FINAL INTERIM REMEDIAL REPORT

NY STATE SUPERFUND STANDBY CONTRACT
DIARSENOL-KINGSLEY PARK SITE
City of Buffalo, Erie County

WORK ASSIGNMENT NO. D002478-5
SITE NO. 9-15-124

PREPARED FOR

New York State
Department of
Environmental Conservation
Albany, New York

50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, Commissioner

Division of Hazardous Waste Remediation
Michael J. O'Toole, Jr., P.E., Director

PREPARED BY

ENGINEERING-SCIENCE
Liverpool, New York

FEBRUARY 1991
SY145.04

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DIVISION OF HAZARDOUS WASTE REMEDIATION

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ENGINEERING-SCIENCE, INC.
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FEBRUARY 1991

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SECTION 1

INTRODUCTION AND SITE HISTORY

1.1 PROJECT BACKGROUND

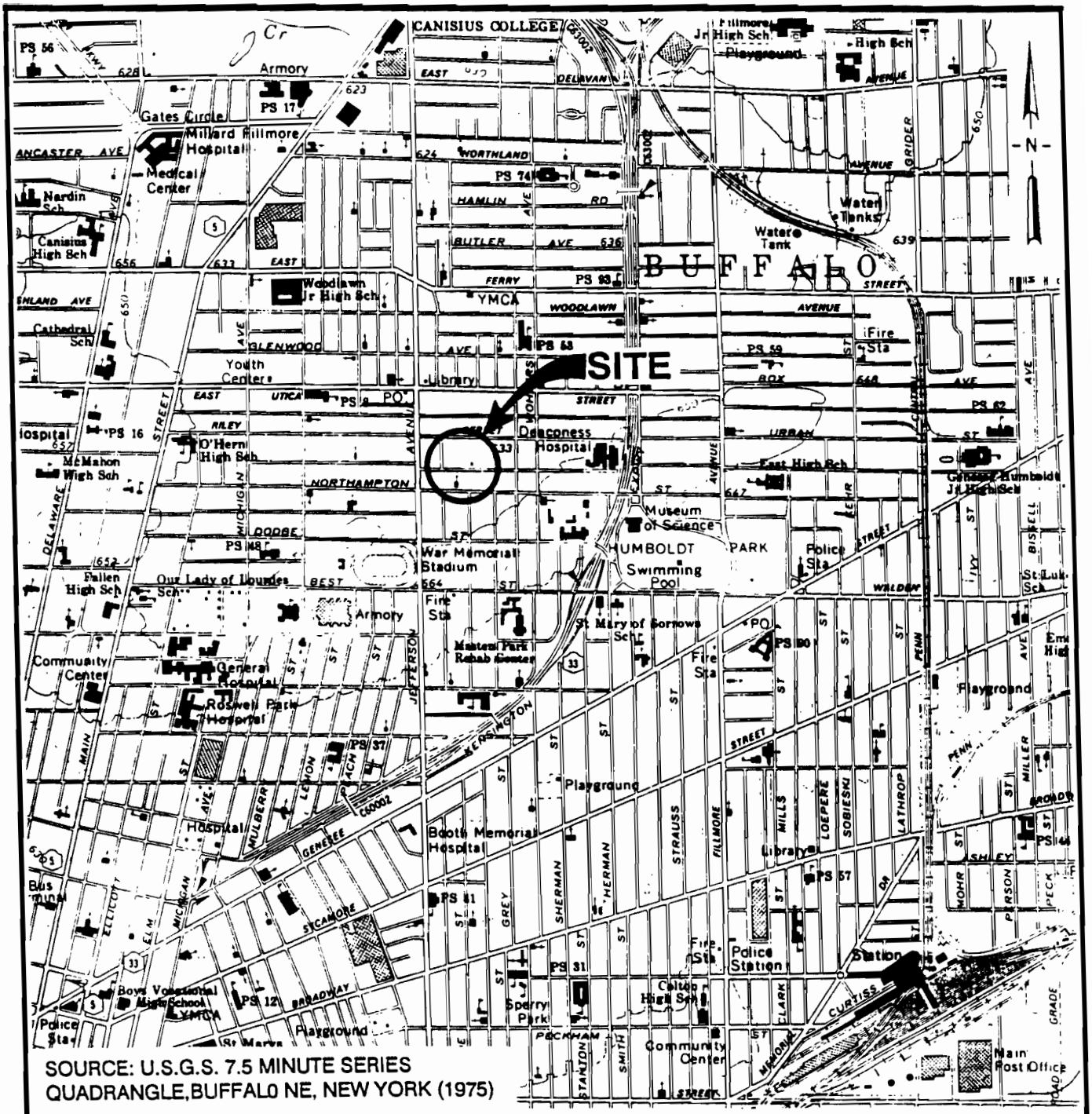
The Diarsenol Company, Kingsley Park site New York State Department of Environmental Conservation (NYSDEC) Site No. 915124 is located at 60 to 86 Kingsley Street in the City of Buffalo, Erie County, New York (Figure 1.1). The site is located in an urban residential area and several houses border the Park (Figure 1.2). The Diarsenol Company operated a pharmaceutical manufacturing plant which produced an arsenic-based medication from 1930 to 1948 at 72 Kingsley Street. The City of Buffalo acquired the property in 1967 and maintained it as Kingsley Park (recreation area) until 1988 when it was closed due to concerns about the potential threat to public health. While no specific incidence can be documented, it is suspected that the company disposed of manufacturing waste and/or unused or off-specification product containing arsenic around the plant site. According to a complaint registered in 1983 with the Buffalo Sewer Authority, some Diarsenol Company material was dumped in the field next to the Diarsenol Company plant. It is unknown if the dumping occurred over a long term or at one time when the plant closed (DEP, 1983).

A number of surface and shallow subsurface (i.e., less than 20 feet) soil samples have been taken at and near the site since 1983 (Table 1.1). Lead concentrations as high as 8,400 ppm and arsenic concentrations as high as 7,090 ppm have been detected. These concentrations are above the estimated normal range of 2-200 ppm for lead and 1.5-20 ppm for arsenic in soils (EPA, 1983 & 1985). Twenty of the samples collected during a Phase II investigation by Ecology and Environment (E&E) in 1990 were analyzed by the Extraction Procedure (EP) Toxicity method. Two had results for arsenic that were above the maximum allowable concentration for a non-hazardous waste (E&E, 1990).

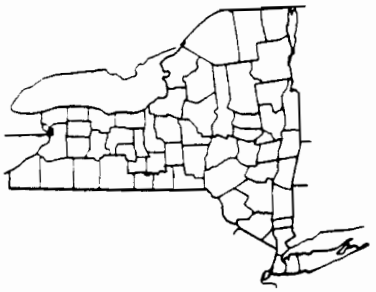
As a result of these tests and other data developed during this Phase II investigation, E&E recommended that a work plan be developed for the removal of contaminated material from the site. E&E reported "that the potential incidence of human and environmental exposure at the site is currently substantial" (E&E, 1990). Following this report, in June and July 1990, additional samples were collected by the New York State Department of Health (NYSDOH) from properties outside the park. These samples were analyzed for arsenic and lead. NYSDOH found elevated lead and arsenic contamination offsite with arsenic contamination concentrated in the properties boarding the northeastern park area.

In September 1990, the NYSDEC requested that Engineering-Science, Inc. (ES) conduct a site investigation of the Diarsenol Company, Kingsley Park site. The ES work plan was completed in September 1990 and approved by the NYSDEC in October 1990. ES completed the field investigation in November 1990.

FIGURE 1.1



SOURCE: U.S.G.S. 7.5 MINUTE SERIES
QUADRANGLE,BUFFALO NE, NEW YORK (1975)



QUADRANGLE LOCATION

SITE LOCATION MAP

DIARSENOL COMPANY
KINGSLEY PARK SITE
BUFALO, NEW YORK

2,000 0 2,000 FEET

SCALE: 1" = 2,000'

ES ENGINEERING–SCIENCE

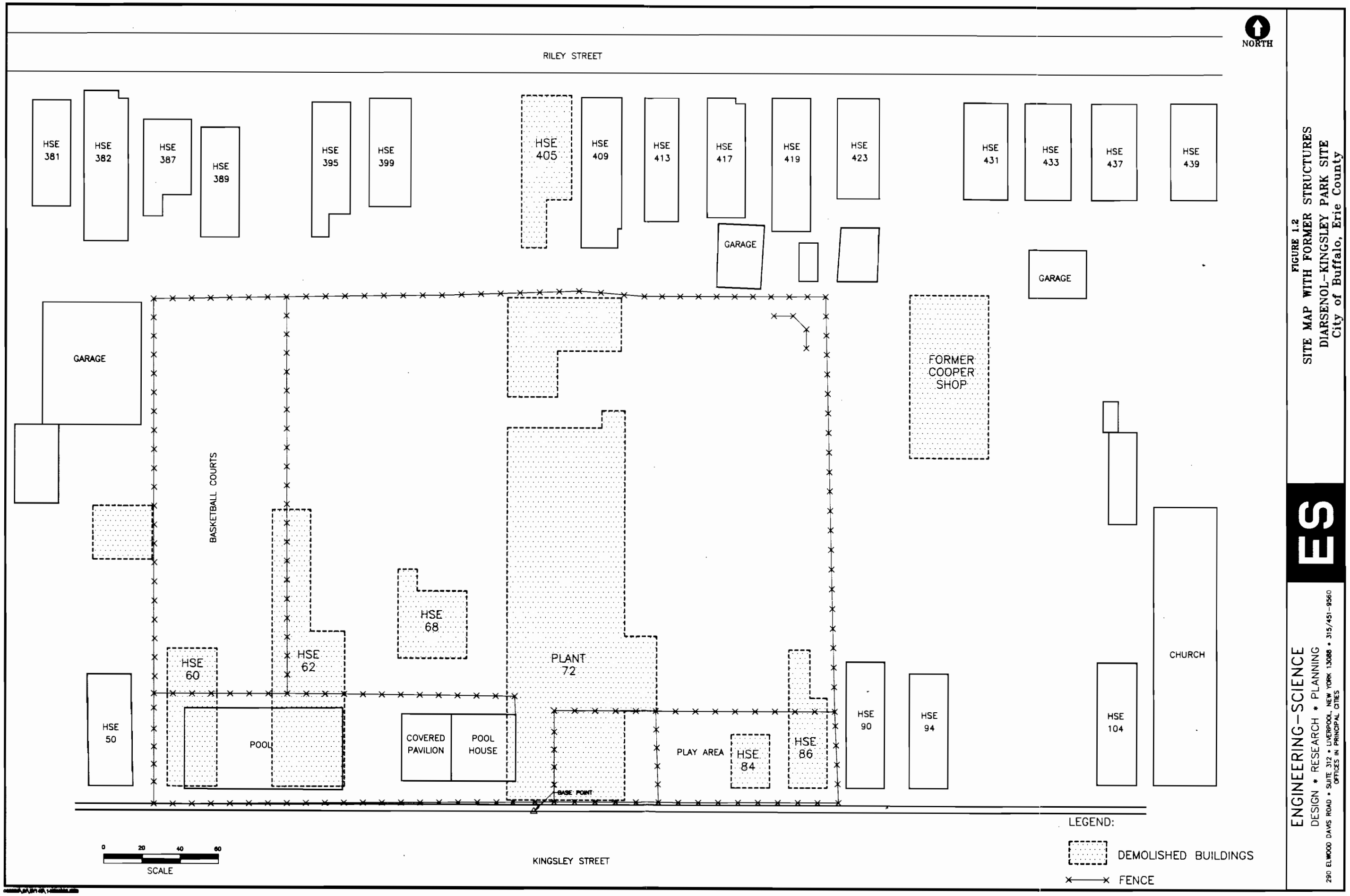


FIGURE 1.2
SITE MAP WITH FORMER STRUCTURES
DIARSENOL-KINGSLEY PARK SITE
City of Buffalo, Erie County

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OFFICES IN PRINCIPAL CITIES

TABLE 1.1
SITE SOIL SAMPLING CHRONOLOGY

Sample Date	No. of Samples	Sampler	Maximum Concentration Detected
August 31, 1983	6	ECDEP	As 87 ppm
December 11, 1986	13	NUS Corp	As 656 ppm Pb 919 ppm
May & June 1989	56	E&E	As 2180 ppm Pb 550 ppm Two exceed EP Toxicity levels for As
June 18, 1990	26	NYSDOH	As 400 ppm Pb 8400 ppm
July 26, 1990	25	NYSDOH	As 110 ppm Pb 3360 ppm
September 18, 1990	25	ES	As 3410 Pb 2280
October & November 1990	75	ES	As 7090 Pb 1990 Two exceed EP Toxicity levels for As

Abbreviations:

1. ECDEP = Erie County Department of Environment and Planning
2. E&E = Ecology and Environment Engineering, P.C.
3. NYSDOH = New York State Department of Health
4. As = Arsenic
5. Pb = Lead
6. ES = Engineering-Science, Inc.
7. EP Toxicity = Extraction Procedure Toxicity

1.2 PROJECT OBJECTIVES

The objectives of this site investigation of the Diarsenol Company, Kingsley Park site are as follows:

- Determine the horizontal and vertical extent of waste which fails the EP Toxicity or TCLP test for arsenic and lead, and which therefore is classified as a hazardous waste per NYSDEC regulations.
- Identify areas where the arsenic levels in soil exceed background levels, and evaluate whether groundwater is contaminated.
- Determine a site history for the Diarsenol Company, which may help define the extent of waste deposition.
- Identify and evaluate a range of technically feasible interim remedial options for consideration by the NYSDEC.
- Document the investigation results and develop remedial recommendations in an Interim Remedial Report.

1.3 REPORT ORGANIZATION

This report describes the site remedial investigation and interim remedial alternatives considered for the Diarsenol Company, Kingsley Park Site. This report includes the following:

- **Section 1** - Provides an introductory section giving the background of the project, objectives, site history, Diarsenol Company history and report organization.
- **Section - 2** Contains a summary of the activities and methods used during the remedial site investigation, including soil sampling, water sampling, x-ray fluorescence analyses, and site surveys.
- **Section - 3** Presents the data collected during the site investigation and the evaluation of those data, including a comparison with the data previously collected at the site during other investigations. The data from the remedial investigation are used to determine the extent of contamination.
- **Section - 4** Discusses the remedial alternatives for the site based on the site investigation results. The suggested remedial objectives are established and the alternatives to meet these objectives are presented.

1.4 SITE HISTORY

This site history is based on a search of Buffalo city directories, historical Sanborn Company maps, aerial photos, deeds, and previous reports. ES undertook document searches at the Buffalo and Erie County Historical Society, Erie County Library, City of Buffalo Offices, Erie County clerk's office and Erie County Department of Environment and Planning for information on the Diarsenol Company and site. ES was unable to locate Diarsenol Company records,

employees, or local residents that could provide information on the Diarsenol Company/Kingsley Park site.

Based on the historical information available, Diarsenol Company activities appear to have taken place in buildings formerly located in the park at 72 Kingsley Street and 84 Kingsley Street. The chronology of the 72 Kingsley plant property is presented on Table 1.2. The chronology of the 84 Kingsley property which was owned by Diarsenol Company and identified as a laboratory at one time, is presented on Table 1.3.

1.5 DIARSENOL COMPANY HISTORY

The Diarsenol Company produced Dr. Elick's Magic Bullet "606" Salversan which was an arsenic compound (up to 31.14% arsenic) that was used as the first effective treatment of syphilis.

The earliest listing of the Diarsenol Company in Buffalo was in 1917 at 475 Ellicott Square. The company was listed as selling physician's supplies (City Directory, 1917). In 1920 the Diarsenol Company's address was 904 Ellicott Square. Subsequently in 1925, the Diarsenol Company was identified as "chemists with a laboratory" at 84 Kingsley Street (City Directory, 1925). In 1930 the Diarsenol Company was listed at both 771-73 Ellicott Square and 72 Kingsley Street and was identified as "manufacturing chemists" (City Directory, 1930). In 1935 and continuing through 1940, Diarsenol Company was listed solely at 72 Kingsley Street and identified as being "manufacturing chemists" (City Directory, 1935 and 1940). The last listing for Diarsenol Company was in 1948 at 72 Kingsley Street as a pharmaceutical supplier with Charles A. Jensen as President and Treasurer (City Directory, 1948).

TABLE 1.2
CHRONOLOGY - 72 KINGSLEY STREET

Date	Occupant/Owner and/or Activities	Source
Pre-1899	3 story building of brick and concrete	Sanborn, 1899
1915	Kingsley Street Planning Mill-cabinet materials	City Directory 1915
14 April 1919	Diarsenol Company buys property from Ernest Neil Macallum and Adriane Macallum	Deed Liber 1464 P. 147
1930	Diarsenol Company list as a factory	City Directory, 1930
1940	Diarsenol Company, C.A. Jenson Box factory and Hoover Rug Cleaners are occupants	City Directory, 1940
5 January 1948	Kirby and Henry Holding Company buys property for Diarsenol Company	Deed Liber 4255 P. 495
1950	C.A. Jenson Box ceases operation	City Directory, 1950
1953	Federal Anti-Capacity Switch Corporation starts operations	City Directory, 1953
3 March 1954	Adco Welding Inc. buys from Kirby and Henry Holding Company	Deed Liber 5493 P. 323
24 March 1954	M.R. Gunderman buys from Adco Welding Inc.	Deed Liber 5549 P. 220
26 August 1954	W.J. LeVEA and M.G. LeVEA buys from M.R. Gunderman	Liber 5590 P. 369
9 July 1957	Kingsley Industrial Center Inc. buys from W.J. LeVEA & M.G. LeVEA	Deed Liber 6189 P. 182
1958	Hoover Rug Cleaners and Federal Anti-Capacity Switch Corporation cease operations	City Directory, 1958
1959	Queen City Neon Sign Company and Kingsley Machine and Fabrication Company Inc. start operations	City Directory, 1959
4 August 1960	Multi-owner corp buys from Kingsley Industrial Center	Deed Liber 6574 P. 477
1961	Kingsley Machine and Fabrication Company Inc. ends operation	City Directory, 1961
29 May 1961	I.M. Hochman and A. Keleman buys from Erie Multi-Owner Corp.	Deed Liber 6670 P. 347
8 June 1961	A. Keleman buys from I.M. Hochman	Deed Liber 6670 P. 349
1966	Queen City Neon Sign ends operation	City Directory, 1966
6 February 1967	City of Buffalo buys from B. Keleman widow of A. Keleman	Deed Liber 7324 P. 303
1972	Building demolished and park in operation	DEP, 1972 Airphoto

TABLE 1.3

CHRONOLOGY - 84 KINGSLEY STREET

Date	Occupant/Owner and/or Activities	Source
Pre-1899	Vacant lot used for lumber storage	Sanborn, 1899
1916	Owned by Hiram Robbins	Mortgage
24 July 1924	Diarsenol Co. purchased 20 year mortgage	Deed Liber 3624 P. 233 mortgage
1925	Diarsenol Company's Laboratory	City Directory, 1925
1926	1.5 story building on-site approximate 20x30 feet	Sanborn, 1926
16 December 1947	C.A. Jenson bought property from Diarsenol	Deed Liber 4247 P. 52
4 June 1957	B.S. Austin bought property from C.A. Jenson	Deed Liber 6172 P. 300
20 January 1967	City of Buffalo bought property from B.S. Austin	Deed Liber 7319 P. 11
1972	Building demolished and park in operation	DEP, 1972 Airphoto

SECTION 2

REMEDIAL INVESTIGATION METHODS

This section describes the site activities and methodology that constituted this Interim Remedial Investigation (IRI). These tasks were based on a NYSDEC Superfund standby work assignment (NYSDEC, 1990) assigned to ES. These activities and tasks were initially described in the IRI work plan submitted in September 1990 (ES, 1990). The first activity was a site reconnaissance visit, followed by a site investigation including soil and water sampling. A description of each phase of the study follows.

2.1. Site Reconnaissance

The site reconnaissance team, consisting of the field team leader, William Lilley, geologist Chris Torell, and NYSDEC representative Mike DiPeitro visited the site on September 23, 1990. The site reconnaissance was made during development of the site work plan to confirm the required site activities, locate utilities and work areas, and to take soil samples required for calibration of x-ray fluorescence (XRF) field equipment to be used for arsenic and lead screening later in the investigation (Section 2.3.3).

On-site utilities were identified as a health and safety precaution and to prevent damage during drilling. Public and privately-owned underground utilities at the site were located by contacting utility locating services, and were subsequently marked. The locations of drilling and other work areas on the site were selected based the absence of utilities as well as on additional factors including access, owner's usage, drainage, and areas of known or suspected contamination.

During the site reconnaissance, twenty-five (25) surface soil samples were collected and sent to Recra Environmental, Inc. for analysis of total arsenic (As) and lead (Pb). The soil samples were collected, using stainless steel spoons from holes 6" to 12" deep at various locations to establish a range of soil types and contamination concentrations at the site for calibration of the x-ray fluorescence (XRF) equipment. Twenty-one of the reconnaissance sample locations are shown on Figure 2.1 (in pocket). Four sample locations (SO-21 to SO-24) outside the park were not staked, at the NYSDEC request, and therefore were not located by the surveyors on Figure 2.1 (in pocket).

All samples were collected with decontaminated equipment and all sampling personnel followed the Health and Safety Plan for personal protection and monitoring. All samples collected were delivered to Recra Environmental Laboratory, Inc. within 24 hours of sampling. No preservative was added in accordance with approved sampling protocols.

XRF calibration occurred once the concentrations of arsenic and lead in the samples were obtained from Recra Environmental, Inc. Prior to shipment to the

Recra laboratory, these 25 soil samples were dried and sieved. Using these data each soil sample was screened using the XRF, and the instrument response was noted. The analytical data and instrument responses were used to provide a range of concentrations from which a multi-point calibration curve for lead and arsenic was generated, as well as to identify metals which if present would interfere with XRF analyses. One sample of known elemental composition was used during further sampling as a reference standard to assure continued calibration of the XRF instrument.

Because of these special XRF sample handling procedures, these samples can not be directly compared with samples collected during the later field soil sampling. These 25 samples were delivered to Recra Environmental Inc. for analysis and then following analysis were shipped to the operator of the XRF for instrument calibration. The XRF and laboratory results for the first 25 samples are included on Table 2.1.

Site sample locations were established by means of a grid sampling network with sampling locations at potentially each grid point. The location of the proposed sampling grid was determined to assure that the future sampling points were accessible and located properly on the ground surface related to existing structures. It was determined that the 40 foot x 40 foot grid could be used for determination of sample collection points during the site field investigation as planned with some additional grid lines added at the request of the NYSDEC.

The XRF equipment, calibrated using the previously collected 25 soil samples, was brought to the site on October 29, 1990 for direct arsenic and lead readings at the first 20 soil sample locations. (The five offsite locations were not checked). This test was to determine if direct soil readings would be valid or if samples would have to be specially prepared for more representative readings. Soil conditions such as moisture and particle size can affect the XRF so readings of the field soil had to be compared to the previously collected sample. It was found that at all but two of the 20 sample locations XRF readings were within the same relative range as the laboratory data. Therefore it was determined that direct field soil readings were acceptable for sample screening without any sample preparation such as drying and sieving before XRF reading .

2.2 Site Field Investigation

Following completion of the work plan, the site reconnaissance, and the review of existing and reconnaissance data, the field investigation began. The field investigation included a site survey, metal detector survey, soil sampling and groundwater sampling.

2.2.1 Site Survey

The initial activity of the site investigation was actual staking a 40 foot by 40 foot grid, previously laid out in concept during the site reconnaissance. To expedite the field investigation, ES requested Modi Associates also assist in grid layout and staking. The grid was used to locate and document points chosen for collecting soil samples, metal detector surveying and boring locations. The grid was referenced to

permanent objects at the site to assure relocation of the grid if necessary. Grid points within the park were staked and flagged, and grid points outside the park on streets were painted and marked. The starting point for the grid is N1000, E1000 at the sidewalk entering the park as shown on Figure 2.1 (in pocket).

A site survey was conducted by Modi Associates, a NYS licensed land surveyor. Modi Associates surveyed the grid, sample points, structures, and other features pertinent to the investigation. A map was prepared showing the grid and the associated appropriate elevations for each boring location, sampling location, and other points (Figure 2.1; in pocket). Vertical control and elevations to the nearest 0.01 foot were established for the ground surface at each boring. Horizontal control for exploratory borings, monitoring well, and sampling points were located by ties (location and distance) relative to the site grid and the specified reference elevation point. Since a USGS benchmark was not available, a contour line on the USGS map which crosses the site was used as a basis for the elevation which is the standard procedure when a benchmark is not available.

2.2.2 Metal Detector Survey

On September 29, 1990, a metal detector survey was conducted to locate any previously unidentified underground utilities and possible buried drums or tanks at the site. Each grid line was walked with the Fisher model TW-6 magnetic and cable locator prior to subsurface investigation. The locator was tested at locations of known underground utilities to assure calibration and proper operation prior to surveying on the grid.

The metal detector survey located four buried objects all of which were outside the drilling area. The four objects were detected in the western section of the park. Because of their location, these objects did not necessitate any change to the original Work Plan (ES, 1990). Most of these detects appeared to be in the area of the former plant and may be associated with building foundation, metal rubble or plumbing. It was decided by ES and NYSDEC not to investigate these detects at the time. However, their locations were noted with respect to the survey grid for possible future investigation.

2.2.3 Lead/Arsenic Screening

The X-MET 880 x-ray fluorescence (XRF) analyzer was used to quantify levels of lead and arsenic in surface and subsurface soils. XRF spectroscopy is an analytical technique which allows for both qualitative and quantitative analysis of a sample's elemental composition. In XRF analysis, primary x-rays illuminate a sample. These x-rays cause the elements in the sample to emit characteristic energy (i.e. fluoresce) in discrete wavelengths from the elements contained in the sample. From the wavelengths of these fluorescent x-rays a qualitative analysis can be made, and from the amount of flourescence released at a given wavelength a quantitative analysis is possible.

XRF analyses have been field tested for over 10 years in a variety of analytical applications. The U.S. Environmental Protection Agency (EPA) currently uses XRF to screen materials at hazardous waste sites for metals contamination.

TABLE 2.1 RECONNAISSANCE SOIL SAMPLE ANALYSIS RESULTS DIARSENOL COMPANY - KINGSLEY PARK SITE

DIKI-SO SAMPLE NUMBER	FIELD XRF DATA* PPM		LABORATORY ASSAY PPM		SAMPLE LOCATION
	Arsenic	Lead	Arsenic	Lead	
1	98	544	168	748	See Site Map 2.1
2	140	481	778	801	See Site Map 2.1
3	205	515	1270	685	See Site Map 2.1
4	147	561	439	571	See Site Map 2.1
5	68	446	41.6	246	See Site Map 2.1
6	64	433	175	633	See Site Map 2.1
7	64	239	14.8	28.1	See Site Map 2.1
8	980	501	3410	1530	See Site Map 2.1
9	440	360	558	431	See Site Map 2.1
10	0	625	45.1	997	See Site Map 2.1
11	21	627	36.5	814	See Site Map 2.1
12	28	0	97.7	1050	See Site Map 2.1
13	362	267	75.4	131	See Site Map 2.1
14	149	820	64.4	397	See Site Map 2.1
15	14	126	78.0	328	See Site Map 2.1
16	18	476	41.6	503	See Site Map 2.1
17	36	40	43.6	145	See Site Map 2.1
18	189	628	53.1	214	See Site Map 2.1
19	92	151	20.6	129	See Site Map 2.1
20	82	391	26.3	805	See Site Map 2.1
21	**	**	12.1	163	Vacant lot 96 & 100 Kingsley
22	**	**	18.7	2280	Vacant lot 96 & 100 Kingsley
23	**	**	8.1	39.5	Lot Corner of Jefferson and Riley Street (Background)
24	**	**	16.3	448	Lot Corner of Jefferson and Riley Street (Background)
25	**	**	6.2	135	N 1360 E 1000 Riley Street

* In some samples multi readings taken.

** Locations not measured off site

DIKI -SO = Diarsonel Company/Kingsley Park Site - Soil Sample

During field calibration of the XRF instrumentation used by ES one sample of known elemental composition, as determined by laboratory analysis, was used as a reference standard to assure continued calibration of the instrument. Results of the calibration and other field readings showed, that due to inherent inaccuracy of the XRF readings below 100 ppm can not be considered accurate as actual arsenic levels of contamination. However, consistent very low readings are useful in defining background areas.

2.2.4 Field Soil Collection

Soil samples were collected from points on the 40-foot grid using stainless steel spoons, hand augers and a drilling rig with split spoon samplers. These samples were screened with the XRF for lead and arsenic as discussed in Section 2.3.3. All readings were recorded in the field book and stored in the XRF computer program. Approximately 200 samples were screened with the XRF with multiple readings on several samples. The XRF results are included in Appendix B.

Drilling started with continuous sampling near the E&E soil boring SB-4 (Figure 2.1, in pocket) and worked outward in a radial 10 foot pattern. Soil samples were screened for arsenic and lead by the XRF. Soil borings were completed to a sandy silt layer approximately 3.5 feet to 7.0 feet to determine the extent of the fill, and to provide subsurface soil samples for laboratory analysis. All samples were screened with a photoionization detector (PID) and XRF.

Based on ES soil borings, fill beneath the Kingsley Park site varies in depth between 3.5 feet and 7 feet. The surface soil consists of about 6 inches of soil cover over a variety of fill materials including brick, concrete, silt, and cinders from former site activities. The total thickness of the silt, clay and sand layer on the site is unknown as none of the borings penetrated the complete layer thickness. However, total thickness was recorded to be at least seven feet thick in ES boring BH-1. Test borings were drilled with a 4.25-inch inner diameter (ID) hollow stem auger.

Borings were extended into the sandy silt layer unit below the fill until consistent low concentration readings by the XRF were obtained. A total of 29 soil boring split spoon samples were selected for laboratory analysis based on the XRF readings, PID readings, and visual inspection. Several samples that appeared to have the notable high and low contamination levels, based on XRF results, were selected for analysis to define the extent of contamination. All borings were sealed with bentonite pellets or grout following completion of the boring. All split spoon sampling was conducted in accordance with ASTM Specification D-1586-84 for standard penetration test and split barrel sampling.

The ES field geologist logged the borehole geology in the field logbook and prepared boring logs. The field geologist also monitored decontamination of the drilling equipment at the start of the project, between each boring, and at the conclusion of the site investigation. All excess auger cuttings were placed in onsite trenches as directed by NYSDEC and covered with a bentonite seal. All sampling equipment was decontaminated as described in Appendix A.1 of the Work Plan (ES, 1990). The split spoon soil samples selected for analysis were placed in a laboratory

cooler and iced immediately. The samples were shipped overnight to Nytest Environmental Inc. via Federal Express.

In addition to the samples collected from the borings, shallow surface soil samples were collected onsite and from neighboring properties using hand augers. Two shallow soil samples were planned at each point for XRF analysis: one composited from 0 to 6 inches and one composited from 6 to 12 inches (offsite) or 24 to 26 inches (onsite). The shallow sample 0 to 6 inches was to test the metal content of surface cover material which may have been placed at the park site. The deeper sample was to determine the presence of contamination below the cover material, which may have resulted from past site operations before the site was covered. If a location was selected for laboratory analysis soil was composited from 0 to 24 inches onsite or 0 to 12 inches offsite (as no cover was added offsite). Sample locations were selected to define the limits of contamination. A few locations were selected to collect representative background samples such as vacant lots and the church yard. Soil was composited from the sample hole and placed in sample bottles. Sample tools were decontaminated before and after each sample was collected. Sample descriptions and location were recorded in the field book. Using hand equipment, 46 soil samples were collected onsite and off site for arsenic and lead. One sample DIKI-SO-93 was lost in shipping. This location was resampled when the groundwater sample was collected and is identified as DIKI-SO-93R.

