**	**% Moisture:**	**100**
Sample Wt/Vol:	**950.0 mL**	**Extract Vol:**	**1000 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021773.D	1	5/6/2005	5/7/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	1.1	U	11	1.1	ug/L
83-32-9	Acenaphthene	1.4	U	11	1.4	ug/L
51-28-5	2,4-Dinitrophenol	3.7	U	11	3.7	ug/L
100-02-7	4-Nitrophenol	3.3	U	11	3.3	ug/L
132-64-9	Dibenzofuran	1.4	U	11	1.4	ug/L
121-14-2	2,4-Dinitrotoluene	1.3	U	11	1.3	ug/L
84-66-2	Diethylphthalate	1.4	U	11	1.4	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	11	1.4	ug/L
86-73-7	Fluorene	1.5	U	11	1.5	ug/L
100-01-6	4-Nitroaniline	1.2	U	11	1.2	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U	11	1.7	ug/L
86-30-6	N-Nitrosodiphenylamine	1.3	U	11	1.3	ug/L
101-55-3	4-Bromophenyl-phenylether	1.6	U	11	1.6	ug/L
118-74-1	Hexachlorobenzene	1.3	U	11	1.3	ug/L
1912-24-9	Atrazine	1.3	U	11	1.3	ug/L
87-86-5	Pentachlorophenol	1.7	U	11	1.7	ug/L
85-01-8	Phenanthrene	1.5	U	11	1.5	ug/L
120-12-7	Anthracene	1.5	U	11	1.5	ug/L
86-74-8	Carbazole	1.3	U	11	1.3	ug/L
84-74-2	Di-n-butylphthalate	1.4	U	11	1.4	ug/L
206-44-0	Fluoranthene	1.3	U	11	1.3	ug/L
129-00-0	Pyrene	1.5	U	11	1.5	ug/L
85-68-7	Butylbenzylphthalate	1.5	U	11	1.5	ug/L
91-94-1	3,3-Dichlorobenzidine	1.1	U	11	1.1	ug/L
56-55-3	Benzo(a)anthracene	1.2	U	11	1.2	ug/L
218-01-9	Chrysene	1.8	U	11	1.8	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	11	1.6	ug/L
117-84-0	Di-n-octyl phthalate	1.4	U	11	1.4	ug/L
205-99-2	Benzo(b)fluoranthene	0.790	U	11	0.790	ug/L
207-08-9	Benzo(k)fluoranthene	2.0	U	11	2.0	ug/L
50-32-8	Benzo(a)pyrene	1.2	U	11	1.2	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-1**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-01**	**Matrix:**	**WATER**
Analytical Method:	**8270**	**% Moisture:**	**100**
Sample Wt/Wol:	**950.0 mL**	**Extract Vol:**	**1000 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021773.D	1	5/6/2005	5/7/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.870	U	11	0.870	ug/L
53-70-3	Dibenz(a,h)anthracene	0.910	U	11	0.910	ug/L
191-24-2	Benzo(g,h,i)perylene	1.1	U	11	1.1	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	105.75	35 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	73.45	24 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	141.18	71 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	106.57	53 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	185.05	62 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	154.57	77 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	140073	4.07			
1146-65-2	Naphthalene-d8	559717	4.87			
15067-26-2	Acenaphthene-d10	338553	5.99			
1517-22-2	Phenanthrene-d10	542753	6.98			
1719-03-5	Chrysene-d12	438573	9.18			
1520-96-3	Perylene-d12	343407	11.52			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	7.4	AB	3.09		ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021776.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	11	1.7	ug/L
108-95-2	Phenol	1.3	U	11	1.3	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	11	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	11	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	11	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	11	1.3	ug/L
98-86-2	Acetophenone	1.3	U	11	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	11	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.5	U	11	1.5	ug/L
67-72-1	Hexachloroethane	1.2	U	11	1.2	ug/L
98-95-3	Nitrobenzene	1.7	U	11	1.7	ug/L
78-59-1	Isophorone	1.3	U	11	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	11	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.2	U	11	1.2	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.4	U	11	1.4	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	11	1.5	ug/L
91-20-3	Naphthalene	1.5	U	11	1.5	ug/L
106-47-8	4-Chloroaniline	0.900	U	11	0.900	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	11	1.4	ug/L
105-60-2	Caprolactam	1.3	U	11	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	11	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.1	U	11	1.1	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	11	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	11	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	11	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	11	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.5	U	11	1.5	ug/L
88-74-4	2-Nitroaniline	1.1	U	11	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	11	1.3	ug/L
208-96-8	Acenaphthylene	1.4	U	11	1.4	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	11	1.3	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Wol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021776.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	1.1	U	11	1.1	ug/L
83-32-9	Acenaphthene	1.4	U	11	1.4	ug/L
51-28-5	2,4-Dinitrophenol	3.7	U	11	3.7	ug/L
100-02-7	4-Nitrophenol	3.3	U	11	3.3	ug/L
132-64-9	Dibenzofuran	1.4	U	11	1.4	ug/L
121-14-2	2,4-Dinitrotoluene	1.3	U	11	1.3	ug/L
84-66-2	Diethylphthalate	1.4	U	11	1.4	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	11	1.4	ug/L
86-73-7	Fluorene	1.5	U	11	1.5	ug/L
100-01-6	4-Nitroaniline	1.2	U	11	1.2	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U	11	1.7	ug/L
86-30-6	N-Nitrosodiphenylamine	1.3	U	11	1.3	ug/L
101-55-3	4-Bromophenyl-phenylether	1.6	U	11	1.6	ug/L
118-74-1	Hexachlorobenzene	1.3	U	11	1.3	ug/L
1912-24-9	Atrazine	1.3	U	11	1.3	ug/L
87-86-5	Pentachlorophenol	1.7	U	11	1.7	ug/L
85-01-8	Phenanthrene	1.5	U	11	1.5	ug/L
120-12-7	Anthracene	1.5	U	11	1.5	ug/L
86-74-8	Carbazole	1.3	U	11	1.3	ug/L
84-74-2	Di-n-butylphthalate	1.4	U	11	1.4	ug/L
206-44-0	Fluoranthene	1.3	U	11	1.3	ug/L
129-00-0	Pyrene	1.5	U	11	1.5	ug/L
85-68-7	Butylbenzylphthalate	1.5	U	11	1.5	ug/L
91-94-1	3,3-Dichlorobenzidine	1.1	U	11	1.1	ug/L
56-55-3	Benzo(a)anthracene	1.2	U	11	1.2	ug/L
218-01-9	Chrysene	1.8	U	11	1.8	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	11	1.6	ug/L
117-84-0	Di-n-octyl phthalate	1.4	U	11	1.4	ug/L
205-99-2	Benzo(b)fluoranthene	0.790	U	11	0.790	ug/L
207-08-9	Benzo(k)fluoranthene	2.0	U	11	2.0	ug/L
50-32-8	Benzo(a)pyrene	1.2	U	11	1.2	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021776.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.870	U	11	0.870	ug/L
53-70-3	Dibenz(a,h)anthracene	0.910	U	11	0.910	ug/L
191-24-2	Benzo(g,h,i)perylene	1.1	U	11	1.1	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	119.99	40 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	69.91	23 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	121.61	61 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	99.8	50 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	188.84	63 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	144.94	72 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	151221	4.07			
1146-65-2	Naphthalene-d8	596926	4.86			
15067-26-2	Acenaphthene-d10	356576	5.99			
1517-22-2	Phenanthrene-d10	557319	6.99			
1719-03-5	Chrysene-d12	460743	9.21			
1520-96-3	Perylene-d12	359049	11.57			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	7.2	AB	3.09		ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-3**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-05**	**Matrix:**	**WATER**
Analytical Method:	**8270**	**% Moisture:**	**100**
Sample Wt/Vol:	**940.0 mL**	**Extract Vol:**	**1000 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021777.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	11	1.7	ug/L
108-95-2	Phenol	1.4	U	11	1.4	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	11	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	11	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	11	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	11	1.3	ug/L
98-86-2	Acetophenone	1.3	U	11	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	11	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.5	U	11	1.5	ug/L
67-72-1	Hexachloroethane	1.2	U	11	1.2	ug/L
98-95-3	Nitrobenzene	1.7	U	11	1.7	ug/L
78-59-1	Isophorone	1.3	U	11	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	11	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.3	U	11	1.3	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.5	U	11	1.5	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	11	1.5	ug/L
91-20-3	Naphthalene	1.5	U	11	1.5	ug/L
106-47-8	4-Chloroaniline	0.910	U	11	0.910	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	11	1.4	ug/L
105-60-2	Caprolactam	1.3	U	11	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	11	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.2	U	11	1.2	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	11	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	11	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	11	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	11	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.5	U	11	1.5	ug/L
88-74-4	2-Nitroaniline	1.1	U	11	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	11	1.3	ug/L
208-96-8	Acenaphthylene	1.4	U	11	1.4	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	11	1.3	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	940.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021777.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	1.1	U	11	1.1	ug/L
83-32-9	Acenaphthene	1.4	U	11	1.4	ug/L
51-28-5	2,4-Dinitrophenol	3.7	U	11	3.7	ug/L
100-02-7	4-Nitrophenol	3.3	U	11	3.3	ug/L
132-64-9	Dibenzofuran	1.4	U	11	1.4	ug/L
121-14-2	2,4-Dinitrotoluene	1.3	U	11	1.3	ug/L
84-66-2	Diethylphthalate	1.4	U	11	1.4	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	11	1.4	ug/L
86-73-7	Fluorene	1.5	U	11	1.5	ug/L
100-01-6	4-Nitroaniline	1.2	U	11	1.2	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U	11	1.7	ug/L
86-30-6	N-Nitrosodiphenylamine	1.3	U	11	1.3	ug/L
101-55-3	4-Bromophenyl-phenylether	1.6	U	11	1.6	ug/L
118-74-1	Hexachlorobenzene	1.3	U	11	1.3	ug/L
1912-24-9	Atrazine	1.3	U	11	1.3	ug/L
87-86-5	Pentachlorophenol	1.7	U	11	1.7	ug/L
85-01-8	Phenanthrene	1.5	U	11	1.5	ug/L
120-12-7	Anthracene	1.5	U	11	1.5	ug/L
86-74-8	Carbazole	1.4	U	11	1.4	ug/L
84-74-2	Di-n-butylphthalate	1.4	U	11	1.4	ug/L
206-44-0	Fluoranthene	1.3	U	11	1.3	ug/L
129-00-0	Pyrene	1.5	U	11	1.5	ug/L
85-68-7	Butylbenzylphthalate	1.5	U	11	1.5	ug/L
91-94-1	3,3-Dichlorobenzidine	1.1	U	11	1.1	ug/L
56-55-3	Benzo(a)anthracene	1.2	U	11	1.2	ug/L
218-01-9	Chrysene	1.8	U	11	1.8	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	11	1.6	ug/L
117-84-0	Di-n-octyl phthalate	1.4	U	11	1.4	ug/L
205-99-2	Benzo(b)fluoranthene	0.800	U	11	0.800	ug/L
207-08-9	Benzo(k)fluoranthene	2.0	U	11	2.0	ug/L
50-32-8	Benzo(a)pyrene	1.2	U	11	1.2	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	940.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021777.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.880	U	11	0.880	ug/L
53-70-3	Dibenz(a,h)anthracene	0.920	U	11	0.920	ug/L
191-24-2	Benzo(g,h,i)perylene	1.2	U	11	1.2	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	85.95	29 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	44.41	15 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	103.37	52 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	91.07	46 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	155.3	52 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	128.69	64 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	145389	4.07			
1146-65-2	Naphthalene-d8	574736	4.87			
15067-26-2	Acenaphthene-d10	340980	5.99			
1517-22-2	Phenanthrene-d10	567979	6.98			
1719-03-5	Chrysene-d12	451345	9.19			
1520-96-3	Perylene-d12	355208	11.53			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	5.0	AB	3.09		ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021778.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	11	1.7	ug/L
108-95-2	Phenol	1.3	U	11	1.3	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	11	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	11	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	11	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	11	1.3	ug/L
98-86-2	Acetophenone	1.3	U	11	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	11	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.5	U	11	1.5	ug/L
67-72-1	Hexachloroethane	1.2	U	11	1.2	ug/L
98-95-3	Nitrobenzene	1.7	U	11	1.7	ug/L
78-59-1	Isophorone	1.3	U	11	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	11	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.2	U	11	1.2	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.4	U	11	1.4	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	11	1.5	ug/L
91-20-3	Naphthalene	1.5	U	11	1.5	ug/L
106-47-8	4-Chloroaniline	0.900	U	11	0.900	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	11	1.4	ug/L
105-60-2	Caprolactam	1.3	U	11	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	11	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.1	U	11	1.1	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	11	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	11	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	11	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	11	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.5	U	11	1.5	ug/L
88-74-4	2-Nitroaniline	1.1	U	11	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	11	1.3	ug/L
208-96-8	Acenaphthylene	1.4	U	11	1.4	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	11	1.3	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	950.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021778.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	1.1	U	11	1.1	ug/L
83-32-9	Acenaphthene	1.4	U	11	1.4	ug/L
51-28-5	2,4-Dinitrophenol	3.7	U	11	3.7	ug/L
100-02-7	4-Nitrophenol	3.3	U	11	3.3	ug/L
132-64-9	Dibenzofuran	1.4	U	11	1.4	ug/L
121-14-2	2,4-Dinitrotoluene	1.3	U	11	1.3	ug/L
84-66-2	Diethylphthalate	1.4	U	11	1.4	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	11	1.4	ug/L
86-73-7	Fluorene	1.5	U	11	1.5	ug/L
100-01-6	4-Nitroaniline	1.2	U	11	1.2	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U	11	1.7	ug/L
86-30-6	N-Nitrosodiphenylamine	1.3	U	11	1.3	ug/L
101-55-3	4-Bromophenyl-phenylether	1.6	U	11	1.6	ug/L
118-74-1	Hexachlorobenzene	1.3	U	11	1.3	ug/L
1912-24-9	Atrazine	1.3	U	11	1.3	ug/L
87-86-5	Pentachlorophenol	1.7	U	11	1.7	ug/L
85-01-8	Phenanthrene	1.5	U	11	1.5	ug/L
120-12-7	Anthracene	1.5	U	11	1.5	ug/L
86-74-8	Carbazole	1.3	U	11	1.3	ug/L
84-74-2	Di-n-butylphthalate	1.4	U	11	1.4	ug/L
206-44-0	Fluoranthene	1.3	U	11	1.3	ug/L
129-00-0	Pyrene	1.5	U	11	1.5	ug/L
85-68-7	Butylbenzylphthalate	1.5	U	11	1.5	ug/L
91-94-1	3,3-Dichlorobenzidine	1.1	U	11	1.1	ug/L
56-55-3	Benzo(a)anthracene	1.2	U	11	1.2	ug/L
218-01-9	Chrysene	1.8	U	11	1.8	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	11	1.6	ug/L
117-84-0	Di-n-octyl phthalate	1.4	U	11	1.4	ug/L
205-99-2	Benzo(b)fluoranthene	0.790	U	11	0.790	ug/L
207-08-9	Benzo(k)fluoranthene	2.0	U	11	2.0	ug/L
50-32-8	Benzo(a)pyrene	1.2	U	11	1.2	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**GW-DUP1**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-06**	**Matrix:**	**WATER**
Analytical Method:	**8270**	**% Moisture:**	**100**
Sample Wt/Wol:	**950.0 mL**	**Extract Vol:**	**1000 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021778.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.870	U	11	0.870	ug/L
53-70-3	Dibenz(a,h)anthracene	0.910	U	11	0.910	ug/L
191-24-2	Benzo(g,h,i)perylene	1.1	U	11	1.1	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	127.48	42 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	67.33	22 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	124.89	62 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	98.41	49 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	198.79	66 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	150.62	75 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	150638	4.07			
1146-65-2	Naphthalene-d8	605525	4.87			
15067-26-2	Acenaphthene-d10	358389	5.98			
1517-22-2	Phenanthrene-d10	592637	6.98			
1719-03-5	Chrysene-d12	467511	9.17			
1520-96-3	Perylene-d12	361704	11.51			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	6.8	AB	3.09		ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	960.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021779.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
100-52-7	Benzaldehyde	1.7	U	10	1.7	ug/L
108-95-2	Phenol	1.3	U	10	1.3	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.5	U	10	1.5	ug/L
95-57-8	2-Chlorophenol	1.2	U	10	1.2	ug/L
95-48-7	2-Methylphenol	1.6	U	10	1.6	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.3	U	10	1.3	ug/L
98-86-2	Acetophenone	1.3	U	10	1.3	ug/L
106-44-5	3+4-Methylphenols	1.4	U	10	1.4	ug/L
621-64-7	N-Nitroso-di-n-propylamine	1.4	U	10	1.4	ug/L
67-72-1	Hexachloroethane	1.2	U	10	1.2	ug/L
98-95-3	Nitrobenzene	1.6	U	10	1.6	ug/L
78-59-1	Isophorone	1.3	U	10	1.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	10	1.4	ug/L
105-67-9	2,4-Dimethylphenol	1.2	U	10	1.2	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.4	U	10	1.4	ug/L
120-83-2	2,4-Dichlorophenol	1.5	U	10	1.5	ug/L
91-20-3	Naphthalene	1.4	U	10	1.4	ug/L
106-47-8	4-Chloroaniline	0.890	U	10	0.890	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	10	1.4	ug/L
105-60-2	Caprolactam	1.3	U	10	1.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	10	1.4	ug/L
91-57-6	2-Methylnaphthalene	1.1	U	10	1.1	ug/L
77-47-4	Hexachlorocyclopentadiene	1.2	U	10	1.2	ug/L
88-06-2	2,4,6-Trichlorophenol	1.2	U	10	1.2	ug/L
95-95-4	2,4,5-Trichlorophenol	1.3	U	10	1.3	ug/L
92-52-4	1,1-Biphenyl	1.5	U	10	1.5	ug/L
91-58-7	2-Chloronaphthalene	1.4	U	10	1.4	ug/L
88-74-4	2-Nitroaniline	1.1	U	10	1.1	ug/L
131-11-3	Dimethylphthalate	1.3	U	10	1.3	ug/L
208-96-8	Acenaphthylene	1.3	U	10	1.3	ug/L
606-20-2	2,6-Dinitrotoluene	1.3	U	10	1.3	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8270	**% Moisture:**	100
Sample Wt/Vol:	960.0 mL	**Extract Vol:**	1000 uL

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021779.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
99-09-2	3-Nitroaniline	1.1	U	10	1.1	ug/L
83-32-9	Acenaphthene	1.4	U	10	1.4	ug/L
51-28-5	2,4-Dinitrophenol	3.6	U	10	3.6	ug/L
100-02-7	4-Nitrophenol	3.2	U	10	3.2	ug/L
132-64-9	Dibenzofuran	1.3	U	10	1.3	ug/L
121-14-2	2,4-Dinitrotoluene	1.3	U	10	1.3	ug/L
84-66-2	Diethylphthalate	1.4	U	10	1.4	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	10	1.4	ug/L
86-73-7	Fluorene	1.5	U	10	1.5	ug/L
100-01-6	4-Nitroaniline	1.2	U	10	1.2	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.7	U	10	1.7	ug/L
86-30-6	N-Nitrosodiphenylamine	1.3	U	10	1.3	ug/L
101-55-3	4-Bromophenyl-phenylether	1.5	U	10	1.5	ug/L
118-74-1	Hexachlorobenzene	1.3	U	10	1.3	ug/L
1912-24-9	Atrazine	1.3	U	10	1.3	ug/L
87-86-5	Pentachlorophenol	1.6	U	10	1.6	ug/L
85-01-8	Phenanthrene	1.5	U	10	1.5	ug/L
120-12-7	Anthracene	1.5	U	10	1.5	ug/L
86-74-8	Carbazole	1.3	U	10	1.3	ug/L
84-74-2	Di-n-butylphthalate	1.4	U	10	1.4	ug/L
206-44-0	Fluoranthene	1.3	U	10	1.3	ug/L
129-00-0	Pyrene	1.5	U	10	1.5	ug/L
85-68-7	Butylbenzylphthalate	1.5	U	10	1.5	ug/L
91-94-1	3,3-Dichlorobenzidine	1.1	U	10	1.1	ug/L
56-55-3	Benzo(a)anthracene	1.2	U	10	1.2	ug/L
218-01-9	Chrysene	1.7	U	10	1.7	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	1.6	U	10	1.6	ug/L
117-84-0	Di-n-octyl phthalate	1.3	U	10	1.3	ug/L
205-99-2	Benzo(b)fluoranthene	0.780	U	10	0.780	ug/L
207-08-9	Benzo(k)fluoranthene	2.0	U	10	2.0	ug/L
50-32-8	Benzo(a)pyrene	1.2	U	10	1.2	ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lackawanna, NY**	**Date Received:**	**5/3/2005**
Client Sample ID:	**FIELDBLANK**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-07**	**Matrix:**	**WATER**
Analytical Method:	**8270**	**% Moisture:**	**100**
Sample Wt/Wol:	**960.0 mL**	**Extract Vol:**	**1000 uL**

File ID	Dilution	Date Extracted	Date Analyzed	Analytical Batch ID
BE021779.D	1	5/6/2005	5/8/2005	BE042605

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
193-39-5	Indeno(1,2,3-cd)pyrene	0.860	U	10	0.860	ug/L
53-70-3	Dibenz(a,h)anthracene	0.900	U	10	0.900	ug/L
191-24-2	Benzo(g,h,i)perylene	1.1	U	10	1.1	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	98.98	33 %	21 - 100		SPK: 30
13127-88-3	Phenol-d5	49.86	17 %	10 - 94		SPK: 30
4165-60-0	Nitrobenzene-d5	135.35	68 %	35 - 114		SPK: 20
321-60-8	2-Fluorobiphenyl	112.09	56 %	43 - 116		SPK: 20
118-79-6	2,4,6-Tribromophenol	200.31	67 %	10 - 123		SPK: 30
1718-51-0	Terphenyl-d14	166.44	83 %	33 - 141		SPK: 20
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	125576	4.07			
1146-65-2	Naphthalene-d8	490337	4.86			
15067-26-2	Acenaphthene-d10	297007	5.99			
1517-22-2	Phenanthrene-d10	474696	6.97			
1719-03-5	Chrysene-d12	383804	9.12			
1520-96-3	Perylene-d12	293194	11.44			
TENTITIVE IDENTIFIED COMPOUNDS						
	ACP	6.9	AB	3.10		ug/L

