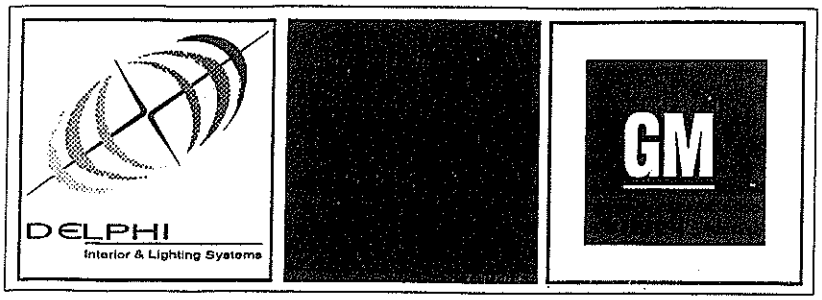

Delphi Interior & Lighting Systems Division
General Motors Corporation

ATTACHMENT 1
1994
REMEDIAL INVESTIGATION DATA REPORT

Delphi Interior & Lighting Systems Division
Trenton, New Jersey Plant

JULY 1997

G2603A

submitted by: URS Greiner

Delphi Interior and Lighting Systems Division
General Motors Corporation
1445 Parkway Avenue
Trenton, New Jersey 08650-1019

ISRA Case No. 92713

1994 REMEDIAL INVESTIGATION DATA REPORT

Prepared by:

URS Greiner, Inc.
282 Delaware Avenue
Buffalo, New York 14202

July 1997

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SECTION I

INTRODUCTION

1.0 INTRODUCTION

1.1 Purpose

This report was prepared by URS Greiner, Inc. (URSG) at the request of General Motors Corporation (GM) acting through Haley & Aldrich of New York (H&A) to document the results of a Remedial Investigation (RI) conducted at the GM-Delphi Interior and Lighting Systems (GM-Delphi) Plant in Trenton, New Jersey. The RI was conducted in 1994 after GM first announced their intent to cease operations at the plant which was being operated as GM-Inland Fisher Guide (GM-IFG) at that time. The investigation was initiated in compliance with New Jersey Department of Environmental Protection (NJDEP) requirements under the New Jersey Industrial Site Recovery Act (ISRA) and the site was assigned ISRA Case No. 92713. URSG did not complete a report at that time because GM subsequently announced their intent to continue operations as GM-Delphi at the facility, withdrew from the ISRA program, and entered into a Memorandum of Agreement with NJDEP (Case No. 95-2-22-1407-48). In 1997, GM decided to re-initiate closure of the plant and requested that URSG complete this report of data gathered during the 1994 RI to support ISRA closure. The history of operations at the site presented herein is complete through 1994. More recent developments in the history have been added, as available to URSG.

The GM-Delphi Trenton, New Jersey facility has undergone several previous investigations and, site visits were conducted by the NJDEP in May 1993. Eleven Potential Areas of Concern (PAOC's) caused by historical operations or possible past releases have been identified at the facility.

URSG conducted the 1994 Remedial Investigation (RI) field work at the site consistent with the following documents:

- NJDEP's Technical Requirements for Site Remediation (June 1993);
- GM-IFG ISRA Remedial Investigation Work Plan (3 September 1993, Revised January 1994)
- NJDEP's Comments/Work Plan Approval Letter dated December 1993.

The purpose of this report is to present the results of the sampling program defined by the aforementioned documents.

1.2 Report Organization

The report is divided into five report sections, tables, figures, and appendices. A separate bound set of 22" x 34" plates (Appendix E) accompany the report. The following provides a description of the content of each of the report sections.

Section 1, Introduction, presents the propose and organization of the report.

Section 2, General Site Information presents the description of the site, its history, a summary of previous investigations, and a review of historical air photos.

Section 3, Physical Setting provides a description of the site topography, geology, general hydrogeology, and results of the well record search.

Section 4, Investigative Scope provides an overview of the RI activities and compliance with the work plan.

Section 5, Findings provides a description of each PAOC, details compliance with the work plan, and reports analytical results.

Tables, figures and appendices are bound in tabbed sections at the end of the data report text. Plates of the site (Appendix E) are bound separately.

SECTION 2

GENERAL SITE INFORMATION

2.0 GENERAL SITE INFORMATION

2.1 Site Location and Description

The GM - Delphi facility is located at 1445 Parkway Avenue in Ewing Township, Mercer County, New Jersey (Figure 2-1). The total land area of the facility is approximately 84 acres. The facility is bound to the west by the New York Division - Delaware & Bound Brook Railroad; to the south by the Trenton Branch - Delaware & Bound Brook Railroad; to the north by Parkway Avenue and the United States Naval Reservation; and to the east by Sylvia Avenue. Structural development (Figure 2-2, Plate P-2) is generally limited to the southern and western portions of the property. The main structure present on the property is the manufacturing building, which occupies the northwestern quarter of the property. This building contains approximately 1 million square feet of space. The facility's administrative offices are located in the northernmost portion of the building, while the remainder of the building houses the manufacturing operations.

Two smaller structures near the southwest corner of the manufacturing building serve as the facility's company vehicle garage and paint storage building. The maintenance building located near the southeast corner of the manufacturing building, houses the facility's support services and is also used for receiving.

The facility's power plant is located to the east of the manufacturing building, along with the associated fuel tanks and cooling towers. The power plant uses #6 fuel oil to generate steam for the facility.

Three small structures located to the north of the power plant house the gas meters, bottled gas storage area, and electrical switches, respectively.

The facility's wastewater treatment plant (WWTP) is located on the southern portion of the property. All industrial process wastewater generated at the facility is routed to the plant via underground process sewers where it is pre-treated prior to discharge to the Ewing-Lawrence Sewerage Authority (ELSA) located on White Head Road. The plant includes an oil water separator,

sludge settling tanks, waste treatment tanks, and a small structure used for operation and control of the wastewater treatment plant.

The facility's hazardous waste drum storage pad is located between the wastewater treatment plant and the #6 fuel tanks. This area is surrounded by a concrete berm with chain link fencing. Additional raw material drum storage areas were located to the south and east of the maintenance building but have since been relocated to inside the building. Miscellaneous materials were stored near the drum storage area in an open lot to the south of the maintenance building.

Four paved parking areas are located on the property. A small parking lot is located at the northwestern corner of the manufacturing (main) building, adjacent to Parkway Avenue. The South Parking Lot, located to the south of the manufacturing building, has a total capacity of 406 cars. The East Parking Lot, located to the east of the manufacturing building and to the north of the power plant, has a capacity of 428 cars. The Power House Parking Lot, located to the east of the power plant and to the north of the wastewater treatment plant, has a total capacity of 1,540 cars.

Rail spurs connected to the Trenton Branch of the Delaware & Bound Brook Railroad enter the southern portion of the property in two locations and enter the manufacturing building at its southeast and southwest corners.

Five inactive sludge drying beds located on the southeastern portion of the property, were covered with top soil. These sludge drying beds were previously operated in association with the wastewater treatment plant.

Gold Run Creek flows through the eastern portion of the property from north to south, including a small dammed section, located at the northeast corner of the property. The remainder of the undeveloped eastern area of the property is characterized by deciduous wooded areas. Surface runoff is collected in storm drains across the property which direct the stormwater to discharge points in Gold Run. Sanitary wastewater is channeled to the ELSA sewer in Parkway Avenue. As mentioned above, all process wastewater is pre-treated on-site prior to discharge to the ELSA sewer.

As stated in Section 1.1 the previous site investigations have identified eleven Potential Areas of Concern (PAOCs) caused by historical operations or possible past releases at the facility. The locations of the eleven PAOCs are shown in Figure 2-3 and Plate P-2. PAOC descriptions are presented in Section 5.

2.2 Site History

Most of the following information regarding the site history of the GM-Delphi Trenton Plant was obtained from the Groundwater Impact Study Summary Report prepared by Lawler, Matusky & Skelly Engineering Consultants (LMS) dated May 1991. The information has been updated to reflect the recent site history.

The GM-Delphi Trenton Plant was constructed in 1937 and started manufacturing operations for the old Ternstedt Division in 1938. The plant produced one product, automotive window regulators for Fisher Body. Manufacturing operations included metal stamping and fabrication. During the period 1942-1945 the Trenton Plant stopped all automotive hardware production when, for wartime purposes, five area GM plants were recast for aircraft production. The plant was re-tooled and produced 7,546 Avenger Torpedo Bombers during World War II. During this time the plant was operated by the Eastern Aircraft Corporation.

After the conclusion of World War II, the plant was returned to the Ternstedt Division, which operated from 1945-1968. The manufacturing operations were expanded to include window regulators, door handles, seat adjusters, and vent windows. Processes included metal stamping, plating (copper, nickel, and chrome), and painting operations.

In 1968 the Ternstedt Division was merged into Fisher Body. Manufacturing operations were expanded to include aluminum anodizing and plastic injection molding. Additional painting operations were added to paint plastic products, aluminum products, and seat adjuster components.

In 1970 there was a major production shift with the design elimination of the automobile's vent window. The loss of the vent window eliminated half of the zinc die cast operations, which

resulted in the subsequent closure of several of the platers. The available floor space was filled with PVC plastic extruders used to manufacture body side moldings.

In 1976 aluminum fabrication and anodizing were consolidated by Fisher Body; these components of the Trenton Plant's operations were transferred to the Columbus, Ohio, plant. Consequently, Trenton's aluminum anodizer and associated paint area were shut down. Encapsulated glass operations were assigned to the manufacturing floor space.

Fisher Body was merged with the Guide Lamp division of GM to form Fisher Guide in 1984. Subsequently, the electrostatic paint operation was shut down in 1988 as a result of the designed phase-out of the interior paint moldings operation. An ELPO primer and powder paint operation replaced the former electrostatic paint operation. The most recent addition to the Trenton Plant's manufacturing processes was the bi-laminate roll form and extrusion process. This process consists of an aluminum or stainless steel sheet being roll formed and coated with PVC in one operation. The bi-laminate roll form and extrusion process was initiated in 1986.

Fisher Guide was merged with the Inland division of GM to form the Inland Fisher Guide (IFG) Division in 1989. No major changes to plant operations occurred as a result. In February of 1995, GM renamed the IFG Division to Delphi Interior and Lighting Systems.

2.3 Previous Investigations

Previous environmental investigations conducted at the GM facility include the following:

- INSTALLATION OF MONITORING WELLS AT THE FISHER GUIDE DIVISION GM PLANT, by Lawler, Matusky & Skelly Engineers, April 1986.
- GASOLINE CONTAMINATION ASSESSMENT IN SOIL SAMPLES TAKEN AT THE FISHER GUIDE DIVISION'S TRENTON, NEW JERSEY, PLANT, by Lawler, Matusky & Skelly Engineers, October, 1987.
- GROUNDWATER MONITORING WELL INSTALLATION, Wells near Powerhouse, by O'Brien & Gere, June 1988.

- UNDERGROUND STORAGE TANK INVESTIGATION - PHASE 2, by Roy F. Weston, Inc., June 1988.

- UNDERGROUND STORAGE TANK INVESTIGATION - PHASE 3, by Roy F. Weston, Inc., May 1989.

- GROUNDWATER REMEDIATION PLAN, by Roy F. Weston, Inc., June 1989.

- PUMP TEST AND AQUIFER ANALYSIS, by Roy F. Weston, Inc., November 1989.

- GROUNDWATER IMPACT STUDY SUMMARY REPORT, by Lawler, Matusky & Skelly Engineers, May 1991.

- SOIL SAMPLING AND ANALYTICAL PLANS FOR RCRA CLOSURE OF HAZARDOUS MANAGEMENT SITES, by IFG Trenton, December 4 and December 21, 1990.

- RCRA CLOSURE PLAN FOR HAZARDOUS WASTE MANAGEMENT UNITS, by IFG Trenton, March 13, 1991.

Each of these investigations is summarized below.

Installation of Monitoring Wells at the Fisher Guide Division GM Plant, by Lawler, Matusky & Skelly Engineers, April 1986

On March 5, 1986, 12 monitoring wells were drilled to the competent bedrock (12-20 feet). The wells were installed in response to NJDEP requirements related to GM's NJPDES Permit #NJ0053295, later changed to NJ0075469. Continuous split spoon samples were collected during the drilling. The screened interval in each well was designed to extend from 5 feet above the measured water level to the bottom of the borehole. Flush-joint 4-inch diameter PVC casing and 20-slot well screen were used to construct the wells. Protective steel casings were installed (3-foot stickups) and the well number and NJDEP well permit number were stamped on each protective casing. Each well was developed for at least one hour in accordance with the NJDEP specification for construction of unconsolidated monitoring wells. Sampling was not conducted at the time of installation.

Gasoline Contamination Assessment in Soil Samples Taken at the Fisher Guide Division's Trenton, New Jersey, Plant, by Lawler, Matusky & Skelly Engineers, October 1987

During July 1987, 10 shallow test borings (B-1 through B-10) were drilled to assess the impact of a release from a former 4000-gallon gasoline UST at the site. The test borings encountered the weathered red sandstone bedrock surface at depths ranging from 15 to 19 feet below grade. The overburden was generally unsaturated in this area of the site, with the water table encountered in some borings at the approximate interface between the overburden and the weathered bedrock. Eight soil samples were collected from 6 of the 10 borings for analysis of total petroleum hydrocarbons (TPH), benzene, toluene, m-xylene, o,p-xylenes and methyl tertiary butyl ether (MTBE). The results of the sampling indicated the presence of benzene, toluene and xylenes at elevated concentrations, primarily at the southeastern portion of the former UST location. Elevated concentrations of these compounds were identified predominantly at a depth of approximately 12 to 16 feet below grade. Because of the absence of groundwater in the overburden, a recommendation was made for the installation of five additional bedrock monitoring wells to assess the impact to groundwater in this area of the site.

Groundwater Monitoring Well Installation, Wells near Powerhouse, by O'Brien & Gere, June 1988

This well installation program, conducted as a requirement of GM's NJPDES Permit #NJ0053295, consisted of installation of 4 bedrock monitoring wells. A proposed overburden well was subsequently deleted from the program due to lack of overburden groundwater in the proposed area. The bedrock well design included installation of 6-inch steel casing through the overburden, grouted in place at a depth of 10 feet into the bedrock. Sampling was not conducted at the time of installation.

Underground Storage Tank Investigation - Phase 2, by Roy F. Weston, Inc., June 1988

In October 1987, GM completed tank closure activities for a 4,000-gallon gasoline underground storage tank (UST). Post-excavation soil sampling results indicated the presence of gasoline constituents exceeding NJDEP action limits for soils. Based on analytical results for soil samples collected during tank closure activities, a Phase 2 groundwater investigation was completed.

Phase 2 investigative activities included the installation of four bedrock monitoring wells, one upgradient and three downgradient of the former location of the tank. The wells were sampled for petroleum hydrocarbons (TPH), benzene/toluene/ethylbenzene/xylene (BTEX), and total lead. The purpose of the Phase 2 Investigation was to further delineate the area of concern and to make recommendations for remediation. The results of the investigation indicated that the primary area impacted by the former leaking underground storage tank (LUST) was within 75 feet of the former LUST's location. Based upon the results of the investigation, Weston recommended resampling of two wells to confirm the BTEX results and acquire volatile organic compound (VOC) concentration information. Installation of a groundwater recovery and air stripping system to remediate the area was also recommended. The Underground Storage Tank Investigation - Phase 2 Report was submitted to NJDEP on July 12, 1988.

Underground Storage Tank Investigation - Phase 3, by Roy F. Weston, Inc., May 1989

As a result of the Phase 2 investigation, the NJDEP required additional wells to determine the vertical and areal extent of contamination prior to development of appropriate remedial activities. Five additional monitoring wells were installed. The wells included 2 shallow monitoring wells (20 feet deep), 2 bedrock wells (40 feet deep), and 1 deep bedrock well 125 feet deep). NJDEP required GM to sample all new and previous wells and analyze them for BTEX, TBA, MTBE, 1,2-dichloroethane, methanol, petroleum hydrocarbons, and total lead.

The Phase 3 Investigation indicated that the vertical extent of contamination was up to 80 feet below grade. Weston recommended that additional investigations be conducted in the area, including quantification of site-specific hydraulic conductivity, in order to finalize a design for a groundwater recovery and remediation system. The Underground Storage Tank Investigation -Phase 3 Report was submitted to NJDEP on May 11, 1989.

Groundwater Remediation Plan, by Roy F. Weston, Inc., June 1989

The Groundwater Remediation Plan was developed by Roy F. Weston, Inc. for GM in response to exceedances of groundwater limits specified in the facility's NJPDES Discharge to Groundwater (DGW) permit (#NJ0053295), detected during routine quarterly groundwater

monitoring, the results of which were submitted to NJDEP on May 3, 1988. NJDEP required that GM develop and submit a groundwater remediation plan for several areas near the property boundaries as part of their "conditionally acceptable" rating of the facility. The plan summarized the groundwater sampling which had been completed at that time and estimated the horizontal extent of contamination in the overburden.

As part of the plan, Weston proposed a study to determine the extent of impact to the groundwater which included installation and sampling of additional wells, a pumping test, and sampling of surface water and sediment.

Pump Test and Aquifer Analysis, by Roy F. Weston, Inc., November 1989.

During the week of October 9, 1989, Roy F. Weston, Inc. conducted a pump test based on the Phase 3 Underground Storage Tank Investigation Report. The investigation included measurement of background static water levels for a period of 37 hours, completion of a step-drawdown test, completion of a constant pumping rate test, and completion of a recovery test. The activities were completed to obtain information to design a groundwater recovery system and support the groundwater recovery and treatment recommendations outlined in the Groundwater Remediation Plan. Based upon the flow conditions and levels of contaminants in the groundwater, Weston recommended that an air stripper be used for remediation. Weston recommended that a performance test be conducted upon completion of the remediation system to assure optimum operation. Time series sampling was also recommended to evaluate the effectiveness of the recovery system.

Groundwater Impact Study Summary Report, by Lawler, Matusky & Skelly Engineers, May 1991.

A Groundwater Impact Study was conducted by Lawler, Matusky & Skelly Engineers (LMS) at the request of GM. The report summarized most of the previous groundwater investigations by other contractors. The document considers that all discovered groundwater problems are associated with three probable source areas, including:

- UST Area
- Sludge Impoundment Area

- Naval Air Propulsion Center (NAPC)

LMS tabulated the data from monitoring wells and listed the average, minimum, and maximum concentrations by individual compound for each well. LMS concluded that trichloroethene (TCE) and dichloroethene (DCE) are from the Naval Air Propulsion Center (NAPC) property immediately north of the site, since these compounds were not detected in MW-4 through 7 yet these wells have the highest concentrations of compounds attributable to the Sludge Drying Beds. LMS stated that barium, manganese, and copper are naturally present in the groundwater. Arsenic, cadmium, lead, nickel and zinc have been detected in most of the wells above background levels. LMS concluded that significant interaction occurs between the site's groundwater and Gold Run. The Groundwater Impact Study Report was submitted to NJDEP on August 12, 1991.

Soil Sampling and Analytical Plans for RCRA Closure of Hazardous Management Sites, December 4 and December 21, 1990; Closure Plan for Hazardous Waste Management Units, March 13, 1991.

In order to delist the GM Trenton plant as an approved TSDF facility status to a "less than 90 days" generator status, GM initiated a RCRA closure of all hazardous waste management units operated at the facility. These units included:

- hazardous waste drum storage area;
- three aboveground dichlorobenzene solution storage tanks;
- a 30,000-gallon underground waste oil storage tank;

A document certifying the completion of all waste removal and structure decontamination activities was prepared by GM and submitted to NJDEP on March 27, 1992. NJDEP accepted the closure certification and granted the plant generator status; however, complete delisting of the hazardous waste drum storage area and the waste oil UST are contingent upon the completion of soil sampling and remediation activities. NJDEP delisted the dichlorobenzene tanks from hazardous waste facilities status.

As approved by NJDEP, soil sampling activities in the vicinity of the former waste oil UST were deferred until demolition of the waste oil UST and adjacent old oil/water separator unit.

2.4 Review of Aerial Photographs

The following is a summary of observations made by URSG during a review of aerial photographs taken between 1932 and 1991.

1932- The plant had not been constructed yet. The site property was being used for farming at this time. What appear to be fruit tree orchards are present in the northwest and southeast corners of the site. The rail lines to the south and west are present at this time. The property to the north of Parkway Avenue (the future location of the NAPC and Airport) also appear to be farmland at this time.

1947- The GM-Delphi main building, paint storage building and maintenance garage were all present at this time. However, the maintenance building appears to be smaller in size. The south and east side parking areas were not constructed yet. The undeveloped areas of the site appear to be moderately vegetated, except the future area of Gold Run Pond which was heavily vegetated. A small area of disturbed vegetation was present in the vicinity of present monitoring well MW-15. The current wastewater treatment building, neutralization tanks and waste treatment tanks were not present. The Power House was constructed by this time, however, the above ground storage tanks were not constructed yet (the boilers were coal powered until 1957). The NAPC north of Parkway Avenue was present at this time.

1951 - The East Side parking/Basket Storage area were constructed by this time. The area of disturbed vegetation (near present well MW-15) appeared to be overgrown, but was still slightly visible. The heavily vegetated area near the future site of Gold Run Pond was still undisturbed. The wastewater treatment plant area was not yet developed.

1954 - Gold Run Pond is present at this time. The East and South Side parking areas were expanded and appear to be close to their current size. Two areas of disturbed vegetation were presented east of Gold Run Pond and Creek. One is located east of present monitoring well MW-15 in the same general location of the area noted in the

1947 photograph. The second area of disturbed vegetation is located east of Gold Run Pond just south of Parkway Avenue. This area has the approximate dimensions and shape of a baseball diamond. Based upon information obtained from GM-Delphi personnel, it appears that this area of disturbed vegetation was, in fact, a baseball diamond.

1957 - The maintenance building appears to have been expanded or replaced with a larger building. The two areas of disturbed vegetation east of Gold Run Creek were still visible. The wastewater treatment area was still not developed. The 500,000-gallon fuel oil above ground storage tank was present.

1961 - Parking areas appear to be fully constructed and were being used extensively. The wastewater treatment neutralization tanks appear to be under construction, but the two wastewater treatment tanks and main building have yet to be constructed. Sludge bed 5 in Area 7 appears to be present. Sludge bed 1 in Area 10 appears to be in use.

1965 - The wastewater treatment neutralization tanks appear to be completed and in use. The two areas of disturbed vegetation, previously noted are completely overgrown. Sludge beds 1 through 4 in Area 10 appear to be expanded and in use. The die storage area south of the maintenance building and the two 30,000 gallon fuel oil AST's in area three are present at this time.

1977 - The wastewater treatment tanks and building are present at this time. It appears that the facility was in the process of filling in the sludge beds in Area 10. The area surrounding Gold Run Pond appears to be overgrown.

1986 - The sludge beds in Area 10 are completely filled in at this time. The vegetation surrounding Gold Run Pond is less dense and the Pond more visible then in the 1977 photograph.

1991 - Little change in site features from the 1986 photograph.

SECTION 3

PHYSICAL SETTING

3.0 PHYSICAL SETTING

The following information regarding the Environmental Setting of the GM-Delphi, Trenton site was obtained from the various previous investigation reports listed in Section 2.3

3.1 Site Topography and Drainage

The GM-Delphi facility is located in Ewing Township, Mercer County, north of Trenton, New Jersey. The site is located in a fluvial drainage basin to the north and east of the Delaware River. The watershed general topographic dip and stream flow are all south to southwest. This region exhibits generally subdued relief and low topography (e.g., 50 to 350 ft of elevation). Land use ranges from moderate to intense development, especially near the major highways and rail rights-of-way. Two streams, the Shabakunk and Gold Run Creeks, provide surface drainage for the area in the vicinity of the site. Both streams flow towards the south and west and terminate in the Delaware River. Gold Run Creek enters GM-Delphi's property from the north by way of a culvert beneath Parkway Avenue. The Creek flows south-southwest through the property and separates the developed portion of the Site to the west from that which is undeveloped to the east.

Mercer County includes parts of two geomorphic provinces: the Piedmont lowlands and the Atlantic coastal plain. The contact between these two provinces is identified by a ridge of Paleozoic and Precambrian metamorphic rocks that outcrop well south of the site and along the banks of the Delaware River. The ridge is exposed at the falls (i.e. the fall line) at Trenton.

3.2 Site Geology

3.2.1 Surficial Soils

Surface and near-surface soils at this site are reported to be mixed "cut and fill" of undefined identity and composition. In addition to fill material obtained from local sources, these soils are likely to include local soils that have been reworked by construction activities. The original soils on-site and/or the local sources of fill probably consisted of deeply weathered, well-drained upland soils. Site boring logs show that the native soils, where undisturbed, comprise the uppermost 1-2 ft of

unconsolidated sediment on-site. In general, the soil horizon is least disturbed in the northern and eastern portions of the Site in the vicinity of Gold Run. By comparison, the heavily reworked areas within the southern and central portions of the GM-Delphi complex contain as much as 4 to 15 ft of mixed fill, soil, and overburden sediments.

The Mercer County, New Jersey Soil Conservation Service identifies the local soil types as Sassafras and Matapeake soils (the name Galestown is sometimes used for Matapeake). Regardless of their nomenclature, these soils were developed from pre-existing fluvial and glacial outwash sediments. The uppermost sandy facies of these sediments were reworked and developed into the Sassafras soils. The finer-grained sediments associated with the generally broad, flat, and periodically flooded areas developed the Matapeake (or Galestown) soil cover.

Both the Sassafras and Matapeake soils are generally well-drained. The shallow horizons of the Sassafras display permeabilities of up to 2 in/hr (=1500 ft/yr). The deeper Matapeake soils display significantly lower permeabilities of $\leq$0.2 in/hr (=150 ft/yr). Barriers to infiltration into the underlying overburden and/or bedrock are unknown and/or undescribed for these soils. Given the well-drained and generally permeable nature of these soils, they are likely to provide significant recharge to the overburden groundwater beneath them.

3.2.2 Overburden Geology

Overburden geology in the vicinity of the GM-Delphi facility is reported to include a complex mix of preglacial riverine and floodplain deposits. These unconsolidated sediments include interbedded fluvial sandy silts and clays, sands, and gravels, which unconformably overlie bedrock of Triassic age.

The fluvial overburden sediments, such as those observed beneath the site, have been investigated, mapped, and reported by numerous investigators. Outwash sands and gravels are found to the south and west of the site and are associated with deglaciation. They were deposited by meltwater streams flowing generally southward from the receding glaciers. The fluvial sediments are those associated with interglacial or preglacial time, when streams other than those produced by glacial meltwater were depositing sediment in a subaerial environment.

The overburden sediments observed at the GM-Delphi facility strongly reflect the composition of the bedrock beneath them. The Stockton Formation beneath the site is comprised of arkosic, hematite-stained sedimentary rocks of Triassic age. The layer of fluvial overburden material overlying the Stockton is relatively thin, so it is likely to reflect a mineral composition similar to that of the Stockton. The lithology of the overburden sediments noted in site boring logs confirms this hypothesis.

3.2.3 Bedrock Geology

The uppermost bedrock unit beneath the overburden of the site and its immediate surroundings has been identified through previous investigations as the Stockton Formation. The Stockton Formation is part of the larger Newark Group of Triassic-age sedimentary rocks which originated within the depositional system of an ancestral stream system draining an upland to the southeast. The Stockton Formation consists of "cycled" strata of fine-to-medium grained sandstones, coarser-grained sandstones and conglomerates, and finer-grained siltstones and mudstones (shales). However, strata of conglomerates and cemented coarse-grained sandstones are not as common as the other lithologies within the Stockton Formation. The strata of the Stockton Formation (as well as other formations in the Newark Group) are typified by their nearly homogenous rust to deep red-brown coloration caused in part to hematite (iron) staining. However, some Stockton-age subunits exhibit the blue-green coloration indicative of copper staining. While the iron-rich staining is dominant in the Stockton Formation, which underlies the site, the boring advanced for MW-17A (as well as for several previous borings) encountered 1 to 2 feet of copper-stained strata. Therefore, it is likely that the concentrations of iron and copper detected in the site's soils and groundwater are representative of background concentrations.

The Stockton Formation occurs as outcrops and bedrock as far north of Trenton as Rockland County, New York, and south to its contact with the ridge of Paleozoic and Precambrian metamorphic rocks found along the Delaware River. A review of boring logs for monitoring wells completed into the bedrock at the site has shown that fine-to-medium grained sandstones and shales dominate the strata of the Stockton Formation observed on-site. Borings logs indicate the zone of moderate to heavily weathered bedrock ranges from 2-10 feet thick. The transition from fractured to competent bedrock in the subsurface is typically marked by a compositional change from the sandstone to harder,

finer-grained siltstone and mudstone strata. The competent bedrock surface slopes from the northwest (approximately 117 feet AMSL at MW-17A) to the southeast (approximately 94 feet AMSL at MW-7A at the southern end of the property). Well locations are shown in Figures 5-15 through 5-18 and on Plate P-2.

The Stockton Formation plunges at low angles under the Lockatong Argillite Formation to the north and west. The Stockton and the Lockatong formations are both deformed and dip in that direction, although the angles of dip vary depending on degree of structural deformation. The bedding planes in the Stockton beneath the GM-Delphi site dip to the northwest at approximately 8 to 10°. It is noteworthy that the dip of the bedding planes is in the opposite direction of the slope of the competent bedrock surface, which is towards the southeast.

3.3 Site Hydrogeology

URSG has reviewed boring logs and hydrogeologic data from the wells installed during this investigation, as well as from previous investigations to evaluate the hydrogeologic conditions of the GM-Delphi, Trenton site. Two aquifers have been identified as a result of this evaluation which are generally consistent with those identified during previous investigations (Ref. 14, Ref. 19). The aquifers identified by URSG include a shallow aquifer occurring in the overburden and weathered bedrock, and a bedrock aquifer occurring in the Stockton Formation. Additional information regarding the hydrogeologic conditions of the site based upon the findings of this investigation and previous investigations is including in Section 5.13.

3.4 Well Records Search

The locations of wells within a one mile radius of the GM-Delphi site were identified by utilizing information from NJDEP Division of Water Resources and the United States Geological Survey. The information obtained from this well search is summarized in Table 3-1.

The area is serviced by a public water supply, however, a total of 173 domestic wells, and 233 monitoring wells, and 15 other special purpose wells also were identified as being located within a one mile radius of the site. The other special purpose wells may include one of the following usage

types; irrigation, light industrial, swimming pool, lawn sprinklers, cooling, school, air conditioning, or office. Of the wells identified, 58 domestic, 99 monitoring wells, and 6 special purpose wells are located within a ½-mile radius of the site. These wells are further divided by location in four quadrants for the ½-mile radius and the 1-mile radius on Table 3-2.

The locations of the wells were plotted using the New Jersey Rectangular Coordinate Grid System for Location of Wells. The approximate locations of the domestic/industrial and monitoring wells within a one mile radius as plotted using the above outlined system are shown in Figure 3-1. All locations shown in Figure 3-1 are approximate since the New Jersey Rectangular Coordinate Grid system only locates wells down to a given unit. The rectangular coordinate system is a seven digit number based upon the New Jersey State Atlas Sheets. The first two digits of the number refers to the number of the State Atlas Sheet. The second two digits represent one of twenty-five blocks, each made up six minutes of latitude and longitude. The fifth digit represents one of nine rectangles (contained within each block) each consisting of two minutes of latitude and longitude. The sixth digit represents one of nine smaller rectangles (contained within each rectangle) called a square. The seventh digit represents one of nine even smaller rectangle units (contained within each square) called a unit. The well location marks shown have been placed within the units based upon street addresses or have been marked adjacent to buildings within the given units. Thus, the locations of the wells shown should only be used to obtain a general indication of the location and distribution of wells surrounding the GM-Delphi facility.

SECTION 4

INVESTIGATIVE SCOPE

4.0 INVESTIGATIVE SCOPE

The ISRA Remedial Investigation Plan for the GM-Delphi site was prepared by McLaren/Hart Environmental Engineering Corporation and revised by URSG based upon the comments that the NJDEP included in the work plan approval letter dated December 17, 1993.

The sampling program reported herein was conducted from February 7, 1994 through April 30, 1994. The results of this ISRA sampling program are presented in Section 5. The results of prior sampling from previous investigations is included in the ISRA Remedial Investigation Plan (RIP).

The proposed RIP included the installation of 3 monitoring wells, two rounds of groundwater sampling of the three new wells and six existing wells, the advancement of soil borings and collection of soil and sediment samples from the borings. The plan also included provisions for the collection of wipe samples from stained areas of pavement. The selection of the soil and groundwater analytical schedules were based upon the historic use of each of the potential areas of concern. The various analytical schedules developed included the following analyses: total petroleum hydrocarbons (TPH); polynuclear aromatic hydrocarbons (PAHs); polychlorinated biphenyl (PCB); target compound list volatiles +10 TIC's (VOA+10); priority pollutant base neutrals + 15 TICs (PPBN +15); priority pollutant metals (PPM), cyanide (CN); and pH. All samples collected, except the second round groundwater samples, were analyzed by Coast-to-Coast Analytical Services of Westbrook, Maine. The second round groundwater samples were collected and analyzed by EMSL Analytical Services of Westmont, New Jersey.

4.1 Soil Boring Program

A total of 89 borings, of various depths, were advanced at the GM-Delphi facility to characterize subsurface soils and sediments. Sample locations and depth intervals were selected in accordance with the remedial investigation work plan and the NJDEP remedial investigation work plan approval letter dated December 17, 1993, except where field conditions required changes. Deviations from the RIP are outlined in Section 4.1.1.

In accordance with the Work Plan, three of the borings were completed as monitoring wells. A discussion of the monitoring well installation program is included in Section 4.2.1.

Soil samples (from borings greater than 3 feet deep) were collected using either 3-inch or 2-inch split spoon samplers driven through 4-1/4-inch I.D. hollow stem augers using standard penetration techniques (ASTM 422). Shallow soil samples (less than 3 feet deep) were collected using a 3-inch I.D. bucket auger. Sediment samples collected from Gold Run Creek and Pond were also collected using a 3-inch ID bucket auger. Soil characteristics at each boring location are described in the soil boring logs, Appendix A. Soil samples were field screened for contamination by visual observation of staining and by scanning each sample with a photoionization detector (PID) for organic vapors. A summary of the soil/sediment samples collected and the analyses performed is included in Table 4-1.

4.1.1 Variances from the Remedial Investigation Work Plan

This section discusses sampling variances in general. Variances for individual borings are summarized in Table 4-2 and will be discussed by Potential Area of Concern in Section 5. All soil sampling was performed in accordance with plans, except where noted below.

4.1.1.1 Variances in Sampling Method

Numerous soil samples were obtained using 3-inch diameter split-spoons rather than the standard 2-inch split spoons. The 3-inch split-spoons were used due to the need for large sample volumes at some sample intervals. Although 3-inch split-spoons were used, the standard penetration (ASTM 422) method was followed. The split-spoon diameter used for each boring is noted on each boring log.

4.1.1.2 Variances in Soil Borings

The RIP called for a total of 10 soil borings in the former sludge drying bed area (Area 10). Two additional borings were completed. The additional borings (SB-10-S0-5A and SB-10-SO-11) were advanced to further characterize the extent of the former sludge drying beds.

An additional soil boring was advanced in Area 1 adjacent to the area where a press was stored. This boring location was requested by the NJDEP in the Work Plan approval letter.

Two post-excavation soil borings were proposed to test soils in Area 2 along the underground piping at the former paint solvent tanks. The piping had not been excavated at the time of the RI and, therefore, the borings were not completed.

4.1.1.3 Additional Sampling Intervals

Additional sample intervals were collected in several boreholes in order to delineate natural material and/or clean zones. These additional sample intervals are presented in Table 4-1.

4.1.1.4 Variances in Sample Depth or Intervals Not Sampled

A total of 35 proposed sample intervals were not collected. These samples were not collected due to field conditions such as no change in stratigraphic composition, lack of visual contamination, or that excavation work required for sampling had not been completed (i.e., excavation of the former primary sludge settling tanks).

Sample intervals from many of the borings were changed due to poor sample recoveries and the need to collect additional volume required for the analytical schedule. A summary of the variances in sample depths and intervals not sampled is included as Table 4-2.

4.1.1.5 Variances in Analytical Schedule

Variances were made in the analytical schedule for 3 samples. These variances are summarized in Table 4-2.

4.1.1.6 Variances in Boring Locations

Some borings were advanced in locations different than proposed in the RIP. These changes were not changes in relation to the area of concern. Instead, they were adjustments made due to field

conditions (i.e., areas of staining were in locations that did not correspond to the proposed locations). These adjustments were necessary since the proposed locations submitted in the RIP Plan were based upon approximate reference points.

4.2 Groundwater Investigation Program

Pursuant to NJDEP's Work Plan Approval letter dated December 17, 1993, three groundwater monitoring wells (MW-18, MW-19, and MW-20) were installed downgradient of the manufacturing building in order to assess the potential impact of historical operations and the industrial sewer system located beneath the building. The three new wells and existing well UST-1 were sampled to evaluate the groundwater quality in this area of the site. In addition, five existing UST monitoring wells were sampled to evaluate groundwater quality in the vicinity of the former gasoline USTs.

This report also includes a summary of analytical results from a February 1994 round of plant-wide quarterly groundwater samples. Those samples were collected and analyzed by EMSL Analytical Services for compliance monitoring in support of the facility's NJPDES permit (#NJ0053296).

4.2.1 Monitoring Well Installation

The three groundwater monitoring wells were installed at the locations shown in Figure 5-15 and Plate P-2. The wells were installed in accordance with procedures specified in the RIP.

Prior to any intrusive work, a utility check was made by GM-Delphi personnel to ascertain the exact location of underground utilities, and any other underground structures. The planned locations of the boreholes were then adjusted to prevent damage to existing subsurface structures and utilities.

Each well borehole was advanced with 6-1/4-inch ID hollow-stem augers until termination depth. Soil cuttings were monitored for organic vapors utilizing a photoionization detector (PID).

The well boreholes were generally advanced incrementally to permit the recovery of split-spoon samples at 5-foot increments.

Monitoring wells were constructed of 2-inch Schedule 40 PVC riser and 2-inch Schedule 40 PVC 0.020-inch slot screen. Well packing materials were emplaced by tremie tube into the annular space between the riser/screen and borehole. Monitoring wells were developed after installation by pumping. The wells were considered developed when groundwater parameters such as pH, specific conductance and temperature had stabilized, and if possible, visual clarity of the recovered water had been achieved. Well development logs are included in Appendix C.

4.2.2 Water Level Measurements

Water level monitoring of all site wells was conducted during field activities using an electronic water level meter. Floating product monitoring was also conducted whenever water level monitoring was conducted utilizing an electronic oil/water interface probe. Water level/product monitoring was conducted on February 28, 1994 and March 29, 1994. Floating product was not detected in any of the site monitoring wells. Groundwater level monitoring results are provided in Section 5.13.

4.2.3 Hydraulic Conductivity Testing

The hydraulic conductivities at the three new wells were calculated through the use of slug tests. The slug tests were performed using a Hermit 2100B electronic data-logger.

The slug tests consisted of raising the water level in a monitoring well by inserting a stainless steel or PVC slug and electronically monitoring the return of the water to a static level using the data-logger and a pressure transducer in the well. The transducer measures pressure changes over specific time intervals. The data was then verified by performing a "slug-out" test which consisted of removing the slug and, again, monitoring the return of the water to a static level. Only the three URSG wells were slug tested. Slug test calculations are presented in Appendix D. A discussion of the results is included in Section 5.13.

4.2.4 Groundwater Sampling

The monitoring wells were purged prior to sampling. The wells were purged to evacuate standing water which can be affected by exposure to atmospheric gases in the well and may contain foreign material. A minimum of 3 well volumes were removed from each well prior to sampling. Field parameters, including specific conductance, pH, temperature, and dissolved oxygen, were taken as required by N.J.A.C 7:26E. The wells were purged using either a Waterra Hydrolift Pump or a Grundfos submersible pump. Well purging logs are provided in Appendix C.

Each well was sampled within 2 hours of the initial purge to avoid re-stagnation of the water. The wells were sampled using dedicated 1.5" diameter by 3 ft. long Teflon bailers with dedicated nylon rope. All groundwater samples were collected as specified in the Work Plan. A summary of all groundwater samples collected is provided in Table 4-3.

The first round of groundwater samples were collected by URSG, on March 23 and 24, 1994 and were analyzed by Coast-to-Coast Analytical of Westbrook, Maine. Second round groundwater samples were collected and analyzed by EMSL of Westmont, New Jersey. The second round samples were collected on May 5, 1994.

4.3 Wipe Sample Program

Six wipe samples were collected to confirm that previously stained areas of concrete were cleaned adequately. Samples were collected utilizing acetone/hexane soaked gauze pads (3 inch x 3 inch) and a 25 cm x 25 cm template.

The entire 25 cm x 25 cm area was firmly wiped once in a horizontal and once in a vertical direction. Each pad was soaked with the solvent just before collection. Following collection the gauze pads were placed in pre-cleaned sample jars. A summary of the wipe samples collected is included in Table 4-4.

4.4 Inspection of Sumps, Pits and Trenches

A review of facility drawings and a site walkover was conducted to identify and locate the sumps, pits and trenches (drainage structures) present at the facility. The identified structures are shown in Figures 4-1 and 4-2. The purpose of this inspection was to document the integrity of the structures to evaluate whether each structure may have impacted underlying soils. The inspection process included steam cleaning the structures, a visual inspection for cracks or holes, and photographic documentation. Most of the structures were not inspected since these activities would have interfered with plant operations. Table 4-5 provides summary of the structures which were inspected during the RI.

4.5 Trace Source of Outfall

A 12-inch ID corrugated metal drainage pipe was identified by URSG personnel protruding from the embankment of Gold Run Creek between monitoring wells MW-4 and MW-5. The source of this drainage pipe was traced back to a catch basin in the southeast corner Power House parking lot. The pipe was traced utilizing a metal detector by walking lines perpendicular to the suspected orientation of pipe (as observed from the embankment). A survey flag was placed at each point along each line corresponding to the strongest metal detector signal. The sump located in the southeast corner power house parking lot is approximately 3 feet by 10 feet. The depth of the sump was not established because it was completely filled with sediment. The approximate location and orientation of this drain line is shown in Figure 4-1.

4.6 Geophysical Survey

A Magnetometer Survey of a suspected barium chromate disposal area was conducted by URSG personnel on February 10, 1994. This suspected disposal area is located in the undeveloped parkland (Area 11) along the eastern border of the site. The general location of the survey area is shown in Figure 5-11.

The results of the magnetometer survey indicate buried metallic objects may be present in the suspect area. The magnetic anomaly encompasses an area of approximately 900 square feet. A detailed discussion of the magnetometer survey is included in Section 5.12.4.

4.7 Analytical Data Review

URSG conducted an analytical data review to determine whether the analyses were performed in compliance with the appropriate methods. The analytical methods used in the analysis of the samples and the deviations identified as a result of this review are summarized in the following sections.

4.7.1 Analytical Methods

The analyses were performed in accordance with the following documents: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, November 1990. Methods for Chemical Analysis of Water and Waste, USEPA 600/4-79-020, revised March 1983, and United States Environmental Protection Agency, 40 CFR Part 136, June 30, 1986. The deliverable data packages were consistent with the requirements outlined in NJDEPE Technical Requirements for Site Remediation: N.J.A.C. 7:26 (New Jersey Register, June 7, 1993). The following methods were used for the analysis of samples collected:

Volatile Organic Compounds (VOC) - USEPA Methods 8240 for soils and 624 for aqueous samples.

Base Neutrals (BN) and Acid Extractables (AE) - USEPA Methods 8270 for soils and 625 for aqueous samples.

Priority Pollutant Metals (Metals) - USEPA's 6000 and 7000 series of methods.

Corrosivity (pH) - USEPA Method 9045.

Polychlorinated Biphenyls (PCBs) and Pesticides - USEPA Methods 8080 for soils and 608 for aqueous samples.

Total Petroleum Hydrocarbons (TPH) - USEPA Method 418.1 for aqueous samples. Method 418.1 is also used for soils, per modification in The ECRA GUIDE.

Total Cyanide - USEPA Methods 9012 for soils and 355.3 for aqueous samples.

The data was reviewed against the appropriate methods as well as the general guidelines established in NJDEP "Quality Assurance Data Validation of Analytical Deliverables -TCL-Organics and -TAL- Inorganics, "October 1991 and February 1992, respectively.

4.7.2 Analytical Deviations

An analytical deviation, for the purpose of this report, is an activity that is not conducted in accordance with established plans or procedures (i.e., analytical methods).

Analytical deviations were encountered during the analysis of samples, which could not be resolved prior to laboratory submission of the results. Table 4-6 is a summary of analytical problems encountered during sample analysis. This table identifies the sample ID, medium, fraction and analytical deviation encountered and how the data was qualified as a result of the data review.

Fifteen soil samples analyzed for VOCs exceeded the analytical holding times as shown in Table 4-6. The holding time exceedances ranged form 1 to 8 days. Using New Jersey's validation guidelines (NJDEP, October 1991) as a reference, analytical results from samples exceeding holding times by more than five days should not be used. However, based on professional judgement and the intended use of the data, which is to examine the impact to groundwater of these soils, data for these samples is usable with caution. These samples were analyzed at a detection limit in the ppb range and since the samples were properly preserved at 4° C, containers were sealed, QA/QC parameter results were acceptable, and the maximum holding time exceedance was 8 days, significant losses (i.e., in the ppm range) are not expected. Additionally, the generally comparable contaminant concentrations from these samples with respect to other data from nearby sampling points supports data usability.

The metals and total petroleum hydrocarbon (TPH) data were qualified as estimated ("J" flag) based upon spike recovery exceedances. The pH data was qualified as estimated ("R flag" based upon holding time exceedances). These deviations were not listed in Table 4-6.

4.7.3 Explanation of Data Qualifiers

The following provides definitions of the data qualifiers assigned to results by the laboratory and by URS during the data review process.

U	-	The analyte was analyzed for but was not detected.
J	-	Indicates an estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met.
R	-	The sample results are estimated due to inability to meet holding time requirements. The presence or absence of the analyte cannot be verified.
B	-	The compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank. Therefore, the data is reported.
*	-	The compound was detected, but was determined to be estimated (R) due to contamination in the associated QC blank.
S	-	The reported value was determined by the Method of Standard Additions (MSA).
E	-	The reported result exceeds the linear range of calibration.
NA	-	The analyte was not tested for.

SECTION 5

FINDINGS

5.0 FINDINGS

5.1 Introduction

This Section provides an area-by-area description of each Potential Area of Concern (PAOC). Discussion is provided on variances from the approved sampling plan, deviations in analytical methods and procedures, findings of the field investigation program, and results of the chemical analyses performed on the environmental samples obtained during the field investigation.

The description of each area also includes a history of operations specific to the area. These operational histories reflect conditions as of 1994. Because plant operations are currently (as of spring 1997) being phased out, the present operational status is subject to change.

Soil sample results and stratigraphic conditions are discussed as they apply to individual PAOC or vary from general site conditions. Groundwater sample results and hydrogeological conditions are discussed in separate Sections (5.13 and 5.14). Further detailed information on soil borings and sample descriptions are given in the boring logs found in Appendix A. Boring logs from previous investigations are also provided in Appendix A. Monitoring well construction, groundwater well development purging information, and slug test results are reported in Appendix B, C and D respectively.

The location and summary of analytical parameters for soil borings and groundwater sampling is shown on Plates P-1-1 through P-16. All plates are bound separately and are included in Appendix E. Tentatively identified volatile and semivolatile compounds are summarized in Appendix F.

5.2 Area 1 - Manufacturing Building and East Parking Lot

5.2.1 Description of Area

The manufacturing building is constructed of masonry brick and steel support beams. However certain sections of the southeast and southwest extensions also contain wooden support structures. The building floor consists of 6 to 8 inch reinforced concrete throughout the plant.

Various floor sections of the plating and extrusion lines have also been covered with asphalt and/or wooden floor tiles. Portions of the floor tile are periodically removed and replaced with new blocks. According to records, resulting debris, comprised of wood and asphalt blocks, were disposed as hazardous waste. All sump and containment pits beneath existing and former plating lines are lined with 6 to 8 inches of reinforced concrete and are of similar construction to the concrete floor. Portions of these pits were decontaminated and filled with concrete as certain plating lines became obsolete.

Wastes collected in each of the sump and containment pits have been historically discharged directly to the facility's industrial process sewer system for on-site treatment in the wastewater treatment plant. Other plant utilities such as employee rest rooms and water fountains are connected to sanitary lines and some to storm sewer lines discharging to the ELSA facility. Rainwater collected from roof-top drains is discharged via roof leaders which are connected directly to the main storm water sewer line. This storm water main discharges into Gold Run Creek at outfall locations 001 and 002. Supporting utilities such as heat/electricity, and gas are provided by the Plant Power House and PSE&G respectively.

The existing operational floor space was subdivided into seven units consisting of:

- (Unit #1) - a manufacturing tool room;
- (Unit #2) - the manufacturing area;
- (Unit #3) - a two story manufacturing and shipping area;
- (Unit #4) - general office space;
- (Unit #5 and #6) - the diecast and two story extensions; and
- (Unit #7) - Steel bay receiving area.

Operational processes historically conducted in the manufacturing building include metal stamping, electroplating, painting, bilaminate extrusion, zinc phosphating, and encapsulated glass operations. A detailed description of the seven units is provided in the RIP.