Seven soil samples were selected for EP toxicity from the high concentration former pit area, and nine samples were collected in suspected low concentration areas and private property to obtain a range of data. Ten samples were selected for Toxicity Characteristic Leaching Procedure (TCLP) with a range of arsenic levels to determine the levels that exceeds the TCLP regulatory limit to define hazardous waste. These EP Toxicity and TCLP data were were plotted to determine the soil's arsenic level that will exceed the maximum allowable metal concentrations, and the results are presented in Section 3.

The laboratory analyses for lead, arsenic, and EP Toxicity metals was performed by Nytest Environmental, Inc. using the NYSDEC Analytical Services Protocols (ASP), September 1989 as outlined on Table 2.2. Nytest is New York State Department of Health Environmental Laboratory Accreditation Program (ELAP) approved for all categories of solid and hazardous waste analyses. Sample custody, laboratory procedures, and other quality assurance/quality control (QA/QC) requirements are also specified in Appendix A.2 of the Work Plan, (ES, 1990).

2.2.5 Groundwater Monitoring

To determine if the site is contaminating the shallow aquifer beneath the site, the NYSDEC requested one monitoring well be installed at the site. Monitoring Well 1 (MW-1) was installed in the shallow aquifer in the fill and the sandy silt layer. The location of MW-1 can be found on Figure 2.1 (in pocket). The well is constructed with two-inch diameter threaded flush-joint PVC, casing and screen, as shown on Figure 2.2. The screen slot openings are 0.010 inches. The well is 12.5 feet deep with 6 feet of screen, and the top of the well casing is at ground level (flush

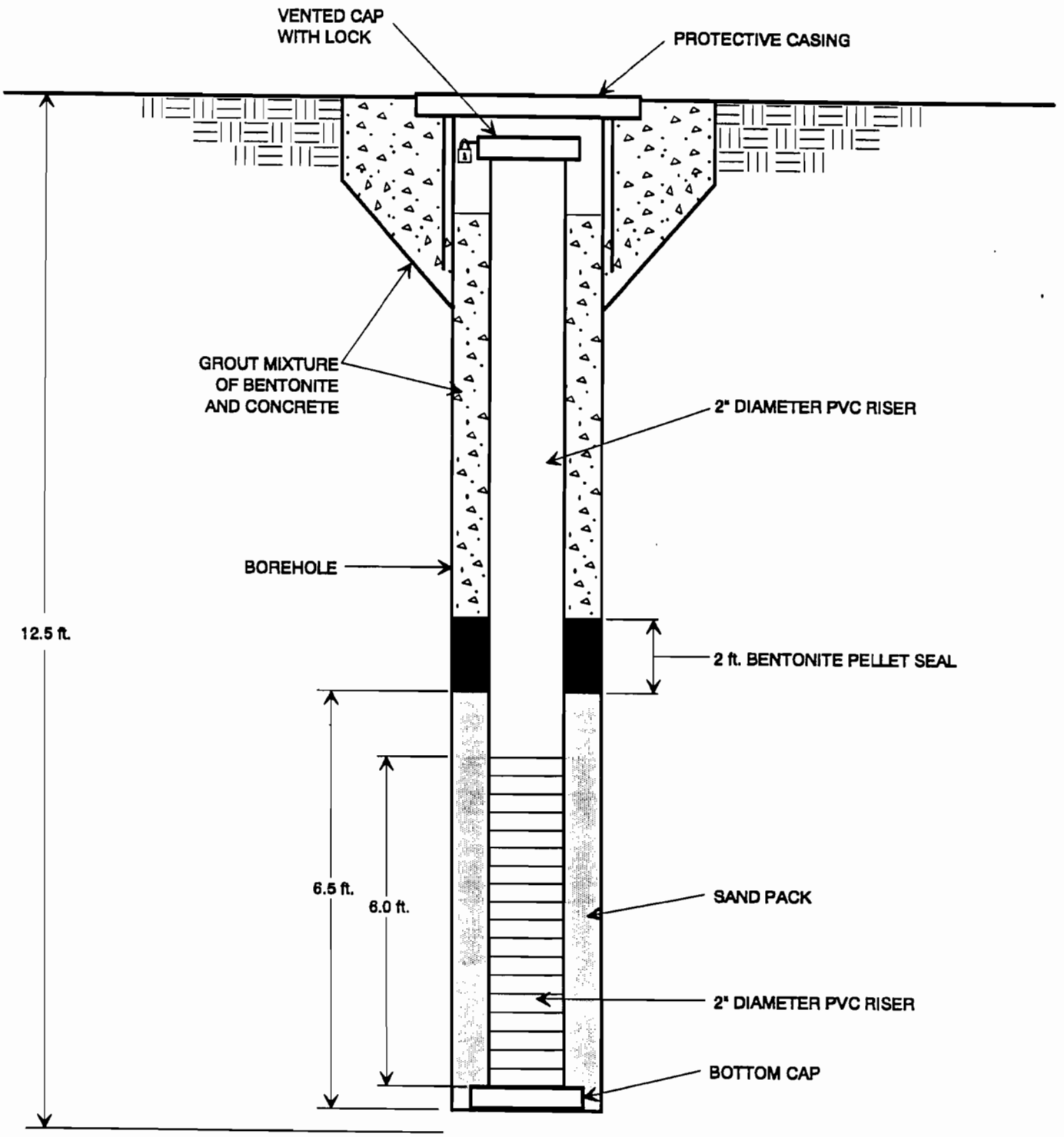
TABLE 2.2

SCOPE OF THE LABORATORY ANALYSIS PROGRAM SOIL MATRIX

Parameter	Analytical Method[1]
Arsenic	206.2 CLP-M
Lead	239.1 CLP-M
EP Toxicity	
Extraction	EPA 1310
Arsenic	EPA 7060
Barium	EPA 7081
Cadmium	EPA 7131
Chromium	EPA 7191
Lead	EPA 7421
Mercury	EPA 7470
Selenium	EPA 7740
Silver	EPA 7761
TCLP Metals	
Extraction	EPA 1311
Arsenic	EPA 7060
Barium	EPA 6010
Cadmium	EPA 6010
Chromium	EPA 6010
Lead	EPA 6010
Mecury	EPA 7470
Selenium	EPA 7740
Silver	EPA 6010

[1] NYSDEC Analytical Services Protocol, September 1989. SWA 46

MONITORING WELL MW-1 CONSTRUCTION



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mounted). The annulus around the outside of the screen was backfilled with silica sand. A bentonite pellet seal was placed above the sand pack. The seal was allowed to hydrate for at least 30 minutes before placing the grout above the seal. The monitoring well has a vented cap and locking cap. A flush-mounted protective well casing was cemented in place, and the cement pad was sloped to channel water away from the well but low enough so it can be passed over by a field mower. All monitoring well installations were supervised by the field geologist and notes were recorded in the field book.

Monitoring Well MW-1 was developed by bailing to remove sediment from the well screen and sand pack. The well development was supervised by the ES geologist. ES attempted to develop the well until the water was reasonably free of sediment, however due to the fine nature of the soil and limited productivity of the well the groundwater did not reach the 50 NTU standard before development was discontinued.

The monitoring well sampling procedure was in accordance with the most recent NYSDEC guidelines and/or regulations, as referenced in the QA Plan developed for this project (ES, 1990). Prior to sampling the monitoring well, a static water level of 2.75 feet below the rim of the protective casing was measured with a Slope Model 51453 electric water level indicator. All well data was recorded on the field sampling records. Groundwater samples were collected according to the procedure outlined in the Work Plan. Samples were collected using a dedicated polypropylene disposable bailer with a ball check valve at its lower end. Prior to filling the sample bottles, a 250-milliliter glass beaker was filled with groundwater for field tests. The sample was immediately analyzed for temperature (F^{o}), specific conductance (umhos/cm), and pH.

All samples were delivered to the Recra Environmental Inc., laboratory for preservation, filtering and analysis according to NYSDEC ASP (September, 1989) procedures which are outlined on Table 2.3. Recra is ELAP approved for all categories of solid and hazardous waste analyses. Sample custody, laboratory procedures, and other QA/QC requirements are specified in Appendix 2.A of the Work Plan (ES, 1990).

2.3 Quality Assurance And Quality Control

QA/QC protocols associated with the sampling and analysis program were in accordance with the NYSDEC-approved Work Plan (ES, 1990). Duplicate samples, as well as matrix spike (MS), matrix spike duplicate (MSD), and field wash blanks were collected for each sample matrix. Additionally, trip blanks accompanied the groundwater samples to the laboratory. The sample containers were preserved as necessary and appropriate field sampling and sample chain of custody procedures were followed. Analytical equipment (photoionization detector, pH, conductivity meter, etc.) were checked prior to each day's use and calibrated, as necessary. The XRF's calibration was checked every 20 samples with sample DIKI-SO-4, collected during the site reconnaissance visit. If the check sample was not within three standard deviations of the calibration curve for the XRF an adjustment was made in power levels until the check sample returned to within that tolerance level. At the

TABLE 2.3

SCOPE OF THE LABORATORY ANALYSIS PROGRAM WATER MATRIX

Parameter	Analytical Method[1]
Volatile Organic Compounds	89-1
Base/Neutral-Acid Extractable	89-2
Metals	CLPM

[1] Analytical Service Protocol (ASP) Method

start of the last day of soil sampling the XRF did require adjustment to bring the check sample into calibration.

Sample data validation was not undertaken at the request of the NYSDEC.

SECTION 3

DATA AND EVALUATION

This section discusses the analytical results of the ES investigation conducted during the fall of 1990. The soil and groundwater samples collected were analyzed to assess levels and distribution of lead and arsenic contamination for soils in and around the site.

3.1 SOIL SAMPLES

A total of 75 soil samples were collected during the field investigations conducted October 30 through November 8, 1990. All samples were analyzed for arsenic and lead. Additionally, 16 samples were selected for EP Toxicity analysis. The laboratory analysis results of these samples is shown on Table 3.1 and the locations are shown on Figure 3.1.

The XRF was used to screen over 100 split spoon soil samples collected during drilling and to select 29 samples for laboratory analysis. The results of these XRF analyses are shown on the boring logs in Appendix B of this report. In addition, all shallow soil samples collected by ES were screened with XRF for arsenic and lead. The XRF was used to test samples from all grid points inside the fence, and accessible grid points (grid points not covered by buildings or driveways) outside the fence to establish where soil metal concentrations were too low to justify further sampling. The XRF data for the grid points are included in Appendix B. Based on XRF results, 46 shallow soil samples were selected for laboratory analysis to define highly contaminated areas and limits of contamination.

3.1.1 Field Screening Results

The highest XRF arsenic readings were found in shallow samples in the northeast section of the park. Two XRF arsenic readings at grid points N1240, E1040, and N1240, E1080 were outside the calibrated range of XRF indicating a very high concentration of arsenic present. In general, the XRF readings indicate that the surface cover soil (6 to 8 inches deep) is above background levels but relatively low in arsenic concentrations compared to the fill below the shallow surface fill (0.5 feet to 5.0 feet). At about five feet in most borings, where natural soil was encountered, arsenic concentrations dropped to a background range. The lowest XRF arsenic readings were zero at a few locations on the southern and western edges of the park and at several locations outside the park.

The highest XRF lead readings were 4012 ppm and 3783 ppm at 0 to 6 inches at grid point N1160, E800, outside the western fence of the park. Most of the highest lead readings on the XRF were outside the park fence near the houses, indicating that the source of the lead is also outside the park. The lowest XRF lead readings were zero at several locations within the park. Also low XRF lead readings were found in the arsenic contaminated samples, especially below the 2 to 4 foot depth.

TABLE 3.1

SAMPLE ANALYSIS RESULTS
DIARSENOL COMPANY - KINGSLEY PARK SITE

DIKI-SO SAMPLE NUMBER	FIELD XRF DATA* PPM		LABORATORY ASSAY PPM		LABORATORY EP TOXICITY PPM		SAMPLE LOCATION	XRF DEPTH
	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead		
26	off-scale	515	2410	124	6.29	.040**	BH-1 1'-2'	1'-2'
27	85	0	650	61.5	0.106	.040**	BH-1 8'-9'	8'-9'
	60	0						9'
28	101	0	3.6	12.2			BH-1 10'-11'	10'-11'
29	2877	28	2140	292	2.27	.040**	BH-2 0'-4'	2'-3'
	2924	138						
30	3951	82	1830	336	6.81	.040**	BH-2 4'-6'	5'-6'
	6874	0						
31	725	0	885	20.3			BH-3 2'-4'	2'-3'
	817	0						3'-4'
32	1551	13.23	102	25.8			BH-3 4'-5'	4'-5'
33	172.5	0	109	26.4			BH-3 5'-6'	5'-6'
34	137.2	0	19.1	17			BH-3 8'-10'	8'-9'
	118.5	0						9'-10'
35	3580	0	735	10.5			BH-4 4'-5'	4'-5'
36	647	0	889	20.2	2.34	.040**	BH-4 5'-6'	5'-6'
37	220	411	11.9	30.7			BH-5 4'-5'	4'-5'
38	43	0	6.4	34.3			BH-5 5'-6'	5'-6'
39	151	0	3.9	13.7			BH-5 7'-8'	7'-8'
40	731	13.46	1720	1320	4.48	.102**	BH-6 0'-2'	0'-1'
	6323	11						1'-2'
41	5564	188	183	137	1.86	.040**	BH-6 2'-4'	2'-3'
	2045	79						3'-4'
42	17	0	139	56.2	.0050**	.040**	BH-7 0'-2'	0'-1'
	922.6	0						1'-2'
43	333.7	0	116	178	0.0198	.040**	BH-7 2'-4'	2'-3'
	220.8	0						3'-4'
44	100.9	0	8.7	69			BH-8 3'-4'	3'-4'
45	0	252	44.2	427			N 1160 E 1120	0"-6"
	45.62	24.56						24"-26"
46	1098	195.6	154	49.2			N 1160 E 1040 0'-2'	0'-2'
47	1151	0	7090	492			BH-9 1'-2'	1'-2'

* In some samples multi readings taken.

** Results below detection limits.

DIKI-SO = Diarsonel Company/Kingsley Park Site - Soil Sample

TABLE 3.1 (Cont.)

SAMPLE ANALYSIS RESULTS
DIARSENOL COMPANY - KINGSLEY PARK SITE

DIKI-SO SAMPLE NUMBER	FIELD XRF DATA* PPM		LABORATORY ASSAY PPM		LABORATORY EP TOXICITY PPM		SAMPLE LOCATION	XRF DEPTH
	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead		
48	315.6	0	49.3	123	0.0452	.040**	N 1080 E 1040 0'-2'	0-6"
	183.8	240.4						0-6"
	146.6	65.68						0-6"
	72.94	2503						24"-26"
	0	3815						24"-26"
49	888.1	0	876	30.3			BH-9 2'-4'	2'-3'
	924.4	0						3'-4'
50	266.5	0	59.9	41.2			BH-9 5'	5'
51	190	0	44.5	309			N 1120 E 1000	0-6"
	180.9	128						0-6"
	53.48	69.59						24"-26"
52	684	252.4	536	215	0.121	.040**	BH-10 1'-2'	1'-2'
53	1472	310.7	1150	144	1.26	.040**	N 1200 E 1000	0-6"
	1707	178.4						0-6"
	193.1	16.19						24"-26"
	158.2	46.75						24"-26"
54	684.3	0	861	63.7	0.737	.040**	BH-10 3'-4'	3'-4'
55	154.1	0	5.2	264			BH-10 5'-6'	5'-6'
56	613.7	270.5	263	578			N 1240 E 960	0-6"
	329.4	259.4						0-6"
	678.1	270.5						0-6"
	64.79	430.8						24"-26"
	71.22	379.5						24"-26"
57	1477	294.2	201	451			N 1160 E 960	0-6"
	307.2	256.6						0-6"
	384.8	218.1						0-6"
	110	96.82						24"-26"
	96.06	71.94						24"-26"
58	6327	545	1030	493			BH-11 0'-1'	0-1'
59	0	0	12.4	127			N 1080 E 960	0-6"
	0	0						0-6"
	31.87	551.9						6"-12"
	102.2	378.9						6"-12"
60	79.32	33.11	4.8	14.7			BH-11 4'-6'	4'-5'
	169.5	0						5'-6'

* In some samples multi readings taken.

** Results below detection limits.

DIKI-SO = Diarsonel Company/Kingsley Park Site - Soil Sample

TABLE 3.1 (Cont.)

SAMPLE ANALYSIS RESULTS
DIARSENOL COMPANY - KINGSLEY PARK SITE

DIKI-SO SAMPLE NUMBER	FIELD XRF DATA* PPM		LABORATORY ASSAY PPM		LABORATORY EP TOXICITY PPM		SAMPLE LOCATION	XRF DEPTH
	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead		
61	534	317	499	858			N 1240 E 1120	0-6"
	316	112						24"-26"
62	185	218	120	255			N 1200 E 1120	0-6"
63	0	549.7	38.9	278			N 1080 E 1120	0-6"
	391.6	664						24"-26"
64	152.2	181.3	133	80.8			N 1200 E 1080	0-6"
	108.2	333.2						24"-26"
	114.8	0						24"-26"
65	180.5	0	21.1	123			N 1120 E1080	0-6"
	42.75	158						24"-26"
66	37.51	0	4.6	126			N 1120 E920	0-6"
	14.24	0						0-6"
	12.15	166.9						24"-26"
	0	813						24"-26"
	0	286.1						24"-26"
67	0	262.3	3.9	22.3			N 1200 E 920	0-6"
	7.83	296.7						0-6"
	70.27	28.56						24"-26"
	0	15.85						24"-26"
68	8.12	347.8	109	820			N 1240 E 880	0-6"
	28.65	197.7						0-6"
	151.9	0						0-6"
	65.36	201.3						24"-26"
69	104.5	73.88	12.9	249				24"-26"
	155.6	0					N 1160 E 880	0-6"
	0	249.6						0-6"
	155.4	182.3						24"-26"
	101.9	270						24"-26"
	0	131.4						24"-26"
70	113.7	714.6	7.3	338			N 1080 E 880	0-6"
	0	357.9						0-6"
	0	1062						24"-26"
	0	2311						24"-26"

* In some samples multi readings taken.

** Results below detection limits.

DIKI-SO = Diarsonel Company/Kingsley Park Site - Soil Sample

TABLE 3.1 (Cont.)

SAMPLE ANALYSIS RESULTS
DIARSENOL COMPANY - KINGSLEY PARK SITE

DIKI-SO SAMPLE NUMBER	FIELD XRF DATA* PPM		LABORATORY ASSAY PPM		LABORATORY EP TOXICITY PPM		SAMPLE LOCATION	XRF DEPTH
	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead		
71	0	1432	10.2	1360			N 1040 E 880	0-6"
	0	1450						0-6"
	96.51	0						6"-12"
	125.9	51.36						6"-12"
72	0	4012	6.6	1100			N 1160 E 800	0-6"
	0	3783						0-6"
	0	175.4						6"-12"
	0	762.3						6"-12"
73	0	1860	16.5	314			N 1200 E 800	0-6"
	0	967						0-6"
	0	73.22						6"-12"
	0	87.73						6"-12"
74	69	99.87	72	51.5	0.0206	.040**	BH-13 2'-3'	2'-3'
75	270.6	0	43.5	64.7	0.215	.040**	BH-13 3'-4'	3'-4'
76	190	492	163	803			N 1280 E 1000	0-6"
	242	460						0-6"
	175	134						6"-12"
	285	181						6"-12"
	204	58						12"-18"
	221	52						12"-18"
77			112	643			N 1281 E 1001	Dup. 76
78	0	715	3.5	208			N 1280 E 960	0-6"
	0	449.4						6"-12"
79	0	760.5	4	174			N 1320 E 960	0-6"
	0	676.5						6"-12"
80	93.52	0	5	55.4			N 1320 E 1000	0-6"
	101.6	0						6"-12"
81	49	0	4.1	43.1			N 1360 E 1000	0-6"
	4	0						0-6"
	51	0						6"-12"
	104	26						6"-12"
82	0	246.4	9.8	321			N 1280 E 920	0-6"
	61.9	205.4						0-6"
	66.09	0						6"-12"
	10.89	0						6"-12"

* In some samples multi readings taken.

** Results below detection limits.

DIKI-SO = Diarsonel Company/Kingsley Park Site - Soil Sample

TABLE 3.1 (Cont.)

SAMPLE ANALYSIS RESULTS
DIARSENOL COMPANY – KINGSLEY PARK SITE

DIKI-SO SAMPLE NUMBER	FIELD XRF DATA* PPM		LABORATORY ASSAY PPM		LABORATORY EP TOXICITY PPM		SAMPLE LOCATION	XRF DEPTH
	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead		
83	1077	0	802	69.8	1.26	.040**	BH-14 3'-4'	3'-4'
	2311	0						3'-4'
84	0	664.7	11.7	1450			N 1280 E 840	0-6"
	0	781.2						0-6"
	75.24	0						6"-12"
	14.82	687.7						6"-12"
	0	127.3						6"-12"
85	834.6	368.4	136	1590			N 1280 E 1080	0-6"
	119.9	392.7						0-6"
	207.2	321						0-6"
	124.9	464.7						6"-12"
	62.24	0						6"-12"
86	0	988.8	10.4	1380			N 1280 E 880	0-6"
	0	987.7						0-6"
	119.8	0						6"-12"
	45.8	0						6"-12"
	0	957.2						
	0	888.4						
87	4.21	335.7	50.2	2130			N 1160 E 1160	0-6"
	46	281.1						0-6"
	0	1482						6"-12"
	6.4	1352						6"-12"
88	705.9	316.2	247	1280			N 1200 E 1160	0-6"
	384.3	430						0-6"
	0	3384						6"-12"
	0	3131						6"-12"
89			280	560			N 1201 E 1161	Dup. 89
90	118.3	687.6	7.8	273			N 1160 E 1200	0-6"
	164.2	921.4						0-6"
	79.26	0						6"-12"
	72.4	3.95						6"-12"
91	99.84	213.1	12.1	259			N 1200 E 1200	0-6"
	26.88	32.5						0-6"
	268.4	148						6"-12"
	253.1	198						6"-12"

* In some samples multi readings taken.

** Results below detection limits.

DIKI-SO = Diarsonel Company/Kingsley Park Site – Soil Sample

TABLE 3.1 (Cont.)

SAMPLE ANALYSIS RESULTS
DIARSENOL COMPANY – KINGSLEY PARK SITE

DIKI-SO SAMPLE NUMBER	FIELD XRF DATA* PPM		LABORATORY ASSAY PPM		LABORATORY EP TOXICITY PPM		SAMPLE LOCATION	XRF DEPTH
	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead		
92	0	0	7.7	410			N 1200 E 1320	0–6″
	22	21.7						0–6″
	93.7	0						6″–12″
	108.4	16.46						6″–12″
93R			9.8	275			N 1200 E 1360	
94	68	48	8.5	265			N 1240 E 1360	0–6″
	0	156						0–6″
	38	12						6″–12″
	74	0						6″–12″
95	0	1348	18.5	1990			N 1280 E 800	0–6″
	0	2220						0–6″
	0	1225						6″–12″
	0	1276						6″–12″
96	0	361	8.7	554			N 1380 E 800	0–6″
	0	435.2						0–6″
	46.99	31.22						6″–12″
	12.6	62.85						6″–12″
97	0	905.9	9.9	1110			N 1280 E 760	0–6″
	0	885						0–6″
	0	793.6						6″–12″
	0	348.5						6″–12″
98	0	210.7	23.7	224			N 1280 E 1040	0–6″
	0	238.6						0–6″
	28.02	35.2						6″–12″
	84.2	0						6″–12″
99	0	910.1	10.3	1540			N 1280 E 1240	0–6″
	0	978.2						0–6″
	0	791.5						6″–12″
	0	916.6						6″–12″
100	0	944.1	12	714			N 1380 E 1200	0–6″
	0	942.7						0–6″
	0	663.7						6″–12″
	0	625.5						6″–12″

* In some samples multi readings taken.

** Results below detection limits.

DIKI-SO = Diarsonel Company/Kingsley Park Site – Soil Sample

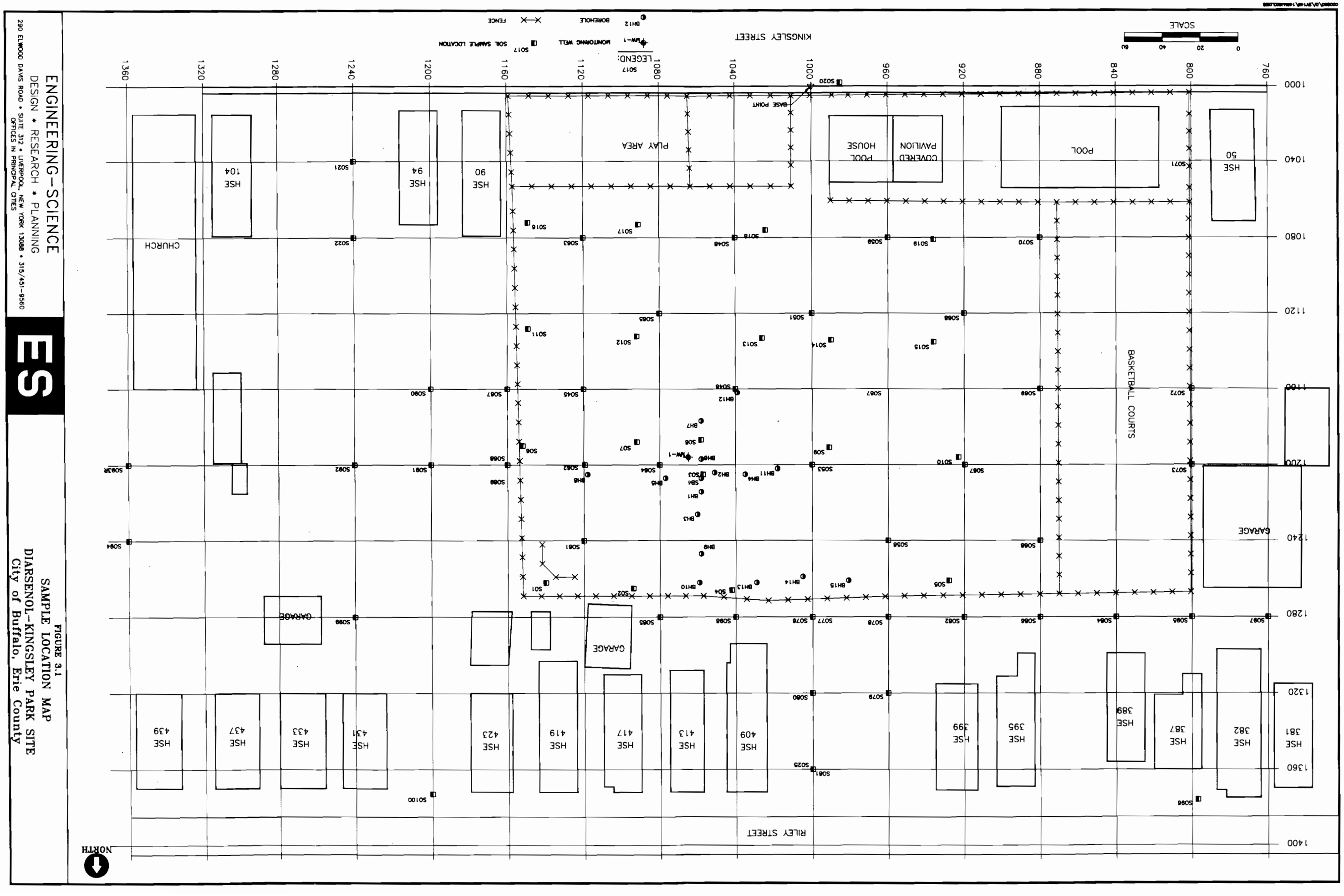

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FIGURE 3.1
SAMPLE LOCATION MAP
DIARSENOL–KINGSLEY PARK SITE
City of Buffalo, Erie County

3.1.2 Laboratory Soil Results

As previously described, 75 soil samples were collected to provide a range of concentration and submitted to lab analyses. The sample locations are shown on Figure 3.1, the results are summarized on Table 3.1, and data sheets are included in Appendix C.

The highest arsenic results were encountered in the northeastern part of the park near the E&E boring SB-4 and extending 60 feet north of boring SB-4 (Figure 3.2). The highest arsenic concentration was 7090 ppm at boring BH-9 (1 to 2 feet depth). The lowest surface arsenic results were 5.0 ppm or less in the vacant lot north of the park. Offsite samples away from the contaminated northeastern end of the park ranged from 6.6 to 18.7 ppm. The lowest arsenic surface results within the park were 3.9 ppm to 12.9 ppm, along the western edge of the park. The lowest subsurface arsenic concentration was 3.9 ppm at 7 to 8 feet at test boring BH-5.

The highest off-site lead result 2280 ppm, was found in the vacant lot east of the site on Kingsley Street and the second highest lead result was 1990 ppm behind the house at 387 Riley Street (Figure 3.3). Most of the other high lead results were offsite near buildings. The highest onsite lead result was 1530 ppm from a shallow soil sample (SO-8). The lowest on-site lead result was 10.5 ppm at a depth of 4 to 5 feet in boring BH-4. These results support the conclusion by local health officials that the lead contamination is not related to the arsenic compound produced by Diarsenol but rather may be the result of urban air pollution and/or the presence of lead-based paint on the buildings (O'Connor, 1990).

Figure 3.4 which plots the lead and arsenic laboratory results shows no strong correlation between the lead and arsenic concentration.