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech

Hit Summary Report

SDG No.: T2648 **Order ID:** T2648

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Test: SVOCMS Group1

ample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
lient ID:	FIELDBLANK							
2648-07	FIELDBLANK	WATER	ACP	* 6.9	AB	0	0	ug/L
		Total SVOC's:		0.00				
		Total TIC's:		6.90				
		Total SVOC's and TIC's:		6.90				
lient ID:	GW-DUP1							
2648-06	GW-DUP1	WATER	ACP	* 6.8	AB	0	0	ug/L
		Total SVOC's:		0.00				
		Total TIC's:		6.80				
		Total SVOC's and TIC's:		6.80				
lient ID:	MW-1							
2648-01	MW-1	WATER	ACP	* 7.4	AB	0	0	ug/L
		Total SVOC's:		0.00				
		Total TIC's:		7.40				
		Total SVOC's and TIC's:		7.40				
lient ID:	MW-2							
2648-04	MW-2	WATER	ACP	* 7.2	AB	0	0	ug/L
		Total SVOC's:		0.00				
		Total TIC's:		7.20				
		Total SVOC's and TIC's:		7.20				
lient ID:	MW-3							
2648-05	MW-3	WATER	ACP	* 5.0	AB	0	0	ug/L
		Total SVOC's:		0.00				
		Total TIC's:		5.00				
		Total SVOC's and TIC's:		5.00				

te: The asterisk "*" flag next to a parameter signifies a TIC parameter.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01474.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.53	0.150	ug/L
11104-28-2	AROCLOR 1221	0.180	U	0.53	0.180	ug/L
11141-16-5	AROCLOR 1232	0.120	U	0.53	0.120	ug/L
53469-21-9	AROCLOR 1242	0.090	U	0.53	0.090	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.53	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.53	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.53	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	11.65	58 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	7.67	38 %	42 - 133		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	960 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01475.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.52	0.150	ug/L
11104-28-2	AROCLOR 1221	0.180	U	0.52	0.180	ug/L
11141-16-5	AROCLOR 1232	0.110	U	0.52	0.110	ug/L
53469-21-9	AROCLOR 1242	0.090	U	0.52	0.090	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.52	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.52	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.52	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	12.04	60 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	8.04	40 %	42 - 133		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	500 mL	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01476.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.50	0.150	ug/L
11104-28-2	AROCLOR 1221	0.170	U	0.50	0.170	ug/L
11141-16-5	AROCLOR 1232	0.110	U	0.50	0.110	ug/L
53469-21-9	AROCLOR 1242	0.080	U	0.50	0.080	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.50	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.50	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.50	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	12.83	64 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	11.77	59 %	42 - 133		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01477.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.53	0.150	ug/L
11104-28-2	AROCLOR 1221	0.180	U	0.53	0.180	ug/L
11141-16-5	AROCLOR 1232	0.120	U	0.53	0.120	ug/L
53469-21-9	AROCLOR 1242	0.090	U	0.53	0.090	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.53	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.53	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.53	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	12.81	64 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	8.89	44 %	42 - 133		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8082	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
8PC01478.D	1	5/6/2005	5/13/2005	8PC042905

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
12674-11-2	AROCLOR 1016	0.150	U	0.53	0.150	ug/L
11104-28-2	AROCLOR 1221	0.180	U	0.53	0.180	ug/L
11141-16-5	AROCLOR 1232	0.120	U	0.53	0.120	ug/L
53469-21-9	AROCLOR 1242	0.090	U	0.53	0.090	ug/L
12672-29-6	AROCLOR 1248	0.040	U	0.53	0.040	ug/L
11097-69-1	AROCLOR 1254	0.040	U	0.53	0.040	ug/L
11096-82-5	AROCLOR 1260	0.1600	U	0.53	0.1600	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	13.1	66 %	40 - 135		SPK: 20
2051-24-3	Decachlorobiphenyl	7.5	38 %	42 - 133		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8382.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.007	U	0.053	0.007	ug/L
319-85-7	beta-BHC	0.007	U	0.053	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.053	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.053	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.053	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.053	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.053	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.053	0.008	ug/L
60-57-1	Dieldrin	0.008	U	0.053	0.008	ug/L
72-55-9	4,4'-DDE	0.008	U	0.053	0.008	ug/L
72-20-8	Endrin	0.007	U	0.053	0.007	ug/L
33213-65-9	Endosulfan II	0.008	U	0.053	0.008	ug/L
72-54-8	4,4'-DDD	0.007	U	0.053	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.053	0.009	ug/L
50-29-3	4,4'-DDT	0.007	U	0.053	0.007	ug/L
72-43-5	Methoxychlor	0.008	U	0.053	0.008	ug/L
53494-70-5	Endrin ketone	0.008	U	0.053	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.053	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.053	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.053	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.53	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.06	35 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	11.74	59 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	950 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8383.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.007	U	0.053	0.007	ug/L
319-85-7	beta-BHC	0.007	U	0.053	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.053	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.053	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.053	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.053	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.053	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.053	0.008	ug/L
60-57-1	Dieldrin	0.008	U	0.053	0.008	ug/L
72-55-9	4,4'-DDE	0.008	U	0.053	0.008	ug/L
72-20-8	Endrin	0.007	U	0.053	0.007	ug/L
33213-65-9	Endosulfan II	0.008	U	0.053	0.008	ug/L
72-54-8	4,4'-DDD	0.007	U	0.053	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.053	0.009	ug/L
50-29-3	4,4'-DDT	0.007	U	0.053	0.007	ug/L
72-43-5	Methoxychlor	0.008	U	0.053	0.008	ug/L
53494-70-5	Endrin ketone	0.008	U	0.053	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.053	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.053	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.053	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.53	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	6.93	35 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	10.97	55 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	500 mL	**Extract Vol:**	5000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8384.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.006	U	0.050	0.006	ug/L
319-85-7	beta-BHC	0.007	U	0.050	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.050	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.050	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.050	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.050	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.050	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.050	0.008	ug/L
60-57-1	Dieldrin	0.007	U	0.050	0.007	ug/L
72-55-9	4,4'-DDE	0.007	U	0.050	0.007	ug/L
72-20-8	Endrin	0.007	U	0.050	0.007	ug/L
33213-65-9	Endosulfan II	0.007	U	0.050	0.007	ug/L
72-54-8	4,4'-DDD	0.007	U	0.050	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.050	0.009	ug/L
50-29-3	4,4'-DDT	0.006	U	0.050	0.006	ug/L
72-43-5	Methoxychlor	0.007	U	0.050	0.007	ug/L
53494-70-5	Endrin ketone	0.008	U	0.050	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.050	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.050	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.050	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.50	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	9.99	50 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	12.02	60 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	960 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8385.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.007	U	0.052	0.007	ug/L
319-85-7	beta-BHC	0.007	U	0.052	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.052	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.052	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.052	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.052	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.052	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.052	0.008	ug/L
60-57-1	Dieldrin	0.008	U	0.052	0.008	ug/L
72-55-9	4,4'-DDE	0.007	U	0.052	0.007	ug/L
72-20-8	Endrin	0.007	U	0.052	0.007	ug/L
33213-65-9	Endosulfan II	0.008	U	0.052	0.008	ug/L
72-54-8	4,4'-DDD	0.007	U	0.052	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.052	0.009	ug/L
50-29-3	4,4'-DDT	0.007	U	0.052	0.007	ug/L
72-43-5	Methoxychlor	0.007	U	0.052	0.007	ug/L
53494-70-5	Endrin ketone	0.008	U	0.052	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.052	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.052	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.052	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.52	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	7.33	37 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	12.38	62 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lackawanna, NY	**Date Received:**	5/3/2005
Client Sample ID:	FIELDBLANK	**SDG No.:**	T2648
Lab Sample ID:	T2648-07	**Matrix:**	WATER
Analytical Method:	8081	**% Moisture:**	100
Sample Wt/Vol:	960 mL	**Extract Vol:**	10000 uL

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
5PS8386.D	1	5/6/2005	5/12/2005	5PS051005

CAS Number	Parameter	Conc	Qualifier	RL	MDL	Units
TARGETS						
319-84-6	alpha-BHC	0.007	U	0.052	0.007	ug/L
319-85-7	beta-BHC	0.007	U	0.052	0.007	ug/L
319-86-8	delta-BHC	0.07	U	0.052	0.07	ug/L
58-89-9	gamma-BHC (Lindane)	0.007	U	0.052	0.007	ug/L
76-44-8	Heptachlor	0.02	U	0.052	0.02	ug/L
309-00-2	Aldrin	0.03	U	0.052	0.03	ug/L
1024-57-3	Heptachlor epoxide	0.01	U	0.052	0.01	ug/L
959-98-8	Endosulfan I	0.008	U	0.052	0.008	ug/L
60-57-1	Dieldrin	0.008	U	0.052	0.008	ug/L
72-55-9	4,4'-DDE	0.007	U	0.052	0.007	ug/L
72-20-8	Endrin	0.007	U	0.052	0.007	ug/L
33213-65-9	Endosulfan II	0.008	U	0.052	0.008	ug/L
72-54-8	4,4'-DDD	0.007	U	0.052	0.007	ug/L
1031-07-8	Endosulfan sulfate	0.009	U	0.052	0.009	ug/L
50-29-3	4,4'-DDT	0.007	U	0.052	0.007	ug/L
72-43-5	Methoxychlor	0.007	U	0.052	0.007	ug/L
53494-70-5	Endrin ketone	0.008	U	0.052	0.008	ug/L
7421-93-4	Endrin aldehyde	0.009	U	0.052	0.009	ug/L
5103-71-9	alpha-Chlordane	0.008	U	0.052	0.008	ug/L
5103-74-2	gamma-Chlordane	0.008	U	0.052	0.008	ug/L
8001-35-2	Toxaphene	0.09	U	0.52	0.09	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	5.15	26 %	40 - 135		SPK: 20
877-09-8	Tetrachloro-m-xylene	11.66	58 %	40 - 135		SPK: 20

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-1**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-01**	**Matrix:**	**WATER**
		% Solids:	**0.00**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	2180			ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-36-0	Antimony	3.170	U		ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-38-2	Arsenic	3.320	U		ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-39-3	Barium	49.7	J	N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.165	J		ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.327	U		ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-70-2	Calcium	258000			ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-47-3	Chromium	2.680	J	N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-48-4	Cobalt	4.140	J		ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-50-8	Copper	10.7	J		ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-89-6	Iron	4600		N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-92-1	Lead	2.180	U		ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-95-4	Magnesium	102000			ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-96-5	Manganese	750		N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-97-6	Mercury	0.0500	J		ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470
7440-02-0	Nickel	8.570	J		ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-09-7	Potassium	4770	J	N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010
7782-49-2	Selenium	3.040	U		ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-22-4	Silver	1.640	U		ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-23-5	Sodium	441000			ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-28-0	Thallium	3.050	U		ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-62-2	Vanadium	3.580	J		ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-66-6	Zinc	55.6			ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**5/3/2005**
Client Sample ID:	**MW-2**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-04**	**Matrix:**	**WATER**
		% Solids:	**0.00**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	259			ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-36-0	Antimony	3.170	U		ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-38-2	Arsenic	13.4			ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-39-3	Barium	119	J	N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.235	J		ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.327	U		ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-70-2	Calcium	73600			ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-47-3	Chromium	0.343	U	N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-48-4	Cobalt	0.910	J		ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-50-8	Copper	4.280	J		ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-89-6	Iron	880		N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-92-1	Lead	2.180	U		ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-95-4	Magnesium	39600			ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-96-5	Manganese	151		N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-97-6	Mercury	0.0300	U		ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470
7440-02-0	Nickel	2.740	J		ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-09-7	Potassium	2020	J	N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010
7782-49-2	Selenium	3.040	U		ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-22-4	Silver	1.640	U		ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-23-5	Sodium	39400			ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-28-0	Thallium	3.050	U		ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-62-2	Vanadium	0.701	U		ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-66-6	Zinc	23.3			ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:	Incinerator Site-Lacka	**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
		% Solids:	0.00

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	1170			ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-36-0	Antimony	3.170	U		ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-38-2	Arsenic	43.6			ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-39-3	Barium	230		N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.110	J		ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.327	U		ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-70-2	Calcium	67300			ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-47-3	Chromium	0.735	J	N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-48-4	Cobalt	0.875	J		ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-50-8	Copper	5.400	J		ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-89-6	Iron	3510		N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-92-1	Lead	2.180	U		ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-95-4	Magnesium	43900			ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-96-5	Manganese	149		N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-97-6	Mercury	0.0500	J		ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470
7440-02-0	Nickel	2.370	J		ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-09-7	Potassium	2070	J	N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010
7782-49-2	Selenium	3.040	U		ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-22-4	Silver	1.640	U		ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-23-5	Sodium	41300			ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-28-0	Thallium	3.050	U		ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-62-2	Vanadium	1.250	J		ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-66-6	Zinc	29.0			ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**5/3/2005**
Client Sample ID:	**GW-DUP1**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-06**	**Matrix:**	**WATER**
		% Solids:	**0.00**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	311			ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-36-0	Antimony	3.170	U		ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-38-2	Arsenic	17.3			ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-39-3	Barium	119	J	N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.125	J		ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.327	U		ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-70-2	Calcium	72900			ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-47-3	Chromium	0.580	J	N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-48-4	Cobalt	2.700	J		ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-50-8	Copper	5.650	J		ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-89-6	Iron	719		N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-92-1	Lead	2.180	U		ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-95-4	Magnesium	39200			ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-96-5	Manganese	150		N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-97-6	Mercury	0.0300	U		ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470
7440-02-0	Nickel	1.740	J		ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-09-7	Potassium	2110	J	N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010
7782-49-2	Selenium	3.040	U		ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-22-4	Silver	1.640	U		ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-23-5	Sodium	39800			ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-28-0	Thallium	3.610	J		ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-62-2	Vanadium	1.820	J		ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-66-6	Zinc	28.9			ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:	**Incinerator Site-Lacka**	**Date Received:**	**5/3/2005**
Client Sample ID:	**FIELDBLANK**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-07**	**Matrix:**	**WATER**
		% Solids:	**0.00**

CAS No.	Analyte	Conc.	Qualifier		Units	DL	Dilution	Date Prep	Date Anal.	Method
7429-90-5	Aluminum	6.640	J		ug/L	5.310	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-36-0	Antimony	3.170	U		ug/L	3.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-38-2	Arsenic	3.320	U		ug/L	3.320	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-39-3	Barium	0.723	U	N	ug/L	0.723	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-41-7	Beryllium	0.090	U		ug/L	0.090	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-43-9	Cadmium	0.327	U		ug/L	0.327	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-70-2	Calcium	1.170	U		ug/L	1.170	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-47-3	Chromium	0.343	U	N	ug/L	0.343	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-48-4	Cobalt	0.880	J		ug/L	0.370	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-50-8	Copper	3.640	U		ug/L	3.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-89-6	Iron	27.0	U	N	ug/L	27.0	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-92-1	Lead	2.180	U		ug/L	2.180	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-95-4	Magnesium	8.300	U		ug/L	8.300	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-96-5	Manganese	0.106	U	N	ug/L	0.106	1	5/5/2005	5/10/2005	EPA SW-846 6010
7439-97-6	Mercury	0.0300	U		ug/L	0.030	1	5/6/2005	5/9/2005	EPA SW-846 7470
7440-02-0	Nickel	1.560	U		ug/L	1.560	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-09-7	Potassium	61.8	U	N	ug/L	61.8	1	5/5/2005	5/10/2005	EPA SW-846 6010
7782-49-2	Selenium	3.040	U		ug/L	3.040	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-22-4	Silver	1.640	U		ug/L	1.640	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-23-5	Sodium	332	U		ug/L	332	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-28-0	Thallium	3.050	U		ug/L	3.050	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-62-2	Vanadium	0.701	U		ug/L	0.701	1	5/5/2005	5/10/2005	EPA SW-846 6010
7440-66-6	Zinc	0.611	U		ug/L	0.611	1	5/5/2005	5/10/2005	EPA SW-846 6010

Comments:

U = Not Detected
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value
B = Analyte Found In Associated Method Blank
N = Presumptive Evidence of a Compound

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2648 **Order ID:** T2648

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**FIELDBLANK**							
T2648-07	FIELDBLANK	WATER	Aluminum	6.640	J	200	5.310	ug/L
T2648-07	FIELDBLANK	WATER	Cobalt	0.880	J	50.0	0.370	ug/L
Client ID:	**GW-DUP1**							
T2648-06	GW-DUP1	WATER	Aluminum	311		200	5.310	ug/L
T2648-06	GW-DUP1	WATER	Arsenic	17.3		10.0	3.320	ug/L
T2648-06	GW-DUP1	WATER	Barium	119	J	200	0.723	ug/L
T2648-06	GW-DUP1	WATER	Beryllium	0.125	J	5.000	0.090	ug/L
T2648-06	GW-DUP1	WATER	Calcium	72900		5000	1.170	ug/L
T2648-06	GW-DUP1	WATER	Chromium	0.580	J	10.0	0.343	ug/L
T2648-06	GW-DUP1	WATER	Cobalt	2.700	J	50.0	0.370	ug/L
T2648-06	GW-DUP1	WATER	Copper	5.650	J	25.0	3.640	ug/L
T2648-06	GW-DUP1	WATER	Iron	719		100	27.0	ug/L
T2648-06	GW-DUP1	WATER	Magnesium	39200		5000	8.300	ug/L
T2648-06	GW-DUP1	WATER	Manganese	150		15.0	0.106	ug/L
T2648-06	GW-DUP1	WATER	Nickel	1.740	J	40.0	1.560	ug/L
T2648-06	GW-DUP1	WATER	Potassium	2110	J	5000	61.8	ug/L
T2648-06	GW-DUP1	WATER	Sodium	39800		5000	332	ug/L
T2648-06	GW-DUP1	WATER	Thallium	3.610	J	10.0	3.050	ug/L
T2648-06	GW-DUP1	WATER	Vanadium	1.820	J	50.0	0.701	ug/L
T2648-06	GW-DUP1	WATER	Zinc	28.9		20.0	0.611	ug/L
Client ID:	**MW-1**							
T2648-01	MW-1	WATER	Aluminum	2180		200	5.310	ug/L
T2648-01	MW-1	WATER	Barium	49.7	J	200	0.723	ug/L
T2648-01	MW-1	WATER	Beryllium	0.165	J	5.000	0.090	ug/L
T2648-01	MW-1	WATER	Calcium	258000		5000	1.170	ug/L
T2648-01	MW-1	WATER	Chromium	2.680	J	10.0	0.343	ug/L
T2648-01	MW-1	WATER	Cobalt	4.140	J	50.0	0.370	ug/L
T2648-01	MW-1	WATER	Copper	10.7	J	25.0	3.640	ug/L
T2648-01	MW-1	WATER	Iron	4600		100	27.0	ug/L
T2648-01	MW-1	WATER	Magnesium	102000		5000	8.300	ug/L
T2648-01	MW-1	WATER	Manganese	750		15.0	0.106	ug/L
T2648-01	MW-1	WATER	Mercury	0.0500	J	0.2000	0.030	ug/L
T2648-01	MW-1	WATER	Nickel	8.570	J	40.0	1.560	ug/L
T2648-01	MW-1	WATER	Potassium	4770	J	5000	61.8	ug/L
T2648-01	MW-1	WATER	Sodium	441000		5000	332	ug/L
T2648-01	MW-1	WATER	Vanadium	3.580	J	50.0	0.701	ug/L
T2648-01	MW-1	WATER	Zinc	55.6		20.0	0.611	ug/L

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: T2648 **Order ID:** T2648

Client: Malcolm Pirnie **Project ID:** Incinerator Site-Lackawanna, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	**MW-2**							
T2648-04	MW-2	WATER	Aluminum	259		200	5.310	ug/L
T2648-04	MW-2	WATER	Arsenic	13.4		10.0	3.320	ug/L
T2648-04	MW-2	WATER	Barium	119	J	200	0.723	ug/L
T2648-04	MW-2	WATER	Beryllium	0.235	J	5.000	0.090	ug/L
T2648-04	MW-2	WATER	Calcium	73600		5000	1.170	ug/L
T2648-04	MW-2	WATER	Cobalt	0.910	J	50.0	0.370	ug/L
T2648-04	MW-2	WATER	Copper	4.280	J	25.0	3.640	ug/L
T2648-04	MW-2	WATER	Iron	880		100	27.0	ug/L
T2648-04	MW-2	WATER	Magnesium	39600		5000	8.300	ug/L
T2648-04	MW-2	WATER	Manganese	151		15.0	0.106	ug/L
T2648-04	MW-2	WATER	Nickel	2.740	J	40.0	1.560	ug/L
T2648-04	MW-2	WATER	Potassium	2020	J	5000	61.8	ug/L
T2648-04	MW-2	WATER	Sodium	39400		5000	332	ug/L
T2648-04	MW-2	WATER	Zinc	23.3		20.0	0.611	ug/L
Client ID:	**MW-3**							
T2648-05	MW-3	WATER	Aluminum	1170		200	5.310	ug/L
T2648-05	MW-3	WATER	Arsenic	43.6		10.0	3.320	ug/L
T2648-05	MW-3	WATER	Barium	230		200	0.723	ug/L
T2648-05	MW-3	WATER	Beryllium	0.110	J	5.000	0.090	ug/L
T2648-05	MW-3	WATER	Calcium	67300		5000	1.170	ug/L
T2648-05	MW-3	WATER	Chromium	0.735	J	10.0	0.343	ug/L
T2648-05	MW-3	WATER	Cobalt	0.875	J	50.0	0.370	ug/L
T2648-05	MW-3	WATER	Copper	5.400	J	25.0	3.640	ug/L
T2648-05	MW-3	WATER	Iron	3510		100	27.0	ug/L
T2648-05	MW-3	WATER	Magnesium	43900		5000	8.300	ug/L
T2648-05	MW-3	WATER	Manganese	149		15.0	0.106	ug/L
T2648-05	MW-3	WATER	Mercury	0.0500	J	0.2000	0.030	ug/L
T2648-05	MW-3	WATER	Nickel	2.370	J	40.0	1.560	ug/L
T2648-05	MW-3	WATER	Potassium	2070	J	5000	61.8	ug/L
T2648-05	MW-3	WATER	Sodium	41300		5000	332	ug/L
T2648-05	MW-3	WATER	Vanadium	1.250	J	50.0	0.701	ug/L
T2648-05	MW-3	WATER	Zinc	29.0		20.0	0.611	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	MW-1	**SDG No.:**	T2648
Lab Sample ID:	T2648-01	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	MW-2	**SDG No.:**	T2648
Lab Sample ID:	T2648-04	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	MW-3	**SDG No.:**	T2648
Lab Sample ID:	T2648-05	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	Malcolm Pirnie	**Date Collected:**	4/29/2005
Project:		**Date Received:**	5/3/2005
Client Sample ID:	GW-DUP1	**SDG No.:**	T2648
Lab Sample ID:	T2648-06	**Matrix:**	WATER
% Solids:	0.00		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	**Malcolm Pirnie**	**Date Collected:**	**4/29/2005**
Project:		**Date Received:**	**5/3/2005**
Client Sample ID:	**FIELDBLANK**	**SDG No.:**	**T2648**
Lab Sample ID:	**T2648-07**	**Matrix:**	**WATER**
% Solids:	**0.00**		

Analyte	Result	Qualifier	RL	Units	DF	Date Analyzed	Method
Cyanide	0.010	U	0.010	mg/L	1	5/6/2005	9012 Cyanide

Comment

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DETERMINATION OF PCDD/PCDF LEVELS

Prepared for:
Chemtech
Attn: Kurt Hummler
284 Sheffield Street
Mountainside, NJ 07092

This report contains 8 pages.