Unit #1: Manufacturing Tool Room

Operations located in this area include numerous tool storage rooms, an injection molding process area, and an encapsulated glass prep room. Chemical compounds utilized in the tool storage room areas primarily included degreasers containing Safety Kleen Solvent 105-MS. The injection molding process contains 6 operational nylon injection molding lines. The approximate dimensions of each injection molding line are 15'x10'x9'. Each process line area is surrounded by a 6-inch deep concrete lined collection trench. Lubricating oils which collected in the trench were removed by a sump pump and transferred to a mobile collection tank, before being shipped off-site for oil recycling.

When the encapsulated glass prep area was in use, an adhesive bond was applied to window glass in preparation for further processing. Chemical compounds utilized in an associated spray gun application parts washing process included methyl ethyl ketone (MEK) and toluene solvents. Occasional service touch-up painting was also conducted in this area.

Unit #2: Manufacturing Area

Manufacturing processes operational in this area included bi-laminate extrusion lines, encapsulated glass molders, PVC extruder lines, manual and electronic seat adjuster manufacturing and assembly lines, metal stamping and fabrication lines with associated high speed presses, a zinc phosphate machine, and the No.12 plater line. Manufacturing processes historically conducted in this area also included the operation of a diecasting area (later known as bi-laminant lines 12 through 15), a plastic molding line (later known as electric seat adjuster line #2), lacquer and enamel painting area (later known as manual seat adjuster fabrication presses) and former plating lines #4, #5 (acid-wash, nickel and copper), #6 (chromium), #9 and #11 (copper, nickel and chromium).

Bi-laminant Extrusion

The bi-laminate extrusion process began operations at the facility in 1986. Stainless steel and aluminum coil products were roll formed and coated with a thin PVC coating in a co-extrusion/roll forming process. An in-line cleaning and adhesive application was conducted prior to the application of the PVC coating.

Encapsulated Glass Molders

The encapsulated glass molder area was formerly used for the anodized aluminum painting operation. In approximately 1976, encapsulated glass molding machines were installed. This operation involved application of a thin film of adhesive to automotive side window glass, an operation which occurred in the encapsulated glass prep area, and placement of the glass in a molder where the glass was encapsulated in a frame of PVC.

Extruder Line

Operation of the extruder line process for the production of PVC body side moldings began in approximately 1970.

Metal Stamping and Fabrication.

The metal stamping and fabrication line process involved the rolling and stamping of metal sheets into the desired parts. Excess metal from the stamping operation was collected in bins and shipped off-site for recycling.

Zinc Phosphater

The heavy zinc (black) phosphater was put into operation in 1977 in order to increase the corrosion resistance of the seat adjusters. This unit replaced a former water-based paint system.

Electroplating

Plating has been conducted at the facility since 1948. From 1954 to 1988 a total of 10 copper and/or nickel plating machines and 2 aluminum anodizers were used. As of 1994, one plater (plating line No. 12) was operational. Zinc diecast parts were electroplated with copper, nickel, and chromium in plating process tanks. Plating solutions (acid copper solution, chromic acid solution, Semi-Brite nickel solution, Brite nickel solution, and caustic) were stored in ASTs located in the solution storage section of the manufacturing building (Unit #6). Plating solution was pumped via

overhead pipeline to the plating process tanks. Plating buildup on the dip racks was removed using nitric acid in the steel bay building (Unit #7). At one time, the spent nitric acid was returned to the vendor for reclamation of the nickel metal. More recently, the spent acid was treated in the on-site waste water treatment system.

3,300-Gallon Underground Oil Tank

A former underground waste oil "tank" was located beneath the building floor adjacent to the encapsulated glass GKN molders in Unit #2. Although registered as a tank, the structure was effectively a sump, installed in the late 1970's and is of concrete construction. This UST/sump reportedly contained waste hydraulic oil generated during operation of the GKN molders.

In 1988, the UST/sump and associated piping were abandoned in place. According to facility records, the UST/sump and piping system were filled with a caustic sodium hydroxide solution, purged, and triple rinsed with water. Subsequent to decontamination, the UST/sump and piping were sealed with concrete.

During the May 1993 NJDEP facility inspections, a pit was noted in the manufacturing area where a piece of equipment had recently been removed. The pit was cleaned and sealed with concrete in the same manner as the concrete sump, described above. No breaches in the pit's integrity were noted during its decommissioning, and no sampling was proposed.

UNIT #3: Manufacturing and Shipping Area

The Manufacturing and Shipping area is a two-story unit that consisted of various storage areas and painting operations. The first story of Unit #3 was primarily occupied by warehouse space with an associated shipping office and shipping dock. Other supporting operations located in this area included a basket storage area, a security room, a chemistry lab, and battery storage area. The remainder of the floor space was occupied by the ELPO-Powder Coating operation.

ELPO Powder Coating

This powder paint operation began in 1987. The ELPO light zinc phosphater process consisted of electrophoretic deposition of a nonhazardous water-based ELPO primer and acrylic powder paint on parts. Trace amounts of solvents are present in the ELPO primer.

Operations located on the second level of Unit #3 included a packaging area, an ELPO applique, and an ELPO paint salvage area. Supporting operations also located in this area included engineering offices and conference rooms, a blue print room, a mail room and stationary store, lockers, a cafeteria and kitchen, a computer room, and a training center. According to facility personnel, manufacturing operations formerly conducted on the second level of Unit #3 included an electrostatic painting and zinc phosphator, and a paint mixing area which ceased operations prior to 1994.

Electrostatic Painting

The electrostatic painting area was in operation from approximately 1955 to 1988. The primary paints used were enamels. The primary solvent utilized was Aromatic 100, which was purchased in bulk, stored in an above ground storage tank, and pumped to the second floor paint mix room for use. Toluene, xylene, and other solvents were also used for paint mixing and spray gun purging.

UNIT #4: Offices

The Unit #4 area of the manufacturing building includes general employee office space and conference room area. No manufacturing operations or storage of any significant amount of chemicals are known to have been conducted here.

UNIT #5: South Extension West

Manufacturing processes operated in the Unit #5 area included zinc die cast machines, a zinc alloy remelt area, a buffing section, and a door handle assembly area. Supporting operations also

included an equipment storage room, a maintenance area, and a buffing compound storage room. Manufacturing processes formerly conducted in this section included the operation of plating lines #2 and #7 (known in 1994 as the interior handle buff area), and the dichlorobenzene degreaser area (known in 1994 as the interior door handle assembly and buffing compound storage area), and a zinc reclamation pit.

Zinc in the die cast operation was smelted on-site and cast into automotive door handles and other parts. After they were allowed to cool, excess material was removed from the parts and returned to the smelter for re-use. The zinc parts were then further processed in the plating and painting areas. The process sewer and associated drains run through this unit.

UNIT #6: South Extension East

The Unit #6 area of the manufacturing building consists of a solution storage area and limited office space. Six above ground storage tanks containing plating solutions were located in this area. These ASTs include: 35,000-gallon copper cyanide; 20,000-gallon chromic acid; 25,000-gallon acid copper; 18,000-gallon Semi-Brite nickel solution; 18,000-gallon Brite nickel solution; and 15,000-gallon caustic. According to facility personnel, plating solutions were mixed at the plater, using raw materials diluted with water. As previously discussed, plating solutions were pumped via overhead pipelines directly to the plating process tanks located at the No.12 Plater line in Unit #6. Secondary containment in the tank area consisted of a concrete-lined trench. During the May 1993 inspections, some corrosion of the concrete floor was noted.

UNIT #7: Receiving Area

Unit #7 was utilized as a receiving and storage area for purchased parts, plastics, encapsulated molds, and aluminum/steel coil. Additional manufacturing processes operated in this area included a nitric acid rack strip area, and several concrete lined metal scrap pits. Operations formerly located in the Unit #3 section included zinc phosphate and chromium washing (known in 1994 as plastic storage), paint application, deionized water processing, cyanide-zinc barrel plating (known in 1994 as purchased parts receiving), an aluminum anodizer and caustic aluminum etching operation, and the anodized phosphoric and chromic acid stripping area.

The aluminum anodizing process was operated from approximately 1960 to 1980. Aluminum stampings and roll-formings were buffed and processed through two anodizers. The process produced a hard aluminum oxide (anodize) coating on the aluminum moldings using various acids and an electric current.

The cyanide-zinc electroplating operation was conducted at the facility from 1955 to 1977. In this operation, steel stampings were processed through a barrel plating machine where a zinc coating was electroplated on the steel for corrosion protection.

The scrap steel stampings staged in the scrap bins may be coated with lubricating oil or cutting oil, but not "process wastes" as referenced in NJDEP's plan approval letter. The integrity of the storage bins will be investigated at a time that will not interfere with plant operations.

The pits, adjacent to the railroad spur that were noted during the May 1993 inspections have been identified as valve pits for the city water line that runs from north to south through this building. The line originally ran outside the main building, but was covered when the building was extended.

Exterior Facilities

Former 30,000-Gallon and 18,000-Gallon Above Ground Dichlorobenzene Storage Tanks:

One 30,000-gallon and two 18,000-gallon above ground dichlorobenzene tanks were located outside of the manufacturing building on the south apron in a concrete lined secondary containment system. When in use, these ASTs reportedly contained spent dichlorobenzene solutions generated during operation of the electroplating lines. In June 1985 the tanks were emptied, cleaned and formally abandoned.

In September 1991, GM decommissioned the ASTs during NJDEP approved RCRA closure activities. All closure activities were conducted in accordance with the Soil Sampling and Analytical Plan (December 4, 1990) and Closure Plan (March 13, 1991) submitted to NJDEP. NJDEP subsequently delisted the dichlorobenzene tanks from hazardous waste facility status.

Water Recirculation Unit and Pump House:

The water recirculation pump house is located at approximately the southwestern corner of Unit #5 in the manufacturing building. This water recirculation system consisted of a pump, an aboveground 6' x 8' concrete lined tank constructed of pre-cast concrete, and a cooling tower. Cooling water from the die cast operation was pumped via overhead pipes to the equipment, circulated to the cooling tower, and then re-directed back to the die cast operation. No concerns relating to the historical operation of the circulation pumping apparatus have been identified.

Former Chlorine Storage:

A former compressed chlorine gas cylinder storage area is located east of the decommissioned dichlorobenzene storage tanks. The compressed gas was utilized in the plating operation cyanide destruction process. In 1986-1987 this system was upgraded, using a hypochlorite solution as an alternative. Consequently, use of the compressed chlorine gas cylinders was discontinued. No identifiable concerns relating to the former storage of gas cylinders were noted during the May 1993 site inspections.

Trash Compactor Area

This area includes a rail-line/loading area which was identified during the May 1993 NJDEP inspections. The trench adjacent to this rail-line and dumpster was noted to have standing water with a visible oil layer. There was extensive petroleum staining and sediment buildup in between the rail-lines. The trench towards the rear portion of the compactor was noted to be receiving what appeared to be a hydraulic oil flow, possibly originating from the "RAM" unit. It has been noted that the trench system is tied into the industrial process sewer.

5.2.2 Soil Sampling Variances From the Remedial Investigation Plan

One soil boring was advanced in Area 1 adjacent to the former storage area of a press. A soil sample (SB-1-SO-1) was collected from 0.5 foot depth and submitted for TPH and BN+15 analysis. This boring was advanced as required by the NJDEP Work Plan approval letter. The location of this

boring is shown in Figure 5-1. Sampling and analytical programs were carried out in compliance with the approved RIP.

5.2.3 Soil Sampling Results

The shallow soil boring in this area encountered fine to medium sand with trace amounts of wood fragments. The soil boring was advanced in the small unpaved area approximately 1 foot south of the former press storage area.

The results of the TPH and BN+15 analyses are presented in Table 5-1. A summary of these results are shown on Plate P-1-1.

5.3 Area 2 - Above Ground Storage Tank Area/Primary Switch House

5.3.1 Description of Area

Four ASTs, a propane storage building, and an electrical switching station have been identified in the area located east of the manufacturing building and south of the east parking lot. Details concerning historical usage of the various installations and the status, as of 1994, of each AST are summarized below.

Former 5,000-Gallon Paint Thinner Tank and Former 4,000-gallon Solvent Tank:

A former above ground paint thinner tank, solvent tank and an associated pump station were installed during the 1950's and subsequently decommissioned during 1987-1988. The solvent and paint thinner ASTs were formerly used to store "Aromatic 100" solvent and MEK/toluene/marisol thinner respectively, for use in the paint processes conducted in the manufacturing building. According to facility personnel, Aromatic 100 solvent was pumped directly to the paint room via overhead lines; the thinner however was pumped into 55-gallon drums at the adjacent pump island and transferred to the process line. Facility records indicate that the original solvent tank was cleaned, decommissioned and removed. In 1991, a new process oil tank was placed on the concrete cradles left from the former solvent tank. Hydraulic oil was stored in the process oil tank, pumped from the

tank into 55-gallon drums as needed, and transferred directly to the process line. The decommissioned paint thinner AST, pump station and related underground piping is out of service but remains in place. Records indicate that both existing tanks are constructed of carbon steel and were installed on concrete frames within a concrete lined secondary containment system. No visible staining was identified on the pavement beneath the ASTs during the May 1993 site inspections.

Liquid Propane Gas Tank and Propane Storage Building:

The propane storage building is located east of the manufacturing building. This steel and brick structure was constructed in 1938 and historically has been used for the purpose of storing liquid propane gas cylinders and various bottled gases. One 10,000-gallon liquid propane gas (LPG) tank is also located east of the process oil and paint thinner tanks. The LPG tank was installed in the early 1970's and has been empty since 1989. No identifiable concerns relating to the historical operation of the LPG were noted during the May 1993 NJDEP site inspections.

400,000-Gallon Water Tank:

A 400,000-gallon water tank is located north of the solvent and paint thinner ASTs. Records indicate that the water tank was installed in 1937-1938 and is of steel construction. Water stored in this tank was used to supply the facility's power house boilers. No identifiable concerns relating to tank usage were noted during the May 1993 NJDEP site inspections.

Primary Switch House:

A primary switch house consisting of 3 transformers is located north of the propane storage building. The area surrounding the switching station is covered with gravel. Information obtained from facility records regarding dielectric fluid samples previously collected and analyzed indicate the presence of PCBs in one of the three transformers at concentrations slightly above 500 parts per million.

Two mineral oil filled switches are located adjacent to the transformers. These switches are "canisters" referred to in the NJDEP RIP approval letter. Records indicate the switches never contained PCB dielectric fluids.

5.3.2 Soil Sampling Variances from Remedial Investigation Plan

Two soil borings were advanced in Area 2. Soil samples were collected from 0-0.5 foot depths and submitted for chemical analysis (summarized in Table 4-1). The locations of the borings are shown in Figure 5-2. Two post-excavation borings to test soil along the former paint solvent UST piping were not conducted because the piping had not been removed at the time of the RI. All other sampling and analytical programs were carried out in compliance with the approved RIP except where noted in Table 5-2.

5.3.3 Soil Sampling Results

The two soil borings in Area 2 encountered silt with some fine sand. Both shallow borings were advanced 0-0.5 ft. below the stained surface gravel.

The results of these analyses are presented in Table 5-3. A summary of these analytical results, by boring, are shown on plate P-2-1.

5.3.4 Wipe Sampling Variances from Remedial Investigation Plan

One wipe sample was collected in Area 2. The sample was collected from a stained area located on the concrete pad of transformer M-1. The location of this sample is shown in Figure 5-2. All sampling and analytical programs were carried out in compliance with the approved RIP except the number of samples collected. Only one of the proposed 4 samples were collected due to the limited amount of staining present.

5.3.5 Wipe Sampling Results

The wipe sampling results for Area 2 are presented in Table 5-4. A summary of these Analytical results is shown on Plate P-2-1.

5.4 Area 3 - Power Station and Fuel Storage

5.4.1 Description of Area

The Power House facility, cooling tower, and associated power substation were constructed in 1937 for the purposes of supplying heat and power to the manufacturing building complex. The original power house building contained three coal-powered steam boilers. In 1957-1958, GM constructed a Power House addition, including a fourth oil-fired boiler, and installed three above ground fuel oil tanks south of the boiler house. In addition, all of the remaining three boilers were converted to oil-burning units. Two underground storage tanks (USTs) containing gasoline were formerly located west of the above ground fuel oil storage tank area. These gasoline USTs were removed in 1987 and 1989. A third UST was used for the temporary storage of paint during inside paint process tank maintenance. This tank was formerly located west of the Power House and was also removed during tank closure activities conducted in 1989. The various units within this area are described below.

30,000-gallon and 500,000-Gallon Above Ground #6 Fuel Oil Tanks:

Two 30,000-gallon and one 500,000-gallon above ground fuel oil tanks and associated piping are located south of the Power House within a unlined, gravel-covered secondary containment system. Records indicate that the ASTs were installed in approximately 1954 for the purpose of storing #6 fuel oil. Each of the three ASTs and associated piping are reportedly constructed of carbon steel. The tank exteriors have been insulated with polyurethane foam. The fuel oil distribution system consists of steam heated subsurface piping which has been enclosed in an insulated concrete containment vault.

At the time of installation, the 30,000-gallon ASTs were placed on a supporting steel frame thus eliminating contact with soils. Staining was observed during the May 1993 NJDEP site

inspections beneath the walkway to the 30,000-gallon tanks, as well as the pipe lines running between these tanks and the 500,000-gallon tank. Staining was also noted around the steam condensate blowdown sumps located adjacent to the 30,000- and 500,000-gallon #6 fuel oil tanks.

Potential Units of Concern Surrounding Power House.

The following potential units of concern were identified in the area around the power house during the May 1993 NJDEP site inspections.

West Side of Power House

Surface staining was identified below the powerhouse west side air receiver.

East Side of Power House

Surface staining was identified below the east side air receiver.

Below No. 6 Fuel Oil Port

Surface staining of the concrete was noted during the May 1993 site inspections, resulting from minor drippage during the transfer of #6 fuel oil from road tankers to the inlet for the powerhouse fuel storage tanks.

Truck Parking Area

Surface staining of the gravel was noted in the truck parking area located north of the power house.

Below Grade Pipeline

The No. 6 fuel oil was pumped from the fuel port to the three above ground storage tanks via piping which lies in a concrete secondary containment trench, lined with asphalt and covered with a

removable segmented cover. A leak in the pipeline (circa 1992) was repaired by the plant, and no product appeared to have breached the integrity of the secondary containment. It is noted that the only fuel used has been #6 oil which has an extremely low mobility.

Cooling Tower East of Power House

The cooling tower is located on the east side of the power house. Cooling water, which may have been contaminated was reported to have been discharged to the ground surface adjacent to the cooling tower.

UST Areas

4000-Gallon UST

The 4,000-gallon gasoline UST was installed in 1976 and was used for fueling fleet vehicles. The UST was of steel construction. Eight post-excavation samples were collected in the vicinity of the former 4,000-gallon gasoline UST by LMS during July 1987. The soil samples were analyzed for TPH, BTEX and MTBE. The analytical results indicated a localized area of elevated concentrations of TPH, BTEX, and MTBE.

2000-Gallon UST

Tank number E001 was installed in 1979 and was used for storage of unleaded gasoline that was used to supply fuel for on-site vehicles and equipment. According to the 1988 NJDEP UST Registration Questionnaire, the UST was constructed of steel painted with asphalt and had a capacity of 2,000 gallons. The available documentation relating to the 2000-gallon gasoline UST indicated no evidence of any release to the surrounding soils. As part of a preventive maintenance program, a Petrotite tank test was conducted on the UST and the associated suction line on July 1; 1987 by Raritan Oil Co., Inc. of Edison, NJ. The results of the testing indicated that the UST and piping were "tight". A second Petrotite tank test was conducted on the UST on August 18, 1987 by Raritan Oil Co., Inc. and produced the same result. On July 21, 1989, GM (IFG at that time) sent a Standard Reporting Form to NJDEP to provide notification of their plans for removing the UST. The UST was

removed on November 16, 1989 by Raritan Oil Co., Inc. According to the Site Assessment Compliance Statement (dated January 31, 1990) that was sent to NJDEP, the UST was observed to be structurally sound and there was no evidence that any release had occurred. Post-excavation soil samples were collected on November 17, 1989 for analysis of volatile organic compounds, lead and TPH. No evidence of a release was indicated based on the laboratory analysis. However, holding times for those volatile analyses were exceeded.

Former Underground Paint Tank:

A former 2,500-gallon paint UST, A003, was installed in 1970 and subsequently removed in 1989 during NJDEP-approved tank closure activities. The UST was historically used to store paint collected from the facility paint line process tank in the manufacturing building. Tank registration documents indicate that the tank and associated piping were constructed of single wall carbon steel. The available documentation relating to the 2,500-gallon paint UST indicated there was no evidence of any release to the environment.

5.4.2 Soil Sampling Variances from Remedial Investigation Plan

Thirty-one soil borings were advanced in Area 3. Soil samples were collected from various depths and submitted for chemical analysis (as summarized in Table 4-1). The locations of the soil borings are shown in Figures 5-3A, 5-3B, and 5-3C. All sampling and analytical programs were carried out in compliance with the approved RIP except where noted in Table 5-5. Variances in laboratory protocols are discussed in Section 4.8.

5.4.3 Soil Sampling Results

30,000-Gallon and 500,00-Gallon Above Ground Storage Tank Area

The eight soil borings advanced in this area primarily encountered fine to medium sand with varying amounts of silt and gravel. The only exception noted was boring SB-3-SO-6 where the soils encountered consisted of silty clay. All borings in this area were advanced below the surface gravel.

Eleven soil samples were collected and submitted for TPH and PAH analysis. The results of these analyses are presented in Table 5-6. A summary of the analytical results, by boring, are shown on Plate P-3-1.

Potential Units of Concern Surrounding the Power House

The seven borings advanced in this area showed no significant differences from the subsurface soils of the above ground storage tank area. All borings in this area were advanced below the surface gravel.

Seven soil samples were collected and submitted for chemical analyses. TPH analyses were performed on all seven samples. PAH analyses were performed on five of the seven samples (SB-3-SO-13, SB-3-SO-14, SB-3-SO-15 SB-3-SO-16 and SB-3-SO-17). Metals and pH analyses were performed on two of the seven samples (SB-3-SO-11 and SB-3-SO-12). BN+15 analyses were performed on two of the seven samples (SB-3-SO-13 and SB-3-SO-17). The results of these analyses are presented in Table 5-7. A summary of the analytical results, by boring, are shown on Plate P-3-1.

UST Areas

Former 2,000 and 4,000-Gallon UST's

Six of the eleven borings advanced in the location of the former gasoline tanks encountered backfill to depths ranging from 4 to 8 feet. The backfill primarily consisted of fine to medium sand. Silt with variable amounts of sand and clay was encountered below the backfill to as deep as 17 feet (The depth of weathered bedrock). The remaining five borings primarily encountered silt with variable amounts of sand and clay.

Twenty-two soil samples were collected from the 11 borings for VOA analysis. Two samples were collected from each boring to delineate the vertical and horizontal extent of petroleum contamination (if present).

The results of these analyses are presented in Table 5-8. A summary of the analytical results, by boring, are shown on Plate P-3-2.

Former 2,500-Gallon Underground Paint Tank

Five soil borings were advanced in this area and encountered backfill to an average depth of 9 feet. The backfill consisted of fine to coarse sand with trace amounts of silt. Silt with trace amounts of clay was encountered below the backfill to a depth of 13 feet (the deepest boring drilled).

Ten soil samples were collected from the five borings and were submitted for VOA analysis. Samples from each boring were collected from the bottom of the backfill and from the silty soils immediately below the backfill.

The results of these analyses including all detected compounds are presented in Table 5-9. A summary of the analytical results, by boring, are shown on Plate P-3-3.

5.5 Area 4 - Process Wastes and Hazardous Drum Staging Area

5.5.1 Description of Area

The process waste and hazardous drum storage area is located south of the 500,000-gallon No.6 fuel oil tank and northeast of the wastewater treatment plant. The staging area originally consisted of a concrete pad. In 1985, a bermed concrete secondary containment system was constructed. A catch basin located at the southeast corner of the containment area discharges runoff directly to the waste water treatment system. Both hazardous and nonhazardous wastes including oils, solvents, adhesives, paints, and metal bearing sludges have historically been staged at this location. In order to delist the GM-Delphi, Trenton Plant from an approved Treatment, Storage and Disposal (TSDF) facility status to a "less than ninety (90) days" generator status, GM (as IFG at that time) completed a RCRA Closure of the drum staging area. All closure activities were conducted in accordance with the Soil Sampling and Analytical Plan (December 4, 1990) and Closure Plan (March 13, 1991) submitted to NJDEP. Closure activities included decontamination of the concrete containment system and soil sampling. A findings report was prepared by GM and submitted to

NJDEP on April 27, 1992. Results of the soil sampling investigation around the hazardous drum staging area revealed the presence of elevated BN and/or metals concentrations in eleven of twelve samples collected. NJDEP indicated (September 8, 1992) that based on results of the soil sampling investigation, remediation of the area shall be required.

Hazardous wastes were staged in the drum staging containment area within the less than ninety day time frame. No staining or other indications of leakage were noted on the concrete floor during the May 1993 site inspections.

A total of five waste roll-off containers were located on the pavement surrounding the hazardous waste staging area. A sixth roll-off containing phosphate sludge was staged in an unpaved area adjacent to the northwest corner of the hazardous waste area. Facility wastes staged in the containers included buffing dirt, asphalt and wood floor tiles with oily debris removed from the manufacturing area, industrial construction debris, and phosphate sludges. All materials are non-hazardous with the exception of the asphalt and wood floor tiles, which are classified as "New Jersey Hazardous". Appropriate off-site disposal was used for each of the waste streams. No staining was observed on the pavement surrounding the waste containers during the site inspection. The location of the Hazardous Waste Drum Staging Area is shown in Figure 5-4.

5.6 AREA 5 - Raw Materials Storage and Maintenance Area

5.6.1 Description of Area

The Storage and Maintenance Building was constructed in the 1940's. This structure was originally used as a salvage and storage area during World War II. Specific operations conducted by GM subsequent to that period include forklift and machine press repair, light equipment maintenance, electronics and pipe fitting shops, welding and sheet metal shops, inventory storage, and a shipment receiving area. Chemicals used or stored in the building included lubricating oils, cutting oils and acetylene gas for use in the welding area. According to information obtained from GM personnel, lighting ballasts which may contain PCB material were stored in the electronics shop. No floor drains were identified during the May 1993 site inspections.

Support operations and additional storage areas exterior to the Maintenance Building include a raw materials drum storage pad, a vehicle wash area and a series of metal scrap storage bins.

Shipping and Receiving Area:

A shipping and receiving loading dock area is located at the northwest corner of the Maintenance Building. There are no records of any spills in this area and no evidence of staining on the surrounding pavement. A drainage trench is located below the loading dock area.

Vehicle Wash Area:

A vehicle/equipment washing and staging area is located northeast of the salvage storage area. This area consists of a concrete pad surrounded by a concrete lined collection trench. According to facility personnel, water in the collection trench is discharged directly to the process sewer. Some minor staining was observed on the pad during the May 1993 site inspections. The concrete pad, collection trench and surrounding pavement all appeared to be in good condition.

Raw Materials Drum Storage Pad:

A raw materials drum storage area was located east of the Maintenance Building and was relocated inside (circa 1994). The drum storage pad and surrounding area is paved with concrete. This area is bordered by an unpaved grassy area to the north, however all surface water drainage associated with the raw materials drum storage pad is directed to the south. Various chemicals stored in this location included sulfuric acid, hydrochloric acid, acidic cleaners, nitric acid, and metal working oils. No staining or other evidence of leakage was identified in the drum storage area during the site inspection.

Transformers were formerly staged on the raw materials storage pad in transformer location #2, on the main building roof. These transformers were non-PCB containing (i.e. non-detect, <5ppm PCB), as indicated by the analytical results of the dielectric fluids are provided in Section 8.0, Table 8.1 of the RIP. A small stained area was observed on the pad adjacent to the transformers during the May 1993 NJDEP site inspections.

Metal Scrap Bins:

Metal scrap bins are located east of the Maintenance Building and raw materials drum storage pad. The area beneath each partitioned bin is paved with concrete. Materials historically stored here included bulk buffing media, wooden pallets, outdated metal die casts, and scrap metal collected from the metal stamping operation for recycling. Several open top roll-off units containing the aforementioned materials were also located on the pavement adjacent to the metal bin storage area. Minor staining was observed on the pavement surrounding the metal bin storage units.

Truck Unloading Area:

A drainage trench in the truck unloading area was observed by the NJDEP during the May 1993 site inspections to contain sediment.

5.6.2 Variances from Remedial Investigation Plan

Three soil borings were advanced adjacent to the scrap metal bins in Area 5. Soil samples were collected from 0-0.5 foot depths for PAH, TPH and PPM analyses. In addition, three wipe samples for PCB analysis were collected from the area of staining adjacent to the transformers staged on the raw materials storage pad (following cleaning). The locations of these samples are shown in Figure 5-5. All of the sampling was carried out in compliance with the approved RIP.

5.6.3 Soil Sampling Results

The three shallow soil borings advanced adjacent to the scrap metal bins encountered fill consisting of silt and sand mixed with ash and cinders. All sample intervals referenced are from below the concrete pavement.

Three soil samples were collected for TPH, PAH and Metals analysis. The results of these analyses are presented in Table 5-10. A summary of the analytical results, by boring, are shown on Plate P-5-1.

5.6.4 Wipe Sampling Results

Three wipe samples were collected from the small stained area on the raw materials drum storage pad. The results of these analyses are presented in Table 5-11. A summary of the analytical results, by location, are shown on Plate P-5-1.

5.7 AREA 6 - South Parking Lot with Paint Storage Building and Maintenance Garage

5.7.1 Description of Area

The south parking lot is located west of the Maintenance Building and south of the Manufacturing Building. This lot was used for employee parking and the temporary staging of metal parts bins and plastic packaging. A railroad spur intersects the western edge of the lot and terminates at the southwest corner of the Manufacturing Building. Additionally, a paint storage building and vehicle maintenance garage are located northwest of the parking area. Finally, a 200,000-gallon above-ground gravity water tower exists south of the paint storage building.

Metal Bin Storage:

The southern and western perimeter of the south parking lot area was used for the temporary storage of empty metal bins and plastic packaging. No environmental concerns relating to the usage of this area were identified during the May 1993 site inspections.

Paint Storage Building:

Chemical materials staged in the paint storage building include acrylic powder paint, wet paints, nonhazardous water-based primer, general maintenance paint, and various plater chemicals. All chemicals were stored in limited quantities for use on the painting and electroplating lines. No floor drains are known to exist in this building. In addition, no evidence or record of any discharges have been identified.

Maintenance Garage:

The garage was used primarily for the maintenance of forklifts and other light vehicles. Limited quantities of materials associated with the maintenance operations such as lubricating oils, hydraulic oils and compressed gases were stored in this area. A single floor drain was identified in the store room. This drain is reportedly connected to a storm drain. No evidence of spill releases or staining were identified around the floor drain during the May 1993 site inspections.

550-gallon Above-ground Diesel Storage Tank:

A 550-gallon AST was located south of the garage. Diesel fuel was stored in this AST for the purpose of fueling small vehicles. The diesel tank was removed following the 1993 NJDEP site inspections. Some oil staining was also noted during the 1993 site inspections on the surrounding soils located beneath a fill port.

200,000-gallon Above-ground Water Tank:

A 200,000-gallon water tank is located south of the paint storage building. Records indicate that the AST was installed in the late 1940's and is of steel construction. Water stored in this tank was used to augment the facility's fire emergency supply. No concerns relating to tank usage were noted during the May 1993 site inspections.

Fire Fighting Practice Area:

The open area south of the garage was used as an employee fire fighting training area. Pans of gasoline were ignited and the fires were put out with fire extinguishers. The only material reportedly used for fire training was gasoline.

5.7.2 Variances from Remedial Investigation Plan

Four soil borings were advanced in the Above-ground Diesel Storage Tank/Fire Fighting Practice areas. Soil samples were collected from 0-0.5 foot intervals and submitted for chemical

analysis (as summarized in Table 4-1). The locations of the soil samples are shown in Figure 5-6. All sampling was carried out in compliance with the approved RIP.

5.7.3 Soil Sampling Results

550-Gallon Above-ground Diesel Storage Tanks

The shallow soil borings advanced in this area encountered sandy silt with trace amounts of gravel. Both borings were advanced below areas of stained surface gravel.

Two soil samples were collected for PAH and TPH analysis. The results of these analyses are presented in Table 5-12. A summary of the analytical results, by boring, are shown on Plate P-6-1.

Fire Fighting Practice Area

The soil borings advanced in this area showed no significant differences from the soils encountered in the diesel AST area. Five locations were screened using a soil probe and a HNu prior to selecting the two boring locations. Since HNu readings above background were not detected, the two borings were advanced beneath areas of surficial staining.

Two soil samples were collected for BTEX and lead analyses. The results of these analyses are presented in Table 5-13. A summary of the analytical results, by boring, are shown on Plate P-6-1.

5.8 Area 7 - Die Storage and Raw Materials Storage/Former Sludge Drying Bed #5

5.8.1 Description of Area

The die and raw materials storage area is located west of the waste water treatment facility. A railroad spur intersects the eastern edge of the storage area and terminates at the southwest corner of the maintenance building. This area is currently used for the temporary storage of dies and

drummed raw materials. According to facility personnel, the unpaved area east of die cast storage was formerly operated as a sludge drying bed (sludge drying bed #5). Finally, a 550-gallon above ground gasoline tank is located north of the former sludge drying bed and northwest of the waste water treatment facility.

Die Storage:

The storage area was historically used for the temporary staging of steel dies and molds utilized in the zinc die cast operation. When not in use, the dies are inventoried, placed on wooden pallets, and temporarily staged on the concrete pavement until additional usage is required.

Staining in the die storage area noted during the May 1993 site inspection is likely to be as a result of rainwater contacting grease based lubricant materials on the dies.

Raw Materials Drum Storage:

The raw materials drum storage area, at one time, was located outdoors at the southwest corner of the Maintenance Building and north of the die cast storage area. Later, it was moved inside to the equipment Storage Area. The outdoor raw materials area is approximately 60' x 70' and is paved with concrete. This area was historically used for the storage of drummed raw materials including cutting oils, lube oil, Chem-Clean concentrate, and caustic potash. Chemical materials stored here were primarily used in operations conducted in the maintenance building. No staining or other evidence of leakage were noted during the May 1993 site inspections.

550-gallon Above Ground Gasoline Tank:

The 550-gallon gasoline AST was installed in 1989 for the purpose of fueling maintenance equipment. According to facility records the tank is of steel construction and is located within a metal secondary containment system with a metal roof. No evidence of leakage or staining was noted in the secondary containment during the May 1993 site inspections.

Former Sludge Drying Bed #5:

Former Sludge Drying Bed #5 is located west of the waste water treatment plant and east of the die cast storage area. According to facility records, the asphalt lined impoundment was operated for a limited period during the late 1950's. Process waste waters generated from painting and plating operations have been historically treated at an on-site waste water treatment facility. Sludges generated during the waste water treatment process were dewatered in the sludge drying bed and eventually disposed of off-site. GM discontinued use of the sludge drying bed #5 due to mechanical operational problems with the pumps associated with the system. Alternatively, four new sludge drying beds were constructed east of the waste water treatment plant. Details regarding the disposition of these four impoundments are presented in Section 5.11.

5.8.2 Variances from Remedial Investigation Plan

Seven soil borings were advanced in Area 7. Soil samples were collected from various depths and submitted for chemical analysis (summarized in Table 4-1). The locations of the soil borings are shown in Figure 5-7. All sampling and analytical programs were carried out in compliance with the RIP except where noted in Table 5-14. Variances in analytical protocols are discussed in Section 4.8.

5.8.3 Soil Sampling Results

Former Sludge Drying Bed #5

Four of the five borings advanced in this area encountered fill to approximately 4 feet. At one location (SB-7-SO-3) fill occurred to a depth of 8 feet. The fill material typically consists of silt with variable amounts of sand, clay, cinders and ash. Seams and layers of sludge-like materials were encountered in thicknesses ranging from 2 inches to 3 feet. The thickest layers of sludge-like materials were encountered in borings SB-5-SO-4 and SB-5-SO-7 at 3 and 2 feet respectively. Geologic cross-sections of this area are depicted in Figures 5-7A and 5-7B. The lines of the cross-sections are shown in Figure 5-7.

Twenty-five (25) soil/sludge samples were collected from the borings for chemical analysis. Five samples were collected from each boring and submitted for VOA, TPH, PPM, BN+15, pH, CN and TOC analyses. These samples were collected to estimate the vertical and horizontal extent of soil contamination of this area.

The results of these analyses are presented in Table 5-15. A summary of the analytical results, by boring, is shown on Plate P-7-1 and P-7-2.

Die Storage

The shallow borings advanced in this area encountered silt with trace amounts of clay, sand and gravel. Both borings were advanced within 0.5 ft of the edge of the paved area where breaches in the concrete berm have occurred.

Two samples were collected and submitted for TPH analysis. The results of these analyses are presented in Table 5-16. A summary of the analytical results, by boring, is shown on Plate P-7-1.

5.9 Area 8 - Wastewater Treatment Plant

5.9.1 Description of Area

The wastewater treatment plant is located southeast of the power house and hazardous waste containment area. The original portion of the plant was constructed in 1937 initially in order to process wastewaters generated in the facilities plating and painting processes prior to discharge. The wastewater treatment area consists of a waste treatment building, eight 150,000-gallon neutralization tanks with associated sand filters, two former 1,000,000-gallon sludge settling tanks, an oil-water separator, two 20,000-gallon sludge thickening tanks, an above ground 11,000-gallon waste oil holding tank, 2-parshall flumes, a 8,000-gallon sulfuric acid AST, a 8,000-gallon sodium bisulfite AST, a 9,000-gallon sodium hydroxide AST, and a 8,000-gallon sodium hypochlorite AST. Two power substations are located west of the neutralization tanks and north of the sludge settling tanks. Information obtained from facility personnel indicates that two incinerators were formerly located in this area.

Plating fluids (including copper-cyanide, acid-copper, and nitric acid baths used to plate and strip nickel-chromium), waste oils (consisting of spent lubricating or metals fluids and hydraulic oils), and contact cooling water (used in the molding of plastics) were discharged directly from the process lines in the manufacturing building to the industrial process sewer system. The treatment plant also received sludges from the power house boiler treatment tanks and non-contact cooling water from the cooling tower. Construction records indicate that all wastewater process sewers are constructed of a ceramic crock material.

Information obtained from Inland Fisher Guide personnel regarding wastewater discharge history indicates that in 1938, wastewater was treated for cyanide and pH. At this point in time pre-treated water was discharged to the City of Trenton facility through the sewer system. Due to Trenton City's treatment capacity problems, pre-treated wastewater was subsequently discharged to the Ewing-Lawrence Sewage Authority (ELSA), the local publicly owned treatment works (POTW). The plant's daily treatment capacity was estimated to be approximately 1,000,000 GPD.

The wastewater treatment process consisted of the following; process wastewater from the plating, anodizing, phoscoating, die casting and washing, parts finishing and stripping, heat treatment, and power house operations, and the paint spray and cleaning booths area discharged to the industrial sewers. All cyanide wastes are first treated at the in-plant cyanide treatment system prior to discharge to the process sewer. Wastewater received by the treatment plant is first directed to an oil-water separator. It is during this phase of the treatment process that oil is removed via an oil skimmer and collected in the waste oil AST. Next, the aqueous fraction of the wastewater is gravity fed to the neutralization tanks and treated with sodium hydroxide, sulfuric acid, sulfur dioxide, and sodium hypochlorite, as required.

Pumped discharge from the neutralization tanks is treated with a coagulant and directed to a sludge settling tank. The resulting aqueous phase is pumped through sand pressure filters, a parshall flume and discharged to the POTW. Sludges collected from the settling tank are directed to the sludge thickening tanks at the treatment building, processed through a plate and frame filter press with resulting filter cake removed for disposal. Residual fluids collected during the filter press process are re-directed to the neutralization tanks. Sludges removed from the oil skimmer tank are directed to the neutralization tanks for final treatment.

Oil/Water Separator:

The oil-water separator is located northwest of the waste oil AST and west of the oil water separator. According to records the oil-water separator was installed in September 1990 in order to replace the adjacent oil water separator located just to the east.

Before the initial excavation for the construction of the new oil water separator, GM installed a series of soil borings to assess the subsurface conditions. These borings, designated BH-1 through BH-9, were sampled at various depths for a variety of parameters, including volatile organic compounds, base neutral compounds, selected metals, PCB and cyanides. Results of the sample analyses were generally below NJDEP guidelines, with the exception of borehole BH-2, samples from which contained elevated concentrations of base neutral compounds, particularly PAH's. Three further boreholes, BH-2A, BH-2B and BH-2C were installed alongside the location of BH-2, but all failed to identify the same elevated concentrations. When the area was excavated, there was evidence of a railroad tie within the fill in that location and it appeared that the boring had pushed part of the tie down the borehole. The elevated concentrations of PAH are attributed to the railroad tie as a source. As requested in the NJDEP work plan approval letter, URSG has summarized this data and included it as Plate P-8-1.

The separator system consists of 10 concrete lined cells (which have been treated with an acid-proof coating) with waste oil/sludge sumps and a pump house located at either end. Construction as-built drawings indicate that the base of the separator was installed approximately 2.0 feet into bedrock or 16.5 feet below grade. The treatment capacity of the system is approximately 1.5 million gallons per day for each side. Wastewater collected from the process is directed to the neutralization tanks for further processing. Waste oil skimmed during separation is pumped to the adjacent waste oil AST. Finally, sludges which have settled out of solution are pumped to the waste treatment building for final treatment. The transfer of all process wastes is conducted through above ground piping.

The oil-water separator system is of fairly new construction and has been operational for a relatively short period of time. In addition, all interior surfaces have been treated with an acid proof coating thus contributing significant corrosion resistance to the concrete base. Given the brief period

of operation and the nature of it's construction, it is not likely that the system would have impacted the surrounding soils.

Sanitation Deck Washdown Area:

A vehicle/equipment washing and staging deck area is located northeast of the new oil-water separator system. This staging area consists of a bermed concrete pad. A sump pit located at the southeast corner of the containment area discharges wash water directly to the oil-water separator for pretreatment in the wastewater treatment facility. Some staining was observed at the southwest corner of the containment area during the 1993 site inspections. The concrete pad, collection sump and surrounding pavement all appear to be in good condition.

Former Primary Sludge Settling/Waste Oil Tanks:

The former sludge settling/waste oil tanks are located west of the wastewater treatment plant and east of the new oil water separator. The entire unit consists of an oil skimming unit, two 160,000-gallon sludge settling tanks, and a 30,000-gallon waste oil tank. The waste oil tank shares a common wall with the eastern primary sludge settling tank. The primary sludge settling and waste oil tanks are constructed of reinforced concrete extending to a depth of approximately eleven feet below grade.

This unit was installed in 1938 for the purpose of removing process waste cyanide from neutralization of wastewaters prior to further pretreatment. The oils typically consisted of spent lubricating or metal working fluids and hydraulic oils. All oils were either transported to the waste oil storage tank by a honey wagon specifically designated for this purpose or discharged to the industrial process sewer. All oils discharged directly to the sewer were removed at the two primary sludge treatment tanks. At the south end of these two tanks was an isolated "calm" zone. In this zone a skimming apparatus was used to remove any oil from the surface of the water. The collected oil was gravity discharged directly through a sheet metal screen to the waste oil storage tank.

In order to delist the plant from an approved TSDF facility status to a "less than 90 days" generator status, GM initiated a RCRA Closure of the waste oil tank. All closure activities were

conducted in accordance with the Soil Sampling and Analytical Plans (December 4 and 21, 1990) and Closure Plan (March 13, 1991) submitted to NJDEP.

Prior to decommissioning, all waste oil was removed from the waste oil tank for recycling at an off-site oil reclamation facility. The tank was then decontaminated using a biodegradable alkaline cleaner and triple rinsed. Subsequent to decontamination, each wall of the tank was sand blasted. In order to determine if soils may have been impacted during historical operation of the waste oil tank, an SSAP was developed. Subsequent to decontamination and demolition, post-excavation samples would be collected and analyzed for target compound list (TCL) volatile organic compounds, chromium, copper, nickel, and lead, PCBs, cyanide, and TCLP base neutral compounds. Soil sampling associated with the closure of the waste UST was not completed however. As approved by NJDEP, sampling has been deferred due to the proximity of the two adjacent primary sludge settling tanks.

Upon decommissioning, each primary sludge settling tank contained approximately 500 cubic yards of F006 plating sludge. Sludges were removed from the former primary settling tanks and processed into the wastewater sludge treatment facility in quantities which did not exceed the facility's treatment capacity.

11,000-gallon Above Ground Waste Oil Tank:

The waste oil tank, installed in September 1991, was designed as a collection point for waste oils skimmed from the surface of the primary settling and oil removal tanks. The tank is located to the southeast of the primary settling tanks within a bermed secondary containment equipped with a plastic liner and drainage sump. The tank is constructed of steel and coated with an insulating material. It has a 11,000-gallon capacity and stands vertically within the secondary containment. Due to operational difficulties with the oil skimmers and a reduction in the amounts of oil entering the process sewer, only limited quantities of oil have been removed since the system was installed. In view of the age of the tank system, and as there have been no leaks or discharges from the waste oil tank system, or the above ground pipework from the primary settling tanks, no soil sampling was proposed. Groundwater monitoring wells MW-10 and MW-11 are located to the northeast and

northwest, respectively, of the waste oil tank and no indication of petroleum compounds has been noted in either of these wells.

Neutralization Tanks:

The discharge from the primary settling and oil removal tanks flows under gravity at an average flow of 600-800 gpm to the bank of neutralization tanks. A total of eight tanks, each with a capacity of 150,000-gallons, are used for dosing the effluent with sodium hydroxide, sulfuric acid, sulfur dioxide and sodium hypochlorite. The dimensions of the tanks are approximately 63 feet by 44 feet, and the tanks are constructed of reinforced concrete. The tanks are fully operational as part of the wastewater treatment system, and there is no indication that the integrity of the tanks has been compromised or that there have been any discharges from the tanks onto the surrounding soils.

Waste Treatment Sludge Settling Tanks:

Effluent from the neutralization tanks was pumped at a flow of 1,000-1,500 gpm to one of two 1,000,000-gallon settling tanks. Only one of these tanks was operational in 1994, the other being empty and out of service. Both tanks are of a similar design, above ground and circular, constructed of reinforced concrete sides and base. Both tanks are approximately 60 feet in diameter with walls 20 feet high.

Waste Treatment Building:

Liquid effluent from the settling tanks flows by gravity to the pressure filter wet well and through sand polishing filters to the sanitary sewer, via the parshall flume. Sludges are pumped to above ground sludge thickener and storage tanks, located to the south of the wastewater treatment facility. Both tanks are constructed of steel, approximately 30 feet high and 10 feet diameter. Sludge from the tanks is pumped inside the wastewater treatment building to a filter press, where remaining moisture is removed and the sludge reduced to a cake form for disposal. Filtrate is separated and circulated back to the neutralization tanks. All caked sludges are manifested off-site for disposal. As all operations, including the loading of the caked material onto roll-offs, are conducted inside the building in an area with a concrete floor, no sampling was proposed.

Former Trash Incinerator:

To the west of the primary settling and oil removal tanks was the former location of a trash incinerator which was used for the disposal of general combustible trash such as paper products and wooden pallets. The incinerator was taken out of service in approximately 1960.

A possible second incinerator location has been identified from site drawings. This location was thought to have been used for the disposal of waste oil and is located under the concrete pad to the northwest of the former sludge settling tanks.

Soil Piles

These soils were excavated during the construction of the new oil-water separator. The soils were sampled in situ and analyzed. These results are summarized in Plate P-8-1.

Spent Nitric Acid Spill

A spent nitric acid spill occurred in this area in 1989. The spill occurred along one side of the concrete washdown pad to the northwest of the oil/water separator. Approximately 300 gallons of spent nitric acid flowed down the drain to the waste water treatment plant. The impacted soils were excavated and clean backfill was brought in.

Former Process Sewer Structures

A parshall flume and retention original box tied into the process sewer system, but no longer in use, was observed by the NJDEP during their 1993 site inspections. Oil and standing water was observed within the box.

Sulfuric Acid Tank

On September 26, 1990 approximately 100 gallons of sulfuric acid was released from a cracked pipe joint in the above ground line leading from the above ground sulfuric acid tank located

on the north side of the Wastewater Treatment Plant. The tank stands on concrete cradles over a dirt floor. The release notification was made to the NJDEP "Hotline" and the National Response Center.

The leak was repaired and approximately 73 cubic feet of surface soil excavated. Post-excavation sampling indicated low pH in the remaining soils and elevated copper and nickel in one sample. Approximately 600 lbs of soda ash were incorporated with the backfill to neutralize the low pH.

5.9.2 Variances from Remedial Investigation Plan

Eight soil borings were advanced in Area 8. Soil samples were collected from various depths and submitted for chemical analysis (summarized in Table 4-1). The locations of the soil borings are shown in Figure 5-8. All sampling and analytical programs were carried out in compliance with the approved RIP except where noted in Table 5-17. Variances in laboratory protocols are discussed in Section 4.8.

5.9.3 Soil Sampling Results

Waste Treatment Sludge Settling Tanks

The borings advanced in this area encountered fill to depths ranging from 12 to 14 feet. The fill consists of wood, rubber, plastic, paper and glass in a sand and silt matrix. Below the fill a silt and clay layer was encountered ranging in thickness from 2 to 4 feet. Silt and weathered siltstone bedrock were encountered below the silt and clay layer at two locations (SB-8-SO-13 and SB-8-SO-14). At the other two locations fine to coarse sands were encountered below the sand and clay layer.