3.1.3 Laboratory Versus XRF Results

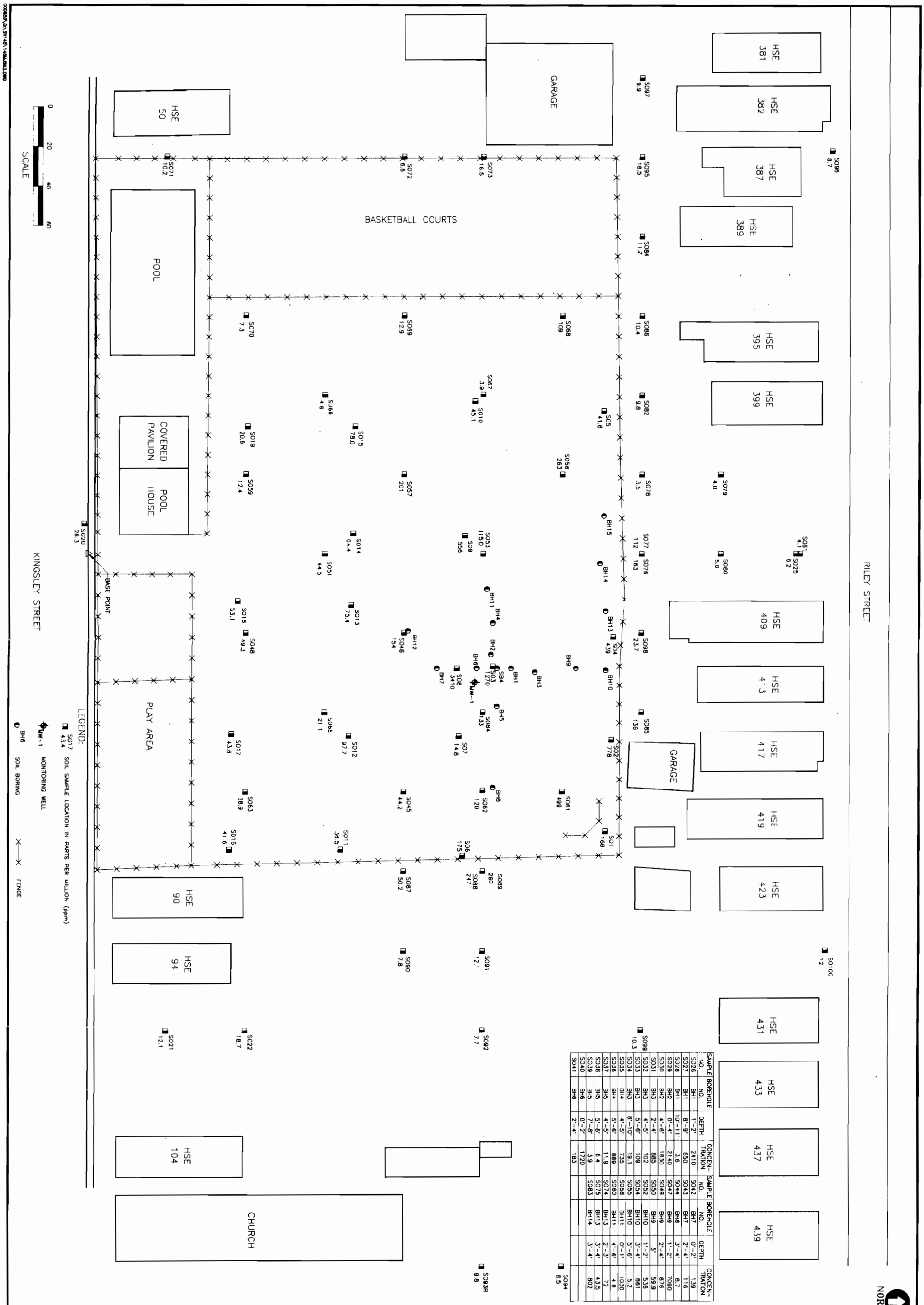
When the XRF arsenic results are compared with the laboratory arsenic results, there is a general correlation as shown on Figure 3.5. The XRF arsenic results tended to give somewhat higher concentration readings than the laboratory results. However, one sample deviated significantly from the others. This material gave an XRF reading of only 1151 ppm, a much higher laboratory analysis of 7090 ppm. The sample consisted of a shiny black material of larger grain size which caused an artificially low XRF reading. This sample was not representative of the fine grain soil at the site.

The XRF was successful in screening samples to detect relative arsenic concentration. The XRF was also useful in supporting field decisions on the extent of contamination and defining the limits of sampling.

3.1.4 EP-Toxicity Results

The EP Toxicity metals analysis was performed on 16 samples including one duplicate sample. The results of these analyses are listed on Table 3.1 and data sheets are included in Appendix C.

The concentration of arsenic in the extract from two samples (SO-26; 6.29 ppm and SO-30; 6.81 ppm) exceeded the EP Toxicity maximum allowable concentration



SAMPLE NO.	BOREHOLE NO.	DEPTH	CONCEN-TRATION
S026	BH1	1'-2'	2410
S027	BH1	8'-9'	650
S028	BH1	10'-11'	3.6
S029	BH2	0'-4'	2140
S030	BH2	4'-8'	1830
S031	BH3	2'-4'	885
S032	BH3	4'-5'	102
S033	BH3	5'-6'	109
S034	BH3	8'-10'	19.1
S035	BH4	4'-5'	735
S036	BH4	5'-6'	889
S037	BH5	4'-5'	11.9
S038	BH5	5'-6'	6.4
S039	BH5	7'-8'	3.9
S040	BH6	0'-2'	1720
S041	BH6	2'-4'	183

SAMPLE NO.	BOREHOLE NO.	DEPTH	CONCEN-TRATION
S042	BH7	0'-2'	139
S043	BH7	2'-4'	116
S044	BH8	3'-4'	8.7
S047	BH9	1'-2'	7090
S049	BH9	2'-4'	876
S050	BH9	5'	59.9
S052	BH10	1'-2'	536
S054	BH10	3'-4'	861
S055	BH10	5'-6'	5.2
S058	BH11	0'-1'	1030
S060	BH11	4'-6'	4.8
S074	BH13	2'-3'	22
S075	BH13	3'-4'	43.5
S083	BH14	3'-4'	802

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FIGURE 3.2
ARSENIC RESULTS ON SITE MAP
DIARSENOL–KINGSLEY PARK SITE
City of Buffalo, Erie County

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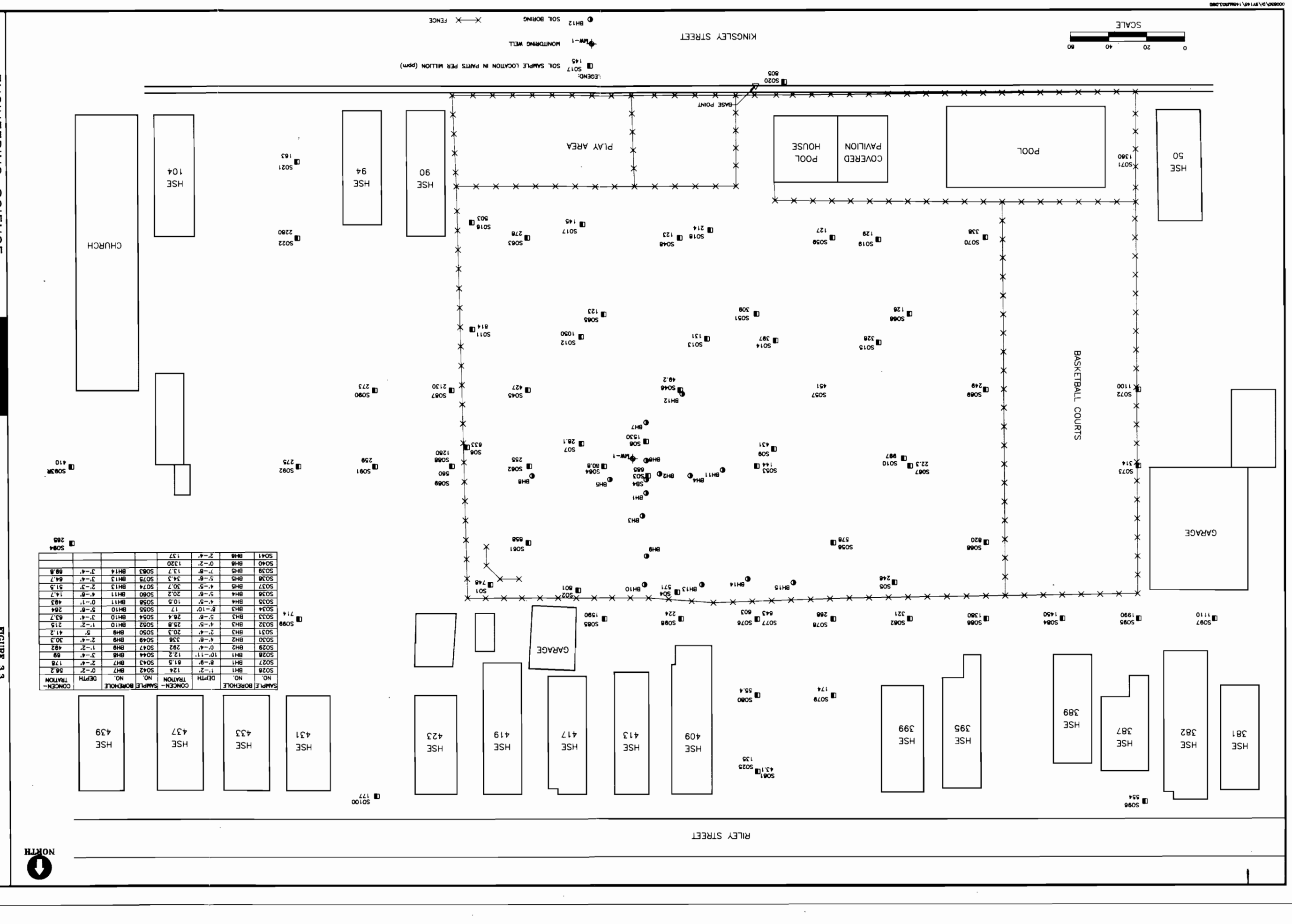


SAMPLE NO.	BOREHOLE NO.	DEPTH	CONCEN-TRATION	SAMPLE NO.	BOREHOLE NO.	DEPTH	CONCEN-TRATION
SO26	BH1	1'-2'	124	SO42	BH7	0'-2'	36.2
SO27	BH1	8'-9'	61.5	SO43	BH7	2'-4'	178
SO28	BH1	10'-11'	12.2	SO44	BH8	3'-4'	89
SO29	BH2	0'-4'	292	SO47	BH9	1'-2'	492
SO30	BH2	4'-6'	336	SO48	BH9	2'-4'	30.3
SO31	BH3	2'-4'	20.3	SO50	BH9	5'	41.2
SO32	BH3	4'-5'	25.8	SO52	BH10	1'-2'	215
SO33	BH3	5'-6'	26.4	SO54	BH10	3'-4'	63.7
SO34	BH3	8'-10'	17	SO55	BH10	5'-6'	264
SO35	BH4	4'-5'	10.5	SO56	BH11	0'-1'	483
SO36	BH4	5'-6'	20.2	SO60	BH11	4'-6'	14.7
SO37	BH5	4'-5'	30.7	SO74	BH13	2'-3'	51.5
SO38	BH5	5'-6'	34.3	SO75	BH13	3'-4'	64.7
SO39	BH5	7'-8'	13.7	SO83	BH14	3'-4'	68.8
SO40	BH6	0'-2'	1320				
SO41	BH6	2'-4'	137				

FIGURE 3.3
LEAD RESULTS ON SITE MAP
DIARSENOL–KINGSLEY PARK SITE
City of Buffalo, Erie County

FIGURE 3.4

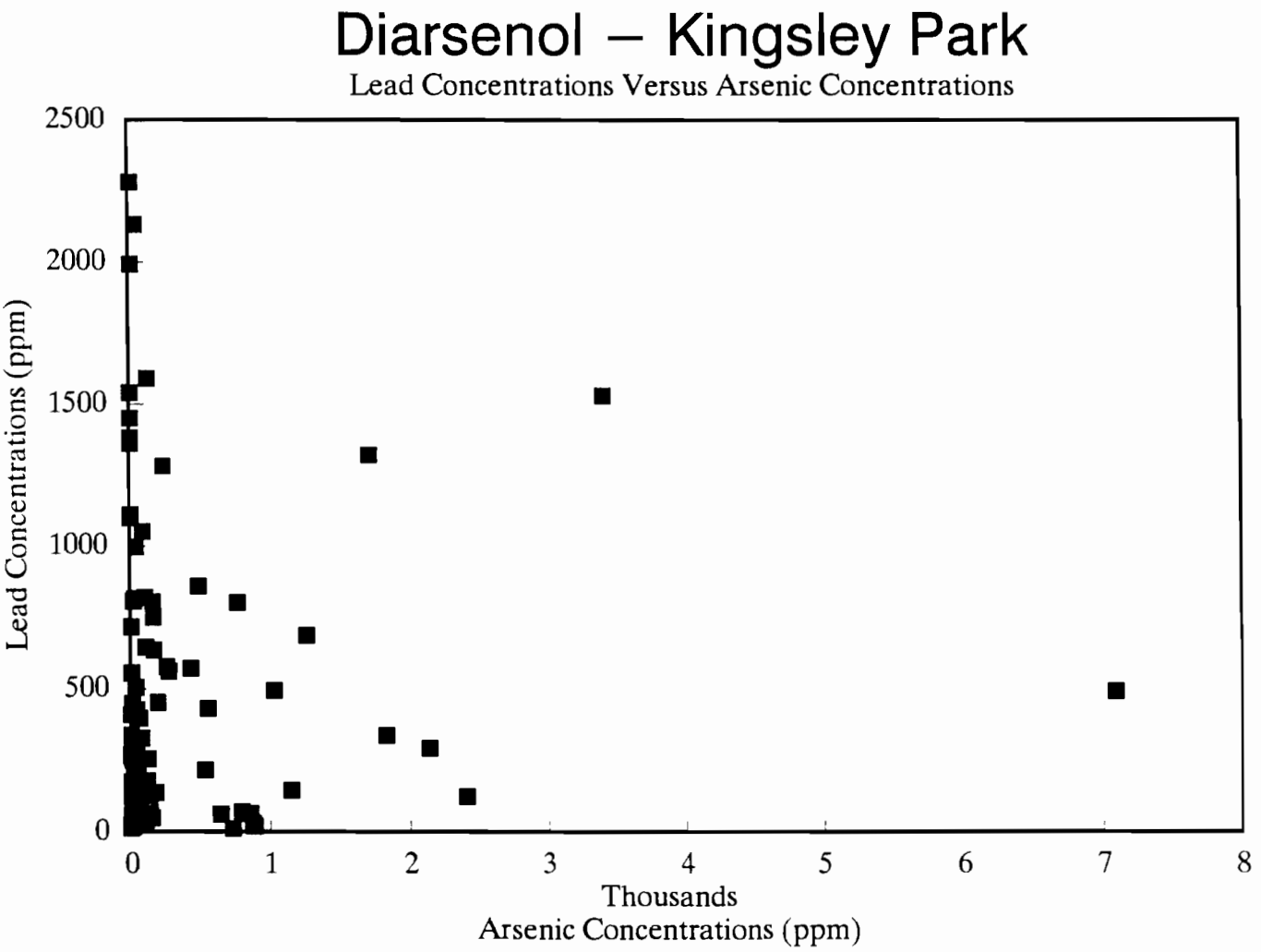
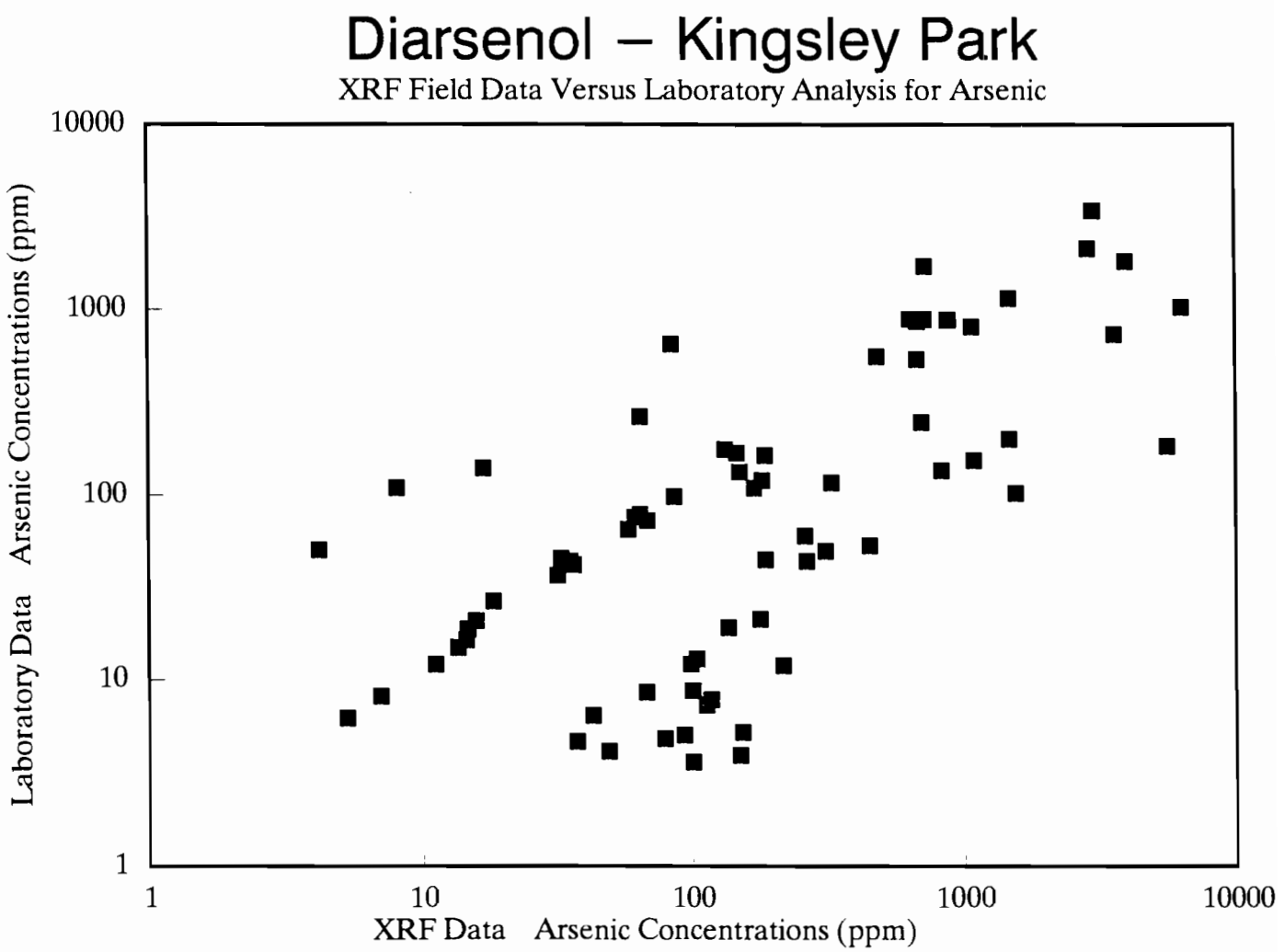

Diarsenol – Kingsley Park
Lead Concentrations Versus Arsenic Concentrations
Lead Concentrations (ppm)
2500
2000
1500
1000
500
0
0
1
2
3
4
5
6
7
8
Thousands
Arsenic Concentrations (ppm)

FIGURE 3.5


Diarsenol – Kingsley Park
XRF Field Data Versus Laboratory Analysis for Arsenic
Laboratory Data Arsenic Concentrations (ppm)
10000
1000
100
10
1
1
10
100
1000
10000
XRF Data Arsenic Concentrations (ppm)

of 5.0 ppm arsenic. Only one sample extract (SO-40) contained a measurable amount of lead at .102 which is below the maximum concentration allowed of 5.000 ppm lead. The EP Toxicity analysis data for arsenic was compared with the total arsenic content and plotted on Figure 3.6. The results indicate that samples over 1400 ppm arsenic will most likely exceed EP Toxicity maximum allowable concentration for arsenic. The solid line on Figure 3.6 represents an estimated upper limit on the range of EP Toxicity data, related to specific soil concentration values and therefore represents a conservative estimate of an arsenic level that exceeds EP Toxicity.

Because only one sample had a detectable amount of lead, there was insufficient lead data to determine the sample level that would exceed the EP Toxicity maximum allowable concentrations. Because of the low lead concentration in site soils, however, this does not appear to be a relevant consideration.

3.1.5 TCLP Results

A nonhazardous waste disposal company requested Toxicity Characteristic Leaching Procedure (TCLP) analysis to determine if soil from (TCLP) analysis the site could be disposed of as nonhazardous waste. To resolve this concern, ten previously collected soil samples with a range of arsenic levels, were selected for reanalysis by TCLP. The ten samples were selected with the intention to provide sufficient data to establish a correlation between TCLP extract levels of metals and the actual soil metal concentrations. The results of these TCLP analyses are listed on Table 3.2 and data sheets are included in Appendix C.

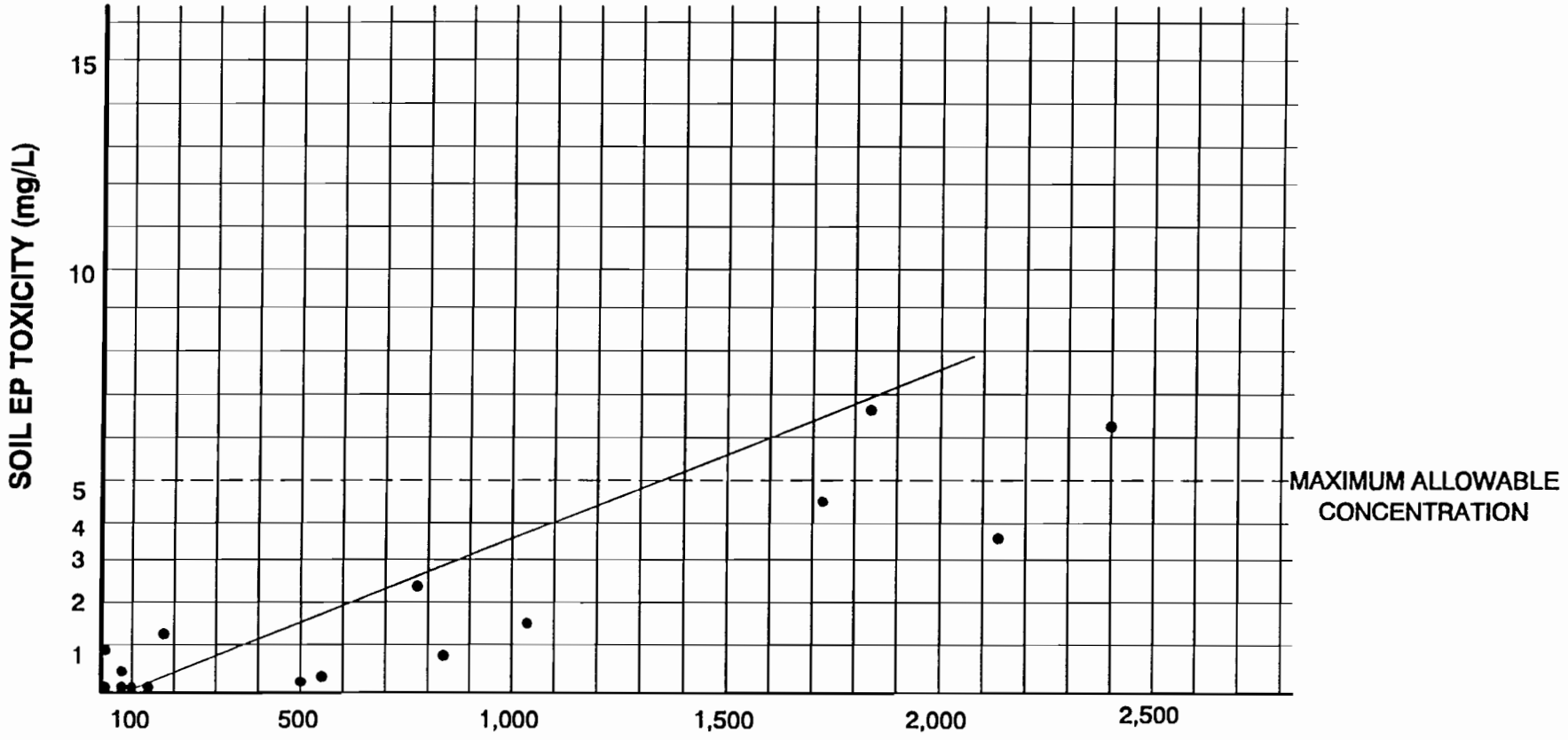
The concentration of arsenic in the extract from four samples (SO-26; 8.09 ppm, SO-29; 6.88 ppm, SO-30; 7.49 ppm and SO-47; 11.7 ppm) exceeded the TCLP regulatory level of 5.0 ppm arsenic. No sample extract contained an amount of any other metal that was above the detection limits. In four samples (SO-27, SO-52, SO-74 and SO-88) the arsenic in the extract was below the detection limit.

The TCLP analysis data for arsenic was compared with the total arsenic content in the sample and plotted on Figure 3.7. The results indicate that samples over 1250 ppm arsenic will most likely exceed the TCLP regulatory level for arsenic. These results are very close to these determined by the EP Toxicity results. The solid line on the Figure 3.7 represents an upper limit on the range of TCLP data, and therefore represents a conservative estimate of an arsenic level that exceeds TCLP regulatory level.

3.2 GROUNDWATER SAMPLES

Monitoring well MW-1 was sampled on November 8, 1990 for volatile organic compounds (VOA), base/neutral-acid extractable organic compounds (BNA), and 23 metals. These analyses were selected by NYSDEC based on previous test results. Samples including appropriate field and trip blanks and were delivered to Recra Environmental Inc. on November 8, 1990 for filtering, as requested by NYSDEC, and analysis. On December 21, MW-1 was resampled to collect filtered and unfiltered samples for metals analysis. The purpose of the resampling was to provide a comparison of filtered and unfiltered results as requested by NYSDEC. A

RELATIONSHIP BETWEEN ARSENIC SOIL CONCENTRATION AND EP TOXICITY



Based on ES Results of Field Investigations (See Table 3.1 & Appendix C)

FIGURE 3.6

TABLE 3.2

TOXICITY CHARACTERISTIC LEACHING PROCEDURE RESULTS

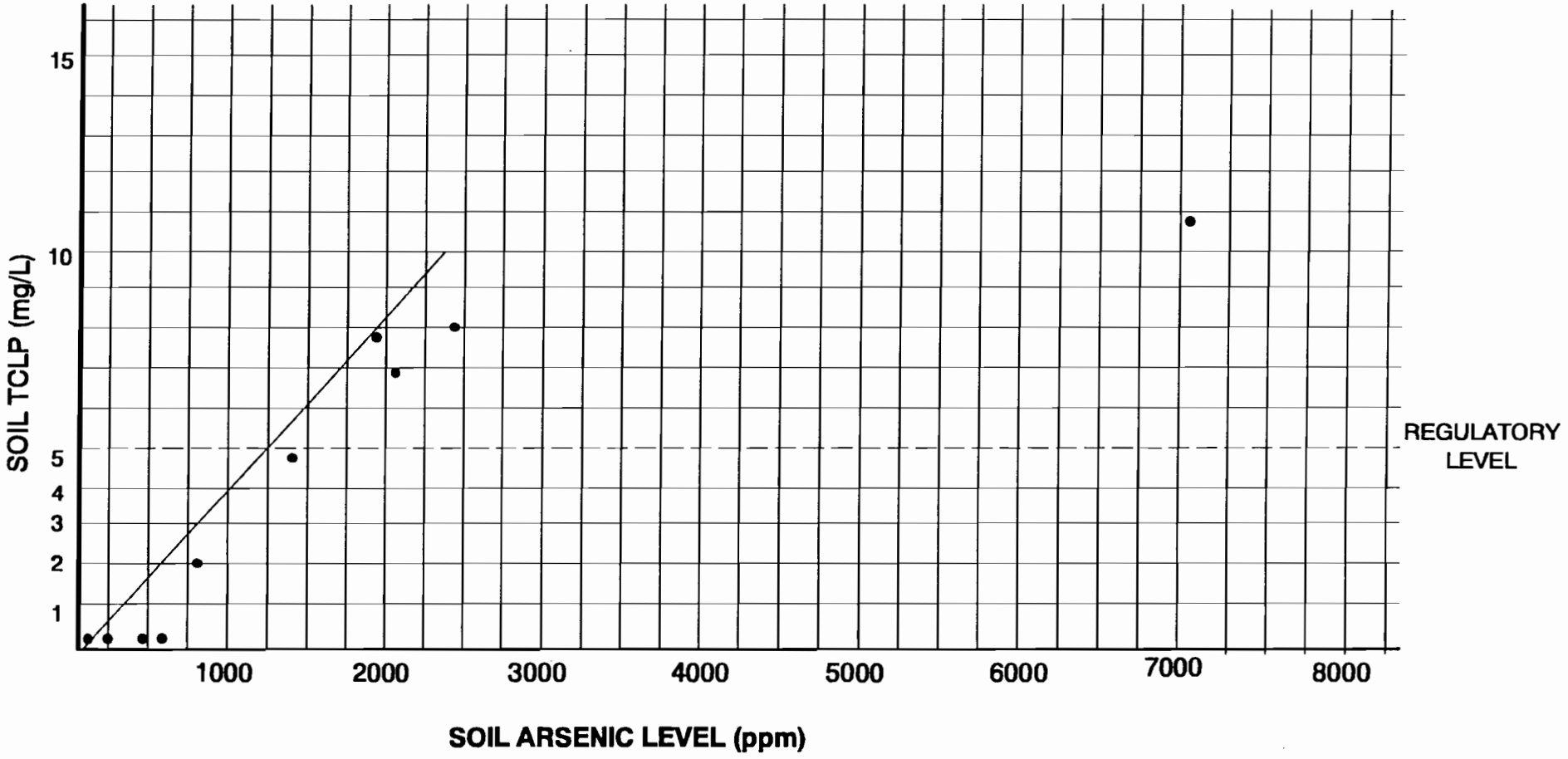
Sample No. DIKI-SO	TCLP Arsenic ppm	Laboratory Assey Arsenic ppm	Sample Location
26	8.09	2410	BH-1, 1'-2'
27	*	650	BH-1, 8'-9'
29	6.88	2140	BH-2, 0'-4'
30	7.49	1830	BH-2, 4'-6'
47	11.70	7090	BH-9, 1'-2'
52	*	536	BH-10, 1'-2'
53	4.50	1150	N1200 E1000, 0-24"
74	*	72	BH-13, 2'-3'
83	1.98	802	BH-14, 3'-4'
88	*	247	N1200 E1160, 0-24"

DIKI-SO = Diarsenol Company/Kingsley Park Site-Soil Sample.

* Result below detection limit of 1.00 ppm.

Results from Nytest Environmental, Inc. received on 1/31/91.

RELATIONSHIP BETWEEN ARSENIC SOIL CONCENTRATION AND TCLP LEVELS



Based on ES Results of Field Investigations (See Table 3.2 & Appendix C)

FIGURE 3.7

wash blank was also collected from the sample bailer using distilled water supplied by Recra Environmental Inc. Analyses utilized ASP methods specified by NYSDEC as shown on Table 2.3 and the sample results are on Table 3.3. The data analysis sheets with the sample results are in Appendix C.

For the groundwater samples collected from MW-1 on November 8, 1990, one was labeled GW-1 and a duplicate quality control sample as GW-2. One organic compound, acetone, was detected in both samples at 40 and 36 μg/l. Acetone was also detected in the wash and trip blanks, which indicates acetone is probably a laboratory contaminant. No BNA compounds were detected in either sample. There were only five metals detected in each sample (arsenic, calcium, magnesium, manganese, and sodium), all others were below the detection limit of the analysis. The only metal that exceeds both NYS Class GA groundwater standards and Maximum Contaminant Level (MCL) limits (300 μg/l) is manganese, with concentrations of 574 μg/l, and 559 μg/l. The arsenic and lead concentrations do not exceed either of these water quality standards. The lead in groundwater samples was below the detection limits of 3 μg. Arsenic was found at 11 μg/l and 13 μg/l which does not exceed either the NYS class GA groundwater standard of 25 μg/l or the MCL of 50 μg/l.

On December 21, 1990 two additional groundwater samples were collected from MW-1, for metal analysis of filtered and unfiltered samples. The first sample was labeled MW-1 for the unfiltered analysis and MW-1A for the filtered analysis. A duplicate sample was collected for quality control and was labeled MW-2 for the unfiltered analysis and MW-2A for the filtered analysis. The results of the analysis are presented on Table 3.3.

The measured arsenic levels in both the filtered samples (33 μg/l and 48 μg/l) and unfiltered sample (45 μg/l and 33 μg/l) exceed the NYS Class GA groundwater standard of 25 μg/l but not the MCL which is 50 μg/l. However, the filtered sample arsenic concentration in MW-2 was measured as greater than the unfiltered sample, indicating some analytical imprecision.

The iron levels in unfiltered samples were 8,400 μg/l and 8970 μg/l which exceeded both the NYS Class GA groundwater standard and MCL of 300 μg/l. In the filtered samples, however, iron was below the detection limit of 40 μg/l which indicates that the exceedance is due to particulate metal. The lead levels in both unfiltered samples (27 μg/l and 32 μg/l) exceeded the NYS Class GA groundwater standard of 25 μg/l but as in the case of arsenic are below the MCL of 50 μg/l. The lead levels in both filtered samples were at or below the detection limit of 3 μg/l. The manganese levels in both filtered samples (382 μg/l and 418 μg/l) and unfiltered samples (562 μg/l and 573 μg/l) were above both the NYS Class GA groundwater standards and the MCL which are 300 μg/l.