The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Project: Chemical Analysis

Client Project Number: T2287

REPORT OF LABORATORY ANALYSIS

ACCREDITED IN ACCORDANCE WITH nelac

Pace Analytical®
www.pacelabs.com

REPORT OF: CHEMICAL ANALYSES

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

PROJECT: **PCDD/PCDF ANALYSES**

DATE: May 12, 2005

ISSUED TO: Chemtech
Attn: Kurt Hummler
284 Sheffield Street
Mountainside, NJ 07092

REPORT NO: 05-1011476

INTRODUCTION

This report presents the results from the analyses performed on four samples submitted by a representative of Chemtech. The samples were analyzed for the presence or absence of polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) using USEPA Method 8280.

SAMPLE IDENTIFICATION

Client ID	Sample Type	Date Received	Pace ID
IS-ASH1	Solid	04/13/05	1011476001
IS-ASH2	Solid	04/13/05	1011476002
IS-ASH3	Solid	04/13/05	1011476003
IS-ASHDUP	Solid	04/13/05	1011476004

DISCUSSION

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 20-95% and indicate a level of efficiency through the extraction and enrichment steps that is considered typical for this matrix. With the exception of the OCDD congener in sample IS-ASH1, which was flagged with a "P" on the sample data sheet, the labeled standard recoveries were within the Method 8280 target ranges. Also, since the internal standards were added prior to extraction, the data were automatically corrected for variation in recovery and accurate values were obtained.

It should be noted that samples IS-ASH1 and IS-ASHDUP were initially extracted at 10 grams, however due to matrix interferences in the sample extracts, they were re-extracted utilizing a 1 gram aliquot. The reporting limits for those two samples are slightly elevated due to the reduced sample volume.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of PCDDs and PCDFs at the reporting limits. This indicates that the sample preparation procedures did not significantly impact the results of the field sample determinations.

REPORT OF LABORATORY ANALYSIS

ACCREDITED IN ACCORDANCE WITH nelac

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

REPORT OF: CHEMICAL ANALYSES

PROJECT: PCDD/PCDF ANALYSES

DATE: May 12, 2005

REPORT NO: 05-1011476

DISCUSSION (Cont.)

Laboratory and matrix spike samples were prepared with the sample batch by extracting clean sand or sample material that had been fortified with native standards. The recoveries of the native compounds in the spiked samples ranged from 65-132% with relative percent differences of 0.7-18.8%. These results indicate high degrees of accuracy and precision for these determinations.

REMARKS

The sample extracts will be retained for a period of 15 days from the date of this report and then discarded unless other arrangements are made. The raw mass spectral data will be archived for a period of not less than one year. Questions regarding the data contained in this report may be directed to the author at the number provided below.

Pace Analytical Services, Inc.

Holly R. Peepers

Holly R. Peepers
Project Manager, Dioxins
(612) 607-6407

REPORT OF LABORATORY ANALYSIS

ACCREDITED IN ACCORDANCE WITH nelac

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

TABLE 1. 2,3,7,8-TCDD Equivalency Factors (TEFs) for the Polychlorinated Dibenzo-p-dioxins and Dibenzofurans

Number	Compound(s)	TEF
1	2,3,7,8-TCDD	1.00
2	1,2,3,7,8-PeCDD	0.50
3	1,2,3,6,7,8-HxCDD	0.1
4	1,2,3,7,8,9-HxCDD	0.1
5	1,2,3,4,7,8-HxCDD	0.1
6	1,2,3,4,6,7,8-HpCDD	0.01
7	OCDD	0.001
8	* Total - TCDD	0.0
9	* Total - PeCDD	0.0
10	* Total - HxCDD	0.0
11	* Total - HpCDD	0.0
12	2,3,7,8-TCDF	0.10
13	1,2,3,7,8-PeCDF	0.05
14	2,3,4,7,8-PeCDF	0.5
15	1,2,3,6,7,8-HxCDF	0.1
16	1,2,3,7,8,9-HxCDF	0.1
17	1,2,3,4,7,8-HxCDF	0.1
18	2,3,4,6,7,8-HxCDF	0.1
19	1,2,3,4,6,7,8-HpCDF	0.01
20	1,2,3,4,7,8,9-HpCDF	0.01
21	OCDF	0.001
22	* Total - TCDF	0.0
23	* Total - PeCDF	0.0
24	* Total - HxCDF	0.0
25	* Total - HpCDF	0.0

*Excluding the 2,3,7,8-substituted congeners.

Reference: 1989 ITEFs

REPORT OF LABORATORY ANALYSIS

1011476

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.

COC Number 051555

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Chemtech
ADDRESS: 284 Sheffield St.
CITY: Mountainside STATE: NJ ZIP: 07092
ATTENTION: Kurt Hummler
PHONE: 908-789-8515 FAX: 908-789-8514

CLIENT PROJECT INFORMATION

PROJECT NAME: T2287
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: 15 Bus. Days DAYS *
HARD COPY: 15 Bus. Days DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ EDD FORMAT
- ☐ USEPA CLP
- ☐ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other Level II

ANALYSIS

1. 8280 PCDD/PCDF Dioxin/LED
2.
3.
4.
5.
6.
7.
8.
9.

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1 (E)	2	3	4	5	6	7	8	9	COMMENTS
1.	IS-ASH1	ASH			4/7/5	14:30	1	X									001
2.	IS-ASHIMS	↓			↓	14:30	1	X									001
3.	IS-ASHIMSD	↓			↓	14:30	1	X									001
4.	IS-ASH2	↓			↓	14:45	1	X									002
5.	IS-ASH3	↓			↓	14:40	1	X									003
6.	IS-ASHDUP	↓			↓	—	1	X									004
7.																	
8.																	
9.																	
10.																	

PRESERVATIVES — Specify Preservatives: A-HCl B-HNO_3 C-H_2SO_4 D-NaOH E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY	DATE/TIME	RECEIVED BY
RELINQUISHED BY SAMPLER: 1.		1.
RELINQUISHED BY: 2. Kurt Hummler	4/12/05 10:45	RECEIVED BY: 2.
RELINQUISHED BY: 3.	4/13/05 09:50	RECEIVED FOR LAB BY: [signature]

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant Cooler Temp. 3.5°C
MeOH extraction requires an additional 4 oz jar for percent solid. Ice in Cooler?: Yes
Comments:

Page ____ of ____

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

Revision 4/2005

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8280 Blank Analysis Results

Client - Chemtech

Lab Sample ID	METHOD BLANK 050505	Matrix	Solid
Filename	T1482_19-13008	Dilution	NA
Total Amount Extracted	10.0 g	Extracted	05/05/2005
ICAL Date	03/10/2005	Analyzed	05/10/2005 15:30
CCal Filename(s)	T1482_19-13004 & T1482_19-13011	Injected By	ACH

Native Isomers	Conc ug/Kg	EMPC ug/Kg	PRL ug/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	1.0	2,3,7,8-TCDF-13C	50.00	81
Total TCDF	ND	-----	1.0	2,3,7,8-TCDD-13C	50.00	83
				1,2,3,6,7,8-HxCDD-13C	50.00	87
2,3,7,8-TCDD	ND	-----	1.0	1,2,3,4,6,7,8-HpCDF-13C	100.00	88
Total TCDD	ND	-----	1.0	OCDD-13C	100.00	89
1,2,3,7,8-PeCDF	ND	-----	2.5	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF	ND	-----	2.5	1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF	ND	-----	2.5			
				2,3,7,8-TCDD-37Cl4	25.00	81
1,2,3,7,8-PeCDD	ND	-----	2.5			
Total PeCDD	ND	-----	2.5			
1,2,3,4,7,8-HxCDF	ND	-----	2.5			
1,2,3,6,7,8-HxCDF	ND	-----	2.5			
2,3,4,6,7,8-HxCDF	ND	-----	2.5			
1,2,3,7,8,9-HxCDF	ND	-----	2.5			
Total HxCDF	ND	-----	2.5			
1,2,3,4,7,8-HxCDD	ND	-----	2.5			
1,2,3,6,7,8-HxCDD	ND	-----	2.5			
1,2,3,7,8,9-HxCDD	ND	-----	2.5			
Total HxCDD	ND	-----	2.5			
1,2,3,4,6,7,8-HpCDF	ND	-----	2.5	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	2.5	Equivalence: 0.00 ug/Kg		
Total HpCDF	ND	-----	2.5	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	2.5			
Total HpCDD	ND	-----	2.5			
OCDF	ND	-----	5.0			
OCDD	ND	-----	5.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
PRL = Pace Reporting Limit
LOD = Limit of Detection
P = Recovery outside of target range

E = PCDE Interference
I = Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8280 Analysis Results

Client - Chemtech

Client's Sample ID	IS-ASH1		
Lab Sample ID	1011476001		
Filename	T1482_19-13009		
Injected By	ACH	Matrix	SOLID
Total Amount Extracted	1.00 g	Dilution	NA
% Moisture	22.9	Collected	04/07/2005
ICAL Date	03/10/2005	Received	04/13/2005
CCal Filename(s)	T1482_19-13004 & T1482_19-13011	Extracted	05/05/2005
Method Blank ID	MB 050505	Analyzed	05/10/2005 16:11

Native Isomers	Conc ug/Kg	EMPC ug/Kg	PRL ug/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	10	2,3,7,8-TCDF-13C	50.00	95
Total TCDF	ND	-----	10	2,3,7,8-TCDD-13C	50.00	94
				1,2,3,6,7,8-HxCDD-13C	50.00	88
2,3,7,8-TCDD	ND	-----	10	1,2,3,4,6,7,8-HpCDF-13C	100.00	78
Total TCDD	ND	-----	10	OCDD-13C	100.00	20 P
1,2,3,7,8-PeCDF	ND	-----	25	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF	ND	-----	25	1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF	ND	-----	25			
				2,3,7,8-TCDD-37Cl4	25.00	93
1,2,3,7,8-PeCDD	ND	-----	25			
Total PeCDD	ND	-----	25			
1,2,3,4,7,8-HxCDF	ND	-----	25			
1,2,3,6,7,8-HxCDF	ND	-----	25			
2,3,4,6,7,8-HxCDF	ND	-----	25			
1,2,3,7,8,9-HxCDF	ND	-----	25			
Total HxCDF	ND	-----	25			
1,2,3,4,7,8-HxCDD	ND	-----	25			
1,2,3,6,7,8-HxCDD	ND	-----	25			
1,2,3,7,8,9-HxCDD	ND	-----	25			
Total HxCDD	ND	-----	25			
1,2,3,4,6,7,8-HpCDF	ND	-----	25	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	25	Equivalence: 0.00 ug/Kg		
Total HpCDF	ND	-----	25	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	25			
Total HpCDD	ND	-----	25			
OCDF	ND	-----	50			
OCDD	ND	-----	50			

Results reported on a total weight basis

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
A =PRL based on signal to noise
J = Concentration detected is below the calibration range
* = See discussion

PRL = Pace Reporting Limit
LOD = Limit of Detection
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, In
1700 Elm Street - Suite 20
Minneapolis, MN 5541

Tel: 612-607-170
Fax: 612- 607-644

Method 8280 Analysis Results

Client - Chemtech

Client's Sample ID	IS-ASH2		
Lab Sample ID	1011476002		
Filename	T1477_19-11809		
Injected By	ACH	Matrix	SOLID
Total Amount Extracted	10.0 g	Dilution	NA
% Moisture	25.7	Collected	04/07/2005
ICAL Date	03/10/2005	Received	04/13/2005
CCal Filename(s)	T1482_19-13004 & T1482_19-13011	Extracted	04/26/2005
Method Blank ID	METHOD BLANK 050505	Analyzed	04/29/2005 00:10

Native Isomers	Conc ug/Kg	EMPC ug/Kg	PRL ug/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	50.00	49
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	50.00	46
				1,2,3,6,7,8-HxCDD-13C	50.00	48
2,3,7,8-TCDD	ND	----	1.0	1,2,3,4,6,7,8-HpCDF-13C	100.00	44
Total TCDD	ND	----	1.0	OCDD-13C	100.00	37
1,2,3,7,8-PeCDF	ND	----	2.5	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF	ND	----	2.5	1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF	ND	----	2.5			
				2,3,7,8-TCDD-37Cl4	25.00	45
1,2,3,7,8-PeCDD	ND	----	2.5			
Total PeCDD	ND	----	2.5			
1,2,3,4,7,8-HxCDF	ND	----	2.5			
1,2,3,6,7,8-HxCDF	ND	----	2.5			
2,3,4,6,7,8-HxCDF	ND	----	2.5			
1,2,3,7,8,9-HxCDF	ND	----	2.5			
Total HxCDF	ND	----	2.5			
1,2,3,4,7,8-HxCDD	ND	----	2.5			
1,2,3,6,7,8-HxCDD	ND	----	2.5			
1,2,3,7,8,9-HxCDD	ND	----	2.5			
Total HxCDD	ND	----	2.5			
1,2,3,4,6,7,8-HpCDF	ND	----	2.5	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	2.5	Equivalence: 0.00 ug/Kg		
Total HpCDF	ND	----	2.5	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	2.5			
Total HpCDD	ND	----	2.5			
OCDF	ND	----	5.0			
OCDD	ND	----	5.0			

Results reported on a total weight basis

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
A =PRL based on signal to noise
J = Concentration detected is below the calibration range
* = See discussion

PRL = Pace Reporting Limit
LOD = Limit of Detection
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8280 Blank Analysis Results

Client - Chemtech

Lab Sample ID	METHOD BLANK 042605	Matrix	Solid
Filename	T1477_19-11806	Dilution	NA
Total Amount Extracted	10.0 g	Extracted	04/26/2005
ICAL Date	03/10/2005	Analyzed	04/28/2005 22:08
CCal Filename(s)	T1477_19-11802 & T1477_19-11816	Injected By	ACH

Native Isomers	Conc ug/Kg	EMPC ug/Kg	PRL ug/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	1.0	2,3,7,8-TCDF-13C	50.00	83
Total TCDF	ND	-----	1.0	2,3,7,8-TCDD-13C	50.00	88
				1,2,3,6,7,8-HxCDD-13C	50.00	80
2,3,7,8-TCDD	ND	-----	1.0	1,2,3,4,6,7,8-HpCDF-13C	100.00	80
Total TCDD	ND	-----	1.0	OCDD-13C	100.00	87
1,2,3,7,8-PeCDF	ND	-----	1.0	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF	ND	-----	1.0	1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF	ND	-----	1.0			
				2,3,7,8-TCDD-37Cl4	25.00	90
1,2,3,7,8-PeCDD	ND	-----	1.0			
Total PeCDD	ND	-----	1.0			
1,2,3,4,7,8-HxCDF	ND	-----	1.0			
1,2,3,6,7,8-HxCDF	ND	-----	1.0			
2,3,4,6,7,8-HxCDF	ND	-----	1.0			
1,2,3,7,8,9-HxCDF	ND	-----	1.0			
Total HxCDF	ND	-----	1.0			
1,2,3,4,7,8-HxCDD	ND	-----	1.0			
1,2,3,6,7,8-HxCDD	ND	-----	1.0			
1,2,3,7,8,9-HxCDD	ND	-----	1.0			
Total HxCDD	ND	-----	1.0			
1,2,3,4,6,7,8-HpCDF	ND	-----	1.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	1.0	Equivalence: 0.00 ug/Kg		
Total HpCDF	ND	-----	1.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	1.0			
Total HpCDD	ND	-----	1.0			
OCDF	ND	-----	1.0			
OCDD	ND	-----	1.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
PRL = Pace Reporting Limit
LOD = Limit of Detection
P = Recovery outside of target range

E = PCDE Interference
I = Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, In
1700 Elm Street - Suite 20
Minneapolis, MN 5541

Tel: 612-607-170
Fax: 612- 607-644

Method 8280 Analysis Results

Client - Chemtech

Client's Sample ID	IS-ASH3		
Lab Sample ID	1011476003		
Filename	T1477_19-11810		
Injected By	ACH	Matrix	SOLID
Total Amount Extracted	10.0 g	Dilution	NA
% Moisture	25.0	Collected	04/07/2005
ICAL Date	03/10/2005	Received	04/13/2005
CCal Filename(s)	T1482_19-13004 & T1482_19-13011	Extracted	04/26/2005
Method Blank ID	METHOD BLANK 050505	Analyzed	04/29/2005 00:51

Native Isomers	Conc ug/Kg	EMPC ug/Kg	PRL ug/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	——	1.0	2,3,7,8-TCDF-13C	50.00	74
Total TCDF	ND	——	1.0	2,3,7,8-TCDD-13C	50.00	70
				1,2,3,6,7,8-HxCDD-13C	50.00	79
2,3,7,8-TCDD	ND	——	1.0	1,2,3,4,6,7,8-HpCDF-13C	100.00	63
Total TCDD	ND	——	1.0	OCDD-13C	100.00	41
1,2,3,7,8-PeCDF	ND	——	2.5	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF	ND	——	2.5	1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF	ND	——	2.5			
				2,3,7,8-TCDD-37Cl4	25.00	66
1,2,3,7,8-PeCDD	ND	——	2.5			
Total PeCDD	ND	——	2.5			
1,2,3,4,7,8-HxCDF	ND	——	2.5			
1,2,3,6,7,8-HxCDF	ND	——	2.5			
2,3,4,6,7,8-HxCDF	ND	——	2.5			
1,2,3,7,8,9-HxCDF	ND	——	2.5			
Total HxCDF	ND	——	2.5			
1,2,3,4,7,8-HxCDD	ND	——	2.5			
1,2,3,6,7,8-HxCDD	ND	——	2.5			
1,2,3,7,8,9-HxCDD	ND	——	2.5			
Total HxCDD	ND	——	2.5			
1,2,3,4,6,7,8-HpCDF	ND	——	2.5	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	——	2.5	Equivalence: 0.00 ug/Kg		
Total HpCDF	ND	——	2.5	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	——	2.5			
Total HpCDD	ND	——	2.5			
OCDF	ND	——	5.0			
OCDD	ND	——	5.0			

Results reported on a total weight basis

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
A =PRL based on signal to noise
J = Concentration detected is below the calibration range
* = See discussion

PRL = Pace Reporting Limit
LOD = Limit of Detection
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, In
1700 Elm Street - Suite 20
Minneapolis, MN 5541

Tel: 612-607-170
Fax: 612- 607-644

Method 8280 Analysis Results

Client - Chemtech

Client's Sample ID	IS-ASHDUP		
Lab Sample ID	1011476004		
Filename	T1482_19-13010		
Injected By	ACH	Matrix	SOLID
Total Amount Extracted	1.00 g	Dilution	NA
% Moisture	31.3	Collected	04/07/2005
ICAL Date	03/10/2005	Received	04/13/2005
CCal Filename(s)	T1482_19-13004 & T1482_19-13011	Extracted	05/05/2005
Method Blank ID	METHOD BLANK 050505	Analyzed	05/10/2005 16:52

Native Isomers	Conc ug/Kg	EMPC ug/Kg	PRL ug/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	50.00	74
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	50.00	70
				1,2,3,6,7,8-HxCDD-13C	50.00	68
2,3,7,8-TCDD	ND	----	10	1,2,3,4,6,7,8-HpCDF-13C	100.00	63
Total TCDD	ND	----	10	OCDD-13C	100.00	25
1,2,3,7,8-PeCDF	ND	----	25	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF	ND	----	25	1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF	ND	----	25			
				2,3,7,8-TCDD-37Cl4	25.00	72
1,2,3,7,8-PeCDD	ND	----	25			
Total PeCDD	ND	----	25			
1,2,3,4,7,8-HxCDF	ND	----	25			
1,2,3,6,7,8-HxCDF	ND	----	25			
2,3,4,6,7,8-HxCDF	ND	----	25			
1,2,3,7,8,9-HxCDF	ND	----	25			
Total HxCDF	ND	----	25			
1,2,3,4,7,8-HxCDD	ND	----	25			
1,2,3,6,7,8-HxCDD	ND	----	25			
1,2,3,7,8,9-HxCDD	ND	----	25			
Total HxCDD	ND	----	25			
1,2,3,4,6,7,8-HpCDF	ND	----	25	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	25	Equivalence: 0.00 ug/Kg		
Total HpCDF	ND	----	25	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	25			
Total HpCDD	ND	----	25			
OCDF	ND	----	50			
OCDD	ND	----	50			

Results reported on a total weight basis

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
A =PRL based on signal to noise
J = Concentration detected is below the calibration range
* = See discussion

PRL = Pace Reporting Limit
LOD = Limit of Detection
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8280 Laboratory Control Spike Results

Client - Chemtech

Lab Sample ID	LCS 042605		
Filename	T1477_19-11803	Matrix	SOLID
Total Amount Extracted	10.0 g	Dilution	NA
ICAL Date	03/10/2005	Extracted	04/26/2005
CCal Filename(s)	T1477_19-11802 & T1477_19-11816	Analyzed	04/28/2005 20:06
Method Blank ID	METHOD BLANK 042605	Injected By	ACH