Eight soil samples were collected from the borings for chemical analysis. Two samples were collected from each boring and submitted for VOA, PPM and BN+15 analysis. These samples were collected to characterize the fill of this area.

The results of these analyses including all detected compounds are presented in Table 5-18. A summary of the analytical results, by boring, are shown on Plate P-8-2.

Former Trash Incinerator

The two borings advanced in this area encountered fill to depths of 6 feet in SB-8-SO-15 and 12 feet in SB-8-SO-16. Both borings were terminated at their respective depths due to auger refusal. The fill typically consisted of ash, cinders and brick in a sandy matrix.

Two soil samples were collected from the borings for PAH, PPM and pH analyses. These samples were collected to characterize the fill of this area.

The results of these analyses are presented in Table 5-19. A summary of the analytical results, by boring, are shown on Plate P-8-2.

Spent Nitric Acid Spill

The two borings advanced in this area encountered fill consisting of silt and fine sand with trace amounts of ash, gravel and cinder to depths of 3 to 4 feet. Below the fill, silt with trace amounts of clay was encountered as deep as 8 feet (termination depth of SB-8-SO-17).

Two soil samples were collected from the borings for PPM and pH analyses. These samples were collected to determine whether the nitric acid spill impacted underlying soils.

The results of these analyses are presented in Table 5-20. A summary of the analytical results, by boring, are shown in Plate P-8-2.

5.9.4 Wipe Sampling Results

Two Wipe samples were collected from the stained concrete pad of Transformer 14. the results of these analyses are presented in Table 5-20A. A summary of the analytical results, by location, are shown on Plate P-8-2.

5.10 AREA 9 - Power House Parking Lot and Equipment Storage Area

5.10.1 Description of Area

The power house parking lot and equipment storage area are located east of the power house facility and west of the sludge drying beds. This area was originally utilized as an overflow parking area for employees. The lot consists of both concrete and asphalt paved base and covers an approximate area of 550' x 820'. Currently this area is used for the temporary storage of various equipment and materials removed from the maintenance and manufacturing buildings. Equipment identified during the May 1993 site inspections include metal parts racks, filter canisters from the buffing line, metal drop boxes and baskets, a dumpster containing construction debris, a Conair PVC hopper/heater/circulation unit, empty filter tanks, empty paint pressure canisters, empty sump pumps, fork lifts, an empty copper plater tank, hydraulic presses, and metal scrap. Minor staining was observed on the pavement surrounding hydraulic presses located along the northern edge of the lot. This area is bordered by soil to the north.

5.10.2 Variances from Remedial Investigation Plan

Twelve soil borings were advanced in Area 9. Soil samples were collected from 0-0.5 foot intervals and submitted for chemical analysis (summarized in Table 4-1). The locations of the soil samples are shown in Figure 5-9. All sampling was carried out in compliance with the approved RIP.

5.10.3 Soil Sampling Results

The shallow borings advanced in this area encountered fill consisting of fine to medium sand with trace amounts of silt, gravel, and wood fragments.

Twelve soil samples were collected for PAH, TPH and PPM analyses. These samples were collected to identify possible soil contamination associated with areas of surficial staining.

The results of these analyses are presented in Table 5-21. A summary of the analytical results, by boring, are shown on Plate P-9-1.

5.11 AREA 10 - Former Sludge Drying Beds #1 through #4

5.11.1 Description of Area

Former Sludge Drying Beds #1 through #4 are located east of the waste water treatment plant and west of Gold Run Creek. According to facility records, the unlined impoundments were operated during the period from approximately the mid 1950's to 1972. Process waste waters generated from painting and plating operations have been historically treated at the on-site wastewater treatment facility. Sludges generated during the waste water treatment process were dewatered in the sludge drying beds and periodically excavated and disposed of off-site. Chemical constituents present in the sludges may have included cyanides, trace organic solvents, copper, nickel, chromium, and zinc. In 1972, GM discontinued use of the sludge drying beds and began processing waste sludges through a filter press operation prior to transporting the material for off-site disposal.

Closure of the former impoundments was conducted from 1973 to 1974. The closure procedure consisted of emplacing non-hazardous construction and demolition debris in each impoundment to or near grade, leveling the impoundment side walls (which were constructed of native soils), and the emplacing a final cover of construction debris fill material. According to facility personnel, sludges that were present in the former impoundments at the time of closure were not removed.

In 1984, a preliminary sampling investigation was conducted in the former impoundments in support of a New Jersey Pollution Discharge Elimination System (NJPDES) permit application process for groundwater discharge associated with the closed sludge drying beds. On March 8, 1984, Lawler, Matusky and Skelly Engineers collected a total of eight soil and four water samples from four test pits which were excavated in the impoundments. Samples were analyzed for priority pollutant compounds plus 40 additional peaks and total cyanide. Analytical results indicated the presence of nickel, chromium, cyanide, arsenic and organic solvents in sludge samples and water samples collected from each of the impoundments. A findings report detailing results of the investigation was prepared and submitted to the NJDEP for review in April 1986.

Based on results of the preliminary sampling investigation, a formal groundwater investigation was initiated in 1986 with the installation and sampling of 12 monitoring wells located both upgradient and downgradient of the four inactive sludge drying impoundments. GM continues to monitor groundwater quality in this location in accordance with the requirements set forth in their NJPDES/DGW permit Number NJ0075469 as revised in March 1990. As discussed in Section 2.3, several additional groundwater investigations have been conducted at the site in order to determine the impact of historical operations and documented discharges to groundwater, including those identified in the former sludge impoundment area.

Wooded Area Surrounding Sludge Beds:

A portion of land to the north of the sludge beds has been filled with inert construction debris in the form of concrete and brick rubble.

5.11.2 Variances from Remedial Investigation Plan

Twelve soil borings were advanced in Area 10. Soil samples were collected from various depths and submitted for chemical analyses (summarized in Table 4-1). The locations of the soil borings are shown in Figure 5-10. All sampling and analytical programs were carried out in compliance with the approved RIP except where noted in Table 5-22. Variances in laboratory protocols are discussed in Section 4.8.

5.11.3 Soil Sampling Results

Six of the twelve borings in Area 10 were advanced outside the estimated limits of the sludge drying beds for delineation purposes (SB-10-SO-1, SB-10-SO-4, SB-10-SO-6, SB-10-SO-8, SB-10-SO-11). Two of these borings (SB-10-SO-4 and SB-10-SO-8) advanced along the east side of the beds encountered silts with variable amounts of clay and sand. The remaining four borings encountered fill consisting primarily of silt with variable amounts of sand, gravel, concrete and ash to depths ranging from 4 to 8 feet. Silt with variable amounts of clay and sand were found to underlie the fill to as deep as 10 feet (at SB-10-SO-3).

The remaining six borings were advanced within the limits of the four former sludge drying beds. Fill consisting primarily of silt and sand mixed with variable amounts of gravel, wood, sludge, ash, cinders, concrete, glass, brick and rubber. Layers of sludge-like material were encountered in borings SB-10-SO-5A, SB-10-SO-7 and SB-10-SO-10 within the fill at thicknesses ranging from 2 to 7 feet. These borings indicate sludge is present within former drying beds Nos. 1, 2 and 3. Sludge may also be present in former sludge bed No. 4 since it appears borings SB-10-SO-2 was advanced along the northern limit of the bed. Silt and fine sand were found to underlie the fill to as deep as 12 feet (at SB-10-SO-2 and SB-10-SO-7). A geologic cross-section of this area is depicted in Figure 5-10A. The line of the cross-section is shown in Figure 5-10.

Forty-nine soil samples were collected from the borings for chemical analysis. Each sample was submitted for VOA, TPH, PPM, BN+15, pH, CN and TOC analyses. The objective of the sampling program was to estimate the horizontal and vertical limits of the former sludge drying beds.

The results of these analyses are presented in Table 5-23. A summary of the analytical results by boring, are shown in Plates P-10-1 through P-10-6.

5.12 AREA 11 - Undeveloped Parkland Area

5.12.1 Description of Area

A parcel of undeveloped parkland is located along the northeastern and far eastern edge of the GM property. This area is intersected along it's length by Gold Run Creek. A picnic area and former baseball diamond are located in the northeast corner of the area. Information obtained from facility personnel indicate that this area has never been used for any manufacturing purposes.

Suspected Barium Chromate Drum Disposal Area

Information obtained from a former employee suggested that one location in the parkland was used for the disposal of approximately forty, 55-gallon drums containing barium chromate waste. A geophysical survey was conducted as part of an initial site assessment to evaluate if any subsurface materials of anomalous conductivity are present in suspected drum disposal area.

Gold Run Creek Outfall Area

Historical water sampling was conducted at the "Box Culvert" section of Gold Run Creek where the NJPDES 001 outfall discharges. Samples were collected on December 10, 1990, January 7, 1991 and February 20, 1991 and analyzed for volatile organic compounds. Results of the analyses indicated that concentrations of TCE, trans-1,2-DCE and chloroform were present in the stream water at that location.

5.12.2 Variances from Remedial Investigation Plan

Five sediment cores were advanced in Gold Run Creek/Pond. The sediment samples were collected from 0-0.5 foot depths and submitted for chemical analysis (summarized in Table 4-1). The locations of these samples are shown in Figure 5-11. All sampling and analytical programs were carried out in compliance with the approved RIP.

5.12.3 Sediment Sampling Results

Sediment samples SS-11-SD-1, SS-11-SD-2, and SB-11-SD-5 were collected in the creek and consisted of fine to medium sand and silt. Samples SS-11-SD-3 and SS-11-SD-4, collected within the pond, consisted of organic silt with trace amounts of fine sand.

All five sediment samples were submitted for TPH, PPM, PCB, BN+15, and CN analyses. The results of these analyses are presented in Table 5-24. A summary of the analytical results, by location, are shown on Plate P-11-1.

5.12.4 Geophysical Survey

A geophysical survey was conducted in Area 11 on February 10, 1994. The survey was conducted across a slightly mounded portion of Area 11 (Figure 5-11) which was reportedly used for the disposal of approximately forty, 55-gallon drums containing barium chromate waste.

The magnetic survey was conducted using an EG&G Model G-856 Proton Precession Magnetometer with a gradiometer option. The G-856 is a microprocessor controlled instrument with a resolution of 0.1 gamma, an accuracy of 1 gamma, and a memory capable of storing the data for over 2,000 stations. With the gradiometer option, two sensors are mounted on a staff at 4 ft. 3/4 in. and the other at 9 ft. 3/4 in. above the surface. The magnetometer records data from both sensors sequentially. Magnetic data was collected at 176 stations. Because of the small number of stations occupied and the short duration of the magnetic survey, a magnetic base station was not utilized.

The magnetic stations were located by first surveying a 150-foot baseline parallel to the eastern property boundary (along Sylvia Avenue). Sixteen survey lines were staked at 10-foot intervals along the baseline. Each of the 16 lines was staked at 10-foot intervals, perpendicular to the baseline. This resulted in a survey grid measuring 150 x 100 feet with 10-foot grid node spacing for a total of 176 magnetic stations.

Magnetic data obtained by the G-856 was downloaded to a personal computer and processed by EG&G MAGLOC data location software. MAGLOC data location software allows for the separation of top and bottom sensor data, input of survey data, and calculation of the vertical magnetic gradient. Total magnetic field data was obtained from the top sensor. Vertical magnetic data was obtained by subtracting the top sensor value from the bottom sensor value and dividing by the distance between sensors. Subtracting the top sensor from the bottom sensor results in a generally accepted positive gradient anomaly associated with high gradients. Magnetic data was then contoured using the commercial geological contouring software program Gridzo. The following contour maps were produced:

- Total magnetic field
- Vertical gradient

Figure 5-11A is a contour map of the total magnetic field and Figure 5-11B is a contour map of the vertical magnetic gradient for the suspected drum disposal area. The total magnetic field data are presented as total intensity relative to 56,000 gammas, an arbitrary value near the "normal" total magnetic field for the area. The contour interval of the total magnetic field map is 40 gammas. The vertical magnetic gradient map is plotted with a contour interval of 10 gammas/foot.

The magnetic technique is limited to detecting ferrous metal objects. Neither the particular type of metallic objects causing a disturbance nor the contents can be determined from the magnetic data. Magnetic data can be strongly influenced by surface features such as power lines and fences.

In interpreting total magnetic field data, several factors should be considered. The width, gradient, and amplitude of a magnetic disturbance are useful in estimating the mass and depth of the metallic objects. Total magnetic field disturbances, or anomalies, with steep horizontal gradients are caused by objects at or near the surface.

Anomalies in the vertical magnetic gradient data are produced by objects at or near the surface. Magnetic bodies of small vertical extent (i.e., flat) located on, or near the surface produce large vertical magnetic gradients for those stations located near them. The contour plot commonly displays a diagnostic pattern of lows surrounding a high, or highs around a low, provided stations are sufficiently closely spaced. Magnetic bodies of "large" vertical extent above the ground, such as buildings, trailers, and steel fencing, are likely to produce small vertical gradients because those objects may be equally close to both magnetic sensors. Since such bodies can be observed, their magnetic effects cause no interpretation problems.

By comparing the contour maps of the total magnetic field and the vertical magnetic gradient, one can distinguish the anomalies that are produced by more deeply buried objects.

The total magnetic field contour map (Figure 5-11A) displays several areas of surface magnetic noise concentrating along the baseline of the survey (650N,20E through 800N,20E). This magnetic noise is the result of the fence along the property line, overhead powerlines along Sylvia Avenue, and two pole mounted transformers located at 680N,0E and 770N,0E.

An area of severe magnetic disturbances can be seen in a circular pattern bounded by 740N,30E through 60E to 770N,30E through 60E covering an area approximately 900 square feet. This circular pattern is reflected by a slight topographic mound that can be observed on the surface. The magnetic disturbance also correlates with anomalies in the vertical magnetic gradient map (Figure 5-11B). As described above, good correlation between total field and the vertical gradient indicates the disturbance is normally found at or near the earths surface. Since there are no metallic objects

on the surface in the area, we can infer that the objects causing the disturbances are buried a few feet from the surface.

A total field magnetic profile is presented in Figure 5-11C. This east-west profile crosses directly over the magnetic anomaly describe above. Figure 5-11D present a vertical magnetic profile of the same line. Good correlation can be noted between these profiles.

The remainder of the site surveyed is anomaly free, indicating the absence of any buried metallic objects.

5.13 Hydrogeologic Investigation Results

URSG reviewed borings logs and hydrogeologic data from the wells installed during this investigation, as well as from previous investigations to evaluate the hydrogeologic conditions at the site. Two aquifers have been identified as a result of this evaluation which are generally consistent with those identified during previous investigations (Refs. 14 and 19). The aquifers identified by URSG include a shallow aquifer occurring in the overburden and weathered bedrock, and a bedrock aquifer occurring in the underlying bedrock of the Stockton Formation. Monitoring well UST-7 appears to have been installed in a deeper water bearing zone within bedrock (at an approximate elevation of 23 feet AMSL) which could possibly represent a third aquifer beneath the site. Figure 5-12 presents a generalized geologic/hydrogeologic column for the site. Cross sections of the site are shown in Figures 5-13 and 5-14. The cross-sectional lines are shown in Figure 5-15. The following sections describe the occurrence and interpreted movement of groundwater within the shallow and bedrock aquifers based on upon current data.

Shallow Aquifer Hydrogeology

Based upon URSG's evaluation of the available hydrogeologic data, it appears that the shallow water table aquifer of the site is comprised of overburden and weathered bedrock. The water table surface lies within the overburden between the main building and Gold Run Creek, within the underlying weathered bedrock in the vicinity of the main building where the overburden is thin or absent, and near the interface with competent rock west of the main building. Previous studies had

considered only the overburden in defining the shallow aquifer. However, since the overburden and weathered bedrock have similar hydrogeologic properties and are directly connected, it appears that they comprise one unconfined water bearing zone. These materials overlie less permeable competent bedrock.

As shown in Figure 5-14, groundwater occurrence within the overburden deposits along the eastern and southern portion of the site appears to be a function of the depth to which these sediments occur (i.e. overburden occurs to 120 feet AMSL at MW-18 versus 112 feet AMSL at MW-1). The amount of water within this unit is dependent upon the amount of recharge originating from infiltration from unpaved site areas as well as possible interaction with deeper zones of the underlying bedrock aquifer.

URSG compiled a monitoring well data summary (Table 5-25) to evaluate the water bearing zones monitored by the site wells. Based upon this evaluation, 18 wells monitor groundwater within the shallow aquifer. Shallow aquifer monitoring well water level data recorded by URS is summarized in Table 5-26. Water level elevations (Recorded on March 29, 1994) from the wells monitoring the shallow aquifer were used to construct a shallow aquifer potentiometric map (Figure 5-16 and Plate P-12). As shown in Figure 5-16, the general direction of groundwater flow within the shallow aquifer is to the southeast. Based upon water elevations recorded on March 29, 1994, the horizontal gradient in the shallow aquifer is approximately 0.02 ft/ft. This gradient is consistent with values reported in previous investigations.

A contour map of the surface of competent bedrock is included as Figure 5-17 and Plate P-13. This map shows an orientation similar to that of the shallow aquifer potentiometric surface. This observation indicates groundwater in the shallow aquifer flows preferentially through the weathered bedrock and overburden along the competent bedrock surface.

URSG estimated the hydraulic conductivity of the shallow aquifer by performing rising head tests (slug tests) on wells MW-18, MW-19 and MW-20 (all screened within the weathered bedrock). The test data were analyzed by methods presented in Bouwer and Rice (Ref. 17). The hydraulic conductivity results, which are presented in Table 5-27, ranged from a low of 2.57×10^{-3} cm/sec to

a high of 1.44 x 10^{-2} cm/sec. This range is consistent with published conductivity values for weathered/fractured rock (Ref. 18).

Bedrock Aquifer

The bedrock aquifer consists of interbedded siltstones, sandstone, and shale of the Stockton Formation. Due to the general fine grained nature of the units, groundwater is primarily transmitted through fractures, joints and partings. The void space in these secondary permeability features appears to decrease with depth. As summarized in Table 5-25, zones of fractured bedrock were noted on various parts of the bedrock well boring logs at elevations ranging from approximately 70 feet AMSL to 90 feet AMSL. All bedrock wells were set using steel casing to seal out the water contained within the shallow aquifer, and therefore monitor groundwater in fracture zones within the competent rock.

Boring logs from many of the bedrock wells indicate that competent (non-fractured) bedrock generally separates the weathered bedrock and the deeper fracture zone monitored by the bedrock wells. However, since core samples were not collected during the drilling of these wells, this cannot be confirmed. The detection of UST-related BTEX compounds within both the shallow and bedrock aquifers indicates that a vertical connection between the weathered bedrock and the deeper fractured zone monitored by the bedrock wells does exist to some extent. The lateral interconnection of groundwater flow in this fractured bedrock zone has not been determined conclusively, however intralayered (lateral) hydraulic connections are typically more pronounced than interlayer (vertical) connections (Ref. 19). Strong hydraulic connection between bedrock wells was not observed during a pump test conducted by Weston (Ref. 14). However, the observed downgradient migration of TCE and its degradation products from the NAPC to GM-Delphi site, as well as the interconnection between monitoring wells UST-2 and UST-8 observed during the pump test (Ref. 14), show some horizontal interconnections exist within this water-bearing zone. Fractured bedrock monitored by wells MW-1A, MW-15A, and UST-9 is illustrated in cross section Figure 5-14.

Bedrock monitoring well water level data recorded by URS is summarized in Table 5-28. Water level data (Recorded on March 29, 1994) were used to develop a potentiometric surface of the bedrock aquifer (Figure 5-18 and Plate P-14). The general direction of groundwater flow within the

bedrock aquifer is to the southeast. Based upon the water level elevations recorded from the bedrock wells, the horizontal gradient in bedrock is approximately 0.012 ft/ft.

Results from a pumping test conducted by Weston in 1989 along with data from the development of previously installed wells indicates the bedrock wells produce 1 to 15 gpm. The pump test results indicate that the transmissivity of the bedrock aquifer ranges from 113 to 466 ft^2/day (Ref. 14).

Vertical gradients between the bedrock and overburden groundwater bearing zones have been inferred from the paired water level measurements obtained from well couplets, e.g. MW-1 and MW-1A (0.098 ft/ft downward), MW-7 and MW-7A (0.13 ft/ft downward) and MW-15 and MW-15A (0.09 ft/ft upward). Based upon the transition from a downward gradient west of Gold Run Creek at MW-1A to an upward gradient at MW-15A it appears that underflow beneath the creek occurs within the bedrock aquifer. These observations also suggest that the area east of Gold Run Creek is a discharge area for the bedrock aquifer.

Potential Lower Bedrock Aquifer

The boring log from monitoring well UST-7 indicates that this well monitors a distinct deeper fracture zone occurring at an elevation of approximately 23 feet AMSL. This fracture zone is separated from the upper fracture zone (generally occurring above 70 feet AMSL) by approximately 40 feet of competent siltstone. Since only one well is screened within this zone, the lateral extent of this fracture zone and its vertical connection to the upper water bearing zones is unknown.

5.13.1 Interaction of Gold Run Creek with the Shallow Groundwater System

A surface water-groundwater interaction study was conducted by LMS (Ref. 19) using three monitoring wells MW-13, MW-15 and MW-16A and three stilling wells installed in Gold Run Creek (wells SW-13, SW-15 and SW-16A). Based upon observations noted during their study, significant differences in the degree of interaction between surface water and groundwater appear to occur along two of the three reaches investigated. Groundwater interaction with Gold Run Creek appears to

become increasingly complicated from north to south. This conclusion was supported by the following observations (Ref. 19):

- The range of water level elevations measured in Gold Run Creek increased from north-to-south. A corresponding north to south increase in the standard deviation of the water elevation data from Gold Run Creek was also observed.

- In contrast, the range of water levels measured in groundwater decreased from north to south, as do the corresponding standard deviations of these measurements.

- The difference between the average head observed in groundwater and that in Gold Run decreases from north to south. This suggests that the groundwater and surface water systems are approaching greater equilibrium from north to south.

Given the observations noted above, the inferred increase in groundwater-surface water interaction from north to south is likely to be attributed to an increase in the net discharge of groundwater to Gold Run. The concentrations of contaminants attributed to off-site sources (e.g., TCE, and 1,2-DCE), also show a comparable increase from north to south. These observations suggest that the southernmost area of Gold Run near SW-13 and MW-13 is an important groundwater discharge zone for this area.

In conclusion, these observations support the hypothesis that Gold Run behaves as a preferred conduit for contaminant migration, especially with respect to TCE and its degradation products. While Gold Run itself appears to be an important pathway for contaminant migration, it also appears to have a controlling influence on overburden groundwater movement east of the site's former sludge impoundments, and bedrock groundwater across the site. A north-south trending fault or fracture system in the Stockton bedrock beneath Gold Run is suspected to be the controlling mechanism for such flow and contaminant migration (Ref. 19).

5.14 Groundwater Sampling Results

5.14.1 Groundwater Sampling Results From Wells Immediately Downgradient of the Manufacturing Building

In agreement with NJDEP, four monitoring wells (MW-18, MW-19, MW-20 and UST-1) located immediately downgradient of the manufacturing building were sampled to assess any potential impact to groundwater which may have occurred as the result of manufacturing operations. Two rounds of groundwater sampling and analyses were conducted from these wells. The first round of groundwater samples were collected by URSG on March 24, 1994 and were analyzed by Coast-to-Coast Analytical of Westbrook Maine. The second round of groundwater samples were collected on May 5, 1994 by EMSL Analytical Services and were analyzed by EMSL in their Westmont, New Jersey Laboratory. During each sampling round each of the four monitoring wells were sampled for VOA, BN+15 and PPM (filtered and unfiltered). All sampling and analytical programs were carried out in compliance with the approved RIP.

The results of these analyses including all detected compounds are presented in Tables 5-29 and 5-30. A summary of the analytical results, by well, are shown on Plate P-15.

5.14.2 Groundwater Sampling Results from the UST Wells

Groundwater samples were also collected from five of the UST monitoring wells (UST-2, UST-4, UST-5, UST-7, UST-8) during the two sampling events described in Section 5.14.1. All samples were analyzed for BTEX compounds as well as filtered and unfiltered lead. All sampling and analytical programs were carried out in compliance with the approved RIP. The results of these analyses are presented in Tables 5-31 and 5-32. A summary of the analytical results, by well, are shown on Plate P-15.

5.14.3 Quarterly Groundwater Sampling Results from Sludge Bed and Wastewater Treatment Plant Areas

URSG has reviewed quarterly groundwater sampling results from the wells located in the areas of the sludge drying beds and wastewater treatment plant (Areas 8 and 10). The purpose of this review was to assess any potential impact to groundwater which may have occurred from the fill materials present in Areas 8 and 10.

The analytical results reviewed by URS were from samples collected and analyzed by EMSL Analytical Services in February 1994. A summary of the samples included in the review as well as the parameters analyzed is included in Table 5-33. The results of these analyses including all detected compounds are included in Table 5-34. A summary of the results by well are shown on Plate P-16.

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TABLE 3-1
DOMESTIC/INDUSTRIAL WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
78	6	C. Wilson	Van Dyne Dr.	27-15-776	70	Domestic
79	6	Mrs. Driver	16 Van Dyne Dr.	27-15-776	80	Domestic
53	6	Edward & Mary Pietras	Pennington, NJ	27-15-777	100	Domestic
56	8	Robert R. Green	46 Carlton Ave.	27-15-777	60	Domestic
72	6	John Lavero Co., Inc.	Reed Rd.	27-15-777	103	Domestic
53	6	Earl W. Aker Co.	Carlton Ave.	27-15-778	55	Domestic
55	6	John E. Cashel	Lower Ferry Rd.	27-15-778	86	Domestic
51	6	Walker Johnson	Reed Ave.	27-15-779	79	Domestic
*	6	Earl Allen	Main Blvd.	27-15-779	63	Domestic
*	6	Michael Derrico	Main Blvd.	27-15-779	71	Domestic
54	6	Giallilla Sebastian	Penn. Wash. Cross Rd. near Circle	27-15-779	160	Domestic
57	6	George F. Tingo	78 Main Blvd.	27-15-779	63	Domestic
57	6	W.C. Reed	Carlton Ave.	27-15-779	56	Domestic
51	6	Chester S. Pietruck	West Trenton, NJ	27-24-312	25	Domestic
56	6	Paul Buck	Upper Ferry Rd.	27-24-313	95	Domestic
56	6	Frank Shiro	W. Trenton	27-24-313	80	Domestic
58	6	Carl Jacabello	River Rd. near Lower Ferry Rd.	27-24-313	95	Domestic
59	6	Carl W. Zigrand		27-24-313	90	Domestic
72	6	Michael Pelleringo		27-24-313	778	Domestic
53	6	Chester Grainger		27-24-315	69-90	Domestic
57	6	James Moragues		27-24-315	75	Domestic
89	6	Our Lady of Good Council	137 W. Upper Ferry	27-24-315	195	Light Irrigation
53	6	Clemend C. Marine	528 Lafayette St.	27-24-316	94	Domestic
54	6	E.S. Koenig		27-24-316	50	Domestic
58	6	Richard Hutchinson	Federal City Rd.	27-24-316	104	Domestic
53	6	John Herrington	149 5th St.	27-24-318	80	Domestic
52	6	M. Fazlone	Wilburtha Rd.	27-24-318	95	Domestic
56	6	George White	Washington Ave.	27-24-318	70	Domestic
56	6	A.M. Merang		27-24-318	100	Domestic

TABLE 3-1 (Continued)
DOMESTIC/INDUSTRIAL WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
58	6	John D. Bradford	State Police Rd.	27-24-318	135	Swimming pool
65	6	W.M. Dennis	191 W. Upper Ferry Rd.	27-24-318	113	Lawn Sprinklers
52	6	A. Chmielewski	Lafayette Ave.	27-24-319	70	Domestic
53	6	William A. DeSantis	505 Walker Ave.	27-24-319	70	Domestic
55	6	Frank Shino	526 Lafayette Ave.	27-24-319	72	Domestic
55	6	Edward Ginger	Davis Ave.	27-24-319	60	Domestic
55	6	Peter Deflesco	Wilburtha Rd.	27-24-319	50	Domestic
53	6	Mark Cemil	Broad Ave.	27-24-319	70	Domestic
48	6	Peter J. & Mildred E. Klim	7 Hinckle Ave.	27-24-321	110	Domestic
52	6	W.J. Driver	Lower Ferry Rd.	27-24-321	80	Domestic
53	6	Michael Toter	Sunset Ave.	27-24-321	82	Domestic
54	6	Stephen Ture	Sunset Ave.	27-24-321	80	Domestic
56	6	Sayer & Zargiel	Sunset Ave.	27-24-321	80	Domestic
54	6	Donald Weigand	Sunset Ave.	27-24-322	65	Domestic
54	6	George Smith	Irvin St.	27-24-322	71	Domestic
59	6	E.P. Weasnor	Green Lane	27-24-323	60	Domestic
59	6	Samuel Kirkham	Scudden Ave.	27-24-323	156	Domestic
86/91	6	Trenton Elks	Decau Ave.	27-24-323	140	Public non-community
78	6	Frank Defrancesco	24 Raihood Ave.	27-24-324	150	Drinking
55	6	A. Bortoline	Scudding Falls	27-24-325	120	Domestic
56	6	H. Reed	Crest Ave. Penn.	27-24-325	80	Domestic
57	6	Richard Hutchinson		27-24-325	100	Domestic
53	6	Guering Mami	River Rd.	27-24-326	130	Domestic
54	6	Chester Pietruch	40 Sunset Ave.	27-24-326	76	Domestic
54	6	Donald Richardson	Keswick Ave.	27-24-326	72	Domestic
55	6	Robert Cooper		27-24-326	90	Domestic
56	6	Paul's Liquor Store	Pennington Rd.	27-24-326	90	Domestic
58	6	John Honnyak	Florance Ave.	27-24-326	65	Domestic
59	6	Sinsberry Harris	Browing Ave.	27-24-326	80	Domestic

TABLE 3-1 (Continued)
DOMESTIC/INDUSTRIAL WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
60	6	Basil Diguiseppe	Crest Ave.	27-24-326	175	Domestic
54	6	Raymond E. Procassini	Walker Ave.	27-24-328	70	Domestic
58	6	M. Toter		27-24-328	60	Domestic
58	6	John B. Conebs, Jr.		27-24-328	90	Domestic
59	6	Joe Waskio	Malage Dr.	27-24-328	88	Domestic
76	6	J. Graziano	Bear Tavern Rd.	27-24-328	150	Domestic
56	6	Walter Moize	85 Green Lane	27-24-329	90	Domestic
56	6	Leon Cohn		27-24-329	80	Domestic
56	6	Gayler S. Trisweld		27-24-329	70	Domestic
57	6	George E. Marshall		27-24-329	100	Domestic
57	6	V. Gallego		27-24-329	60	Domestic
58	6	Sam Lentini	N. Willow St.	27-24-329	69	Domestic
58	6	Shabackienki Dept. Co.	Bull Run Rd.	27-24-329	97	Domestic
58	6	Shabakmi Hill Inc.	Bull Run Rd.	27-24-329	83	Domestic
58	6	Vince Terraro	Central Ave.	27-24-329	65	Domestic
60	6	Harry Owens		27-24-329	80	Domestic
70	6	General Sullivan Corp.	Lot 6A Block 341	27-24-329	70	Light Industrial
81	6	Roller Bearing Co.	Lot 3 Block S-341	27-24-329	100	Light Industrial and Cooling
92	6	Baker Properties	Sullivan Way and Silvia St.	27-24-329	200	Irrigation
57	6	Mary Hallio	Mercer County Airport	27-24-331	80	Domestic
59	6	Geo. Brawster & Son		27-14-979	90	Domestic
54	6	J. Wilson Noden	Penn. Wash. Cross Rd.	27-14-982	195	Domestic
54	6	Michael Bapinski	Penn. Wash. Cross Rd.	27-14-982	145	Domestic
53	6	Mrs. V. Cahill		27-14-983	158	Domestic
57	6	Peter T. Cwenzo		27-14-985	197	Domestic
88	6	Carl A. Benedetti		27-14-985	100	Domestic
64	6	Gerald Pondinselli	Wash Crossing Pennington	27-14-986	113	Domestic
53	6	James Sharp	Upper Ferry Rd.	27-14-991	76	Domestic
	6	Vincent Dresser	Channcey Ave.	27-14-994	72	Domestic
89	6	Richard Menichelli	72 Ferry Rd.	27-14-994	257	Domestic

TABLE 3-1 (Continued)
DOMESTIC/INDUSTRIAL WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
57	6	Mrs. M.H. Basford		27-14-999	100	Domestic
51	6	George Most		27-15-771	88	Domestic
52	6	Conrad Ezoqbid		27-15-772	90	Domestic
53	6	C. Warznak	Engleside Ave.	27-15-772	100	Domestic
70	8	Mortindell Molding Co.	L. Ferry Rd.	27-15-772	200	Domestic
71	6	O Cross Construction	U. Ferry Rd.	27-15-772	70	Domestic
62	6	Robert Berwick		27-15-772	86	Domestic
55	6	David Atchley	U. Ferry Rd.	27-15-775	105	Domestic
	6	William Gill	Main Blvd.	27-15-775	68	Domestic
53	6	L.R. Smytha		27-15-775	75	Domestic
53	6	L.R. Smytha		27-15-775	70	Domestic
53	6	Frank Ciesielski		27-15-775	65	Domestic
54	10/8	Board of Education		27-15-775	191	School
55	6	George Gorish	Engleside Ave.	27-15-775	110	Domestic
57	6	J. Kurfuss	Upper Ferry Rd.	27-15-775	74	Domestic
64	6	A. DiCocco		27-15-775	150	Domestic
	6	Howard Morris	Main Blvd.	27-15-776	70	Domestic
	6	Columbus Development	King St.	27-24-332	85	Domestic
	6	Columbus Development	King St.	27-24-332	78	Domestic
	6	Columbus Development	King St.	27-24-332	72	Domestic
59	6	Lenora Kellow		27-24-334	60	Domestic
55	6	Shedrick Caskins		27-24-334	60	Domestic
56	6	J.E. Allen	River Rd.	27-24-334	125	Domestic
56	6	John Moore		27-24-334	85	Domestic
57	6	Lillian Cruse		27-24-334	80	Domestic
57	6	Sidney Hayes	Louisiana Ave.	27-24-334	60	Domestic
57	6	J. Williams		27-24-334	70	Domestic
58	6	Mark A. Cermela		27-24-334	90	Domestic
57	6	William P. Shappell		27-24-334	137	Domestic
59	6	P. Nance	Louisiana	27-24-334	60	Domestic
61	6	Louis Maio	Bennard Terrace	27-24-334	100	Domestic

TABLE 3-1 (Continued)
DOMESTIC/INDUSTRIAL WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
87	6	Helimut Fuerstuer		27-24-334	125	Domestic
54	6	Karl Brenfleck		27-24-335	85	Domestic
55	6	J.T. Smeddor, Jr.	King St.	27-24-335	60	Domestic
55	6	Enrest Huff		27-24-335	125	Domestic
56	6	Charles L. Robinson		27-24-335	90	Domestic
56	6	Mrs. C. Johnson		27-24-335	90	Domestic
57	6	F. Kovacs	River Rd.	27-24-335	152	Domestic
57	6	Stanley Zargiel		27-24-335	89	Domestic
57	6	Alex Wargon	97 Green Lane	27-24-335	85	Domestic
59	6	Mr. E. Harris		27-24-335	72	Domestic
59	6	C. Convery		27-24-335	71	Domestic
58	6	Mark Adams		27-24-336	61	Domestic
58	6	Joseph T. Higgins		27-24-336	90	Domestic
78	6	Mike Strano	Ravine Rd.	27-24-336	126	Domestic
81	6	H. Jones (Jones' Greenhouse)	16 Scotch Rd.	27-24-336	100	Domestic and Light Irrigation
53	6	Stanley Gill		27-24-337	110	Domestic
54	6	James Mellodge		27-24-337	85	Domestic
55	6	Carmen Chiacchio	King St.	27-24-337	75	Domestic
55	6	Carmen Chiacchio	Cresant Ave.	27-24-337	70	Domestic
56	6	James Eisher		27-24-337	60	Domestic
56	6	Wardell Smith		27-24-337	90	Domestic
56	6	John E. Hartman		27-24-337	126	Domestic
57	6	Radder W. Anderson	Garth Ave.	27-24-337	102	Domestic
57	6	Martin Stargenski		27-24-337	82	Domestic
58	6	Norman Waters		27-24-337	75	Domestic
58	6	Stewart O. Donnel		27-24-337	75	Domestic
58	6	Glenwood H. Davis		27-24-337	70	Domestic
59	6	Robert Bailey		27-24-337	75	Domestic
59	6	Witherson Ross	Pennsylvania Ave.	27-24-337	70	Domestic
61	6	Tomas Domanski	Flower Hill Rd.	27-24-337	93	Domestic

TABLE 3-1 (Continued)
DOMESTIC/INDUSTRIAL WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
61	6	J.C. Lampard	River Rd.	27-24-337	150	Domestic
61	6	Richard Haines	King St.	27-24-337	70	Domestic
60	6	Frank Shino		27-24-337	70	Domestic
55	6	Robert Lee	Ravine Rd.	27-24-338	85	Domestic
55	6	L.S. Smytha		27-24-338	70	Domestic
57	6	A.G. Fergerson	Crescent Ave.	27-24-338	90	Domestic
58	6	William & Wini Drew	Up land Ave.	27-24-338	87	Domestic
61	6	William Mason	Cluffton Ave.	27-24-338	61	Domestic
56	6	Walter A. Rixson	5 Ardsley Ave.	27-24-339	91	Domestic
57	6	F. Russo		27-24-339	75	Domestic
65	6	Basil diGuiseppe	Hillman Ave.	27-24-339	136	Domestic
76	6	John Lavero Co., Inc.	Forrest Hill Dr.	27-24-343	225	Domestic
59	6	Alice Corbin		27-24-352	64	Domestic
76	6	Builder: Frank Druba	Broad Ave.	27-24-352	70	Domestic
58	6	DaMato Lamans	Bull Run Rd.	27-24-353	97	Domestic
59	6	Shahakunk Hills, Inc.	Bull Run Rd.	27-24-353	95	Domestic
59	6	Peter Huzwa	Malaga Dr.	27-24-353	82	Domestic
60	6	Charlene Homes, Inc.		27-24-353	145	Domestic
59	6	Maurice Quadagno	Malaga Drive	27-24-354	81	Domestic
53	6	Herman N. Levenson	24 Broadway Avenue	27-24-355	80	Domestic
55	6	Edward H. Kottke	Jacob Creek Rd.	27-24-355	55	Domestic
57	6	V.J. Matin	Bull Run Rd.	27-24-355	80	Domestic
58	6	Ralph Keener	Malago Ave.	27-24-355	87	Domestic
59	6	W. Hannisch		27-24-355	70	Domestic
55	6	Lewis Eschinger	Pennsylvania Ave.	27-24-356	75	Domestic
55	6	Morris Hunt 3rd		27-24-356	205	Domestic
59	6	R. Depalola	Bull Run Rd.	27-24-356	75	Domestic
60	6	Charlene Homes, Inc.	Brandon Rd.	27-24-356	80	Domestic
55	6	A.R. Fasalino	Scotch Rd.	27-24-361	80	Domestic
56	6	Suburban Lunch Co.	Scotch Rd.	27-24-361	80	Domestic
56	6	Paul Skreener	Green Lane	27-24-361	80	Domestic
57	6	William A. Dolton	Bear Tavern Rd.	27-24-361	168	Domestic

TABLE 3-1 (Continued)
DOMESTIC/INDUSTRIAL WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
57	6	S. Novak		27-24-361	100	Domestic
55	6	William Grover	Bear Tavern Rd.	27-24-362	113	Domestic
56	6	Statler Builders	Bear Tavern Rd.	27-24-361	110	Domestic
57	6	F. Russo		27-24-362	75	Domestic
58	6	Angelo Chionise	Lower Ferry Rd.	27-24-362	96	Domestic
61	6	Stuart O'Donnell	Florance Ave.	27-24-362	60	Domestic
61	6	Nevins & Benke	Bull Run Rd.	27-24-362	90	Domestic
53	6	Steve G. Mokacsi	Wilburtha Rd.	27-24-363	65	Domestic
57	6	F. Russo		27-24-363		Domestic
54	6	Mrs. T.A. Brown	Pennington Rd.	27-24-364	125	Domestic
55	6	John Hoffman	Bear Tavern Rd.	27-24-364	140	Domestic
59	6	R.J. Ryan		27-24-364	105	Domestic
59	6	Edna Nelson		27-24-364	80	Domestic
61	6	Robert A. Blayer, Jr.	Hopatcong Drive	27-24-364	96	Domestic
53	6	H.E. Maloney	River Dr.	27-24-365	83	Domestic
54	6	Frank M. Russo	7 Wakefield	27-24-365	60	Domestic
55	6	William A. Sanders	824 River Rd.	27-24-365	100	Domestic
56	6	J. Alfred	Bull Run Rd.	27-34-365	70	Domestic
56	6	Statler Builders, Inc.	Bear Tavern Rd.	27-24-365	115	Domestic
58	6	Louis F. Campanila	Bear Tavern Rd.	27-24-365	93	Domestic
59	6	O. Woodward	Bull Run Rd.	27-24-365	80	Domestic
59	6	Benke Builders	Bull Run Rd.	27-24-365	100	Domestic
59	6	George Briehler's	N. Olden Ave.	27-24-365	250	Domestic
61	6	Charles Hides	Modaga Dr.	27-24-365	85	Domestic
61	6	Louis Maio	Nursery Rd.	27-24-366	115	Domestic
54	6	State of NJ Highway Dept.	Parking Ave.	27-25-111	200	Private
54	6	State of NJ Highway Dept.	Parking Ave.	27-25-111	200	Private
63	6	Sam Analore	Ferry Rd. & Carlton	27-25-112	80	Domestic
69	6	Mr. P. Damage		27-25-113	60	Domestic
53	6	John A. Basic		27-25-114	60	Domestic
55	6	Anthony Knoop		27-25-114	92	Domestic
52	6	Phyllis Cerate	Ewingville Rd.	27-25-115	73	Domestic

TABLE 3-1 (Continued)
DOMESTIC/INDUSTRIAL WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
57	8	Martindell Plastic Co.	Olden Ave.	27-25-116	200	Industrial
72	6	Towne Builders	Johnson Rd.	27-25-116	75	Domestic
54	10	State Hwy Office Bldg.		27-25-117	500	Private
54	10	State Hwy Office Bldg		27-25-117	300	Private
54	10	State Hwy Office Bldg.		27-25-117	200	Private
54	10	State Hwy Office Bldg.		27-25-117	200	Private
54	10	State Hwy Office Bldg.		27-25-117	200	Private
56	6	J. Nortini	Poland Ave.	27-25-117	100	Domestic
65	6	D. Kruzuk	Upper Ferry Rd.	27-25-117	70	Domestic
64	6	D. Tamanes'	Lower Ferry Rd.	27-24-118	70	Domestic
54	6	Phillip Matthews		27-25-141	107	Domestic
67	6	Calnmite Co. Howard Anderson, Builder	Upper Ferry Rd.	27-25-141	200	Office
57	6	Rocco Iatesta		27-25-142	173	Domestic
69	6	Harter & Andreas Tool Co.	Rte. 31	27-25-142	125	Domestic
52	6	A.R. Fasoline	250 Lexington Ave.	27-25-143	60	Office
MONITORING WELLS LOCATED WITHIN A ONE-MILE RADIUS OF THE SITE						
92	3	Amoco/Chicago	1252 Parkway	27-15-778	30-35	
91	1	Mobil/Valley Forge	Grand & Upper Ferry Rd.	27-24-313	40	
90	3	Mobil/Valley Forge		27-24-316	15-17	
90-92	21	Mobil/Valley Forge	Grand Ave. and Upper Ferry Rd.	27-24-321	5-14	
89	10	Exxon Service Station (Houston)	Grand Ave. and Upper Ferry Rd.	27-24-322	18-24	
92	1	Exxon USA	53 Grand Ave. & Upper Ferry Rd.	27-24-325	18.5	
92	2	General Sullivan Group In.	Sullivan Way	27-24-322	18-24	
88	4	GM-Fisher Guide Plant	1445 Parkway Ave.	27-24-328	65, 80	
89-90	6	Roller Bearing of America	Sullivan Way	27-24-329	20-23	
86	13	Fisher Guide Div. of GM	Lot 1 Block 343		8-17.5	
92	2	Bristol Meyers Squibb Co.	West Chester County Airport	27-14-981	25, 35	
87,89	4	Caldwell Supply Co.	1515 Parkway Ave.	27-14-982	12	
90	45	Inland Fisher Guide Div	1445 Parkway Ave.	27-14-982	28-40	
92-93	13	Air Hangar Inc.	Mercer County Airport	27-14-982	10-25	
88	9	U.S. Gov't/Dept. of Navy	1440 Parkway Ave.	27-14-983	7-24.5	

TABLE 3-1 (Continued)
MONITORING WELLS LOCATED WITHIN A ONE-MILE RADIUS OF SITE

Date Installed	Casing Diam. (in.)	Owner	Address	Location	Depth	Type
90	7	U.S. Gov't/Dept. of Navy	1440 Parkway Ave.	27-14-983	17.5-60	
93	1	U.S. Gov't/Dept. of Navy	1440 Parkway Ave.	27-14-983	27-9	
92	2	Air Hangar Inc.	Mercer Co. Airport	27-14-983	15	
87	4	RCA Flight Operations	Mercer Co. Airport	27-14-986	9-13.5	
92	20	U.S. Navy	1440 Parkway Ave.	27-14-986	39-84	
88	2	Mercer Co. Airport	Scotch Rd.	27-14-991	23, 30	
92	3	Mobil Oil	Pennington & Upper Ferry Rd.	27-14-991	28	
88	9	U.S. Navy	Pennington & Upper Ferry Rd.	27-14-994	8-19	
90	1	U.S. Navy	Pennington & Upper Ferry Rd.	27-14-991	60	
89	1	GM - Fishers Guide Div.	1445 Parkway	27-14-331	14	
93	2	Trenton Oil Co.	1252 Parkway Ave.	27-24-333	30	
89	6	CMC-Fisher Guide Div.		27-24-334	20-51	
90/91	16	General Sullivan Group	Sullivan Way	27-24-334	10-30	
88	4	Fisher Guide Div.	1440 Parkway	27-24-335	40	
91	10	General Sullivan Group	Sullivan Way	27-24-336	17-27	
91	5	General Sullivan Group	810 Sullivan Way	27-24-352	21-100	
91	11	General Sullivan Group		27-24-353	23-250	
91	1	Exxon		27-25-117	17	
94	12	U.S. Navy		27-25-118	15-115	
92	1	Henry & Maria McNeil	1334 Edgewood	27-25-142	11	
89	1	N.J. Bell		27-25-143	17.5	
91	10	Mobil Oil		27-25-143	19-25	
92	17	Amoco	1496 Pennington Ave.	27-25-143	17	

TABLE 3-2

SUMMARY OF WELLS LOCATED WITHIN A 1-MILE RADIUS
AND A 1/2-MILE RADIUS OF THE SITE

1 MILE RADIUS	Domestic/ Industrial Wells	Monitoring Wells	Other Special Purpose Wells*
NE QUAD	28	5	2
SE QUAD	38	20	9
NW QUAD	26	127	1
SW QUAD	81	81	3
TOTAL	173	233	15
1/2 MILE RADIUS			
NE QUAD	4	2	2
SE QUAD	10	15	
NW QUAD	5	20	1
SW QUAD	39	62	3
TOTAL	58	99	6

* Other special purpose wells may be for irrigation, light industrial, private club, air conditioning, swimming pool, lawn sprinklers, cooling, school, office, or public non-community uses.