Cadmium levels in both the unfiltered and filtered samples 10 μg/l to 16 μg/l exceed both the NYS Class GA groundwater standard and the MCL of 10 μg/l. However, the wash blank also contained cadmium which could indicate laboratory contamination. Subtracting out measured blank levels of 6 μg/l would bring the

TABLE 3.3
DIARSENOL - KINGSLEY PARK
GROUNDWATER RESULTS
METALS (ug/l)

ANALYTE	(1) NYS STANDARD (ug/l)	(2) MCL (ug/l)	Sample 11/8/90 GW-1	Sample 11/8/90 GW-2*	Sample 11/8/90 Blank	Sample 12/21/90 MW-1 Unfiltered	Sample 12/21/90 MW-1A Filtered	Sample 12/21/90 MW-2** Unfiltered	Sample 12/21/90 MW-2A*** Filtered	Sample 12/21/90 Blank Unfiltered	Sample 12/21/90 Blank Filtered
ALUMINUM	NS	NS	120 B	100 B	80 B	6,290 N	-	7,720 N	-	-	-
ARSENIC	25	50	13	11.0	-	**45 N**	**33**	**33 N**	**48**	-	-
BARIUM	1000	1000	-	-	-	125 BN	224	130 BN	67 B	-	-
CADMIUM	10	10	-	-	-	16	11	16	10	6	6
CALCIUM	NS	NS	95,200	116,000	270 B	158,000	130,000	158,000	130,000	-	-
COPPER	1000	1000	-	-	-	20 B	6 B	19 B	6 B	-	-
IRON	300	300	-	-	-	**8,400**	-	**8,970**	-	-	-
LEAD	25	50	-	-	-	**27**	-	**32**	3	-	-
MAGNESIUM	NS	NS	83,800	84,200	-	95,200	86,500	96,300	81,800	-	-
MANGANESE	300	300	**574**	**559**	-	**562**	**382**	**573**	**418**	-	-
NICKEL	NS	700	-	-	-	34 B	38 B	32 B	25 B	-	-
POTASSIUM	NS	NS	1,190 B	1,230 B	-	3,010 B	839 B	3,600 B	664 B	-	-
SODIUM	NS	NS	14,100	14,100	-	13,900	14,300	14,200	13,800	498 B	509 B
ZINC	5000	5000	-	-	-	77 N	102 N	83 N	-	-	20

FOOTNOTES:

(1) From: "Ambient Water Quality Standards and Guidance Values" for Class GA groundwaters, 6 NYCRR Part 703.5, NYSDEC 9/1/78, as amended through 4/1/87.

(2) From: 10 NYCRR Part 5 - Maximum Contamination Levels for drinking water supplies. If iron and magnesium are present, total concentration of both should not exceed 500 ug/l.
NS = No standard.
NOTE: Concentrations in bold/boxed exceed one or both referenced standards.

DATA QUALIFIERS:

B: Reported value less than Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).
N: Spiked sample recovery not within control limits.
-: Reported value less than IDL.
S: The reported value was determined by the Method of Standard Additions (MSA).
W: Post digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance (See exhibit E of Sow 7/87).
*: Duplicate of GW-1.
**: Duplicate of MW-1.
***: Duplicate of MW-1A.

actual concentrations close to the NYS standard and MCL acceptability level of 10 μg/l.

The duplicate sample results were consistent and blank sample results appeared acceptable. However no data validation was undertaken at the request of the NYSDEC except on sample MW-2 nickel level to resolve an apparent data anomally.

3.3 COMPARISON WITH RESULTS OF PREVIOUS INVESTIGATION

Soil arsenic results from previous investigations and the ES soil arsenic results were found to be very similar within the park, with the highest arsenic concentrations in the northeast quadrant of the park. The offsite contamination detected by ES in the areas bordering the site was also similar to previous studies as shown in Figure 3.8. Outside the park previous studies of the properties north of the park fence found levels as high as 400 ppm arsenic while ES found 136 ppm arsenic. ES samples were located at different points from the previous sampling.

The depth at which high levels of arsenic contamination (over 1400 ppm) were found in SB-4 and ES BH-2 are similar. The E&E soil boring SB-4 found fill to a depth of 12 feet. This was not confirmed by ES test borings which found fill to a maximum depth of only 7.0 feet.

The previous surface lead concentration results were found to be very similar to the ES results. The highest lead concentrations were located offsite near houses on Riley and Kingsley Street (Figure 3.9).

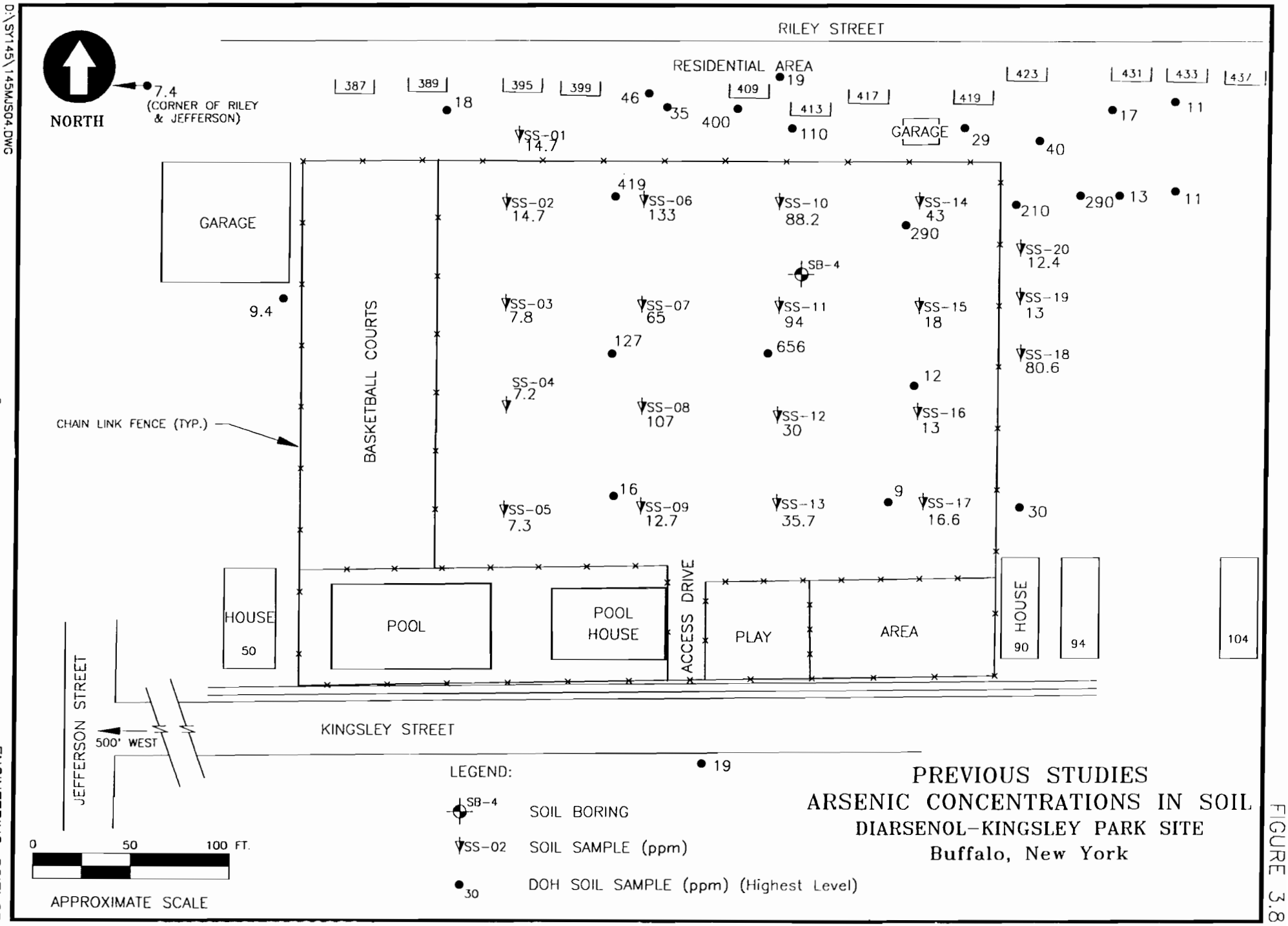
The EP Toxicity results obtained by ES were more consistent than the E&E results. EP Toxicity results obtained by ES were therefore used to determine the limits of contaminated soil which must be considered hazardous per NYS regulations. The quality control procedures of previous soil sample data could not be verified, and thus were not usable for establishing hazardous concentration limits.

3.4 EXTENT OF CONTAMINATION

There are two levels of contamination to be considered at the site; soils with concentrations of arsenic that exceed the EP Toxicity maximum allowable concentration or TCLP regulatory limit, and soils with concentrations of arsenic that do not exceed the TCLP allowable concentration but are above background levels. Soils exceeding background levels can be established on the basis of both offsite data and published information.

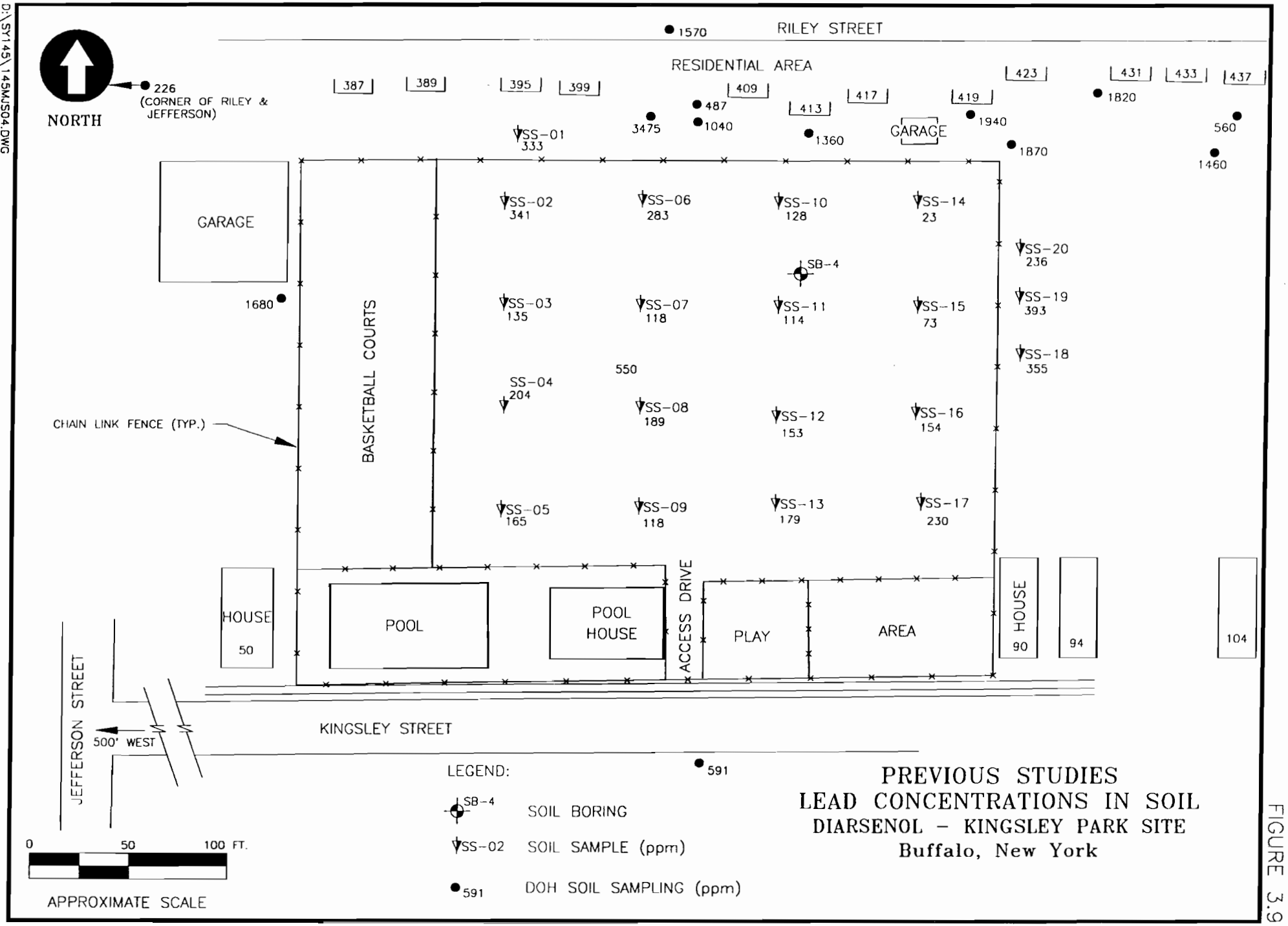
The surface background concentration is estimated at a range from 1.5 to 20 ppm based on offsite sampling and US EPA data (EPA 1983 and EPA 1985). The offsite background sampling appears to range from 3.5 to 18.7 ppm in vacant lots (on Riley and Kingsley Street) in the vicinity of the site and is within the EPA estimated range.

Soils with arsenic concentration over 1400 ppm are likely to exceed the EP Toxicity maximum allowable concentration for arsenic and over 1250 ppm arsenic are likely



PREVIOUS STUDIES
ARSENIC CONCENTRATIONS IN SOIL
DIARSENOL-KINGSLEY PARK SITE
Buffalo, New York

FIGURE 3.8



PREVIOUS STUDIES
LEAD CONCENTRATIONS IN SOIL
DIARSENOL – KINGSLEY PARK SITE
Buffalo, New York

FIGURE 3.9

to exceed TCLP regulatory limit. Fortunately most soils at the site are either above 1500 ppm or below 1000 ppm. Therefore the use of 1400 ppm or 1250 ppm as defining the amount hazardous soil has no quantifiable effect on the computed quantity of hazardous material. These hazardous soils are concentrated near a pit area approximately 40 feet by 60 feet in size located in the northern section of the site (Figure 3.10). The deepest samples having over 1250 ppm arsenic were encountered between 6 and 8 feet deep, but generally the highly contaminated soils occur between 3 and 4 feet deep as shown on cross sections (Figures 3.11 & 3.12).

It is estimated that approximately 250 cubic yards of soil have concentrations of arsenic over 1250 ppm. The estimated 250 cubic yards is based on excavating of the pit area to a maximum depth of 7 feet in the center near soil boring BH-2 and SB-4 (Figure 3.10). The excavations would be expanded outward at lower depths until the pit area was removed. The 250 cubic yard estimate is conservative for the oval shaped contours on Figure 3.10. The soil removal calculations are included in Appendix B.

Soils with elevated levels of arsenic that do not exceed the EP Toxicity limits, but are above background levels of 20 ppm, cover most of park and extend to the private properties that border the northeast quadrant of the park. The area covered by soils contaminated with arsenic concentrations above background levels are shown on Figure 3.10. It is estimated that to remove two feet of contaminated soil from the surface areas contaminated above 20 ppm as suggested by NYSDEC and NYSDOH as a suitable mean to protect public health would require about 5000 cubic yards. The area over 20 ppm arsenic is shown on Figure 3.10 and the calculations are included in Appendix B.

As a precautionary measure and is also requested by NYSDEC and NYSDOH, the remaining surface soil within the park, and on private properties directly bounding the park, will be excavated to a depth of one foot (DiPietro, 1990). It is estimated that to remove one foot from these areas will result in an additional 750 cubic yards excavation. The areas to excavate as a precautionary measure are shown on Figure 3.10.

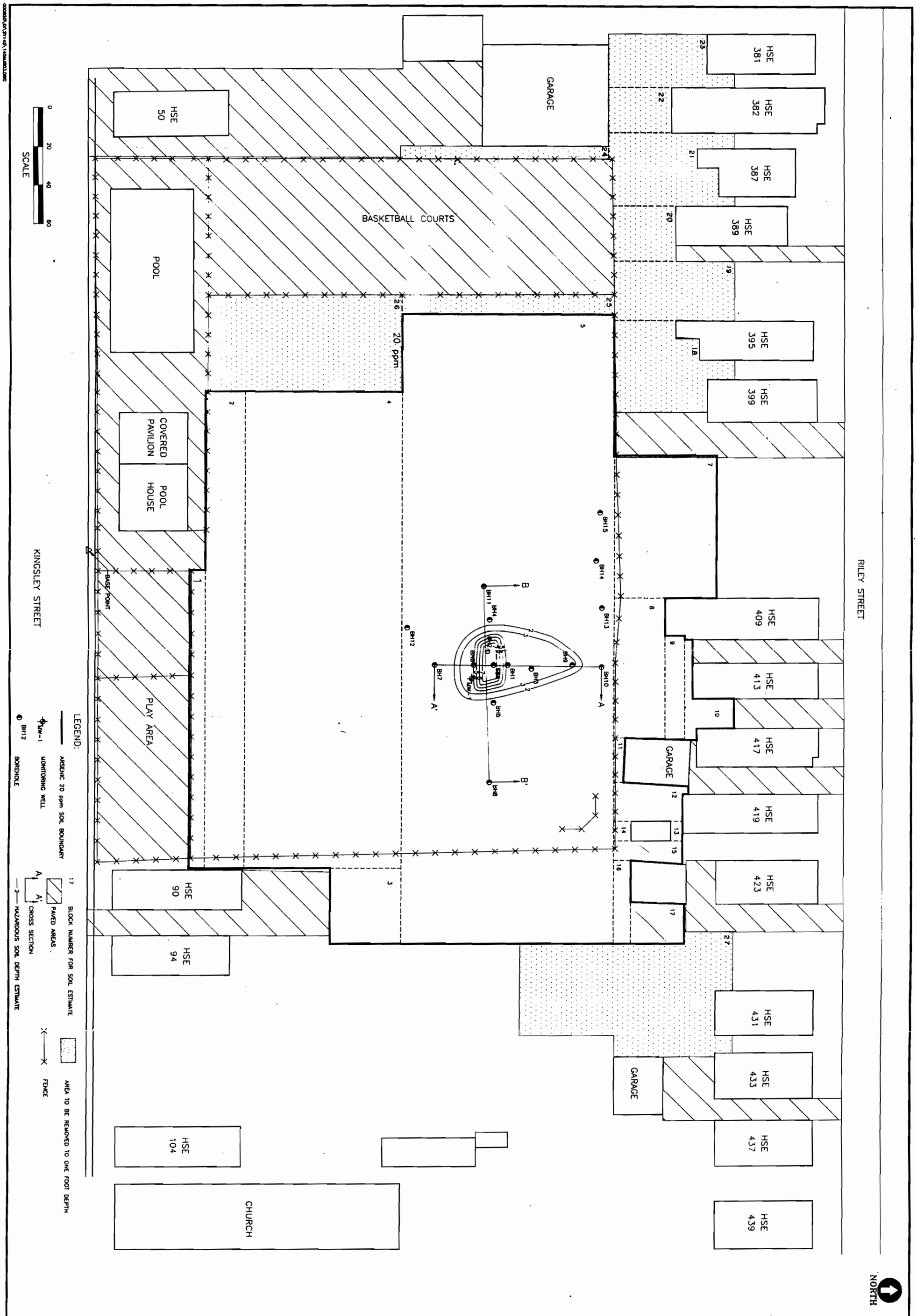


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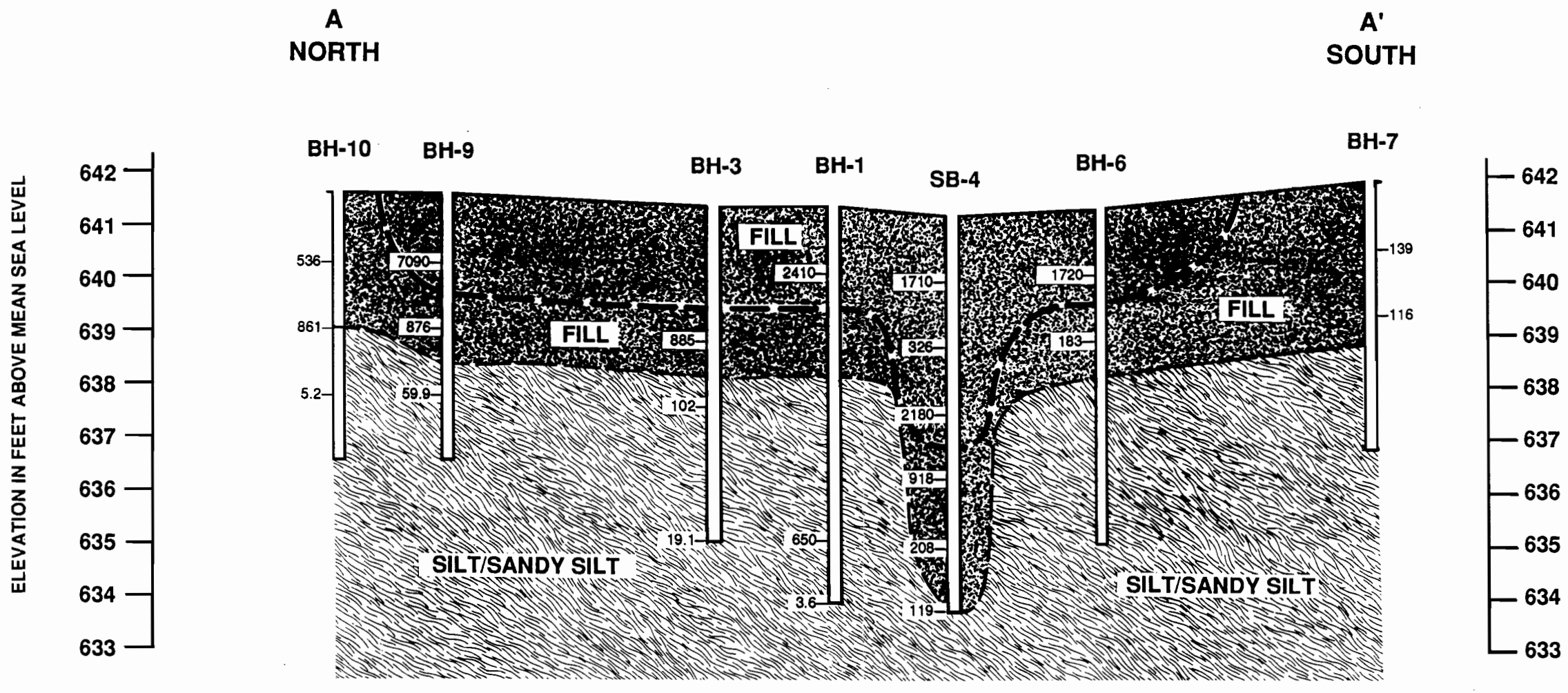
FIGURE 3.10
SITE CONTAMINATION MAP
DIARSENOL–KINGSLEY PARK SITE
City of Buffalo, Erie County



LEGEND

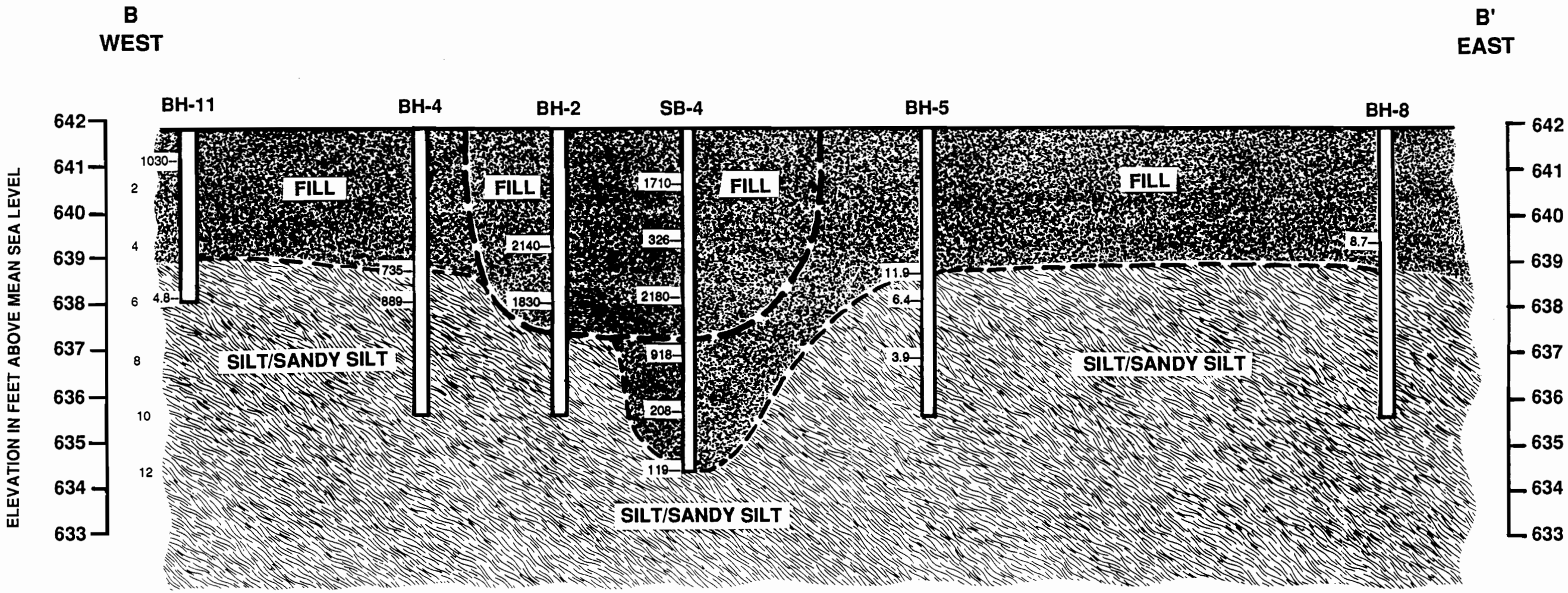
— — — LIMIT OF SOIL OVER 1400 ppm ARSONIC LIKELY TO EXCEED E P TOXICITY LIMITS

VERTICAL EXAGGERATION = 4X

119— LABORATORY ARSENIC ANALYSIS IN (ppm)

HORIZONTAL SCALE
0 10 20 FT.
10 FT.

GEOLOGIC CROSS SECTION A - A'
DIARSENOL KINGSLEY PARK SITE
BUFFALO, NEW YORK



HORIZONTAL SCALE

0 10 20 FT.

10 FT.

LEGEND

LIMIT OF SOIL OVER 1400 ppm ARSONIC LIKELY TO EXCEED E P TOXICITY LIMITS

VERTICAL EXAGGERATION = 4X

2180-- LABORATORY ARSENIC ANALYSIS IN (ppm)

GEOLOGIC CROSS SECTION B - B'
DIARSENOL KINGSLEY PARK SITE
BUFFALO, NEW YORK

SECTION 4

REMEDIAL ACTION ALTERNATIVES

Previous chapters have discussed site investigative methodology and results, leading to the quantification of both high and low concentration arsenic-contaminated soils. The issue now becomes to what extent those contaminated soils constitute a threat to the area populace and, therefore, to what extent remedial action is required. ES has received guidance from NYSDEC on what is considered as an acceptable extent of remedial action at the site (Harrington, 1990). Our understanding of NYSDEC policy, guidance and other clean-up factors specifically relevant to this site constitute the basis for deciding the appropriate degree of cleanup.

Based on this understanding, several criteria were considered in determining recommended soil clean-up goals as follows:

- Human health based criteria as outlined in USEPA Guidance (USEPA, May 1989). This guidance does not contain a health based criteria value for arsenic contaminated soil.
- Environmental concentrations which would be protective of groundwater/drinking water quality. This criteria is used primarily for organic compounds which partition between soil and water. Consideration of groundwater quality at the site is a concern because existing arsenic groundwater concentration levels are above the arsenic NYS Class GA groundwater standard of 25 μg/l but below the MCL of 50 μg/l.
- Criteria based on TCLP regulatory levels which do apply to this site.
- Laboratory Method detection limits.

As suggested in the NYSDEC Guidance, the recommended clean-up goal is based on the criteria that provides the most stringent levels that are not below representative background or laboratory detection limits.

ES recognizes that environmental and human health hazards at the site can be ascribed to two sources. These include highly-contaminated arsenic containing soils which surpass EP toxicity leachability criteria and/or TCLP regulatory levels, and which are classifiable as hazardous waste, and less contaminated soils containing above background concentrations of arsenic. Whereas the high concentration materials constitute both a potential environmental (via leachability), and human exposure hazard, the threats associated with the lower concentration materials appear limited to human exposure potential alone. ES believes that the need to address and remediate the high hazardous materials is evident. The need to address the less contaminated soils is not as clear cut. Nevertheless, choosing an acceptable clean-up point for the less contaminated materials is an essential step in establishing site remedial objectives.

This section presents the ES understanding, in accordance with perceived NYSDEC guidance and policy, of appropriate remedial objectives for the site. Following definition of the remedial objectives, remedial technologies and alternatives capable of meeting those objectives are defined and screened. An economic analysis of the recommended remedial alternative is also included in this section.

4.1 DEFINITION OF REMEDIAL OBJECTIVES

The existing problem areas at the site have been sufficiently characterized so that the nature and extent of contamination are clearly defined. It is known that contamination is limited to high-metal content soils with above background concentrations of arsenic and that groundwater contamination may have occurred. It is also known that the contaminants of interest are limited to arsenic. Although some above-background concentrations of lead have also been found on the property, this contamination appears to be widespread throughout the area and not caused by previous industrial activities at the site. Furthermore, there is a potential concern with the small degree of arsenic release to local groundwater. Remedial objectives can therefore be limited to consideration of arsenic in soils alone.

ES concurs with the NYSDEC position that the primary remedial objective for the site is to control further access and exposure to the arsenic contamination. In addition, it will be prudent to remove or effectively isolate from the environment those highly contaminated materials (i.e. above 1250 ppm arsenic) which may leach arsenic to area groundwater or soils. Removing this material will have the double benefit of limiting the potential human contact with the soils as well as preventing further environmental resource damage.

Based on the above considerations, ES believes that several remedial objectives for site action can be established. These include

- Removal or isolation (i.e. containment) of arsenic-contaminated soils at the site to prevent further human contact which could result in a deleterious effect.
- Removal or encapsulation of high concentration (i.e. > 1250 ppm) arsenic-contaminated soils to prevent leaching into area groundwaters and to further reduce the potential for human exposure.

4.2 REQUIRED EXTENT OF REMEDIAL ACTION

To meet the remedial objectives, it is necessary to determine what soil criteria will constitute an acceptable degree of response. Clearly, soils above the TCLP and EP Toxicity limits must be considered. Of greater complexity is the issue of what constitutes acceptable clean-up for contaminated soils. ES understands that a soil clean-up criteria of a near background concentration of 20 ppm is considered acceptable by the NYSDEC. This clean-up requirement must be balanced against the fact that a minimum of two-feet of clean (i.e. at or below background) soil can be considered an acceptable buffer zone from direct surface content, see following discussion. A combination of these cleanup criteria for both soils and highly contaminated material can be used to establish a vertical and horizontal profile for the contaminated soils to be remediated. This profile and the estimated quantity of materials involved was computed in Section 3 and involves approximately 5000 cubic yards of material. Additionally the NYSDEC requested that as a

precaution all surface soils within the park and bordering on private property be excavated to a depth of one foot which involves approximately 750 cubic yards of material.

The choice of a two-foot buffer zone of clean soil is a primary factor in determining the extent, complexity and cost of remedial action. The two-foot depth appears to be a reasonably safe limit based on the proposed future uses of the site, i.e. use as a public park. Such uses imply that all activities and/or on-site construction will involve only surface disturbance and that substantial excavation (i.e. for foundation or construction footing placement) will not be required. More restriction would be appropriate, to limit the potential for direct human exposure, if substantial on-site excavations were anticipated. If excavation occurs within the park below the one or two foot restoration depths, soil and air testing will be required to protect workers and the public. It is also worthwhile to note that the two-foot limit is consistent with remedial recommendations developed by E & E and is, according to ES understanding, consistent with NYSDEC guidance.