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	25.00	22.79	91	2,3,7,8-TCDF-13C	50.00	64
Total TCDF				2,3,7,8-TCDD-13C	50.00	80
				1,2,3,6,7,8-HxCDD-13C	50.00	84
2,3,7,8-TCDD	25.00	23.13	93	1,2,3,4,6,7,8-HpCDF-13C	100.00	71
Total TCDD				OCDD-13C	100.00	84
1,2,3,7,8-PeCDF	62.50	43.64	70	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF				1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF						
				2,3,7,8-TCDD-37Cl4	25.00	86
1,2,3,7,8-PeCDD	62.50	63.02	101			
Total PeCDD						
1,2,3,4,7,8-HxCDF						
1,2,3,6,7,8-HxCDF	62.50	44.88	72			
2,3,4,6,7,8-HxCDF						
1,2,3,7,8,9-HxCDF						
Total HxCDF						
1,2,3,4,7,8-HxCDD						
1,2,3,6,7,8-HxCDD	62.50	54.41	87			
1,2,3,7,8,9-HxCDD						
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	62.50	82.43	132			
1,2,3,4,7,8,9-HpCDF						
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	62.50	64.21	103			
Total HpCDD						
OCDF	125.00	80.77	65			
OCDD	125.00	112.68	90			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Outside the target recovery range of the method
X = Background subtracted value
NA = Not Applicable
NC = Not Calculated
I = Interference

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8280 Laboratory Control Spike Results

Client - Chemtech

Lab Sample ID	LCS 050505		
Filename	T1482_19-13005	Matrix	SOLID
Total Amount Extracted	10.0 g	Dilution	NA
ICAL Date	03/10/2005	Extracted	05/05/2005
CCal Filename(s)	T1482_19-13004 & T1482_19-13011	Analyzed	05/10/2005 13:27
Method Blank ID	MB 050505	Injected By	ACH

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	25.00	19.94	80	2,3,7,8-TCDF-13C	50.00	77
Total TCDF				2,3,7,8-TCDD-13C	50.00	73
				1,2,3,6,7,8-HxCDD-13C	50.00	81
2,3,7,8-TCDD	25.00	20.81	83	1,2,3,4,6,7,8-HpCDF-13C	100.00	82
Total TCDD				OCDD-13C	100.00	80
1,2,3,7,8-PeCDF	62.50	62.56	100	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF				1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF						
				2,3,7,8-TCDD-37Cl4	25.00	85
1,2,3,7,8-PeCDD	62.50	63.44	102			
Total PeCDD						
1,2,3,4,7,8-HxCDF						
1,2,3,6,7,8-HxCDF	62.50	55.53	89			
2,3,4,6,7,8-HxCDF						
1,2,3,7,8,9-HxCDF						
Total HxCDF						
1,2,3,4,7,8-HxCDD						
1,2,3,6,7,8-HxCDD	62.50	60.02	96			
1,2,3,7,8,9-HxCDD						
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	62.50	62.21	100			
1,2,3,4,7,8,9-HpCDF						
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	62.50	53.73	86			
Total HpCDD						
OCDF	125.00	103.33	83			
OCDD	125.00	111.75	89			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Outside the target recovery range of the method
X = Background subtracted value
NA = Not Applicable
NC = Not Calculated
I = Interference

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, In
1700 Elm Street - Suite 20
Minneapolis, MN 5541

Tel: 612-607-170
Fax: 612- 607-644

Method 8280 Spike Sample Results

Client - Chemtech

Client's Sample ID	IS-ASH1		
Lab Sample ID	1011476001 MS		
Filename	T1482_19-13006	Matrix	SOLID
Total Amount Extracted	1.00 g	Dilution	NA
ICAL Date	03/10/2005	Extracted	05/05/2005
CCal Filename(s)	T1482_19-13004 & T1482_19-13011	Analyzed	05/10/2005 14:08
Method Blank ID	METHOD BLANK 050505	Injected By	ACH

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	25.00	22.40	90	2,3,7,8-TCDF-13C	50.00	84
Total TCDF				2,3,7,8-TCDD-13C	50.00	85
				1,2,3,6,7,8-HxCDD-13C	50.00	81
2,3,7,8-TCDD	25.00	22.51	90	1,2,3,4,6,7,8-HpCDF-13C	100.00	77
Total TCDD				OCDD-13C	100.00	43
1,2,3,7,8-PeCDF	62.50	63.21	101	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF				1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF						
				2,3,7,8-TCDD-37Cl4	25.00	79
1,2,3,7,8-PeCDD	62.50	66.13	106			
Total PeCDD						
1,2,3,4,7,8-HxCDF						
1,2,3,6,7,8-HxCDF	62.50	62.63	100			
2,3,4,6,7,8-HxCDF						
1,2,3,7,8,9-HxCDF						
Total HxCDF						
1,2,3,4,7,8-HxCDD						
1,2,3,6,7,8-HxCDD	62.50	62.91	101			
1,2,3,7,8,9-HxCDD						
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	62.50	67.61	108			
1,2,3,4,7,8,9-HpCDF						
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	62.50	51.73	83			
Total HpCDD						
OCDF	125.00	139.38	112			
OCDD	125.00	118.87	95			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range of 40-135%
X = Background subtracted value
NA = Not Applicable
Nn = Value obtained from additional analysis
# = See discussion

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8280 Spike Sample Results

Client - Chemtech

Client's Sample ID	IS-ASH1		
Lab Sample ID	1011476001 MSD		
Filename	T1482_19-13007	Matrix	SOLID
Total Amount Extracted	1.00 g	Dilution	NA
ICAL Date	03/10/2005	Extracted	05/05/2005
CCal Filename(s)	T1482_19-13004 & T1482_19-13011	Analyzed	05/10/2005 14:49
Method Blank ID	MB 050505	Injected By	ACH

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	25.00	22.54	90	2,3,7,8-TCDF-13C	50.00	72
Total TCDF				2,3,7,8-TCDD-13C	50.00	69
				1,2,3,6,7,8-HxCDD-13C	50.00	68
2,3,7,8-TCDD	25.00	23.33	93	1,2,3,4,6,7,8-HpCDF-13C	100.00	59
Total TCDD				OCDD-13C	100.00	20 P
1,2,3,7,8-PeCDF	62.50	66.78	107	1,2,3,4-TCDD-13C	50.00	NA
2,3,4,7,8-PeCDF				1,2,3,7,8,9-HxCDD-13C	50.00	NA
Total PeCDF						
				2,3,7,8-TCDD-37Cl4	25.00	88
1,2,3,7,8-PeCDD	62.50	67.93	109			
Total PeCDD						
1,2,3,4,7,8-HxCDF						
1,2,3,6,7,8-HxCDF	62.50	64.29	103			
2,3,4,6,7,8-HxCDF						
1,2,3,7,8,9-HxCDF						
Total HxCDF						
1,2,3,4,7,8-HxCDD						
1,2,3,6,7,8-HxCDD	62.50	67.12	107			
1,2,3,7,8,9-HxCDD						
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	62.50	69.55	111			
1,2,3,4,7,8,9-HpCDF						
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	62.50	42.83	69			
Total HpCDD						
OCDF	125.00	141.66	113			
OCDD	125.00	123.47	99			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range of 40-135%
X = Background subtracted value
NA = Not Applicable
Nn = Value obtained from additional analysis
# = See discussion

Report No.....1011476

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8280 Spike Sample Results

Client - Chemtech

Client Sample ID	IS-ASH1			Dry Weights	
Lab Sample ID	1011476001	Sample Filename	T1482_19-13009	Sample Amount	0.771 g
MS ID	1011476001 MS	MS Filename	T1482_19-13006	MS Amount	0.8 g
MSD ID	1011476001 MSD	MSD Filename	T1482_19-13007	MSD Amount	0.8 g

Analyte	Sample Conc. ug/Kg	MS/MSD Qs (ng)	MS Qm (ng)	MSD Qm (ng)	RPD	Background Subtracted MS % Rec.	Background Subtracted MSD % Rec.	Background Subtracted RPD
2,3,7,8-TCDF	0.000	25.00	22.40	22.54	0.7	90	90	0.7
2,3,7,8-TCDD	0.000	25.00	22.51	23.33	3.6	90	93	3.6
1,2,3,7,8-PeCDF	0.000	62.50	63.21	66.78	5.5	101	107	5.5
1,2,3,7,8-PeCDD	0.000	62.50	66.13	67.93	2.7	106	109	2.7
1,2,3,6,7,8-HxCDF	0.000	62.50	62.63	64.29	2.6	100	103	2.6
1,2,3,6,7,8-HxCDD	0.000	62.50	62.91	67.12	6.5	101	107	6.5
1,2,3,4,6,7,8-HpCDF	0.000	62.50	67.61	69.55	2.8	108	111	2.8
1,2,3,4,6,7,8-HpCDD	0.000	62.50	51.73	42.83	18.8	83	69	18.8
OCDF	0.000	125.00	139.38	141.66	1.6	112	113	1.6
OCDD	0.000	125.00	118.87	123.47	3.8	95	99	3.8

Definitions

MS = Matrix Spike
MSD = Matrix Spike Duplicate
Qm = Quantity Measured
Qs = Quantity Spiked
% Rec. = Percent Recovery
RPD = Relative Percent Difference

CDD = Chlorinated dibenzo-p-dioxin
CDF = Chlorinated dibenzo-p-furan
T = Tetra
Pe = Penta
Hx = Hexa
Hp = Hepta
O = Octa

MALCOLM PIRNIE

Risk Assessment Supporting Data

APPENDIX

G

APPENDIX G

HUMAN HEALTH EVALUATION - ESSENTIAL NUTRIENT SCREEN

ESSENTIAL NUTRIENT SCREEN

Nutrient screening concentrations to evaluate the concentrations of essential nutrients (i.e., calcium, iron, magnesium, potassium, and sodium) were derived from Recommended Daily Allowances (RDAs) (ESHA Research, 1990) and typical exposure parameters used by the U.S. Environmental Protection Agency. Nutrient screening concentrations for soil (both subsurface soil and all soil) were derived for ingestion by a child (Table G-1). Nutrient screening concentrations for groundwater were derived for residential tap water use by a child (Table G-2).

Nutrient Screening Concentrations for Soil - Child

$$RC_s = (RDA_c / IR_s) * CF$$

where:

RC_s = nutrient screening concentration for soil (mg/kg)
RDA_c = recommended daily allowance for a child (mg/day)
IR_s = soil ingestion rate (200 mg_{soil}/day)
CF = conversion factor (10^6 mg/kg)

TABLE G-1
NUTRIENT SCREENING CONCENTRATIONS FOR SOIL

Essential Nutrient	Recommended Daily Allowance (mg/day; child)	Nutrient Screening Concentration for Soil (mg/kg)
Calcium	800	> 1,000,000
Iron	10	50,000
Magnesium	80	400,000
Potassium	1,000	> 1,000,000
Sodium	975	> 1,000,000

Nutrient Screening Concentrations for Groundwater - Child

$$RC_w = (RDA_c / IR_w) * CF$$

where:

RC_w = Nutrient screening concentration for water (µg/L)
RDA_c = Recommended daily allowance for a child (mg/day)
IR_w = Water ingestion rate (1 L/day)
CF = Conversion factor (10^3 µg/mg)

TABLE G-2
NUTRIENT SCREENING CONCENTRATIONS FOR GROUNDWATER

Essential Nutrient	Recommended Daily Allowance (mg/day; child)	Nutrient Screening Concentration for Groundwater (µg/L)
Calcium	800	800,000
Iron	10	10,000
Magnesium	80	80,000
Potassium	1,000	1,000,000
Sodium	975	975,000

References

ESHA Research. 1990. The Food Processor II. Nutrient Analysis System.

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **FAX:** (518) 402-8925
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

June 2, 2005

Julie Conklin
Malcolm Pirnie, Inc
17-17 Rte 208 North
Fair Lawn, NJ 07410

Dear Ms. Conklin:

In response to your recent request, we have reviewed the New York Natural Heritage Program databases with respect to an Environmental Assessment for the proposed Brownfields Investigation at former Incinerator Site, site as indicated on the map you provided, located in the Town of Lackawanna, Erie County.

We have no records of known occurrences of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of your site.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain any information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. For these reasons, we cannot provide a definitive statement on the presence or absence of rare or state-listed species, or of significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Data bases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

Sincerely,
Betty Ketcham jp
Betty A. Ketcham, Information Services
New York Natural Heritage Program

Enc.
cc: Reg. 9, Wildlife Mgr.

MALCOLM PIRNIE

Soil/Fill Management Plan

APPENDIX

H

MALCOLM PIRNIE

Soil/Fill Management Plan

APPENDIX H

The objective of this Soil/Fill Management Plan (SFMP) is to set guidelines for management of soil material during any activities, which would breach the cover system. The SFMP is a portion of the overall remedy, which addresses disturbance/use of any residually contaminated soil/fill left on the Site, after other elements of the remedy have been implemented. This SFMP addresses environmental concerns related to soil/fill management. This SFMP is not intended to serve as a design document for construction activities related to redevelopment activities. It is the developer's responsibility to prepare a design that incorporates the requirements for cover and soil management as set forth in this SFMP.

H.1 Excavation and Handling of On-Site Soil/Fill

No excavation, grading or disturbance of the final vegetated soil cover or existing subgrade soil/fill shall be initiated prior to a minimum of three working days notification to the NYSDEC Region 9, Division of Environmental Remediation. A Professional Engineer with remedial investigation experience, representing the subject property owner or developer will oversee soil/fill excavations or disturbances. The excavation activities will be conducted in accordance with the protocols detailed in Attachment I and in the sections below.

All on-site soil/fill will be presumed to contain metals and PAHs and will be handled in accordance with the provisions of this SFMP. Although a number of environmental investigations have been conducted at the Site to characterize the nature and extent of contamination, the nature of investigations does not allow for a 100 percent complete or accurate characterization. It is possible that some quantity of unsuspected contamination may be encountered during redevelopment activities. Therefore, as a safeguard for

unknown or unsuspected contamination presence, during excavation, all soil/fill will be visually inspected for staining and will be field screened for the presence of volatile organic compounds (VOCs). A photoionization detector (PID) will be used to check for VOCs. Visual observation will be sufficient to identify stained soils. Stained soil is soil that is discolored, tinted, dyed, unnaturally mottled, or contains a sheen. Attachment II (Standard Operating Procedures) contains an SOP for Soil Screening. Excavated soil/fill that is visibly stained or produces elevated PID readings (i.e., sustained 10 PPM or greater) will be considered potentially contaminated and stockpiled separately on-site for further assessment. The potentially contaminated soil/fill will be stockpiled (in maximum 100 cubic yard piles) on polyethylene sheeting and then sampled to determine its ultimate disposition; viz., reuse or off-site disposal. The stockpiled potentially contaminated soil/fill will also be completely covered using polyethylene sheeting to reduce particle runoff and entrain dust. Sampling and analysis will be completed in accordance with the protocols delineated in Section H.2. Soil/fill containing one or more constituents in excess of the site-specific action levels (SSALs) shown in Table H-1 will be transported off-site to a permitted waste management facility. Soil/fill awaiting analytical results or awaiting transportation will be stored continuously on-site under polyethylene sheeting.

Any soil/fill with a pH higher than 12.5 is considered hazardous and therefore must be properly disposed off-site. Additionally, any soil/fill with a pH greater than 9.0 but less than 12.5 may be reused on-site but only to fill in areas below grade. This soil/fill may not be used as backfill in utility trenches or to create berms or other above grade mounds. This soil/fill must also be covered with clean material in accordance with Section 6.2 of the Remedial Action Work Plan.

If buried drums or underground storage tanks are encountered during soil excavation activities, excavation will cease and the NYSDEC will be immediately notified. All drums and/or underground storage tanks encountered will be evaluated and the Owner will submit a removal plan for NYSDEC approval. Appropriately trained personnel will excavate all of the drums and/or underground storage tanks while following all applicable federal, state, and local regulations. Removed drums and underground storage tanks will be properly characterized and disposed off-site. The soil/fill surrounding the buried

MALCOLM PIRNIE

TABLE H-1
SITE SPECIFIC ACTION LEVELS
SOIL/FILL MANAGEMENT PLAN
FORMER INCINERATOR SITE
LACKAWANNA, NEW YORK

Sample Location Sampling Depth (ft. bgs) Collection D	NYSDEC TAGM 4046[1]	Eastern USA Background Concentrations[2]	Maximum Concentration Detected[3]	Average Concentration Detected	Frequency of Detections	Proposed Site Specific Action Level (SSAL)
TAL Inorganic Analytes (mg/kg)						
Arsenic	7.5 or SB	3 - 12	38.9	17.03	7 / 7	25
Barium	300 or SB	15 - 600	727	367	7 7	500
Cadmium	1 or SB	0.1 - 1	6.20	2.51	6 / 7	5
Copper	25 or SB	1 - 50	703	262	7 7	500
Chromium	10 or SB	1.4 - 40	101	55.4	7 7	100
Lead	SB	200 - 500	1,820	760	7 / 7	1000
Mercury	0.1	0.001 - 0.2	0.453	0.09	5 / 7	1.0
Nickel	13 or SB	0.5 - 25	181	55.1	7 / 7	100
Zinc	20 or SB	9 - 50	2,300	964	7 / 7	1500
Pest/PCBs (µg/kg)						
Total Pesticides	10	NA	0.0	0	0 / 7	10,000
Total PCBs (Surface - 1.0')	1,000	NA	0	0	0 / 7	1,000
Total PCBs (Subsurface > 1.0')	10,000	NA	800	447	2 / 7	10,000
Semi-Volatile Organic Compounds - SVOCs (µg/kg)						
Total SVOCs	500,000	NA	24,940	6,597	7 / 7	500,000
Volatile Organic Compounds - VOCs (µg/kg)						
Total VOCs	10,000	NA	300.0	68.8	7 / 7	10,000

Notes:

(1) New York State Dept. of Environmental Conservation TAGM 4046, Recommended Soil Cleanup Objectives, Dec. 2000.

(2) TAL Inorganic Analytes from Eastern USA Background as shown in New York State Dept. of Environmental Conservation TAGM 4046, Dec. 2000.

(3) Maximum concentration detected during subsurface investigation (MPI, April 2004), (LCS July 2004) and the Remedial Investigation (MPI,

NA - Not Avaialable.

ND - Not Detected

drums or underground storage tanks will be considered as potentially contaminated and will be stockpiled and characterized.

All excavations or disturbances must be backfilled as soon as the work allows. Backfilled excavations must be covered with suitable cover material defined in Section 6.2 of the Remedial Action Work Plan within ten working days of backfilling or as otherwise approved by the NYSDEC.

If no evidence of additional contamination is encountered through the screening during excavation activities, the excavated soil fill will be stockpiled as appropriate on site. No special provisions for separate handling are required other than the characterization defined in Section H.2.

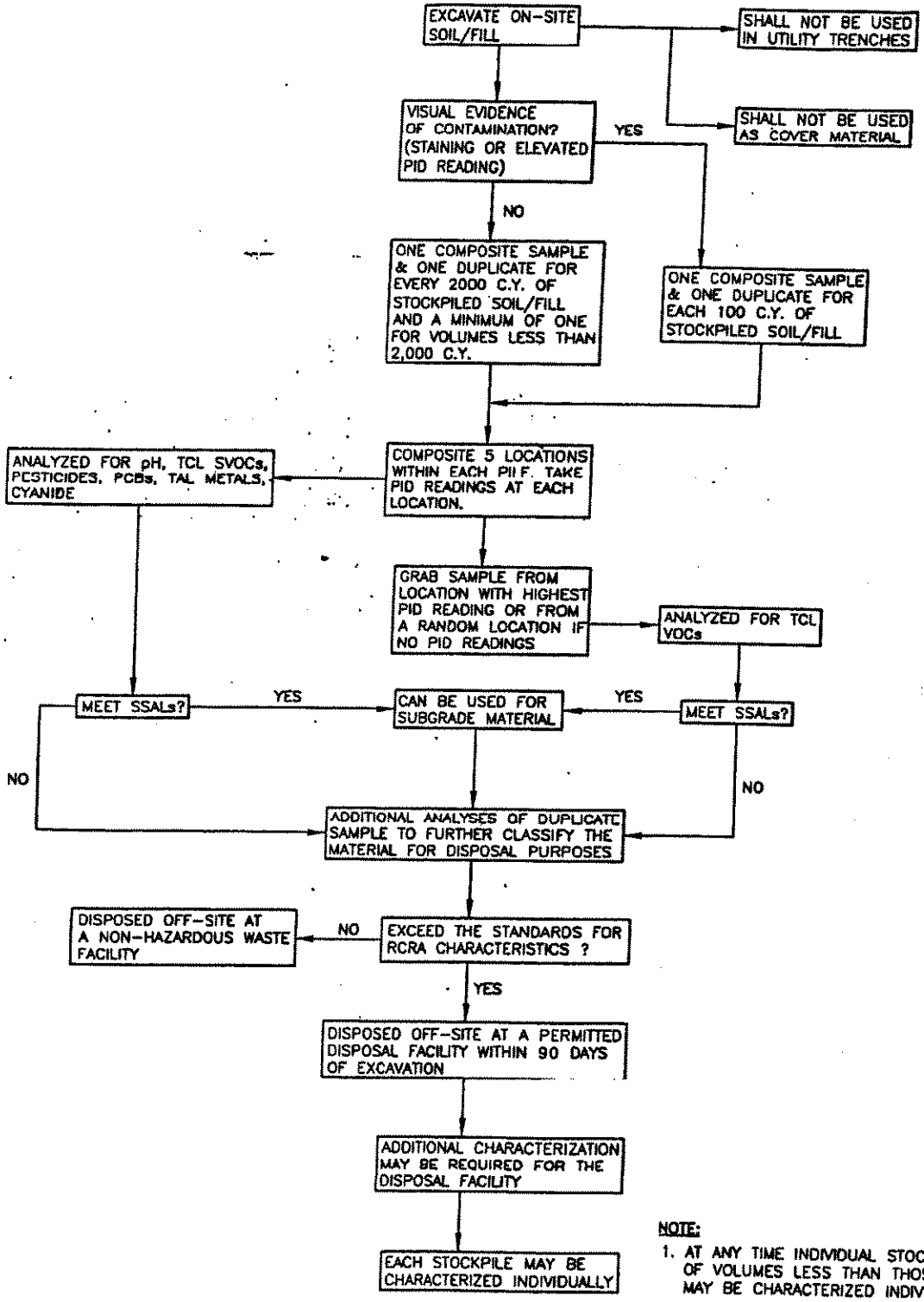
Excavated or disturbed backfill may be used as subgrade, excavation backfill or berm construction following characterization performed in accordance with Section H.2 if it meets the SSAL's presented in Table H-1.