Table 4-1
Summary of Soil / Sediment Samples Collected

Sample Description	Sample ID	Depth (FT.)	Analytical Parameters											Comments
			VOA	BTEX	PAH	TPH	PPM	PCB	BN+15	pH	CN	Pb	TOC	
Press	SB- 1 -SO- 1	0-0.5				x			x					
Transformer M-1	SB- 2 -SO- 3	0-0.5				x		x						
Mineral Oil Switch	SB- 2 -SO- 5	0-0.5				x								
Fuel oil 500,000 gal AST	SB- 3 -SO- 3	0-0.5			x	x								3 borings every 100 linear feet
	SB- 3 -SO- 4	0-0.5			x	x								1 sample from 1 boring below tank
	SB- 3 -SO- 5	0-0.5			x	x								invert
		1.5-2			x	x								
Condensate Sumps	SB- 3 -SO- 6	0-0.5			x	x								Sample to invert of sumps
Two sumps		3-3.5			x	x								maximum 2 feet from sump
	SB- 3 -SO- 7	0-0.5			x	x								wall.
		3-3.5			x	x								
Additional sample Collected in the Bermed Area	SB- 3 -SO- 8	0-0.5			x	x								
Fuel Oil 30,000 AST	SB- 3 -SO- 9	0-0.5			x	x								
	SB- 3 -SO- 10	0-0.5			x	x								
Cooling Tower	SB- 3 -SO- 11	0-0.5				x	x			x				
	SB- 3 -SO- 12	0-0.5				x	x			x				
Truck Parking area	SB- 3 -SO- 13	0-0.5				x			x					Sample below gravel
West Side Air Receivers	SB- 3 -SO- 14	0-0.5			x	x								
	SB- 3 -SO- 15	0-0.5			x	x								
East Side Air Receivers	SB- 3 -SO- 16	0-0.5			x	x								Biased toward staining
Fuel Unload	SB- 3 -SO- 17	0-0.5			x	x			x					Biased toward staining
Former 4,000 gal UST	SB- 3 -SO- 18	10	x											4 Borings every 5' along
		14	x											
	SB- 3 -SO- 19	10	x											centerline of former tank
		14	x											
	SB- 3 -SO- 20	7.5	x											2 Borings along sidewalls of tank
		8.5	x											
	SB- 3 -SO- 21	8.5	x											All borings below clean backfill
		8	x											
	SB- 3 -SO- 22	10.5	x											
		15	x											
	SB- 3 -SO- 23	11	x											
		14	x											

Table 4-1
Summary of Soil / Sediment Samples Collected

Sample Description	Sample ID	Depth (FT.)	Analytical Parameters											Comments
			VOA	BTEX	PAH	TPH	PPM	PCB	BN+15	pH	CN	Pb	TOC	
Former 2,000 gal UST	SB- 3 -SO- 24	13	x											
		18	x											2 borings along centerline
	SB- 3 -SO- 25	9	x											of former tank
		16	x											
	SB- 3 -SO- 26	10.5	x											
		15	x											
	SB- 3 -SO- 27	12	x											3 borings East, West & South
		15	x											of the former tank for
	SB- 3 -SO- 28	11	x											delineation purposes
		16.5	x											
Former 2,500 gal Paint UST	SB- 3 -SO- 29	8	x											1 Boring every 5' along
		9	x											
	SB- 3 -SO- 30	8	x											centerline of former tank
		9	x											
	SB- 3 -SO- 31	8	x											2 Borings along sidewalls of tank
		9	x											
	SB- 3 -SO- 32	8	x											All borings below clean backfill
		9	x											
	SB- 3 -SO- 33	8	x											
		9	x											
Metal Scrap Bins	SB- 5 -SO- 1	0-0.5			x	x	x							1 boring per bin
	SB- 5 -SO- 2	0-0.5			x	x	x							6" below pavement
	SB- 5 -SO- 3	0-0.5			x	x	x							
550 gal former diesel UST	SB- 6 -SO- 1	0-0.5			x	x								borings around former tank
	SB- 6 -SO- 2	0-0.5			x	x								fill, biased toward staining
Fire Fighting Practice Area	SB- 6 -SO- 3	0-0.5		x								x		Biased toward staining
	SB- 6 -SO- 4	0-0.5		x								x		
Die Storage Area	SB- 7 -SO- 1	0-0.5				x								Surface samples on other side
	SB- 7 -SO- 2	0-0.5				x								of fence biased toward breaches

Table 4-1
Summary of Soil / Sediment Samples Collected

Sample Description	Sample ID	Depth (FT.)	Analytical Parameters											Comments
			VOA	BTEX	PAH	TPH	PPM	PCB	BN+15	pH	CN	Pb	TOC	
Equipment Storage Area East of Powerhouse	SB- 9 -SO- 1	0-0.5			x	x	x							Biased towards areas of staining
	SB- 9 -SO- 2	0-0.5			x	x	x							
	SB- 9 -SO- 3	0-0.5			x	x	x							
	SB- 9 -SO- 4	0-0.5			x	x	x							
	SB- 9 -SO- 5	0-0.5			x	x	x							
	SB- 9 -SO- 6	0-0.5			x	x	x							
	SB- 9 -SO- 7	0-0.5			x	x	x							
	SB- 9 -SO- 8	0-0.5			x	x	x							
	SB- 9 -SO- 9	0-0.5			x	x	x							
	SB- 9 -SO- 10	0-0.5			x	x	x							
	SB- 9 -SO- 11	0-0.5			x	x	x							
	SB- 9 -SO- 12	0-0.5			x	x	x							
Former Slude Drying Beds #1 through #4	SB- 10 -SO- 1	0-2	x			x	x		x	x	x		x	The objective of these borings is to define horzontal and vertical limits of sludge drying beds
		4-5	x			x	x		x	x	x		x	
		5-6	x			x	x		x	x	x		x	
	SB- 10 -SO- 2	0-2	x			x	x		x	x	x		x	
		2-3	x			x	x		x	x	x		x	
		3-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		6-7	x			x	x		x	x	x		x	
	SB- 10 -SO- 3	0-1	x			x	x		x	x	x		x	
		1-2	x			x	x		x	x	x		x	
		3-4	x			x	x		x	x	x		x	
		5-6	x			x	x		x	x	x		x	
		9-10	x			x	x		x	x	x		x	
	SB- 10 -SO- 4	0-0.5	x			x	x		x	x	x		x	
		0.5-2	x			x	x		x	x	x		x	
	SB- 10 -SO- 5	0-1	x			x	x		x	x	x		x	
		1-2	x			x	x		x	x	x		x	
		2-4	x			x	x		x	x	x		x	
		5-6	x			x	x		x	x	x		x	
		7-8	x			x	x		x	x	x		x	
	SB- 10 -SO- 6	0-1	x			x	x		x	x	x		x	
		1-2	x			x	x		x	x	x		x	
		2-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		6-7	x			x	x		x	x	x		x	

Table 4-1
Summary of Soil / Sediment Samples Collected

Sample Description	Sample ID	Depth (FT.)	Analytical Parameters											Comments
			VOA	BTEX	PAH	TPH	PPM	PCB	BN+15	pH	CN	Pb	TOC	
Former Sludge Drying Bed #5	SB- 7 -SO- 3	0-2	x			x	x		x	x	x		x	The objective of these borings is to define horizonal and vertical limits of sludge drying bed. Sediment samples from each distinct sediment layers Termination depth of each boring native soil
		2-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		6-8	x			x	x		x	x	x		x	
		8-10	x			x	x		x	x	x		x	
	SB- 7 -SO- 4	1-2	x			x	x		x	x	x		x	
		2-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		6-8	x			x	x		x	x	x		x	
		8-10	x			x	x		x	x	x		x	
	SB- 7 -SO- 5	0-2	x			x	x		x	x	x		x	
		2-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		8-10	x			x	x		x	x	x		x	
		10-12	x			x	x		x	x	x		x	
	SB- 7 -SO- 6	0-2	x			x	x		x	x	x		x	
		2-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		6-8	x			x	x		x	x	x		x	
		8-10	x			x	x		x	x	x		x	
	SB- 7 -SO- 7	0-2	x			x	x		x	x	x		x	
		2-4	x			x	x		x	x	x		x	
		4.5-6	x			x	x		x	x	x		x	
		6-8	x			x	x		x	x	x		x	
		8-10	x			x	x		x	x	x		x	
Waste Treatment Sludge Settling Tanks	SB- 8 -SO- 11	6-8	x				x		x					4 boring drilled in this area of suspected fill.
		14-16	x				x		x					
	SB- 8 -SO- 12	10-12	x				x		x					
		15-16	x				x		x					
	SB- 8 -SO- 13	12-14	x				x		x					
		16-18	x				x		x					
	SB- 8 -SO- 14	8-10	x				x		x					
		14-16	x				x		x					
Former Trash Incinerator	SB- 8 -SO- 15	2-4			x		x			x				Borings to Bedrock
	SB- 8 -SO- 16	4-6			x		x			x				
Spent Nitric Acid Spill	SB- 8 -SO- 17	4-4.5					x			x				
	SB- 8 -SO- 18	3.5-4					x			x				

Table 4-1
Summary of Soil / Sediment Samples Collected

Sample Description	Sample ID	Depth (FT.)	Analytical Parameters											Comments
			VOA	BTEX	PAH	TPH	PPM	PCB	BN+15	pH	CN	Pb	TOC	
Former Sludge Drying Beds #1 through #4 (Continued)	SB- 10 -SO- 7	0-1	x			x	x		x	x	x		x	
		1-2	x			x	x		x	x	x		x	
		4-5	x			x	x		x	x	x		x	
		8-10	x			x	x		x	x	x		x	
		11-12	x			x	x		x	x	x		x	
	SB- 10 -SO- 8	0-1.5	x			x	x		x	x	x		x	
		1.5-3	x			x	x		x	x	x		x	
	SB- 10 -SO- 9	0-1	x			x	x		x	x	x		x	
		1-2	x			x	x		x	x	x		x	
		2-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		9-10	x			x	x		x	x	x		x	
	SB- 10 -SO- 10	0-1	x			x	x		x	x	x		x	
		1-2	x			x	x		x	x	x		x	
		3-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		8-10	x			x	x		x	x	x		x	
	SB- 10 -SO- 11	0-1	x			x	x		x	x	x		x	
		1-2	x			x	x		x	x	x		x	
		2-4	x			x	x		x	x	x		x	
		4-6	x			x	x		x	x	x		x	
		8-9	x			x	x		x	x	x		x	
	SB- 10 -SO- 5A	2-4	x			x	x		x	x	x		x	
		5-6	x			x	x		x	x	x		x	
Gold Run Pond	SS- 11 -SD 1	NA				x	x	x	x		x			Outfall 001
	SS- 11 -SD 2	NA				x	x	x	x		x			Inlet to Gold Run (Sediment
	SS- 11 -SD 3	NA				x	x	x	x		x			Within Pond Samples)
	SS- 11 -SD 4	NA				x	x	x	x		x			Within Pond
	SS- 11 -SD 5	NA				x	x	x	x		x			Outlet of Pond

TABLE 4-2
SOIL/WIPE SAMPLING VARIANCES

BORING NO.	MATRIX	PROPOSED SCHEDULE		ACTUAL SCHEDULE		COMMENTS
		DEPTH (FT)	ANALYTICAL SCHEDULE	DEPTH (FT)	ANALYTICAL SCHEDULE	
SB-2-SO-1	Soil	0-0.5 ft and 4-4.5 ft	VOA, TPH	--	Samples were not collected	Required excavation work had not been conducted.
SB-2-SO-2	Soil	0-0.5 ft and 4-4.5 ft	VOA, TPH	--	Samples were not collected	Required excavation work had not been conducted.
SB-2-WP-8	Wipe	--	PCB	--	Sample was not collected	Only sample (SB-2-WP-7) was collected due to the limited amount of staining present
SB-2-WP-9	Wipe	--	PCB	--	Sample was not collected	Only sample (SB-2-WP-7) was collected due to the limited amount of staining present
SB-2-WP-10	Wipe	--	PCB	--	Sample was not collected	Only sample (SB-2-WP-7) was collected due to the limited amount of staining present
SB-2-SO-4	Soil	0-0.5	TPH, PCB	--	Sample was not collected	(Transformer M-1) Only sample SB-2-SO-3 was collected from below the stained gravel adjacent to transformer M-1 due to the size of the area of staining.
SB-2-SO-6	Soil	0-0.5	TPH	--	Sample was not collected	(Mineral Oil Switches) Only sample SB-2-SO-3 was collected because staining was only present beneath one of the switches.
SB-3-SO-1	Soil	0-0.5	PAH, TPH	--	Sample was not collected	(Additional Sample in the Bermed Area) No additional areas of staining were observed.

TABLE 4-2
SOIL/WIPE SAMPLING VARIANCES

BORING NO.	MATRIX	PROPOSED SCHEDULE		ACTUAL SCHEDULE		COMMENTS
		DEPTH (FT)	ANALYTICAL SCHEDULE	DEPTH (FT)	ANALYTICAL SCHEDULE	
SB-3-SO-2	Soil	0-0.5	PAH, TPH	--	Sample was not collected	(Additional Sample in the Bermed Area) No additional areas of staining were observed.
SB-3-SO-6	Soil	4-4.5	PAH, TPH	3-3.5	PAH, TPH	(Condensated Sump) The measured invent of the sump is 3.0 feet.
SB-3-SO-7	Soil	4-4.5	PAH, TPH	3-3.5	PAH, TPH	(Condensate Pump) The measured invent of the sump is 3.0 feet.
SB-3-SO-34	Soil	0-0.5	PAH, TPH	--	Sample was not collected	(Additional sample in the bermed area) No additional areas of staining were observed
SB-3-SO-35	Soil	0-0.5	PAH, TPH	--	Sample was not collected	(Additional sample in the bermed area) No additional areas of staining were observed
SB-3-SO-13	Soil	0-0.5	PAH, TPH	0-0.5	TPH, BN+15	(Fuel Unload Area) Error made in analytical request.
SB-7-SO-3 Through SB-7-SO-7	Soil	0.5 ft Intervals	VOA, TPH, PPM, BN+15 pH, CN, TOC	1.5-2 ft Intervals	VOA, TPH, PPM, BN+15 pH, CN, TOC	(Former Sludge Drying Bed #5) Due to volume of sample required for the analytical schedule larger intervals were necessary. However, VOA samples were collected from discrete intervals.
SB-8-SO-1 Through SB-8-SO-10	Soil	5-5.5 ft and 9.5-10 ft Intervals	VOA, TPH, PPM, BN+15 pH, CN	--	Samples were not collected	Required excavation of the former primary sludge setteling tanks had not been completed.

TABLE 4-2
SOIL/WIPE SAMPLING VARIANCES

BORING NO.	MATRIX	PROPOSED SCHEDULE		ACTUAL SCHEDULE		COMMENTS
		DEPTH (FT)	ANALYTICAL SCHEDULE	DEPTH (FT)	ANALYTICAL SCHEDULE	
SB-8-WP-21	Wipe	--	PCB	--	Sample was not collected	Sample was not collected due to limited staining.
SB-8-WP-22	Wipe	--	PCB	--	Sample was not collected	Sample was not collected due to limited staining.
SB-8-SO-11 Through SB-8-SO-14	Soil	0.5 ft Intervals	VOA, PPM, BN+15	1-2 ft Intervals	VOA, PPM, BN+15	(Waste Treatment Sludge Settling Tanks) Due to low sample recoveries, and the volume of sample required for the analytical schedule, larger intervals were necessary. However, VOA samples were collected from discrete intervals.
SB-8-SO-15 and SB-8-SO-16	Soil	0.5ft Intervals	PAH, PPM, pH	2 ft Intervals	PAH, PPM, pH	(Former Trash Incinerator) Poor sample recoveries required larger intervals.
SB-10-SO-1 Through SB-10-SO-11	Soil	0-0.5 ft Intervals	VOA, TPH, PPM, BN+15 pH, CN, TOC	1-2 ft Intervals	VOA, TPH, PPM, BN+15 pH, CN, TOC	(Sludge Drying Beds Area - 10) Due to the volume of sample required for the analytical schedule, larger intervals were necessary. However, VOA samples were collected from discrete intervals. CN not tested in one sample from SB-10-SO-7.

Table 4-3
Groundwater Sampling Summary

Monitoring Well	Sample ID	Analytical Parameters						
		VOA	BN+15	PP Metals Total	PP Metals Filtered	BTEX	Filtered Lead	Total Lead
MW-18	GW-MW-18	x	x	x	x			
MW-19	GW-MW-19	x	x	x	x			
MW-20	GW-MW-20	x	x	x	x			
UST-1	GW-UST-1	x	x	x	x			
UST-2	GW-UST-2					x	x	x
UST-4	GW-UST-4					x	x	x
UST-5	GW-UST-5					x	x	x
UST-7	GW-UST-7					x	x	x
UST-8	GW-UST-8					x	x	x

Table 4-4
Wipe Sample Summary

Sample Description	Sample ID	Depth (FT.)	Analytical Parameters											Comments
			VOA	BTEX	PAH	TPH	PPM	PCB	BN+15	pH	CN	Pb	TOC	
Transformer M-1	SB- 2 -WP- 7	NA						x						Wipe samples around transformer.
Raw Material Drum Storage Pad	SB- 5 -WP- 4	NA						x						Wipe samples of previously stained area after concrete was cleaned.
	SB- 5 -WP- 5	NA						x						
	SB- 5 -WP- 6	NA						x						
Transformer #14	SB- 8 -WP- 19	NA						x						Wipe samples of previously stained area on concrete pad
	SB- 8 -WP- 20	NA						x						

TABLE 4-5

SUMMARY OF INSPECTED SUMPS AND PITS

Site Area	Structure	Comments
Eight	Sump located in the waste oil AST containment area	The structure was cleaned and inspected. No major cracks or breaches were observed in the structures walls or floor. Photographs were taken.
	Former primary sludge settling tanks.	The structure was cleaned and inspected. Minor cracks were observed in the center walls which divides the two setting tanks. No major cracks were observed in any of the outer walls or floor. Photographs were taken.

TABLE 4-6
ANALYTICAL DEVIATIONS AND DATA QUALIFICATION

Sample ID	Medium	Fraction	Deviation	Qualifications
SB-3-S0-18 (14.0')	SB	VOC	Internal Standard Outlier due to Matrix Interference	Data Estimated
SB-3-S0-19 (10.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-20 (8.5')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-23 (11.0')	SB	VOC	Internal Standard Outlier due to Matrix Interference	Data Estimated
SB-3-S0-24 (18.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-25 (9.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-25 (16.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-26 (10.5')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-26 (15.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-27 (12.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-27 (15.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-28 (11.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-28 (16.5')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-3-S0-16 (0.5')	SS	PAH	Internal Standard Outlier due to Matrix Interference	Data Estimated
SB-8-S0-11 (8.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-8-S0-11 (16.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-8-S0-12 (16.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-8-S0-14 (10.0')	SB	VOC	Analyzed Outside Holding Time	Data Estimated
SB-8-S0-13 (14.0')	SB	BN	Internal Standard Outlier due to Matrix Interference	Data Estimated

TABLE 4-6 (Cont'd)

Sample ID	Medium	Fraction	Deviation	Qualifications
SB-9-S0-9 (0.5')	SS	BN	Internal Standard Outlier due to Matrix Interference	Data Estimated
SB-10-S0-11 (4.0')	SB	BN	Internal Standard Outlier due to Matrix Interference	Data Estimated

Abbreviations

SB-Subsurface Soil
BN-Base Neutral
VOA-Volatiles
PAH-Polynuclear Aromatic Hydrocarbon
SS-Surface Soil

AREA 1 - FORMER PRESS STORAGE AREA

SOIL SAMPLING RESULTS

Location I.D.		1-1
Sample I.D.		SB-1-SO-1
Depth:		0.50
Date Sampled		03/25/94
Parameter	**Units**	
Base Neutrals		
Acenaphthene	ug/kg	400 U
Acenaphthylene	ug/kg	70 J
Anthracene	ug/kg	110 J
Benzo(a)anthracene	ug/kg	500
Benzo(a)pyrene	ug/kg	450
Benzo(b)fluoranthene	ug/kg	790
Benzo(ghi)perylene	ug/kg	380 J
Benzo(k)fluoranthene	ug/kg	400 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U
Bis(2-chloroethoxy)methane	ug/kg	400 U
Bis(2-chloroethyl)ether	ug/kg	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	510
4-Bromophenyl phenyl ether	ug/kg	400 U
Butyl benzyl phthalate	ug/kg	400 U
Carbazole	ug/kg	84 J
p-Chloroaniline	ug/kg	400 U
2-Chloronaphthalene	ug/kg	400 U
4-Chlorophenyl phenyl ether	ug/kg	400 U
Chrysene	ug/kg	540
Di-n-butyl phthalate	ug/kg	400 U
Di-n-octyl phthalate	ug/kg	400 U
Dibenzo(a,h)anthracene	ug/kg	110 J
Dibenzofuran	ug/kg	27 J
3,3-Dichlorobenzidine	ug/kg	400 U
m-Dichlorobenzene	ug/kg	400 U
o-Dichlorobenzene	ug/kg	400 U
p-Dichlorobenzene	ug/kg	400 U
Diethyl phthalate	ug/kg	400 U
Dimethyl phthalate	ug/kg	400 U
2,4-Dinitrotoluene	ug/kg	400 U
2,6-Dinitrotoluene	ug/kg	400 U
Fluoranthene	ug/kg	1100
Fluorene	ug/kg	58 J
Hexachlorobenzene	ug/kg	400 U
Hexachlorobutadiene	ug/kg	400 U
Hexachlorocyclopentadiene	ug/kg	400 U
Hexachloroethane	ug/kg	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 1 - FORMER PRESS STORAGE AREA

SOIL SAMPLING RESULTS

Location I.D.		1-1
Sample I.D.		SB-1-SO-1
Depth:		0.50
Date Sampled		03/25/94
Parameter	Units	
Base Neutrals		
Indeno(1,2,3-cd)pyrene	ug/kg	320 J
Isophorone	ug/kg	400 U
2-Methylnaphthalene	ug/kg	43 J
N-Nitrosodiphenylamine	ug/kg	400 U
N-Nitrosodipropylamine	ug/kg	400 U
Naphthalene	ug/kg	34 J
m-Nitroaniline	ug/kg	980 U
o-Nitroaniline	ug/kg	980 U
p-Nitroaniline	ug/kg	980 U
Nitrobenzene	ug/kg	400 U
Phenanthrene	ug/kg	570
Pyrene	ug/kg	880
1,2,4-Trichlorobenzene	ug/kg	400 U
MISC		
TPH	mg/kg	100

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-2
AREA 2

SOIL SAMPLING VARIANCES

PART A LOCATION VARIANCES

No Variances:

All borings in Area 2 were advanced in the same general locations as proposed in the RIP.

PART B ANALYTICAL VARIANCES

Boring #	Matrix	Proposed Depth	Proposed Analytical Schedule	Actual Analytical Schedule	Reason For Variance
SB-2-SO-1	Soil	0-0.5 ft. 4-4.5 ft.	VOA, TPH VOA, TPH	Post-excavation boring not conducted	Piping had not been excavated
SB-2-SO-2	Soil	0-0.5 ft. 4-4.5 ft.	VOA, TPH VOA, TPH	Post-excavation boring not conducted	Piping had not been excavated
SB-2-SO-4	Soil	0-0.5 ft.	TPH, PCB	Sample was not collected	Sample was not collected due to the limited amount of staining present
SB-2-SO-6	Soil	0-0.5 ft.	TPH	Sample was not collected	Sample was not collected due to the limited amount of staining present

AREA 2 - SOIL SAMPLING RESULTS

Location I.D.		2-3	2-5
Sample I.D.		SB-2-SO-3	SB-2-SO-5
Depth:		0.50	0.50
Date Sampled		03/25/94	03/25/94
Parameter	**Units**		
PCB			
Aroclor 1016	ug/kg	110 U	NA
Aroclor 1221	ug/kg	200 U	NA
Aroclor 1232	ug/kg	110 U	NA
Aroclor 1242	ug/kg	110 U	NA
Aroclor 1248	ug/kg	110 U	NA
Aroclor 1254	ug/kg	110 U	NA
Aroclor 1260	ug/kg	6000	NA
MISC			
TPH	mg/kg	1800	1300

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 2 -WIPE SAMPLING RESULTS

Location I.D.		2-7
Sample I.D.		SB-2-WP-7
Depth:		0.00
Date Sampled		03/24/94
Parameter	Units	
PCB		
Aroclor 1016	#	500 U
Aroclor 1221	#	1000 U
Aroclor 1232	#	500 U
Aroclor 1242	#	500 U
Aroclor 1248	#	500 U
Aroclor 1254	#	500 U
Aroclor 1260	#	220000

- units in ug/100cm2

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-5

AREA 3

SOIL SAMPLING VARIANCES

PART A LOCATION VARIANCES

Boring No.	Proposed Location	Actual Location	Reason For Variance
SB-3-S0-33	Approximately 5 ft. east of SB-3-SO-31 along the former tank sidewall (See Figure 5-3c)	5 ft. west of SB-3-30	The exact location of the waterline to the east of the former tank area was not known. An attempt was made to advance the boring 5 ft. west of SB-3-S0-31. However auger refusal occurred.
SB-3-SO-26 SB-3-SO-27 SB-3-SO-28	Along the former centerline and sidewalls of the 2,000-gallon UST. (See Figure 5-5b).	South, east, and west of the location of the former USTs	Based upon HNu readings detected from borings advanced in the UST area, the three boring locations were moved for delineation purposes.

PART B ANALYTICAL VARIANCES

Boring No.	Matrix	Proposed Depth	Proposed Analytical Schedule	Actual Depth	Actual Analytical Schedule	Reason For Variance
SB-3-SO-1 SB-3-SO-2 SB-3-SO-34 SB-3-SO-35	Soil	0-0.5	PAH, TPH	---	Samples were not collected	The samples were to be collected from areas of additional staining. None were observed.
SB-3-SO-6 SB-3-SO-7	Soil	4-4.5	PAH, TPH	3-3.5	PAH, TPH	Samples were to be collected from the invert of the condensate sump estimated to be 4.0 ft. The measure invert of the sump is 3.0 ft.
SB-3-SO-13	Soil	0-0.5	PAH, TPH	0-0.5	TPH, BN+15	Error made in analytical request

AREA 3 - ABOVE GROUND STORAGE TANK AREA

SOIL SAMPLING RESULTS

Location I.D.		3-10	3-3	3-4	3-5	3-5
Sample I.D.		SB-3-SO-10	SB-3-SO-3	SB-3-SO-4	SB-3-SO-5	SB-3-SO-5
Depth:		0.50	0.50	0.50	0.50	2.00
Date Sampled		02/07/94	02/07/94	02/07/94	02/07/94	02/07/94
Parameter	Units					
PAH						
Acenaphthene	ug/kg	310 J	400 U	400 U	400 U	400 U
Acenaphthylene	ug/kg	400 U	400 U	400 U	400 U	400 U
Anthracene	ug/kg	450	400 U	400 U	400 U	400 U
Benzo(a)anthracene	ug/kg	1200	400 U	400 U	400 U	400 U
Benzo(a)pyrene	ug/kg	1000	400 U	400 U	400 U	400 U
Benzo(b)fluoranthene	ug/kg	1400	400 U	400 U	400 U	400 U
Benzo(ghi)perylene	ug/kg	540	400 U	400 U	400 U	400 U
Benzo(k)fluoranthene	ug/kg	430	400 U	400 U	400 U	400 U
Chrysene	ug/kg	1100	400 U	400 U	400 U	400 U
Dibenzo(a,h)anthracene	ug/kg	200 J	400 U	400 U	400 U	400 U
Fluoranthene	ug/kg	2500	400 U	48 J	400 U	400 U
Fluorene	ug/kg	310 J	400 U	400 U	400 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	800	400 U	400 U	400 U	400 U
2-Methylnaphthalene	ug/kg	400 U	400 U	400 U	400 U	400 U
Naphthalene	ug/kg	80 J	400 U	400 U	400 U	400 U
Phenanthrene	ug/kg	2400	400 U	400 U	400 U	400 U
Pyrene	ug/kg	1800	400 U	400 U	400 U	400 U
MISC						
TPH	mg/kg	43	180	370	25 U	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - ABOVE GROUND STORAGE TANK AREA

SOIL SAMPLING RESULTS

Location I.D.		3-6	3-6	3-7	3-7	3-8
Sample I.D.		SB-3-SO-6	SB-3-SO-6	SB-3-SO-7	SB-3-SO-7	SB-3-SO-8
Depth:		0.50	3.50	0.50	3.50	0.50
Date Sampled		02/07/94	02/07/94	02/07/94	02/07/94	02/07/94
Parameter	Units					
PAH						
Acenaphthene	ug/kg	200 J	68 J	400 U	400 U	430 U
Acenaphthylene	ug/kg	430 U	430 U	400 U	400 U	430 U
Anthracene	ug/kg	430 U	430 U	400 U	400 U	430 U
Benzo(a)anthracene	ug/kg	200 J	55 J	400 U	120 J	67 J
Benzo(a)pyrene	ug/kg	230 J	52 J	400 U	140 J	100 J
Benzo(b)fluoranthene	ug/kg	150 J	49 J	400 U	55 J	91 J
Benzo(ghi)perylene	ug/kg	55 J	430 U	400 U	400 U	430 U
Benzo(k)fluoranthene	ug/kg	430 U	430 U	400 U	400 U	430 U
Chrysene	ug/kg	440	110 J	75 J	100 J	150 J
Dibenzo(a,h)anthracene	ug/kg	74 J	430 U	400 U	400 U	430 U
Fluoranthene	ug/kg	220 J	68 J	400 U	60 J	88 J
Fluorene	ug/kg	360 J	99 J	400 U	49 J	430 U
Indeno(1,2,3-cd)pyrene	ug/kg	55 J	430 U	400 U	400 U	430 U
2-Methylnaphthalene	ug/kg	530	260 J	50 J	57 J	67 J
Naphthalene	ug/kg	190 J	89 J	400 U	400 U	430 U
Phenanthrene	ug/kg	820	190 J	400 U	180 J	110 J
Pyrene	ug/kg	450	81 J	81 J	310 J	130 J
MISC						
TPH	mg/kg	750	1000	1200	1000	510

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - ABOVE GROUND STORAGE TANK AREA

SOIL SAMPLING RESULTS

Location I.D.		3-9
Sample I.D.		SB-3-SO-9
Depth:		0.50
Date Sampled		02/07/94
Parameter	**Units**	
PAH		
Acenaphthene	ug/kg	400 U
Acenaphthylene	ug/kg	400 U
Anthracene	ug/kg	400 U
Benzo(a)anthracene	ug/kg	110 J
Benzo(a)pyrene	ug/kg	120 J
Benzo(b)fluoranthene	ug/kg	110 J
Benzo(ghi)perylene	ug/kg	66 J
Benzo(k)fluoranthene	ug/kg	400 U
Chrysene	ug/kg	170 J
Dibenzo(a,h)anthracene	ug/kg	400 U
Fluoranthene	ug/kg	160 J
Fluorene	ug/kg	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	58 J
2-Methylnaphthalene	ug/kg	400 U
Naphthalene	ug/kg	400 U
Phenanthrene	ug/kg	86 J
Pyrene	ug/kg	170 J
MISC		
TPH	mg/kg	770

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - POTENTIAL UNITS OF CONCERN SURROUNDING THE POWER HOUSE

SOIL SAMPLING RESULTS

Location I.D.		3-11	3-12	3-13	3-14	3-15
Sample I.D.		SB-3-SO-11	SB-3-SO-12	SB-3-SO-13	SB-3-SO-14	SB-3-SO-15
Depth:		0.50	0.50	0.50	0.50	0.50
Date Sampled		02/07/94	02/07/94	02/17/94	02/07/94	02/07/94
Parameter	Units					
Base Neutrals						
Acenaphthene	ug/kg	NA	NA	360 U	1300	400 U
Acenaphthylene	ug/kg	NA	NA	360 U	400 U	400 U
Anthracene	ug/kg	NA	NA	360 U	91 J	400 U
Benzo(a)anthracene	ug/kg	NA	NA	52 J	230 J	51 J
Benzo(a)pyrene	ug/kg	NA	NA	49 J	190 J	49 J
Benzo(b)fluoranthene	ug/kg	NA	NA	69 J	360 J	72 J
Benzo(ghi)perylene	ug/kg	NA	NA	53 J	110 J	400 U
Benzo(k)fluoranthene	ug/kg	NA	NA	360 U	110 J	400 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	NA	NA	360 U	NA	NA
Bis(2-chloroethoxy)methane	ug/kg	NA	NA	360 U	NA	NA
Bis(2-chloroethyl)ether	ug/kg	NA	NA	360 U	NA	NA
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	NA	NA	170 J	NA	NA
4-Bromophenyl phenyl ether	ug/kg	NA	NA	360 U	NA	NA
Butyl benzyl phthalate	ug/kg	NA	NA	360 U	NA	NA
Carbazole	ug/kg	NA	NA	360 U	NA	NA
p-Chloroaniline	ug/kg	NA	NA	360 U	NA	NA
2-Chloronaphthalene	ug/kg	NA	NA	360 U	NA	NA
4-Chlorophenyl phenyl ether	ug/kg	NA	NA	360 U	NA	NA
Chrysene	ug/kg	NA	NA	75 J	280 J	57 J
Di-n-butyl phthalate	ug/kg	NA	NA	360 U	NA	NA
Di-n-octyl phthalate	ug/kg	NA	NA	360 U	NA	NA
Dibenzo(a,h)anthracene	ug/kg	NA	NA	360 U	43 J	400 U
Dibenzofuran	ug/kg	NA	NA	360 U	NA	NA
3,3-Dichlorobenzidine	ug/kg	NA	NA	360 U	NA	NA
m-Dichlorobenzene	ug/kg	NA	NA	360 U	NA	NA
o-Dichlorobenzene	ug/kg	NA	NA	360 U	NA	NA
p-Dichlorobenzene	ug/kg	NA	NA	360 U	NA	NA
Diethyl phthalate	ug/kg	NA	NA	360 U	NA	NA
Dimethyl phthalate	ug/kg	NA	NA	360 U	NA	NA
2,4-Dinitrotoluene	ug/kg	NA	NA	360 U	NA	NA
2,6-Dinitrotoluene	ug/kg	NA	NA	360 U	NA	NA
Fluoranthene	ug/kg	NA	NA	94 J	540	79 J
Fluorene	ug/kg	NA	NA	360 U	970	400 U
Hexachlorobenzene	ug/kg	NA	NA	360 U	NA	NA
Hexachlorobutadiene	ug/kg	NA	NA	360 U	NA	NA
Hexachlorocyclopentadiene	ug/kg	NA	NA	360 U	NA	NA
Hexachloroethane	ug/kg	NA	NA	360 U	NA	NA

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - POTENTIAL UNITS OF CONCERN SURROUNDING THE POWER HOUSE

SOIL SAMPLING RESULTS

Location I.D.		3-11	3-12	3-13	3-14	3-15
Sample I.D.		SB-3-SO-11	SB-3-SO-12	SB-3-SO-13	SB-3-SO-14	SB-3-SO-15
Depth:		0.50	0.50	0.50	0.50	0.50
Date Sampled		02/07/94	02/07/94	02/17/94	02/07/94	02/07/94
Parameter	Units					
Base Neutrals						
Indeno(1,2,3-cd)pyrene	ug/kg	NA	NA	54 J	160 J	46 J
Isophorone	ug/kg	NA	NA	360 U	NA	NA
2-Methylnaphthalene	ug/kg	NA	NA	360 U	21000	400 U
N-Nitrosodiphenylamine	ug/kg	NA	NA	360 U	NA	NA
N-Nitrosodipropylamine	ug/kg	NA	NA	360 U	NA	NA
Naphthalene	ug/kg	NA	NA	360 U	15000	400 U
m-Nitroaniline	ug/kg	NA	NA	900 U	NA	NA
o-Nitroaniline	ug/kg	NA	NA	900 U	NA	NA
p-Nitroaniline	ug/kg	NA	NA	900 U	NA	NA
Nitrobenzene	ug/kg	NA	NA	360 U	NA	NA
Phenanthrene	ug/kg	NA	NA	360 U	590	400 U
Pyrene	ug/kg	NA	NA	87 J	330 J	56 J
1,2,4-Trichlorobenzene	ug/kg	NA	NA	360 U	NA	NA
Metals						
Antimony	mg/kg	79	0.50 U	NA	NA	NA
Arsenic	mg/kg	17	12	NA	NA	NA
Beryllium	mg/kg	11	0.69	NA	NA	NA
Cadmium	mg/kg	15	1.0 U	NA	NA	NA
Chromium	mg/kg	1100	35	NA	NA	NA
Copper	mg/kg	1100	56	NA	NA	NA
Lead	mg/kg	980	46	NA	NA	NA
Mercury	mg/kg	6.4 R	0.14 R	NA	NA	NA
Nickel	mg/kg	500	25	NA	NA	NA
Selenium	mg/kg	2.2 U	0.50 U	NA	NA	NA
Silver	mg/kg	1.5 U	1.5 U	NA	NA	NA
Thallium	mg/kg	0.50 U	0.50 U	NA	NA	NA
Zinc	mg/kg	29000	270	NA	NA	NA
MISC						
Hydrogen ion	ph un	7.9	7.9	NA	NA	NA
TOC	mg/kg	NA	NA	25 U	NA	NA
TPH	mg/kg	850	25 U	25 U	1400	45

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - POTENTIAL UNITS OF CONCERN SURROUNDING THE POWER HOUSE

SOIL SAMPLING RESULTS

Location I.D.		3-16	3-17
Sample I.D.		SB-3-SO-16	SB-3-SO-17
Depth:		0.50	0.50
Date Sampled		02/07/94	02/07/94
Parameter	Units		
Base Neutrals			
Acenaphthene	ug/kg	730 U	150 J
Acenaphthylene	ug/kg	730 U	360 U
Anthracene	ug/kg	730 U	330 J
Benzo(a)anthracene	ug/kg	730 U	1400
Benzo(a)pyrene	ug/kg	730 U	1200
Benzo(b)fluoranthene	ug/kg	730 U	1600
Benzo(ghi)perylene	ug/kg	730 U	640
Benzo(k)fluoranthene	ug/kg	730 U	570
Bis(2-chloro-1-methylethyl) ether	ug/kg	NA	360 U
Bis(2-chloroethoxy)methane	ug/kg	NA	360 U
Bis(2-chloroethyl)ether	ug/kg	NA	360 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	NA	260 J
4-Bromophenyl phenyl ether	ug/kg	NA	360 U
Butyl benzyl phthalate	ug/kg	NA	100 J
Carbazole	ug/kg	NA	250 J
p-Chloroaniline	ug/kg	NA	360 U
2-Chloronaphthalene	ug/kg	NA	360 U
4-Chlorophenyl phenyl ether	ug/kg	NA	360 U
Chrysene	ug/kg	460 J	1300
Di-n-butyl phthalate	ug/kg	NA	360 U
Di-n-octyl phthalate	ug/kg	NA	360 U
Dibenzo(a,h)anthracene	ug/kg	730 U	220 J
Dibenzofuran	ug/kg	NA	52 J
3,3-Dichlorobenzidine	ug/kg	NA	360 U
m-Dichlorobenzene	ug/kg	NA	360 U
o-Dichlorobenzene	ug/kg	NA	360 U
p-Dichlorobenzene	ug/kg	NA	360 U
Diethyl phthalate	ug/kg	NA	360 U
Dimethyl phthalate	ug/kg	NA	360 U
2,4-Dinitrotoluene	ug/kg	NA	360 U
2,6-Dinitrotoluene	ug/kg	NA	360 U
Fluoranthene	ug/kg	410 J	2500
Fluorene	ug/kg	730 U	120 J
Hexachlorobenzene	ug/kg	NA	360 U
Hexachlorobutadiene	ug/kg	NA	360 U
Hexachlorocyclopentadiene	ug/kg	NA	360 U
Hexachloroethane	ug/kg	NA	360 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - POTENTIAL UNITS OF CONCERN SURROUNDING THE POWER HOUSE

SOIL SAMPLING RESULTS

Location I.D.		3-16	3-17
Sample I.D.		SB-3-SO-16	SB-3-SO-17
Depth:		0.50	0.50
Date Sampled		02/07/94	02/07/94
Parameter	Units		
Base Neutrals			
Indeno(1,2,3-cd)pyrene	ug/kg	730 U	910
Isophorone	ug/kg	NA	360 U
2-Methylnaphthalene	ug/kg	120 J	360 U
N-Nitrosodiphenylamine	ug/kg	NA	360 U
N-Nitrosodipropylamine	ug/kg	NA	360 U
Naphthalene	ug/kg	82 J	360 U
m-Nitroaniline	ug/kg	NA	900 U
o-Nitroaniline	ug/kg	NA	900 U
p-Nitroaniline	ug/kg	NA	900 U
Nitrobenzene	ug/kg	NA	360 U
Phenanthrene	ug/kg	130 J	1400
Pyrene	ug/kg	340 J	1700
1,2,4-Trichlorobenzene	ug/kg	NA	360 U
Metals			
Antimony	mg/kg	NA	NA
Arsenic	mg/kg	NA	NA
Beryllium	mg/kg	NA	NA
Cadmium	mg/kg	NA	NA
Chromium	mg/kg	NA	NA
Copper	mg/kg	NA	NA
Lead	mg/kg	NA	NA
Mercury	mg/kg	NA	NA
Nickel	mg/kg	NA	NA
Selenium	mg/kg	NA	NA
Silver	mg/kg	NA	NA
Thallium	mg/kg	NA	NA
Zinc	mg/kg	NA	NA
MISC			
Hydrogen ion	ph un	NA	NA
TOC	mg/kg	NA	NA
TPH	mg/kg	470	360

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - FORMER 2,000 AND 4,000 GALLON UST's

SOIL SAMPLING RESULTS

Location I.D.		3-18	3-18	3-19	3-19	3-20
Sample I.D.		SB-3-SO-18	SB-3-SO-18	SB-3-SO-19	SB-3-SO-19	SB-3-SO-20
Depth:		10.00	14.00	10.00	14.00	7.50
Date Sampled		02/18/94	02/18/94	02/18/94	02/18/94	02/18/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	2800 EB	17 U	55 *R	9800 EB	17 U
Benzene	ug/kg	24	6 U	6 UR	5.5 U	6 U
Bromodichloromethane	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Bromoform	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Carbon disulfide	ug/kg	12 U	11 U	12 UR	11 U	11 U
Carbon tetrachloride	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Chlorobenzene	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Chloroethane	ug/kg	12 U	11 U	12 UR	11 U	11 U
Chloroform	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Dibromochloromethane	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
1,1-Dichloroethane	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
1,1-Dichloroethylene	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
1,2-Dichloroethane	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
1,2-Dichloroethylene	ug/kg	35	6 U	6 UR	5.5 U	6 U
1,2-Dichloropropane	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
cis-1,3-Dichloropropene	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
trans-1,3-Dichloropropene	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Ethylbenzene	ug/kg	17	6 U	29 R	5.5 U	6 U
2-Hexanone	ug/kg	18 U	17 U	16 BR	17 U	17 U
Methyl bromide	ug/kg	12 U	11 U	12 UR	11 U	11 U
Methyl chloride	ug/kg	12 U	11 U	12 UR	11 U	11 U
2-butanone	ug/kg	52	17 U	15 JR	4 J	17 U
4-Methyl-2-Pentanone	ug/kg	18 U	17 U	18 UR	17 U	17 U
Methylene chloride	ug/kg	12 U	190 JB	12 U*R	11 U	11 U*
Styrene	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Tetrachloroethylene	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Toluene	ug/kg	11	6 U	9 BR	5.5 U	6 U
1,1,1-Trichloroethane	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
1,1,2-Trichloroethane	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Trichloroethylene	ug/kg	6 U	6 U	6 UR	5.5 U	6 U
Vinyl Acetate	ug/kg	18 U	6 U	10 BR	17 U	2 J
Vinyl chloride	ug/kg	12 U	11 U	12 UR	11 U	11 U
Xylenes	ug/kg	48	6 U	6 UR	5.5 U	6 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - FORMER 2,000 AND 4,000 GALLON UST's

SOIL SAMPLING RESULTS

Location I.D.		3-20	3-21	3-21	3-22	3-22
Sample I.D.		SB-3-SO-20	SB-3-SO-21	SB-3-SO-21	SB-3-SO-22	SB-3-SO-22
Depth:		8.50	7.50	8.00	10.50	15.00
Date Sampled		02/18/94	02/18/94	02/18/94	02/21/94	02/21/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	20 UR	1300 BE	18 U*	210 U*	20 U
Benzene	ug/kg	7 UR	6 U	6 U	23	7 U
Bromodichloromethane	ug/kg	7 UR	6 U	6 U	7 U	7 U
Bromoform	ug/kg	7 UR	6 U	6 U	7 U	7 U
Carbon disulfide	ug/kg	13 UR	12 U	12 U	13 U	420
Carbon tetrachloride	ug/kg	7 UR	6 U	6 U	7 U	7 U
Chlorobenzene	ug/kg	7 UR	6 U	6 U	7 U	7 U
Chloroethane	ug/kg	13 UR	12 U	12 U	13 U	13 U
Chloroform	ug/kg	7 UR	6 U	6 U	7 U	7
Dibromochloromethane	ug/kg	7 UR	6 U	6 U	7 U	7 U
1,1-Dichloroethane	ug/kg	7 UR	6 U	6 U	7 U	7
1,1-Dichloroethylene	ug/kg	7 UR	6 U	6 U	7 U	7
1,2-Dichloroethane	ug/kg	7 UR	6 U	6 U	7 U	7
1,2-Dichloroethylene	ug/kg	7 UR	6 U	6 U	60	7
1,2-Dichloropropane	ug/kg	7 UR	6 U	6 U	7 U	7 U
cis-1,3-Dichloropropene	ug/kg	7 UR	6 U	6 U	7 U	7 U
trans-1,3-Dichloropropene	ug/kg	7 UR	6 U	6 U	7 U	7 U
Ethylbenzene	ug/kg	7 UR	6 U	6 U	9	7 U
2-Hexanone	ug/kg	20 UR	18 U	18 U	20 U	20 U
Methyl bromide	ug/kg	13 UR	12 U	12 U	13 U	13 U
Methyl chloride	ug/kg	13 UR	12 U	12 U	13 U	13 U
2-butanone	ug/kg	20 UR	14 J	18 U	23	20 U
4-Methyl-2-Pentanone	ug/kg	20 UR	18 U	18 U	54	20 U
Methylene chloride	ug/kg	5 JR	12 U*	12 U*	13 U	13 U
Styrene	ug/kg	7 UR	6 U	6 U	7 U	7 U
1,1,2,2-Tetrachloroethane	ug/kg	7 UR	6 U	6 U	7 U	7 U
Tetrachloroethylene	ug/kg	7 UR	6 U	6 U	7 U	7 U
Toluene	ug/kg	7 UR	6 U	6 U	8	7 U
1,1,1-Trichloroethane	ug/kg	7 UR	6 U	6 U	7 U	7 U
1,1,2-Trichloroethane	ug/kg	7 UR	6 U	6 U	7 U	7 U
Trichloroethylene	ug/kg	7 UR	6 U	6 U	7 U	7 U
Vinyl Acetate	ug/kg	20 UR	2 J	2 J	20 U	20 U
Vinyl chloride	ug/kg	13 UR	12 U	12 U	13 U	13 U
Xylenes	ug/kg	7 UR	6 U	6 U	10	7 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - FORMER 2,000 AND 4,000 GALLON UST's

SOIL SAMPLING RESULTS

Location I.D.		3-23	3-23	3-24	3-24	3-25
Sample I.D.		SB-3-SO-23	SB-3-SO-23	SB-3-SO-24	SB-3-SO-24	SB-3-SO-25
Depth:		11.00	14.00	13.00	18.00	9.00
Date Sampled		02/18/94	02/18/94	02/22/94	02/22/94	02/22/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	3600 EB	1800 EB	13000 EB	17 UR	1900 EBR
Benzene	ug/kg	7 U	6 U	32	6 UR	33 UR
Bromodichloromethane	ug/kg	7 U	6 U	32 U	6 UR	33 UR
Bromoform	ug/kg	7 U	6 U	32 U	6 UR	33 UR
Carbon disulfide	ug/kg	13 U	12 U	64 U	11 UR	65 UR
Carbon tetrachloride	ug/kg	7 U	6 U	32 U	6 UR	33 UR
Chlorobenzene	ug/kg	7 U	6 U	32 U	6 UR	33 UR
Chloroethane	ug/kg	13 U	12 U	64 U	11 UR	65 UR
Chloroform	ug/kg	7 U	6 U	32 U	6 UR	33 UR
Dibromochloromethane	ug/kg	7 U	6 U	32 U	6 UR	33 UR
1,1-Dichloroethane	ug/kg	7 U	6 U	32 U	6 UR	33 UR
1,1-Dichloroethylene	ug/kg	7 U	6 U	32 U	6 UR	33 UR
1,2-Dichloroethane	ug/kg	7 U	6 U	32 U	6 UR	33 UR
1,2-Dichloroethylene	ug/kg	17	6 U	32 U	6 UR	33 UR
1,2-Dichloropropane	ug/kg	7 U	6 U	32 U	6 UR	33 UR
cis-1,3-Dichloropropene	ug/kg	7 U	6 U	32 U	6 UR	33 UR
trans-1,3-Dichloropropene	ug/kg	7 U	6 U	32 U	6 UR	33 UR
Ethylbenzene	ug/kg	7 U	6 U	380	6 UR	2500 R
2-Hexanone	ug/kg	20 U	18	310	17 UR	98 UR
Methyl bromide	ug/kg	13 U	12 U	64 U	11 UR	65 UR
Methyl chloride	ug/kg	13 U	12 U	64 U	11 UR	65 UR
2-butanone	ug/kg	27	18 U	96 U	17 UR	61 JR
4-Methyl-2-Pentanone	ug/kg	20 U	18 U	280	17 UR	370 ER
Methylene chloride	ug/kg	12 J	10 J	64 U	2 JR	65 UR
Styrene	ug/kg	7 U	6 U	32 U	6 UR	33 UR
1,1,2,2-Tetrachloroethane	ug/kg	5 J	6 U	32 U	1 JR	33 UR
Tetrachloroethylene	ug/kg	13	6 U	32 U	6 UR	33 UR
Toluene	ug/kg	7 U	6 U	240	6 UR	33 UR
1,1,1-Trichloroethane	ug/kg	7 U	6 U	32 U	5 JR	28 JR
1,1,2-Trichloroethane	ug/kg	7 U	6 U	32 U	6 UR	33 UR
Trichloroethylene	ug/kg	7 U	6 U	32 U	6 UR	33 UR
Vinyl Acetate	ug/kg	20 U	18 U	96 U	17 UR	98 UR
Vinyl chloride	ug/kg	13 U	12 U	64 U	11 UR	65 UR
Xylenes	ug/kg	7 U	6 U	380	6 UR	12000 BR

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - FORMER 2,000 AND 4,000 GALLON UST's