4.3 IDENTIFICATION OF REMEDIAL TECHNOLOGIES

From a technical perspective, the choice of potential remedial technologies is limited. The fact that site contamination is isolated to metal-based (i.e. arsenic) contamination greatly reduces the complexity of the technology evaluation process (i.e. technologies suitable for organic contamination remediation need not be considered). Furthermore, the easy access to the site and the near surface nature of the contamination means that conventional, and less costly, technologies can be freely considered, rather than more exotic technologies directed at treating hard-to-reach material.

ES believes that four general response actions are consistent with the remedial objectives of the project and the nature of the contamination. These include excavation and off-site disposal, in-place and on-site containment/encapsulation, in-place and on-site solidification/stabilization, and institution of groundwater controls. These general response actions are consistent with the remedial objectives in controlling both the potential for environmental insult and off-site migration.

4.4 PRELIMINARY SCREENING OF REMEDIAL TECHNOLOGIES AND IDENTIFICATION OF ALTERNATIVES

ES has reviewed all of the above proposed response actions and remedial technologies in terms of implementability, effectiveness and cost. ES believes that of these actions, only excavation and off-site disposal warrants further and more detailed consideration. The reasons supporting this analysis are as follows.

In-place on-site solidification/stabilization.

Solidification/stabilization technologies at the site are considered to be highly implementable because of the shallow location of the contaminated materials, ease of access to the site, and well demonstrated nature of the technology in reducing metals transport and leachability. Nevertheless, the technology can not be considered effective in meeting the remedial objectives at the site. Application of this technology would result in a "hard" and friable material at the surface of the site which would greatly interfere with the currently anticipated recreational activities at the site. Although the site could be returned to a more usable condition by importing soil cover for this solidified material, such an

approach has no real advantage over simple soil covering (without solidification) as far as limiting the potential for further human exposure. Furthermore, such an approach would result in a large increase of ground levels at the park, resulting not only from the imported fill but also from a volume increase associated with solidification. This could increase erosion potential. Although solidification of the material would reduce the leachability of arsenic from the contaminated materials similar advantages could be achieved via soil removal without the disadvantages associated with the volume increases mentioned above.

Groundwater Controls

Groundwater monitoring controls do not address the primary site issue of reducing potential contact with human receptors to arsenic. Furthermore, the fact that there is no groundwater use in the area and that groundwater has not been severly impacted, indicate that groundwater controls do not appear to be warranted at this time. Additional studies and monitoring are warranted in the future following remediation to confirm that site remediation has lead to an improvement in groundwater quality.

On-Site Containment

On-Site containment is also not considered a reasonable alternative, primarily because of the need to construct a landfill on the property. This would involve a major construction effort and possible interferences in the intended uses of the site.

The most critical disadvantage of the on-site landfill construction effort is the regulatory difficulties associated with on-site disposal of hazardous materials. At this time, it would appear that any attempt at on-site disposal will, because of the hazardous nature of the arsenic contaminated solids, require permits for construction of an on-site hazardous waste landfill. Substantial cost, design effort and permit preparation can therefore be expected and permit approval appears unlikely. Such requirements reduce the implementability of the alternative to an unacceptable degree.

In-Place Containment

In-place containment would involve the placement of two feet of clean cover soil (presumably clay to minimize the potential for infiltration) to provide the necessary two-foot buffer zone between the above ground soils and human receptors. The technology is advantageous not only because of its technical simplicity, but also because of its low anticipated cost.

Despite the obvious advantages, placement of a cover over existing contaminated areas at the site is also not considered a viable remedial alternative. Placement of such a cap would involve soil import and placement on private property which may involve public relations and legal problems. Furthermnore, there is little if any likelihood for effective control in these private sites, raising the possibility that later excavation and direct exposure may occur. Also, such a remedial action would raise ground elevations in and around the site by another two feet. This will place the park surface even further above surrounding properties and may encourage erosion. The issue of regulatory compliance must also be considered. Placement of the cover soil/cap will fundamentally result in the on-site containment of identified hazardous materials. Not only will such containment involve hazardous waste disposal in close proximity to residential areas, it will result in only

partial containment. Based on these issues, it seems extremely unlikely that appropriate regulatory approvals could be obtained.

4.5 SELECTION OF PREFERRED REMEDIAL ALTERNATIVE

ES believes that the most favorable remedial alternative, in terms of implementability, cost, public safety and conformance with regulatory requirements, will involve excavation of the contaminated material and off-site disposal. This remedial action is highly implementable, because of the relatively shallow placement of the soils to be removed, is protective of public safety by completely removing the offending materials, and is consistent with NYSDEC requirements.

Implementation of this remedial action would involve removal of soils to a depth of one to two feet, along with the removal of contaminated solids exceeding 1250 ppm arsenic which are likely to exceed the TCLP regulatory limit. The locations and depths of the required excavation have been described in detail on Figure 3.10.

Excavated materials would be back-filled, providing a minimum buffer zone of at least two feet between the surface and soils possibly previously contaminated. Although this alternative will not completely remove arsenic contaminated materials (that is, a large amount of soil containing above-background levels of arsenic will remain below the two foot level), placement and compaction of two feet of cover will provide protection for projected site uses. Furthermore, this soil will be placed at grade, reducing the chances of erosion. Replacement of the highly-contaminated soils will also remove the possibility of further arsenic release to area groundwater.

ES has determined that excavated soils and contaminated solids can be disposed of in the Chemical Waste Management (CWM) Model Cities, NY hazardous waste landfill. The nearby location of this landfill greatly reduces transportation costs and increases the economic benefit of the off-site disposal alternative. A second advantage is the fact that the landfill can receive this material, until May of 1992 when more restrictive disposal requirements will apply. This should provide ample time for the remedial alternative to be implemented.

Based on the apparent implementability and effectiveness of this alternative, ES has prepared a cost estimate for the excavation program based on the quantities identified in Section 3. This cost estimate includes removal of precautionary soils to one foot, removal of above-background material down to a depth of two-feet, and excavation of all highly contaminated solids. The total amount of material to be removed is approximately 6000 cubic yards.

Total estimated remedial costs are provided on Table 4.1. Two estimates are provided. The primary difference in these two cost estimates are the anticipated costs for actual disposal of the contaminated material. The estimate on "total cost I" in Table 4.1 is based on separate pricing for disposal of non-hazardous (i.e. arsenic concentration < 1250 ppm) and hazardous soils.

ES has contacted a nonhazardous waste disposal company in Buffalo, N.Y., which could accept nonhazardous soil from the site at a cost of approximately $80 a cubic yard (this estimated cost includes a flat $70 per cubic yard disposal, tax and transportation to a site

TABLE 4.1

ESTIMATED REMEDIAL ACTION COSTS

Task	Quantity	Unit Cost	Total [1] Cost I	Total [2] Cost II
1. Removal				
Contaminated Soils (> 1250 ppm)	250 CY	$15/CY	$3750	$3750
Above-Background Soils	4750 CY	$7.5/CY	$35,625	$35,625
Precaution Soils	750 CY	$7.5/CY	$5625	$5625
2. Disposal				
Contaminated Soils	375 CY[3]	$277/CY	$103,875	$103,875
Above-Background Soils	7125 CY[3]	$80-$277/CY	$570,000	$1,973,625
Precaution Soils	1125 CY[3]	$80-$277/CY	$90,000	$311,625
Analytical Testing			$5000	$5000
Decontamination Pad/Health and Safety Equipment			$10,000	$10,000
3. Restoration				
Backfilling [4] (Low Permeability Soil)	2500 CY	$8/CY	$20,000	$20,000
Topsoil	3250 CY	$15/CY	$48,750	$48,750
Turfing (Hydroseed)	16,000 SY	$0.45/SY	$7,200	$7,200
Landscaping	17 Trees 102 Shrubs	$300/each $30/each	$5100 $3060	$5100 $3060
		Subtotal	$907,985	$2,533,235
		Engineering/ Construction Supervision	85,000	85,000
	Contingency @20%		198,597	523,647
	Total Estimated Cost Range		**$1,191,582**	**$3,141,882**

1. Disposal cost at nonhazardous and hazardous waste site.
2. Disposal cost only at hazardous waste site.
3. Bulking factor 50%
4. Includes purchase and placement.

CY cubic yards
SY square yards

near Buffalo). The disposal company has indicated receiving this waste pending their review of TCLP data and completion of regulatory approval. This unit disposal cost has been incorporated in the "total cost I" estimate.

In addition to this estimate, however, ES has presented a more conservative cost estimate to develop "worst-care" costs. For this cost estimate, indicated as "total cost II" in Table 4.1. ES has assumed that all materials excavated from the site, whether or not they exceed the 1250 ppm limit, will be disposed in the Model Cities landfill at a cost of $277 a cubic yard. (This cost includes a flat $200 per cubic yard disposal fee plus transportation and tipping fees per truckload of material).

Cost figures are preliminary in nature but are based on ES best estimates of the total quantity of material to be disposed, and relevant procedures. Total estimated remedial costs include provision for excavation, off-site disposal, back-filling and grading of clean soil on the site, and related site excavation activities. Costs associated with ambient air and other health and safety monitoring at the site perimeter have not been included. ES believes that, with proper construction control, dusting and other carry over of particulates from the site can be effectively controlled. Where such control is not possible due to the physical nature of the soils, additional costs for health and safety monitoring will be required.

In estimating costs presented on Table 4.1, ES has made a number of assumptions concerning the methods and facilities which will be used as part of the site remediation. First of all, ES has assumed a "bulking factor" of 1.5 for the soils removed during excavation such that, a total volume of 7500 cubic yards is anticipated in the transport trucks after removal of 5000 cubic yards of the denser in-place soil. ES believes this to be a conservative yet reasonable estimate. Other assumptions include a $10,000 capital expenditure for on-site decontamination pads/health and safety facilities, and an analytical budget of $5,000 to confirm that the excavation limits are adequate to remove the contaminated material of interest. Landscaping of private property can be accomplished by hydroseeding and one tree and six shrubs replaced per house.

APPENDIX A

APPENDIX A

REFERENCES

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APPENDIX B

BORING LOGS

Contractor: Nothnagle Drill
Driller: Steve Lovanty
Inspector: William Miller
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME: Diamond Coal/Kingsley Pit
PROJECT NO.: 4145

BORING NO. 1
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP				
DTW from MP				
Time				
Date				

Weather: Sunny 45°

Date/Time Start: 10/30/90 9:15 am
Date/Time Finish: 10/30/90 10:15 am

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-met COMMENTS As	X-met COMMENTS Pb
			100	5	0.5' Brown Silt, (moist)			
	26	1		8	Black and Brown Silt and Sand (moist)	1	off Scale	515
				4				
		2		5		2	275	15
			80	2				
				2			179	0
		3		4		3		
				6				
		4		1		4	169	44
			85					
				3	5.0'	5		
		5		4			84	0
				5	Black Silt			
		6		4	Brown silt, little to trace sand (moist)	6	82	0
			80					
		7		8		7	133	0
				11				
				13		8		
	27	8	80	1			85	0
				4	(moist to wet)	9		
		9		8			75	0
				11	2" sand layers	0	54	0
	28	10	100	3			102	0
				4		1		
		11		8			82	0
				11	12.0	2		
		12			Boring terminated at 12'			
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY: Fill to 5.0' over Silt

Contractor: Nothnagle Drill
Driller: Steve Loranty
Inspector: William Hillery
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME Diamond 6/Kingsbury Pt
PROJECT NO. SY145

BORING NO. 2
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

Weather

Date/Time Start 10/30/90 10:15
Date/Time Finish 10/30/90 11:45

Plot Plan

See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-mat COMMENTS Ac	Pb
			40		Dark Brown Silt, little sand		32	0
		1			Black sand and Brick (Fill)	1	1235	19
					Concrete			
		2	50			2		
	29			3	Dark Brown silt, little white sand (moist)		2877	28
		3		4		3	2924	138
				7				
		4	60	9	Brown silt, trace gravel (brick)	4	3451	82
	30			2				
		5		3		5	687	0
				3				
		6	70	4		6	306	0
				4				
				8	7.0'	7	216	0
		7		11	Dark Brown to Brown Silt			
		8	100	6		8	264	0
				3	Brown silt, little sand (layers)			
		9		6		9	82	0
				8				
				4	10	0		
		10			Boring terminated at 10'			
		11				1		
		12				2		
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY Fill to 7.0 Feet over Sandy silt

Contractor: Nothnagle Drill
Driller: Steve Loranty
Inspector: William Hilley
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME Diamond G/Kingsley Pt
PROJECT NO. 54145

BORING NO. 3
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

Weather Sunny 50

Date/Time Start 10/30/90 1:05 pm
Date/Time Finish 10/30/90 2:10 pm

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	COMMENTS As	COMMENTS Pb
			90	5	0.5 Brown silt		1279	18
		1		6	1.0 Black and White Sand	1		
				8	Dark Brown Silt, little sand		786	0
		2		11		2		
	31		60	4	Black sand		725	0
		3		4	Brown and White Silt and sand	3		
				5			817	0
		4		4		4		
	32		100	2	Brown silt		1551	0
		5		2	5.0	5		
	33			4	Dark Brown silt		172	0
		6		5		6		
			100	3			297	0
		7		7	7.0	7		
				11	Brown silt		126	0
		8		13		8		
	34		100	3	8.5		137	0
		9		7	Brown silt, some sand	9		
				11			118	0
		10		14	10' (moist to wet)	0		
		11				1		
		12				2		
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY Fill to 5.0 over silt and sandy silt

Contractor: Nothnagle Drill
Driller: Steve Lorantz
Inspector: William Killey
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME Diarsenol C/Kingsbury Pt
PROJECT NO. 5Y145.02
Weather Sunny 60°
Date/Time Start 10/30/90 2:20 pm
Date/Time Finish 10/30/90 3:30 pm

BORING NO. 4
Sheet 1 of 1
Location:

Plot Plan

See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-MET COMMENTS As	X-MET COMMENTS Pb
			60	4			687	299
		1		7	1.0 Dark Brown Silt, some sand			
				11			1232	85
		2		16	2.0 Gray Sand and Gravel (Concrete)			
			100	38			776	1
		3		11	Brown silt, little sand		670	132
				6				
		4		11			3580	0
	35		85	5				
				6	5.0			
	36	5		8	Brown silt, trace fine Gray sand (moist)		647	0
				7				
		6	100	5			462	0
		7		7				
				7			245	0
		8		9				
			100	4			343	0
		9		3			213	0
				6				
		10		6	10 (moist to wet)		0	0
					Boring Terminated at 10'			
		11						
		12						
		13						
		14						
		15						
		16						
		17						
		18						
		19						
		20						

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY Fill to 5.0' over sandy silt

Contractor: Nothnagle Drill
Driller: Steve Loranty
Inspector: William Miller
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME Diamond G/Kingsbury Pt
PROJECT NO. SY145

BORING NO. 5
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP				
DTW from MP				
Time				
Date				

Weather Sunny 60°

Date/Time Start 10/30/90 3:40 pm
Date/Time Finish 10/30/90 4:20 pm

Plot Plan

See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	A-Met COMMENTS As	Pb
			40%	3	.75' Brown Silt			
		1		3	Brown and gray silt, sand and gravel	1	186	44
				3				
		2		4		2	246	1394
			75%	2	Brown Silt, little sand (white pieces)		270	162
		3		3		3	136	0
				3				
		4		4		4		
	37		80%	2			220	44
		5		5	5.0	5		
	38			5	5.5 Dark Brown to Black Silt		43	0
		6		6	Brown Silt, trace gray sand (brown sand layers) (moist)	6		
			100	3			99	0
		7		7		7		
	39			11			151	0
		8		11		8		
			100	2			112	0
		9		2	9.0	9		
				4	9.5 Brown sand (wet)		25	0
		10		2	10.0 Brown Silt	0		
					Boring terminated at 10.0'			
		11				1		
		12				2		
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY Fill to 5.0' over silt and sand

Contractor: Nothnagle Drill
Driller: Steve Loranty
Inspector: William Miller
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME: Diarsenol C/ Kingsbury Pt
PROJECT NO.: 54145

BORING NO. 6
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

Weather: Sunny 60°

Date/Time Start: 10/31/90 8:15
Date/Time Finish: 10/31/90 9:10

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-RAY COMMENTS As	X-RAY COMMENTS Pb
			60	2	0.5 Brown Silt			
		1		2				
	40			2	Black, brown and white Silt and sand	1	731	13
				2				
		2		2				
			80	3		2	6323	11
	41			3				
		3		3			5564	188
				4		3		
				6			2074	79
		4						
			80	2		4	1784	0
				3	5.0		276	0
		5				5		
				4	Black Silt		164	0
					6.0			
		6		5		6	219	0
			100	4	Brown Silt			
				8		7		
		7					129	0
				12				
				12		8		
		8	100	5	Brown silt, little sand		140	0
				3	Four Brown sand lenses 1-2"			
		9				9		
				4			203	0
				7	10'			
		10				0		
					Boring terminated at 10'			
		11				1		
		12				2		
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY: Fill to 5.0 over Silt and Sandy silt

Contractor: Nothnagle Drill
Driller: Steve Leranty
Inspector: William Hilley
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME: Diarsenol C/Kingsbury Pit
PROJECT NO.: 54145
Weather: Cloudy 50°
Date/Time Start: 10/31/90 910 am
Date/Time Finish: 10/31/90 10:10 am

BORING NO. 7
Sheet 1 of 1
Location:

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	COMMENTS As	COMMENTS Pb
			70	2	Brown Silt			
	42	1		2	1.0'	1	17	0
				3	Black, white and brown silt		922	0
		2		4	and sand	2		
	43		80	2			333	0
		3		2		3		
				4			220	0
		4		4		4		
			50	2			276	0
		5		4	5.0	5		
				4	Brown Silt, little sand		110	0
		6		6		6		
			90	2			109	0
		7		5		7	95	0
				7				
		8		9	8.0'	8		
					Boring terminated at 8.0'			
		9				9		
		10				0		
						1		
		11						
		12				2		
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY: Fill to 5.0' over sand, silt

Contractor: Nothnagle Drill
Driller: Steve Leranty
Inspector: William Hiller
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME Diarsenol C/Kingsbury Pt
PROJECT NO. ST145
Weather Sunny 60
Date/Time Start 10/31/90 10:40 am
Date/Time Finish 10/31/90 11:20 am

BORING NO. 8
Sheet 1 of 1
Location:

Plot Plan

See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-Met COMMENTS As	X-Met COMMENTS Pb
			70	3	0.5 Brown Silt			
		1		4		1	322	335
				4	1.5 Black sand and Gravel		88	0
		2		4		2	132	0
			100	2	Brown silt, some sand, trace Fine Gravel			
		3		2		3	100	0
				3				
	44	4		5		4	63	0
			100	3				
		5		6	5.0	5	120/80	% 0
				7	5.5 Black Silt, little sand			
		6		7	6.0 Brown Silt	6		
					Boring terminated at 6.0'			
		7				7		
		8				8		
		9				9		
		10				0		
		11				1		
		12				2		
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY Fill to 5.0 over sandy silt and silt

Contractor: Nothnagle Drill
Driller: Steve Leranty
Inspector: William Hilley
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

BORING NO. 9
Sheet 1 of 1
Location:

PROJECT NAME Diarsenol 6/Kingsbury Pt
PROJECT NO. 54145

Weather Sunny 60°

Date/Time Start 10/3/90 11:20 am
Date/Time Finish 10/3/90 12:00 am

Plot Plan

See site plan

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	COMMENTS As	COMMENTS Pb
			60	3	.75 Brown Silt		363	226
		1		4				
	47			6	Gray and black Silt, sand & Gravel		1151	0
		2		4				
			75	2	2.5		888	0
	49	3		3	Brown Silt			
				5			924	0
		4		5				
			100	3			2060	113
	50	5		3	5.0			
				5	5.5 Black to Brown Silt		266	0
		6		7			164	0
			100	2	Brown, gray and black silt			
		7		5			88	0
				8				
		8		11	8.0		84	0
					Boring terminated at 8.0			
		9						
		10						
		11						
		12						
		13						
		14						
		15						
		16						
		17						
		18						
		19						
		20						

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY Fill to 5.0' over silt

Contractor: Nothnagle Drill
Driller: Steve Loranty
Inspector: William Hiller
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME: Diamond Gl/Kingsbury Pr
PROJECT NO.: 5145

BORING NO. 10
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP				
DTW from MP				
Time				
Date				

Weather: Sunny 70

Date/Time Start: 10/31/90 1:30
Date/Time Finish: 10/31/90 2:00

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	COMMENTS As	COMMENTS Pb
			75	2	0.5 Brown Silt			
		1		5				
	52			5	1.5 Black Sand	1	130	LS
		2		3				
	54		80	2	2.0 Brown silt sand and gravel	2	684	252
		3		3	Brown Silt			
				2	3.5	3	613	0
		4		5	4.0 Gray & Brown Silt, little sand		604	0
			80	3		4	1426	0
		5		3	Brown silt		925	0
	55			5		5	142	0
		6		6			154	0
			100	4		6	136	0
		7		6				
				10		7	12	0
		8		14		8		
					Boring terminated at 5.0'			
		9				9		
		10				10		
		11				11		
		12				12		
		13				13		
		14				14		
		15				15		
		16				16		
		17				17		
		18				18		
		19				19		
		20				20		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY: Fill to 4.0' over Silt

Contractor: Nothnagle Drill
Driller: Steve Lorenty
Inspector: William Miller
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME Diamond 6/Kingsbury Pr
PROJECT NO.

BORING NO. 11
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

Weather Sunny 60°

Date/Time Start 10/31/90 2:15
Date/Time Finish 10/31/90 3:15

Plot Plan

See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-MET COMMENTS As	Pb
			80%	1	Dark Brown Silt		6327	545
	58	1		6	1.0	1	504	437
				5	1.5 Black & Gray Gravel & Sand (Concrete)		59	0
	--	2		5	Brown Silt little sand	2	253	105
			10%	3			73	233
		3		4		3		
				5				
		4		4		4		
	60			3	4.5		79	33
		5		3	5.0 Dark Brown Silt, little sand	5	66	0
				5	Brown silt, little sand		169	0
		6		9		6		
					Boring terminated at 6.0'			
		7				7		
		8				8		
		9				9		
		10				0		
		11				1		
		12				2		
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY Fill to 4.5 over sandy silt

Contractor: Nothnagle Drill
Driller: Steve Lorenty
Inspector: William Willey
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME: Diarsenol G/Kingsbury Pt
PROJECT NO.: 5145
Weather: Sunny 60°
Date/Time Start: 11/1/90 9:30 am
Date/Time Finish: 11/1/90 11:00 am

BORING NO. 12
Sheet 1 of 1
Location:

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	COMMENTS As	COMMENTS Pb
			80	3	0.5 Dark Brown Silt		3690	391
		1		4	Brown and white silt and sand	1		
				4	1.5		847	0
		2		5	Concrete	2		
			0					
		3			3.5	3		
		4			Brown silt (wet to moist)	4	134	0
			75	4				
		5		5		5	90	0
				5				
		6		5	6.0	6		
					Boring terminated at 6.0			
		7				7		
		8				8		
		9				9		
		10				10		
		11				11		
		12				12		
		13				13		
		14				14		
		15				15		
		16				16		
		17				17		
		18				18		
		19				19		
		20				20		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY: Fill to 3.5' over Silt

Contractor: Nothnagle Drill
Driller: Steve Lorenty
Inspector: William Hiller
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME: Diamond Alkali / Kingsbury Pit
PROJECT NO.: 5415
Weather: Sunny 60
Date/Time Start: 11/1/90 11:30 am
Date/Time Finish: 11/1/90 12:00 am

BORING NO. 13
Sheet 1 of 1
Location:

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-MET As	X-MET Pb	COMMENTS
			50	2	0.5 Brown Silt				
		1		5	1.0' Black Silt, sand and gravel	1	170	356	
				9					
				6	Brown Silt, Trace Sand		326	0	
	74	2	75	3		2	692	99	
	75			4					
		3		3		3	270	0	
				6					
		4	100	3		4	491	190	
				4	5.0				
		5		4	5.5 Black Silt	5	86	0	
				6	6.0 Brown Silt				
		6			Boring terminated at 6.0'	6			
		7				7			
		8				8			
		9				9			
		10				0			
		11				1			
		12				2			
		13				3			
		14				4			
		15				5			
		16				6			
		17				7			
		18				8			
		19				9			
		20				0			

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY: Fill to 5.5'

Contractor: Nothnagle Drill
Driller: Steve Leranty
Inspector: William Hilley
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME: Diarsenol C/ Kingsbury Pt
PROJECT NO. SY145

BORING NO. 14
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP				
DTW from MP				
Time				
Date				

Weather: Sunny 60°

Date/Time Start: 11/1/90 1:30
Date/Time Finish: 11/1/90 2:50

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-MET COMMENTS As	X-MET COMMENTS Pb
			80	2				
				4	1.0 Dark Brown Silt		138	334
		1		3	Dark Brown and black silt and sand	1	3	599
				6				
		2	100	4		2	133	189
				5			1077/	%
		3		14		3	2371	
	83			5	4.0			
		4				4		
			20	2	Brown Sand, gravel and Silt (wet)			
		5		3		5		
				3				
		6		4	6.0	6		
			100	4	6.5 Black silt and sand		1188	0
		7		5	Brown Silt	7	111	0
				8				
		8		9	8.0	8		
					Boring terminated at 8.0'			
		9				9		
		10				0		
		11				1		
		12				2		
		13				3		
		14				4		
		15				5		
		16				6		
		17				7		
		18				8		
		19				9		
		20				0		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY: Fill To 6.0

Contractor: Nothnagle Drill
Driller: Steve Loranty
Inspector: William Hilley
Rig Type: CME 75
Drilling Method: 4.25 ID HSA

ENGINEERING-SCIENCE DRILLING RECORD

PROJECT NAME: Diarsenol C / Kingsbury Pt
PROJECT NO.: 54145

BORING NO. 15
Sheet 1 of 1
Location:

WATER LEVEL MEASUREMENTS

MP			
DTW from MP			
Time			
Date			

Weather: Sunny 60

Date/Time Start: 11/1/90 3:00 pm
Date/Time Finish: 11/1/90 3:30 pm

Plot Plan: See site plan

Photovac Reading	Sample I.D.	Sample Depths	% Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL CONSTRUCTION	X-met COMMENTS As	X-met COMMENTS Pb
			50	2				
		1		2	1.0 Dark Brown Silt	1	224	185
				3	Brown, black & white silt and sand		0	1938
		2		5		2		
			100	3			86	162
		3		5		3		
				5			0	0
		4		5	4.0	4		
			75	2	Brown silt, little To Trace		0	91
		5		2	Fine sand, Trace gravel	5		
				3			53	0
		6		4		6		
			100	6			126	0
		7		10		7	59	0
				11				
		8		14	8.0'	8		
					Boring terminated at 8.0'			
		9				9		
		10				10		
		11				11		
		12				12		
		13				13		
		14				14		
		15				15		
		16				16		
		17				17		
		18				18		
		19				19		
		20				20		

SPT = STANDARD PENETRATION TEST CAL = CALIBRATION BZ = BREATHING ZONE
SS = SPLIT SPOON A = AUGER CUTTINGS C = CORED BH = BOREHOLE

SUMMARY: Fill To 4.0'

XRF DATA

DIKI BH14A - DAT

DIKI4A.DAT
6-7 FT
AS 462.8 PB 0.000
391.9 -59.62 -31.92 1015 26.80 19.29
7-8 FT
AS 245.2 PB 0.000
301.9 -62.85 -29.55 1024 9.318 19.39
8-9 FT
AS 326.4 PB 0.000
0.000 0.000 0.000 0.000 0.000 0.000
8-9 FT
AS 213.2 PB 0.000
273.1 -74.61 -38.34 1177 5.782 16.54
9-10 FT
AS 0.000 PB 0.000
206.5 -84.81 -38.52 1274 -12.44 15.78
SAMPLE NO 4
AS 360.0 PB 501.2
668.6 -31.81 -1.984 1116 17.26 22.24

(1)

DIKIBH10.DAT
0-1 FT
AS 130.9 PB 15.25
364.3 -54.94 -26.24 1010 -0.573 15.23
1-2 FT
AS 684.0 PB 252.4
2368 -1.714 -14.40 906.1 46.73 15.22
STANDARD #4
AS 401.8 PB 406.4
613.5 -31.66 -6.716 1068 21.14 22.18
2-3 FT
AS 613.7 PB 0.000
501.5 -56.61 -29.38 1052 36.85 19.89
3.5 FT
AS 1428 PB 0.000
676.4 -71.22 -35.20 1379 72.30 23.40
3-4 FT
AS 684.3 PB 0.000
635.3 -58.94 -28.81 1110 39.98 18.27
4-5 FT
AS 975.4 PB 0.000
652.2 -52.04 -27.74 1065 60.10 17.53
5 FT
AS 122.1 PB 0.000
336.0 -69.64 -31.95 1113 -1.249 13.85
5.5 FT
AS 54.75 PB 0.000
875.8 -63.56 -37.45 1302 -5.865 18.31
5-6 FT
AS 154.1 PB 0.000
905.6 -45.87 -32.89 1077 1.421 16.30
6-7 FT
AS 136.4 PB 0.000
581.0 -58.28 -32.80 1095 -0.070 17.34
7-8 FT
AS 12.36 PB 0.000
252.0 -70.66 -31.33 1099 -10.71 15.58

DIKIBH13.DAT
0-2'
AS 170.0 PB 356.2
601.6 -37.78 -9.224 971.6 3.034 13.12
1-2'
AS 326.9 PB 0.000
702.6 -46.26 -31.86 1105 14.95 42.54
2-3'
AS 692.0 PB 99.87
615.5 -30.25 -22.02 1166 38.92 21.99
3-4'
AS 270.6 PB 0.000
514.4 -61.03 -39.00 1292 9.182 23.39
4-5 '
AS 491.2 PB 198.5
530.3 -48.88 -17.10 1187 25.32 20.37
5-6'
AS 86.13 PB 0.000
672.3 -71.38 -44.16 1365 -3.443 19.82

DIKIBH15.DAT
0-1'
AS 224.6 PB 185.8
534.2 -54.55 -17.73 1181 6.613 18.17
1-2'
AS 0.000 PB 1939
306.9 -38.45 69.78 969.4 -18.11 19.48
2-3'
AS 86.49 PB 162.9
378.1 -66.58 -18.88 1238 -3.775 17.69
3-4'
AS 0.000 PB 0.000
352.3 -105.3 -37.18 1682 -15.25 19.08
4'
AS 23.05 PB 250.8
247.4 -60.48 -14.48 1069 -10.06 21.13
4-5'
AS 0.000 PB 91.73
395.3 -89.76 -22.43 1579 -13.10 23.13
5-6'
AS 53.47 PB 0.000
822.9 -68.40 -41.62 1343 -5.770 19.43
6-7'
AS 126.1 PB 0.000
428.8 -61.73 -36.66 1113 -0.913 17.20
7-8'
AS 59.31 PB 0.000
376.4 -65.27 -33.40 1092 -6.642 15.59