H.2 Soil/Fill Sampling and Analysis Protocol

A soil/fill characterization flow chart is provided as Figure H-1. As stated in Section H.1, all excavated soil/fill that exhibits evidence of additional contamination through screening (staining or elevated PID measurements) will be stockpiled separately and sampled and classified for reuse or disposal. One composite soil sample will be collected for each 100 cubic yards of soil. The composite sample will be collected in the manner described in the Standard Operating Procedures (SOPs) included in Attachment II from five locations within each stockpile. PID measurements will be recorded for each of the five composite sample locations, and one grab sample and one duplicate sample will be collected from the location with the highest PID measurement of the five composite locations. The composite sample will be analyzed by a NYSDOH ELAP-certified laboratory for Target Compound List (TCL) semivolatile organic compounds (SVOCs), PCBs and pesticides, and the metals arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel and zinc using current NYSDEC Analytical Services Protocols (ASP).

FIGURE H-1

SOIL/FILL CHARACTERIZATION FLOW CHART



NOTE:

1. AT ANY TIME INDIVIDUAL STOCKPILES OF VOLUMES LESS THAN THOSE STATED MAY BE CHARACTERIZED INDIVIDUALLY.

Excavated soil/fill that exhibits no evidence of additional contamination (staining or elevated PID measurements) will also require characterization prior to use as subgrade or backfill at the site. Characterization samples will be collected and analyzed at a frequency of not less than one sample for 2000 cubic yards of soil/fill, and a minimum of one sample will be collected for volumes less than 2000 cubic yards. The characterization samples will be collected in accordance with the protocols described above; the sampling efforts shall consist of discrete samples for VOCs and composite samples collected from five locations for the remaining analytes.

Any soil/fill that has been characterized and found to meet the SSALs may be reused as subgrade, excavation subgrade backfill, or for berm construction. If the analysis of the soil/fill samples reveals unacceptably high levels of any analytes (i.e., greater than one or more SSAL), additional analyses will be necessary to further classify the material for hazardous characteristics for disposal purposes. At a minimum, the duplicate sample will be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) for the particular analytes that were detected at concentrations exceeding the SSALs. The duplicate sample may also be analyzed for RCRA Characteristics including reactivity, corrosivity, and ignitability. If the analytical results indicate that concentrations exceed the standards for either TCLP or RCRA Characteristic analysis, the material will be considered a hazardous waste and must be properly disposed off-site at a permitted disposal facility within 90 days of excavation. Additional characterization sampling for off-site disposal may be required by the disposal facility. To potentially reduce off-site disposal requirements/costs, the owner or site developer may also choose to characterize each stockpile individually.

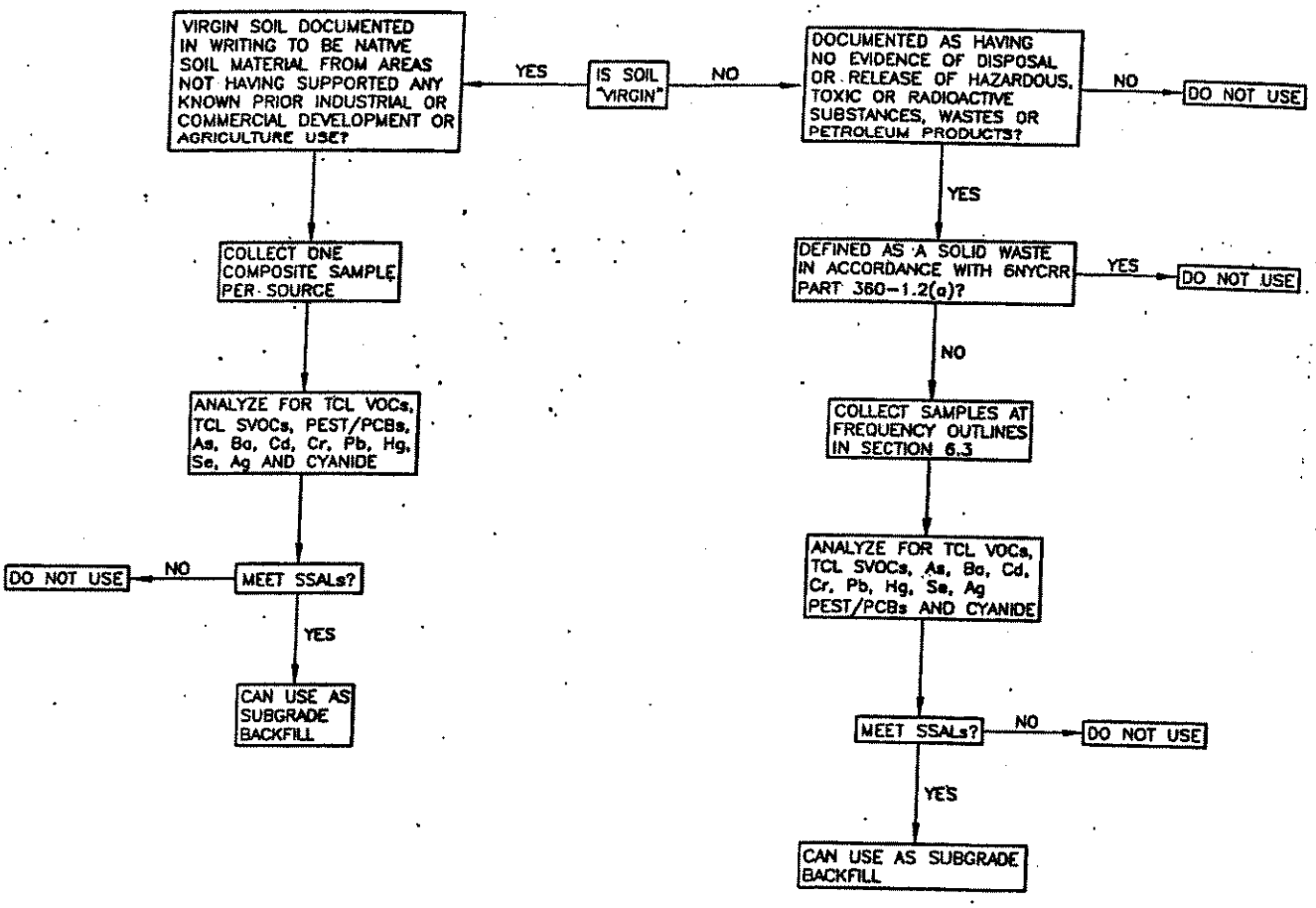
H.3 Subgrade Material

Subgrade material used to backfill excavations or placed to increase site grades or elevation shall meet the following criteria (see Figure H-2):

- Excavated on-site soil/fill shall either exhibit no evidence of contamination (staining and/or elevated PID measurements) or, if evidence of contamination is present, analytical results of the soil/fill indicate that the contaminants are present at concentrations below the SSALs.

FIGURE H-2

SUBGRADE MATERIAL FLOW CHART



NOTE:

1. AT ANY TIME INDIVIDUAL STOCKPILES OF VOLUMES LESS THAN THOSE STATED MAY BE CHARACTERIZED INDIVIDUALLY.

- Off-site borrow soils will be documented as having originated from locations having no evidence of disposal or release of hazardous, toxic or radioactive substances, wastes or petroleum products.

- Off-site soils intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6NYCRR Part 360-1.2(a).

- If the contractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use.

- Virgin soils should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and the metals arsenic, barium, cadmium, copper, chromium, lead, mercury, nickel, and zinc. The soil will be acceptable for use as backfill provided that all parameters meet the SSALs.

- Non-virgin source area soils will be tested via collection of one composite sample per 500 cubic yards of material from each source area. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin soil source area and both samples of the first 1,000 cubic yards meet the SSALs, the sample collection frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met the SSALs.

H.4 Final Cover

Surface coverage over the entire redeveloped parcel or subparcels will be required by the developer or owner as a pre-condition of occupancy. The purpose of the surface cover is to eliminate the potential for human contact with fill material. Surface coverage will consist of documented clean soil with vegetative cover, asphalt or concrete paving, or buildings with concrete floors.

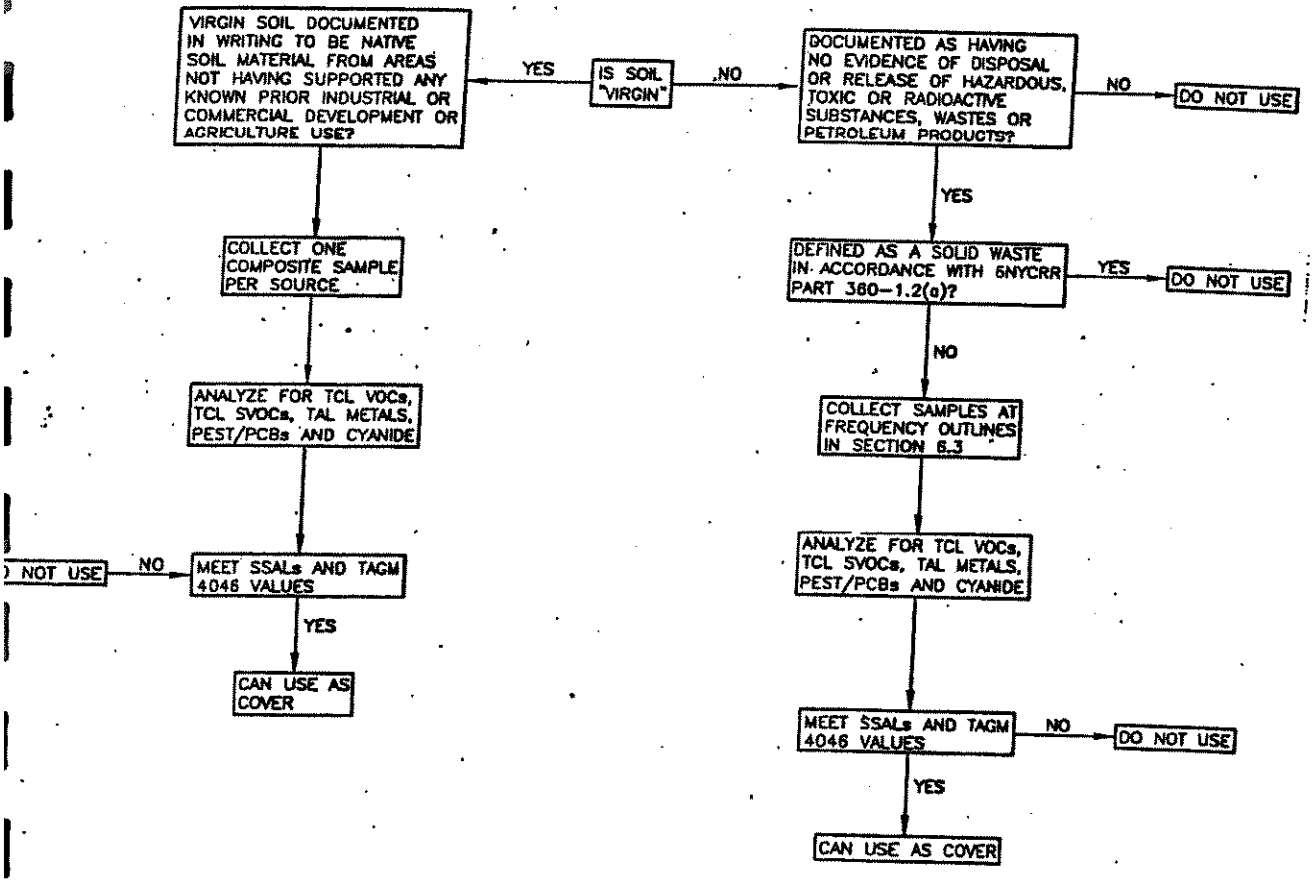
The cover soil material shall meet the following criteria (see Figure H-3):

- Excavated on-site soil/fill shall not be used as cover material.

- Off-site borrow soils will be documented as having originated from locations

FIGURE H-3

FINAL COVER MATERIAL FLOW CHART



NOTE:

1. AT ANY TIME INDIVIDUAL STOCKPILES OF VOLUMES LESS THAN THOSE STATED MAY BE CHARACTERIZED INDIVIDUALLY.

having no evidence of disposal or release of hazardous, toxic or radioactive substances, wastes or petroleum products.

- Off-site soils intended for use as site cover cannot otherwise be defined as a solid waste in accordance with 6NYCRR Part 360-1.2(a).

- If the contractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use.

- Virgin soils should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and TAL metals plus cyanide. The soil will be acceptable for use as cover material provided that all parameters meet the NYSDEC recommended soil cleanup objectives included in TAGM 4046.

- Non-virgin source area soils will be tested via collection of one composite sample per 500 cubic yards of material from each source area. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin soil source area and both samples of the first 1,000 cubic yards meet the TAGM 4046 criteria, the sample collection frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met the TAGM 4046 criteria.

- To reduce the potential for disturbance of the soil cover material, berms or mounds composed of clean soil will be constructed in areas in which trees and shrubs will be planted.

H.5 Erosion Controls

H.5.1 General Guidelines

When site development or remedial actions require the disturbance of more than one acre of land, federal and state laws[1] require that the project obtain coverage Under the NYSDEC SPDES General Permit for Storm Water Discharges from Construction Activities that are classified as "Associated with Industrial Activity", Permit #GP-93-06 (Construction Storm Water General Permit). Requirements for coverage under the Construction Storm Water General Permit include the submittal of a Notice of Intent form and the development of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must fulfill all permit requirements and must be prepared in accordance with "Chapter Four: the Storm Water Management and Erosion Control Plan" in Reducing Impacts of Storm Water Runoff from New Development, NYSDEC, 1992. This Storm Water Management and Erosion Control Plan, in accordance with permit requirements, will provide the following information:

- A background discussion of the scope of the construction project.
- A statement of the storm water management objectives.
- An evaluation of post-development runoff conditions.
- A description of proposed storm water control measures.
- A description of the type and frequency of maintenance activities required to support the control measure.

[1] The Federal Water Pollution Control Act (as amended, 33 U.S.C. 1251 et. Seq.) and the New York State Environmental Conservation Law: Article 17, Titles 7 and 8 and Article 70.

The SWPPP will address issues such as erosion prevention, sedimentation control, hydraulic loading, pollutant loading, ecological protection, physical site characteristics that impact design, and site management planning. The SWPP will also include a contingency plan to be implemented in the event of heavy rain events. All descriptions of proposed features and structures at the site will include a description of structure placement, supporting engineering data and calculations, construction scheduling, and references to established detailed design criteria. The SWPPP will conform to all requirements as established by applicable regulatory agencies.

Proven soil conservation practices will be incorporated in the construction and development plans to mitigate soil erosion damage, off-site sediment migration, and water pollution from erosion. These practices combine vegetative and structural measures. Many of these measures will be permanent in nature and become part of the completed construction project (design features such as drainage channels and grading). Other measures will be temporary and serve only during the construction stage. The contractor will remove temporary measures at the completion of construction. The selection of erosion and sediment control measures will be based on several general principles, including:

- The minimization of erosion through project design (maximum slopes, phased construction, etc.).
- The incorporation of temporary and permanent erosion control measures.
- The removal of sediment from sediment-laden storm water before it leaves the site.

The generic erosion and surface water control plan included in Attachment III details typical methods of erosion control that must be followed during site redevelopment activities. As described in Attachment III, a specific erosion and surface water control plan must be created prior to implementation of redevelopment activities. The use of appropriate temporary erosion control measures such as silt fencing and/or hay bales will be required around all soil/fill stockpiles and unvegetated soil surfaces during redevelopment activities. These methods are described below, and Attachment IV includes details for various erosion control measures that might be used during site

redevelopment activities. Stockpiles shall be graded and compacted as necessary for positive surface water runoff and dust control. Stockpiles of soil/fill will be placed a minimum of fifty feet from the boundaries.

H.5.2 Temporary and Permanent Erosion Control Measures

H.5.2.1 Temporary Measures

Temporary erosion and sedimentation control measures and facilities will be employed during active construction stages. Prior to any construction activity, temporary erosion and sediment control measures shall be installed and maintained until they are no longer needed, or until such time that permanent erosion control measures are installed and effective. Additional sediment control measures may also be necessary. Structural measures, as described below, will be designed and installed to provide the required sediment and erosion control. The following temporary measures will be incorporated into construction activities:

- Silt fencing.
- Straw bales.
- Temporary vegetation/mulching.

H.5.2.1.1 Silt Fencing

Regrading and capping activities may result in sheet flow to various areas of the site; therefore, silt fencing will be used as the primary sediment control measure. Prior to extensive clearing, grading, excavation, and placement of cover soils, silt fences will be installed along all construction perimeter areas to prevent sedimentation in low areas and drainage areas. The location and orientation of silt fencing to be used during redevelopment operations will be field determined. There may be breaks and overlaps in the silt fencing to allow construction vehicles access to the construction areas.

Intermediate silt fencing will be used upslope of perimeter areas where phased construction activities are occurring. This measure will effectively lower sheet flow

velocities and reduce sediment loads to perimeter fencing. In addition, silt fencing around soil stockpiles will be employed.

As sediment collects along the silt fences, they will be cleaned to maintain desired roval performance and prevent structural failure of the fence. Removed sediment will be disposed on-site as general fill in a designated area. The perimeter silt fences will remain in place until construction activities in the area are completed and vegetative cover or other erosion control measures are adequately established. Silt fences will be provided and installed in accordance with the details presented in Attachment IV.

H.5.2.1.2 Straw Bales

Straw bales will be used to intercept sediment-laden runoff from storm water channels as needed during various phases of construction. Additional straw bale dikes may be necessary in some areas during some phases of construction.

Use of straw bales will be limited to swales and/or diversion ditches where the anticipated flow velocity will not be greater than 5 feet per second (fps). Where flows may eventually exceed 5 fps along a swale or diversion ditch, an intermediate straw bale barrier will be installed upgradient of the final bale barrier. The intermediate bale barrier will effectively reduce flow velocities and sediment load to the final barrier.

As with the silt fencing, sediment will be removed to maintain performance and prevent overtopping or failure of the straw bale barrier. Removed sediment will be disposed of on-site as general fill in a designated area. Sediment laden straw bales that have lost their structural integrity and/or effectiveness will be disposed of off-site as a solid waste. Straw bale barriers will remain in place until construction activities contributing sediment to the barrier are complete and vegetative cover or other erosion control measures are adequately established. Straw bales will be provided and installed in accordance with the details presented in Attachment IV.

H.5.2.1.3 Temporary Vegetation and Mulching

As a result of phased construction and split construction schedule, portions of the site may be left in intermediate/incomplete conditions. Intermediate areas may include rough graded areas awaiting finer grading or areas awaiting topsoil placement. Intermediate areas where activities will not resume for a period in excess of two weeks shall be seeded with a quick germinating variety of grass or covered with a layer of straw mulch.

The temporary cover will act to stabilize the soil and reduce erosion. As construction progresses, areas containing temporary vegetation or straw mulch can be covered without removal of the temporary vegetation or mulch.

H.5.2.2 Permanent Control Measures

Permanent erosion control measures and facilities will be incorporated during cover construction and during site redevelopment for long-term erosion protection. Permanent measures and facilities will be installed as early as possible during construction phases. Parking and building systems associated with redevelopment shall not include dry wells or other subsurface injections/disposal piping or facilities.

H.5.2.2.1 Design Features

The remedial construction activities will involve the installation of cover system including asphalt, concrete, or clean fill over the entire site. Permanent erosion control measures incorporate a combination of design features to limit overall erosion and sediment problems to practical design limits, and the placement of permanent facilities during site restoration for long-term erosion protection. The soil cover system will be designed based on the following criteria:

- Maximum slope of 33% (3H: 1V) to limit erosion.
- Minimize the potential contact with, and migration of, waste fill.
- Provide a medium for the growth of vegetation to control erosion.

Design features incorporated into the construction plans to control erosion will include limiting steep slopes, routing runoff to surface water collection channels, limiting flow velocities in the collection channels to the extent practical, and lining collection channels, where appropriate. In areas where flow will be concentrated (i.e; collection channels) the channel slopes and configuration will be designed to maintain channel stability.

H.5.2.2.2 Construction Features

Any final slopes greater than 25 percent will be reinforced or have a demarcation layer under the clean cover to indicate if erosion has extended into the subgrade. Following the placement of final cover soils over regraded areas, a revegetation program will be implemented to establish permanent vegetation. Vegetation serves to reduce erosion, enhance evapotranspiration, and improve runoff water quality. The areas to be grassed will be seeded in stages as construction in is completed with 70 lbs./acre of seed conforming to the mix included in section 10.3.2. of the SI/RAR. In addition to the above seed mixture, mulch, mulch blankets, or synthetic fabric will be placed to prevent erosion during turf establishment. Mulch will be placed on all slopes less than 15% and a mulch blanket on all slopes greater than 15%. Synthetic erosion control fabric will be placed in drainage ditches and swales. As an aid to turf establishment, seeded areas will be fertilized with a starter fertilizer.

H.6 Dust Controls

The surface of unvegetated or disturbed soil/fill areas will be wetted at all times with water or other dust suppressive agents to control dust during construction. There shall be no visible dust generated during redevelopment activities. Any subgrade material left exposed during extended interim periods (greater than 90 days) prior to placement of final cover shall be covered with a temporary cover system (i.e., tarps, spray type cover system, etc.) or planted with vegetation to control fugitive dust to the extent practicable. Particulate monitoring will be performed along the downwind occupied perimeter of parcels during subgrade excavation, grading, and handling activities in accordance with the Community Air Monitoring Plan.

Dust suppression techniques will be employed at the site in accordance with NYSDEC TAGM 4031 (Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites). This TAGM describes guidance for dust monitoring, and includes a list of effective dust suppression techniques. Dust monitoring is more fully described in Section H.12.2 (Community Air Monitoring Program). As per TAGM 4031, dust suppression techniques that may be used at the site include applying water on roadways, wetting equipment, spraying water on buckets during excavation and dumping, hauling materials in properly covered or watertight containers, covering excavated areas and material after excavation activity ceases, establishing vegetative cover immediately after placement of cover soil, and reducing the excavation size and/or number of excavations.

H.7 Construction Water Management

Pumping of water (i.e., groundwater and/or storm water that has accumulated in an excavation) from excavations, if necessary, will be done in such a manner as to prevent the migration of particulates, soil/fill, or unsolidified concrete materials, and to prevent damage to the existing subgrade. Water pumped from excavations will be managed properly in accordance with all applicable regulations so as to prevent endangerment of public health, property, or any portion of the construction.

The groundwater in excavations will be field screened for VOCs and observed for any noticeable sheens. Water in the excavations will not be discharged to the ground surface if:

- Staining or PID measurements above background are observed in the excavation, or
- A sheen is present on the water surface.