SOIL SAMPLING RESULTS

Location I.D.		3-25	3-26	3-26	3-27	3-27
Sample I.D.		SB-3-SO-25	SB-3-SO-26	SB-3-SO-26	SB-3-SO-27	SB-3-SO-27
Depth:		16.00	10.50	15.00	12.00	15.00
Date Sampled		02/22/94	02/22/94	02/22/94	02/22/94	02/22/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	17 UR	160 BR	450 BR	88 JBR	57 BR
Benzene	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Bromodichloromethane	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Bromoform	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Carbon disulfide	ug/kg	11 UR	12 UR	61 UR	64 UR	11 UR
Carbon tetrachloride	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Chlorobenzene	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Chloroethane	ug/kg	11 UR	12 UR	61 UR	64 UR	11 UR
Chloroform	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Dibromochloromethane	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
1,1-Dichloroethane	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
1,1-Dichloroethylene	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
1,2-Dichloroethane	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
1,2-Dichloroethylene	ug/kg	6 UR	4 JR	31 UR	32 UR	6 UR
1,2-Dichloropropane	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
cis-1,3-Dichloropropene	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
trans-1,3-Dichloropropene	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Ethylbenzene	ug/kg	6 UR	6 UR	31 UR	85 R	6 UR
2-Hexanone	ug/kg	17 UR	18 UR	92 UR	69 JR	17 UR
Methyl bromide	ug/kg	11 UR	12 UR	61 UR	64 UR	11 UR
Methyl chloride	ug/kg	11 UR	12 UR	61 UR	64 UR	11 UR
2-butanone	ug/kg	17 UR	18 UR	92 UR	96 UR	17 UR
4-Methyl-2-Pentanone	ug/kg	17 UR	18 UR	92 UR	110 BR	17 UR
Methylene chloride	ug/kg	11 UR	12 UR	61 UR	64 UR	4 JR
Styrene	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
1,1,2,2-Tetrachloroethane	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Tetrachloroethylene	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Toluene	ug/kg	6 UR	6 UR	31 UR	18 JR	6 UR
1,1,1-Trichloroethane	ug/kg	6 UR	6 UR	18 JBR	21 JBR	1 JR
1,1,2-Trichloroethane	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Trichloroethylene	ug/kg	6 UR	6 UR	31 UR	32 UR	6 UR
Vinyl Acetate	ug/kg	17 UR	18 UR	92 UR	96 UR	17 UR
Vinyl chloride	ug/kg	11 UR	12 UR	61 UR	64 UR	11 UR
Xylenes	ug/kg	6 UR	6 UR	31 UR	130 BR	6 UR

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - FORMER 2,000 AND 4,000 GALLON UST's

SOIL SAMPLING RESULTS

Location I.D.		3-28	3-28
Sample I.D.		SB-3-SO-28	SB-3-SO-28
Depth:		11.00	16.50
Date Sampled		02/22/94	02/22/94
Parameter	Units		
Volatiles			
Acetone	ug/kg	20 UR	17 JBR
Benzene	ug/kg	7 UR	6 UR
Bromodichloromethane	ug/kg	7 UR	6 UR
Bromoform	ug/kg	7 UR	6 UR
Carbon disulfide	ug/kg	13 UR	12 UR
Carbon tetrachloride	ug/kg	7 UR	6 UR
Chlorobenzene	ug/kg	7 UR	6 UR
Chloroethane	ug/kg	13 UR	12 UR
Chloroform	ug/kg	7 UR	6 UR
Dibromochloromethane	ug/kg	7 UR	6 UR
1,1-Dichloroethane	ug/kg	7 UR	6 UR
1,1-Dichloroethylene	ug/kg	7 UR	6 UR
1,2-Dichloroethane	ug/kg	7 UR	6 UR
1,2-Dichloroethylene	ug/kg	7 UR	6 UR
1,2-Dichloropropane	ug/kg	7 UR	6 UR
cis-1,3-Dichloropropene	ug/kg	7 UR	6 UR
trans-1,3-Dichloropropene	ug/kg	7 UR	6 UR
Ethylbenzene	ug/kg	7 UR	6 UR
2-Hexanone	ug/kg	14 JBR	18 UR
Methyl bromide	ug/kg	13 UR	12 UR
Methyl chloride	ug/kg	13 UR	12 UR
2-butanone	ug/kg	20 UR	18 UR
4-Methyl-2-Pentanone	ug/kg	20 UR	4 JBR
Methylene chloride	ug/kg	15 BR	12 UR
Styrene	ug/kg	7 UR	6 UR
1,1,2,2-Tetrachloroethane	ug/kg	7 UR	6 UR
Tetrachloroethylene	ug/kg	7 UR	6 UR
Toluene	ug/kg	7 UR	6 UR
1,1,1-Trichloroethane	ug/kg	7 UR	4 JBR
1,1,2-Trichloroethane	ug/kg	7 UR	6 UR
Trichloroethylene	ug/kg	7 UR	6 UR
Vinyl Acetate	ug/kg	20 UR	18 UR
Vinyl chloride	ug/kg	13 UR	12 UR
Xylenes	ug/kg	3 JBR	3 JBR

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - FORMER 2,500 GALLON PAINT UST

SOIL SAMPLING RESULTS

Location I.D.		3-29	3-29	3-30	3-30	3-31
Sample I.D.		SB-3-SO-29	SB-3-SO-29	SB-3-SO-30	SB-3-SO-30	SB-3-SO-31
Depth:		8.00	9.00	8.00	9.00	8.00
Date Sampled		02/18/94	02/18/94	02/18/94	02/18/94	02/18/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	11 U*	190 B	15 U*	18 U	15 U*
Benzene	ug/kg	6 U	6 U	5 U	6 U	5 U
Bromodichloromethane	ug/kg	6 U	6 U	5 U	6 U	5 U
Bromoform	ug/kg	6 U	6 U	5 U	6 U	5 U
Carbon disulfide	ug/kg	11 U	12 U	10 U	12 U	10 U
Carbon tetrachloride	ug/kg	6 U	6 U	5 U	6 U	5 U
Chlorobenzene	ug/kg	6 U	6 U	5 U	6 U	5 U
Chloroethane	ug/kg	11 U	12 U	10 U	12 U	10 U
Chloroform	ug/kg	6 U	6 U	5 U	6 U	5 U
Dibromochloromethane	ug/kg	6 U	6 U	5 U	6 U	5 U
1,1-Dichloroethane	ug/kg	6 U	6 U	5 U	6 U	5 U
1,1-Dichloroethylene	ug/kg	6 U	6 U	5 U	6 U	5 U
1,2-Dichloroethane	ug/kg	6 U	6 U	5 U	6 U	5 U
1,2-Dichloroethylene	ug/kg	6 U	6 U	5 U	6 U	5 U
1,2-Dichloropropane	ug/kg	6 U	6 U	5 U	6 U	5 U
cis-1,3-Dichloropropene	ug/kg	6 U	6 U	5 U	6 U	5 U
trans-1,3-Dichloropropene	ug/kg	6 U	6 U	5 U	6 U	5 U
Ethylbenzene	ug/kg	6 U	6 U	5 U	6 U	5 U
2-Hexanone	ug/kg	17 U	18 U	15 U	18 U	15 U
Methyl bromide	ug/kg	11 U	12 U	10 U	12 U	10 U
Methyl chloride	ug/kg	11 U	12 U	10 U	12 U	10 U
2-butanone	ug/kg	17 U	18 U	15 U	18 U	15 U
4-Methyl-2-Pentanone	ug/kg	17 U	18 U	15 U	18 U	15 U
Methylene chloride	ug/kg	11 U*	12 U*	10 U*	12 U*	10 U*
Styrene	ug/kg	6 U	6 U	5 U	6 U	5 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	6 U	5 U	6 U	5 U
Tetrachloroethylene	ug/kg	6 U	6 U	5 U	6 U	5 U
Toluene	ug/kg	6 U	6 U	5 U	6 U	5 U
1,1,1-Trichloroethane	ug/kg	6 U	6 U	5 U	6 U	5 U
1,1,2-Trichloroethane	ug/kg	6 U	6 U	5 U	6 U	5 U
Trichloroethylene	ug/kg	6 U	6 U	5 U	6 U	5 U
Vinyl Acetate	ug/kg	17 U*	17 U*	2 J	2 J	15 U*
Vinyl chloride	ug/kg	11 U	12 U	10 U	12 U	10 U
Xylenes	ug/kg	6 U	6 U	5 U	6 U	5 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 3 - FORMER 2,500 GALLON PAINT UST

SOIL SAMPLING RESULTS

Location I.D.		3-31	3-32	3-32	3-33	3-33
Sample I.D.		SB-3-SO-31	SB-3-SO-32	SB-3-SO-32	SB-3-SO-33	SB-3-SO-33
Depth:		9.00	8.00	9.00	8.00	9.00
Date Sampled		02/18/94	02/18/94	02/18/94	02/18/94	02/18/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	18 U	17 U	18 U	17 U*	18 U*
Benzene	ug/kg	6 U	6 U	6 U	6 U	6 U
Bromodichloromethane	ug/kg	6 U	6 U	6 U	6 U	6 U
Bromoform	ug/kg	6 U	6 U	6 U	6 U	6 U
Carbon disulfide	ug/kg	12 U	11 U	12 U	11 U	12 U
Carbon tetrachloride	ug/kg	6 U	6 U	6 U	6 U	6 U
Chlorobenzene	ug/kg	6 U	6 U	6 U	6 U	6 U
Chloroethane	ug/kg	12 U	11 U	12 U	11 U	12 U
Chloroform	ug/kg	6 U	6 U	6 U	6 U	6 U
Dibromochloromethane	ug/kg	6 U	6 U	6 U	6 U	6 U
1,1-Dichloroethane	ug/kg	6 U	6 U	6 U	6 U	6 U
1,1-Dichloroethylene	ug/kg	6 U	6 U	6 U	6 U	6 U
1,2-Dichloroethane	ug/kg	6 U	6 U	6 U	6 U	6 U
1,2-Dichloroethylene	ug/kg	6 U	6 U	6 U	6 U	6 U
1,2-Dichloropropane	ug/kg	6 U	6 U	6 U	6 U	6 U
cis-1,3-Dichloropropene	ug/kg	6 U	6 U	6 U	6 U	6 U
trans-1,3-Dichloropropene	ug/kg	6 U	6 U	6 U	6 U	6 U
Ethylbenzene	ug/kg	6 U	6 U	6 U	6 U	6 U
2-Hexanone	ug/kg	18 U	17 U	18 U	17 U	18 U
Methyl bromide	ug/kg	12 U	11 U	12 U	11 U	12 U
Methyl chloride	ug/kg	12 U	11 U	12 U	11 U	12 U
2-butanone	ug/kg	18 U	17 U	18 U	17 U	18 U
4-Methyl-2-Pentanone	ug/kg	18 U	17 U	18 U	17 U	18 U
Methylene chloride	ug/kg	12 U*	11 U*	90 B	11 U*	12 U*
Styrene	ug/kg	6 U	6 U	6 U	6 U	6 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	6 U	6 U	6 U	6 U
Tetrachloroethylene	ug/kg	6 U	6 U	6 U	6 U	6 U
Toluene	ug/kg	6 U	6 U	6 U	6 U	6 U
1,1,1-Trichloroethane	ug/kg	6 U	6 U	6 U	6 U	6 U
1,1,2-Trichloroethane	ug/kg	6 U	6 U	6 U	6 U	6 U
Trichloroethylene	ug/kg	6 U	6 U	6 U	6 U	6 U
Vinyl Acetate	ug/kg	2 J	2 J	18 U	2 J	2 J
Vinyl chloride	ug/kg	12 U	11 U	12 U	11 U	12 U
Xylenes	ug/kg	6 U	6 U	6 U	6 U	6 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 5 - SCRAP METAL BINS

SOIL SAMPLING RESULTS

Location I.D.		5-1	5-2	5-3
Sample I.D.		SB-5-SO-1	SB-5-SO-2	SB-5-SO-3
Depth:		0.50	0.50	0.50
Date Sampled		02/17/94	02/17/94	02/17/94
Parameter	**Units**			
PAH				
Acenaphthene	ug/kg	400 U	400 U	360 U
Acenaphthylene	ug/kg	400 U	400 U	360 U
Anthracene	ug/kg	400 U	400 U	360 U
Benzo(a)anthracene	ug/kg	79 J	400 U	75 J
Benzo(a)pyrene	ug/kg	83 J	400 U	89 J
Benzo(b)fluoranthene	ug/kg	120 J	400 U	160 J
Benzo(ghi)perylene	ug/kg	67 J	400 U	88 J
Benzo(k)fluoranthene	ug/kg	45 J	400 U	360 U
Chrysene	ug/kg	120 J	400 U	150 J
Dibenzo(a,h)anthracene	ug/kg	400 U	400 U	360 U
Fluoranthene	ug/kg	160 J	400 U	130 J
Fluorene	ug/kg	400 U	400 U	360 U
Indeno(1,2,3-cd)pyrene	ug/kg	72 J	400 U	59 J
2-Methylnaphthalene	ug/kg	400 U	400 U	360 U
Naphthalene	ug/kg	400 U	400 U	360 U
Phenanthrene	ug/kg	74 J	400 U	95 J
Pyrene	ug/kg	140 J	400 U	100 J
Metals				
Antimony	mg/kg	0.79 UJS	0.70 UJS	0.69 UJS
Arsenic	mg/kg	4.1 J	2.0 J	2.0 J
Beryllium	mg/kg	0.69	0.70	0.98
Cadmium	mg/kg	1.0 U	1.0 U	1.0 U
Chromium	mg/kg	240	27	22
Copper	mg/kg	540	150	9.0
Lead	mg/kg	12	6.5	8.1
Mercury	mg/kg	0.10 U	0.10 U	0.10 U
Nickel	mg/kg	99	17	11
Selenium	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	99	28	32
MISC				
TPH	mg/kg	25 U	25 U	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-11

AREA 5 - RAW MATERIAL DRUM STORAGE PAD

WIPE SAMPLING RESULTS

Location I.D.		5-4	5-5	5-6
Sample I.D.		SB-5-WP-4	SB-5-WP-5	SB-5-WP-6
Depth:		0.00	0.00	0.00
Date Sampled		03/31/94	03/31/94	03/31/94
Parameter	Units			
PCB				
Aroclor 1016	#	0.5 U	0.5 U	0.5 U
Aroclor 1221	#	1.0 U	1.0 U	1.0 U
Aroclor 1232	#	0.5 U	0.5 U	0.5 U
Aroclor 1242	#	0.5 U	0.5 U	0.5 U
Aroclor 1248	#	0.5 U	0.5 U	0.5 U
Aroclor 1254	#	0.5 U	0.5 U	0.5 U
Aroclor 1260	#	0.52	0.58	0.43 J

- units in ug/100cm2

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 6 - 500 GALLON DIESEL AST

SOIL SAMPLING RESULTS

Location I.D.		6-1	6-2
Sample I.D.		SB-6-SO-1	SB-6-SO-2
Depth:		0.50	0.50
Date Sampled		02/08/94	02/08/94
Parameter	Units		
PAH			
Acenaphthene	ug/kg	400 U	400 U
Acenaphthylene	ug/kg	400 U	400 U
Anthracene	ug/kg	400 U	400 U
Benzo(a)anthracene	ug/kg	400 U	39 J
Benzo(a)pyrene	ug/kg	400 U	160 J
Benzo(b)fluoranthene	ug/kg	62 J	59 J
Benzo(ghi)perylene	ug/kg	150 J	110 J
Benzo(k)fluoranthene	ug/kg	400 U	21 J
Chrysene	ug/kg	58 J	65 J
Dibenzo(a,h)anthracene	ug/kg	64 J	400 U
Fluoranthene	ug/kg	65 J	400 U
Fluorene	ug/kg	400 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	130 J	79 J
2-Methylnaphthalene	ug/kg	54 J	400 U
Naphthalene	ug/kg	400 U	400 U
Phenanthrene	ug/kg	55 J	97 J
Pyrene	ug/kg	70 J	120 J
MISC			
TPH	mg/kg	900	1500

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 6 - FIRE FIGHTING PRACTICE AREA

SOIL SAMPLING RESULTS

Location I.D.		6-3	6-4
Sample I.D.		SB-6-SO-3	SB-6-S0-4
Depth:		0.50	0.50
Date Sampled		02/08/94	02/08/94
Parameter	**Units**		
BTEX			
Benzene	ug/kg	6 UJ	750 U
Ethylbenzene	ug/kg	5 J	750 U
Toluene	ug/kg	21 J	750 U
Xylenes	ug/kg	23 B	750 U
Metals			
Lead	mg/kg	21	62

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-14

AREA 7

SOIL SAMPLING VARIANCES

PART A LOCATION VARIANCES

No Variances:

All borings in Area 7 were advanced in the same general locations as proposed in the RIP.

PART B ANALYTICAL VARIANCES

Boring #	Matrix	Proposed Depth	Proposed Analytical Schedule	Actual Depth	Actual Analytical Schedule	Reason For Variance
SB-7-SO-3 through SB-7-SO-7	Soil	0-0.5 FT Intervals	VOA, TPH, PPM, BN+15, pH, CN, TOC	1.5-2 FT Intervals	VOA, TPH, PPM, BN+15, pH, CN, TOC	Due to low sample recoveries and the volume of sample required for the analytical schedule, larger intervals were necessary. However, VOA samples were collected from discrete intervals

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-3	7-3	7-3	7-3	7-3
Sample I.D.		SB-7-SO-3	SB-7-SO-3	SB-7-SO-3	SB-7-SO-3	SB-7-SO-3
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	32 U*	120	940	4300	2300 J
Benzene	ug/kg	6 U	6 U	6 U	900 U	850 U
Bromodichloromethane	ug/kg	6 U	6 U	6 U	900 U	850 U
Bromoform	ug/kg	6 U	6 U	6 U	900 U	850 U
Carbon disulfide	ug/kg	12 U	12 U	11 U	1800 U	1700 U
Carbon tetrachloride	ug/kg	6 U	6 U	6 U	900 U	850 U
Chlorobenzene	ug/kg	6 U	6 U	6 U	900 U	850 U
Chloroethane	ug/kg	12 U	12 U	11 U	1800 U	1700 U
Chloroform	ug/kg	6 U	6 U	6 U	900 U	850 U
Dibromochloromethane	ug/kg	6 U	6 U	6 U	900 U	850 U
1,1-Dichloroethane	ug/kg	6 U	6 U	6 U	900 U	850 U
1,1-Dichloroethylene	ug/kg	6 U	6 U	6 U	900 U	850 U
1,2-Dichloroethane	ug/kg	6 U	6 U	6 U	900 U	850 U
1,2-Dichloroethylene	ug/kg	3 J	6	15	900 U	5300
1,2-Dichloropropane	ug/kg	6 U	6 U	6 U	900 U	850 U
cis-1,3-Dichloropropene	ug/kg	6 U	6 U	6 U	900 U	850 U
trans-1,3-Dichloropropene	ug/kg	6 U	6 U	6 U	900 U	850 U
Ethylbenzene	ug/kg	6 U	17	37	900 U	400 J
2-Hexanone	ug/kg	18 U	18 U	42 B	2700 U	2600 U
Methyl bromide	ug/kg	12 U	12 U	11 U	1800 U	1700 U
Methyl chloride	ug/kg	12 U	12 U	11 U	1800 U	1700 U
2-butanone	ug/kg	18 U	18 U	1 J	2700 U	2600 U
4-Methyl-2-Pentanone	ug/kg	18 U	100	17 U	2700 U	2600 U
Methylene chloride	ug/kg	12 U*	4 J	11 U*	1800 U	1700 U
Styrene	ug/kg	6 U	6 U	6 U	900 U	850 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	6 U	6 U	900 U	850 U
Tetrachloroethylene	ug/kg	6 U	6 U	6 U	900 U	850 U
Toluene	ug/kg	6 U	5 J	12	900 U	790 J
1,1,1-Trichloroethane	ug/kg	6 U	6 U	6 U	900 U	850 U
1,1,2-Trichloroethane	ug/kg	6 U	5 J	6 U	900 U	850 U
Trichloroethylene	ug/kg	7	6 U	6 U	900 U	1500
Vinyl Acetate	ug/kg	18 U	18 U	17 U	2700 U	2600 U
Vinyl chloride	ug/kg	12 U	12 U	11 U	1800 U	1700 U
Xylenes	ug/kg	13	280	460	900 U	2800
Base Neutrals						
Acenaphthene	ug/kg	61 J	230 J	74 J	2000	580
Acenaphthylene	ug/kg	400 U	400 U	360 U	500 U	460 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 3-10

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-3	7-3	7-3	7-3	7-3
Sample I.D.		SB-7-SO-3	SB-7-SO-3	SB-7-SO-3	SB-7-SO-3	SB-7-SO-3
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	87 J	69 J	110 J	2600	600
Benzo(a)anthracene	ug/kg	310 J	82 J	350 J	4000	900
Benzo(a)pyrene	ug/kg	250 J	52 J	310 J	2900	740
Benzo(b)fluoranthene	ug/kg	400	87 J	410	4300	1200
Benzo(ghi)perylene	ug/kg	150 J	400 U	230 J	1600	500
Benzo(k)fluoranthene	ug/kg	400 U	400 U	360 U	500 U	460 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	400 U	360 U	500 U	460 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	400 U	360 U	500 U	460 U
Bis(2-chloroethyl)ether	ug/kg	400 U	400 U	360 U	500 U	460 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	400 U*	400 U	360 U*	500 U*	910 B
4-Bromophenyl phenyl ether	ug/kg	400 U	400 U	360 U	500 U	460 U
Butyl benzyl phthalate	ug/kg	85 J	400 U	70 J	500 U	460 U
Carbazole	ug/kg	61 J	300 J	81 J	1600	590
p-Chloroaniline	ug/kg	400 U	400 U	360 U	500 U	460 U
2-Chloronaphthalene	ug/kg	400 U	400 U	360 U	500 U	460 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	400 U	360 U	500 U	460 U
Chrysene	ug/kg	260 J	69 J	380	2800	920
Di-n-butyl phthalate	ug/kg	98 J	400 U*	360 U*	500 U*	1200 B
Di-n-octyl phthalate	ug/kg	400 U	400 U	49 J	500 U	460 U
Dibenzo(a,h)anthracene	ug/kg	60 J	400 U	110 J	750	230 J
Dibenzofuran	ug/kg	400 U	200 J	87 J	1400	440 J
3,3-Dichlorobenzidine	ug/kg	400 U	400 U	360 U	500 U	460 U
m-Dichlorobenzene	ug/kg	400 U	400 U	360 U	500 U	460 U
o-Dichlorobenzene	ug/kg	400 U	400 U	360 U	500 U	340 J
p-Dichlorobenzene	ug/kg	400 U	400 U	360 U	500 U	460 U
Diethyl phthalate	ug/kg	400 U	400 U	360 U	500 U	460 U
Dimethyl phthalate	ug/kg	400 U	400 U	360 U	500 U	460 U
2,4-Dinitrotoluene	ug/kg	NA	400 U	360 U	500 U	460 U
2,6-Dinitrotoluene	ug/kg	400 U	400 U	360 U	500 U	460 U
Fluoranthene	ug/kg	500	210 J	650	7900	1900
Fluorene	ug/kg	55 J	300 J	120 J	2200	600
Hexachlorobenzene	ug/kg	400 U	400 U	360 U	500 U	460 U
Hexachlorobutadiene	ug/kg	400 U	400 U	360 U	500 U	460 U
Hexachlorocyclopentadiene	ug/kg	400 U	400 U	360 U	500 U	460 U
Hexachloroethane	ug/kg	400 U	400 U	360 U	500 U	460 U
Indeno(1,2,3-cd)pyrene	ug/kg	140 J	400 U	240 J	1800	490
Isophorone	ug/kg	400 U	400 U	360 U	500 U	460 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-3	7-3	7-3	7-3	7-3
Sample I.D.		SB-7-SO-3	SB-7-SO-3	SB-7-SO-3	SB-7-SO-3	SB-7-SO-3
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	400 U	180 J	51 J	700	550
N-Nitrosodiphenylamine	ug/kg	400 U	400 U	94 J	500 U	460 U
N-Nitrosodipropylamine	ug/kg	400 U	400 U	360 U	500 U	460 U
Naphthalene	ug/kg	400 U	720	490	2400	2400
m-Nitroaniline	ug/kg	980 U	980 U	900 U	1200 U	1100 U
o-Nitroaniline	ug/kg	980 U	980 U	900 U	1200 U	1100 U
p-Nitroaniline	ug/kg	980 U	980 U	900 U	1200 U	1100 U
Nitrobenzene	ug/kg	400 U	400 U	360 U	500 U	460 U
Phenanthrene	ug/kg	400	500	580	7200	2200
Pyrene	ug/kg	360 J	170 J	560	5700	1600
1,2,4-Trichlorobenzene	ug/kg	400 U	400 U	360 U	500 U	460 U
Metals						
Antimony	mg/kg	0.50 UJ	0.50 UJ	1.0 J	9.1 J	4.3 UJ
Arsenic	mg/kg	12 J	4.2 J	1.7 UJ	22 UJ	22 UJ
Beryllium	mg/kg	0.50 U	0.50 U	0.52	0.50 U	0.50 U
Cadmium	mg/kg	1.3	1.0 U	2.9	1.2	5.0
Chromium	mg/kg	180	27	190	870	900
Copper	mg/kg	390	16	200	3100	15000
Lead	mg/kg	91	19	130	93	350
Mercury	mg/kg	0.10 U	0.10 U	0.10 U	0.14 UJ	0.15
Nickel	mg/kg	200	88	210	100	550
Selenium	mg/kg	0.50 UJ	0.50 UJ	0.67 UJ	8.7 UJ	9 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Zinc	mg/kg	240	84	370	140	4200
MISC						
Cyanide	mg/kg	2.0 U	2.0 U	2.0 U	13	69
Hydrogen ion	ph un	8.0	8.6	7.9	6.3	6.6
TOC	mg/kg	23000	1500 U	5000	4000	69000
TPH	mg/kg	1200 J	1100 J	1000 J	1300 J	890 J

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-4	7-4	7-4	7-4	7-4
Sample I.D.		SB-7-SO-4	SB-7-SO-4	SB-7-SO-4	SB-7-SO-4	SB-7-SO-4
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	130	1100	510	2200	130
Benzene	ug/kg	6 U	7 U	6 U	7 U	6 U
Bromodichloromethane	ug/kg	6 U	7 U	6 U	7 U	6 U
Bromoform	ug/kg	6 U	7 U	6 U	7 U	6 U
Carbon disulfide	ug/kg	11 U	13 U	12 U	13 U	12 U
Carbon tetrachloride	ug/kg	6 U	7 U	6 U	7 U	6 U
Chlorobenzene	ug/kg	6 U	7 U	6 U	7 U	6 U
Chloroethane	ug/kg	11 U	13 U	12 U	13 U	12 U
Chloroform	ug/kg	6 U	7 U	6 U	7 U	6 U
Dibromochloromethane	ug/kg	6 U	7 U	6 U	7 U	6 U
1,1-Dichloroethane	ug/kg	6 U	7 U	6 U	7 U	6 U
1,1-Dichloroethylene	ug/kg	6 U	7 U	6 U	7 U	6 U
1,2-Dichloroethane	ug/kg	6 U	7 U	6 U	7 U	6 U
1,2-Dichloroethylene	ug/kg	6 U	7 U	6 U	7 U	6 U
1,2-Dichloropropane	ug/kg	6 U	7 U	6 U	7 U	6 U
cis-1,3-Dichloropropene	ug/kg	6 U	7 U	6 U	7 U	6 U
trans-1,3-Dichloropropene	ug/kg	6 U	7 U	6 U	7 U	6 U
Ethylbenzene	ug/kg	6 U	7 U	6 U	7 U	6 U
2-Hexanone	ug/kg	17 U	20 U	18 U	20 U	18 U
Methyl bromide	ug/kg	11 U	13 U	12 U	13 U	12 U
Methyl chloride	ug/kg	11 U	13 U	12 U	13 U	12 U
2-butanone	ug/kg	17 U	20 U	18 U	20 U	18 U
4-Methyl-2-Pentanone	ug/kg	17 U	20 U	18 U	20 U	18 U
Methylene chloride	ug/kg	3 J	13 U	3 J	13 U	5 J
Styrene	ug/kg	6 U	7 U	6 U	7 U	6 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	7 U	6 U	7 U	6 U
Tetrachloroethylene	ug/kg	6 U	7 U	6 U	7 U	6 U
Toluene	ug/kg	6 U	7 U	6 U	7 U	6 U
1,1,1-Trichloroethane	ug/kg	6 U	7 U	6 U	7 U	6 U
1,1,2-Trichloroethane	ug/kg	6 U	7 U	6 U	7 U	6 U
Trichloroethylene	ug/kg	6 U	7 U	6 U	7 U	6 U
Vinyl Acetate	ug/kg	17 U	20 U	18 U	20 U	18 U
Vinyl chloride	ug/kg	11 U	13 U	12 U	13 U	12 U
Xylenes	ug/kg	6 U	7 U	6 U	7 U	6 U
Base Neutrals						
Acenaphthene	ug/kg	360 U	430 U	100 J	430 U	400 U
Acenaphthylene	ug/kg	360 U	430 U	400 U	430 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-4	7-4	7-4	7-4	7-4
Sample I.D.		SB-7-SO-4	SB-7-SO-4	SB-7-SO-4	SB-7-SO-4	SB-7-SO-4
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	360 U	430 U	240 J	430 U	400 U
Benzo(a)anthracene	ug/kg	360 U	430 U	340 J	430 U	400 U
Benzo(a)pyrene	ug/kg	360 U	430 U	290 J	430 U	400 U
Benzo(b)fluoranthene	ug/kg	360 U	430 U	360 J	430 U	400 U
Benzo(ghi)perylene	ug/kg	360 U	430 U	150 J	430 U	400 U
Benzo(k)fluoranthene	ug/kg	360 U	430 U	150 J	430 U	400 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	360 U	430 U	400 U	430 U	400 U
Bis(2-chloroethoxy)methane	ug/kg	360 U	430 U	400 U	430 U	400 U
Bis(2-chloroethyl)ether	ug/kg	360 U	430 U	400 U	430 U	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	360 U*	430 U*	400 U*	430 U*	400 U
4-Bromophenyl phenyl ether	ug/kg	360 U	430 U	400 U	430 U	400 U
Butyl benzyl phthalate	ug/kg	360 U	430 U	400 U	430 U	400 U
Carbazole	ug/kg	360 U	430 U	150 J	430 U	400 U
p-Chloroaniline	ug/kg	360 U	430 U	400 U	430 U	400 U
2-Chloronaphthalene	ug/kg	360 U	430 U	400 U	430 U	400 U
4-Chlorophenyl phenyl ether	ug/kg	360 U	430 U	400 U	430 U	400 U
Chrysene	ug/kg	360 U	430 U	400	430 U	400 U
Di-n-butyl phthalate	ug/kg	360 U*	430 U*	400 U*	430 U*	400 U*
Di-n-octyl phthalate	ug/kg	360 U	430 U	400 U	430 U	400 U
Dibenzo(a,h)anthracene	ug/kg	360 U	430 U	400 U	430 U	400 U
Dibenzofuran	ug/kg	360 U	430 U	400 U	430 U	400 U
3,3-Dichlorobenzidine	ug/kg	360 U	430 U	400 U	430 U	400 U
m-Dichlorobenzene	ug/kg	360 U	430 U	400 U	430 U	400 U
o-Dichlorobenzene	ug/kg	360 U	430 U	400 U	430 U	400 U
p-Dichlorobenzene	ug/kg	360 U	430 U	400 U	430 U	400 U
Diethyl phthalate	ug/kg	360 U	430 U	400 U	430 U	400 U
Dimethyl phthalate	ug/kg	360 U	430 U	400 U	430 U	400 U
2,4-Dinitrotoluene	ug/kg	360 U	430 U	400 U	430 U	400 U
2,6-Dinitrotoluene	ug/kg	360 U	430 U	400 U	430 U	400 U
Fluoranthene	ug/kg	360 U	430 U	930	430 U	400 U
Fluorene	ug/kg	360 U	430 U	100 J	430 U	400 U
Hexachlorobenzene	ug/kg	360 U	430 U	400 U	430 U	400 U
Hexachlorobutadiene	ug/kg	360 U	430 U	400 U	430 U	400 U
Hexachlorocyclopentadiene	ug/kg	360 U	430 U	400 U	430 U	400 U
Hexachloroethane	ug/kg	360 U	430 U	400 U	430 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	360 U	430 U	190 J	430 U	400 U
Isophorone	ug/kg	360 U	430 U	400 U	430 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-4	7-4	7-4	7-4	7-4
Sample I.D.		SB-7-SO-4	SB-7-SO-4	SB-7-SO-4	SB-7-SO-4	SB-7-SO-4
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	360 U	430 U	400 U	430 U	400 U
N-Nitrosodiphenylamine	ug/kg	360 U	430 U	400 U	430 U	400 U
N-Nitrosodipropylamine	ug/kg	360 U	430 U	400 U	430 U	400 U
Naphthalene	ug/kg	360 U	430 U	400 U	430 U	400 U
m-Nitroaniline	ug/kg	900 U	1100 U	980 U	1100 U	980 U
o-Nitroaniline	ug/kg	900 U	1100 U	980 U	1100 U	980 U
p-Nitroaniline	ug/kg	900 U	1100 U	980 U	1100 U	980 U
Nitrobenzene	ug/kg	360 U	430 U	400 U	430 U	400 U
Phenanthrene	ug/kg	47 J	430 U	810	430 U	400 U
Pyrene	ug/kg	360 U	430 U	650	430 U	400 U
1,2,4-Trichlorobenzene	ug/kg	360 U	430 U	400 U	430 U	400 U
Metals						
Antimony	mg/kg	3.2 UJ	7.10 UJ	3.7 UJ	0.50 UJ	0.50 UJ
Arsenic	mg/kg	1.6 UJ	3.8 UJ	1.9 UJ	8.2 J	4.0 J
Beryllium	mg/kg	0.50 U	0.50 U	0.56	0.59	0.50 U
Cadmium	mg/kg	1.3	1.0 U	1.0 U	1.1	1.0 U
Chromium	mg/kg	2000	6600	500	220	160
Copper	mg/kg	4600	6200	240	14	11
Lead	mg/kg	100	72	13	13	12
Mercury	mg/kg	0.10 U	0.12 U	0.12 U	0.11 U	0.10 U
Nickel	mg/kg	3100	3100	620	120	300
Selenium	mg/kg	0.50 UJ	7.7 UJ	1.9 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Zinc	mg/kg	1300	11000	140	50	42
MISC						
Cyanide	mg/kg	2.0 U	3.7	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	7.2	7.5	7.6	7.5	7.8
TOC	mg/kg	1500	1200 U	2100 U	1700	8300
TPH	mg/kg	250 J	140 J	25 UJ	25 UJ	43 J

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-5	7-5	7-5	7-5	7-5
Sample I.D.		SB-7-SO-5	SB-7-S0-5	SB-7-SO-5	SB-7-SO-5	SB-7-SO-5
Depth:		2.00	4.00	6.00	10.00	12.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	38 B	18 U	2600	7600	960 B
Benzene	ug/kg	6 U	6 U	7 U	7 U	7 U
Bromodichloromethane	ug/kg	6 U	6 U	7 U	7 U	7 U
Bromoform	ug/kg	6 U	6 U	7 U	7 U	7 U
Carbon disulfide	ug/kg	12 U	12 U	13 U	13 U	14
Carbon tetrachloride	ug/kg	6 U	6 U	7 U	7 U	7 U
Chlorobenzene	ug/kg	6 U	6 U	7 U	7 U	7 U
Chloroethane	ug/kg	12 U	12 U	13 U	13 U	13 U
Chloroform	ug/kg	6 U	6 U	7 U	7 U	7 U
Dibromochloromethane	ug/kg	6 U	6 U	7 U	7 U	7 U
1,1-Dichloroethane	ug/kg	6 U	6 U	7 U	7 U	7 U
1,1-Dichloroethylene	ug/kg	6 U	6 U	7 U	7 U	7 U
1,2-Dichloroethane	ug/kg	6 U	6 U	7 U	7 U	7 U
1,2-Dichloroethylene	ug/kg	6 U	6 U	7 U	7 U	7 U
1,2-Dichloropropane	ug/kg	6 U	6 U	7 U	7 U	7 U
cis-1,3-Dichloropropene	ug/kg	6 U	6 U	7 U	7 U	7 U
trans-1,3-Dichloropropene	ug/kg	6 U	6 U	7 U	7 U	7 U
Ethylbenzene	ug/kg	6 U	6 U	7 U	7 U	7 U
2-Hexanone	ug/kg	18 U	18 U	20 U	20 U	20 U
Methyl bromide	ug/kg	12 U	12 U	13 U	13 U	13 U
Methyl chloride	ug/kg	12 U	12 U	13 U	13 U	13 U
2-butanone	ug/kg	18 U	18 U	20 U	3 J	10 J
4-Methyl-2-Pentanone	ug/kg	18 U	18 U	20 U	20 U	20 U
Methylene chloride	ug/kg	12 U	6 J	13 U	13 U*	4 J
Styrene	ug/kg	6 U	6 U	7 U	7 U	7 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	6 U	7 U	7 U	7 U
Tetrachloroethylene	ug/kg	6 U	6 U	7 U	7 U	7 U
Toluene	ug/kg	6 U	6 U	7 U	7 U	7 U
1,1,1-Trichloroethane	ug/kg	6 U	6 U	7 U	7 U	7 U
1,1,2-Trichloroethane	ug/kg	6 U	6 U	7 U	7 U	7 U
Trichloroethylene	ug/kg	6 U	6 U	7 U	7 U	7 U
Vinyl Acetate	ug/kg	18 U	18 U	20 U	20 U	20 U
Vinyl chloride	ug/kg	12 U	12 U	13 U	13 U	13 U
Xylenes	ug/kg	6 U	4 J	7 U	7 U	7 U*
Base Neutrals						
Acenaphthene	ug/kg	91 J	400 U	430 U	430 U	430 U
Acenaphthylene	ug/kg	400 U	400 U	430 U	430 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-5	7-5	7-5	7-5	7-5
Sample I.D.		SB-7-SO-5	SB-7-S0-5	SB-7-SO-5	SB-7-SO-5	SB-7-SO-5
Depth:		2.00	4.00	6.00	10.00	12.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	170 J	400 U	260 J	430 U	430 U
Benzo(a)anthracene	ug/kg	410	140 J	670	430 U	430 U
Benzo(a)pyrene	ug/kg	360 J	120 J	620	430 U	430 U
Benzo(b)fluoranthene	ug/kg	710	190 J	1100	430 U	430 U
Benzo(ghi)perylene	ug/kg	200 J	110 J	280 J	430 U	430 U
Benzo(k)fluoranthene	ug/kg	400 U	400 U	430 U	430 U	430 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	400 U	430 U	430 U	430 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	400 U	430 U	430 U	430 U
Bis(2-chloroethyl)ether	ug/kg	400 U	400 U	430 U	430 U	430 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	250 J	90 J	150 J	140 J	100 J
4-Bromophenyl phenyl ether	ug/kg	400 U	400 U	430 U	430 U	430 U
Butyl benzyl phthalate	ug/kg	400 U	400 U	430 U	430 U	430 U
Carbazole	ug/kg	79 J	400 U	430 U	430 U	430 U
p-Chloroaniline	ug/kg	400 U	400 U	430 U	430 U	430 U
2-Chloronaphthalene	ug/kg	400 U	400 U	430 U	430 U	430 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	400 U	430 U	430 U	430 U
Chrysene	ug/kg	400	120 J	690	430 U	430 U
Di-n-butyl phthalate	ug/kg	400 U*	400 U*	430 U*	430 U*	430 U*
Di-n-octyl phthalate	ug/kg	54 J	400 U	430 U	430 U	430 U
Dibenzo(a,h)anthracene	ug/kg	72 J	47 J	110 J	430 U	430 U
Dibenzofuran	ug/kg	53 J	400 U	430 U	430 U	430 U
3,3-Dichlorobenzidine	ug/kg	400 U	400 U	430 U	430 U	430 U
m-Dichlorobenzene	ug/kg	400 U	400 U	430 U	430 U	430 U
o-Dichlorobenzene	ug/kg	400 U	180 J	430 U	430 U	56 J
p-Dichlorobenzene	ug/kg	400 U	120 J	430 U	430 U	430 U
Diethyl phthalate	ug/kg	400 U	400 U	430 U	430 U	430 U
Dimethyl phthalate	ug/kg	400 U	400 U	430 U	430 U	430 U
2,4-Dinitrotoluene	ug/kg	400 U	400 U	430 U	430 U	430 U
2,6-Dinitrotoluene	ug/kg	400 U	400 U	430 U	430 U	430 U
Fluoranthene	ug/kg	910	180 J	1300	430 U	430 U
Fluorene	ug/kg	82 J	400 U	430 U	430 U	430 U
Hexachlorobenzene	ug/kg	400 U	400 U	430 U	430 U	430 U
Hexachlorobutadiene	ug/kg	400 U	400 U	430 U	430 U	430 U
Hexachlorocyclopentadiene	ug/kg	400 U	400 U	430 U	430 U	430 U
Hexachloroethane	ug/kg	400 U	400 U	430 U	430 U	430 U
Indeno(1,2,3-cd)pyrene	ug/kg	220 J	89 J	320 J	430 U	430 U
Isophorone	ug/kg	400 U	400 U	430 U	430 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-5	7-5	7-5	7-5	7-5
Sample I.D.		SB-7-SO-5	SB-7-S0-5	SB-7-SO-5	SB-7-SO-5	SB-7-SO-5
Depth:		2.00	4.00	6.00	10.00	12.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	400 U	400 U	430 U	430 U	430 U
N-Nitrosodiphenylamine	ug/kg	400 U	400 U	430 U	430 U	430 U
N-Nitrosodipropylamine	ug/kg	400 U	400 U	430 U	430 U	430 U
Naphthalene	ug/kg	400 U	400 U	430 U	430 U	430 U
m-Nitroaniline	ug/kg	980 U	980 U	1100 U	1100 U	1100 U
o-Nitroaniline	ug/kg	980 U	980 U	1100 U	1100 U	1100 U
p-Nitroaniline	ug/kg	980 U	980 U	1100 U	1100 U	1100 U
Nitrobenzene	ug/kg	400 U	400 U	430 U	430 U	430 U
Phenanthrene	ug/kg	760	150 J	770	430 U	430 U
Pyrene	ug/kg	720	120 J	1100	430 U	430 U
1,2,4-Trichlorobenzene	ug/kg	400 U	400 U	430 U	430 U	430 U
Metals						
Antimony	mg/kg	3.0 UJ	2.0 UJ	3.4 UJ	1.7 UJ	2.0 UJ
Arsenic	mg/kg	20	1.8 U	2.6 S	2.8	4.4
Beryllium	mg/kg	0.52	0.50 U	0.50 U	0.53	1.3
Cadmium	mg/kg	1.3	1.7	1.2	1.0 U	1.0 U
Chromium	mg/kg	280	430	640	480	18
Copper	mg/kg	390	2200	4600	170	54
Lead	mg/kg	360	690 J	270	11	21
Mercury	mg/kg	0.18	0.15	0.17	0.10 U	0.11 U
Nickel	mg/kg	1200	11000 J	1700	200	420
Selenium	mg/kg	0.61 UJ	1.8 UJ	1.7 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	1600	1600	920	58	320
MISC						
Cyanide	mg/kg	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	7.8	8.0	7.5	7.7	7.7
TOC	mg/kg	5000	27000	1600 U	1800	3700
TPH	mg/kg	1000	1200	110	990	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-6	7-6	7-6	7-6	7-6
Sample I.D.		SB-7-SO-6	SB-7-SO-6	SB-7-SO-6	SB-7-SO-6	SB-7-SO-6
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	18 U	2600 U	5900	580	200 B
Benzene	ug/kg	6 U	850 U	7 U	6 U	7 U
Bromodichloromethane	ug/kg	6 U	850 U	7 U	6 U	7 U
Bromoform	ug/kg	6 U	850 U	7 U	6 U	7 U
Carbon disulfide	ug/kg	12 U	1700 U	13 U	12 U	13 U
Carbon tetrachloride	ug/kg	6 U	850 U	7 U	6 U	7 U
Chlorobenzene	ug/kg	6 U	850 U	7 U	6 U	7 U
Chloroethane	ug/kg	12 U	1700 U	13 U	12 U	13 U
Chloroform	ug/kg	6 U	850 U	7 U	6 U	7 U
Dibromochloromethane	ug/kg	6 U	850 U	7 U	6 U	7 U
1,1-Dichloroethane	ug/kg	6 U	850 U	7 U	6 U	7 U
1,1-Dichloroethylene	ug/kg	6 U	850 U	7 U	6 U	7 U
1,2-Dichloroethane	ug/kg	6 U	850 U	7 U	6 U	7 U
1,2-Dichloroethylene	ug/kg	6 U	2100	7 U	6 U	7 U
1,2-Dichloropropane	ug/kg	6 U	850 U	7 U	6 U	7 U
cis-1,3-Dichloropropene	ug/kg	6 U	850 U	7 U	6 U	7 U
trans-1,3-Dichloropropene	ug/kg	6 U	850 U	7 U	6 U	7 U
Ethylbenzene	ug/kg	6 U	850 U	7 U	6 U	7 U
2-Hexanone	ug/kg	18 U	2600 U	20 U	18 U	20 U
Methyl bromide	ug/kg	12 U	1700 U	13 U	12 U	13 U
Methyl chloride	ug/kg	12 U	1700 U	13 U	12 U	13 U
2-butanone	ug/kg	18 U	2600 U	11 J	18	20 U
4-Methyl-2-Pentanone	ug/kg	18 U	2600 U	20 U	18 U	20 U
Methylene chloride	ug/kg	12 U*	1300 J	13 U	12 U	13 U*
Styrene	ug/kg	6 U	850 U	7 U	6 U	7 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	850 U	7 U	6 U	7 U
Tetrachloroethylene	ug/kg	6 U	850 U	7 U	6 U	7 U
Toluene	ug/kg	6 U	850 U	7 U	6 U	7 U
1,1,1-Trichloroethane	ug/kg	6 U	850 U	7 U	6 U	7 U
1,1,2-Trichloroethane	ug/kg	6 U	850 U	7 U	6 U	7 U
Trichloroethylene	ug/kg	3 J	1600	7 U	6 U	7 U
Vinyl Acetate	ug/kg	18 U	2600 U	20 U	18 U	20 U
Vinyl chloride	ug/kg	12 U	1700 U	13 U	12 U	13 U
Xylenes	ug/kg	1 J	890	7 U	6 U	7 U
Base Neutrals						
Acenaphthene	ug/kg	400 U	430 U	430 U	400 U	430 U
Acenaphthylene	ug/kg	400 U	430 U	430 U	400 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-6	7-6	7-6	7-6	7-6
Sample I.D.		SB-7-SO-6	SB-7-SO-6	SB-7-SO-6	SB-7-SO-6	SB-7-SO-6
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	400 U	430 U	430 U	400 U	430 U
Benzo(a)anthracene	ug/kg	100 J	160 J	430 U	400 U	430 U
Benzo(a)pyrene	ug/kg	200 J	150 J	74 J	400 U	430 U
Benzo(b)fluoranthene	ug/kg	150 J	220 J	120 J	400 U	430 U
Benzo(ghi)perylene	ug/kg	110 J	54 J	55 J	400 U	430 U
Benzo(k)fluoranthene	ug/kg	400 U	430 U	430 U	400 U	430 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	430 U	430 U	400 U	430 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	430 U	430 U	400 U	430 U
Bis(2-chloroethyl)ether	ug/kg	400 U	430 U	430 U	400 U	430 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	400 U*	430 U*	430 U*	400 U*	430 U
4-Bromophenyl phenyl ether	ug/kg	400 U	430 U	430 U	400 U	430 U
Butyl benzyl phthalate	ug/kg	400 U	430 U	430 U	400 U	430 U
Carbazole	ug/kg	400 U	430 U	430 U	400 U	430 U
p-Chloroaniline	ug/kg	400 U	430 U	430 U	400 U	430 U
2-Chloronaphthalene	ug/kg	400 U	430 U	430 U	400 U	430 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	430 U	430 U	400 U	430 U
Chrysene	ug/kg	140 J	290 J	95 J	400 U	430 U
Di-n-butyl phthalate	ug/kg	400 U*	430 U*	430 U*	400 U*	430 U*
Di-n-octyl phthalate	ug/kg	400 U	430 U	430 U	400 U	430 U
Dibenzo(a,h)anthracene	ug/kg	400 U	430 U	430 U	400 U	430 U
Dibenzofuran	ug/kg	400 U	430 U	430 U	400 U	430 U
3,3-Dichlorobenzidine	ug/kg	400 U	430 U	430 U	400 U	430 U
m-Dichlorobenzene	ug/kg	400 U	430 U	430 U	400 U	430 U
o-Dichlorobenzene	ug/kg	400 U	430 U	430 U	400 U	430 U
p-Dichlorobenzene	ug/kg	400 U	430 U	430 U	400 U	430 U
Diethyl phthalate	ug/kg	400 U	430 U	430 U	400 U	430 U
Dimethyl phthalate	ug/kg	400 U	430 U	430 U	400 U	430 U
2,4-Dinitrotoluene	ug/kg	400 U	430 U	430 U	400 U	430 U
2,6-Dinitrotoluene	ug/kg	400 U	430 U	430 U	400 U	430 U
Fluoranthene	ug/kg	130 J	360 J	110 J	400 U	430 U
Fluorene	ug/kg	400 U	430 U	430 U	400 U	430 U
Hexachlorobenzene	ug/kg	400 U	430 U	430 U	400 U	430 U
Hexachlorobutadiene	ug/kg	400 U	430 U	430 U	400 U	430 U
Hexachlorocyclopentadiene	ug/kg	400 U	430 U	430 U	400 U	430 U
Hexachloroethane	ug/kg	400 U	430 U	430 U	400 U	430 U
Indeno(1,2,3-cd)pyrene	ug/kg	63 J	54 J	48 J	400 U	430 U
Isophorone	ug/kg	400 U	430 U	430 U	400 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-6	7-6	7-6	7-6	7-6
Sample I.D.		SB-7-SO-6	SB-7-SO-6	SB-7-SO-6	SB-7-SO-6	SB-7-SO-6
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	400 U	110 J	430 U	400 U	430 U
N-Nitrosodiphenylamine	ug/kg	400 U	430 U	430 U	400 U	430 U
N-Nitrosodipropylamine	ug/kg	400 U	430 U	430 U	400 U	430 U
Naphthalene	ug/kg	400 U	91 J	430 U	400 U	430 U
m-Nitroaniline	ug/kg	980 U	1100 U	1100 U	980 U	1100 U
o-Nitroaniline	ug/kg	980 U	1100 U	1100 U	980 U	1100 U
p-Nitroaniline	ug/kg	980 U	1100 U	1100 U	980 U	1100 U
Nitrobenzene	ug/kg	400 U	430 U	430 U	400 U	430 U
Phenanthrene	ug/kg	87 J	280 J	73 J	400 U	430 U
Pyrene	ug/kg	130 J	290 J	98 J	400 U	430 U
1,2,4-Trichlorobenzene	ug/kg	400 U	430 U	430 U	400 U	430 U
Metals						
Antimony	mg/kg	0.50 UJ	2.0 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Arsenic	mg/kg	4.2 J	25 J	7.0 J	5.9 J	9.9 J
Beryllium	mg/kg	0.50 U	0.50 U	1.4	1.3	1.4
Cadmium	mg/kg	1.4	12	1.7	1.2	1.4
Chromium	mg/kg	180	2700	44	26	28
Copper	mg/kg	670	590	27	23	20
Lead	mg/kg	410	140	18	16	15
Mercury	mg/kg	0.11 U	0.17	0.11 U	0.11 U	0.12 U
Nickel	mg/kg	920	330	27	17	14
Selenium	mg/kg	0.74 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 UJ	0.87 J	0.50 UJ	0.50 UJ	0.50 UJ
Zinc	mg/kg	680	1200	85	65	51
MISC						
Cyanide	mg/kg	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	7.9	7.3	8.9	6.4	8.1
TOC	mg/kg	23000	400000	1600 U	2800	5400
TPH	mg/kg	470 J	160 J	25 UJ	25 UJ	25 UJ