DIKIBH15.DAT
0-1'
AS 224.6 PB 185.8
534.2 -54.55 -17.73 1181 6.613 18.17
1-2'
AS 0.000 PB 1939
306.9 -38.45 69.78 969.4 -18.11 19.48
2-3'
AS 86.49 PB 162.9
378.1 -66.58 -18.88 1238 -3.775 17.69
3-4'
AS 0.000 PB 0.000
352.3 -105.3 -37.18 1682 -15.25 19.08
4'
AS 23.05 PB 250.8
247.4 -60.48 -14.48 1069 -10.06 21.13
4-5'
AS 0.000 PB 91.73
395.3 -89.76 -22.43 1579 -13.10 23.13
5-6'
AS 53.47 PB 0.000
822.9 -68.40 -41.62 1343 -5.770 19.43
6-7'
AS 126.1 PB 0.000
428.8 -61.73 -36.66 1113 -0.913 17.20
7-8'
AS 59.31 PB 0.000
376.4 -65.27 -33.40 1092 -6.642 15.59

DIKIBH3.DAT
0-1 FT
AS 1279 PB 18.80
  458.9 -56.74 -26.07   1096 76.64 20.36
STANDARD NO 4
AS 393.4 PB 471.7
  682.9 -31.42 -3.458   1131 19.49 22.11
1 FT
AS 2166 PB 0.000
  755.8 -20.52 -30.43   1019 127.2 23.64
1 FT GREY MATERIAL
AS 1989 PB 0.000
  177.5 -55.59 -31.44   1147 110.6 14.51
-2 FT
AS 786.9 PB 0.000
  410.9 -58.06 -29.21   1010 50.10 16.46
2-4 FT
AS 817.4 PB 0.000
  417.7 -68.66 -33.76   1138 47.62 18.08
2 FT
AS 725.2 PB 0.000
  491.5 -54.63 -33.25   1071 43.87 18.83
4-5 FT
AS 1551 PB 13.23
  499.6 -39.51 -26.35   1078 92.43 17.78
5-6 FT
AS 172.5 PB 0.000
  285.4 -70.98 -36.52   1153 2.766 20.73
6-7 FT
AS 297.9 PB 8.043
  0.000 0.000 0.000 0.000 0.000 0.000
7-8 FT
AS 126.6 PB 0.000
  430.3 -56.07 -29.24 971.1 -1.005 16.06
8-9 FT
AS 137.2 PB 0.000
  373.7 -58.84 -33.11 991.8 -0.005 18.04
 9-10 FT
AS 118.5 PB 0.000
  296.2 -64.71 -34.20   1043 -1.646 16.54

DIKIBH5.DAT

0-1 FT
AS 186 PB 44

1-2 FT
AS 246 PB 1394

2-3 FT
AS 270 PB 102

3-4 FT
AS 136 PB 0

4-5 FT
AS 220 PB 411

5-6 FT
AS 43 PB0

6-7 FT
AS 99 PB 0

7-8 FT
AS 151 PB 09

8-9 FT
AS 112 PB 0

9 FT
AS 25 PB 0

9-10 FT
AS 126 PB 0

DIKIBH7.DAT
N 1240, E 1120, 0-6 IN
AS 534.4 PB 317.2
  501.4 -52.68 -11.17   1228 27.38 19.59
N 1240, E 1120, 24-26 IN
AS 316.2 PB 112.8
  189.5 -63.04 -21.38   1056 14.73 15.99
WHITE MATERIAL 12 IN AT N 1120, E 1080
AS 44.65 PB 0.000
  22.14 -81.96 -38.01   1206 -7.143 13.88
BH #7 0-1 FT
AS 17.95 PB 0.000
  364.6 -86.96 -40.75   1343 -8.270 14.52
1-2 FT
AS 922.6 PB 0.000
   1047 -64.82 -48.14   1365 46.90 36.85
1 FT
AS 796.8 PB 0.000
  423.1 -59.25 -29.36   1063 48.85 15.89
2-3 FT
AS 333.7 PB 0.000
  322.5 -76.11 -37.09   1259 13.71 18.55
3-4 FT
AS 220.8 PB 0.000
  345.4 -61.82 -29.20   1052 7.068 16.92
4-5 FT
AS 276.3 PB 0.000
  376.0 -72.29 -32.12   1223 10.07 15.57
5-6 FT
AS 110.9 PB 0.000
  587.3 -57.55 -28.31   1053 -2.300 17.58
STANDARD # 4
AS 457.7 PB 400.0
  670.7 -28.23 -7.036   1099 24.68 24.48
6-7 FT
AS 109.6 PB 0.000
  349.8 -61.07 -31.52   1037 -2.453 17.17
7-8 FT
AS 95.16 PB 0.000
  378.3 -58.55 -28.72   1010 -3.849 13.92

DIKIBH9.DAT
0-1 FT
AS 363.4 PB 226.1
570.2 -49.62 -15.72 1095 17.82 20.09
1-2 FT
AS 1151 PB 0.000
476.8 -41.77 -40.84 927.2 77.48 44.59
2-3 FT
AS 888.1 PB 0.000
424.4 -57.48 -30.32 1020 56.42 17.60
3-4 FT
AS 924.4 PB 0.000
616.3 -64.16 -36.84 1189 52.41 19.66
4-5 FT
AS 2060 PB 113.2
552.4 -51.03 -21.35 1099 116.9 22.35
5 FT
AS 266.5 PB 0.000
412.6 -66.35 -29.26 1104 10.34 15.28
5-6 FT
AS 164.6 PB 0.000
1006 -47.29 -30.72 1137 2.175 20.61
STANDARD #4
AS 482.3 PB 447.0
626.1 -32.76 -4.688 1089 26.63 21.72
5 FT BLACK MATERIAL
AS 1184 PB 0.000
401.0 -87.12 -42.62 1369 60.53 12.97
6 FT CORE CENTER
AS 108.0 PB 74.08
944.3 -40.12 -23.31 1018 -2.643 16.62
6-7 FT
AS 570.6 PB 0.000
510.3 -76.05 -45.91 1307 28.14 21.94
7-8 FT
AS 84.82 PB 0.000
334.6 -62.51 -31.07 1030 -4.713 15.19
6.5 FT
AS 83.44 PB 0.000
584.6 -61.04 -31.42 1091 -4.559 15.82

DIKIMIS3.DAT
N 1200, E 1040, 0-6"
AS 3929 PB 529.4
603.8 -25.34 -0.579 1212 186.7 22.39
REPEAT 0-6"
AS 3467 PB 685.6
525.6 -39.60 7.221 1170 172.4 20.47
STANDARD #4
AS 380.7 PB 481.4
685.1 -30.49 -2.972 1080 19.36 23.20
N 1240, E1040, 0-6"
AS 1939 PB 219.3
422.8 -55.70 -16.06 1215 104.5 16.58
REPEAT
AS 1452 PB 91.09
421.1 -49.58 -22.46 1117 85.07 18.85
N1240, E1040, 24-26"
AS **** PB 907.1
466.3 9.364 18.28 917.4 1928 18.32
REPEAT
AS **** PB 1238
476.2 11.79 34.79 925.8 1973 13.20
N1240, E1080, 0-6"
AS 4851 PB 318.2
399.4 -44.31 -11.12 1076 230.4 23.19
REPEAT
AS **** PB 276.5
460.5 -30.55 -13.20 1053 402.5 26.36
N1200, E1080, 0-6"
AS 152.2 PB 181.3
485.0 -57.85 -17.96 1172 1.155 17.49
REPEAT
AS 108.2 PB 333.2
452.5 -59.83 -10.37 1181 -2.261 17.93
N1200, E1080, 24-26"
AS 114.8 PB 0.000
293.9 -58.49 -29.26 1006 -2.045 14.01

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DIKIMISS.DAT
N1160,E1040, 0-6"
AS 484.1 PB 0.000
  408.0 -58.93 -30.37   1084  26.88  18.36
R
AS 996.4 PB 131.8
  351.1 -47.65 -20.43  982.7  64.97  17.47
R
AS 646.5 PB 0.000
  586.5 -54.38 -30.49   1148  36.45  22.38
N1160, E1040, 24-26"
AS  1695 PB 220.7
  376.6 -59.65 -15.99   1374  85.25  14.20
R
AS  2274 PB 300.7
  485.3 -36.50 -12.00   1333  113.2  25.09
STANDARD #4
AS 374.6 PB 435.9
  653.1 -32.99 -5.244   1115  18.36  23.07
N1160, E1080, 0-6"
AS 175.9 PB 0.000
  427.3 -77.46 -31.31   1376  2.544  20.94
R
AS 62.61 PB 0.000
  396.4 -72.05 -28.56   1297 -5.318  19.37
N1160, E1000, 0-6"
AS 660.3 PB 61.36
  477.1 -61.52 -23.94   1252  34.77  18.66
R
AS  1077 PB 315.0
  541.2 -51.07 -11.28   1208  60.54  24.37
R
AS 567.3 PB 110.8
  471.9 -54.78 -21.47   1129  31.68  18.00
N1160, E1040, ~18"
AS  1098 PB 195.6
  490.5 -44.42 -17.24   1113  65.48  18.03
R
AS  6342 PB 308.4
  723.5 -30.01 -11.61   1159  271.1  19.90
N1200, E1000, 0-6
AS  1472 PB 310.7
  422.9 -44.43 -11.49   1056  89.34  20.83
R
AS  1707 PB 178.4
  467.7 -54.55 -18.10   1161  96.03  20.68
N1200, E1000, 24-26"
AS 193.1 PB 16.19
  316.9 -57.87 -26.20   1079  4.646  17.50
R
AS 158.2 PB 46.75
  285.5 -58.07 -24.67   1031  1.837  12.08
N1200, E1080, 24-26"
AS 79.37 PB 0.000
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  312.0 -60.43 -30.18   1042 -5.150  14.06
R
AS 113.1 PB 8.828
  263.5 -51.08 -26.57  919.0 -2.416  11.92
N1240, E960, 24-26"
AS 64.79 PB 379.1
  448.4 -62.08 -8.080   1260 -5.315  20.07
R
AS 71.22 PB 425.3
  396.5 -54.45 -5.774   1112 -5.504  18.99
N1240, E960, 0-6"
AS 613.7 PB 270.5
  585.3 -47.06 -13.50   1187  33.35  22.57
R
AS 329.4 PB 259.4
  896.6 -23.87 -14.06  850.7  19.11  20.19
R
AS 678.1 PB 430.8
  578.4 -49.13 -5.499   1218  36.69  21.68
N1240, E1000, 0-6"
AS 805.2 PB 396.9
  558.4 -45.59 -7.194   1158  46.23  22.21
R
AS 623.6 PB 368.7
  575.5 -44.61 -8.600   1136  35.26  19.67
N1200, E960, 0-6"
AS 399.7 PB 384.2
  549.7 -52.52 -7.826   1162  19.46  18.52
R
AS 316.5 PB 344.9
  492.5 -53.48 -9.790   1173  13.40  18.20
N1080,E960, 0-6"
AS 0.000 PB 0.000
  414.1 -81.64 -37.69   1381 -9.563  17.86
R
AS 0.000 PB 0.000
  371.0 -71.68 -31.13   1279 -12.41  15.18
N1080, E960, 24-26"
AS 31.87 PB 551.9
  545.5 -56.14  0.545   1256 -7.812  22.89
R
AS 102.2 PB 378.9
  474.0 -51.74 -8.090   1210 -2.661  19.62
N1120, E960, 0-6"
AS 133.2 PB 347.0
  423.9 -57.81 -9.683   1249 -0.295  20.25
R
AS 167.0 PB 501.1
  379.7 -48.68 -1.989   1173  2.295  19.08
N1160, E960, 0-6"
AS  1477 PB 294.2
  484.4 -51.24 -12.32   1177  83.44  18.60
R
AS 307.2 PB 256.6
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  431.5 -65.69 -14.20    1286   11.68   20.69
R
AS 384.8 PB 218.1
  441.8 -59.79 -16.12    1241   17.35   17.64
N1160, E960, 24-26"
AS 110.0 PB 96.87
  424.0 -60.20 -22.17    1292 -1.935   21.00
R
AS 96.06 PB 71.94
  439.2 -57.84 -23.41    1315 -2.877   21.17
STANDARD #4
AS 393.6 PB 402.4
  627.9 -32.27 -6.915    1038   21.04   22.56
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DIKIMIS7.DAT
N1280, E960, 6-12"
AS 0.000 PB 449.4
390.9 -64.99 -4.569 1276 -15.08 16.42
N1280, E960, 0-6"
AS 0.000 PB 715.0
428.9 -50.21 8.687 1180 -14.95 15.69
N1320, E960, 0-6"
AS 0.000 PB 760.5
502.1 -53.94 10.96 1264 -17.00 16.04
N1320, E960, 6-12"
AS 0.000 PB 676.5
458.4 -63.56 6.765 1306 -14.71 20.00
N1320, E1000, 0-6"
AS 93.52 PB 0.000
280.8 -56.45 -29.81 1024 -3.942 13.51
N1320, E1000, 6-12"
AS 101.6 PB 0.000
347.7 -67.27 -35.11 1189 -2.753 18.90

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DIKIMIS9.DAT
N1280, E920, 0-6"
AS 0.000 PB 246.4
  515.8 -64.72 -14.70   1412 -12.55  20.91
R
AS 61.90 PB 205.4
  526.6 -56.17 -16.75   1302 -5.350  18.79
N1280, E920, 6-12"
AS 66.09 PB 0.000
  484.0 -68.90 -30.86   1251 -5.258  19.39
R
AS 10.89 PB 0.000
  414.6 -68.40 -28.81   1198 -9.893  17.11
STANDARD #4
AS 425.7 PB 432.2
  679.0 -29.52 -5.429   1145  21.57  22.08
N1280, E880, 0-6"
AS 0.000 PB 988.8
  501.9 -64.84  22.36   1355 -18.78  19.76
R
AS 0.000 PB 997.7
  491.2 -65.12  22.80   1356 -24.30  19.86
N1280, E840, 0-6"
AS 0.000 PB 664.7
  356.1 -84.88  6.177   1548 -20.04  15.53
R
AS 0.000 PB 781.2
  419.2 -71.63  11.99   1409 -20.95  20.45
1280, E880, 6-12
AS 119.8 PB 0.000
  374.5 -63.54 -34.97   1140 -1.403  18.81
R
AS 45.81 PB 0.000
  454.4 -75.33 -33.08   1275 -6.652  15.71
N1280, E880, 0-6"
AS 0.000 PB 957.2
  501.6 -62.19  20.78   1339 -16.13  20.82
R
AS 0.000 PB 888.4
  364.6 -59.01  17.35   1155 -20.88  14.83
N1280, E840, 6-12"
AS 75.24 PB 0.000
  404.1 -64.90 -28.47   1212 -4.726  18.69
R
AS 14.82 PB 687.7
  476.9 -61.67  7.327   1361 -8.372  22.54
R-2
AS 0.000 PB 127.7
  379.6 -65.88 -20.63   1167 -11.31  16.47
N1280, E1080, 0-6"
AS 834.6 PB 368.4
  385.3 -55.97 -8.614   1287  44.18  13.98
R
AS 119.9 PB 392.7
```

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  427.0 -57.02 -7.401   1282 -1.239  17.50
R-2
AS 207.2 PB 321.0
  433.8 -59.02 -10.98   1236  5.087  17.73
STANDARD #4
AS 455.7 PB 464.7
  672.9 -30.37 -3.809   1138  23.80  24.28
N1280, E1080, 6-12"
AS 124.9 PB 0.000
  326.3 -74.90 -35.29   1297 -0.871  15.13
R
AS 62.24 PB 0.000
  309.3 -79.33 -32.17   1320 -5.247  18.47
```

```
DIKIMIS9.DAT
N1280, E920, 0-6"
AS 0.000 PB 246.4
  515.8 -64.72 -14.70   1412 -12.55  20.91
R
AS 61.90 PB 205.4
  526.6 -56.17 -16.75   1302 -5.350  18.79
N1280, E920, 6-12"
AS 66.09 PB 0.000
  484.0 -68.90 -30.86   1251 -5.258  19.39
R
AS 10.89 PB 0.000
  414.6 -68.40 -28.81   1198 -9.893  17.11
STANDARD #4
AS 425.7 PB 432.2
  679.0 -29.52 -5.429   1145  21.57  22.08
N1280, E880, 0-6"
AS 0.000 PB 988.8
  501.9 -64.84  22.36   1355 -18.78  19.76
R
AS 0.000 PB 997.7
  491.2 -65.12  22.80   1356 -24.30  19.86
N1280, E840, 0-6"
AS 0.000 PB 664.7
  356.1 -84.88  6.177   1548 -20.04  15.53
R
AS 0.000 PB 781.2
  419.2 -71.63  11.99   1409 -20.95  20.45
1280, E880, 6-12
AS 119.8 PB 0.000
  374.5 -63.54 -34.97   1140 -1.403  18.81
R
AS 45.81 PB 0.000
  454.4 -75.33 -33.08   1275 -6.652  15.71
N1280, E880, 0-6"
AS 0.000 PB 957.2
  501.6 -62.19  20.78   1339 -16.13  20.82
R
AS 0.000 PB 888.4
  364.6 -59.01  17.35   1155 -20.88  14.83
N1280, E840, 6-12"
AS 75.24 PB 0.000
  404.1 -64.90 -28.47   1212 -4.726  18.69
R
AS 14.82 PB 687.7
  476.9 -61.67  7.327   1361 -8.372  22.54
R-2
AS 0.000 PB 127.7
  379.6 -65.88 -20.63   1167 -11.31  16.47
N1280, E1080, 0-6"
AS 834.6 PB 368.4
  385.3 -55.97 -8.614   1287  44.18  13.98
R
AS 119.9 PB 392.7
```

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```
  427.0 -57.02 -7.401    1282 -1.239  17.50
R-2
AS 207.2 PB 321.0
  433.8 -59.02 -10.98    1236  5.087  17.73
STANDARD #4
AS 455.7 PB 464.7
  672.9 -30.37 -3.809    1138  23.80  24.28
N1280, E1080, 6-12"
AS 124.9 PB 0.000
  326.3 -74.90 -35.29    1297 -0.871  15.13
R
AS 62.24 PB 0.000
  309.3 -79.33 -32.17    1320 -5.247  18.47
```

DIKIMS11.DAT
STANDARD #4 - AS 368.3 PB 484.4
705.3 -33.05 -2.822 1161 17.25 21.60
N1200, E1200, 0-6" - AS 99.84 PB 213.1
808.8 -17.26 -16.37 1059 -3.251 16.76
N1200, E1200, 0-6" - REPEAT - AS 26.88 PB 325.8
597.9 -25.22 -10.74 953.7 -10.98 13.69
N1200, E1200, 6-12" - AS 268.4 PB 148.3
1322 -1.837 -19.60 947.2 12.08 17.82
N1200, E1200, 6-12" - REPEAT - AS 253.1 PB 198.5
1223 2.987 -17.10 854.0 11.80 24.97
N1240, E1200, 0-6" - AS 126.8 PB 252.7
205.0 -40.14 -14.39 853.9 -1.121 21.11
N1240, E1200, 0-6" - REPEAT - AS 128.0 PB 298.7
212.1 -41.94 -12.10 895.4 -0.944 21.58
N1240, E1200, 6-12" - AS 393.9 PB 0.000
1542 -42.95 -40.90 1211 18.35 28.16
N1240, E1200, 6-12" - REPEAT - AS 322.4 PB 0.000
1293 -36.61 -31.29 1088 14.81 22.30
N1160, E1240, 0-6" - AS 45.02 PB 1886
723.9 -17.16 67.15 1233 -6.950 25.24
N1160, E1240, 0-6" - REPEAT - AS 151.0 PB 1635
574.4 -12.29 54.61 1143 1.095 24.93
N1160, E1240, 6-12" - AS 88.15 PB 470.5
463.1 -45.05 -3.516 1206 -3.750 16.92
N1160, E1240, 6-12" - REPEAT - AS 70.95 PB 262.0
453.3 -57.95 -13.92 1183 -5.183 21.10
STANDARD #4 - AS 460.2 PB 426.8
678.6 -31.66 -5.702 1121 24.43 23.66
N1160, E1160, 0-6" - AS 4.219 PB 335.7
443.4 -4.421 -10.25 1214 -10.28 15.72
N1160, E1160, 0-6" - REPEAT - AS 46.00 PB 281.1
425.9 -5.107 -12.97 1250 -6.778 16.34
N1160, E1160, 6-12" - AS 0.000 PB 1482
519.5 24.11 46.96 1230 -12.89 21.42
N1160, E1160, 6-12" - REPEAT - AS 6.446 PB 1352
530.6 26.06 40.50 1161 -10.60 20.61
STANDARD #4 - AS 441.5 PB 420.2
641.8 -30.46 -6.030 1109 23.32 23.33
N1200, E1240, 0-6" - AS 0.000 PB 460.1
467.9 -49.80 -4.037 1311 -11.65 19.06
N1200, E1240, 0-6" - REPEAT - AS 0.000 PB 469.8
482.3 -51.93 -3.554 1307 -12.19 22.02
N1200, E1240, 6-12" - AS 53.79 PB 26.89
451.6 -55.90 -25.66 1292 -5.979 18.27
N1200, E1240, 6-12" - REPEAT - AS 0.373 PB 208.3
456.1 -54.82 -16.61 1260 -10.18 19.05
N1240, E1240, 0-6" - AS 9.355 PB 305.0
461.1 -44.88 -11.78 1185 -10.13 17.26
N1240, E1240, 0-6" - REPEAT - AS 59.02 PB 258.5
476.8 -45.30 -14.10 1203 -6.028 20.98
N1240, E1240, 6-12" - AS 23.53 PB 194.1
419.9 -46.51 -17.32 1191 -8.929 20.90
N1240, E1240, 6-12" - REPEAT - AS 80.07 PB 131.4

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  470.1 -47.42 -20.45   1192 -4.426  21.42
STANDARD #4 - AS 441.5 PB 452.8
  676.2 -28.90 -4.401   1130  22.93  22.12
N1160, E1360, 0-6" - AS 9.705 PB 533.9
  586.8 -36.42 -0.354   1201 -9.961  22.55
N1160, E1360, 0-6" - REPEAT - AS 25.39 PB 505.3
  654.0 -38.11 -1.782   1331 -7.811  21.15
CORRECTION N1160, E1320, 0-6" - AS 25.39 PB 505.3
  654.0 -38.11 -1.782   1331 -7.811  21.15
N1160, E1320, 6-12" - AS 0.000 PB 968.9
  531.1 -50.67  21.36   1316 -17.96  20.31
N1160, E1320, 6-12" - REPEAT - AS 0.000 PB  1000
  586.3 -54.24  22.94   1319 -17.17  18.71
N1200, E1320, 0-6" - AS 0.000 PB 0.000
  479.2 -70.54 -27.40   1332 -11.56  15.87
N1200, E1320, 0-6" - REPEAT - AS 22.00 PB 21.70
  540.4 -62.61 -25.92   1265 -8.497  16.19
N1200, E1320, 6-12" - AS 93.70 PB 0.000
  467.9 -63.85 -30.72   1153 -3.477  18.11
N1200, E1320, 6-12" - REPEAT - AS 108.4 PB 16.46
  519.5 -47.47 -26.18   1081 -2.449  18.20
N1240, E1320, 0-6" - AS 68.04 PB 48.94
  455.9 -59.49 -24.56   1229 -5.208  16.45
N1240, E1320, 0-6" - REPEAT - AS 0.000 PB 156.1
  425.7 -64.13 -19.21   1265 -16.32  13.62
N1240, E1320, 6-12" - AS 38.12 PB 12.55
  408.6 -67.86 -26.38   1258 -7.327  13.73
N1240, E1320, 6-12" - REPEAT - AS 74.71 PB 0.000
  421.9 -64.41 -28.12   1221 -4.731  16.16
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DIKIB11.DAT
0-1 FT
AS 6327 PB 545

1 FT
AS 504 PB 437

1-2 FT
AS 59 PB 0

2-4 FT
AS 73 PB 233

4-5 FT
AS 79.32 PB 33.11
  476.4 -72.49 -25.35 1259 -4.240 21.43
5-6 FT
AS 169.5 PB 0.000
  789.7 -56.57 -36.98 1132 2.573 19.63
5 FT
AS 66.67 PB 0.000
  586.2 -84.14 -44.78 1398 -4.652 21.35

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B:DIKIBH12.DAT
0-1 FT
AS  3268 PB 391.4
  349.1  19.89 -7.465  865.9  188.8  17.68
1-2 FT
AS 847.3 PB 0.000
  489.3 -34.63 -31.35   1057  52.34  19.90
STANDARD #4
AS 493.7 PB 425.6
  690.1 -29.82 -5.760   1095  27.32  24.58
N1080, E920, 0-6"
AS 3.518 PB 21.76
  365.8 -68.81 -25.92   1232 -10.17  13.46
R
AS 84.57 PB 12.14
  355.0 -60.55 -26.40   1179 -4.121  14.71
N1120, E880, 0-6"
AS 61.66 PB 182.2
  358.7 -54.79 -17.91   1155 -6.074  15.79
R
AS 0.000 PB 696.8
  408.6 -49.76  7.780   1135 -14.37  17.90
R
AS 22.49 PB 136.5
  352.5 -56.34 -20.19   1093 -9.876  13.71
N1120, E920, 0-6"
AS 37.51 PB 0.000
  423.5 -79.68 -38.74   1390 -6.648  17.50
R
AS 14.24 PB 0.000
  367.0 -74.28 -28.34   1306 -8.783  15.94
N1120, E920, 24-26"
AS 12.15 PB 166.9
  301.9 -66.24 -18.67   1219 -9.612  15.43
R
AS 0.000 PB 813.0
  284.5 -61.92  13.58   1203 -17.05  17.07
R
AS 0.000 PB 286.1
  208.2 -59.55 -12.72   1087 -13.19  11.11
N1160, E880, 0-6"
AS 104.5 PB 73.88
  475.0 -55.03 -23.32   1054 -2.855  17.71
R
AS 155.6 PB 0.000
  598.5 -55.66 -29.21   1189  1.398  23.51
N1160, E880, 24-26"
AS 0.000 PB 249.6
  503.7 -60.02 -14.55   1250 -14.67  18.45
R
AS 155.4 PB 182.3
   1328 -33.50 -17.91   1149  1.432  15.39
R
AS 101.9 PB 270.0
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   1007 -28.16 -13.53   1008 -3.232  14.68
R
AS 0.000 PB 131.4
  546.7 -59.86 -20.44   1267 -10.36  19.25
N1160, E920, 0-6"
AS 0.000 PB  1028
  267.2 -41.99  24.30   1196 -18.58  19.32
R
AS 0.000 PB  1422
  742.2 -16.33  43.98   1097 -16.33  16.28
N1200, E880, 0-6"
AS 0.000 PB 188.0
  406.7 -63.33 -17.62   1183 -12.21  16.62
R
AS 0.000 PB 48.59
  450.1 -67.77 -24.58   1272 -12.26  17.54
BH 4-5'
AS 132.0 PB 0.000
  642.7 -61.91 -35.73   1150 -0.415  22.31
5-6'
AS 90.57 PB 0.000
  333.5 -60.54 -30.46   1034 -4.171  18.88
N1200, E920, 0-6"
AS 0.000 PB 262.3
  334.7 -63.04 -13.91   1144 -12.80  19.04
R
AS 7.834 PB 296.7
  329.3 -54.99 -12.20   1043 -11.76  13.58
N1200, E920, 24-26"
AS 70.27 PB 28.56
  440.2 -63.57 -25.58   1258 -4.917  19.49
R
AS 0.000 PB 15.85
  362.1 -73.26 -26.21   1345 -13.79  17.50
N1240, E880, 0-6"
AS 8.129 PB 347.8
  419.5 -56.23 -9.644   1210 -10.00  19.34
R
AS 28.65 PB 197.7
  336.5 -57.78 -17.14   1142 -8.906  14.83
N1240, E880, 24-26
AS 157.9 PB 0.000
  459.0 -60.52 -38.14   1187  1.574  24.21
R
AS 65.36 PB 201.3
  596.5 -44.93 -16.96   1048 -6.381  15.84
N1240, E920, 0-6"
AS 25.17 PB 236.2
  477.0 -56.04 -15.22   1209 -8.658  19.32
R
AS 68.60 PB 194.8
  409.2 -57.91 -17.28   1182 -5.374  19.45
N1080, E880, 0-6"
AS 113.7 PB 714.6
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  714.4 -44.81  8.669    1169 -1.848  32.62
R
AS 0.000 PB 357.9
  432.4 -62.39 -9.139    1195 -13.54  19.54
N1080, E880, 24-26"
AS 0.000 PB  1662
  195.1 -83.08  55.95    1507 -35.15  14.92
R
AS 0.000 PB  2311
  288.5 -76.53  88.38    1537 -29.96  19.31
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DIKIBH14.DAT
0-1'
AS 138.1 PB 334.8
  432.2 -60.06 -10.29   1152  0.068  18.80
1-2'
AS 3.647 PB 599.8
  427.6 -57.78  2.938   1266 -9.876  19.50
2-3'
AS 133.7 PB 189.4
  484.7 -66.00 -17.55   1329 -0.244  18.35
3-4'
AS  1077 PB 0.000
  998.2 -46.56 -34.41   1125  63.75  31.25
4'
AS  2311 PB 0.000
  425.7 -104.3 -38.60   1647  99.66  17.59
N1280, E1000, 0-6"
AS 190.0 PB 492.7
  460.6 -42.82 -2.411   1217  3.904  21.73
R
AS 244.3 PB 460.6
  431.0 -37.22 -4.010   1209  7.889  17.87
N1280, E1000, 6-12"
AS 175.5 PB 134.8
  415.3 -57.64 -20.27   1213  2.848  18.41
R
AS 285.9 PB 181.2
  483.2 -62.61 -17.96   1309  10.08  21.34
N1280, E1000, 12-18"
AS 204.0 PB 58.77
  357.1 -64.59 -24.07   1158  5.177  16.32
R
AS 221.2 PB 32.52
  360.3 -65.03 -25.38   1153  6.502  13.64
BH 6-7'
AS  1188 PB 0.000
  580.0 -63.08 -30.06   1215  66.36  17.85
7-8'
AS 111.4 PB 0.000
  335.8 -67.05 -35.13   1101 -2.156  16.61
7'
AS 26.10 PB 0.000
  470.2 -64.43 -27.81   1094 -9.542  10.98
IT
AS 26.10 PB 0.000
  470.2 -64.43 -27.81   1094 -9.542  10.98
```

DIKIBH2.DAT
0-2 F
AS 32.38 PB 0.000
328.5 -30.27 -10.62 699.0 49.33 12.38
0-2 FT
AS 1235 PB 197.8
530.7 -43.82 -17.13 1029 77.33 22.48
2-3 FT
AS 2877 PB 26.28
509.6 -58.45 -25.69 1137 151.0 18.56
3-4 FT
AS 2924 PB 138.4
413.2 -58.03 -20.10 1068 157.9 16.14
STANDARD NO. 4
AS 465.0 PB 436.8
685.1 -30.91 -5.202 1114 24.89 24.48
2-4 FT BLACK MATERIAL WITH WHITE SPECKS
AS 1368 PB 178.5
323.2 -52.40 -18.09 930.9 90.45 16.91
4-5 FT
AS 3951 PB 82.25
653.9 -63.55 -25.07 1304 183.0 23.56
5-6 FT
AS 853.8 PB 0.000
535.2 -65.96 -32.62 1183 48.40 19.59
6-7 FT
AS 306.2 PB 0.000
527.8 -62.95 -31.97 1150 12.90 18.58
7-8 FT
AS 216.1 PB 0.000
359.8 -62.44 -33.13 1041 6.751 18.17
STANDARD NO 4
AS 404.3 PB 489.2
626.4 -30.46 -2.586 1076 21.20 21.35
8-9 FT
AS 264.7 PB 0.000
387.9 -58.01 -34.29 1021 10.97 19.32
9-10 FT
AS 82.69 PB 0.000
291.4 -77.27 -41.76 1234 -4.074 17.52