If any of these conditions exist, the water pumped from the excavations will be containerized and analyzed in accordance with the Surface Water and Groundwater quality Standards set forth in 6 NYCRR Part 703.5 and the local sewer authority discharge permit. If the water meets the surface water and groundwater quality standards,

it may be discharged to the ground surface. If the water does not meet the surface water and groundwater quality standards, it may be discharged to the local sewer authority under a discharge permit. If the water quality is such that the local sewer authority discharge permit requirements will be exceeded, or the local sewer authority will not approve the discharge to a sewer, it will be transported off-site for proper disposal or treated on-site via a treatment system that has been approved by NYSDEC.

Runoff from surface discharges shall be controlled. No discharges shall enter a surface water body without proper permits.

H.8 Fencing and Access Control

Access to soil/fill on the site must be controlled until final cover is placed to prevent direct contact with subgrade materials. To better control site access, obvious access points will be gated. All gates and existing fencing will be posted with "No Trespassing" signs. The majority of the site will be covered with clean fill or vegetated via hydroseeding to limit dust generation.

H.9 Property Use Limitations

The use of the property will be restricted through verbiage in an Environmental Easement to which this Soil/Fill Management Plan will be attached.

H.10 Notification and Reporting Requirements

The following minimum notification and reporting requirements shall be followed by the property owner prior to and following site development, as appropriate:

- The NYSDEC and NYSDOH will be notified that subgrade activities are being initiated a minimum of five working days in advance of construction.
- A construction certification report stamped by a New York State licensed Professional Engineer, will be prepared and submitted to the NYSDEC and

NYSDOH within 90 days after development of each parcel or subparcel. At a minimum, the report will include:

- An area map showing the parcel or subparcel that was developed and the property's tax map number.
- A topographic map of the developed property showing actual building locations and dimensions, roads, parking areas, utility locations, berms, fences, property lines, sidewalks, green areas, contours and other pertinent improvements and features. The topographic map will be stamped by a New York State licensed surveyor.
- Plans showing areas and depth of fill removal.
- Description of erosion control measures.
- A text narrative describing the excavation activities performed, health and safety monitoring performed (both site specified and Community Air Monitoring), quantities and locations of soil/fill excavated, disposal locations for the soil/fill, soil sampling locations and results, a description of any problems encountered, location and acceptability test results for backfill sources, and other pertinent information necessary to document that the site activities were carried out properly.
- Plans showing before and after survey elevations on a 100-foot grid system to document the thickness of the clean soil cover system.
- A certification that all work was performed in conformance with the SFMP.

H.11 Quality Assurance and Quality Control (QA/QC)

H.11.1 Analytical Methods

All site soil/fill characterization samples collected during site redevelopment activities will be analyzed using EPA-approved analytical methods using the most recent edition of the EPA's "Test Methods for Evaluating Solid Waste" (SW-846). Methods for Chemical Analysis of Water and Wastes "(EPA 600/4-79-020), Standard Methods for Examination of Waste and Wastewater" (prepared and published jointly by the American Public Health Association, American Waterworks Association and Water Pollution Control Federation).

H.11.2 Laboratory

The laboratory proposed to perform the analyses will be certified through the New York State Department of Health Environmental Laboratory Approval Program (ELAP) to perform Contract Laboratory Program (CLP) analysis and Solid Waste and Hazardous Waste Analytical testing on all media to be sampled during this investigation. The laboratory will maintain this certification for the duration of the project.

H.11.3 Data Submittal

The laboratory will perform the analysis of samples in accordance with the most recent NYSDEC Analytical Services Protocol (ASP). Analytical data will be submitted in complete ASP Category B data packs including documentation of laboratory QA/QC procedures that will provide legally defensible data in a court of law. If requested, the Category B data packs will be submitted to the NYSDEC.

Procedures for chain of custody, laboratory instrumentation calibration, laboratory analyses, reporting of data, internal quality control, and corrective actions shall be followed as per SW-846 and as per the laboratory's Quality Assurance Plan. Where appropriate, trip blanks, field blanks, field duplicates, and matrix spike, matrix spike duplicate shall be performed at a rate of 10% and will be used to assess the quality of the data. The laboratory's in-house QA/QC limits will be utilized whenever they are more stringent than those suggested by the EPA methods.

H.11.4 Data Usability Summary Reports

After receipt of analytical results, the data package will be sent to a qualified, third party, data validation specialist for evaluation. A Data Usability Summary Report (DUSR) will be prepared. The DUSR will provide a determination of whether or not the data meets the project specific criteria for data quality and data use.

H.12 Health and Safety Procedures for Intrusive or Maintenance Activities

H.12.1 Construction Personnel Protection

Contractors engaged in subsurface (invasive) construction or maintenance activities (e.g., foundation and utility workers) will be required to implement appropriate health and safety procedures. These procedures will involve, at a minimum, donning adequate personal protective equipment, performing appropriate air monitoring, and implementing other engineering controls as necessary to mitigate potential ingestion, inhalation and contact with residual constituents in the soils. A site-specific, activity-specific health and safety plan must be prepared by the contractor prior to on-site construction activities. Recommended health and safety procedures include the following:

- While conducting invasive work at the site, the Contractor shall provide working conditions on each operation that shall be as safe and healthful as the nature of that operation permits. The Contractor shall comply with all New York State Department of Labor regulations and published recommendations and regulations promulgated under the Federal Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969, as amended, and with laws, rules, and regulations of other authorities having jurisdiction. Compliance with governmental requirements is mandated by law and considered only a minimum level of safety performance. The Contractor shall insure that all work is performed in accordance with recognized safe work practices.

- The Contractor shall be responsible for the safety of the Contractor's employees, the public and all other persons at or about the site of the work. The Contractor shall be solely responsible for the adequacy and safety of all construction methods, materials, equipment and the safe prosecution of the work.

- The Contractor shall have a written health and safety plan (HASP) prepared, signed and sealed by a safety professional; a safety professional and/or a trained safety representative(s) active on the job whenever the work is in progress; an effective and documented safety training program; and a safety work method check list system.

- The Contractor shall stop work whenever a work procedure or a condition at a

work site is deemed unsafe by the safety professional or his trained safety representative(s).

- The Contractor shall employ a properly qualified safety professional whose duties shall be to initiate, review and implement measures for the protection of health and prevention of accidents. The Contractor shall also employ safety representative(s) whose duties, working under the direct supervision of the safety professional, shall include the implementation the safety program for the work at the site.

- Recognition as a safety professional shall be based on a minimum of certification by the Board of Certified Safety Professionals as a Certified Safety Professional and 5 years of professional safety management experience in the types of construction and conditions expected to be encountered on the site.

- The safety representative(s) who will work under the direction of the safety professional will have appropriate qualifications. The required qualifications shall include a minimum of: five years of relevant construction experience, two years of which were exclusively in construction safety management; successful completion of a 30-hour OSHA Construction Safety and Health training course; 40-hour training as per 29 CFR 1926.65, Hazardous Waste Operations and Emergency Response; and, if confined space entry is required, training as per 29 CFR 1910.146, Permit-Required Confined Spaces.

- The safety professional shall visit and audit all work areas as often as necessary but at least once each week and shall be available for consultation whenever necessary.

- The safety representative(s) must be at the job site full-time (a minimum of 8 hours per working day) whenever intrusive work is in progress. When multiple shift work is in progress more than one safety representative may be required.

- The safety professional and his safety representative(s) shall be responsible for ensuring Contractor compliance with governing laws, rules and regulations as well as of good safety practice.

- The safety staff shall maintain and keep available safety records, up-to-date copies of all pertinent safety rules and regulations, Material Safety Data Sheets, and the Contractors' site specific health and safety plans (HASPs) and the site emergency response plan with emergency and telephone contacts for supportive actions.

- The responsible safety professional shall sign and seal the Contractor's written site-specific HASP and the Plan shall be available to workers on site. The Contractor shall provide copies of the HASP to the Contractors' insurer, if required.

- The HASP will identify and define the following: the hazards anticipated for each major invasive task; the engineering, administrative and/or personal protective equipment control measures that will be implemented; the surveillance methods, and schedules of both walk through surveys and in-depth safety audits to be performed on site; medical monitoring and screening methods; the Contractors' pre-start-up and continuous safety- training program; emergency response equipment, notification, training and procedures; and include copies of safety inspection check-off sheets, specific to the work methods and crews performing work at the various job locations, to be used on a regular basis in evaluating the site and work methods.

- The safety professional and/or his trained safety representative(s) shall as a minimum:

  - Schedule and conduct safety meetings and safety training programs as required by law, the health and safety plan, and good safety practice. A specific schedule of dates of these meetings and an outline of materials to be covered shall be provided with the health and safety plan. All employees shall be instructed on the recognition of hazards, observance of precautions, of the contents of the health and safety plan and the use of protective and emergency equipment.

  - Determine that operators of specific equipment are qualified by training and/or experience before they are allowed to operate such equipment.

  - Develop and implement emergency response procedures. Post the name, address and hours of the nearest medical doctor, name and address of nearby clinics and hospitals, and the telephone numbers of the appropriate ambulance service, fire, and the police department.

  - Post all appropriate notices regarding safety and health regulations at locations that afford maximum exposure to all personnel at the job site.

- Post appropriate instructions and warning signs in regard to all hazardous areas or conditions that cannot be eliminated. Identification of these areas shall be based on experience, on site surveillance, and severity of hazard. Such signs shall not be used in place of appropriate workplace controls.

- Ascertain by personal inspection that all safety rules and regulations are enforced. Make inspections at least once a shift to ensure that all machines, tools and equipment are in a safe operating condition; and that all work areas are free of hazards. Take necessary and timely corrective actions to eliminate all unsafe acts and/or conditions, and submit to the Engineer each day a copy of his findings on the inspection check list report forms established in the health and safety plan.

- Provide safety training and orientation to authorized visitors to ensure their safety while occupying the job site.

- Perform all related tasks necessary to achieve the highest degree of safety that the nature of the work permits.

- The Contractor shall have proper safety and rescue equipment, adequately maintained and readily available, for foreseeable contingencies. This equipment may include such applicable items as: proper fire extinguishers, first aid supplies, safety ropes and harnesses, stretchers, water safety devices, oxygen breathing apparatus, resuscitators, gas detectors, oxygen deficiency indicators, combustible gas detectors, etc. This equipment should be kept in protected areas and checked at scheduled intervals. A log shall be maintained indicating who checked the equipment, when it was checked, and that it was acceptable. This equipment log shall be updated monthly and be submitted with the monthly report. Equipment that requires calibration shall have copies of dated calibration certificates on site. Substitute safety and rescue equipment must be provided while primary equipment is being serviced or calibrated.

- All personnel employed by the Contractor or his subcontractors or any visitors whenever entering the job site, shall be required to wear appropriate personal protection equipment required for that area. The Contractor may remove from the site any person who fails to comply with this or any other safety requirement.

- Because water with elevated pH may act as a skin irritant, care must be taken to inhibit dermal contact when handling any groundwater at the site. Actions to inhibit contact with groundwater may include the use of latex or other waterproof gloves by on-site workers.

H.12.2 Community Air Monitoring Program

Ambient air monitoring will be conducted by the Professional Engineer monitoring the work on a real-time basis during all subsurface construction activities using a minimum of a photoionization detector and a dust meter. Battery charge level for each instrument will be checked at the beginning and end of each day. The instruments will be calibrated at a frequency recommended by the manufacturer. All air monitoring readings will be recorded in a logbook and will be available for review by the NYSDEC and New York State Department of Health (NYSDOH).

Baseline conditions will be measured at proposed intrusive activity locations prior to commencement of operations. Air quality within the work zone will be monitored in accordance with the site-specific health and safety plan created by the site developer or contractor. In addition to monitoring the work area for worker health and safety, volatile organic compounds will be monitored at the downwind perimeter of the work area every hour. If downwind perimeter organic vapor levels exceed five parts per million (ppm) above the upwind work area perimeter concentrations, the Vapor Emission Response Plan will be implemented.

As described in Section H.6, appropriate dust suppression techniques will be employed at all times during site redevelopment activities. Using a dust meter, particulates will be continuously monitored immediately downwind in the work area and integrated over a period not to exceed 15 minutes. If the downwind particulate level is more than 150 ug/m^3, then upwind (background) levels must be measured immediately. If the downwind levels are more than 100 ug/m^3 above background, additional dust suppression measures must be taken.

H.12.1.1 Vapor Emission Response Plan

If the downwind area perimeter air concentrations of organic vapors exceed the upwind work area perimeter concentration by 5 ppm but less than 25 ppm, the following actions will be taken:

- Every 30 minutes monitor the perimeter work area location.
- Every 30 minutes monitor the organic vapor concentration 200 feet downwind of the work area perimeter or half the distance to the nearest receptor, whichever is less. If this reading exceeds the perimeter work area upwind organic vapor concentration by 5 ppm, all work must halt and monitoring increased to every 15 minutes. If, at any time, this reading exceeds the perimeter work area upwind concentration by 10 ppm, the Major Vapor Emissions Response Plan will be initiated.
- If organic vapor levels 200 feet downwind of the perimeter work area or half the distance to the nearest downwind receptor, whichever is less, exceeds by 5 ppm the work area perimeter upwind concentration persistently, then air quality monitoring must be performed within 20 feet of the nearest downwind receptor (20-foot zone). If the readings in the 20-foot zone exceed the perimeter work area upwind concentration by 5 ppm for more than 30 minutes, then the Major Vapor Emissions Response Plan will be implemented.
- Work activities can resume only after the downwind 200-foot reading and the 20-foot zone reading are less than 5 ppm above the perimeter work area upwind concentration. In addition, the downwind perimeter work area concentration must be less than 25 ppm above the perimeter work area upwind concentration.

H.12.2.2 Major Vapor Emission Response Plan

If the downwind work area perimeter organic vapor concentration exceeds the upwind work area perimeter concentration by more than 25 ppm, then the Major Vapor Emission Response Plan will be activated. Upon activation, the following activities will be undertaken:

1. All work will halt.

2. All Emergency Response Contacts as listed in the Health and Safety Plan will be contacted.
3. The NYSDEC, NYSDOH, and the Chautauqua County Health Department will be notified and advised of the situation.
4. The local police and fire department authorities will immediately be contacted by the Safety Officer and advised of the situation.
5. Frequent air monitoring will be conducted at 30-minute intervals within the 20-Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer and work may resume

ATTACHMENT I

EXCAVATION AND HANDLING OF POTENTIALLY CONTAMINATED SOIL/FILL

EXCAVATION AND HANDLING OF POTENTIALLY CONTAMINATED SOIL/FILL

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. Provide all labor, materials, equipment and incidentals required to perform all excavating, backfilling, filling and grading, and disposing of soil/fill materials as required for construction of structures, manholes, vaults, conduits, pipelines, roads, and other facilities.
   2. Stockpile and characterize soil/fill in which evidence of contamination (staining, odors, elevated pH and/or elevated photoionization detector measurements) is observed. Stained soil is soil that is discolored, tinted, dyed, unnaturally mottled, or contains a sheen.
   3. Prepare all waste disposal applications and shipping manifests and make all arrangements for transportation and disposal of contaminated material.

1.2 QUALITY ASSURANCE

A. Permits and Regulations:
   1. Obtain all necessary permits for work in roads, rights-of-way, railroads, etc. Also obtain permits as required by local, state and federal agencies for discharging water from excavations.
   2. Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

B. Reference Standards: Comply with applicable provisions and recommendations of the following.
   1. OSHA Standard, Title 29, Code of Federal Regulations, Part 1926, Section .650 (Subpart P - Excavations).

1.3 SUBMITTALS

A. No excavation, grading or disturbance of the final vegetated soil over or existing subgrade soil/fill shall be initiated prior to a minimum of five working days written notification to the NYSDEC Region 9, Division of Environmental Remediation. The notification will include a description of planned excavation activities and protective measures, and the name of the site supervisor.

B. Provide waste manifests, bills of lading, certified weight scale tickets, or other transportation records for soil/fill material removed from the site, to the NYSDEC, if requested.

C. Test Reports – Characterization of Soil/Fill and Borrow Materials:
   1. Provide NYSDEC analytical results, if requested, for the following :
      a. Tests of soil/fill with evidence of contamination of material removed during excavation.
      b. Tests, if necessary, of off-site material that will be used as fill or cover material at the site.

1.4 JOB CONDITIONS

A. Subsurface Information: Refer to Remedial Work Plan and previous investigation reports on subsurface conditions. Data is not intended as a representation or warranty of continuity of conditions between soil borings nor of groundwater levels at dates and times other than date and time when measured.

B. Existing Structures and Utilities: Due to site history, underground structures and utilities may be present in the area of the Former Railyard.
   1. CONTRACTOR may need to explore ahead of the required excavation to determine the exact location of all structures and utilities.
   2. Locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during all operations.
   3. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult piping or utility owner immediately for directions as to procedure. Cooperate with utility owner in keeping services and facilities in operation. Repair damaged utilities to satisfaction of utility owner.
   4. Should underground storage tanks or drums be encountered, the CONTRACTOR shall notify the NYSDEC immediately. The CONTRACTOR shall also take appropriate measures to protect the health and safety of on-site workers. Any tanks or drums encountered shall be evaluated to the satisfaction of the NYSDEC and properly closed in place or removed and properly disposed.
   5. Should foundations be encountered, the CONTRACTOR shall either remove the foundation in areas necessary to complete the work or modify the work to accommodate the foundations.

D. Protection of Persons and Property: Barricade open excavations occurring as part of the work and post with warning lights, if necessary. Operate warning lights, if necessary, during hours from dusk to dawn each day and as otherwise required.
   1. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

E. Dust Control: Conduct all operations and maintain areas of activity, including sweeping and sprinkling of roadways, to minimize creation and dispersion of dust.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 -EXECUTION

3.1 INSPECTION

A. Provide NYSDEC with sufficient notice and with means to examine the areas and conditions under which excavating, filling, and grading are occurring.

3.2 SITE PREPARATION

A. Clear all areas to be excavated of all trees, brush, roots, stumps, logs, wood and other materials and debris. All contaminated waste materials shall be removed from site and properly disposed. Burning will not be permitted unless permitted by the appropriate authorities.

B. If cover material was previously placed in the area to be excavated, the cover material may be stripped from the surface and stockpiled separately for reuse.

3.3 TEST PITS

A. CONTRACTOR may, if necessary, excavate and backfill, in advance of construction, test pits to determine conditions or location of existing facilities. The test pit operations will be conducted in accordance with the excavation procedures outlined below.

3.4 EXCAVATION

A. Perform all excavation required to complete the work as necessary. Excavations shall include earth, sand, clay, gravel, hardpan, boulders not requiring drilling and blasting for removal, decomposed rock, pavements, rubbish and all other materials within the excavation limits.

B. All work shall be completed in accordance with all air quality standards as determined by applicable federal, state, and local regulations.

C. Excavations for structures and utilities shall be open excavations. Provide excavation protection system(s) required by ordinances, codes, law and regulations to prevent injury to workmen and to prevent damage to new and existing structures or pipelines. Unless shown or specified otherwise, protection system(s) shall be utilized under the following conditions.
   1. Excavation Less Than 5 Feet Deep: Excavations in stable rock or in soil conditions where there is no potential for a cave-in may be made with vertical sides. Under all other conditions, excavations shall be sloped and benched, shielded, or shored and braced.
   2. Excavations More Than 5 Feet Deep: Excavations in stable rock may be made with vertical sides. Under all other conditions, excavations shall be sloped and benched, shielded or shored and braced.

3. All excavations or disturbances must be covered using appropriate cover material within 10 working days of backfilling or as otherwise approved by the NYSDEC.

D. Pumping of water from excavations, if necessary, shall be done in such a manner to prevent the carrying away of particulates, soil/fill, or unsolidified concrete materials, and to prevent damage to the existing subgrade.
   1. Water from the excavations will be disposed properly in accordance with all applicable regulations in such a manner as not to endanger public health, property, or any portion of the work under construction or completed.
   2. In areas of high pH, the pH of the water in excavations will be measured using a field pH meter. Based on the groundwater analytical results, water in the excavations may be discharged to the ground surface unless staining or elevated PID measurements are observed in the excavation, a sheen is present on the water surface or if pH is less than 6.5 or greater than 8.5. If any of these conditions exist, the water pumped from the excavations will be containerized or may be discharged to the Buffalo Sewer Authority under a discharge permit if the water quality falls within the conditions of the permit. If the water quality is such that the permit requirements will be exceeded, the groundwater removed from the excavation will be containerized and sampled. Containerized water not meeting the Surface Water and Groundwater Quality Standards set forth in 6 NYCRR Part 703.5 will be transported off-site for proper disposal.

E. Utility Trench Preparation:
   1. No more than 200 feet of trench may be opened in advance of utility laying.
   2. Trench width shall be minimized to greatest extent practical but shall conform to the following:
      a. Sufficient to provide room for installing, jointing and inspecting utilities.
      b. Enlargements at pipe joints may be made if required.
      c. Sufficient for shoring and bracing, or shielding and dewatering.
      d. Sufficient to allow thorough compaction of backfill adjacent to bottom half of utility.
      e. Do not use excavating equipment that requires the trench to be excavated to excessive width or depth.

Field Screening of Excavated Materials:
   1. The soil/fill removed during excavation will be inspected for staining and will be field screened for the presence of volatile organic compounds (VOCs) with a photoionization detector (PID).
   2. Excavated soil/fill with no evidence of contamination (no staining or elevated PID measurements) may be used as subgrade or excavation subgrade backfill. However, soils with high pH (8.5 to 12.5) will not be used as backfill in utility trenches or as subsurface material in the construction of berms.
   3. Excavated soil/fill that is visibly stained or produces elevated PID readings (i.e., sustained 10 ppm or greater) will be considered potentially contaminated soil/fill. Potentially contaminated soil/fill will be stockpiled on polyethylene

sheeting and then sampled for reuse, treatment or disposal.

a. Sampling and analysis of soil/fill exhibiting staining and/or elevated PID measurements will be completed in accordance with the protocols delineated in the Soil/Fill Management Plan (S/FMP). Sampling and analysis will also be completed in accordance with the requirements of the disposal facility at which the soil/fill with concentrations of contaminants above the site-specific action levels (SSALs) will be disposed.

b. Soil/fill containing one or more constituents in excess of SSALs in the S/FMP will be transported off-site to a permitted waste management facility.

c. Excavated or disturbed soil/fill that has been analyzed and found to meet SSALs may be used as subgrade or excavation subgrade backfill.