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-7	7-7	7-7	7-7	7-7
Sample I.D.		SB-7-SO-7	SB-7-SO-7	SB-7-SO-7	SB-7-SO-7	SB-7-SO-7
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	28000	5800	610 B	360 B	2700
Benzene	ug/kg	750 U	7 U	6 U	7 U	7 U
Bromodichloromethane	ug/kg	750 U	7 U	6 U	7 U	7 U
Bromoform	ug/kg	750 U	7 U	6 U	7 U	7 U
Carbon disulfide	ug/kg	1500 U	14 U	12 U	13 U	13 U
Carbon tetrachloride	ug/kg	750 U	7 U	6 U	7 U	7 U
Chlorobenzene	ug/kg	750 U	7 U	6 U	7 U	7 U
Chloroethane	ug/kg	1500 U	14 U	12 U	13 U	13 U
Chloroform	ug/kg	750 U	7 U	6 U	7 U	7 U
Dibromochloromethane	ug/kg	750 U	7 U	6 U	7 U	7 U
1,1-Dichloroethane	ug/kg	750 U	7 U	6 U	7 U	7 U
1,1-Dichloroethylene	ug/kg	750 U	7 U	6 U	7 U	7 U
1,2-Dichloroethane	ug/kg	750 U	7 U	6 U	7 U	7 U
1,2-Dichloroethylene	ug/kg	750 U	8 J	2 J	7 U	7 U
1,2-Dichloropropane	ug/kg	750 U	7 U	6 U	7 U	7 U
cis-1,3-Dichloropropene	ug/kg	750 U	7 U	6 U	7 U	7 U
trans-1,3-Dichloropropene	ug/kg	750 U	7 U	6 U	7 U	7 U
Ethylbenzene	ug/kg	750 U	7 U	6 U	7 U	7 U
2-Hexanone	ug/kg	2300 U	21 U	18 U	20 U	20 U
Methyl bromide	ug/kg	1500 U	14 U	12 U	13 U	13 U
Methyl chloride	ug/kg	1500 U	14 U	12 U	13 U	13 U
2-butanone	ug/kg	2300 U	21 U	18 U	20 U	17 J
4-Methyl-2-Pentanone	ug/kg	2300 U	21 U	18 U	20 U	20 U
Methylene chloride	ug/kg	1500 U	21	12 U	13 U	13 U
Styrene	ug/kg	750 U	7 U	6 U	7 U	7 U
1,1,2,2-Tetrachloroethane	ug/kg	750 U	7 U	6 U	7 U	7 U
Tetrachloroethylene	ug/kg	750 U	7 U	6 U	7 U	7 U
Toluene	ug/kg	750 U	7 U	6 U	7 U	7 U
1,1,1-Trichloroethane	ug/kg	750 U	7 U	6 U	7 U	7 U
1,1,2-Trichloroethane	ug/kg	750 U	7 U	6 U	7 U	7 U
Trichloroethylene	ug/kg	750 U	3 J	2 J	7 U	7 U
Vinyl Acetate	ug/kg	2300 U	21 U	18 U	20 U	20 U
Vinyl chloride	ug/kg	1500 U	14 U	12 U	13 U	13 U
Xylenes	ug/kg	750 U	8	3 J	7 U	7 U
Base Neutrals						
Acenaphthene	ug/kg	400 U	460 U	400 U	430 U	430 U
Acenaphthylene	ug/kg	400 U	460 U	400 U	430 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-15

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-7	7-7	7-7	7-7	7-7
Sample I.D.		SB-7-SO-7	SB-7-SO-7	SB-7-SO-7	SB-7-SO-7	SB-7-SO-7
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	400 U	460 U	400 U	430 U	430 U
Benzo(a)anthracene	ug/kg	400 U	1000	400 U	430 U	430 U
Benzo(a)pyrene	ug/kg	400 U	570	400 U	430 U	430 U
Benzo(b)fluoranthene	ug/kg	400 U	1100	400 U	430 U	430 U
Benzo(ghi)perylene	ug/kg	400 U	350 J	400 U	430 U	430 U
Benzo(k)fluoranthene	ug/kg	400 U	260 J	400 U	430 U	430 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	460 U	400 U	430 U	430 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	460 U	400 U	430 U	430 U
Bis(2-chloroethyl)ether	ug/kg	400 U	460 U	400 U	430 U	430 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	420	680	400 U	130 J	480
4-Bromophenyl phenyl ether	ug/kg	400 U	460 U	400 U	430 U	430 U
Butyl benzyl phthalate	ug/kg	400 U	460 U	400 U	430 U	430 U
Carbazole	ug/kg	400 U	140 J	400 U	430 U	430 U
p-Chloroaniline	ug/kg	400 U	460 U	400 U	430 U	430 U
2-Chloronaphthalene	ug/kg	400 U	460 U	400 U	430 U	430 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	460 U	400 U	430 U	430 U
Chrysene	ug/kg	400 U	1000	400 U	430 U	430 U
Di-n-butyl phthalate	ug/kg	400 U*	1400 B	400 U*	430 U*	430 U*
Di-n-octyl phthalate	ug/kg	400 U	460 U	400 U	430 U	430 U
Dibenzo(a,h)anthracene	ug/kg	400 U	170 J	400 U	430 U	430 U
Dibenzofuran	ug/kg	400 U	290 J	400 U	430 U	430 U
3,3-Dichlorobenzidine	ug/kg	400 U	460 U	400 U	430 U	430 U
m-Dichlorobenzene	ug/kg	400 U	460 U	400 U	430 U	430 U
o-Dichlorobenzene	ug/kg	400 U	110 J	400 U	430 U	430 U
p-Dichlorobenzene	ug/kg	400 U	460 U	400 U	430 U	430 U
Diethyl phthalate	ug/kg	400 U	460 U	400 U	430 U	430 U
Dimethyl phthalate	ug/kg	400 U	460 U	400 U	430 U	430 U
2,4-Dinitrotoluene	ug/kg	400 U	460 U	400 U	430 U	430 U
2,6-Dinitrotoluene	ug/kg	400 U	460 U	400 U	430 U	430 U
Fluoranthene	ug/kg	400 U	2300	400 U	430 U	430 U
Fluorene	ug/kg	400 U	460 U	400 U	430 U	430 U
Hexachlorobenzene	ug/kg	400 U	460 U	400 U	430 U	430 U
Hexachlorobutadiene	ug/kg	400 U	460 U	400 U	430 U	430 U
Hexachlorocyclopentadiene	ug/kg	400 U	460 U	400 U	430 U	430 U
Hexachloroethane	ug/kg	400 U	460 U	400 U	430 U	430 U
Indeno(1,2,3-cd)pyrene	ug/kg	400 U	430 J	400 U	430 U	430 U
Isophorone	ug/kg	400 U	460 U	400 U	430 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-15

AREA 7 - FORMER SLUDGE DRYING BED NO. 5

SOIL SAMPLING RESULTS

Location I.D.		7-7	7-7	7-7	7-7	7-7
Sample I.D.		SB-7-SO-7	SB-7-SO-7	SB-7-SO-7	SB-7-SO-7	SB-7-SO-7
Depth:		2.00	4.00	6.00	8.00	10.00
Date Sampled		02/10/94	02/10/94	02/10/94	02/10/94	02/10/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	400 U	160 J	400 U	430 U	430 U
N-Nitrosodiphenylamine	ug/kg	400 U	460 U	400 U	430 U	430 U
N-Nitrosodipropylamine	ug/kg	400 U	460 U	400 U	430 U	430 U
Naphthalene	ug/kg	400 U	140 J	400 U	430 U	430 U
m-Nitroaniline	ug/kg	980 U	1100 U	980 U	1100 U	1100 U
o-Nitroaniline	ug/kg	980 U	1100 U	980 U	1100 U	1100 U
p-Nitroaniline	ug/kg	980 U	1100 U	980 U	1100 U	1100 U
Nitrobenzene	ug/kg	400 U	460 U	400 U	430 U	430 U
Phenanthrene	ug/kg	400 U	2800	400 U	430 U	430 U
Pyrene	ug/kg	400 U	1400	400 U	430 U	430 U
1,2,4-Trichlorobenzene	ug/kg	400 U	460 U	400 U	430 U	430 U
Metals						
Antimony	mg/kg	9.2 J	2.4 UJ	1.9 U	0.50 UJ	1.4 UJ
Arsenic	mg/kg	6.9 U	8.9 U	3.4 S	6.3 S	6.1
Beryllium	mg/kg	0.50 U	0.50 U	0.65	1.2	0.93
Cadmium	mg/kg	1.0 U	2.1	1.1	1.2	1.0 U
Chromium	mg/kg	8100	1500	180	310	31
Copper	mg/kg	130	1200	95	56	19
Lead	mg/kg	90	110	14	16	20
Mercury	mg/kg	0.12 U	0.12 U	0.10 U	0.10 U	0.10 U
Nickel	mg/kg	62	4500	380	39	16
Selenium	mg/kg	1.7 U	2.2 U	0.73 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 US
Zinc	mg/kg	210	2600	350	98	82
MISC						
Cyanide	mg/kg	4.1	5.4	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	5.5	6.9	6.9	7.2	7.7
TOC	mg/kg	2700 U	5300	3000	1300	3500
TPH	mg/kg	280	190	25 U	25 U	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 7 - DIE STORAGE AREA

SOIL SAMPLING RESULTS

Location I.D.		7-1	7-2
Sample I.D.		SB-7-SO-1	SB-7-SO-2
Depth:		0.50	0.50
Date Sampled		02/11/94	02/11/94
Parameter	Units		
MISC			
TPH	mg/kg	110 J	1000 J

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-17

AREA 8

SOIL SAMPLING VARIANCES

PART A LOCATION VARIANCES

No Variances:

All borings in Area 8 were advanced in the same general locations as proposed in the RIP.

PART B ANALYTICAL VARIANCES

Boring #	Matrix	Proposed Depth	Proposed Analytical Schedule	Actual Depth	Actual Analytical Schedule	Reason For Variance
SB-8-SO-11 Through SB-8-SO-14	Soil	0-0.5 FT. Intervals	VOA, PPM, BN+15	1-2 FT. Intervals	VOA, PPM, BN+15	Due to low sample recoveries and the volume of sample required for the analytical schedule, larger intervals were required. However, VOA samples were collected from discrete intervals
SB-8-SO-15 Through SB-8-SO-16	Soil	0-0.5 FT. Intervals	PAH, PPM, pH	2 FT. Intervals	PAH, PPM, pH	Poor sample recoveries required larger intervals.

AREA 8- WASTE TREATMENT SLUDGE SETTLING TANKS

SOIL SAMPLING RESULTS

Location I.D.		8-11	8-11	8-12	8-12	8-13
Sample I.D.		SB-8-SO-11	SB-8-SO-11	SB-8-SO-12	SB-8-SO-12	SB-8-SO-13
Depth:		8.00	16.00	12.00	16.00	14.00
Date Sampled		02/22/94	02/22/94	02/22/94	02/22/94	02/21/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	2900 UR	37 UR*	99 U*	34 BR	20 U*
Benzene	ug/kg	1400 R	6 UR	44	6 UR	7 U
Bromodichloromethane	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
Bromoform	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
Carbon disulfide	ug/kg	1900 UR	11 UR	66 U	12 UR	13 U
Carbon tetrachloride	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
Chlorobenzene	ug/kg	950 UR	6 UR	550	6 UR	8
Chloroethane	ug/kg	1900 UR	11 UR	66 U	12 UR	13 U
Chloroform	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
Dibromochloromethane	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
1,1-Dichloroethane	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
1,1-Dichloroethylene	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
1,2-Dichloroethane	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
1,2-Dichloroethylene	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
1,2-Dichloropropane	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
cis-1,3-Dichloropropene	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
trans-1,3-Dichloropropene	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
Ethylbenzene	ug/kg	130000 R	6 UR	300	6 UR	37
2-Hexanone	ug/kg	4500 R	17 UR	99 U	18 UR	20 U
Methyl bromide	ug/kg	1900 UR	11 UR	66 U	12 UR	13 U
Methyl chloride	ug/kg	1900 UR	11 UR	66 U	12 UR	13 U
2-butanone	ug/kg	2900 UR	17 UR	99 U	18 UR	20 U
4-Methyl-2-Pentanone	ug/kg	67000 ER	17 UR	99 U	18 UR	20 U
Methylene chloride	ug/kg	1900 UR	3 JR	66 U	12 UR	13 U*
Styrene	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
1,1,2,2-Tetrachloroethane	ug/kg	3100 R	6 UR	33 U	6 UR	7 U
Tetrachloroethylene	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
Toluene	ug/kg	84000 R	6 UR	470	6 UR	7 U
1,1,1-Trichloroethane	ug/kg	950 UR	5 JR	33 U	5 JR	7 U
1,1,2-Trichloroethane	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
Trichloroethylene	ug/kg	950 UR	6 UR	33 U	6 UR	7 U
Vinyl Acetate	ug/kg	2900 UR	17 UR	99 U	18 UR	20 U
Vinyl chloride	ug/kg	1900 UR	11 UR	66 U	12 UR	13 U
Xylenes	ug/kg	740000 R	6 UR	1800	6 UR	290 E
Base Neutrals						
Acenaphthene	ug/kg	11000	400 U	960	400 U	2700 J
Acenaphthylene	ug/kg	1300 J	400 U	430 U	400 U	89 J

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-18

AREA 8- WASTE TREATMENT SLUDGE SETTLING TANKS

SOIL SAMPLING RESULTS

Location I.D.		8-11	8-11	8-12	8-12	8-13
Sample I.D.		SB-8-SO-11	SB-8-SO-11	SB-8-SO-12	SB-8-SO-12	SB-8-SO-13
Depth:		8.00	16.00	12.00	16.00	14.00
Date Sampled		02/22/94	02/22/94	02/22/94	02/22/94	02/21/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	15000	400 U	1600	400 U	4900 J
Benzo(a)anthracene	ug/kg	16000	43 J	1700	400 U	6600 J
Benzo(a)pyrene	ug/kg	6400	400 U	750	400 U	5700 J
Benzo(b)fluoranthene	ug/kg	15000	85 J	1400	400 U	8300 J
Benzo(ghi)perylene	ug/kg	4400	44 J	720	400 U	3900 J
Benzo(k)fluoranthene	ug/kg	2500 U	400 U	430 U	400 U	2700 J
Bis(2-chloro-1-methylethyl) ether	ug/kg	2500 U	400 U	430 U	400 U	430 U
Bis(2-chloroethoxy)methane	ug/kg	2500 U	400 U	430 U	400 U	430 U
Bis(2-chloroethyl)ether	ug/kg	2500 U	400 U	430 U	400 U	430 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	280000 B	400 U*	6200 B	400 U*	8400 JB
4-Bromophenyl phenyl ether	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
Butyl benzyl phthalate	ug/kg	1500 J	400 U	110000	270 J	5200 J
Carbazole	ug/kg	17000	400 U	1400	400 U	5200
p-Chloroaniline	ug/kg	2500 U	400 U	430 U	400 U	430 U
2-Chloronaphthalene	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
4-Chlorophenyl phenyl ether	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
Chrysene	ug/kg	14000	56 J	1300	400 U	8500 J
Di-n-butyl phthalate	ug/kg	34000 B	400 U*	6300 B	400 U*	1200 JB
Di-n-octyl phthalate	ug/kg	1400 J	50 J	1500	67 J	120 J
Dibenzo(a,h)anthracene	ug/kg	2200 J	400 U	340 J	400 U	1100 J
Dibenzofuran	ug/kg	26000	400 U	2100	400 U	2100 J
3,3-Dichlorobenzidine	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
m-Dichlorobenzene	ug/kg	2500 U	400 U	430 U	400 U	430 U
o-Dichlorobenzene	ug/kg	3000	400 U	360 J	400 U	430 U
p-Dichlorobenzene	ug/kg	2500 U	400 U	570	400 U	430 U
Diethyl phthalate	ug/kg	33000	400 U	430 U	400 U	430 UJ
Dimethyl phthalate	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
2,4-Dinitrotoluene	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
2,6-Dinitrotoluene	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
Fluoranthene	ug/kg	67000	67 J	4200	400 U	15000 J
Fluorene	ug/kg	23000	400 U	2500	400 U	3800 J
Hexachlorobenzene	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
Hexachlorobutadiene	ug/kg	2500 U	400 U	430 U	400 U	430 U
Hexachlorocyclopentadiene	ug/kg	2500 U	400 U	430 U	400 U	430 U
Hexachloroethane	ug/kg	2500 U	400 U	430 U	400 U	430 U
Indeno(1,2,3-cd)pyrene	ug/kg	4100	62 J	610	400 U	4000 J
Isophorone	ug/kg	2500 U	400 U	430 U	400 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-18

AREA 8- WASTE TREATMENT SLUDGE SETTLING TANKS

SOIL SAMPLING RESULTS

Location I.D.		8-11	8-11	8-12	8-12	8-13
Sample I.D.		SB-8-SO-11	SB-8-SO-11	SB-8-SO-12	SB-8-SO-12	SB-8-SO-13
Depth:		8.00	16.00	12.00	16.00	14.00
Date Sampled		02/22/94	02/22/94	02/22/94	02/22/94	02/21/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	40000	400 U	3600	400 U	4300
N-Nitrosodiphenylamine	ug/kg	2500 U	400 U	430 U	400 U	430 UJ
N-Nitrosodipropylamine	ug/kg	2500 U	400 U	430 U	400 U	430 U
Naphthalene	ug/kg	35000	400 U	3700	400 U	7000
m-Nitroaniline	ug/kg	6300 U	980 U	1100 U	980 U	1100 UJ
o-Nitroaniline	ug/kg	6300 U	980 U	1100 U	980 U	1100 UJ
p-Nitroaniline	ug/kg	6300 U	980 U	1100 U	980 U	1100 UJ
Nitrobenzene	ug/kg	2500 U	400 U	430 U	400 U	430 U
Phenanthrene	ug/kg	130000	400 U	7300 J	400 U	17000 J
Pyrene	ug/kg	17000	56 J	2000	400 U	15000
1,2,4-Trichlorobenzene	ug/kg	2500 U	400 U	150 J	400 U	430 U
Metals						
Antimony	mg/kg	12 J	0.50 UJ	1.1 J	0.50 UJ	1.0 J
Arsenic	mg/kg	24	1.6	7.2	1.7	4.5
Beryllium	mg/kg	0.52 U	1.2	0.50 U	1.0	0.66
Cadmium	mg/kg	8.8	1.0 U	4.4	1.0 U	1.3
Chromium	mg/kg	1400	16	540	9.5	190
Copper	mg/kg	1800 J	11 J	1000 J	11 J	670 J
Lead	mg/kg	4300 J	4.8 J	260 J	5.2 J	210 J
Mercury	mg/kg	2.1 J	0.10 U	0.18	0.10 U	0.15
Nickel	mg/kg	640	10	2000	12	210
Selenium	mg/kg	1.1 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	1.6 UJ	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.54 UJ	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	13000 J	36 J	3200 J	30 J	3900 J

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-18

AREA 8- WASTE TREATMENT SLUDGE SETTLING TANKS

SOIL SAMPLING RESULTS

Location I.D.		8-13	8-14	8-14
Sample I.D.		SB-8-SO-13	SB-8-SO-14	SB-8-SO-14
Depth:		18.00	10.00	16.00
Date Sampled		02/21/94	02/22/94	02/22/94
Parameter	Units			
Volatiles				
Acetone	ug/kg	37 U*	3000 UR	90 U*
Benzene	ug/kg	5 J	640 JR	30 U
Bromodichloromethane	ug/kg	6 U	1000 UR	30 U
Bromoform	ug/kg	6 U	1000 UR	30 U
Carbon disulfide	ug/kg	12 U	2000 UR	60 U
Carbon tetrachloride	ug/kg	6 U	1000 UR	30 U
Chlorobenzene	ug/kg	18	44000 R	210
Chloroethane	ug/kg	12 U	2000 UR	60 U
Chloroform	ug/kg	6 U	1000 UR	30 U
Dibromochloromethane	ug/kg	6 U	1000 UR	30 U
1,1-Dichloroethane	ug/kg	6 U	1000 UR	30 U
1,1-Dichloroethylene	ug/kg	6 U	1000 UR	30 U
1,2-Dichloroethane	ug/kg	6 U	1000 UR	30 U
1,2-Dichloroethylene	ug/kg	6 U	1000 UR	30 U
1,2-Dichloropropane	ug/kg	6 U	1000 UR	30 U
cis-1,3-Dichloropropene	ug/kg	6 U	1000 UR	30 U
trans-1,3-Dichloropropene	ug/kg	6 U	1000 UR	30 U
Ethylbenzene	ug/kg	15	19000 R	160
2-Hexanone	ug/kg	18 U	3000 UR	90 U
Methyl bromide	ug/kg	12 U	2000 UR	60 U
Methyl chloride	ug/kg	12 U	2000 UR	60 U
2-butanone	ug/kg	18 U	3000 UR	90 U
4-Methyl-2-Pentanone	ug/kg	18 U	3000 UR	90 U
Methylene chloride	ug/kg	12 U	2000 UR	60 U
Styrene	ug/kg	6 U	1000 UR	30 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	1600 BR	30 U
Tetrachloroethylene	ug/kg	6 U	1000 UR	30 U
Toluene	ug/kg	6 U	540 JR	30 U
1,1,1-Trichloroethane	ug/kg	6 U	870 JBR	30 U
1,1,2-Trichloroethane	ug/kg	6 U	1000 UR	30 U
Trichloroethylene	ug/kg	6 U	1000 UR	30 U
Vinyl Acetate	ug/kg	18 U	3000 UR	90 U
Vinyl chloride	ug/kg	12 U	2000 UR	60 U
Xylenes	ug/kg	94	110000 R	940
Base Neutrals				
Acenaphthene	ug/kg	280 J	3100	49 J
Acenaphthylene	ug/kg	400 U	1600 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

AREA 8- WASTE TREATMENT SLUDGE SETTLING TANKS

SOIL SAMPLING RESULTS

Location I.D.		8-13	8-14	8-14
Sample I.D.		SB-8-SO-13	SB-8-SO-14	SB-8-SO-14
Depth:		18.00	10.00	16.00
Date Sampled		02/21/94	02/22/94	02/22/94
Parameter	Units			
Base Neutrals				
Anthracene	ug/kg	300 J	2100	57 J
Benzo(a)anthracene	ug/kg	390 J	1900	94 J
Benzo(a)pyrene	ug/kg	230 J	970 J	51 J
Benzo(b)fluoranthene	ug/kg	370 J	2000	400 U
Benzo(ghi)perylene	ug/kg	160 J	710 J	74 J
Benzo(k)fluoranthene	ug/kg	150 J	1600 U	400 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	1600 U	400 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	1600 U	400 U
Bis(2-chloroethyl)ether	ug/kg	400 U	1600 U	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	1600	26000 B	500 B
4-Bromophenyl phenyl ether	ug/kg	400 U	1600 U	400 U
Butyl benzyl phthalate	ug/kg	480	1600 U	400 U
Carbazole	ug/kg	390 J	1700	51 J
p-Chloroaniline	ug/kg	400 U	1600 U	400 U
2-Chloronaphthalene	ug/kg	400 U	1600 U	400 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	1600 U	400 U
Chrysene	ug/kg	420	2100	84 J
Di-n-butyl phthalate	ug/kg	600 B	5100 B	1100 B
Di-n-octyl phthalate	ug/kg	400 U	1600 U	70 J
Dibenzo(a,h)anthracene	ug/kg	400 U	250 J	400 U
Dibenzofuran	ug/kg	380 J	4200	53 J
3,3-Dichlorobenzidine	ug/kg	400 U	1600 U	400 U
m-Dichlorobenzene	ug/kg	400 U	340 J	400 U
o-Dichlorobenzene	ug/kg	400 U	1400 J	400 U
p-Dichlorobenzene	ug/kg	400 U	7700	400 U
Diethyl phthalate	ug/kg	400 U	1600 U	400 U
Dimethyl phthalate	ug/kg	400 U	1600 U	400 U
2,4-Dinitrotoluene	ug/kg	400 U	1600 U	400 U
2,6-Dinitrotoluene	ug/kg	400 U	1600 U	400 U
Fluoranthene	ug/kg	1500	7000	250 J
Fluorene	ug/kg	670	5300	97 J
Hexachlorobenzene	ug/kg	400 U	1600 U	400 U
Hexachlorobutadiene	ug/kg	400 U	1600 U	400 U
Hexachlorocyclopentadiene	ug/kg	400 U	1600 U	400 U
Hexachloroethane	ug/kg	400 U	1600 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	190 J	500 J	400 U
Isophorone	ug/kg	400 U	1600 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-18

AREA 8- WASTE TREATMENT SLUDGE SETTLING TANKS

SOIL SAMPLING RESULTS

Location I.D.		8-13	8-14	8-14
Sample I.D.		SB-8-SO-13	SB-8-SO-14	SB-8-SO-14
Depth:		18.00	10.00	16.00
Date Sampled		02/21/94	02/22/94	02/22/94
Parameter	Units			
Base Neutrals				
2-Methylnaphthalene	ug/kg	600	26000	170 J
N-Nitrosodiphenylamine	ug/kg	400 U	1600 U	400 U
N-Nitrosodipropylamine	ug/kg	400 U	1600 U	400 U
Naphthalene	ug/kg	960	21000	100 J
m-Nitroaniline	ug/kg	980 U	4000 U	980 U
o-Nitroaniline	ug/kg	980 U	4000 U	980 U
p-Nitroaniline	ug/kg	980 U	4000 U	980 U
Nitrobenzene	ug/kg	400 U	1600 U	400 U
Phenanthrene	ug/kg	2100	15000	360 J
Pyrene	ug/kg	860	4000	150 J
1,2,4-Trichlorobenzene	ug/kg	400 U	1600 U	400 U
Metals				
Antimony	mg/kg	0.50 UJ	3.6 J	0.50 UJ
Arsenic	mg/kg	0.50 U	3.1	1.3
Beryllium	mg/kg	0.50 U	0.73	1.7
Cadmium	mg/kg	1.0 U	10	1.0 U
Chromium	mg/kg	25	460	26
Copper	mg/kg	22 J	1300 J	68 J
Lead	mg/kg	8.5 J	1000 J	15 J
Mercury	mg/kg	0.10 U	0.22	0.10 U
Nickel	mg/kg	12	1100	14
Selenium	mg/kg	0.50 UJ	0.83 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	100 J	28000 J	450 J

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-19

AREA 8 - FORMER TRASH INCINERATOR

SOIL SAMPLING RESULTS

Location I.D.		8-15	8-16
Sample I.D.		SB-8-SO-15	SB-8-SO-16
Depth:		4.00	6.00
Date Sampled		02/17/94	02/17/94
Parameter	**Units**		
PAH			
Acenaphthene	ug/kg	400 U	730 U
Acenaphthylene	ug/kg	400 U	730 U
Anthracene	ug/kg	400 U	85 J
Benzo(a)anthracene	ug/kg	120 J	580 J
Benzo(a)pyrene	ug/kg	120 J	660 J
Benzo(b)fluoranthene	ug/kg	160 J	1100
Benzo(ghi)perylene	ug/kg	85 J	670 J
Benzo(k)fluoranthene	ug/kg	45 J	730 U
Chrysene	ug/kg	180 J	590 J
Dibenzo(a,h)anthracene	ug/kg	400 U	170 J
Fluoranthene	ug/kg	170 J	880
Fluorene	ug/kg	400 U	730 U
Indeno(1,2,3-cd)pyrene	ug/kg	77 J	540 J
2-Methylnaphthalene	ug/kg	100 J	730 U
Naphthalene	ug/kg	93 J	730 U
Phenanthrene	ug/kg	230 J	340 J
Pyrene	ug/kg	170 J	600 J
Metals			
Antimony	mg/kg	0.7 UJ	1.1 JS
Arsenic	mg/kg	23 J	78 J
Beryllium	mg/kg	0.50 U	0.50 U
Cadmium	mg/kg	1.3	5.4
Chromium	mg/kg	23	47
Copper	mg/kg	42 J	280 J
Lead	mg/kg	36	110
Mercury	mg/kg	0.10 U	0.10 U
Nickel	mg/kg	23	51
Selenium	mg/kg	0.70 UJ	0.50 US
Silver	mg/kg	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U
Zinc	mg/kg	140	310
MISC			
Hydrogen ion	ph un	7.6 R	9.4 R

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-20

AREA 8 - SPENT NITRIC ACID SPILL

SOIL SAMPLING RESULTS

Location I.D.		8-17	8-18
Sample I.D.		SB-8-SO-17	SB-8-SO-18
Depth:		4.50	4.50
Date Sampled		02/17/94	02/17/94
Parameter	Units		
Metals			
Antimony	mg/kg	0.73 UJS	0.71 UJS
Arsenic	mg/kg	6.5 J	4.3 J
Beryllium	mg/kg	1.1	0.75
Cadmium	mg/kg	1.0	1.0 U
Chromium	mg/kg	24	28 J
Copper	mg/kg	22 J	12
Lead	mg/kg	21	30
Mercury	mg/kg	0.10 U	0.10 U
Nickel	mg/kg	18	16
Selenium	mg/kg	0.50 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U
Zinc	mg/kg	75	70
MISC			
Hydrogen ion	ph un	8.0 R	8.0 R

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-20A

AREA 8 - WIPE SAMPLING RESULTS

PCBS

Location I.D.		8-19	8-20
Sample I.D.		SB-8-WP-19	SB-8-WP-20
Depth:		0.00	0.00
Date Sampled		06/08/94	06/08/94
Parameter	Units		
PCB			
Aroclor 1016	#	500 U	1000 U
Aroclor 1221	#	1000 U	2000 U
Aroclor 1232	#	500 U	1000 U
Aroclor 1242	#	500 U	1000 U
Aroclor 1248	#	500 U	1000 U
Aroclor 1254	#	500 U	1000 U
Aroclor 1260	#	5200	15000

- units in ug/100cm2

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-21

AREA 9 - SOIL SAMPLING RESULTS

Location I.D.		9-1	9-10	9-11	9-12	9-2
Sample I.D.		SB-9-SO-1	SB-9-SO-10	SB-9-S0-11	SB-9-SO-12	SB-9-SO-2
Depth:		0.50	0.50	0.50	0.50	0.50
Date Sampled		02/09/94	02/09/94	02/09/94	02/09/94	02/09/94
Parameter	Units					
PAH						
Acenaphthene	ug/kg	4400	120 J	400 U	460 U	460 U
Acenaphthylene	ug/kg	2700 U	460 U	400 U	460 U	460 U
Anthracene	ug/kg	9800	420 J	160 J	460 U	460 U
Benzo(a)anthracene	ug/kg	16000	1200	540	91 J	96 J
Benzo(a)pyrene	ug/kg	14000	1100	450	91 J	150 J
Benzo(b)fluoranthene	ug/kg	18000	1300	680	78 J	270 J
Benzo(ghi)perylene	ug/kg	8200	730	1100	300 J	100 J
Benzo(k)fluoranthene	ug/kg	6000	470	220 J	460 U	94 J
Chrysene	ug/kg	16000	1100	630	110 J	130 J
Dibenzo(a,h)anthracene	ug/kg	2000 J	190 J	380 J	460 U	460 U
Fluoranthene	ug/kg	45000	2300	1500	130 J	130 J
Fluorene	ug/kg	4700	120 J	400 U	460 U	460 U
Indeno(1,2,3-cd)pyrene	ug/kg	10000	870	1200	260 J	180 J
2-Methylnaphthalene	ug/kg	560 J	460 U	400 U	460 U	460 U
Naphthalene	ug/kg	1600 J	460 U	69 J	460 U	460 U
Phenanthrene	ug/kg	40000	1500	640	160 J	460 U
Pyrene	ug/kg	32000	1900	990	150 J	110 J
Metals						
Antimony	mg/kg	0.50 U	0.50 U	0.50 US	0.50 U	0.58 U
Arsenic	mg/kg	5.2	11	37	7.3	65
Beryllium	mg/kg	0.50 U	1.6	0.69	1.0	0.77
Cadmium	mg/kg	1.3	1.6	1.0	1.2	1.3
Chromium	mg/kg	110	62	29	35	130
Copper	mg/kg	280	69	130	26	170 S
Lead	mg/kg	170 S	64	83	20	68
Mercury	mg/kg	0.10 U	0.10 U	0.11 U	0.10 U	0.10 U
Nickel	mg/kg	250	45	41	20	220
Selenium	mg/kg	0.50 U	1.8 U	0.50 U	0.63 U	0.50 U
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 US	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	1200	280	390	140	260
MISC						
TPH	mg/kg	1900	150	1600	490	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-21

AREA 9 - SOIL SAMPLING RESULTS

Location I.D.		9-3	9-4	9-5	9-6	9-7
Sample I.D.		SB-9-SO-3	SB-9-SO-4	SB-9-SO-5	SB-9-SO-6	SB-9-SO-7
Depth:		0.50	0.50	0.50	0.50	0.50
Date Sampled		02/09/94	02/09/94	02/09/94	02/09/94	02/09/94
Parameter	**Units**					
PAH						
Acenaphthene	ug/kg	430 U	430 U	500 U	460 U	2200
Acenaphthylene	ug/kg	430 U	430 U	500 U	460 U	130 J
Anthracene	ug/kg	430 U	430 U	87 J	460 U	7200
Benzo(a)anthracene	ug/kg	160 J	430 U	140 J	100 J	36000
Benzo(a)pyrene	ug/kg	160 J	430 U	500 U	77 J	33000
Benzo(b)fluoranthene	ug/kg	280 J	430 U	500 U	130 J	46000
Benzo(ghi)perylene	ug/kg	130 J	430 U	500 U	56 J	19000
Benzo(k)fluoranthene	ug/kg	73 J	430 U	500 U	460 U	7700
Chrysene	ug/kg	220 J	430 U	260 J	160 J	27000
Dibenzo(a,h)anthracene	ug/kg	430 U	430 U	500 U	460 U	6200
Fluoranthene	ug/kg	370 J	430 U	540	200 J	66000
Fluorene	ug/kg	430 U	430 U	500 U	460 U	2300
Indeno(1,2,3-cd)pyrene	ug/kg	150 J	430 U	500 U	68 J	19000
2-Methylnaphthalene	ug/kg	430 U	430 U	500 U	160 J	480
Naphthalene	ug/kg	430 U	430 U	500 U	55 J	910
Phenanthrene	ug/kg	140 J	430 U	400 J	210 J	26000
Pyrene	ug/kg	270 J	430 U	430 J	190 J	51000
Metals						
Antimony	mg/kg	0.50 U	0.50 U	0.81	0.50 U	3.5
Arsenic	mg/kg	35	35	48	27	31
Beryllium	mg/kg	0.50 U	1.4	0.55	0.54	0.66
Cadmium	mg/kg	1.5	1.3	23	1.0 U	4.7
Chromium	mg/kg	43	42	150	22	130
Copper	mg/kg	71	34	97	130	710
Lead	mg/kg	60	21	130	200	170 S
Mercury	mg/kg	0.10 U	0.11 U	0.10 U	0.16	0.22
Nickel	mg/kg	41	30	88	33	390
Selenium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.62 U
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	44000	94	340	100	6800
MISC						
TPH	mg/kg	510	25 U	1600	93	640

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-21

AREA 9 - SOIL SAMPLING RESULTS

Location I.D.		9-8	9-9
Sample I.D.		SB-9-SO-8	SB-9-SO-9
Depth:		0.50	0.50
Date Sampled		02/09/94	02/09/94
Parameter	**Units**		
PAH			
Acenaphthene	ug/kg	430 U	460 U
Acenaphthylene	ug/kg	430 U	460 U
Anthracene	ug/kg	430 U	460 U
Benzo(a)anthracene	ug/kg	140 J	130 J
Benzo(a)pyrene	ug/kg	140 J	210 J
Benzo(b)fluoranthene	ug/kg	210 J	400 J
Benzo(ghi)perylene	ug/kg	140 J	510
Benzo(k)fluoranthene	ug/kg	65 J	91 J
Chrysene	ug/kg	170 J	180 J
Dibenzo(a,h)anthracene	ug/kg	430 U	460 U
Fluoranthene	ug/kg	280 J	220 J
Fluorene	ug/kg	430 U	460 U
Indeno(1,2,3-cd)pyrene	ug/kg	160 J	520
2-Methylnaphthalene	ug/kg	430 U	460 U
Naphthalene	ug/kg	430 U	460 U
Phenanthrene	ug/kg	180 J	80 J
Pyrene	ug/kg	250 J	140 J
Metals			
Antimony	mg/kg	0.50 U	4.6
Arsenic	mg/kg	35	11
Beryllium	mg/kg	1.2	0.50 U
Cadmium	mg/kg	1.4	1.0 U
Chromium	mg/kg	53	100
Copper	mg/kg	42	330
Lead	mg/kg	57	83
Mercury	mg/kg	0.10 U	0.10 U
Nickel	mg/kg	63	590
Selenium	mg/kg	0.50 U	0.50 U
Silver	mg/kg	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U
Zinc	mg/kg	380	6400
MISC			
TPH	mg/kg	25 U	1900

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-22
AREA 10
SOIL SAMPLING VARIANCES

PART A LOCATION VARIANCES

Boring No.	Proposed Location	Actual Location	Reason For Variance
SB-10-SO-5A	None-Additional Boring	Approximately 40 Ft. Southwest of SB-10-SO-5A	Based upon the soil/fill encountered at SB-10-SO-5, it appeared that SB-10-SO-5 was located along the eastern edge of Bed No. 2. Boring SB-10-SO-5A was advanced further south to characterize.
SB-10-SO-11	None-Additional Boring	Approximately 50 Ft. Southeast of SB-10-SO-10	SB-10-SO-10 was intended to serve as a delineation boring south of Lagoon No. 1. Because fill/sludge was encountered in SB-10-SO-10, the additional boring SB-10-SO-11 was advanced.

PART B ANALYTICAL VARIANCES

Boring No.	Matrix	Proposed Depth	Proposed Analytical Schedule	Actual Depth	Actual Analytical Schedule	Reason For Variance
SB-10-SO-1 through SB-10-SO-11	Soil	0-0.5 Ft. Intervals	VOA, TPH, PPM, BN+15, pH, CN, TOC	1-2 Ft. Intervals	VOA, TPH, PPM, BN+15, pH, CN, TOC	Due to the volume of sample required for the analytical schedule, larger intervals were necessary. However, VOA samples were collected from discrete intervals CN was not tested for in one sample from SB-10-SO-7.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-1	10-1	10-1	10-10	10-10
Sample I.D.		SB-10-SO-1	SB-10-SO-1	SB-10-SO-1	SB-10-SO-10	SB-10-SO-10
Depth:		2.00	5.00	6.00	1.00	2.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/15/94	02/15/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	12 U*	13 U*	13 U*	1800	87 U*
Benzene	ug/kg	6 U	7 U	7 U	7 U	6 U
Bromodichloromethane	ug/kg	6 U	7 U	7 U	7 U	6 U
Bromoform	ug/kg	6 U	7 U	7 U	7 U	6 U
Carbon disulfide	ug/kg	12 U	13 U	13 U	14 U	12 U
Carbon tetrachloride	ug/kg	6 U	7 U	7 U	7 U	6 U
Chlorobenzene	ug/kg	6 U	7 U	7 U	7 U	6 U
Chloroethane	ug/kg	12 U	13 U	13 U	14 U	12 U
Chloroform	ug/kg	6 U	7 U	7 U	7 U	6 U
Dibromochloromethane	ug/kg	6 U	7 U	7 U	7 U	6 U
1,1-Dichloroethane	ug/kg	6 U	7 U	7 U	7 U	6 U
1,1-Dichloroethylene	ug/kg	6 U	7 U	7 U	7 U	6 U
1,2-Dichloroethane	ug/kg	6 U	7 U	7 U	7 U	6 U
1,2-Dichloroethylene	ug/kg	6 U	7 U	7 U	7 U	6 U
1,2-Dichloropropane	ug/kg	6 U	7 U	7 U	7 U	6 U
cis-1,3-Dichloropropene	ug/kg	6 U	7 U	7 U	7 U	6 U
trans-1,3-Dichloropropene	ug/kg	6 U	7 U	7 U	7 U	6 U
Ethylbenzene	ug/kg	6 U	7 U	7 U	7 U	6 U
2-Hexanone	ug/kg	18 U	20 U	20 U	21 U	18 U
Methyl bromide	ug/kg	12 U	13 U	13 U	14 U	12 U
Methyl chloride	ug/kg	12 U	13 U	13 U	14 U	12 U
2-butanone	ug/kg	18 U	20 U	20 U	21 U	18 U
4-Methyl-2-Pentanone	ug/kg	18 U	20 U	20 U	21 U	18 U
Methylene chloride	ug/kg	12 U*	13 U*	13 U*	14 U*	12 U*
Styrene	ug/kg	6 U	7 U	7 U	7 U	6 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	7 U	7 U	7 U	6 U
Tetrachloroethylene	ug/kg	6 U	7 U	7 U	7 U	6 U
Toluene	ug/kg	6 U	7 U	7 U	7 U	6 U
1,1,1-Trichloroethane	ug/kg	6 U	7 U	7 U	7 U	6 U
1,1,2-Trichloroethane	ug/kg	6 U	7 U	7 U	7 U	6 U
Trichloroethylene	ug/kg	6 U	7 U	7 U	7 U	6 U
Vinyl Acetate	ug/kg	18 U	20 U	20 U	21 U	18 U
Vinyl chloride	ug/kg	12 U	13 U	13 U	14 U	12 U
Xylenes	ug/kg	6 U	7 U	7 U	7 U	6 U
Base Neutrals						
Acenaphthene	ug/kg	130 J	430 U	430 U	460 U	400 U
Acenaphthylene	ug/kg	400 U	430 U	430 U	460 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-1	10-1	10-1	10-10	10-10
Sample I.D.		SB-10-SO-1	SB-10-SO-1	SB-10-SO-1	SB-10-SO-10	SB-10-SO-10
Depth:		2.00	5.00	6.00	1.00	2.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/15/94	02/15/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	220 J	430 U	430 U	460 U	400 U
Benzo(a)anthracene	ug/kg	540	430 U	430 U	460 U	400 U
Benzo(a)pyrene	ug/kg	440	430 U	430 U	460 U	400 U
Benzo(b)fluoranthene	ug/kg	610	430 U	430 U	53 J	400 U
Benzo(ghi)perylene	ug/kg	340 J	430 U	430 U	110 J	400 U
Benzo(k)fluoranthene	ug/kg	230 J	430 U	430 U	460 U	400 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	430 U	430 U	460 U	400 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	430 U	430 U	460 U	400 U
Bis(2-chloroethyl)ether	ug/kg	400 U	430 U	430 U	460 U	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	400 U*	80 J	200 J	460 U*	400 U*
4-Bromophenyl phenyl ether	ug/kg	400 U	430 U	430 U	460 U	400 U
Butyl benzyl phthalate	ug/kg	400 U	430 U	430 U	460 U	400 U
Carbazole	ug/kg	72 J	430 U	430 U	460 U	400 U
p-Chloroaniline	ug/kg	400 U	430 U	430 U	460 U	400 U
2-Chloronaphthalene	ug/kg	400 U	430 U	430 U	460 U	400 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	430 U	430 U	460 U	400 U
Chrysene	ug/kg	560	430 U	430 U	460 U	400 U
Di-n-butyl phthalate	ug/kg	400 U*	430 U*	430 U*	150 J	110 J
Di-n-octyl phthalate	ug/kg	400 U	430 U	59 J	460 U	400 U
Dibenzo(a,h)anthracene	ug/kg	79 J	430 U	430 U	460 U	400 U
Dibenzofuran	ug/kg	58 J	430 U	430 U	460 U	400 U
3,3-Dichlorobenzidine	ug/kg	400 U	430 U	430 U	460 U	400 U
m-Dichlorobenzene	ug/kg	400 U	430 U	430 U	460 U	400 U
o-Dichlorobenzene	ug/kg	400 U	430 U	430 U	460 U	400 U
p-Dichlorobenzene	ug/kg	400 U	430 U	430 U	460 U	400 U
Diethyl phthalate	ug/kg	400 U	430 U	430 U	460 U	400 U
Dimethyl phthalate	ug/kg	400 U	430 U	430 U	460 U	400 U
2,4-Dinitrotoluene	ug/kg	400 U	430 U	430 U	460 U	400 U
2,6-Dinitrotoluene	ug/kg	400 U	430 U	430 U	460 U	400 U
Fluoranthene	ug/kg	1200	430 U	430 U	83 J	400 U
Fluorene	ug/kg	130 J	430 U	430 U	460 U	400 U
Hexachlorobenzene	ug/kg	400 U	430 U	430 U	460 U	400 U
Hexachlorobutadiene	ug/kg	400 U	430 U	430 U	460 U	400 U
Hexachlorocyclopentadiene	ug/kg	400 U	430 U	430 U	460 U	400 U
Hexachloroethane	ug/kg	400 U	430 U	430 U	460 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	340 J	430 U	430 U	460 U	400 U
Isophorone	ug/kg	400 U	430 U	430 U	460 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-1	10-1	10-1	10-10	10-10
Sample I.D.		SB-10-SO-1	SB-10-SO-1	SB-10-SO-1	SB-10-SO-10	SB-10-SO-10
Depth:		2.00	5.00	6.00	1.00	2.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/15/94	02/15/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	400 U	430 U	430 U	460 U	400 U
N-Nitrosodiphenylamine	ug/kg	400 U	430 U	430 U	460 U	400 U
N-Nitrosodipropylamine	ug/kg	400 U	430 U	430 U	460 U	400 U
Naphthalene	ug/kg	400 U	430 U	430 U	460 U	400 U
m-Nitroaniline	ug/kg	980 U	1100 U	1100 U	1100 U	980 U
o-Nitroaniline	ug/kg	980 U	1100 U	1100 U	1100 U	980 U
p-Nitroaniline	ug/kg	980 U	1100 U	1100 U	1100 U	980 U
Nitrobenzene	ug/kg	400 U	430 U	430 U	460 U	400 U
Phenanthrene	ug/kg	980	430 U	430 U	50 J	400 U
Pyrene	ug/kg	1200	430 U	430 U	58 J	400 U
1,2,4-Trichlorobenzene	ug/kg	400 U	430 U	430 U	460 U	400 U
Metals						
Antimony	mg/kg	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U
Arsenic	mg/kg	20 J	6.3 J	2.9 J	1.7	1.2
Beryllium	mg/kg	0.55	0.55	0.72	0.50 U	0.50 U
Cadmium	mg/kg	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	mg/kg	33 J	25	18	10 J	8.9 J
Copper	mg/kg	110 J	10	5.9	12	12
Lead	mg/kg	62 J	11	10	9.5	7.7
Mercury	mg/kg	0.1 UR	0.1 UR	0.1 UR	0.10 U	0.10 U
Nickel	mg/kg	75 J	13	8.4	8.5	9.7
Selenium	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	960	48	39	2900	1300
MISC						
Cyanide	mg/kg	10	2.0 U	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	7.9 R	7.6 R	7.8 R	7.5 R	7.2 R
TOC	mg/kg	2400	1500 U	2100	2000 U	1500
TPH	mg/kg	70	25 U	25 U	25 UJ	25 UJ