DIKIBH4.DAT

0-1 FT
AS 1687 PB 299

1-2 FT
AS 1232 PB 85.7

2-3 FT
AS 776 PB 1

3-4 FT
AS 670 PB 132

4-5 FT
AS 3580 PB 0

5-6 FT
AS 647 PB 0

6-7 FT
AS 462 PB 0

7-8 FT
AS 245 PB 0

8-9 FT
AS 325 PB 0

9 FT
AS 213 PB 0

9-10 FT
AS 0 PB 0

DIKIBH6.DAT

0-1 FT
AS 731 PB 13.46

1-2 FT
AS 6323 PB 11

2-3 FT
AS 5564 PB 188

3-4 FT
AS 2045 PB 79

4-5 FT
AS 1789 PB 0

5 FT
AS 276 PB 0

5-6 FT
AS 164 PB 0

6-7 FT
AS 219 PB 0

7-8 FT
AS 129 PB 0

8-9 FT
AS 140 PB 0

9-10 FT
AS 203 PB 0

DIKIBH8.DAT
0-1 FT
AS 322.7 PB 335.8
1917 -10.84 -10.24 899.1 17.61 19.57
1-2 FT
AS 88.14 PB 0.000
376.5 -67.35 -34.80 1124 -4.030 17.02
2-3 FT
AS 132.3 PB 0.000
390.5 -72.55 -39.03 1210 -0.373 16.46
3-4 FT
AS 100.9 PB 0.000
471.9 -63.55 -33.32 1130 -2.960 19.09
4-5 FT
AS 63.91 PB 0.000
373.2 -66.27 -30.37 1093 -6.238 16.71
5 FT
AS 65.04 PB 0.000
491.1 -68.80 -34.75 1186 -5.639 19.75
5-6 FT
AS 120.5 PB 0.000
723.4 -59.44 -34.59 1126 -1.358 19.15
5-6 FT REPEAT
AS 80.12 PB 0.000
612.7 -56.76 -28.59 1053 -5.027 17.82

```
DIKIMIS1.DAT
N 1200  E 1120  0-6"
AS 185.4 PB 217.4
  492.7 -69.46 -16.15   1234  3.520  16.46
N 1120, E 1120, 0-6"
AS 23.93 PB 0.000
  537.9 -64.25 -29.90   1125 -9.452  15.98
N 1080, E 1080, 0-6"
AS 129.7 PB 0.000
  389.8 -63.00 -28.31   1056 -0.656  15.52
STANDARD #4
AS 465.4 PB 452.9
  683.4 -30.54 -4.395   1139  24.45  22.67
N 1120, E 1080, 0-6"
AS 180.5 PB 0.000
  305.3 -81.97 -42.64   1278  3.059  25.22
N 1120, E 1080, 24-26"
AS 42.75 PB 158.0
  287.4 -50.19 -19.12  899.5 -9.948  11.66
N 1160, E 1120, 0-6"
AS 0.000 PB 252.0
  435.9 -77.93 -14.43   1344 -10.05  19.10
N 1160, E 1120, 24-26"
AS 45.62 PB 24.56
  452.7 -56.06 -25.78   1011 -8.503  15.60
N 1080, E 1120, 0-6"
AS 0.000 PB 549.7
  410.9 -56.60  0.436   1227 -13.59  18.22
N 1080, E 1120, 24-26"
AS 282.2 PB 664.0
  391.6 -40.04  6.144   1288  9.994  30.11
```

```
DIKIMIS4.DAT
N1080, E1000, 0-6 FT
AS 86.71 PB 46.96
  304.6 -61.22 -24.66   1061 -4.402  14.72
REPEAT
AS 0.139 PB 7.819
  374.8 -67.57 -26.62   1183 -10.91  17.89
N1080, E1040, 0-6 FT
AS 315.6 PB 0.000
  618.3 -48.59 -27.10   1150  13.58  19.03
R
AS 183.8 PB 240.4
  421.6 -15.17 -15.00   1050  3.982  15.61
R
AS 146.6 PB 65.68
  498.0 -47.55 -23.73   1129  0.752  16.48
N1080, E1040, 24-26"
AS 72.94 PB  2503
  400.4  27.16  97.94  780.3 -7.774  18.29
R
AS 0.000 PB  3815
  767.3  17.44  163.4  991.6 -18.87  26.35
N1120, E1040, 0-6"
AS 147.3 PB 96.62
  494.8 -60.65 -22.18   1211  0.757  19.67
R
AS 199.2 PB 228.2
  451.1 -65.65 -15.61   1281  4.355  29.54
N1120, E1000, 0-6"
AS 190.0 PB 0.565
  384.4 -58.10 -26.98   1161  4.091  17.82
R
AS 180.9 PB 128.0
  384.3 -50.28 -20.62   1104  3.562  17.22
N1120, E1000, 24-26"
AS 53.48 PB 69.59
  387.8 -56.99 -23.53   1118 -6.974  16.87
R
AS 88.80 PB 0.000
  443.7 -72.72 -32.30   1241 -3.592  21.40
```

```
DIKIMIS6.DAT
N1040, E800, 0-6"
AS 0.000 PB  1432
  391.0 -53.66  44.50   1153 -14.60  19.79
R
AS 0.000 PB  1450
  347.5 -55.51  45.38   1121 -22.89  18.60
N1040, E800, 0-12"
AS 96.51 PB 0.000
  450.5 -64.80 -35.73   1133 -3.310  18.80
R
AS 125.9 PB 51.36
  475.7 -59.97 -24.44   1131 -0.914  19.23
N1200, E800, 0-6"
AS 0.000 PB  1860
  412.0 -10.10  65.85   1106 -20.55  12.90
R
AS 0.000 PB 967.0
  462.7 -38.08  21.27   1328 -21.38  15.14
STANDARD NO 4
AS 405.3 PB 476.5
  593.0 -29.52 -3.216   1033  22.02  21.93
N1200,E800, 6-12"
AS 0.000 PB 73.22
  464.0 -63.71 -23.35   1350 -13.03  16.59
R
AS 0.000 PB 87.37
  455.2 -61.39 -22.64   1370 -11.44  15.54
N1240, E800, 0-6"
AS 0.000 PB 44.41
  496.7 -67.53 -24.79   1409 -10.04  16.98
R
AS 0.000 PB 116.2
  465.6 -64.22 -21.20   1353 -14.23  14.04
N1240, E800, 6-12"
AS 0.000 PB 79.93
  460.6 -69.15 -23.02   1379 -16.09  17.39
R
AS 0.000 PB 27.29
  454.4 -71.81 -25.64   1359 -12.37  17.69
N1120, E800, 0-6"
AS 0.000 PB 305.0
  426.7 -58.15 -11.78   1349 -14.56  17.91
R
AS 0.000 PB 391.5
  453.5 -58.91 -7.459   1329 -14.32  16.01
N1080, E800, 0-6"
AS 167.2 PB 194.6
  835.7 -28.64 -17.29  966.2  2.791  16.67
R
AS 107.4 PB 224.5
  747.7 -35.35 -15.80   1079 -2.544  17.55
N1080, E800, 6-12'
AS 134.3 PB 351.8
```

```
  612.6 -43.43 -9.445   1137 -0.233  20.88
CORRECTION 6-12"
AS 134.3 PB 351.8
  612.6 -43.43 -9.445   1137 -0.233  20.88
R
AS 78.81 PB 404.8
  586.4 -45.16 -6.797   1125 -4.805  19.53
N1160, E800, 0-6"
AS 0.000 PB  4012
  465.5  8.507  173.3   1186 -40.22  29.18
R
AS 0.000 PB  3783
  446.8 -1.318  161.8   1178 -43.40  29.26
N1160,E800, 6-12
AS 0.000 PB 175.4
  495.3 -57.01 -18.25   1427 -13.71  19.52
R
AS 0.000 PB 762.3
  448.9 -39.83  11.05   1290 -19.83  17.95
N1080, E760, 0-6"
AS 0.000 PB 505.6
  378.4 -53.15 -1.767   1083 -17.57  13.23
R
AS 0.263 PB 391.5
  383.9 -50.38 -7.460   1032 -12.62  14.28
N1080, E760, 6-12"
AS 0.000 PB 325.9
  467.9 -62.19 -10.74   1274 -13.19  19.60
R
AS 35.91 PB 266.9
  300.2 -57.29 -13.68   1058 -8.989  11.91
N1160, E760, 0-6"
AS 0.000 PB 590.8
  588.5 -58.66  2.488   1240 -13.47  16.90
R
AS 0.000 PB 455.5
  649.5 -54.93 -4.267   1193 -12.34  17.13
N1160, E760, 6-12"
AS 66.35 PB 24.22
  587.5 -59.62 -25.80   1165 -5.637  15.11
R
AS 57.72 PB 113.4
  625.8 -57.19 -21.35   1176 -6.276  16.60
```

```
DIKIMIS8.DAT
N1360, E 1000, 0-6"
AS 49.65 PB 0.000
  514.5 -70.28 -34.52   1208 -6.735  18.42
R
AS 4.887 PB 0.000
  544.4 -73.38 -34.48   1264 -9.799  17.44
N1360, E1000, 6-12"
AS 51.15 PB 0.000
  506.4 -69.42 -33.23   1187 -6.739  15.56
R
AS 104.8 PB 26.40
  399.4 -58.94 -25.69   1032 -2.893  16.01
N1360, E960, 6-12"
AS 11.53 PB 0.000
  539.4 -75.36 -34.88   1283 -9.154  17.37
R
AS 47.75 PB 0.000
  490.7 -64.42 -32.10   1135 -7.349  14.76
N1360, E960, 0-6"
AS 130.4 PB 0.000
  674.0 -54.53 -30.57   1094 -0.574  19.27
R
AS 108.3 PB 0.000
  583.4 -62.87 -31.97   1136 -2.336  18.07
```

DIKIMS10.DAT
N1240, E1160, 0-6" - AS 281.5 PB 374.9
530.7 -44.38 -8.290 1157 11.00 17.34
N1240, E1160, 0-6" - REPEAT - AS 347.0 PB 172.2
531.5 -47.29 -18.41 1233 14.89 21.39
N1240, E1160, 6-12" - AS 670.7 PB 558.4
567.9 -35.98 0.870 1152 37.93 21.95
N1240, E1160, 6-12" - REPEAT - AS 748.6 PB 520.5
561.2 -42.10 -1.024 1230 40.68 21.31
N1200, E1160, 0-6" - AS 705.9 PB 316.2
707.2 -35.94 -11.22 1196 38.99 20.73
N1200, E1160, 0-6" - REPEAT - AS 384.3 PB 430.0
502.7 -31.16 -5.541 1023 20.59 15.68
N1200, E1160, 6-12" - AS 0.000 PB 3384
708.7 191.1 142.0 1107 -25.65 22.48
N1200, E1160, 6-12" - REPEAT - AS 0.000 PB 3131
573.6 225.2 129.3 1162 -28.87 17.57
N1160, E1200, 0-6" - AS 118.3 PB 687.6
1268 -8.528 7.322 1061 -1.633 16.38
N1160, E1200, 0-6" - REPEAT - AS 164.2 PB 921.4
1401 -6.190 18.99 1075 2.269 17.66
N1160, E1200, 6-12" - AS 79.26 PB 0.000
349.6 -72.87 -32.88 1204 -4.444 16.80
N1160, E1200, 6-12" - REPEAT - AS 72.40 PB 3.951
378.6 -70.67 -26.81 1171 -5.125 17.07
SAMPLE #4 - AS 502.6 PB 285.6
698.0 -27.01 -12.75 1105 27.73 23.49
SAMPLE #4 - REPEAT - AS 355.7 PB 523.4
649.9 -26.60 -0.876 1066 17.67 19.63
SAMPLE #4 - REPEAT - REPEAT - AS 424.2 PB 472.6
651.0 -30.75 -3.414 1103 22.17 22.29
SAMPLE #4 - REPEAT - REPEAT - REPEAT - AS 331.5 PB 572.2
651.8 -26.17 1.560 1064 15.83 19.69

dikims12.DAT
N1280, E800, 0-6" - AS 0.000 PB 1348
467.4 -32.81 40.29 1331 -24.77 18.90
N1280, E800, 0-6" - REPEAT - AS 0.000 PB 2200
478.2 -36.17 82.84 1315 -39.67 21.18
N1280, E800, 6-12" - AS 0.000 PB 1225
478.9 -34.46 34.16 1277 -15.39 20.83
N1280, E800, 6-12" REPEAT - AS 0.000 PB 1276
441.2 -41.62 36.68 1283 -15.15 20.81
✓N1380, E800, 0-6" - AS 0.000 PB 361.0
544.2 -54.16 -8.986 1329 -10.25 18.81
N1380, E800, 0-6" - REPEAT - AS 0.000 PB 435.2
501.7 -47.95 -5.280 1202 -12.51 14.22
N1380, E800, 6-12" - AS 46.99 PB 31.22
578.7 -64.25 -25.45 1271 -6.589 17.51
N1380, E800, 6-12" - REPEAT - AS 12.60 PB 62.85
436.0 -66.98 -23.87 1169 -10.00 15.37
✓N1280, E760, 0-6" - AS 0.000 PB 905.9
540.1 -59.77 18.22 1319 -21.52 19.94
N1280, E760, 0-6" - REPEAT - AS 0.000 PB 885.0
520.9 -55.94 17.17 1293 -20.72 16.24
N1280, E760, 6-12" - AS 0.000 PB 793.6
493.2 -58.03 12.61 1308 -11.44 25.42
N1280, E760, 6-12" - REPEAT - AS 0.000 PB 348.5
472.0 -70.12 -9.606 1316 -12.74 22.74
STANDARD #4 - AS 442.9 PB 457.8
674.6 -28.58 -4.152 1094 23.70 23.55
✓N1280, E1040, 0-6" - AS 0.000 PB 210.7
459.8 -45.19 -16.49 1309 -10.71 14.59
N1280, E1040, 0-6" - REPEAT - AS 0.000 PB 238.6
444.6 -51.56 -15.09 1237 -11.89 15.38
N1280,E1040, 6-12" - AS 28.02 PB 35.20
418.4 -66.30 -25.25 1145 -8.927 15.43
N1280,E1040, 6-12" - REPEAT - AS 84.20 PB 0.000
454.5 -64.36 -31.68 1144 -4.280 17.47
N1280, E1200, 0-6" - AS 0.000 PB 910.1
673.9 49.46 18.43 1224 -12.22 9.809
N1280, E1200, 0-6" - REPEAT - AS 0.000 PB 978.2
671.6 55.34 21.83 1172 -15.26 6.747
N1280, E1200, 6-12" - AS 0.000 PB 791.5
618.5 32.85 12.51 1163 -12.78 8.464
N1280, E1200, 6-12" - REPEAT - AS 0.000 PB 916.6
657.9 51.35 18.75 1214 -12.66 9.258
STANDARD #4 - AS 482.3 PB 387.8
699.4 -30.56 -7.647 1128 25.84 23.71
N1380, E1200, 0-6" - AS 0.000 PB 944.1
498.7 -55.01 20.12 1306 -16.44 15.61
N1380, E1200, 0-6" - REPEAT - AS 0.000 PB 942.7
428.1 -54.86 20.06 1300 -23.66 12.13
N1380, E1200, 6-12" - AS 0.000 PB 663.7
553.9 -55.62 6.128 1284 -11.81 21.60
N1380, E1200, 6-12" - REPEAT - AS 0.000 PB 625.5
519.3 -58.56 4.222 1224 -12.61 16.85

CALCULATIONS

Volume Calculations

Excavate to 20 ppm (conservative estimate) to a depth of 2 feet

Block#	Dimensions (ft x ft x ft)	Volume (ft3)
1	152 x 8 x 2	2432
2	242 x 20 x 2	9680
3	37 x 80 x 2	5920
4	242 x 79 x 2	38236
5	320 x 108 x 2	69120
7	72 x 52 x 2	7488
8	72 x 26 x 2	3744
9	54 x 10 x 2	1080
10a	39 x 4 x 2	312
10b	20 x 15 x 2	600
11	23 x 5 x 2	230
12	34 x 20 x 2	1360
13	5 x 10 x 2	100
14	8 x 10 x 2	160
15	34 x 10 x 2	680
16	42 x 8 x 2	672
17	26 x 21 x 2	1092
	Totals	142906 ft3
		5292.8 yd3

Excavate Hot Spot concentrations Failing Eptox (conservative estimate)

Depth	Avg. Area Measurement Readings (in2)	Avg. True Area (ft2)	Excavation Thickness (ft)	Volume (ft3)
0-2	4.5	4.5 x 20 x 20	2	3600
2-3	(3.25 + 4.50)/2	3.8 x 20 x 20	1	1552
3-4	(1.07 + 3.25)/2	2.1 x 20 x 20	1	864
4-7	(0.35 + 1.07)/2	0.7 x 20 x 20	3	852
			TOTALS	6868 ft3
				254.4 yd3

Excavate precautionary areas to a depth of one foot

Block #	Dimensions	Volume (ft3)
18	40 x 46 x 1	1840
19	50 x 30 x 1	1500
20	30 x 28 x 1	840
21	50 x 40 x 1	2000
22	30 x 20 x 1	600
23	38 x 50 x 1	1900
24	10 x 100x 1	1000
25	10 x 100x 1	1000
26	50 x 100x 1	5000
27	45 x 100x 1	4500
		20,180 ft3
		747.4 yds3

APPENDIX C

SOIL SAMPLE RESULTS

053

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

1

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9445_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _88.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	168	_		F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	748	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		___

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
2

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9448_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _88.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	778	_	+	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	801	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

INORGANIC ANALYSES DATA SHEET

1

EPA SAMPLE NO.

3_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9449_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _89.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	1270	_	S	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	685	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: 4

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9450_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _87.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	439		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	571			A
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

5_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9451_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _82.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	41.6	_	*	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	246	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		___

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

6

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9452_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _86.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	175	_	S	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	633	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

7_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9453_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _92.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	14.8	_	W*	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	28.1	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
8

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9454_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _88.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	3410	_	*__	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	1530	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
9_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9455_____

Level (low/med): LOW__ Date Received: 08/23/90

% Solids: _89.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	558	_	+	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	431	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 082

10_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9456_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _79.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	45.1	_	+	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	997	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		___

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

11_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9457_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _87.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	36.5	_		F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	814	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

12

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9458_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _88.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	97.7	_	+	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	1050	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

13_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9459_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _85.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	75.4	_	S	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	131	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
14_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9460_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _91.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	64.4	B	W	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	397	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

15

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9461_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _86.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	78.0	_	+__	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	328	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
16_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9462_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _88.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	41.6	_		F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	503	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

069

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
17_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9463_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _82.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	43.6	_		F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	145	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

18

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9464_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _88.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	53.1	_	+	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	214	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 071

19_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9465_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _82.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	20.6	_	+	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	129	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

20_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 070___

Matrix (soil/water): SOIL_ Lab Sample ID: 9466_____

Level (low/med): LOW__ Date Received: 09/14/90

% Solids: _87.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	26.3	_	+___	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	805	_		A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		___

Color Before: BROWN____ Clarity Before: -_____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

21_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 071___

Matrix (soil/water): SOIL_ Lab Sample ID: 9467_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _92.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	12.1	_	+	F
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	163	_	*	A
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

010

EPA SAMPLE NO.

22_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 071___

Matrix (soil/water): SOIL_ Lab Sample ID: 9470_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _79.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	18.7	_	W	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	2280	_	*	A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

23_

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 071___

Matrix (soil/water): SOIL_ Lab Sample ID: 9471_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _91.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.1		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	39.5		*	A
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
24

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 071___

Matrix (soil/water): SOIL_ Lab Sample ID: 9472_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _94.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	16.3		+	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	448		*	A
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

013

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EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

25

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: Q90-322___

Lab Code: RECNY_ Case No.: 1688_ SAS No.: _____ SDG No.: 071___

Matrix (soil/water): SOIL_ Lab Sample ID: 9473_____

Level (low/med): LOW__ Date Received: 08/24/90

% Solids: _90.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	6.2	_	+	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_		_		NR
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	135	_	*	A_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S00026

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

.ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

:atrix (soil/water): SOIL Lab Sample ID: N40501

.evel (low/med): LOW Date Received: 10/31/90

: Solids: 86.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2410		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	124			F
7439-95-4	Maqnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

.or Before: BROWN Clarity Before: Texture: MEDIUM

.or After: YELLOW Clarity After: CLEAR Artifacts:

ıments:
SO26
AS AT A 400x DILUTION.
PB AT A 20x DILUTION.

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EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

S00027

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40502

evel (low/med): LOW Date Received: 10/31/90

Solids: 80.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	650		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	61.5		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

lor Before: BROWN Clarity Before: Texture: SLUDGE

lor After: YELLOW Clarity After: CLEAR Artifacts:

nments:
SO27
AS AT A 100x DILUTION.
PB AT A 10x DILUTION.

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EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

S00028

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40506

evel (low/med): LOW Date Received: 10/31/90

Solids: 86.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.6			F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	12.2			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

.or Before: BROWN Clarity Before: Texture: SLUDGE

.or After: COLORLESS Clarity After: CLEAR Artifacts:

.ments:
SO28

00012

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00029

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40503

evel (low/med): LOW Date Received: 10/31/90

Solids: 80.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2140		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	292			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

or Before: BROWN Clarity Before: Texture: MEDIUM

or After: YELLOW Clarity After: CLEAR Artifacts:

ments:
SO29
AS AT A 200x DILUTION.
PB AT A 100x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00030

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

Matrix (soil/water): SOIL Lab Sample ID: N40504

Level (low/med): LOW Date Received: 10/31/90

% Solids: 76.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1830			F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	336			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO30
AS AT A 200x DILUTION.
PB AT A 100x DILUTION.

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00031

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40507

evel (low/med): LOW Date Received: 10/31/90

Solids: 84.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	885		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.3		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

or Before: BROWN Clarity Before: Texture: SLUDGE

or After: YELLOW Clarity After: CLEAR Artifacts:

ments:
SO31
AS AT A 200x DILUTION.
PB AT A 2x DILUTION.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S00032

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40508

evel (low/med): LOW Date Received: 10/31/90

Solids: 77.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	102			F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	25.8		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

.or Before: BROWN Clarity Before: Texture: SLUDGE

.or After: YELLOW Clarity After: CLEAR Artifacts:

ıments:
SO32
AS AT A 20x DILUTION.
PB AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00033

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40509

evel (low/med): LOW Date Received: 10/31/90

Solids: 74.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	109			F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	26.4			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

or Before: BROWN Clarity Before: Texture: SLUDGE

or After: YELLOW Clarity After: CLEAR Artifacts:

ments:
SO33
AS AT A 20x DILUTION.
PB AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00034

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40510

evel (low/med): LOW Date Received: 10/31/90

Solids: 85.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	19.1		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	17.0		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

lor Before: BROWN Clarity Before: Texture: SLUDGE

lor After: COLORLESS Clarity After: CLEAR Artifacts:

mments:
SO34
AS AT A 2x DILUTION.
PB AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00035

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

Matrix (soil/water): SOIL Lab Sample ID: N40511

Level (low/med): LOW Date Received: 10/31/90

% Solids: 76.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	735		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.5			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

lor Before: BROWN Clarity Before: Texture: SLUDGE

lor After: YELLOW Clarity After: CLEAR Artifacts:

mments:
S035
AS AT A 200x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00036

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

Matrix (soil/water): SOIL Lab Sample ID: N40505

Level (low/med): LOW Date Received: 10/31/90

% Solids: 79.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	889			F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.2		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: SLUDGE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
SO36
AS AT A 200x DILUTION.
PB AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00037

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

Matrix (soil/water): SOIL Lab Sample ID: N40512

Level (low/med): LOW Date Received: 10/31/90

% Solids: 87.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	11.9			F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	30.7		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: SLUDGE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
SO37
PB AT A 4x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00038

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40513

evel (low/med): LOW Date Received: 10/31/90

Solids: 72.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.4		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	34.3		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

lor Before: BROWN Clarity Before: Texture: SLUDGE

lor After: YELLOW Clarity After: CLEAR Artifacts:

ments:
SO38
PB AT A 4x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00039

ab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

ab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG300

atrix (soil/water): SOIL Lab Sample ID: N40514

evel (low/med): LOW Date Received: 10/31/90

Solids: 83.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.9		S	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	13.7			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

.or Before: BROWN Clarity Before: Texture: SLUDGE

.or After: COLORLESS Clarity After: CLEAR Artifacts:

ıments:
SO39

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-040

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42101

Level (low/med): LOW Date Received: 11/01/90

% Solids: 80.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1720		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1320		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

omments:
S0-40
ARSENIC 1:200 DILUTION
LEAD 1:100 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-041

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42102

Level (low/med): LOW Date Received: 11/01/90

% Solids: 80.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	183		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	137		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
S041
ARSENIC 1:20 DILUTION
LEAD 1:10 DILUTION

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-042

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42105

Level (low/med): LOW Date Received: 11/01/90

% Solids: 83.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	139		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	56.2		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: SLUDGE

Color After: YELLOW Clarity After: CLEAR Artifacts:

omments:
S042
ARSENIC 1:10 DILUTION
LEAD 1:5 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-043

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42106

Level (low/med): LOW Date Received: 11/01/90

% Solids: 81.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	116		S *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	178		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S0-43
ARSENIC 1:10 DILUTION
LEAD 1:50 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-044

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42111

Level (low/med): LOW Date Received: 11/01/90

% Solids: 83.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.7		+*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	69.0		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

omments:
S044

LEAD 1:6 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-045

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42112

Level (low/med): LOW Date Received: 11/01/90

% Solids: 80.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	44.2		S *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	427		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S045
ARSENIC 1:4 DILUTION
LEAD 1:50 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-046

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42113

Level (low/med): LOW Date Received: 11/01/90

% Solids: 80.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	154		S *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	49.2		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S046
ARSENIC 1:20 DILUTION
LEAD 1:4 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-047

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42114

Level (low/med): LOW Date Received: 11/01/90

% Solids: 78.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	7090		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	492		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

omments:
S047
ARSENIC 1:1000 DILUTION
LEAD 1:40 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-048

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42107

Level (low/med): LOW Date Received: 11/01/90

% Solids: 77.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	49.3		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	123		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S0-48
ARSENIC 1:5 DILUTION
LEAD 1:10 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-049

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42115

Level (low/med): LOW Date Received: 11/01/90

% Solids: 83.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	876		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	30.3		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: SLUDGE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

omments:
S049
ARSENIC 1:50 DILUTION
LEAD 1:3 DILUTION

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-050

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42116

Level (low/med): LOW Date Received: 11/01/90

% Solids: 67.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	59.9		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	41.2		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

omments:
S050
ARSENIC 1:5 DILUTION
LEAD 1:3 DILUTION

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-051

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42117

Level (low/med): LOW Date Received: 11/01/90

% Solids: 80.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	44.5		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	309		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S051
ARSENIC 1:4 DILUTION
LEAD 1:20 DILUTION

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-052

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42108

Level (low/med): LOW Date Received: 11/01/90

% Solids: 87.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	536		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	215		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S052
ARSENIC 1:100 DILUTION
LEAD 1:20 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-053

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42109

Level (low/med): LOW Date Received: 11/01/90

% Solids: 84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1150		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	144		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

omments:
S053
ARSENIC 1:100 DILUTION
LEAD 1:20 DILUTION

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-054

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42110

Level (low/med): LOW Date Received: 11/01/90

% Solids: 81.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	861		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	63.7		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S054
ARSENIC 1:100 DILUTION
LEAD 1:5 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-055

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42120

Level (low/med): LOW Date Received: 11/01/90

% Solids: 68.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.2		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	264		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S055
ARSENIC 1:2 DILUTION
LEAD 1:20 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-056

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42121

Level (low/med): LOW Date Received: 11/01/90

% Solids: 79.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	263		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	578		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S056
ARSENIC 1:40 DILUTION
LEAD 1:40 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-057

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42122

Level (low/med): LOW Date Received: 11/01/90

% Solids: 79.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	201		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	451		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S057
ARSENIC 1:20 DILUTION
LEAD 1:40 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-058

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42123

Level (low/med): LOW Date Received: 11/01/90

% Solids: 82.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1030		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	493		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

S058
ARSENIC 1:100 DILUTION
LEAD 1:40 DILUTION

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-059

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42124

Level (low/med): LOW Date Received: 11/01/90

% Solids: 80.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	12.4		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	127		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S059
ARSENIC 1:2 DILUTION
LEAD 1:10 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-060

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42125

Level (low/med): LOW Date Received: 11/01/90

% Solids: 83.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.8		*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	14.7		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: SLUDGE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
S0-60
ARSENIC 1:2 DILUTION
LEAD 1:2 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-061

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42126

Level (low/med): LOW Date Received: 11/01/90

% Solids: 79.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	499		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	858		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S061
ARSENIC 1:40 DILUTION
LEAD 1:50 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-062

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42127

Level (low/med): LOW Date Received: 11/01/90

% Solids: 80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	120		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	255		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S062
ARSENIC 1:10 DILUTION
LEAD 1:40 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-063

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42128

Level (low/med): LOW Date Received: 11/01/90

% Solids: 81.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	38.9		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	278		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S063
ARSENIC 1:5 DILUTION
LEAD 1:40 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-064

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42118

Level (low/med): LOW Date Received: 11/01/90

% Solids: 78.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	133		*+	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	80.8		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S064
ARSENIC 1:10 DILUTION
LEAD 1:5 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0-065

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6421 SAS No.: SDG No.: SDG303

Matrix (soil/water): SOIL Lab Sample ID: N42119

Level (low/med): LOW Date Received: 11/01/90

% Solids: 75.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	21.1		S*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	123		*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S065
ARSENIC 1:5 DILUTION
LEAD 1:10 DILUTION

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00066

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43601

Level (low/med): LOW Date Received: 11/02/90

% Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.6		N *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	126			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO66
PB AT A 20x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00067

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43602

Level (low/med): LOW Date Received: 11/02/90

% Solids: 79.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.9		N *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.3			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
SO67
PB AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00068

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43603

Level (low/med): LOW Date Received: 11/02/90

% Solids: 79.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	109		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	820			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO68
PB AT A 40x DILUTION.
AS AT A 10x DILUTION.

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00069

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43604

Level (low/med): LOW Date Received: 11/02/90

% Solids: 82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	12.9		N *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	249		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO69
PB AT A 20x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00070

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43605

Level (low/med): LOW Date Received: 11/02/90

% Solids: 82.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	7.3		NS *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	338		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO70
PB AT A 50x DILUTION.
AS AT A 2X DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00071

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43606

Level (low/med): LOW Date Received: 11/02/90

% Solids: 83.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.2		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1360			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S071
PB AT A 200x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00072

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43607

Level (low/med): LOW Date Received: 11/02/90

% Solids: 71.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.6		N *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1100		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO72
PB AT A 100x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00073

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43608

Level (low/med): LOW Date Received: 11/02/90

% Solids: 70.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	16.5		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	314		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO73
PB AT A 40x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00074

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43621

Level (low/med): LOW Date Received: 11/02/90

% Solids: 84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	72.1		N *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	51.5			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S074
PB AT A 5x DILUTION.
AS AT A 10x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00075

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43622

Level (low/med): LOW Date Received: 11/02/90

% Solids: 85.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	43.5		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	64.7		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S075
PB AT A 10x DILUTION.
AS AT A 10x DILUTION.