F. Material Storage:

1. Stockpile soil/fill with no evidence of contamination (no staining or elevated PID measurements) in approved areas in approximately 50 cubic yard piles, until required for backfill or fill. Place, grade and shape stockpiles for proper drainage.
   a. Locate and retain soil materials away from edge of excavations.
   b. Dispose of excess soil material and waste materials appropriately.
2. Stockpile soil/fill with evidence of contamination (staining and/or elevated PID measurements) in approved areas in approximately 50 cubic yard piles, until sample analysis is completed. Place, grade and shape stockpiles for proper drainage. Ensure effective weather proofing of potentially contaminate soil stockpiles.
   a. Locate and retain soil materials away from edge of excavations.
   b. The stockpiled soil/fill will be placed on top of and be completely covered using polyethylene sheeting with a minimum thickness of 8-mil to reduce the infiltration of precipitation and the entrainment of dust. A berm wall shall be constructed around the stockpile using uncontaminated material covered with the same sheeting as the stockpiled material. The stockpile area shall be protected from stormwater runoff. Edges of the sheeting shall overlap a minimum of two feet and duct tape shall be applied along all seams to prevent movement of sheeting and infiltration of precipitation into the stockpiled soil. Non-soil weights (e.g. tires) may be necessary to inhibit movement of the cover sheeting by wind.

H. Sample Collection and Analysis:

1. Collect a minimum of one composite sample, and one duplicate sample using five grab samples per 100 cubic yards of potentially contaminated soil as described in the Soil/Fill Management Plan. The characterization samples should be collected from stockpiled potentially contaminated soil/fill within five days of excavation.
2. Engage the services of a NYSDOH ELAP certified analytical laboratory to analyze samples in order to determine the proper handling and disposal of potentially contaminated soil/fill material as listed below.

3. Required Analyses:
   a. Target Compound List (TCL) Volatile Organic Compounds (VOCs) by New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) 95-1.
   b. TCL Semivolatile Organic Compounds (SVOCs) by NYSDEC ASP 95-2.
   c. TCL pesticides and polychlorinated benzenes (PCBs) by NYSDEC ASP (95-3).
   d. Target Analyte List (TAL) metals and cyanide by NYSDEC ASP.
   e. pH by SW-846 Method 9045.
4. If contaminants are present at concentrations above the SSALs, additional analysis will be required by the disposal facility and will likely include:
   a. Toxicity Leaching Characteristic Procedure (TCLP)
   b. RCRA Characteristics (Ignitability, Corrosivity, and Reactivity).

3.5 LOADING AND TRANSPORTING

A. Furnish all labor, materials, equipment, and incidentals required to load and transport all contaminated soil/fill from the site.

B. Notify the NYSDEC in writing when loading of contaminated soil/fill will occur and include the name and location of the disposal facility to be used. Submit to the NYSDEC, if requested, a full description of the disposal facility, licenses, permits, and compliance status.

C. Do not load and transport contaminated soil and debris until receipt of approval from the disposal facility that the contaminated soil and debris will be disposed in.

D. Conduct all loading and transportation activities in accordance with all applicable federal, state, and local regulations, including but not limited to United States Department of Transportation and USEPA regulations 40 CFR 172-179.

E. Conduct all loading activities to minimize the formation of dust.

F. Obtain and comply with the required permits and authorization for transportation of contaminated soil and debris in accordance with State and local jurisdictions. The contaminated soil and debris shall be transported by a licensed waste hauler.

G. All trucks transporting contaminated soil and debris for off-site disposal shall be lined, covered, and secured in accordance with all federal, State, and local regulations. Any liner that cannot be decontaminated shall be disposed of with the contaminated soil and debris. Trucks used for transportation of contaminated soil and debris shall travel on authorized roads in accordance with all federal, state and local regulations.

H. Contaminated soil and debris shall be transported for disposal in containers that are watertight. Leaking containers shall be unloaded at the site and any leaked liquids cleaned up as spills.

I. Contaminated soil and debris transport containers shall be covered to prevent release of dust and particulates and exposure of the contaminated soil and debris to precipitation.

J. Employ a temporary transport vehicle pad for vehicle loading operations to control and contain contaminated soil and debris spillage.

K. Inspect and clean loaded transport vehicle tires and undercarriage to remove any adhering contaminated soil and debris prior to vehicle departure from the site.

3.6 DISPOSAL OF EXCAVATED MATERIALS

A. Soil/Fill with concentrations of contaminants above the SSALs will be disposed off-site within 90 days of excavation at an appropriate, permitted disposal facility.

B. Prepare all applications for waste disposal at appropriate disposal facilities and waste transportation and disposal manifests and any other documents necessary for the off-site disposal of contaminated soil/fill material. Submit waste transportation and disposal documentation to the NYSDEC, if requested.

C. Prepare a waste transportation and disposal manifest, and all other documents required for waste shipment, for each load of waste material that is transported from the site.

D. Maintain a waste disposal log on-site containing pertinent waste disposal information. If requested, the NYSDEC on-site representative may review the log.

3.7 SOIL/FILL COVER SYSTEM

A. Backfill all excavations as promptly as work permits.

B. Replace cover material within 10 days of backfilling excavations. The cover material shall be consistent with and will be placed in accordance with the Remedial Work Plan.

C. If working conditions require the excavation to remain open for a period greater than ten days, plastic or metal sheeting will be used to cover the entire or portions of the excavation during periods of inactivity.

++ END OF SECTION ++

ATTACHMENT II

STANDARD OPERATING PROCEDURES

Appendix _____: Item _____ - _____ SCREENING OF SOIL/FILL SAMPLES FOR ORGANIC VAPORS

Applicability: GENERAL ___ Revision No.: _____ Date: _____

Prepared By: PIM Date: _____ Approved By:_____ Date:

1.0 INTRODUCTION

This guideline presents a method for screening soil samples. During soil/fill excavation activities, a photoionization detection (PID) or flame ionization detector (FID) will be used to monitor the excavated soils. The monitoring results provide criteria for sampling of soil potentially impacted by volatile organic substances.

2.0 METHODOLOGY

1. During excavation, the excavated soil will be examined for visually contaminated (stained) soils. If present, these areas will be sampled first. If no staining is observed, collect samples from each stockpile at random locations.

2. Place the sample in a labeled wide-mouthed glass jar. Seal the jar with aluminum foil and a screw top cap.

    a. Keep these samples at as near to 70°F as possible.
    b. Check head space of each sample for any organic vapor present by inserting the probe of the PID through the aluminum foil seal.
    c. The soil sample from each excavation location will be noted where VOA's were detected and removal of the contaminated soil will be coordinated per project requirements.

3.0 EQUIPMENT REQUIREMENTS

- 40 ml. precleaned and prelabeled glass VOA vials with teflon-lined septum caps.
- Ice and ice chest.
- Wide mouthed glass jars with screw caps
- Aluminum foil.
- Photoionization detector.

Appendix ____: Item ____ - ____COMPOSITE SAMPLE PROCEDURE FOR NON-VOLATILE ORGANICS ANALYSIS

Applicability: _____ Revision No.: _____Date:

Prepared By: _____Date: _____ Approved By: _____ Date: _____

1.0 INTRODUCTION

This guideline addresses the procedure to be used when soil samples are to be composited in the field.

2.0 METHODOLOGY

1. Transfer equal portions of soil from individual split-spoon samples to a large precleaned stainless steel (or Pyrex glass) mixing bowl.

2. Thoroughly mix (homogenize) and break up the soil using a stainless steel scoop or trowel.

3. Spread the composite sample evenly on a stainless steel tray and quarter the sample.

4. Discard alternate (i.e. diagonal) quarters and, using a small stainless steel scoop or spatula, collect equal portions of subsample from the remaining two (2) quarters until the amount required for the composite sample is acquired. Transfer these subsamples to a precleaned stainless steel (or glass Pyrex) mixing bowl and re-mix.

5. Transfer the composite sample to an appropriate precleaned jars provided by the laboratory and label. Store any excess sample from the stainless steel tray in separate, precleaned, sample containers, and submit to the laboratory for holding in case additional analysis is necessary.

6. Decontaminate all stainless steel (or glass Pyrex) trays, spoons, spatulas, and bowls in accordance with the sampling equipment decontamination procedure provided.

ATTACHMENT III

GENERIC EROSION AND SURFACE WATER CONTROL PLAN

GENERIC EROSION AND SURFACE WATER CONTROL PLAN

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. Provide all labor, materials, equipment and incidentals required to perform all excavating, backfilling, filling and grading, for construction of structures, manholes, vaults, conduits, pipelines, roads, and other facilities and all related sediment and erosion controls as specified herein.
   2. Provide positive means of erosion control, such as shallow ditches (see "New York Guidelines for Urban Erosion and Sediment Control" Third Printing 10/91 USDA – Soil Conservation Service), around work areas to remove surface drainage water from excavated areas. Pumping of water from excavations, if necessary, shall be done in such a manner to prevent the carrying away of particulates, soil/fill, or unsolidified concrete materials, and to prevent damage to the existing subgrade.
   3. Water from the excavations will be disposed properly in accordance with all applicable regulations in such a manner as not to endanger public health, property, or any portion of the work under construction or completed. Based on groundwater analytical results for samples collected at the Site, water may be discharged to the ground surface unless staining or elevated PID measurements are observed in the excavation or a sheen is present on the water surface. If any of these conditions exist the water removed from the excavation will be containerized and sampled. Any groundwater not meeting NYSDEC Ambient Water Quality and Guidance Values will be transported and disposed off-site.

1.2 QUALITY ASSURANCE

A. Permits and Regulations:
   1. Obtain all necessary permits for work in roads, rights-of-way, railroads, etc. Also obtain permits as required by local, state and federal agencies for discharging water from excavations.
   2. Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

B. Reference Standards: Comply with applicable provisions and recommendations of the following.
   1. NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) SPDES General Permit for Storm Water Discharges from Construction Activities (Permit Number GP-93-06).
   2. SOIL AND WATER CONSERVATION SOCIETY (SWCS) - EMPIRE STATE CHAPTER 1991 (or latest version) New York Guidelines for Urban Erosion and Sediment Control.

3. CODES, RULES, AND REGULATIONS OF THE STATE OF NEW YORK 6 NYCRR Part 700 Definitions, Samples and Tests.
4. 6 NYCRR Part 364 Waste Transporter Permits.
5. OSHA Standard, Title 29, Code of Federal Regulations, Part 1926, Section .650 (Subpart P - Excavations).

1.3 SUBMITTALS

A. The Contractor shall prepare a written Work Plan that details the Contractor's operations and includes all activities that relate to the soil excavation (i.e., excavation plan, sampling plan, etc.). The Work Plan must detail erosion control methods and surface water management procedures that will be implemented by the Contractor throughout the work. The Work Plan shall include:

1. Procedures for excavating, handling, storing and transporting off-site contaminated soils, hazardous soils and concrete debris including a contingency plan detailing procedures and methods to be employed at no additional cost to prevent, contain, and recover spills during the work.
2. Description of equipment to be used on site with appropriate safety devices needed to undertake the remediation of the site.
3. Identification of permits required to conduct the work.
4. Worksite layout showing, at a minimum, equipment and material staging areas, trailers, decontamination station, and staging procedures.
5. Identification of proposed haul routes for wastes and backfill.
6. Detailed construction drawing(s) of the proposed decontamination station.
7. Provisions for control and prevention of surface runoff.
8. Procedures and provisions for control of fugitive air emissions and dust control.
9. Detailed work schedule for all tasks to fulfill the project.
10. Other requirements necessary to provide security, staging, sampling, testing, removal, and disposal of wastes.
11. Procedures and provisions for traffic control on public right of ways and private properties.
12. Procedures and provisions for site winterization, if necessary.
13. Procedures for collecting, storing, and disposing of decontamination water and other contaminated water generated during the work.
14. Methods and equipment to be used for compaction of fill materials backfilled in the excavated areas.

1.3.1. STORM WATER MANAGEMENT AND EROSION CONTROL PLAN (SWECP)

A. A SWECP will be included in the Work Plan. The SWECP shall follow guidelines for structure and content contained in SPDES-GP-93-06, Appendix F. The SWECP shall include:

1. Information regarding site background, description of work, analysis of site limitations for storm water facilities, and potential impact to natural resources.
2. All calculations and assumptions used for the sizing and siting of proposed temporary erosion and sedimentation control facilities.

3. Information regarding maintenance needs and safety considerations of storm water management and erosion and sediment control facilities.
4. Description of the staging of erosion and sedimentation control facilities and construction activities.
5. Description of winterization provisions, if necessary.

1.3.1.1 Storm Water Management Guidelines

A. Control and prevent surface runoff into remediation areas.

B. Control and prevent surface runoff from contaminating a clean area, or recontaminating an area that has been excavated to remove all soil above the cleanup goals. In the event surface runoff is the cause of existing clean areas, or subsequently cleaned areas, becoming contaminated, the affected areas shall be cleaned in accordance with the Remedial Work Plan.

1.3.1.2 Erosion and Sediment Control Guidelines

A. Existing vegetation on the project site shall be retained and protected to minimize soil loss on the project site and to minimize erosion control costs.

B. Sediment control practices and measures, where necessary, shall be designed to protect the natural character of rivers, streams, lakes, coastal waters or other waterbodies in the vicinity of the site and minimize erosion and sedimentation off-site from the start of land disturbance activities to completion of the project.
   1. The off-site impacts of erosion and sedimentation related to land clearing, grading and construction activities shall not be any greater during and following land disturbance activities than under pre-mobilization conditions.
   2. Pursuant to 6NYCRR Part 700.
      a. Toxic and other deleterious substances shall not be discharged in amounts that will adversely affect the taste, color or odor thereof, or impair the waters of the state for their classified usages.
      b. Suspended, colloidal and settleable solids shall not be discharged in amounts that cause substantial visible contrast to natural conditions, or causes deposition or impairs the waters for their classified usages.
   3. Stream reaches downstream of construction areas shall not have substantial visible contrast relative to color, taste, odor, turbidity and sediment deposition from the reaches upstream of the construction area. Impacts such as these which result from construction or developmental activities are a violation of 6 NYCRR Park 700 water quality standards and may be subject to enforcement actions.

C. Erosion and sediment control measures shall be constructed in accordance with an erosion and sediment control plan. The plan shall:
   1. Describe the temporary structural and vegetative measures that will be used to control erosion and sedimentation for each stage of the project from land clearing to the finished stage.
   2. Provide a map showing the location of erosion and sediment control measures.
   3. Provide an implementation schedule for staging temporary and permanent erosion and sediment control facilities.
   4. Provide a maintenance schedule for soil and sediment control facilities and describe maintenance activities to be performed.

D. Erosion and sediment control measures shall be constructed prior to beginning any other land disturbances. The devices shall not be removed until the disturbed land areas are stabilized.

E. Guidance:
   1. Grading: Perimeter grading shall blend with adjoining properties.
   2. Vegetative Protection: Where protection of trees or other vegetation is required, the location of the site to be protected shall be shown on the erosion control plan. The method of protecting vegetation during construction shall conform to the design criteria in SWCS.
   3. Drainage Control:
      a. Surface runoff that is relatively clean and sediment free shall be diverted or otherwise prevented from flowing through areas of construction activity on the project site.
      b. An approved temporary sediment control structure or permanent storm water management structure shall not be created which causes water to pond off-site on adjacent property, without first having obtained ownership or permanent easement for such use from the owner of the off-site or adjacent property.
      c. Natural drainage channels shall not be altered or relocated without the proper approvals. Pursuant to ECL Article 15 a protected stream and the bed and banks thereof shall not be altered or relocated without the approval of the NYSDEC.
      d. Runoff from any land disturbing activity shall not be discharged or have the potential to be discharged off-site or into storm drains or into watercourses unless such discharge is directed through a properly designed, installed and maintained structure, such as a sediment trap, to retain sediment on-site. Accumulated sediment shall be removed when 60 percent of the storage capacity of the sediment retention structure is filled with sediment.
      e. To limit the potential for migration of water with high pH from the site, clay plugs will be installed in the utility corridors at a maximum spacing of 100 feet.
      f. For finished grading, adequate gradients shall be provided so as to prevent water from standing on the surface of lawns for more than 24 hours after

the end of a rainfall, except in a swale flow area which may drain as long as 48 hours after the end of rainfall.

g. Permanent swales or other points of concentrated water flow shall be stabilized with sod, rip rap, paving, or covered with an approved erosion control matting as provided for in the design criteria in SWCS.

h. Surface flows over cut and fill slopes shall be controlled as provided for in the design criteria for vegetating waterways in SWCS.

5. Stream protection:

a. The bed and banks of all on-site and off-site streams that may be impacted by land clearing, grading, and construction activities shall be protected to prevent stream, river, lake or coastal sedimentation, streambank erosion, stream enlargement and degradation or loss of fisheries habitat. Measures for protecting the bed and banks of a stream include: riprap, log cribbing, and vegetative measures.

6. Maintenance:

a. An erosion control plan for the project site shall identify maintenance requirements for erosion and sediment control practices utilized, and it shall provide a maintenance schedule. All erosion and sediment control measures shall be inspected periodically and maintained in conformance with the schedule so as to ensure they remain in effective, operating condition until such times as they are removed.

b. All points of construction ingress and egress shall be protected to prevent the deposition of materials onto traversed public thoroughfare, either by installing and maintaining a stabilized construction entrance, or by washing all vehicle wheels in a safe disposal area. All materials deposited onto public thoroughfares shall be removed immediately. Proper precautions shall be taken to ensure that materials deposited onto public thoroughfares are removed so that they do not enter catch basins, storm sewers, or combined sewers.

c. Accumulated sediment shall be removed when 60 percent of the storage capacity of the retention structure is filled with sediment.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 -EXECUTION

A. The Contractor will provide NYSDEC with sufficient notice and means to examine the areas and conditions under which excavating, filling, and grading are occurring.

B. The Contractor shall strictly adhere to the provisions of the Work Plan and shall control and manage surface water in every area where his/her activities take place.

C. The Contractor shall plan and execute construction and earth work by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.
   1. Hold the areas of bare soil exposed at one time to a minimum.
   2. Provide temporary control measures such as berms, dikes and drains.

D. Construct fills and waste areas by selective placement to eliminate surface silts or clays, which will erode.

E. Periodically inspect earthwork to detect any evidence of the start of erosion, apply corrective measures as required to control erosion.

F. Surface water from known areas of contamination shall be collected prior to leaving those areas and properly disposed following all applicable state and federal regulations.

G. In the event that surface runoff is the cause of existing clean areas, or subsequently cleaned areas, becoming contaminated, the affected areas shall be cleaned in accordance with the Remedial Work Plan.

H. Groundwater that is visibly flowing from the excavation shall be collected at each exit point and properly disposed following all applicable state and federal regulations.

++ END OF SECTION ++

ATTACHMENT IV

EROSION CONTROL DETAILS

STANDARD AND SPECIFICATIONS FOR STRAW BALE DIKE

Definition

A temporary barrier of straw or similar material used to intercept sediment laden runoff from small drainage areas of disturbed soil.

Purpose

The purpose of a bale dike is to reduce runoff velocity and effect deposition of the transported sediment load. Straw bale dikes are to be used for no more than three (3) months.

Conditions Where Practice Applies

The straw bale dike is used where:

1. No other practice is feasible.
2. There is no concentration of water in a channel or other drainage way above the barrier.
3. Erosion would occur in the form of sheet erosion.
4. Length of slope above the straw bale dike does not exceed these limits:

Constructed Slope	Percent Slope	Slope Length (feet)
2:1	50	25
2-1/2:1	40	50
3:1	33	75
3-1/2:1	30	100
4:1	25	125

Where slope gradient changes through the drainage area, steepness refers to the steepest slope section contributing to the straw bale dike.

The practice may also be used for a single family lot if the slope is less than 15 percent. The contributing drainage area in this instance shall be less than one acre and the length of slope above the dike shall be less than 200 feet.

Design Criteria

A design is not required. All bales shall be placed on the contour with cut edge of bale adhering to the ground. See Figure 4.3 on page 4.10 or details.

STANDARD AND SPECIFICATIONS FOR SILT FENCE

Definition

A temporary barrier of geotextile fabric (filter cloth) used to intercept sediment laden runoff from small drainage areas of disturbed soil.

Purpose

The purpose of a silt fence is to reduce runoff velocity and effect deposition of transported sediment load. Limits imposed by ultraviolet stability of the fabric will dictate the maximum period the silt fence may be used.

Conditions Where Practice Applies

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope lengths contributing runoff to a silt fence are:

Slope Steepness	Maximum Slope Length (Ft)
2:1	50
3:1	75
4:1	125
5:1	175
Flatter than 5:1	200

2. Maximum drainage area for overland flow to a silt fence shall not exceed 1/2 acre per 100 feet of fence; and

3. Erosion would occur in the form of sheet erosion; and

4. There is no concentration of water flowing to the barrier.

Design Criteria

Design computations are not required. All silt fences shall be placed as close to the area as possible, and the area below the fence must be undisturbed or stabilized.

A detail of the silt fence shall be shown on the plan, and contain the following minimum requirements:

1. The type, size, and spacing of fence posts.
2. The size of woven wire support fences. (OPTIONAL)
3. The type of filter cloth used.
4. The method of anchoring the filter cloth.
5. The method of fastening the filter cloth to the fencing support.

Where ends of filter cloth come together, they shall be ove lapped, folded and stapled to prevent sediment bypass. S Figure 4.4 on page 4.12 for details.

Criteria for Silt Fence Materials

1. Silt Fence Fabric: The fabric shall meet the follow specifications unless otherwise approved by the a propriate erosion and sediment control plan approva authority. Such approval shall not constitute statewi acceptance. Statewide acceptability shall depend on field and/or laboratory observations and evaluations.

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751 (modified)
Slurry Flow Rate (gal/min/sf)	0.3	
Equivalent Opening Sizw	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.0 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot.

3. Wire Fence (for fabricated units): Wire fencing shall be a minimum 14-1/2 gage with a maximum 6 in. mesh opening, or as approved. (OPTIONAL)

4. Prefabricated Units: Envirofence or approved equal may be used in lieu of the above method providing the unit is installed per manufacturer's instructions.

STANDARD AND SPECIFICATION FOR TEMPORARY SWALE

Definition

A temporary excavated drainage way.

Purpose

The purpose of a temporary swale is to prevent runoff from entering disturbed areas by intercepting and diverting it to a stabilized outlet or to intercept sediment laden water and divert it to a sediment trapping device.

Conditions Where Practice Applies

Temporary Swales are constructed:

1. To divert flows from a disturbed area.
2. Intermittently across disturbed areas to shorten overland flow distances.
3. To direct sediment laden water along the base of slopes to a trapping device.
4. To transport offsite flows across disturbed areas such as rights-of-way.