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-10	10-10	10-10	10-11	10-11
Sample I.D.		SB-10-SO-10	SB-10-SO-10	SB-10-SO-10	SB-10-SO-11	SB-10-SO-11
Depth:		4.00	6.00	10.00	1.00	2.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/15/94	02/15/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	2600 U	2900 U	1700 EB	300 EB	80 B
Benzene	ug/kg	850 U	950 U	8	8 U	7 U
Bromodichloromethane	ug/kg	850 U	950 U	7 U	8 U	7 U
Bromoform	ug/kg	850 U	950 U	7 U	8 U	7 U
Carbon disulfide	ug/kg	1700 U	1900 U	14 U	15 U	13 U
Carbon tetrachloride	ug/kg	850 U	950 U	7 U	8 U	7 U
Chlorobenzene	ug/kg	6400	17000	170	8 U	7 U
Chloroethane	ug/kg	1700 U	1900 U	14 U	15 U	13 U
Chloroform	ug/kg	850 U	950 U	7 U	8 U	7 U
Dibromochloromethane	ug/kg	850 U	950 U	7 U	8 U	7 U
1,1-Dichloroethane	ug/kg	850 U	950 U	7 U	8 U	7 U
1,1-Dichloroethylene	ug/kg	850 U	950 U	7 U	8 U	7 U
1,2-Dichloroethane	ug/kg	850 U	950 U	7 U	8 U	7 U
1,2-Dichloroethylene	ug/kg	850 U	950 U	7 U	8 U	7 U
1,2-Dichloropropane	ug/kg	850 U	950 U	7 U	8 U	7 U
cis-1,3-Dichloropropene	ug/kg	850 U	950 U	7 U	8 U	7 U
trans-1,3-Dichloropropene	ug/kg	850 U	950 U	7 U	8 U	7 U
Ethylbenzene	ug/kg	8400	42000 E	100	8 U	7 U
2-Hexanone	ug/kg	2600 U	2900 U	6 J	23 U	20 U
Methyl bromide	ug/kg	1700 U	1900 U	14 U	15 U	13 U
Methyl chloride	ug/kg	1700 U	1900 U	14 U	15 U	13 U
2-butanone	ug/kg	2600 U	2900 U	21 U	23 U	20 U
4-Methyl-2-Pentanone	ug/kg	2600 U	2900 U	7 J	23 U	20 U
Methylene chloride	ug/kg	1700 U	1900 U	14 U	15 U	13 U
Styrene	ug/kg	850 U	950 U	7 U	8 U	7 U
1,1,2,2-Tetrachloroethane	ug/kg	850 U	950 U	7 U	8 U	7 U
Tetrachloroethylene	ug/kg	850 U	950 U	7 U	8 U	7 U
Toluene	ug/kg	2700	20000	65	8 U	7 U
1,1,1-Trichloroethane	ug/kg	850 U	950 U	7 U	8 U	7 U
1,1,2-Trichloroethane	ug/kg	850 U	950 U	7 U	8 U	7 U
Trichloroethylene	ug/kg	850 U	950 U	7 U	8 U	7 U
Vinyl Acetate	ug/kg	2600 U	2900 U	21 U	23 U	20 U
Vinyl chloride	ug/kg	1700 U	1900 U	14 U	15 U	13 U
Xylenes	ug/kg	51000	230000 E	690 E	8 U	7 U
Base Neutrals						
Acenaphthene	ug/kg	1400	2400	460 U	140 J	110 J
Acenaphthylene	ug/kg	460 U	500 U	460 U	500 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-10	10-10	10-10	10-11	10-11
Sample I.D.		SB-10-SO-10	SB-10-SO-10	SB-10-SO-10	SB-10-SO-11	SB-10-SO-11
Depth:		4.00	6.00	10.00	1.00	2.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/15/94	02/15/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	860	1300	150 J	210 J	320 J
Benzo(a)anthracene	ug/kg	1300	1600	280 J	820	2200
Benzo(a)pyrene	ug/kg	910	900	120 J	910	1800
Benzo(b)fluoranthene	ug/kg	1400	1500	250 J	1200	2800
Benzo(ghi)perylene	ug/kg	830	730	110 J	960	1600
Benzo(k)fluoranthene	ug/kg	510	500	460 U	390 J	770
Bis(2-chloro-1-methylethyl) ether	ug/kg	460 U	500 U	460 U	500 U	430 U
Bis(2-chloroethoxy)methane	ug/kg	460 U	500 U	460 U	500 U	430 U
Bis(2-chloroethyl)ether	ug/kg	460 U	500 U	460 U	500 U	430 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	20000 B	12000 B	3600	19000 B	18000 B
4-Bromophenyl phenyl ether	ug/kg	460 U	500 U	460 U	500 U	430 U
Butyl benzyl phthalate	ug/kg	980	6800	1900	900	6600
Carbazole	ug/kg	520	1600	130 J	120 J	230 J
p-Chloroaniline	ug/kg	460 U	500 U	460 U	500 U	430 U
2-Chloronaphthalene	ug/kg	460 U	500 U	460 U	500 U	430 U
4-Chlorophenyl phenyl ether	ug/kg	460 U	500 U	460 U	500 U	430 U
Chrysene	ug/kg	1500	1900	210 J	920	2000
Di-n-butyl phthalate	ug/kg	230 J	650	910	340 J	970
Di-n-octyl phthalate	ug/kg	460 U	260 J	460 U	500 U	69 J
Dibenzo(a,h)anthracene	ug/kg	460 U	260 J	460 U	300 J	580
Dibenzofuran	ug/kg	1100	500 U	370 J	99 J	110 J
3,3-Dichlorobenzidine	ug/kg	460 U	500 U	460 U	500 U	430 U
m-Dichlorobenzene	ug/kg	130 J	520	460 U	500 U	100 J
o-Dichlorobenzene	ug/kg	510	5000	460 U	500 U	130 J
p-Dichlorobenzene	ug/kg	1200	5400	490	100 J	440
Diethyl phthalate	ug/kg	460 U	500 U	460 U	500 U	430 U
Dimethyl phthalate	ug/kg	460 U	500 U	460 U	500 U	430 U
2,4-Dinitrotoluene	ug/kg	460 U	500 U	460 U	500 U	430 U
2,6-Dinitrotoluene	ug/kg	460 U	500 U	460 U	500 U	430 U
Fluoranthene	ug/kg	2800	3600	870	1200	2400
Fluorene	ug/kg	2000	5500	490	140 J	120 J
Hexachlorobenzene	ug/kg	460 U	500 U	460 U	500 U	430 U
Hexachlorobutadiene	ug/kg	460 U	500 U	460 U	500 U	430 U
Hexachlorocyclopentadiene	ug/kg	460 U	500 U	460 U	500 U	430 U
Hexachloroethane	ug/kg	460 U	500 U	460 U	500 U	430 U
Indeno(1,2,3-cd)pyrene	ug/kg	870	810	87 J	1100	2000
Isophorone	ug/kg	460 U	500 U	460 U	500 U	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-10	10-10	10-10	10-11	10-11
Sample I.D.		SB-10-SO-10	SB-10-SO-10	SB-10-SO-10	SB-10-SO-11	SB-10-SO-11
Depth:		4.00	6.00	10.00	1.00	2.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/15/94	02/15/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	3600	8200	3400	95 J	140 J
N-Nitrosodiphenylamine	ug/kg	460 U	500 U	460 U	500 U	430 U
N-Nitrosodipropylamine	ug/kg	460 U	500 U	460 U	500 U	430 U
Naphthalene	ug/kg	4200	8300	1500	160 J	200 J
m-Nitroaniline	ug/kg	1100 U	1200 U	1100 U	1200 U	1100 U
o-Nitroaniline	ug/kg	1100 U	1200 U	1100 U	1200 U	1100 U
p-Nitroaniline	ug/kg	1100 U	1200 U	1100 U	1200 U	1100 U
Nitrobenzene	ug/kg	460 U	500 U	460 U	500 U	430 U
Phenanthrene	ug/kg	5000	8300	1200	1000	1700
Pyrene	ug/kg	2700	3100	520	1200	2100
1,2,4-Trichlorobenzene	ug/kg	120 J	760	460 U	500 U	170 J
Metals						
Antimony	mg/kg	1.0	12	0.76 U	0.84	1.2
Arsenic	mg/kg	4.1	7.4	5.1	5.0	6.3 S
Beryllium	mg/kg	0.50 U	0.65	0.50	0.50 U	0.67
Cadmium	mg/kg	4.0	8.0	1.7	18	3.9
Chromium	mg/kg	630 J	1800 J	240 J	430 J	460 J
Copper	mg/kg	1500	3400	600	1300	1700
Lead	mg/kg	95	830	100	140	320
Mercury	mg/kg	0.29	1.1 J	0.20	0.32	0.42 J
Nickel	mg/kg	1300	4100	950	890	890
Selenium	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	6200	15000	1700	4100	6700
MISC						
Cyanide	mg/kg	39	110	16	6.6	4.7
Hydrogen ion	ph un	7.8 R	8.0 R	7.5 R	6.9 R	7.7 R
TOC	mg/kg	48000	100000	1600	30000	40000
TPH	mg/kg	1800 J	1700 J	1600 J	390 J	1700 J

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-11	10-11	10-11	10-2	10-2
Sample I.D.		SB-10-SO-11	SB-10-SO-11	SB-10-SO-11	SB-10-SO-2	SB-10-SO-2
Depth:		4.00	6.00	9.00	2.00	3.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/16/94	02/16/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	870 B	1600 EB	250 B	20 U*	18 U*
Benzene	ug/kg	34 U	34	7 U	7 U	7 U
Bromodichloromethane	ug/kg	34 U	33 U	7 U	7 U	7 U
Bromoform	ug/kg	34 U	33 U	7 U	7 U	7 U
Carbon disulfide	ug/kg	67 U	66 U	13 U	13 U	13 U
Carbon tetrachloride	ug/kg	34 U	33 U	7 U	7 U	7 U
Chlorobenzene	ug/kg	120	830	7 U	7 U	7 U
Chloroethane	ug/kg	67 U	66 U	13 U	13 U	13 U
Chloroform	ug/kg	34 U	33 U	7 U	7 U	7 U
Dibromochloromethane	ug/kg	34 U	33 U	7 U	7 U	7 U
1,1-Dichloroethane	ug/kg	34 U	33 U	7 U	7 U	7 U
1,1-Dichloroethylene	ug/kg	34 U	33 U	7 U	7 U	7 U
1,2-Dichloroethane	ug/kg	34 U	33 U	7 U	7 U	7 U
1,2-Dichloroethylene	ug/kg	34 U	13 J	7 U	7 U	7 U
1,2-Dichloropropane	ug/kg	34 U	33 U	7 U	7 U	7 U
cis-1,3-Dichloropropene	ug/kg	34 U	33 U	7 U	7 U	7 U
trans-1,3-Dichloropropene	ug/kg	34 U	33 U	7 U	7 U	7 U
Ethylbenzene	ug/kg	44	4200	7 U	7 U	7 U
2-Hexanone	ug/kg	100 U	99 U	20 U	20 U	20 U
Methyl bromide	ug/kg	67 U	66 U	13 U	13 U	13 U
Methyl chloride	ug/kg	67 U	66 U	13 U	13 U	13 U
2-butanone	ug/kg	100 U	99 U	20 U	20 U	20 U
4-Methyl-2-Pentanone	ug/kg	100 U	99 U	20 U	20 U	20 U
Methylene chloride	ug/kg	67 U	66 U	13 U	13 U*	13 U*
Styrene	ug/kg	34 U	33 U	7 U	7 U	7 U
1,1,2,2-Tetrachloroethane	ug/kg	34 U	33 U	7 U	7 U	7 U
Tetrachloroethylene	ug/kg	34 U	33 U	7 U	7 U	7 U
Toluene	ug/kg	34 U	410	7 U	7 U	7 U
1,1,1-Trichloroethane	ug/kg	34 U	33 U	7 U	7 U	7 U
1,1,2-Trichloroethane	ug/kg	34 U	33 U	7 U	7 U	7 U
Trichloroethylene	ug/kg	34 U	33 U	7 U	1 J	1 J
Vinyl Acetate	ug/kg	100 U	99 U	20 U	20 U	20 U
Vinyl chloride	ug/kg	67 U	66 U	13 U	13 U	13 U
Xylenes	ug/kg	400	25000	1 J	7 U	7 U
Base Neutrals						
Acenaphthene	ug/kg	630 J	1200	430 U	430 UR	430 U
Acenaphthylene	ug/kg	430 UJ	430 U	430 U	430 UR	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-11	10-11	10-11	10-2	10-2
Sample I.D.		SB-10-SO-11	SB-10-SO-11	SB-10-SO-11	SB-10-SO-2	SB-10-SO-2
Depth:		4.00	6.00	9.00	2.00	3.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/16/94	02/16/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	530	1100	430 U	430 UR	430 U
Benzo(a)anthracene	ug/kg	1100	1500	430 U	430 UR	430 U
Benzo(a)pyrene	ug/kg	720	1200	430 U	430 UR	58 J
Benzo(b)fluoranthene	ug/kg	1100	1700	430 U	430 UR	110 J
Benzo(ghi)perylene	ug/kg	660	740	430 U	430 UR	430 U
Benzo(k)fluoranthene	ug/kg	310 J	530	430 U	430 UR	430 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Bis(2-chloroethoxy)methane	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Bis(2-chloroethyl)ether	ug/kg	430 U	430 U	430 U	430 UR	430 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	3700 B	2700 B	430 U*	430 UR	240 J
4-Bromophenyl phenyl ether	ug/kg	430 U	430 U	430 U	430 UR	430 U
Butyl benzyl phthalate	ug/kg	360 J	240 J	430 U	430 UR	430 U
Carbazole	ug/kg	340 J	670	430 U	430 UR	430 U
p-Chloroaniline	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
2-Chloronaphthalene	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
4-Chlorophenyl phenyl ether	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Chrysene	ug/kg	1100	1400	430 U	430 UR	430 U
Di-n-butyl phthalate	ug/kg	230 J	150 J	200 J	430 UR	250 J
Di-n-octyl phthalate	ug/kg	430 U	430 U	430 U	430 UR	430 U
Dibenzo(a,h)anthracene	ug/kg	250 J	240 J	430 U	430 UR	430 U
Dibenzofuran	ug/kg	120 J	430 U	430 U	430 UR	430 U
3,3-Dichlorobenzidine	ug/kg	430 U	430 U	430 U	430 UR	430 U
m-Dichlorobenzene	ug/kg	110 J	430 U	430 U	430 UR	430 U
o-Dichlorobenzene	ug/kg	270 J	310 J	430 U	430 UR	430 U
p-Dichlorobenzene	ug/kg	1700 J	780	430 U	430 UR	430 U
Diethyl phthalate	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Dimethyl phthalate	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
2,4-Dinitrotoluene	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
2,6-Dinitrotoluene	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Fluoranthene	ug/kg	1800	3100	77 J	430 UR	110 J
Fluorene	ug/kg	860 J	1400	430 U	430 UR	430 U
Hexachlorobenzene	ug/kg	430 U	430 U	430 U	430 UR	430 U
Hexachlorobutadiene	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Hexachlorocyclopentadiene	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Hexachloroethane	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Indeno(1,2,3-cd)pyrene	ug/kg	740	810	430 U	430 UR	430 U
Isophorone	ug/kg	430 UJ	430 U	430 U	430 UR	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-11	10-11	10-11	10-2	10-2
Sample I.D.		SB-10-SO-11	SB-10-SO-11	SB-10-SO-11	SB-10-SO-2	SB-10-SO-2
Depth:		4.00	6.00	9.00	2.00	3.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/16/94	02/16/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	2000 J	2800	430 U	430 UR	430 U
N-Nitrosodiphenylamine	ug/kg	430 U	430 U	430 U	430 UR	430 U
N-Nitrosodipropylamine	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Naphthalene	ug/kg	3700 J	4500	430 U	430 UR	430 U
m-Nitroaniline	ug/kg	1100 UJ	1100 U	1100 U	1100 UR	1100 U
o-Nitroaniline	ug/kg	1100 U	1100 U	1100 U	1100 UR	1100 U
p-Nitroaniline	ug/kg	1100 UJ	1100 U	1100 U	1100 UR	1100 U
Nitrobenzene	ug/kg	430 UJ	430 U	430 U	430 UR	430 U
Phenanthrene	ug/kg	3200	5200	100 J	430 UR	97 J
Pyrene	ug/kg	2200	3200	55 J	430 UR	110 J
1,2,4-Trichlorobenzene	ug/kg	160 J	110 J	430 U	430 UR	430 U
Metals						
Antimony	mg/kg	1.1	1.2	0.50 U	0.80 UJ	0.50 UJ
Arsenic	mg/kg	7.3	4.7	2.1	5.5 J	0.91 J
Beryllium	mg/kg	0.78	0.81	0.50 U	1.2	1.1
Cadmium	mg/kg	3.2	3.6	1.0 U	1.0	1.0 U
Chromium	mg/kg	690 J	240 J	16 J	270	200
Copper	mg/kg	1300	1300	15	220	150
Lead	mg/kg	140	140	8.1	170	33
Mercury	mg/kg	0.41	0.38	0.12 U	0.1 UR	0.1 UR
Nickel	mg/kg	380	380	7.8	460	480
Selenium	mg/kg	0.50 UJ	0.72 UJ	0.50 UJ	0.79 UJ	0.50 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 UJ
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	3800	3500	44	2100	440
MISC						
Cyanide	mg/kg	5.5	10	2.0 U	2.0 U	2.2
Hydrogen ion	ph un	8.1 R	8.2 R	7.3 R	8.2 R	8.0 R
TOC	mg/kg	33000	42000	2500 U	15000	8600
TPH	mg/kg	1200 J	1200 J	41 J	26	570

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-2	10-2	10-2	10-3	10-3
Sample I.D.		SB-10-SO-2	SB-10-SO-2	SB-10-SO-2	SB-10-SO-3	SB-10-SO-3
Depth:		4.00	6.00	7.00	1.00	2.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/15/94	02/15/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	12 U*	25 U*	48 U*	15 U*	1300 J
Benzene	ug/kg	6 U	8 U	6 U	8 U	6 U
Bromodichloromethane	ug/kg	6 U	8 U	6 U	8 U	6 U
Bromoform	ug/kg	6 U	8 U	6 U	8 U	6 U
Carbon disulfide	ug/kg	12 U	16 U	12 U	15 U	11 U
Carbon tetrachloride	ug/kg	6 U	8 U	6 U	8 U	6 U
Chlorobenzene	ug/kg	6 U	8 U	6 U	8 U	6 U
Chloroethane	ug/kg	12 U	16 U	12 U	15 U	11 U
Chloroform	ug/kg	6 U	8 U	6 U	8 U	6 U
Dibromochloromethane	ug/kg	6 U	8 U	6 U	8 U	6 U
1,1-Dichloroethane	ug/kg	6 U	8 U	6 U	8 U	6 U
1,1-Dichloroethylene	ug/kg	6 U	8 U	6 U	8 U	6 U
1,2-Dichloroethane	ug/kg	6 U	8 U	6 U	8 U	6 U
1,2-Dichloroethylene	ug/kg	6 U	8 U	6 U	8 U	6 U
1,2-Dichloropropane	ug/kg	6 U	8 U	6 U	8 U	6 U
cis-1,3-Dichloropropene	ug/kg	6 U	8 U	6 U	8 U	6 U
trans-1,3-Dichloropropene	ug/kg	6 U	8 U	6 U	8 U	6 U
Ethylbenzene	ug/kg	6 U	4 J	6 U	8 U	2 J
2-Hexanone	ug/kg	18 U	24 U	18 U	23 U	17 U
Methyl bromide	ug/kg	12 U	16 U	12 U	15 U	11 U
Methyl chloride	ug/kg	12 U	16 U	12 U	15 U	11 U
2-butanone	ug/kg	18 U	24 U	18 U	23 U	17 U
4-Methyl-2-Pentanone	ug/kg	18 U	24 U	18 U	23 U	17 U
Methylene chloride	ug/kg	12 U*	16 U*	12 U*	15 U*	11 U
Styrene	ug/kg	6 U	8 U	6 U	8 U	6 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	8 U	6 U	8 U	6 U
Tetrachloroethylene	ug/kg	6 U	8 U	6 U	8 U	6 U
Toluene	ug/kg	6 U	8 U*	6 U	8 U	6 U
1,1,1-Trichloroethane	ug/kg	6 U	8 U	6 U	8 U	6 U
1,1,2-Trichloroethane	ug/kg	6 U	8 U	6 U	8 U	6 U
Trichloroethylene	ug/kg	6 U	39	6 U	8 U	6 U
Vinyl Acetate	ug/kg	18 U	24 U	18 U	23 U	17 U
Vinyl chloride	ug/kg	12 U	16 U	12 U	15 U	11 U
Xylenes	ug/kg	6 U	8 U*	6 U	8 U	19 B
Base Neutrals						
Acenaphthene	ug/kg	580	260 J	400 U	96 J	360 U
Acenaphthylene	ug/kg	400 U	530 U	400 U	500 U	360 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-2	10-2	10-2	10-3	10-3
Sample I.D.		SB-10-SO-2	SB-10-SO-2	SB-10-SO-2	SB-10-SO-3	SB-10-SO-3
Depth:		4.00	6.00	7.00	1.00	2.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/15/94	02/15/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	1000	390 J	400 U	140 J	71 J
Benzo(a)anthracene	ug/kg	3100	1100	400 U	530	340 J
Benzo(a)pyrene	ug/kg	2400	940	400 U	410 J	260 J
Benzo(b)fluoranthene	ug/kg	4500	1800	400 U	770	520
Benzo(ghi)perylene	ug/kg	1500	900	400 U	310 J	120 J
Benzo(k)fluoranthene	ug/kg	400 U	530 U	400 U	500 U	360 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	530 U	400 U	500 U	360 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	530 U	400 U	500 U	360 U
Bis(2-chloroethyl)ether	ug/kg	400 U	530 U	400 U	500 U	360 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	490	3300	48 J	350 J	330 J
4-Bromophenyl phenyl ether	ug/kg	400 U	530 U	400 U	500 U	360 U
Butyl benzyl phthalate	ug/kg	75 J	530 U	400 U	500 U	360 U
Carbazole	ug/kg	500	230 J	400 U	500 U	360 U
p-Chloroaniline	ug/kg	400 U	530 U	400 U	500 U	360 U
2-Chloronaphthalene	ug/kg	400 U	530 U	400 U	500 U	360 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	530 U	400 U	500 U	360 U
Chrysene	ug/kg	2400	990	400 U	450 J	280 J
Di-n-butyl phthalate	ug/kg	300 J	240 J	210 J	370 J	110 J
Di-n-octyl phthalate	ug/kg	65 J	170 J	400 U	500 U	360 U
Dibenzo(a,h)anthracene	ug/kg	810	300 J	400 U	130 J	360 U
Dibenzofuran	ug/kg	300 J	190 J	400 U	500 U	360 U
3,3-Dichlorobenzidine	ug/kg	400 U	530 U	400 U	500 U	360 U
m-Dichlorobenzene	ug/kg	400 U	530 U	400 U	500 U	360 U
o-Dichlorobenzene	ug/kg	68 J	530 U	400 U	500 U	360 U
p-Dichlorobenzene	ug/kg	400 U	530 U	400 U	500 U	360 U
Diethyl phthalate	ug/kg	400 U	530 U	400 U	500 U	360 U
Dimethyl phthalate	ug/kg	400 U	530 U	400 U	500 U	360 U
2,4-Dinitrotoluene	ug/kg	400 U	530 U	400 U	500 U	360 U
2,6-Dinitrotoluene	ug/kg	400 U	530 U	400 U	500 U	360 U
Fluoranthene	ug/kg	5000	1600	400 U	860	500
Fluorene	ug/kg	520	220 J	400 U	500 U	360 U
Hexachlorobenzene	ug/kg	400 U	530 U	400 U	500 U	360 U
Hexachlorobutadiene	ug/kg	400 U	530 U	400 U	500 U	360 U
Hexachlorocyclopentadiene	ug/kg	400 U	530 U	400 U	500 U	360 U
Hexachloroethane	ug/kg	400 U	530 U	400 U	500 U	360 U
Indeno(1,2,3-cd)pyrene	ug/kg	1700	880	400 U	320 J	210 J
Isophorone	ug/kg	400 U	530 U	400 U	500 U	360 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-2	10-2	10-2	10-3	10-3
Sample I.D.		SB-10-SO-2	SB-10-SO-2	SB-10-SO-2	SB-10-SO-3	SB-10-SO-3
Depth:		4.00	6.00	7.00	1.00	2.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/15/94	02/15/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	200 J	150 J	400 U	500 U	360 U
N-Nitrosodiphenylamine	ug/kg	400 U	530 U	400 U	500 U	360 U
N-Nitrosodipropylamine	ug/kg	400 U	530 U	400 U	500 U	360 U
Naphthalene	ug/kg	340 J	350 J	400 U	500 U	360 U
m-Nitroaniline	ug/kg	980 U	1300 U	980 U	1200 U	900 U
o-Nitroaniline	ug/kg	980 U	1300 U	980 U	1200 U	900 U
p-Nitroaniline	ug/kg	980 U	1300 U	980 U	1200 U	900 U
Nitrobenzene	ug/kg	400 U	530 U	400 U	500 U	360 U
Phenanthrene	ug/kg	3600	1500	400 U	590	340 J
Pyrene	ug/kg	3800	1600	400 U	740	540
1,2,4-Trichlorobenzene	ug/kg	400 U	530 U	400 U	500 U	360 U
Metals						
Antimony	mg/kg	4.1 J	9.8 J	0.50 UJ	0.56 J	0.77 J
Arsenic	mg/kg	5.1 J	7.8 J	3.2 J	11 J	15 J
Beryllium	mg/kg	0.60	1.2	0.55	1.1	2.0
Cadmium	mg/kg	6.5	19	1.0 U	1.3	1.1
Chromium	mg/kg	540	2600	22	400	890
Copper	mg/kg	450	2300	16	360	880
Lead	mg/kg	110	1200	11	150	190
Mercury	mg/kg	0.14 R	0.15 R	0.1 UR	0.10 UJ	0.23
Nickel	mg/kg	65	4700	17	750	2700
Selenium	mg/kg	0.50 UJ	0.26 UJ	0.50 UJ	0.83 UJ	1.70 UJ
Silver	mg/kg	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	5800	10000	42	2100	1900
MISC						
Cyanide	mg/kg	2.0 U	7.9	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	8.0 R	7.9 R	7.8 R	8.0 R	8.1 R
TOC	mg/kg	31000	31000	1000 U	11000	5700
TPH	mg/kg	820	1500	25 U	73	59

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-3	10-3	10-3	10-4	10-4
Sample I.D.		SB-10-SO-3	SB-10-SO-3	SB-10-SO-3	SB-10-SO-4	SB-10-SO-4
Depth:		4.00	6.00	10.00	0.50	2.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/11/94	02/11/94
Parameter	**Units**					
Volatiles						
Acetone	ug/kg	7500 EB	1900 J	2700	17 U*	1500 J
Benzene	ug/kg	6 U	6 U	6 U	9 U	6 U
Bromodichloromethane	ug/kg	6 U	6 U	6 U	9 U	6 U
Bromoform	ug/kg	6 U	6 U	6 U	9 U	6 U
Carbon disulfide	ug/kg	12 U	12 U	12 U	17 U	12 U
Carbon tetrachloride	ug/kg	6 U	6 U	6 U	9 U	6 U
Chlorobenzene	ug/kg	6 U	6 U	6 U	9 UJ	6 U
Chloroethane	ug/kg	12 U	12 U	12 U	17 U	12 U
Chloroform	ug/kg	6 U	6 U	6 U	9 U	6 U
Dibromochloromethane	ug/kg	6 U	6 U	6 U	9 U	6 U
1,1-Dichloroethane	ug/kg	6 U	6 U	6 U	9 U	6 U
1,1-Dichloroethylene	ug/kg	6 U	6 U	6 U	9 U	6 U
1,2-Dichloroethane	ug/kg	6 U	6 U	6 U	9 U	6 U
1,2-Dichloroethylene	ug/kg	6 U	6 U	6 U	9 U	6 U
1,2-Dichloropropane	ug/kg	6 U	6 U	6 U	9 U	6 U
cis-1,3-Dichloropropene	ug/kg	6 U	6 U	6 U	9 U	6 U
trans-1,3-Dichloropropene	ug/kg	6 U	6 U	6 U	9 U	6 U
Ethylbenzene	ug/kg	6 U	6 U	6 U	9 UJ	6 U
2-Hexanone	ug/kg	18 U	18 U	18 U	26 UJ	18 U
Methyl bromide	ug/kg	12 U	12 U	12 U	17 U	12 U
Methyl chloride	ug/kg	12 U	12 U	12 U	17 U	12 U
2-butanone	ug/kg	18 U	18 U	18 U	26 U	18 U
4-Methyl-2-Pentanone	ug/kg	18 U	18 U	18 U	26 U	18 U
Methylene chloride	ug/kg	12 U*	12 U	12 U	17 U	12 U*
Styrene	ug/kg	6 U	6 U	6 U	9 UJ	6 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	6 U	6 U	9 UJ	6 U
Tetrachloroethylene	ug/kg	6 U	6 U	6 U	9 UJ	6 U
Toluene	ug/kg	6 U	6 U	6 U	9 UJ	6 U
1,1,1-Trichloroethane	ug/kg	6 U	6 U	6 U	9 U	6 U
1,1,2-Trichloroethane	ug/kg	6 U	6 U	6 U	9 U	6 U
Trichloroethylene	ug/kg	6 U	6 U	6 U	9 U	6 U
Vinyl Acetate	ug/kg	18 U	18 U	18 U	26 U	18 U
Vinyl chloride	ug/kg	12 U	12 U	12 U	17 U	12 U
Xylenes	ug/kg	6 U	6 U	6 U	9 UJ	6 U
Base Neutrals						
Acenaphthene	ug/kg	400 U	400 U	400 U	560 U	400 U
Acenaphthylene	ug/kg	400 U	400 U	400 U	560 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-3	10-3	10-3	10-4	10-4
Sample I.D.		SB-10-SO-3	SB-10-SO-3	SB-10-SO-3	SB-10-SO-4	SB-10-SO-4
Depth:		4.00	6.00	10.00	0.50	2.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/11/94	02/11/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	400 U	400 U	400 U	560 U	400 U
Benzo(a)anthracene	ug/kg	400 U	400 U	400 U	130 J	400 U
Benzo(a)pyrene	ug/kg	400 U	400 U	400 U	130 J	400 U
Benzo(b)fluoranthene	ug/kg	400 U	400 U	400 U	170 J	400 U
Benzo(ghi)perylene	ug/kg	400 U	400 U	400 U	95 J	400 U
Benzo(k)fluoranthene	ug/kg	400 U	400 U	400 U	66 J	400 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	400 U	400 U	560 U	400 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	400 U	400 U	560 U	400 U
Bis(2-chloroethyl)ether	ug/kg	400 U	400 U	400 U	560 U	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	400 U	630	400 U	92 J	400 U
4-Bromophenyl phenyl ether	ug/kg	400 U	400 U	400 U	560 U	400 U
Butyl benzyl phthalate	ug/kg	400 U	400 U	400 U	560 U	400 U
Carbazole	ug/kg	400 U	400 U	400 U	560 U	400 U
p-Chloroaniline	ug/kg	400 U	400 U	400 U	560 U	400 U
2-Chloronaphthalene	ug/kg	400 U	400 U	400 U	560 U	400 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	400 U	400 U	560 U	400 U
Chrysene	ug/kg	400 U	400 U	400 U	160 J	400 U
Di-n-butyl phthalate	ug/kg	92 J	280 J	100 J	560 U*	400 U*
Di-n-octyl phthalate	ug/kg	400 U	400 U	400 U	560 U	400 U
Dibenzo(a,h)anthracene	ug/kg	400 U	400 U	400 U	560 U	400 U
Dibenzofuran	ug/kg	400 U	400 U	400 U	560 U	400 U
3,3-Dichlorobenzidine	ug/kg	400 U	400 U	400 U	560 U	400 U
m-Dichlorobenzene	ug/kg	400 U	400 U	400 U	560 U	400 U
o-Dichlorobenzene	ug/kg	400 U	400 U	400 U	560 U	400 U
p-Dichlorobenzene	ug/kg	400 U	400 U	400 U	560 U	400 U
Diethyl phthalate	ug/kg	400 U	400 U	400 U	560 U	400 U
Dimethyl phthalate	ug/kg	400 U	400 U	400 U	560 U	400 U
2,4-Dinitrotoluene	ug/kg	400 U	400 U	400 U	560 U	400 U
2,6-Dinitrotoluene	ug/kg	400 U	400 U	400 U	560 U	400 U
Fluoranthene	ug/kg	400 U	400 U	400 U	270 J	400 U
Fluorene	ug/kg	400 U	400 U	400 U	560 U	400 U
Hexachlorobenzene	ug/kg	400 U	400 U	400 U	560 U	400 U
Hexachlorobutadiene	ug/kg	400 U	400 U	400 U	560 U	400 U
Hexachlorocyclopentadiene	ug/kg	400 U	400 U	400 U	560 U	400 U
Hexachloroethane	ug/kg	400 U	400 U	400 U	560 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	400 U	400 U	400 U	110 J	400 U
Isophorone	ug/kg	400 U	400 U	400 U	560 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-3	10-3	10-3	10-4	10-4
Sample I.D.		SB-10-SO-3	SB-10-SO-3	SB-10-SO-3	SB-10-SO-4	SB-10-SO-4
Depth:		4.00	6.00	10.00	0.50	2.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/11/94	02/11/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	400 U	400 U	400 U	560 U	400 U
N-Nitrosodiphenylamine	ug/kg	400 U	400 U	400 U	560 U	400 U
N-Nitrosodipropylamine	ug/kg	400 U	400 U	400 U	560 U	400 U
Naphthalene	ug/kg	400 U	400 U	400 U	560 U	400 U
m-Nitroaniline	ug/kg	980 U	980 U	980 U	1400 U	980 U
o-Nitroaniline	ug/kg	980 U	980 U	980 U	1400 U	980 U
p-Nitroaniline	ug/kg	980 U	980 U	980 U	1400 U	980 U
Nitrobenzene	ug/kg	400 U	400 U	400 U	560 U	400 U
Phenanthrene	ug/kg	400 U	400 U	400 U	170 J	400 U
Pyrene	ug/kg	400 U	400 U	400 U	270 J	400 U
1,2,4-Trichlorobenzene	ug/kg	400 U	400 U	400 U	560 U	400 U
Metals						
Antimony	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ	0.81 UJ	0.70 UJ
Arsenic	mg/kg	7.3 J	4.2 J	2.1 J	5.0	4.9
Beryllium	mg/kg	1.3	0.59	0.79	0.50 U	0.50 U
Cadmium	mg/kg	1.5	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	mg/kg	45	24	20	24	13
Copper	mg/kg	57	15	13	17	4.6
Lead	mg/kg	26	160	7.6	53	8.4
Mercury	mg/kg	0.11 U	0.11 U	0.10 U	0.15 U	0.1 U
Nickel	mg/kg	40	13	13	18	4.0 U
Selenium	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ
Silver	mg/kg	1.5 UJ	1.5 UJ	1.5 UJ	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	150	50	28	55	20
MISC						
Cyanide	mg/kg	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	7.3 R	7.3 R	7.1 R	7.1	7.0
TOC	mg/kg	3100 U	1200 U	1300 U	24000	2700
TPH	mg/kg	25 U	25 U	25 U	25 U	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-5	10-5	10-5	10-5	10-5
Sample I.D.		SB-10-SO-5	SB-10-SO-5	SB-10-SO-5	SB-10-SO-5	SB-10-SO-5
Depth:		1.00	2.00	4.00	6.00	8.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/16/94	02/16/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	150 U*	160 U*	110 U*	39 U*	170 B
Benzene	ug/kg	9 U	6 U	7 U	6 U	6 U
Bromodichloromethane	ug/kg	9 U	6 U	7 U	6 U	6 U
Bromoform	ug/kg	9 U	6 U	7 U	6 U	6 U
Carbon disulfide	ug/kg	17 U	12 U	13 U	12 U	12 U
Carbon tetrachloride	ug/kg	9 U	6 U	7 U	6 U	6 U
Chlorobenzene	ug/kg	9 U	6 U	7 U	6 U	1 J
Chloroethane	ug/kg	17 U	12 U	13 U	12 U	12 U
Chloroform	ug/kg	9 U	6 U	7 U	6 U	6 U
Dibromochloromethane	ug/kg	9 U	6 U	7 U	6 U	6 U
1,1-Dichloroethane	ug/kg	9 U	6 U	7 U	6 U	6 U
1,1-Dichloroethylene	ug/kg	9 U	6 U	7 U	6 U	6 U
1,2-Dichloroethane	ug/kg	9 U	6 U	7 U	6 U	6 U
1,2-Dichloroethylene	ug/kg	9 U	6 U	7 U	6 U	6 U
1,2-Dichloropropane	ug/kg	9 U	6 U	7 U	6 U	6 U
cis-1,3-Dichloropropene	ug/kg	9 U	6 U	7 U	6 U	6 U
trans-1,3-Dichloropropene	ug/kg	9 U	6 U	7 U	6 U	6 U
Ethylbenzene	ug/kg	9 U	1 J	7 U	6 U	6 U
2-Hexanone	ug/kg	26 U	18 U	20 U	18 U	18 U
Methyl bromide	ug/kg	17 U	12 U	13 U	12 U	12 U
Methyl chloride	ug/kg	17 U	12 U	13 U	12 U	12 U
2-butanone	ug/kg	26 U	18 U	20 U	18 U	9 J
4-Methyl-2-Pentanone	ug/kg	26 U	18 U	20 U	18 U	18 U
Methylene chloride	ug/kg	17 U*	12 U*	13 U*	12 U*	12 U*
Styrene	ug/kg	9 U	6 U	7 U	6 U	6 U
1,1,2,2-Tetrachloroethane	ug/kg	9 U	6 U	7 U	6 U	6 U
Tetrachloroethylene	ug/kg	9 U	6 U	7 U	6 U	6 U
Toluene	ug/kg	9 U	6 U	7 U	6 U	6 U
1,1,1-Trichloroethane	ug/kg	9 U	6 U	7 U	6 U	6 U
1,1,2-Trichloroethane	ug/kg	9 U	6 U	7 U	6 U	6 U
Trichloroethylene	ug/kg	9 U	6	7	6 U	6 U
Vinyl Acetate	ug/kg	26 U	18 U	20 U	18 U	18 U
Vinyl chloride	ug/kg	17 U	12 U	13 U	12 U	12 U
Xylenes	ug/kg	9 U	6 U	7 U	6 U	6 U
Base Neutrals						
Acenaphthene	ug/kg	390 J	400 U	120 J	470	400 U
Acenaphthylene	ug/kg	400 J	400 U	430 U	400 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-5	10-5	10-5	10-5	10-5
Sample I.D.		SB-10-SO-5	SB-10-SO-5	SB-10-SO-5	SB-10-SO-5	SB-10-SO-5
Depth:		1.00	2.00	4.00	6.00	8.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/16/94	02/16/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	2000	380 J	260 J	560	400 U
Benzo(a)anthracene	ug/kg	6500	1200	790	1100	400 U
Benzo(a)pyrene	ug/kg	22000	960	550	850	400 U
Benzo(b)fluoranthene	ug/kg	40000	1900	1200	1700	400 U
Benzo(ghi)perylene	ug/kg	15000	770	450	580	400 U
Benzo(k)fluoranthene	ug/kg	560 U	400 U	430 U	400 U	400 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	560 U	400 U	430 U	400 U	400 U
Bis(2-chloroethoxy)methane	ug/kg	560 U	400 U	430 U	400 U	400 U
Bis(2-chloroethyl)ether	ug/kg	560 U	400 U	430 U	400 U	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	290 J	4200	3400	1100	130 J
4-Bromophenyl phenyl ether	ug/kg	560 U	400 U	430 U	400 U	400 U
Butyl benzyl phthalate	ug/kg	560 U	400 U	430 U	400 U	400 U
Carbazole	ug/kg	1300	330 J	210 J	270 J	400 U
p-Chloroaniline	ug/kg	560 U	400 U	430 U	400 U	400 U
2-Chloronaphthalene	ug/kg	560 U	400 U	430 U	400 U	400 U
4-Chlorophenyl phenyl ether	ug/kg	560 U	400 U	430 U	400 U	400 U
Chrysene	ug/kg	16000	1000	740	1100	400 U
Di-n-butyl phthalate	ug/kg	270 J	230 J	200 J	120 J	240 J
Di-n-octyl phthalate	ug/kg	210 J	100 J	430 U	400 U	400 U
Dibenzo(a,h)anthracene	ug/kg	4000	340 J	120 J	210 J	400 U
Dibenzofuran	ug/kg	300 J	210 J	120 J	400	400 U
3,3-Dichlorobenzidine	ug/kg	560 U	400 U	430 U	400 U	400 U
m-Dichlorobenzene	ug/kg	560 U	400 U	430 U	400 U	400 U
o-Dichlorobenzene	ug/kg	560 U	96 J	83 J	100 J	400 U
p-Dichlorobenzene	ug/kg	560 U	400 U	430 U	400 U	400 U
Diethyl phthalate	ug/kg	560 U	400 U	430 U	400 U	400 U
Dimethyl phthalate	ug/kg	560 U	400 U	430 U	400 U	400 U
2,4-Dinitrotoluene	ug/kg	560 U	400 U	430 U	400 U	400 U
2,6-Dinitrotoluene	ug/kg	560 U	400 U	430 U	400 U	400 U
Fluoranthene	ug/kg	7700	1900	1500	2700	400 U
Fluorene	ug/kg	430 J	150 J	120 J	250 J	400 U
Hexachlorobenzene	ug/kg	560 U	400 U	430 U	400 U	400 U
Hexachlorobutadiene	ug/kg	560 U	400 U	430 U	400 U	400 U
Hexachlorocyclopentadiene	ug/kg	560 U	400 U	430 U	400 U	400 U
Hexachloroethane	ug/kg	560 U	400 U	430 U	400 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	17000	800	460	610	400 U
Isophorone	ug/kg	560 U	47 J	430 U	400 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-5	10-5	10-5	10-5	10-5
Sample I.D.		SB-10-SO-5	SB-10-SO-5	SB-10-SO-5	SB-10-SO-5	SB-10-SO-5
Depth:		1.00	2.00	4.00	6.00	8.00
Date Sampled		02/16/94	02/16/94	02/16/94	02/16/94	02/16/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	560 U	150 J	110 J	190 J	400 U
N-Nitrosodiphenylamine	ug/kg	560 U	400 U	430 U	400 U	400 U
N-Nitrosodipropylamine	ug/kg	560 U	400 U	430 U	400 U	400 U
Naphthalene	ug/kg	65 J	130 J	77 J	120 J	400 U
m-Nitroaniline	ug/kg	1400 U	980 U	1100 U	980 U	980 U
o-Nitroaniline	ug/kg	1400 U	980 U	1100 U	980 U	980 U
p-Nitroaniline	ug/kg	1400 U	980 U	1100 U	980 U	980 U
Nitrobenzene	ug/kg	560 U	400 U	430 U	400 U	400 U
Phenanthrene	ug/kg	5300	1800	1300	2600	400 U
Pyrene	ug/kg	7100	1400	990	1900	400 U
1,2,4-Trichlorobenzene	ug/kg	560 U	400 U	430 U	400 U	400 U
Metals						
Antimony	mg/kg	0.50 UJ	0.98 J	0.98 J	1.5 J	0.50 UJ
Arsenic	mg/kg	3.6 U	2.8 J	2.4 J	1.8 J	4.9 J
Beryllium	mg/kg	0.50 U	0.77	0.73	0.50 U	0.69
Cadmium	mg/kg	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	mg/kg	130	790	600	140	21
Copper	mg/kg	120	440	600	46	11
Lead	mg/kg	52	190	180	48	11
Mercury	mg/kg	0.1 UR	0.10 UR	0.10 UR	0.10 UR	0.10 UR
Nickel	mg/kg	500	1800	1700	110	16
Selenium	mg/kg	0.52 J	0.50 UJ	0.83 UJ	0.81 UJ	0.50 UJ
Silver	mg/kg	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	26000	2200	1300	71	35
MISC						
Cyanide	mg/kg	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	7.2 R	8.6 R	9.9 R	10.9 R	8.0 R
TOC	mg/kg	12000	13000	12000	6600	1800 U
TPH	mg/kg	730	1300	190	170	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-5A	10-5A	10-6	10-6	10-6
Sample I.D.		SB-10-SO-5A	SB-10-SO-5A	SB-10-SO-6	SB-10-SO-6	SB-10-SO-6
Depth:		4.00	6.00	1.00	2.00	4.00
Date Sampled		02/16/94	02/16/94	02/14/94	02/14/94	02/15/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	310 B	120 B	12 U*	17 U	270 B
Benzene	ug/kg	22 U	34 U	6 U	6 U	31 U
Bromodichloromethane	ug/kg	22 U	34 U	6 U	6 U	31 U
Bromoform	ug/kg	22 U	34 U	6 U	6 U	31 U
Carbon disulfide	ug/kg	44 U	68 U	12 U	11 U	61 U
Carbon tetrachloride	ug/kg	22 U	34 U	6 U	6 U	31 U
Chlorobenzene	ug/kg	71	34 U	6 U	6 U	31 U
Chloroethane	ug/kg	44 U	68 U	12 U	11 U	61 U
Chloroform	ug/kg	22 U	34 U	6 U	6 U	31 U
Dibromochloromethane	ug/kg	22 U	34 U	6 U	6 U	31 U
1,1-Dichloroethane	ug/kg	NA	34 U	6 U	6 U	31 U
1,1-Dichloroethylene	ug/kg	22 U	34 U	6 U	6 U	31 U
1,2-Dichloroethane	ug/kg	22 U	34 U	6 U	6 U	31 U
1,2-Dichloroethylene	ug/kg	22 U	34 U	6 U	6 U	31 U
1,2-Dichloropropane	ug/kg	22 U	34 U	6 U	6 U	31 U
cis-1,3-Dichloropropene	ug/kg	22 U	34 U	6 U	6 U	31 U
trans-1,3-Dichloropropene	ug/kg	22 U	34 U	6 U	6 U	31 U
Ethylbenzene	ug/kg	22 U	34 U	1 J	6 U	31 U
2-Hexanone	ug/kg	66 U	100 U	18 U	17 U	92 U
Methyl bromide	ug/kg	44 U	68 U	12 U	11 U	61 U
Methyl chloride	ug/kg	44 U	68 U	12 U	11 U	61 U
2-butanone	ug/kg	66 U	100 U	18 U	17 U	92 U
4-Methyl-2-Pentanone	ug/kg	66 U	100 U	18 U	17 U	92 U
Methylene chloride	ug/kg	29 JB	68 U*	12 U	11 U	61 U
Styrene	ug/kg	22 U	34 U	6 U	6 U	31 U
1,1,2,2-Tetrachloroethane	ug/kg	NA	34 U	6 U	6 U	31 U
Tetrachloroethylene	ug/kg	22 U	34 U	6 U	6 U	31 U
Toluene	ug/kg	22 U	34 U	6 U	6 U	31 U
1,1,1-Trichloroethane	ug/kg	NA	34 U	6 U	6 U	31 U
1,1,2-Trichloroethane	ug/kg	NA	34 U	6 U	6 U	31 U
Trichloroethylene	ug/kg	22 U	34 U	6 U	29	160
Vinyl Acetate	ug/kg	66 U	100 U	18 U	17 U	92 U
Vinyl chloride	ug/kg	44 U	68 U	12 U	11 U	61 U
Xylenes	ug/kg	250	10 J	6 U	6 U	31 U
Base Neutrals						
Acenaphthene	ug/kg	5300 J	53 J	400 U	360 U	46 J
Acenaphthylene	ug/kg	7200 U	460 U	400 U	360 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-5A	10-5A	10-6	10-6	10-6
Sample I.D.		SB-10-SO-5A	SB-10-SO-5A	SB-10-SO-6	SB-10-SO-6	SB-10-SO-6
Depth:		4.00	6.00	1.00	2.00	4.00
Date Sampled		02/16/94	02/16/94	02/14/94	02/14/94	02/15/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	3800 J	74 J	400 U	360 U	79 J
Benzo(a)anthracene	ug/kg	3200 J	240 J	360 J	360 U	370 J
Benzo(a)pyrene	ug/kg	1500 J	220 J	450	360 U	330 J
Benzo(b)fluoranthene	ug/kg	2600 J	290 J	640	59 J	550
Benzo(ghi)perylene	ug/kg	1100 J	180 J	300 J	360 U	140 J
Benzo(k)fluoranthene	ug/kg	7200 U	85 J	190 J	360 U	180 J
Bis(2-chloro-1-methylethyl) ether	ug/kg	7200 U	460 U	400 U	360 U	400 U
Bis(2-chloroethoxy)methane	ug/kg	7200 U	460 U	400 U	360 U	400 U
Bis(2-chloroethyl)ether	ug/kg	7200 U	460 U	400 U	360 U	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	16000 B	150 J	930	59 J	400 U*
4-Bromophenyl phenyl ether	ug/kg	7200 U	460 U	400 U	360 U	400 U
Butyl benzyl phthalate	ug/kg	7200 U	55 J	400 U*	360 U	400 U
Carbazole	ug/kg	3600 J	70 J	400 U	360 U	50 J
p-Chloroaniline	ug/kg	7200 U	460 U	400 U	360 U	400 U
2-Chloronaphthalene	ug/kg	7200 U	460 U	400 U	360 U	400 U
4-Chlorophenyl phenyl ether	ug/kg	7200 U	460 U	400 U	360 U	400 U
Chrysene	ug/kg	2800 J	270 J	580	64 J	480
Di-n-butyl phthalate	ug/kg	7200 U*	460 U*	400 U*	360 U*	260 J
Di-n-octyl phthalate	ug/kg	7200 U	460 U	400 U	360 U	400 U
Dibenzo(a,h)anthracene	ug/kg	7200 U	52 J	130 J	360 U	87 J
Dibenzofuran	ug/kg	5700 J	460 U	400 U	360 U	400 U
3,3-Dichlorobenzidine	ug/kg	7200 U	460 U	400 U	360 U	400 U
m-Dichlorobenzene	ug/kg	7200 U	460 U	400 U	360 U	400 U
o-Dichlorobenzene	ug/kg	7200 U	110 J	400 U	360 U	400 U
p-Dichlorobenzene	ug/kg	4500 J	460 U	400 U	360 U	400 U
Diethyl phthalate	ug/kg	7200 U	460 U	400 U	360 U	400 U
Dimethyl phthalate	ug/kg	7200 U	460 U	400 U	360 U	400 U
2,4-Dinitrotoluene	ug/kg	7200 U	460 U	400 U	360 U	400 U
2,6-Dinitrotoluene	ug/kg	7200 U	460 U	400 U	360 U	400 U
Fluoranthene	ug/kg	13000	500	410	63 J	630
Fluorene	ug/kg	8900	460 U	400 U	360 U	400 U
Hexachlorobenzene	ug/kg	7200 U	460 U	400 U	360 U	400 U
Hexachlorobutadiene	ug/kg	7200 U	460 U	400 U	360 U	400 U
Hexachlorocyclopentadiene	ug/kg	7200 U	460 U	400 U	360 U	400 U
Hexachloroethane	ug/kg	7200 U	460 U	400 U	360 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	1000 J	180 J	330 J	360 U	320 J
Isophorone	ug/kg	7200 U	460 U	400 U	360 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-5A	10-5A	10-6	10-6	10-6
Sample I.D.		SB-10-SO-5A	SB-10-SO-5A	SB-10-SO-6	SB-10-SO-6	SB-10-SO-6
Depth:		4.00	6.00	1.00	2.00	4.00
Date Sampled		02/16/94	02/16/94	02/14/94	02/14/94	02/15/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	8700	460 U	400 U	360 U	110 J
N-Nitrosodiphenylamine	ug/kg	1600 J	460 U	400 U	360 U	400 U
N-Nitrosodipropylamine	ug/kg	7200 U	460 U	400 U	360 U	400 U
Naphthalene	ug/kg	16000	110 J	400 U	360 U	89 J
m-Nitroaniline	ug/kg	18000 U	1100 U	980 U	900 U	980 U
o-Nitroaniline	ug/kg	18000 U	1100 U	980 U	900 U	980 U
p-Nitroaniline	ug/kg	18000 U	1100 U	980 U	900 U	980 U
Nitrobenzene	ug/kg	7200 U	460 U	400 U	360 U	400 U
Phenanthrene	ug/kg	23000	390 J	100 J	360 U	470
Pyrene	ug/kg	6500 J	330 J	650	82 J	650
1,2,4-Trichlorobenzene	ug/kg	7200 U	460 U	400 U	360 U	400 U
Metals						
Antimony	mg/kg	9.7 J	0.50 UJ	0.50 U	0.50 U	0.50 U
Arsenic	mg/kg	14 UJ	3.4 J	46	3.2	16
Beryllium	mg/kg	1.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Cadmium	mg/kg	4.1	1.0 U	1.0 U	1.0 U	6.8
Chromium	mg/kg	14000	13	53 J	16 J	24 J
Copper	mg/kg	15000 J	14	81	34	240
Lead	mg/kg	3900	33	89	56	210
Mercury	mg/kg	0.37 R	0.10 UR	0.10 U	0.10 U	0.18
Nickel	mg/kg	35000	9.5	89	8.3	41
Selenium	mg/kg	6.8 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Silver	mg/kg	4.4 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	1.4 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	68000	71	230	74	830
MISC						
Cyanide	mg/kg	33	2.0 U	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	7.6 R	8.2 R	8.2 R	8.0 R	8.7 R
TOC	mg/kg	34000	45000	3200	15000	35000
TPH	mg/kg	7100	220	25 J	25 U	170 J