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00076

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43609

Level (low/med): LOW Date Received: 11/02/90

% Solids: 78.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	163		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	803			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO76
PB AT A 100x DILUTION.
AS AT A 10x DILUTION.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S00077

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43612

Level (low/med): LOW Date Received: 11/02/90

% Solids: 79.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	112		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	643			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S077
PB AT A 50x DILUTION.
AS AT A 10x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00078

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43613

Level (low/med): LOW Date Received: 11/02/90

% Solids: 84.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.5		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	208			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO78
PB AT A 40x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00079

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43614

Level (low/med): LOW Date Received: 11/02/90

% Solids: 85.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.0		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	174			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

olor After: YELLOW Clarity After: CLEAR Artifacts:

omments:
SO79
PB AT A 40x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00080

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43615

Level (low/med): LOW Date Received: 11/02/90

% Solids: 79.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.0		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	55.4			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

olor After: YELLOW Clarity After: CLEAR Artifacts:

omments:
SO80
PB AT A 10x DILUTION.
AS AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00081

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43616

Level (low/med): LOW Date Received: 11/02/90

% Solids: 83.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.1		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	43.1			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

olor After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO81
PB AT A 10x DILUTION.
AS AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00082

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43617

Level (low/med): LOW Date Received: 11/02/90

% Solids: 76.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	9.8		NS *	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	321			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO82
PB AT A 20x DILUTION.
AS AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00083

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43623

Level (low/med): LOW Date Received: 11/02/90

% Solids: 82.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	802		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	69.8		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO83
PB AT A 5x DILUTION.
AS AT A 80x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00084

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43618

Level (low/med): LOW Date Received: 11/02/90

% Solids: 74.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	11.7		N+*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1450		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO84
PB AT A 100x DILUTION.
AS AT A 2x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00085

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43619

Level (low/med): LOW Date Received: 11/02/90

% Solids: 79.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	136		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1590		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO85
PB AT A 200x DILUTION.
AS AT A 20x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00086

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6436 SAS No.: SDG No.: SDG304

Matrix (soil/water): SOIL Lab Sample ID: N43620

Level (low/med): LOW Date Received: 11/02/90

% Solids: 68.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.4		N	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1380		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SO86
PB AT A 100x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00087

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43801

Level (low/med): LOW Date Received: 11/03/90

% Solids: 84.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	50.2		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2130		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

olor After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S087
AS AT A 5x DILUTION.
PB AT A 200x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

S00088

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG30

Matrix (soil/water): SOIL Lab Sample ID: N43802

Level (low/med): LOW Date Received: 11/03/90

% Solids: 80.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	247		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1280		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S088
AS AT A 20x DILUTION.
PB AT A 100x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00089

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43803

Level (low/med): LOW Date Received: 11/03/90

% Solids: 80.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	280		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	560		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color)WN Clarity Before: Texture: MEDIUM

Color LOW Clarity After: CLEAR Artifacts:

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S08
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U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00090

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43804

Level (low/med): LOW Date Received: 11/03/90

% Solids: 88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	7.8		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	273		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S090

PB AT A 20x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00091

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43807

Level (low/med): LOW Date Received: 11/03/90

% Solids: 85.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	12.1		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	259		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S091
AS AT A 2x DILUTION.
PB AT A 20x DILUTION.

CCCUA

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00092

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43808

Level (low/med): LOW Date Received: 11/03/90

% Solids: 74.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	7.7		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	410		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S092

PB AT A 20x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S0093R

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N50101

Level (low/med): LOW Date Received: 11/03/90

% Solids: 76.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	9.8		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	275		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S093R

PB AT A 20x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00094

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43809

Level (low/med): LOW Date Received: 11/03/90

% Solids: 86.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.5		NS*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	265		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

S094
AS AT A 2x DILUTION.
PB AT A 20x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00095

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43810

Level (low/med): LOW Date Received: 11/03/90

% Solids: 67.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	18.5		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1990		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S095

PB AT A 100x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00096

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43811

Level (low/med): LOW Date Received: 11/03/90

% Solids: 71.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.7		NS*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	554		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

olor After: YELLOW Clarity After: CLEAR Artifacts:

omments:
S096
AS AT A 2x DILUTION.
PB AT A 40x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00097

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43812

Level (low/med): LOW Date Received: 11/03/90

% Solids: 73.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	9.9		NS*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1110		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S097
AS AT A 2x DILUTION.
PB AT A 100x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00098

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43813

Level (low/med): LOW Date Received: 11/03/90

% Solids: 82.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	23.7		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	224		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S098
AS AT A 2x DILUTION.
PB AT A 20x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00099

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43814

Level (low/med): LOW Date Received: 11/03/90

% Solids: 84.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.3		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1540		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
S099

PB AT A 100x DILUTION.

00018

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

S00100

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6438 SAS No.: SDG No.: SDG305

Matrix (soil/water): SOIL Lab Sample ID: N43815

Level (low/med): LOW Date Received: 11/03/90

% Solids: 74.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	12.0		N*	F
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	714		S*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

omments:
S0100
PB AT A 100x DILUTION.

00019

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

EPSO26

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG29

Matrix (soil/water): Lab Sample ID: N40501

Level (low/med): LOW Date Received: 10/31/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6290		NS*	F
7440-39-3	Barium	1170			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	27.2		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.43			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Sample ID# SO26

As AT A 200x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO27

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N40502

Level (low/med): LOW Date Received: 10/31/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	106		NS*	F
7440-39-3	Barium	1390			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.5	U	*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	N	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Sample ID# SO27

As AT A 4x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO29

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N40503

Level (low/med): LOW Date Received: 10/31/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2270		N * +	F
7440-39-3	Barium	911			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	25.9		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Sample ID# SO29

As AT A 100x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO30

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG29

Matrix (soil/water): Lab Sample ID: N40504

Level (low/med): LOW Date Received: 10/31/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6810		NS*	F
7440-39-3	Barium	1080			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	23.7		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Sample ID# SO30 (EPTOX)

As AT A 400 x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO36

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N40505

Level (low/med): LOW Date Received: 10/31/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2340		N*	F
7440-39-3	Barium	1210			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	19.8		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.4		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	N	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Sample ID# SO36 (EPTOX)

As AT A 100x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO40

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N42101

Level (low/med): LOW Date Received: 11/01/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4480		NS*	F
7440-39-3	Barium	1650			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	20.6		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	102			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	15.8		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:
Sample ID# SO-40 (EPTOX)

As AT A 200x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO41

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N42102

Level (low/med): LOW Date Received: 11/01/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1860		NS*+	F
7440-39-3	Barium	1980			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.5	U	*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Sample ID# SO41 (EPTOX)

As AT A 40X DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO

1

INORGANIC ANALYSIS DATA SHEET

EPSO42

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG29

Matrix (soil/water): Lab Sample ID: N42105

Level (low/med): LOW Date Received: 11/01/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.0	U	N*	F
7440-39-3	Barium	2320	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.5	U	*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	27.7		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:
Sample ID# SO42 (EPTOX)

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EPSO43

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N42106

Level (low/med): LOW Date Received: 11/01/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	19.8		NS*	F
7440-39-3	Barium	2020			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.5	U	*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

)lor Before: Clarity Before: Texture:

)lor After: Clarity After: Artifacts:

)mments:
Sample ID# SO-43 (EPTOX)

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO48

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N42107

Level (low/med): LOW Date Received: 11/01/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	45.2		N	F
7440-39-3	Barium	2010			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.5	U	*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	N	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

lor Before: Clarity Before: Texture:

.or After: Clarity After: Artifacts:

ıments:
Sample ID# SO-48 (EPTOX)
As AT A 2x DILUTION.

00029

U.S. EPA - CLP

EPA SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

EPSO52

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N42108

Level (low/med): LOW Date Received: 11/01/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	121		NS*	F
7440-39-3	Barium	1410			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.5	U	*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
Sample ID# SO52 (EPTOX)

As AT A 4x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO53

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N42109

Level (low/med): LOW Date Received: 11/01/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1260		N*	F
7440-39-3	Barium	1650			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	10.9		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	N	F
7440-22-4	Silver	5.4	B	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Sample ID# SO53 (EPTOX)

As AT A 50x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPS054

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N42110

Level (low/med): LOW Date Received: 11/01/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	737		NS*	F
7440-39-3	Barium	1510			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.5	U	*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	28.9		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

)lor Before: Clarity Before: Texture:

)lor After: Clarity After: Artifacts:

)mments:
Sample ID# SO54 (EPTOX)

As AT A 20x DILUTION.

00032

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO74

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N43621

Level (low/med): LOW Date Received: 11/02/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	20.6		NS*	F
7440-39-3	Barium	1580			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.5	U	*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	4.8	U	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
Sample ID# SO74 (EPTOX)

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPSO75

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N43622

Level (low/med): LOW Date Received: 11/02/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	215		NS*	F
7440-39-3	Barium	1770			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.7		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	10.7		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Sample ID# SO75

As AT A 10x DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

EPS083

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6405 SAS No.: SDG No.: SDG299

Matrix (soil/water): Lab Sample ID: N43623

Level (low/med): LOW Date Received: 11/02/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1260		NS	NR
7440-39-3	Barium	1140			NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.8		*	NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U	*	NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	40.0	U		NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		NR
7440-22-4	Silver	4.8	U		NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments: EPTOX

As AT A 50x DILUTION.

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
ESSO26

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg32(

Matrix (soil/water): Lab Sample ID: N92501

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	8090			P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO26 TCLP

00009

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
ESSO27

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92502

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	1000	U		P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO27 TCLP

00010

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ESSO29

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92503

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	6880			P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO29 TCLP

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
ESS030

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92504

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	7490			P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO30 TCLP

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
ESS047

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92507

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	11700			P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO47 TCLP

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ESSO52

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92505

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	1000	U		P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO52 TCLP

00014

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ESSO53

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92506

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	4500			P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO53 TCLP

00015

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
ESS074

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92508

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	1000	U		P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO74 TCLP

00016

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
ESS083

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92509

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	1980			P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO83 TCLP

00017

NYSDEC
ANALYTICAL SERVICES PROTOCOL
1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
ESSO88

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9017397

Lab Code: 10195 Case No.: 6925 SAS No.: SDG No.: sdg320

Matrix (soil/water): Lab Sample ID: N92510

Level (low/med): LOW Date Received: 01/03/91

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	1000	U		P
7440-39-3	Barium	10000	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	100	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1000	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1000	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	50.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	100	U		P
7440-22-4	Silver	1000	U	N	P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:
Sample ID# SO88 TCLP

00018

GROUNDWATER SAMPLE RESULTS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-1

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: SDG No.: 072

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

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 1579H

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. Date Analyzed: 11/10/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	40	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	0.9	BJ
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. GW-1

Lab Name: RECRA ENVIRONMENTAL, INC. Contract: Q90-322

Lab Code: RECNY Case No: 2602 SAS No: SDG No: 072

Matrix (Soil/Water): WATER Lab Sample Id: GW-1

Sample wt/vol: 5.0 (g/ml): ML Lab File Id: 1579H

Level (low/med): LOW Date Received: 11-08-90

% Moisture not Dec: Date Analyzed: 11-10-90

Column: (pack/cap): PACK Dilution Factor: 1.0

Number TICs Found: 0 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-1

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

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

Sample wt/vol: 800 (g/mL) ML Lab File ID: 5310Z

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. _____ dec. _____ Date Extracted: 11/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/13/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	12	U
111-44-4	bis(2-Chloroethyl)Ether	12	U
95-57-8	2-Chlorophenol	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
100-51-6	Benzyl Alcohol	12	U
95-50-1	1,2-Dichlorobenzene	12	U
95-48-7	2-Methylphenol	12	U
108-60-1	bis(2-Chloroisopropyl)Ether	12	U
106-44-5	4-Methylphenol	12	U
621-64-7	N-Nitroso-Di-n-Propylamine	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
78-59-1	Isophorone	12	U
88-75-5	2-Nitrophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
65-85-0	Benzoic Acid	62	U
111-91-1	bis(2-Chloroethoxy)Methane	12	U
120-83-2	2,4-Dichlorophenol	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
91-20-3	Naphthalene	12	U
106-47-8	4-Chloroaniline	12	U
87-68-3	Hexachlorobutadiene	12	U
59-50-7	4-Chloro-3-Methylphenol	12	U
91-57-6	2-Methylnaphthalene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	62	U
91-58-7	2-Chloronaphthalene	12	U
88-74-4	2-Nitroaniline	62	U
131-11-3	Dimethyl Phthalate	12	U
208-96-8	Acenaphthylene	12	U
606-20-2	2,6-Dinitrotoluene	12	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-1

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

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

Sample wt/vol: 800 (g/mL) ML Lab File ID: 5310Z

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. _____ dec. _____ Date Extracted: 11/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/13/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	62	U
83-32-9	Acenaphthene	12	U
51-28-5	2,4-Dinitrophenol	62	U
100-02-7	4-Nitrophenol	62	U
132-64-9	Dibenzofuran	12	U
121-14-2	2,4-Dinitrotoluene	12	U
84-66-2	Diethylphthalate	12	U
7005-72-3	4-Chlorophenyl-phenylether	12	U
86-73-7	Fluorene	12	U
100-01-6	4-Nitroaniline	62	U
534-52-1	4,6-Dinitro-2-Methylphenol	62	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	62	U
85-01-8	Phenanthrene	12	U
120-12-7	Anthracene	12	U
84-74-2	Di-n-Butylphthalate	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
85-68-7	Butylbenzylphthalate	12	U
91-94-1	3,3'-Dichlorobenzidine	25	U
56-55-3	Benzo(a)Anthracene	12	U
218-01-9	Chrysene	12	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	12	U
117-84-0	Di-n-Octyl Phthalate	12	U
205-99-2	Benzo(b)Fluoranthene	12	U
207-08-9	Benzo(k)Fluoranthene	12	U
50-32-8	Benzo(a)Pyrene	12	U
193-39-5	Indeno(1,2,3-cd)Pyrene	12	U
53-70-3	Dibenz(a,h)Anthracene	12	U
191-24-2	Benzo(g,h,i)Perylene	12	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. GW-1

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: Q90-322

Lab Code: RECNY Case No: 2602 SAS No:

SDG No: 072

Matrix (Soil/Water): WATER

Lab Sample Id: GW-1

Sample wt/vol: 800 (g/ml): ML

Lab File Id: 5310Z

Level (low/med): LOW

Date Received: 11-08-90

% Moisture not Dec: Dec:

Date Extracted: 11-12-90

Extraction: (SepF/Cont/Sonc): SEPF

Date Analyzed: 11-13-90

GPC Cleanup: (Y/N): N pH: 7.0

Dilution Factor: 1.0

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DI - KI
GW - 1

Lab Name: Recra Environmental, Inc. Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): _____ Date Received: 11/08/90

% Solids: -

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	120	B		A
7440-36-0	Antimony	10.0	U	W	F
7440-38-2	Arsenic	13.0			F
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	95200			A
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	30.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	30.0	U		P
7439-92-1	Lead	3.0	U	W	F
7439-95-4	Magnesium	83800		E	P
7439-96-5	Manganese	574			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	1190	B		P
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	14100		E	P
7440-28-0	Thallium	6.0	U		F
7440-62-2	Vanadium	50.0	U		A
7440-66-6	Zinc	10.0	U		P
	Cyanide				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-2

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

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

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 1582H

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. ____ Date Analyzed: 11/10/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	36	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	0.8	BJ
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. GW-2

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: Q90-322

Lab Code: RECNY Case No: 2602 SAS No:

SDG No: 072

Matrix (Soil/Water): WATER

Lab Sample Id: GW-2

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 1582H

Level (low/med): LOW

Date Received: 11-08-90

% Moisture not Dec:

Date Analyzed: 11-10-90

Column: (pack/cap): PACK

Dilution Factor: 1.0

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-2

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

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

Sample wt/vol: 800 (g/mL) ML Lab File ID: 5311Z

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. _____ dec. _____ Date Extracted: 11/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/13/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	12	U
111-44-4	bis(2-Chloroethyl)Ether	12	U
95-57-8	2-Chlorophenol	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
100-51-6	Benzyl Alcohol	12	U
95-50-1	1,2-Dichlorobenzene	12	U
95-48-7	2-Methylphenol	12	U
108-60-1	bis(2-Chloroisopropyl)Ether	12	U
106-44-5	4-Methylphenol	12	U
621-64-7	N-Nitroso-Di-n-Propylamine	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
78-59-1	Isophorone	12	U
88-75-5	2-Nitrophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
65-85-0	Benzoic Acid	62	U
111-91-1	bis(2-Chloroethoxy)Methane	12	U
120-83-2	2,4-Dichlorophenol	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
91-20-3	Naphthalene	12	U
106-47-8	4-Chloroaniline	12	U
87-68-3	Hexachlorobutadiene	12	U
59-50-7	4-Chloro-3-Methylphenol	12	U
91-57-6	2-Methylnaphthalene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	62	U
91-58-7	2-Chloronaphthalene	12	U
88-74-4	2-Nitroaniline	62	U
131-11-3	Dimethyl Phthalate	12	U
208-96-8	Acenaphthylene	12	U
606-20-2	2,6-Dinitrotoluene	12	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-2

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

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

Sample wt/vol: 800 (g/mL) ML Lab File ID: 5311Z

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. _____ dec. _____ Date Extracted: 11/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/13/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	62	U
83-32-9	Acenaphthene	12	U
51-28-5	2,4-Dinitrophenol	62	U
100-02-7	4-Nitrophenol	62	U
132-64-9	Dibenzofuran	12	U
121-14-2	2,4-Dinitrotoluene	12	U
84-66-2	Diethylphthalate	12	U
7005-72-3	4-Chlorophenyl-phenylether	12	U
86-73-7	Fluorene	12	U
100-01-6	4-Nitroaniline	62	U
534-52-1	4,6-Dinitro-2-Methylphenol	62	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	62	U
85-01-8	Phenanthrene	12	U
120-12-7	Anthracene	12	U
84-74-2	Di-n-Butylphthalate	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
85-68-7	Butylbenzylphthalate	12	U
91-94-1	3,3'-Dichlorobenzidine	25	U
56-55-3	Benzo(a)Anthracene	12	U
218-01-9	Chrysene	12	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	12	U
117-84-0	Di-n-Octyl Phthalate	12	U
205-99-2	Benzo(b)Fluoranthene	12	U
207-08-9	Benzo(k)Fluoranthene	12	U
50-32-8	Benzo(a)Pyrene	12	U
193-39-5	Indeno(1,2,3-cd)Pyrene	12	U
53-70-3	Dibenz(a,h)Anthracene	12	U
191-24-2	Benzo(g,h,i)Perylene	12	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. GW-2

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: Q90-322

Lab Code: RECNY Case No: 2602 SAS No:

SDG No: 072

Matrix (Soil/Water): WATER

Lab Sample Id: GW-2

Sample wt/vol: 800 (g/ml): ML

Lab File Id: 5311Z

Level (low/med): LOW

Date Received: 11-08-90

% Moisture not Dec: Dec:

Date Extracted: 11-12-90

Extraction: (SepF/Cont/Sonc): SEPF

Date Analyzed: 11-13-90

GPC Cleanup: (Y/N): N pH: 7.0

Dilution Factor: 1.0

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DI - KI
GW - 2

Lab Name: Recra Environmental, Inc. Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): _____ Date Received: 11/08/90

% Solids: -

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	B		A
7440-36-0	Antimony	10.0	U	W	F
7440-38-2	Arsenic	11.0			F
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	116000			A
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	30.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	30.0	U		P
7439-92-1	Lead	3.0	U	W	F
7439-95-4	Magnesium	84200		E	P
7439-96-5	Manganese	559			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	1230	B		P
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	14100		E	P
7440-28-0	Thallium	6.0	U		F
7440-62-2	Vanadium	50.0	U		A
7440-66-6	Zinc	10.0	U		P
	Cyanide				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WASHBLANK

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

Matrix: (soil/water) WATER Lab Sample ID: WASHBLANK

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 1576H

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. _____ Date Analyzed: 11/10/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	0.7	BJ
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. WASHBLANK

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: Q90-322

Lab Code: RECNY Case No: 2602 SAS No:

SDG No: 072

Matrix (Soil/Water): WATER

Lab Sample Id: WASHBLANK

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 1576H

Level (low/med): LOW

Date Received: 11-08-90

% Moisture not Dec:

Date Analyzed: 11-10-90

Column: (pack/cap): PACK

Dilution Factor: 1.0

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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22					
23					
24					
25					
26					
27					
28					
29					
30					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WASHBLANK

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

Matrix: (soil/water) WATER Lab Sample ID: WASHBLANK

Sample wt/vol: 800 (g/mL) ML Lab File ID: 5309Z

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. _____ dec. _____ Date Extracted: 11/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/13/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	12	U
111-44-4	bis(2-Chloroethyl)Ether	12	U
95-57-8	2-Chlorophenol	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
100-51-6	Benzyl Alcohol	12	U
95-50-1	1,2-Dichlorobenzene	12	U
95-48-7	2-Methylphenol	12	U
108-60-1	bis(2-Chloroisopropyl)Ether	12	U
106-44-5	4-Methylphenol	12	U
621-64-7	N-Nitroso-Di-n-Propylamine	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
78-59-1	Isophorone	12	U
88-75-5	2-Nitrophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
65-85-0	Benzoic Acid	62	U
111-91-1	bis(2-Chloroethoxy)Methane	12	U
120-83-2	2,4-Dichlorophenol	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
91-20-3	Naphthalene	12	U
106-47-8	4-Chloroaniline	12	U
87-68-3	Hexachlorobutadiene	12	U
59-50-7	4-Chloro-3-Methylphenol	12	U
91-57-6	2-Methylnaphthalene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	62	U
91-58-7	2-Chloronaphthalene	12	U
88-74-4	2-Nitroaniline	62	U
131-11-3	Dimethyl Phthalate	12	U
208-96-8	Acenaphthylene	12	U
606-20-2	2,6-Dinitrotoluene	12	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WASHBLANK

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

Matrix: (soil/water) WATER Lab Sample ID: WASHBLANK

Sample wt/vol: 800 (g/mL) ML Lab File ID: 5309Z

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/13/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	62	U
83-32-9	Acenaphthene	12	U
51-28-5	2,4-Dinitrophenol	62	U
100-02-7	4-Nitrophenol	62	U
132-64-9	Dibenzofuran	12	U
121-14-2	2,4-Dinitrotoluene	12	U
84-66-2	Diethylphthalate	12	U
7005-72-3	4-Chlorophenyl-phenylether	12	U
86-73-7	Fluorene	12	U
100-01-6	4-Nitroaniline	62	U
534-52-1	4,6-Dinitro-2-Methylphenol	62	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	62	U
85-01-8	Phenanthrene	12	U
120-12-7	Anthracene	12	U
84-74-2	Di-n-Butylphthalate	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
85-68-7	Butylbenzylphthalate	12	U
91-94-1	3,3'-Dichlorobenzidine	25	U
56-55-3	Benzo(a)Anthracene	12	U
218-01-9	Chrysene	12	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	12	U
117-84-0	Di-n-Octyl Phthalate	12	U
205-99-2	Benzo(b)Fluoranthene	12	U
207-08-9	Benzo(k)Fluoranthene	12	U
50-32-8	Benzo(a)Pyrene	12	U
193-39-5	Indeno(1,2,3-cd)Pyrene	12	U
53-70-3	Dibenz(a,h)Anthracene	12	U
191-24-2	Benzo(g,h,i)Perylene	12	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. WASHBLANK

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: Q90-322

Lab Code: RECNY Case No: 2602 SAS No:

SDG No: 072

Matrix (Soil/Water): WATER

Lab Sample Id: WASHBLANK

Sample wt/vol: 800 (g/ml): ML

Lab File Id: 5309Z

Level (low/med): LOW

Date Received: 11-08-90

% Moisture not Dec: Dec:

Date Extracted: 11-12-90

Extraction: (SepF/Cont/Sonc): SEPF

Date Analyzed: 11-13-90

GPC Cleanup: (Y/N): N pH: 7.0

Dilution Factor: 1.0

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WASH BLANK

Lab Name: Recra Environmental, Inc. Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): _____ Date Received: 11/08/90

% Solids: - _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	80.0	B		A
7440-36-0	Antimony	10.0	U	W	F
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	270	B		A
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	30.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	30.0	B		P
7439-92-1	Lead	3.0	U	W	F
7439-95-4	Magnesium	200	U	E	P
7439-96-5	Manganese	5.0	U		A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	200	U		P
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	300	U	E	P
7440-28-0	Thallium	6.0	U		F
7440-62-2	Vanadium	50.0	U	W	A
7440-66-6	Zinc	10.0	U		P
	Cyanide				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: RECRA ENVIRON Contract: Q90-322

Lab Code: RECNY Case No.: 2602 SAS No.: _____ SDG No.: 072

Matrix: (soil/water) WATER Lab Sample ID: TRIPBLANK

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 1575H

Level: (low/med) LOW Date Received: 11/08/90

% Moisture: not dec. _____ Date Analyzed: 11/10/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	0.7	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	0.6	BJ
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. TRIPBLANK

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: Q90-322

Lab Code: RECNY Case No: 2602 SAS No:

SDG No: 072

Matrix (Soil/Water): WATER

Lab Sample Id: TRIPBLANK

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 1575H

Level (low/med): LOW

Date Received: 11-08-90

% Moisture not Dec:

Date Analyzed: 11-10-90

Column: (pack/cap): PACK

Dilution Factor: 1.0

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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28					
29					
30					

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-1

Lab Name: Recra Environmental, Inc. Contract: Q90-322

Lab Code: RECNY Case No.: 2602.3 SAS No.: _____ SDG No.: 073

Matrix (soil/water): WATER Lab Sample ID: 2405

Level (low/med): _____ Date Received: 12/21/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6290	_	N*E	P
7440-36-0	Antimony	5.0	U		F
7440-38-2	Arsenic	45.0	_	N	F
7440-39-3	Barium	125	B	N	P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	16.0	_		A
7440-70-2	Calcium	158000	_	E	P
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	20.0	B		P
7439-89-6	Iron	8400	_	E	P
7439-92-1	Lead	27.0	_	*	F
7439-95-4	Magnesium	95200	_	E	P
7439-96-5	Manganese	562	_	E	P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	34.0	B		P
7440-09-7	Potassium	3010	B		P
7782-49-2	Selenium	5.0	U	NW	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	13900	_	E	P
7440-28-0	Thallium	5.0	U	W	F
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	77.0	_	N	P
	Cyanide		_		

Color Before: COLORLESS Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

UNFILTERED

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: Recra Environmental, Inc. Contract: 090-322

Lab Code: RECNY Case No.: 2602.3 SAS No.: _____ SDG No.: 073

Matrix (soil/water): WATER Lab Sample ID: 2408

Level (low/med): _____ Date Received: 12/21/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7720	_	N*E	P
7440-36-0	Antimony	5.0	U		F
7440-38-2	Arsenic	33.0	_	N	F
7440-39-3	Barium	130	B	N	P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	16.0	_		A
7440-70-2	Calcium	158000	_	E	P
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	19.0	B		P
7439-89-6	Iron	8970	_	E	P
7439-92-1	Lead	32.0	_	*	F
7439-95-4	Magnesium	96300	_	E	P
7439-96-5	Manganese	573	_	E	P
7439-97-6	Mercury	0.2	_		CV
7440-02-0	Nickel	32.0	_		P
7440-09-7	Potassium	3600	B		P
7782-49-2	Selenium	5.0	U	N	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	14200	_	E	P
7440-28-0	Thallium	5.0	U	W	F
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	83.0	_	N	P
	Cyanide		_		

Color Before: COLORLESS Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

UNFILTERED

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: WASH BLANK

Lab Name: Recra Environmental, Inc. Contract: 090-322

Lab Code: RECNY Case No.: 2602.3 SAS No.: _____ SDG No.: 073

Matrix (soil/water): WATER Lab Sample ID: 2409

Level (low/med): _____ Date Received: 12/21/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	50.0	U	N*E	P
7440-36-0	Antimony	5.0	U		F
7440-38-2	Arsenic	5.0	U	N	F
7440-39-3	Barium	50.0	U	N	P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	6.0			A
7440-70-2	Calcium	200	U	E	P
7440-47-3	Chromium	10.0	U	*	P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	40.0	U	E	P
7439-92-1	Lead	3.0	U	*	F
7439-95-4	Magnesium	200	U	E	P
7439-96-5	Manganese	5.0	U	E	P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	300	U		P
7782-49-2	Selenium	5.0	U	N	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	498	B	E	P
7440-28-0	Thallium	5.0	U		F
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	10.0	U	N	P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

UNFILTERED

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-1A

Lab Name: Recra Environmental, Inc. Contract: Q90-322

Lab Code: RECNY Case No.: 2602.3 SAS No.: _____ SDG No.: 073

Matrix (soil/water): WATER Lab Sample ID: 2410

Level (low/med): _____ Date Received: 12/21/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	50.0	U	E	P
7440-36-0	Antimony	5.0	U		F
7440-38-2	Arsenic	33.0			F
7440-39-3	Barium	224			P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	11.0			A
7440-70-2	Calcium	130000		E	P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	6.0	B		P
7439-89-6	Iron	40.0	U	E	P
7439-92-1	Lead	3.0	U	W	F
7439-95-4	Magnesium	86500		E	P
7439-96-5	Manganese	382		E	P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	38.0	B		P
7440-09-7	Potassium	839	B		P
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	14300		E	P
7440-28-0	Thallium	5.0	U		F
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	102		N*	P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-2A

Lab Name: Recra Environmental, Inc. Contract: Q90-322

Lab Code: RECNY Case No.: 2602.3 SAS No.: _____ SDG No.: 073

Matrix (soil/water): WATER Lab Sample ID: 2413

Level (low/med): _____ Date Received: 12/21/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	50.0	U	E	P
7440-36-0	Antimony	5.0	U		F
7440-38-2	Arsenic	48.0			F
7440-39-3	Barium	67.0	B		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	10.0			A
7440-70-2	Calcium	130000		E	P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	6.0	B		P
7439-89-6	Iron	40.0	U	E	P
7439-92-1	Lead	3.0			F
7439-95-4	Magnesium	81800		E	P
7439-96-5	Manganese	418		E	P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	25.0	B		P
7440-09-7	Potassium	664	B		P
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	13800		E	P
7440-28-0	Thallium	5.0	U		F
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	10.0	U	N*	P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

FILTERED

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WASH BLANK A

Lab Name: Recra Environmental, Inc. Contract: Q90-322

Lab Code: RECNY Case No.: 2602.3 SAS No.: _____ SDG No.: 073

Matrix (soil/water): WATER Lab Sample ID: 2414

Level (low/med): _____ Date Received: 12/21/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	50.0	U	E	P
7440-36-0	Antimony	5.0	U		F
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	6.0			A
7440-70-2	Calcium	200	U	E	P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	40.0	U	E	P
7439-92-1	Lead	3.0	U	W	F
7439-95-4	Magnesium	200	U	E	P
7439-96-5	Manganese	5.0	U	E	P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	300	U		P
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	509	B	E	P
7440-28-0	Thallium	5.0	U		F
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	20.0		N*	P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

FILTERED

KINGSLEY PARK
BASKETBALL COURTS
PLAY AREA
GARAGE
POOL
COVERED PAVILION
POOL HOUSE
TOILET ROOMS
SIDEWALK
HSE 381
HSE 382
HSE 387
HSE 388
HSE 389
HSE 399
HSE 409
HSE 413
HSE 417
HSE 419
HSE 423
HSE 431
HSE 433
HSE 50
HSE 90
HSE 94
HSE 104
LEGEND
TOP INCLUDES
FENCE
MONITORING WELL
GAS VALVE
UTILITY POLE
LIGHT POLE
SOIL SAMPLE
NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW
DIARSENO - KINGSLEY PARK SITE
BUFFALO, NEW YORK
modi associates
ARCHITECTS & LAND SURVEYORS
DATE 11/6/90
SCALE 1"=20'
PROJECT NO. 9C1101