Swales collecting runoff from disturbed areas shall remain in place until the disturbed areas are permanently stabilized.

Design Criteria

See Figure 4.5 on page 4.14 for details.

	Swale A <5 Ac	Swale B 5-10 Ac
Drainage Area		
Bottom Width of Flow Channel	4 ft	6 ft
Depth of Flow Channel	1 ft	1 ft
Side Slopes	2:1 or Flatter	2:1 or Flatter
Grade	0.5% Min. 20% Max.	0.5% Min. 20% Max.

For drainage areas larger than 10 acres, refer to the Standard and Specifications for Waterways on page 4.91.

Stabilization

Stabilization of the swale shall be completed within 10 days of installation in accordance with the appropriate standard and specifications for vegetative stabilization or stabilization with mulch as determined by the time of year. The flow channel shall be stabilized as per the following criteria:

		FLOW CHANNEL	
Type of Treatment	Channel Grade	A ≤5 Ac	B 5-10 Ac
1	0.5-3.0%	Seed & Straw Mulch	Seed & Straw Mulch
2	3.1-5.0%	Seed & Straw Mulch	Seed and cover with Jute or Excelsior; Sod, or lined with 2 in. stone
3	5.1-8.0%	Seed and cover with Jute or Excelsior, Sod line with 2 in. stone	Line with 4-8 in. stone or Recycled Concrete Equivalent
4	8.1-20%	Line with 4-8 in. stone or Recycled Concrete Equivalent[1]	Engineering Design

In highly erodible soils, as defined by local approving agency, refer to the next higher slope grade for type of stabilization.

[1] Recycled Concrete Equivalent shall be concrete broken into the required size, and shall contain no steel reinforcement.

Outlet

Swale shall have an outlet that functions with a minimum of erosion, and dissipates runoff velocity prior to discharge off the site.

Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin until the drainage area above the swale is adequately stabilized.

The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet condition.

If swale is used to divert flows from entering a disturbed area, a sediment trapping device may not be needed.

STANDARD AND SPECIFICATIONS
FOR
PERIMETER DIKE/SWALE

Definition

A temporary ridge of soil excavated from an adjoining swale located along the perimeter of the site or disturbed area.

Purpose

The purpose of a perimeter dike/swale is to prevent off site storm runoff from entering a disturbed area and to prevent sediment laden storm runoff from leaving the construction site or disturbed area.

Conditions Where Practice Applies

Perimeter dike/swale is constructed to divert flows from entering a disturbed area, or along tops of slopes to prevent flows from eroding the slope, or along base of slopes to direct sediment laden flows to a trapping device.

The perimeter dike/swale shall remain in place until the disturbed areas are permanently stabilized.

Design Criteria

See Figure 4.16 on page 4.34 for details.

The perimeter dike/swale shall not be constructed outside the property lines without obtaining legal easements from effected adjacent property owners. A design is not required for perimeter dike/swale. The following criteria shall be used:

Drainage area - Less than 2 acres (for drainage areas larger than 2 acres but less than 10 acres see earth dike; for drainage areas larger than 10 acres, see standard and specifications for diversion).

Height - 18 inches minimum from bottom of swale to top of dike evenly divided between dike height and swale depth.

Bottom width of dike - 2 feet minimum.

Width of swale - 2 feet minimum.

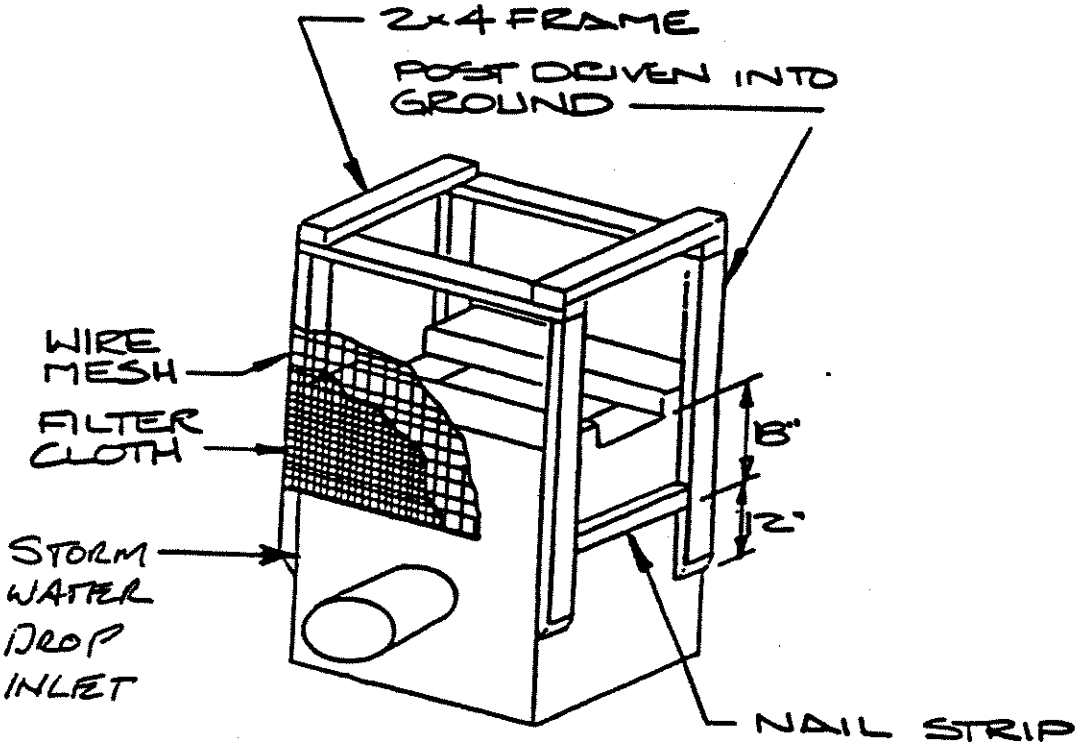
Grade - Dependent upon topography, but shall have positive drainage (sufficient grade to drain) to an adequate outlet. Maximum allowable grade not to exceed 20 percent.

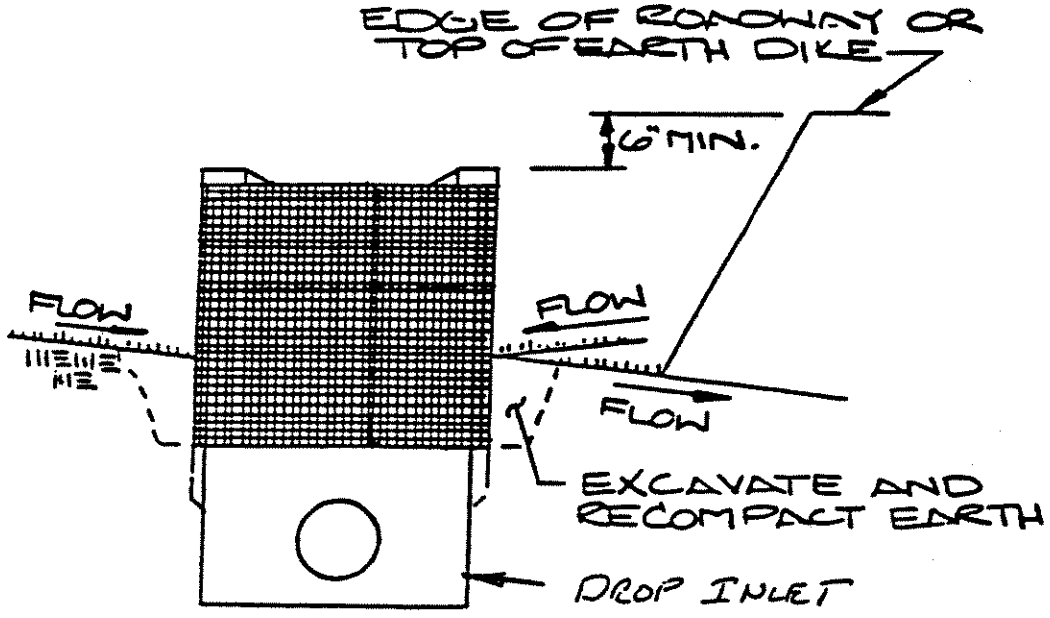
Stabilization - The disturbed area of the dike and swale shall be stabilized within 10 days of installation, in accordance with the standard and specifications for seed and straw mulch or straw mulch only if not in the seeding season.

Outlet

1. Perimeter dike/swale shall have an outlet that functions with a minimum of erosion.
2. Diverted runoff from a protected or stabilized upland area shall outlet directly onto an undisturbed stabilized area.
3. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device such as a sediment trap, sediment basin, or to an area protected by any of these practices.
4. The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet.

SEDIMENT TRAP FOR DROP INLETS





MALCOLM PIRNIE

Operation, Monitoring and Maintenance Work Plan

APPENDIX

I

MALCOLM PIRNIE

Operation, Monitoring and Maintenance Work Plan

APPENDIX I

I.1 Introduction

This Operation, Monitoring and Maintenance (OM&M) Work Plan has been prepared for the former Incinerator Site in Lackawanna, New York (the Site). The Site was investigated under a USEPA Brownfields assessment grant and a Site Investigation/Remedial Alternatives Report (SI/RAR) prepared. The SI/RAR recommended limited removal of ash material beneath the older of the two incinerators, sediment beneath a storm water sewer outfall, and asbestos containing building materials within the two former municipal trash incinerators prior to demolition of the incinerators. Also, because elevated concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals were present in the on-site soil/fill material, capping of the site as part of its redevelopment was recommended as well as implementation of a soil/fill management plan. In conjunction with the capping remedy, it is recommended that the Site owner maintains the institutional and physical components of the cover using prescribed procedures acceptable to the regulatory agency (the NYSDEC). This OM&M Work Plan describes the conditions and procedures for maintaining the physical components of the Site remedy and is recommended as part of the overall site cleanup.

The owner (Owner) of the Site should evaluate the criteria presented in this plan and should recommend changes to the NYSDEC, as appropriate, depending on actual post-closure site conditions. As a minimum, this plan should be reviewed annually during the post-closure period and updated when necessary.

Prior to initiation of the OM&M Work Plan, the Owner shall prepare and submit appropriate organizational documents to the Regulator for review and approval. The organizational documents shall include:

- An organizational chart outlining the responsible parties personnel (with qualifications) who will be responsible for implementing the post-closure operation, maintenance and monitoring program.
- A health and safety plan.
- Example inspection report forms.
- A schedule for the annual inspections and reporting.

I.2 Background

The Site includes approximately five acres of property including the two former municipal solid waste incinerators located at the east end of Reddon Street in Lackawanna, Erie County, New York.

The site is dominated by a large, ramp-like, mound of soil/fill that was incorporated into the construction of the two incinerators. The two incinerator buildings remain on the site but are no longer active. The fill ramp was constructed to provide truck access to the second story of the incinerator buildings. Over the years, the City has continued to add fill materials to the lateral edges of the fill ramp, widening the ramp to the east and west. The fill materials originated from various City DPW projects, relining of the incinerators fire bricks, and debris from street sweeping. The former incinerator buildings are used for equipment storage by the City's department of public works. The basement floor of the newer incinerator building is also used as a short-term dog holding kennel by the City dog warden.

The incinerators were used to burn primarily municipal trash collected curbside throughout the City. Medical wastes, generated at the nearby Our Lady of Victory (OLV) Hospital, were also intermittently burned in the incinerators. Yard wastes along with any

construction and demolition (C&D) materials were segregated from the municipal trash and disposed of offsite. The first incinerator was used until approximately 1950 when a new larger incinerator was constructed at the north central area of the site. Both incinerators were built into the same soil/fill mound, which forms a ramp-like feature on the site. The ramp is constructed mainly of soil with some slag and incinerator ash. Occasionally ash was stockpiled outside the incinerator building for later offsite disposal. Following its closing, the ground floor of the older incinerator building was filled with incinerator ash, and the second floor was converted to a carpenter and collision shop. The second incinerator was deactivated in approximately 1980 when the City ended the practice of incinerating its own trash and began hauling its municipal wastes to private solid waste contractors. No known environmental studies have been performed at the incinerator site.

I.3 Remedial Alternatives Report

The Remedial Alternatives Report (RAR) for the site was prepared in October 2005 to be implemented during the cleanup of the Former Incinerator Site.

According to the RAR, in order to eliminate potential exposure risks associated with direct contact with site fill material, the entire site will be covered as part of site redevelopment. Where not paved or covered by new site structures, the site will be covered with either pavement (asphalt or concrete) or a minimum of two feet of documented clean soil cover material. Excavation of the soil/fill, if necessary to attain proper grade, will be performed in accordance with the Soil/Fill Management Plan (Appendix H of the SI/RAR). The cover system may be placed directly on top of the re-graded on-site fill material. Surface coverage over the entire redeveloped parcel or subparcel will be required by the site owner as a pre-condition of reuse.

The proposed cover system has been designed to be protective of human health and the environment. The primary exposure pathway for contaminants at the site (metals and polycyclic aromatic hydrocarbons) in soil is via direct contact. The proposed plan of covering the on-site fill material will eliminate the potential for direct contact with soil and is therefore protective of human health.

The Qualitative Risk Assessment performed as part of the Site Investigation (Malcolm Pirnie, 2005) evaluated the risk posed by chemicals of potential concern ("COPCs") to human health. The Risk Assessment also evaluated the adequacy of the cover system planned for placement during site redevelopment and determined that the above-described cover system would protect human health from these COPCs.

I.4 Summary of the Remedial Closure Design

I.4.1 Preparation of Site Surface

The Site will require grading prior to cover placement activities, in accordance with the RAP and appended Soil/Fill Management Plan (SFMP). Any fill material will be graded to a regular topographic surface as planned for redevelopment. Any trees, shrubs, roots, brush, masonry, rubbish, scrap, debris, pavement, curbs, fences and miscellaneous structures will either be removed or disposed of off-site at a permitted disposal facility. Prior to placement of the cover system, all protruding material will be removed from the ground surface. Burning shall not be allowed on the Site.

I.4.2 Cover System

I.4.2.1 Soil

In areas that will not receive significant equipment or vehicular use, the cover system will be composed of soil fill from a NYSDEC-approved borrow source and tested in accordance with the Soil/Fill Management Plan and found to contain constituent concentrations less than those specified in NYSDEC TAGM 4046. The soil cover will be placed in accordance with the RAR.

It will be the responsibility of the Owner to annually verify that the soil cover has remained in good condition (e.g., grass or other vegetation is maintained) and sufficiently covers the soil/fill material at the Site (i.e., eroded areas are repaired and the soil cover is maintained). Certification as to this verification is included on the site inspection form on Attachment A.

I.4.2.2 Asphalt

The cover system in areas that will remain as or become roads, sidewalks, and parking lots will consist of a minimum of two inches of asphalt that will be placed over the soil/fill material at the site. The asphalt will be placed on a minimum four-inch gravel subbase to provide stability for construction and to limit subsidence, in accordance with the RAR. Prior to placement of the subbase, all protruding material will be removed from the ground surface and the area re-graded to a regular surface.

It will be the responsibility of the Owner to annually verify that the asphalt has remained in good condition and sufficiently covers the soil/fill material.

I.4.2.3 Concrete

The cover system in areas that will become structures will consist of a minimum of two inches of concrete that will be placed above the soil/fill material. The concrete will be placed on a minimum four-inch gravel subbase to provide stability for construction and to limit subsidence. Concrete may also be used instead of asphalt for roads, sidewalks, and parking lots. Prior to placement of the subbase, all protruding material will be removed from the ground surface and the area re-graded to a sufficient regular surface.

It will be the responsibility of the Owner to annually verify that the concrete has remained in good condition and sufficiently covers the soil/fill material at the Site as per Attachment A.

I.4.3 Erosion Control Measures

In accordance with the SFMP, design and permanent construction features shall be incorporated into the site construction plans to control erosion. It will be the responsibility of the Owner to annually certify that storm water channel slopes, vegetation and any synthetic erosion control fabrics placed in such channels remain in good condition.

I.5 Inspection Procedures

The physical components of the cover system shall be inspected annually by a representative of Owner (or its delegated agent) qualified to carry out such inspections. The inspector should be, at minimum, a certified industrial hygienist or a person with a four-year college degree in environmental sciences. The inspection will be coordinated with facility personnel at least one week prior to ensure that most, if not all, of the paved areas will be accessible for inspection. Arrangements to repair those areas that the inspector requires to be maintained, if any, will be initiated as may be required by the inspector.

The annual inspection shall include, but not be limited to, those matters set forth on the Environmental Inspection Form, attached hereto as Attachment B. These inspection reports, which shall include a map that shows areas of damage or required maintenance, shall be kept on file by the Owner. If the inspections reveal that maintenance is necessary, then the Owner shall notify the NYSDEC, and arrange to complete the repairs. The NYSDEC shall be informed by Owner when repairs are complete.

I.6 Final Cover System Condition

The final cover system shall be observed by traversing the cover on foot and making appropriate observations, notes and photographic records as necessary, for inclusion with the report. It is anticipated that some maintenance activities will be necessary during the closure period. The following characteristics shall be looked for during the observation of the cover system and erosion control features:

- Sloughing.
- Cracks.
- Settlement (depression and puddles).
- Erosion features.
- Distressed vegetation/turf.

The following paragraphs describe actions that should be taken to address the conditions described above. Maintenance and repairs that are typically necessary during the closure period are also described.

I.6.1 Sloughing

Sloughing of the soil cover may occur. Areas where sloughing has occurred shall be repaired. Cover soil shall be placed in accordance with the requirements of the RAR, and of the Soil/Fill Management Plan (SFMP).

I.6.2 Cracks

The locations of any cracks in the soil, asphalt or concrete cover should be noted on the inspection log and site map, including width, length and depth of the crack. The appropriate maintenance procedure will be determined by the inspector. Small willow cracks in the soil cover can be repaired by minor re-grading of the cracked area and re-seeding the area. Larger cracks that appear to extend into the fill material shall be filled with soil similar to that used for construction of the cover soil layer prior to re-seeding, in accordance with the RAR. Repairs to the asphalt and/or concrete will be completed when and in the fashion deemed necessary by the inspector.

I.6.3 Settlement

Settlement features such as depressions or areas of ponding water shall be re-graded by placing additional soil cover so that surface water drains in the appropriate direction.

I.6.4 Erosion Features

Erosion features shall be repaired by backfilling to the original grade with soil and re-seeding. Torn or displaced synthetic erosion control fabric in storm water channels shall be repaired or replaced as directed by the inspector.

I.6.5 Distressed Vegetation/Turf

Areas of distressed turf shall be re-seeded and a starter fertilizer applied. Large-root growth may also compromise the integrity of the soil cover and shall be discouraged with regular mowing. Reasonable efforts shall be taken to avoid damage to the turf from traffic and other unintended uses.

I.7 Inspection Reporting

Annual inspection reports shall be forwarded by the Owner to the NYSDEC. If the inspection finds that corrective action is required, a followup inspection will be made after the repairs have been completed. If the inspector determines that corrective action is required, the Corrective Action Form (Attachment C) will be included with the inspection report, confirming that the repairs were completed, and in accordance with the Remedial Work Plan.

Any analytical data that may be gathered during the course of the inspection or corrective action shall also be included with the inspection report and submitted to the NYSDEC within 21 days of the inspection. The inspection reports will be submitted by the Site Owner with an attached Annual Certification form, signed and notarized by the Site Owner, certifying that the specified engineering and institutional controls are in place and functioning.

ATTACHMENTS

A. Environmental Inspection Form

B. Annual Certification of Institutional/Engineering Controls

C. Correction Action Form

ATTACHMENT A

ENVIRONMENTAL INSPECTION FORM

Former Incinerator Site, Lackawanna, New York

Property Name: _____ Inspection Date: _____

Property Address: _____

City: _____ State: _____ Zip Code: _____

Property ID: (Tax Assessment Map)

Section:_____ Block:_____ Lot(s):_____

Total Acreage: _____

Weather (during inspection): Temperature: _____ Conditions:

SIGNATURE:

The findings of this inspection were discussed with appropriate personnel, corrective actions were identified and implementation was mutually agreed upon:

Inspector: _____ Date: _____

Next Scheduled Inspection Date: _____

COVER & VEGETATION

	Yes	No
1. Final cover in acceptable condition?	_____	_____
Is there evidence of sloughing, erosion, ponding or settlement?	_____	_____
Is there evidence of unintended traffic; rutting?	_____	_____
Is there evidence of distressed vegetation/turf?	_____	_____
2. Final cover sufficiently covers soil/fill material?	_____	_____
Are there cracks visible in the soil or pavement?	_____	_____
Is there evidence of erosion in the storm water channels or swales?	_____	_____
Is there damage to the synthetic erosion control fabric in the channels or swales?	_____	_____

ACTIVITY ON SITE

3. Any activity on site that mechanically disturbed soil cover?	_____	_____

ADDITIONAL FACILITY INFORMATION

Development on or near the site? (Specify size and type):

COMMENTS

Item #

ATTACHMENTS

1. Site Sketch
2. Photographs
3. Laboratory Report (s)

ATTACHMENT B

Annual Certification of Institutional/Engineering Controls

Former Incinerator Site, Lackawanna, New York

Property Name:
Property Address:

County: Erie
City/Town: Lackawanna
Property ID: (Tax Assessment Map)
Section:_____ Block:_____ Lot(s):_____

I (name) _____ , residing at (address) _____, as owner of the property(ies) listed above which are located wholly or partially within the boundaries of the Site named above; do certify that the engineering and/or institutional controls, as specified in the Soil/Fill Management Plan and the Operation, Monitoring and Maintenance Work Plan are in-place and functioning as designed within the property(ies) listed above.

Signature:_____

(This area for notary public)

ATTACHMENT C

CORRECTIVE ACTION FORM
Former Incinerator Site, Lackawanna, New York

Property Name: _____

Property Address:

City: _____ State: _____ Zip Code: _____

Property ID: (Tax Assessment Map)

Section:_____ Block:_____ Lot(s):_____

Total Acreage: _____

Weather (during inspection): Temperature: _____ Conditions:

An inspection of the subject property on (date) identified the need for corrective action.

CORRECTIVE ACTION TAKEN

Description: (attach site sketch and photographs)

Date Completed:

SIGNATURE:

The corrective action described above was completed in accordance with all relevant requirements of the Remedial Action Work Plan.

Inspector: _____Date: _____

ATTACHMENTS

1. Site Sketch
2. Photographs
3. Laboratory Report (s)