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-6	10-6	10-7	10-7	10-7
Sample I.D.		SB-10-SO-6	SB-10-SO-6	SB-10-SO-7	SB-10-SO-3	SB-10-SO-7
Depth:		6.00	7.00	1.00	2.00	5.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/15/94	02/15/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	400 U	400 U	1600	160 J	14000 U
Benzo(a)anthracene	ug/kg	400 U	400 U	14000 E	800	14000 U
Benzo(a)pyrene	ug/kg	400 U	400 U	10000 E	700	1900 J
Benzo(b)fluoranthene	ug/kg	400 U	400 U	17000 E	1300	2800 J
Benzo(ghi)perylene	ug/kg	400 U	400 U	7200	630	2300 J
Benzo(k)fluoranthene	ug/kg	400 U	400 U	430 U	430 U	14000 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	400 U	430 U	430 U	14000 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	400 U	430 U	430 U	14000 U
Bis(2-chloroethyl)ether	ug/kg	400 U	400 U	430 U	430 U	14000 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	400 U*	7100 B	310 J	410 J	120000
4-Bromophenyl phenyl ether	ug/kg	400 U	400 U	430 U	430 U	14000 U
Butyl benzyl phthalate	ug/kg	400 U	400 U	430 U	160 J	14000 U
Carbazole	ug/kg	400 U	400 U	2300	120 J	14000 U
p-Chloroaniline	ug/kg	400 U	400 U	430 U	430 U	14000 U
2-Chloronaphthalene	ug/kg	400 U	400 U	430 U	430 U	14000 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	400 U	430 U	430 U	14000 U
Chrysene	ug/kg	400 U	400 U	7400	700	14000 U
Di-n-butyl phthalate	ug/kg	400 U	130 J	110 J	130 J	14000 U
Di-n-octyl phthalate	ug/kg	400 U	400 U	430 U	430 U	14000 U
Dibenzo(a,h)anthracene	ug/kg	400 U	400 U	3500	210 J	14000 U
Dibenzofuran	ug/kg	400 U	400 U	200 J	430 U	6600 J
3,3-Dichlorobenzidine	ug/kg	400 U	400 U	430 U	430 U	14000 U
m-Dichlorobenzene	ug/kg	400 U	400 U	430 U	430 U	14000 U
o-Dichlorobenzene	ug/kg	400 U	400 U	430 U	430 U	14000 U
p-Dichlorobenzene	ug/kg	400 U	400 U	430 U	430 U	14000 U
Diethyl phthalate	ug/kg	400 U	400 U	430 U	430 U	14000 U
Dimethyl phthalate	ug/kg	400 U	400 U	430 U	430 U	14000 U
2,4-Dinitrotoluene	ug/kg	400 U	400 U	430 U	430 U	14000 U
2,6-Dinitrotoluene	ug/kg	400 U	400 U	430 U	430 U	14000 U
Fluoranthene	ug/kg	400 U	400 U	24000 E	1500	13000 J
Fluorene	ug/kg	400 U	400 U	350 J	430 U	9000 J
Hexachlorobenzene	ug/kg	400 U	400 U	430 U	430 U	14000 U
Hexachlorobutadiene	ug/kg	400 U	400 U	430 U	430 U	14000 U
Hexachlorocyclopentadiene	ug/kg	400 U	400 U	430 U	430 U	14000 U
Hexachloroethane	ug/kg	400 U	400 U	430 U	430 U	14000 U
Indeno(1,2,3-cd)pyrene	ug/kg	400 U	400 U	10000	640	2400 J
Isophorone	ug/kg	400 U	400 U	430 U	430 U	14000 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-6	10-6	10-7	10-7	10-7
Sample I.D.		SB-10-SO-6	SB-10-SO-6	SB-10-SO-7	SB-10-SO-3	SB-10-SO-7
Depth:		6.00	7.00	1.00	2.00	5.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/15/94	02/15/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	380 B	400 B	2400	110 B	11000 U
Benzene	ug/kg	31 U	6 U	7 U	7 U	3700 U
Bromodichloromethane	ug/kg	31 U	6 U	7 U	7 U	3700 U
Bromoform	ug/kg	31 U	6 U	7 U	7 U	3700 U
Carbon disulfide	ug/kg	61 U	12 U	13 U	13 U	7400 U
Carbon tetrachloride	ug/kg	31 U	6 U	7 U	7 U	3700 U
Chlorobenzene	ug/kg	31 U	6 U	7 U	7 U	3700 U
Chloroethane	ug/kg	61 U	12 U	13 U	13 U	7400 U
Chloroform	ug/kg	31 U	6 U	7 U	7 U	3700 U
Dibromochloromethane	ug/kg	31 U	6 U	7 U	7 U	3700 U
1,1-Dichloroethane	ug/kg	31 U	6 U	7 U	7 U	3700 U
1,1-Dichloroethylene	ug/kg	31 U	6 U	7 U	7 U	3700 U
1,2-Dichloroethane	ug/kg	31 U	6 U	7 U	7 U	3700 U
1,2-Dichloroethylene	ug/kg	31 U	6 U	7 U	7 U	3700 U
1,2-Dichloropropane	ug/kg	31 U	6 U	7 U	7 U	3700 U
cis-1,3-Dichloropropene	ug/kg	31 U	6 U	7 U	7 U	3700 U
trans-1,3-Dichloropropene	ug/kg	31 U	6 U	7 U	7 U	3700 U
Ethylbenzene	ug/kg	31 U	6 U	7 U	7 U	7200
2-Hexanone	ug/kg	92 U	18 U	20 U	20 U	11000 U
Methyl bromide	ug/kg	61 U	12 U	13 U	13 U	7400 U
Methyl chloride	ug/kg	61 U	12 U	13 U	13 U	7400 U
2-butanone	ug/kg	92 U	18 U	20 U	20 U	11000 U
4-Methyl-2-Pentanone	ug/kg	92 U	18 U	20 U	20 U	11000 U
Methylene chloride	ug/kg	61 U	12 U	4 J	13 U	7400 U
Styrene	ug/kg	31 U	6 U	7 U	7 U	3700 U
1,1,2,2-Tetrachloroethane	ug/kg	31 U	6 U	7 U	7 U	3700 U
Tetrachloroethylene	ug/kg	31 U	6 U	7 U	7 U	3700 U
Toluene	ug/kg	31 U	6 U	7 U	7 U	2700 J
1,1,1-Trichloroethane	ug/kg	31 U	6 U	7 U	7 U	3700 U
1,1,2-Trichloroethane	ug/kg	31 U	6 U	7 U	7 U	3700 U
Trichloroethylene	ug/kg	31 U	6 U	7 U	7 U	3700 U
Vinyl Acetate	ug/kg	92 U	18 U	20 U	20 U	11000 U
Vinyl chloride	ug/kg	61 U	12 U	13 U	13 U	7400 U
Xylenes	ug/kg	31 U	6 U	2 J	7 U	41000
Base Neutrals						
Acenaphthene	ug/kg	400 U	400 U	270 J	430 U	14000 U
Acenaphthylene	ug/kg	400 U	400 U	220 J	430 U	14000 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-6	10-6	10-7	10-7	10-7
Sample I.D.		SB-10-SO-6	SB-10-SO-6	SB-10-SO-7	SB-10-SO-3	SB-10-SO-7
Depth:		6.00	7.00	1.00	2.00	5.00
Date Sampled		02/15/94	02/15/94	02/15/94	02/15/94	02/15/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	400 U	400 U	430 U	430 U	19000
N-Nitrosodiphenylamine	ug/kg	400 U	400 U	430 U	430 U	14000 U
N-Nitrosodipropylamine	ug/kg	400 U	400 U	430 U	430 U	14000 U
Naphthalene	ug/kg	400 U	400 U	430 U	430 U	4700 J
m-Nitroaniline	ug/kg	980 U	980 U	1100 U	1100 U	34000 U
o-Nitroaniline	ug/kg	980 U	980 U	1100 U	1100 U	34000 U
p-Nitroaniline	ug/kg	980 U	980 U	1100 U	1100 U	34000 U
Nitrobenzene	ug/kg	400 U	400 U	430 U	430 U	14000 U
Phenanthrene	ug/kg	400 U	400 U	9600 E	700	28000
Pyrene	ug/kg	400 U	400 U	14000 E	900	9200 J
1,2,4-Trichlorobenzene	ug/kg	400 U	400 U	430 U	430 U	14000 U
Metals						
Antimony	mg/kg	0.50 U	0.50 U	0.50 UJ	0.50 UJ	12 J
Arsenic	mg/kg	5.4	5.1	2.2 J	0.8 U	0.16 J
Beryllium	mg/kg	0.77	0.57	0.50 U	0.50 U	1.7 U
Cadmium	mg/kg	1.1	1.0 U	1.0 U	1.0 U	3.4 U
Chromium	mg/kg	20 J	18 J	58	110	14000
Copper	mg/kg	180	10	81	130	19000
Lead	mg/kg	92	9.6	28	66 J	4700
Mercury	mg/kg	0.10 U	0.12 U	0.10 U	0.10 U	0.60
Nickel	mg/kg	17	7.3	120	210	36000
Selenium	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	8.0 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 UJ	1.5 UJ	5.1 UJ
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	1.6 U
Zinc	mg/kg	300	33	1500	3300 J	62000
MISC						
Cyanide	mg/kg	2.0 U	2.0 U	2.0 U	2.0 U	110
Hydrogen ion	ph un	7.6 R	6.9 R	7.3 R	7.5 R	8.0 R
TOC	mg/kg	4200	2800	5200	4800	30000
TPH	mg/kg	54 J	25 U	99	170	7100

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-7	10-7	10-8	10-8	10-8
Sample I.D.		SB-10-SO-7	SB-10-SO-7	SB-10-SO-8	SB-10-SO-8	SB-10-SO-8
Depth:		10.00	12.00	0.50	1.00	1.50
Date Sampled		02/15/94	02/15/94	02/11/94	02/11/94	02/11/94
Parameter	Units					
Volatiles						
Acetone	ug/kg	1200 J	2300 U	NA	NA	7 J
Benzene	ug/kg	850 U	750 U	NA	NA	7 U
Bromodichloromethane	ug/kg	850 U	750 U	NA	NA	7 U
Bromoform	ug/kg	850 U	750 U	NA	NA	7 U
Carbon disulfide	ug/kg	1700 U	1500 U	NA	NA	14 U
Carbon tetrachloride	ug/kg	850 U	750 U	NA	NA	7 U
Chlorobenzene	ug/kg	2300	1400	NA	NA	7 U
Chloroethane	ug/kg	1700 U	1500 U	NA	NA	14 U
Chloroform	ug/kg	850 U	750 U	NA	NA	7 U
Dibromochloromethane	ug/kg	850 U	750 U	NA	NA	7 U
1,1-Dichloroethane	ug/kg	850 U	750 U	NA	NA	7 U
1,1-Dichloroethylene	ug/kg	850 U	750 U	NA	NA	7 U
1,2-Dichloroethane	ug/kg	850 U	750 U	NA	NA	7 U
1,2-Dichloroethylene	ug/kg	850 U	750 U	NA	NA	7 U
1,2-Dichloropropane	ug/kg	850 U	750 U	NA	NA	7 U
cis-1,3-Dichloropropene	ug/kg	850 U	750 U	NA	NA	7 U
trans-1,3-Dichloropropene	ug/kg	850 U	750 U	NA	NA	7 U
Ethylbenzene	ug/kg	6100	9400	NA	NA	7 U
2-Hexanone	ug/kg	2600 U	2300 U	NA	NA	21 U
Methyl bromide	ug/kg	1700 U	1500 U	NA	NA	14 U
Methyl chloride	ug/kg	1700 U	1500 U	NA	NA	14 U
2-butanone	ug/kg	2600 U	2300 U	NA	NA	21 U
4-Methyl-2-Pentanone	ug/kg	2600 U	18 U	NA	NA	21 U
Methylene chloride	ug/kg	1700 U	1500 U	NA	NA	14 U
Styrene	ug/kg	850 U	750 U	NA	NA	7 U
1,1,2,2-Tetrachloroethane	ug/kg	850 U	750 U	NA	NA	7 U
Tetrachloroethylene	ug/kg	850 U	750 U	NA	NA	7 U
Toluene	ug/kg	790 J	1400	NA	NA	7 U
1,1,1-Trichloroethane	ug/kg	850 U	750 U	NA	NA	7 U
1,1,2-Trichloroethane	ug/kg	850 U	750 U	NA	NA	7 U
Trichloroethylene	ug/kg	850 U	750 U	NA	NA	7 U
Vinyl Acetate	ug/kg	2600 U	2300 U	NA	NA	21 U
Vinyl chloride	ug/kg	1700 U	1500 U	NA	NA	14 U
Xylenes	ug/kg	34000	49000 E	NA	NA	7 U
Base Neutrals						
Acenaphthene	ug/kg	3800	980	NA	NA	460 U
Acenaphthylene	ug/kg	2200 U	400 U	NA	NA	460 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-7	10-7	10-8	10-8	10-8
Sample I.D.		SB-10-SO-7	SB-10-SO-7	SB-10-SO-8	SB-10-SO-8	SB-10-SO-8
Depth:		10.00	12.00	0.50	1.00	1.50
Date Sampled		02/15/94	02/15/94	02/11/94	02/11/94	02/11/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	2800	680	NA	NA	460 U
Benzo(a)anthracene	ug/kg	5800	680	NA	NA	460 U
Benzo(a)pyrene	ug/kg	3600	270 J	NA	NA	460 U
Benzo(b)fluoranthene	ug/kg	6700	540	NA	NA	460 U
Benzo(ghi)perylene	ug/kg	2700	190 J	NA	NA	460 U
Benzo(k)fluoranthene	ug/kg	2200 U	400 U	NA	NA	460 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	2200 U	400 U	NA	NA	460 U
Bis(2-chloroethoxy)methane	ug/kg	2200 U	400 U	NA	NA	460 U
Bis(2-chloroethyl)ether	ug/kg	2200 U	400 U	NA	NA	460 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	31000	2300	NA	NA	460 U
4-Bromophenyl phenyl ether	ug/kg	2200 U	400 U	NA	NA	460 U
Butyl benzyl phthalate	ug/kg	2200 U	400 U	NA	NA	460 U
Carbazole	ug/kg	2200	930	NA	NA	460 U
p-Chloroaniline	ug/kg	2200 U	400 U	NA	NA	460 U
2-Chloronaphthalene	ug/kg	2200 U	400 U	NA	NA	460 U
4-Chlorophenyl phenyl ether	ug/kg	2200 U	400 U	NA	NA	460 U
Chrysene	ug/kg	3700	400	NA	NA	460 U
Di-n-butyl phthalate	ug/kg	2200 U	650	NA	NA	460 U*
Di-n-octyl phthalate	ug/kg	2200 U	400 U	NA	NA	460 U
Dibenzo(a,h)anthracene	ug/kg	1040 J	79 J	NA	NA	460 U
Dibenzofuran	ug/kg	3000	1100	NA	NA	460 U
3,3-Dichlorobenzidine	ug/kg	2200 U	400 U	NA	NA	460 U
m-Dichlorobenzene	ug/kg	2200 U	400 U	NA	NA	460 U
o-Dichlorobenzene	ug/kg	2200 U	400 U	NA	NA	460 U
p-Dichlorobenzene	ug/kg	2200 U	860	NA	NA	460 U
Diethyl phthalate	ug/kg	2200 U	400 U	NA	NA	460 U
Dimethyl phthalate	ug/kg	2200 U	400 U	NA	NA	460 U
2,4-Dinitrotoluene	ug/kg	2200 U	400 U	NA	NA	460 U
2,6-Dinitrotoluene	ug/kg	2200 U	400 U	NA	NA	460 U
Fluoranthene	ug/kg	7800 E	2500	NA	NA	460 U
Fluorene	ug/kg	5200	1600	NA	NA	460 U
Hexachlorobenzene	ug/kg	2200 U	400 U	NA	NA	460 U
Hexachlorobutadiene	ug/kg	2200 U	400 U	NA	NA	460 U
Hexachlorocyclopentadiene	ug/kg	2200 U	400 U	NA	NA	460 U
Hexachloroethane	ug/kg	2200 U	400 U	NA	NA	460 U
Indeno(1,2,3-cd)pyrene	ug/kg	2500	170 J	NA	NA	460 U
Isophorone	ug/kg	2200 U	400 U	NA	NA	460 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-7	10-7	10-8	10-8	10-8
Sample I.D.		SB-10-SO-7	SB-10-SO-7	SB-10-SO-8	SB-10-SO-8	SB-10-SO-8
Depth:		10.00	12.00	0.50	1.00	1.50
Date Sampled		02/15/94	02/15/94	02/11/94	02/11/94	02/11/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	4700	1500	NA	NA	460 U
N-Nitrosodiphenylamine	ug/kg	2200 U	400 U	NA	NA	460 U
N-Nitrosodipropylamine	ug/kg	2200 U	400 U	NA	NA	460 U
Naphthalene	ug/kg	8700	3000	NA	NA	460 U
m-Nitroaniline	ug/kg	5400 U	980 U	NA	NA	1100 U
o-Nitroaniline	ug/kg	5400 U	980 U	NA	NA	1100 U
p-Nitroaniline	ug/kg	5400 U	980 U	NA	NA	1100 U
Nitrobenzene	ug/kg	2200 U	400 U	NA	NA	460 U
Phenanthrene	ug/kg	12000 E	4000	NA	NA	460 U
Pyrene	ug/kg	8400 E	1200	NA	NA	51 J
1,2,4-Trichlorobenzene	ug/kg	2200 U	400 U	NA	NA	460 U
Metals						
Antimony	mg/kg	4.2 J	1.4 J	NA	NA	0.68 UJ
Arsenic	mg/kg	13 J	6.3 J	NA	NA	2.4
Beryllium	mg/kg	0.50 U	0.66	NA	NA	0.88
Cadmium	mg/kg	16	3.5	NA	NA	1.0 U
Chromium	mg/kg	490	480	NA	NA	13
Copper	mg/kg	3600	1000	NA	NA	12
Lead	mg/kg	260	75	NA	NA	15
Mercury	mg/kg	1.0 J	0.10 UJ	NA	NA	0.12 U
Nickel	mg/kg	1200	1200	NA	NA	13
Selenium	mg/kg	0.50 UJ	0.50 UJ	NA	NA	0.50 UJ
Silver	mg/kg	1.5 UJ	1.5 UJ	NA	NA	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	NA	NA	0.50 U
Zinc	mg/kg	12000	3900	NA	NA	37
MISC						
Cyanide	mg/kg	55	NA	NA	2.0 U	2.0 U
Hydrogen ion	ph un	8.8 R	8.1 R	NA	7.3	7.3
TOC	mg/kg	82000	25 U	4700	15000	15000
TPH	mg/kg	1900	830	NA	37	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-8	10-9	10-9	10-9	10-9
Sample I.D.		SB-10-SO-8	SB-10-SO-9	SB-10-SO-9	SB-10-SO-9	SB-10-SO-9
Depth:		3.00	1.00	2.00	4.00	6.00
Date Sampled		02/11/94	02/14/94	02/14/94	02/14/94	02/14/94
Parameter	**Units**					
Volatiles						
Acetone	ug/kg	12 U*	10 J	70 B	140 B	380
Benzene	ug/kg	6 U	6 U	6 U	12 U	6 U
Bromodichloromethane	ug/kg	6 U	6 U	6 U	12 U	6 U
Bromoform	ug/kg	6 U	6 U	6 U	12 U	6 U
Carbon disulfide	ug/kg	12 U	12 U	11 U	6 J	12 U
Carbon tetrachloride	ug/kg	6 U	6 U	6 U	12 U	6 U
Chlorobenzene	ug/kg	6 U	6 U	6 U	12 U	6 U
Chloroethane	ug/kg	12 U	12 U	11 U	24 U	12 U
Chloroform	ug/kg	6 U	6 U	6 U	12 U	6 U
Dibromochloromethane	ug/kg	6 U	6 U	6 U	12 U	6 U
1,1-Dichloroethane	ug/kg	6 U	6 U	6 U	12 U	6 U
1,1-Dichloroethylene	ug/kg	6 U	6 U	6 U	12 U	6 U
1,2-Dichloroethane	ug/kg	6 U	6 U	6 U	12 U	6 U
1,2-Dichloroethylene	ug/kg	6 U	6 U	6 U	12 U	6 U
1,2-Dichloropropane	ug/kg	6 U	6 U	6 U	12 U	6 U
cis-1,3-Dichloropropene	ug/kg	6 U	6 U	6 U	12 U	6 U
trans-1,3-Dichloropropene	ug/kg	6 U	6 U	6 U	12 U	6 U
Ethylbenzene	ug/kg	6 U	6 U	6 U	12 U	6 U
2-Hexanone	ug/kg	18 U	18 U	17 U	16 J	18 U
Methyl bromide	ug/kg	12 U	12 U	11 U	24 U	12 U
Methyl chloride	ug/kg	12 U	12 U	11 U	24 U	12 U
2-butanone	ug/kg	18 U	18 U	17 U	8 J	18 U
4-Methyl-2-Pentanone	ug/kg	18 U	18 U	17 U	36 U	18 U
Methylene chloride	ug/kg	12 U*	12 U	11 U*	7 J	12 U*
Styrene	ug/kg	6 U	6 U	6 U	12 U	6 U
1,1,2,2-Tetrachloroethane	ug/kg	6 U	6 U	6 U	12 U	6 U
Tetrachloroethylene	ug/kg	6 U	6 U	6 U	12 U	6 U
Toluene	ug/kg	6 U	6 U	6 U	12 U	6 U
1,1,1-Trichloroethane	ug/kg	6 U	6 U	6 U	12 U	6 U
1,1,2-Trichloroethane	ug/kg	6 U	6 U	6 U	12 U	6 U
Trichloroethylene	ug/kg	6 U	6 U	6 U	12 U	6 U
Vinyl Acetate	ug/kg	18 U	18 U	17 U	36 U	18 U
Vinyl chloride	ug/kg	12 U	12 U	11 U	24 U	12 U
Xylenes	ug/kg	6 U	6 U	6 U	12 U*	2 J
Base Neutrals						
Acenaphthene	ug/kg	400 U	400 U	360 U	400 U	400 U
Acenaphthylene	ug/kg	400 U	400 U	360 U	140 J	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-8	10-9	10-9	10-9	10-9
Sample I.D.		SB-10-SO-8	SB-10-SO-9	SB-10-SO-9	SB-10-SO-9	SB-10-SO-9
Depth:		3.00	1.00	2.00	4.00	6.00
Date Sampled		02/11/94	02/14/94	02/14/94	02/14/94	02/14/94
Parameter	Units					
Base Neutrals						
Anthracene	ug/kg	400 U	400 U	360 U	330 J	65 J
Benzo(a)anthracene	ug/kg	400 U	400 U	360 U	1400	230 J
Benzo(a)pyrene	ug/kg	400 U	400 U	360 U	1400	270 J
Benzo(b)fluoranthene	ug/kg	400 U	55 J	360 U	1900	330 J
Benzo(ghi)perylene	ug/kg	400 U	400 U	360 U	1200	220 J
Benzo(k)fluoranthene	ug/kg	400 U	400 U	360 U	630	130 J
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	400 U	360 U	400 U	400 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	400 U	360 U	400 U	400 U
Bis(2-chloroethyl)ether	ug/kg	400 U	400 U	360 U	400 U	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	400 U	67 J	360 U	2400	380 J
4-Bromophenyl phenyl ether	ug/kg	400 U	400 U	360 U	400 U	400 U
Butyl benzyl phthalate	ug/kg	400 U	400 U	360 U	1300 B	400 U*
Carbazole	ug/kg	400 U	400 U	360 U	110 J	400 U
p-Chloroaniline	ug/kg	400 U	400 U	360 U	400 U	400 U
2-Chloronaphthalene	ug/kg	400 U	400 U	360 U	400 U	400 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	400 U	360 U	400 U	400 U
Chrysene	ug/kg	400 U	400 U	360 U	1500	300 J
Di-n-butyl phthalate	ug/kg	400 U	400 U*	360 U*	600 B	400 U*
Di-n-octyl phthalate	ug/kg	400 U	400 U	360 U	400 U	400 U
Dibenzo(a,h)anthracene	ug/kg	400 U	400 U	360 U	400 U	61 J
Dibenzofuran	ug/kg	400 U	400 U	360 U	97 J	400 U
3,3-Dichlorobenzidine	ug/kg	400 U	400 U	360 U	400 U	400 U
m-Dichlorobenzene	ug/kg	400 U	400 U	360 U	400 U	400 U
o-Dichlorobenzene	ug/kg	400 U	400 U	360 U	400 U	400 U
p-Dichlorobenzene	ug/kg	400 U	400 U	360 U	400 U	400 U
Diethyl phthalate	ug/kg	400 U	400 U	360 U	400 U	400 U
Dimethyl phthalate	ug/kg	400 U	400 U	360 U	400 U	400 U
2,4-Dinitrotoluene	ug/kg	400 U	400 U	360 U	400 U	400 U
2,6-Dinitrotoluene	ug/kg	400 U	400 U	360 U	400 U	400 U
Fluoranthene	ug/kg	400 U	65 J	360 U	2000	400
Fluorene	ug/kg	400 U	400 U	360 U	170 J	400 U
Hexachlorobenzene	ug/kg	400 U	400 U	360 U	400 U	400 U
Hexachlorobutadiene	ug/kg	400 U	400 U	360 U	400 U	400 U
Hexachlorocyclopentadiene	ug/kg	400 U	400 U	360 U	400 U	400 U
Hexachloroethane	ug/kg	400 U	400 U	360 U	400 U	400 U
Indeno(1,2,3-cd)pyrene	ug/kg	400 U	400 U	360 U	1200	230 J
Isophorone	ug/kg	400 U	400 U	360 U	400 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-8	10-9	10-9	10-9	10-9
Sample I.D.		SB-10-SO-8	SB-10-SO-9	SB-10-SO-9	SB-10-SO-9	SB-10-SO-9
Depth:		3.00	1.00	2.00	4.00	6.00
Date Sampled		02/11/94	02/14/94	02/14/94	02/14/94	02/14/94
Parameter	Units					
Base Neutrals						
2-Methylnaphthalene	ug/kg	400 U	400 U	360 U	110 J	400 U
N-Nitrosodiphenylamine	ug/kg	400 U	400 U	360 U	400 U	400 U
N-Nitrosodipropylamine	ug/kg	400 U	400 U	360 U	400 U	400 U
Naphthalene	ug/kg	400 U	400 U	360 U	82 J	400 U
m-Nitroaniline	ug/kg	980 U	980 U	900 U	980 U	980 U
o-Nitroaniline	ug/kg	980 U	980 U	900 U	980 U	980 U
p-Nitroaniline	ug/kg	980 U	980 U	900 U	980 U	980 U
Nitrobenzene	ug/kg	400 U	400 U	360 U	400 U	400 U
Phenanthrene	ug/kg	400 U	400 U	360 U	1200	270 J
Pyrene	ug/kg	400 U	59 J	360 U	1800	400
1,2,4-Trichlorobenzene	ug/kg	400 U	400 U	360 U	400 U	400 U
Metals						
Antimony	mg/kg	0.72 UJ	0.50 U	0.50 U	6.0	2.5
Arsenic	mg/kg	1.7	2.6	3.1	4.7	3.4
Beryllium	mg/kg	0.53	0.50 U	0.50 U	0.62	0.51
Cadmium	mg/kg	1.0 U	1.0 U	1.1	1.3	1.0 U
Chromium	mg/kg	8.0	16 J	16 J	1400 J	360 J
Copper	mg/kg	2.6	19	13	390	91
Lead	mg/kg	6.7	12	9.9	420	300
Mercury	mg/kg	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nickel	mg/kg	4.8	18	9.9	440	100
Selenium	mg/kg	0.50 UJ	0.50 UJ	0.50 UJ	1.50 UJ	0.64 UJ
Silver	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	mg/kg	14	50	28	1500	180
MISC						
Cyanide	mg/kg	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Hydrogen ion	ph un	7.3	7.3 R	6.9 R	8.3 R	7.3 R
TOC	mg/kg	4700	5700	1400	44000	41000
TPH	mg/kg	NA	25 UJ	40 J	1200 J	71 J

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-9
Sample I.D.		SB-10-SO-9
Depth:		10.00
Date Sampled		02/14/94
Parameter	**Units**	
Volatiles		
Acetone	ug/kg	580 B
Benzene	ug/kg	7 U
Bromodichloromethane	ug/kg	7 U
Bromoform	ug/kg	7 U
Carbon disulfide	ug/kg	13 U
Carbon tetrachloride	ug/kg	7 U
Chlorobenzene	ug/kg	7 U
Chloroethane	ug/kg	13 U
Chloroform	ug/kg	7 U
Dibromochloromethane	ug/kg	7 U
1,1-Dichloroethane	ug/kg	7 U
1,1-Dichloroethylene	ug/kg	7 U
1,2-Dichloroethane	ug/kg	7 U
1,2-Dichloroethylene	ug/kg	7 U
1,2-Dichloropropane	ug/kg	7 U
cis-1,3-Dichloropropene	ug/kg	7 U
trans-1,3-Dichloropropene	ug/kg	7 U
Ethylbenzene	ug/kg	7 U
2-Hexanone	ug/kg	20 U
Methyl bromide	ug/kg	13 U
Methyl chloride	ug/kg	13 U
2-butanone	ug/kg	20 U
4-Methyl-2-Pentanone	ug/kg	20 U
Methylene chloride	ug/kg	13 U
Styrene	ug/kg	7 U
1,1,2,2-Tetrachloroethane	ug/kg	7 U
Tetrachloroethylene	ug/kg	7 U
Toluene	ug/kg	7 U
1,1,1-Trichloroethane	ug/kg	7 U
1,1,2-Trichloroethane	ug/kg	7 U
Trichloroethylene	ug/kg	7 U
Vinyl Acetate	ug/kg	20 U
Vinyl chloride	ug/kg	13 U
Xylenes	ug/kg	7 U
Base Neutrals		
Acenaphthene	ug/kg	430 U
Acenaphthylene	ug/kg	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-9
Sample I.D.		SB-10-SO-9
Depth:		10.00
Date Sampled		02/14/94
Parameter	Units	
Base Neutrals		
Anthracene	ug/kg	430 U
Benzo(a)anthracene	ug/kg	430 U
Benzo(a)pyrene	ug/kg	62 J
Benzo(b)fluoranthene	ug/kg	430 U
Benzo(ghi)perylene	ug/kg	430 U
Benzo(k)fluoranthene	ug/kg	430 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	430 U
Bis(2-chloroethoxy)methane	ug/kg	430 U
Bis(2-chloroethyl)ether	ug/kg	430 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	370 J
4-Bromophenyl phenyl ether	ug/kg	430 U
Butyl benzyl phthalate	ug/kg	430 U
Carbazole	ug/kg	430 U
p-Chloroaniline	ug/kg	430 U
2-Chloronaphthalene	ug/kg	430 U
4-Chlorophenyl phenyl ether	ug/kg	430 U
Chrysene	ug/kg	430 U
Di-n-butyl phthalate	ug/kg	430 U*
Di-n-octyl phthalate	ug/kg	430 U
Dibenzo(a,h)anthracene	ug/kg	430 U
Dibenzofuran	ug/kg	430 U
3,3-Dichlorobenzidine	ug/kg	430 U
m-Dichlorobenzene	ug/kg	430 U
o-Dichlorobenzene	ug/kg	430 U
p-Dichlorobenzene	ug/kg	430 U
Diethyl phthalate	ug/kg	430 U
Dimethyl phthalate	ug/kg	430 U
2,4-Dinitrotoluene	ug/kg	430 U
2,6-Dinitrotoluene	ug/kg	430 U
Fluoranthene	ug/kg	430 U
Fluorene	ug/kg	430 U
Hexachlorobenzene	ug/kg	430 U
Hexachlorobutadiene	ug/kg	430 U
Hexachlorocyclopentadiene	ug/kg	430 U
Hexachloroethane	ug/kg	430 U
Indeno(1,2,3-cd)pyrene	ug/kg	430 U
Isophorone	ug/kg	430 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-23

AREA 10 - SOIL SAMPLING RESULTS

Location I.D.		10-9
Sample I.D.		SB-10-SO-9
Depth:		10.00
Date Sampled		02/14/94
Parameter	**Units**	
Base Neutrals		
2-Methylnaphthalene	ug/kg	430 U
N-Nitrosodiphenylamine	ug/kg	430 U
N-Nitrosodipropylamine	ug/kg	430 U
Naphthalene	ug/kg	430 U
m-Nitroaniline	ug/kg	1100 U
o-Nitroaniline	ug/kg	1100 U
p-Nitroaniline	ug/kg	1100 U
Nitrobenzene	ug/kg	430 U
Phenanthrene	ug/kg	430 U
Pyrene	ug/kg	430 U
1,2,4-Trichlorobenzene	ug/kg	430 U
Metals		
Antimony	mg/kg	0.50 U
Arsenic	mg/kg	3.2
Berylilium	mg/kg	0.50 U
Cadmium	mg/kg	1.0 U
Chromium	mg/kg	15 J
Copper	mg/kg	6.4
Lead	mg/kg	18
Mercury	mg/kg	0.10 U
Nickel	mg/kg	8.6
Selenium	mg/kg	0.50 UJ
Silver	mg/kg	1.5 U
Thallium	mg/kg	0.50 U
Zinc	mg/kg	36
MISC		
Cyanide	mg/kg	2.0 U
Hydrogen ion	ph un	8.0 R
TOC	mg/kg	10000
TPH	mg/kg	25 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-24

AREA 11 - SEDIMENT SAMPLING RESULTS

Location I.D.		11-1	11-2	11-3	11-4	11-5
Sample I.D.		SS-11-SD-1	SS-11-SD-2	SS-11-SD-3	SS-11-SD-4	SS-11-SD-5
Depth:		0.00	0.00	0.00	0.00	0.00
Date Sampled		02/09/94	02/09/94	02/09/94	02/09/94	02/09/94
Parameter	Units					
Base Neutrals						
Acenaphthene	ug/kg	710	400 U	180 J	460 U	400 U
Acenaphthylene	ug/kg	400 U	400 U	120 J	460 U	400 U
Anthracene	ug/kg	1200	70 J	530 J	460 U	400 U
Benzo(a)anthracene	ug/kg	4500	170 J	2800	130 J	110 J
Benzo(a)pyrene	ug/kg	94 J	140 J	2800	120 J	110 J
Benzo(b)fluoranthene	ug/kg	2400	190 J	4400	180 J	200 J
Benzo(ghi)perylene	ug/kg	400 U	340 J	7800	81 J	65 J
Benzo(k)fluoranthene	ug/kg	1100	60 J	1100	63 J	400 U
Bis(2-chloro-1-methylethyl) ether	ug/kg	400 U	400 U	730 U	460 U	400 U
Bis(2-chloroethoxy)methane	ug/kg	400 U	400 U	730 U	460 U	400 U
Bis(2-chloroethyl)ether	ug/kg	400 U	400 U	730 U	460 U	400 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/kg	730	69 J	1800	160 J	400 U*
4-Bromophenyl phenyl ether	ug/kg	400 U	400 U	730 U	460 U	400 U
Butyl benzyl phthalate	ug/kg	400 U	400 U	130 J	460 U	400 U
Carbazole	ug/kg	370 J	400 U	290 J	460 U	400 U
p-Chloroaniline	ug/kg	400 U	400 U	730 U	460 U	400 U
2-Chloronaphthalene	ug/kg	400 U	400 U	730 U	460 U	400 U
4-Chlorophenyl phenyl ether	ug/kg	400 U	400 U	730 U	460 U	400 U
Chrysene	ug/kg	2300	190 J	3000	180 J	140 J
Di-n-butyl phthalate	ug/kg	400 U	400 U	730 U	460 U	400 U
Di-n-octyl phthalate	ug/kg	74 J	400 U	730 U	460 U	400 U
Dibenzo(a,h)anthracene	ug/kg	400 U	100 J	2100	460 U	400 U
Dibenzofuran	ug/kg	1100	400 U	110 J	460 U	400 U
3,3-Dichlorobenzidine	ug/kg	400 U	400 U	730 U	460 U	400 U
m-Dichlorobenzene	ug/kg	400 U	400 U	730 U	460 U	400 U
o-Dichlorobenzene	ug/kg	400 U	400 U	730 U	460 U	400 U
p-Dichlorobenzene	ug/kg	400 U	400 U	730 U	460 U	400 U
Diethyl phthalate	ug/kg	400 U	400 U	730 U	460 U	400 U
Dimethyl phthalate	ug/kg	400 U	400 U	730 U	460 U	400 U
2,4-Dinitrotoluene	ug/kg	400 U	400 U	730 U	460 U	400 U
2,6-Dinitrotoluene	ug/kg	400 U	400 U	730 U	460 U	400 U
Fluoranthene	ug/kg	11000	450	5600	350 J	250 J
Fluorene	ug/kg	2300	400 U	280 J	460 U	400 U
Hexachlorobenzene	ug/kg	400 U	400 U	730 U	460 U	400 U
Hexachlorobutadiene	ug/kg	400 U	400 U	730 U	460 U	400 U
Hexachlorocyclopentadiene	ug/kg	400 U	400 U	730 U	460 U	400 U
Hexachloroethane	ug/kg	400 U	400 U	730 U	460 U	400 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-24

AREA 11 - SEDIMENT SAMPLING RESULTS

Location I.D.		11-1	11-2	11-3	11-4	11-5
Sample I.D.		SS-11-SD-1	SS-11-SD-2	SS-11-SD-3	SS-11-SD-4	SS-11-SD-5
Depth:		0.00	0.00	0.00	0.00	0.00
Date Sampled		02/09/94	02/09/94	02/09/94	02/09/94	02/09/94
Parameter	Units					
Base Neutrals						
Indeno(1,2,3-cd)pyrene	ug/kg	210 J	320 J	8200	100 J	74 J
Isophorone	ug/kg	400 U	400 U	730 U	460 U	400 U
2-Methylnaphthalene	ug/kg	290 J	400 U	160 J	460 U	400 U
N-Nitrosodiphenylamine	ug/kg	400 U	400 U	730 U	460 U	400 U
N-Nitrosodipropylamine	ug/kg	400 U	400 U	730 U	460 U	400 U
Naphthalene	ug/kg	340 J	400 U	240 J	460 U	400 U
m-Nitroaniline	ug/kg	980 U	980 U	1800 U	1100 U	980 U
o-Nitroaniline	ug/kg	980 U	980 U	1800 U	1100 U	980 U
p-Nitroaniline	ug/kg	980 U	980 U	1800 U	1100 U	980 U
Nitrobenzene	ug/kg	400 U	400 U	730 U	460 U	400 U
Phenanthrene	ug/kg	7000	350 J	2700	110 J	100 J
Pyrene	ug/kg	690	310 J	3800	290 J	230 J
1,2,4-Trichlorobenzene	ug/kg	400 U	400 U	730 U	460 U	400 U
PCB						
Aroclor 1016	ug/kg	20 U	20 U	1500 U	24 U	1100 U
Aroclor 1221	ug/kg	40 U	40 U	2900 U	46 U	2000 U
Aroclor 1232	ug/kg	20 U	20 U	1500 U	24 U	1100 U
Aroclor 1242	ug/kg	20 U	20 U	1500 U	24 U	1100 U
Aroclor 1248	ug/kg	20 U	20 U	1500 U	24 U	1100 U
Aroclor 1254	ug/kg	20 U	20 U	1500 U	24 U	1100 U
Aroclor 1260	ug/kg	240	51	18000	65	8500
Metals						
Antimony	mg/kg	0.50 U	0.50 U	0.59 U	0.50 U	0.50 U
Arsenic	mg/kg	8.4	3.0	20	4.5	4.0
Beryllium	mg/kg	1.3	0.68	1.7	0.98	0.89
Cadmium	mg/kg	1.4	1.0 U	1.2 U	1.0 U	1.0 U
Chromium	mg/kg	110	26	520	39	77
Copper	mg/kg	130	65	130	30	41
Lead	mg/kg	97	47	190	25	22
Mercury	mg/kg	0.13	0.10 U	0.16 U	0.10 U	0.10 U
Nickel	mg/kg	34	11	40	15	65
Selenium	mg/kg	0.50 U	0.54 U	0.52 U	0.50 U	0.50 U
Silver	mg/kg	1.5 U	1.5 U	1.8 U	1.5 U	1.5 U
Thallium	mg/kg	0.50 U	0.50 U	0.52 U	0.50 U	0.50 U
Zinc	mg/kg	570	190	350	110	170
MISC						
Cyanide	mg/kg	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-24

AREA 11 - SEDIMENT SAMPLING RESULTS

Location I.D.		11-1	11-2	11-3	11-4	11-5
Sample I.D.		SS-11-SD-1	SS-11-SD-2	SS-11-SD-3	SS-11-SD-4	SS-11-SD-5
Depth:		0.00	0.00	0.00	0.00	0.00
Date Sampled		02/09/94	02/09/94	02/09/94	02/09/94	02/09/94
Parameter	Units					
MISC						
TPH	mg/kg	930	590	590	480	54

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-25
EVALUATION OF WATER BEARING ZONES MONITORED

Monitoring Well ID	Ground Surface Elevations	Elevation Range of Water Bearing Zone Monitored (AMSL) and Lithologic Description of Zone	Elevation (AMSL) of Fractures Noted on Boring Logs	Elevation Range (AMSL) of Weathered Bedrock	Groundwater Elevation (AMSL) Recorded on 3/29/94	Aquifer Monitored	Comments
MW-1	120.09	111.09 - 116.09 Silty clay, some pebbles, some cobbles	NA	Boring was terminated at top of weathered bedrock at 111.09	116.29	Shallow	
MW-1A	120.27	80.27 - 87.27 Fine grained sandstone and shale	Possible fractures noted within zone monitored	97 - 112	113.36	Bedrock	-6" Diameter steel casing was set to 87.27 ft AMSL
MW-2	115.61	103.61 - 109.61 Sandy clay, some coarse sand, trace pebbles	NA	Top of weathered bedrock encountered at 105.61, boring was terminated within weathered bedrock.	111.72	Shallow	
MW-3	113.98	102.98 - 109.98 fill, clay trace fine sand	NA	Top of weathered bedrock encountered at 103.98, boring terminated within weathered bedrock	110.96	Shallow	
MW-4	112.18	100.18 - 107.18 fill, clay, trace coarse sand, some loom	NA	Top of weathered bedrock encountered at 101.18, boring - terminated within weathered bedrock	106.74	Shallow	
MW-5	111.45	99.45 - 106.45 Fill, clay, trace pebbles, plastic, metal, wood	NA	Top of weathered bedrock encountered at 102.45, boring terminated within weathered bedrock	106.39	Shallow	
MW-6	111.11	99.11 - 106.11 Sandy clay	NA	Top of weathered bedrock encountered at 101.11 boring terminated within weathered bedrock	104.94	Shallow	

TABLE 5-25 (Continued)
EVALUATION OF WATER BEARING ZONES MONITORED

Monitoring Well ID	Ground Surface Elevations	Elevation Range of Water Bearing Zone Monitored (AMSL) and Lithologic Description of Zone	Elevation (AMSL) of Fractures Noted on Boring Logs	Elevation Range (AMSL) of Weathered Bedrock	Groundwater Elevation (AMSL) Recorded on 3/29/94	Aquifer Monitored	Comments
MW-7	118.53	103.03 - 113.03 Clay fill, silty clay mix	NA	Top of weathered bedrock encountered at 103.53 boring terminated within weathered bedrock	110.08	Shallow	
MW-7A	118.50	79.5 - 83.5 Fine grained sandstone	Possible fractures noted 79.5 - 83.5 ft.	93.5 - 108.5	106.82	Bedrock	6" diameter steel casing was set to 83.5 ft. AMSL
MW-8	131.65	116.15 - 126.15 Clay, trace coarse sand/medium-coarse sand	NA	Top of weathered bedrock encountered at 116.65 boring terminated within weathered bedrock	121.52	Shallow	
MW-9	127.79	112.79 - 119.79 Fill- sand, sludge, metal/clay trace coarse sand	NA	Top of weathered bedrock encountered at 112.79, boring terminated within weathered bedrock	114.75	Shallow	
MW-9A	127.06	75.03 - 81.53 Fine grained sandstone	None noted	104 - 114	115.03	Bedrock	
MW-10	123.87	108 - 118.87 Clay, trace fine sand/silty sand	NA	Top of weathered bedrock encountered at 108.87, boring terminated within weathered bedrock	112.52	Shallow	
MW-11	125.77	108.27 - 119.27	NA	Top of weathered bedrock encountered at 110.77, boring terminated within weathered bedrock	113.90	Shallow	

TABLE 5-25 (Continued)
EVALUATION OF WATER BEARING ZONES MONITORED

Monitoring Well ID	Ground Surface Elevations	Elevation Range of Water Bearing Zone Monitored (AMSL) and Lithologic Description of Zone	Elevation (AMSL) of Fractures Noted on Boring Logs	Elevation Range (AMSL) of Weathered Bedrock	Groundwater Elevation (AMSL) Recorded on 3/29/94	Aquifer Monitored	Comments
MW-12	124.50	107 - 120.5 Clay, some silt/clay some sand	NA	Weathered bedrock encountered			
MW-13	107.29	67.29 - 86.29 Sandstone and shale	Possible fractures noted by soft drilling at 68 -70	96.29 - 104.21	105.95	Bedrock	
MW-14A	≈ 135**	84.95 - 65.95	*	*	132.06	Bedrock	
MW-15	109.18	97.17 - 107.17 Fine sand and silt, weathered sandstone bedrock	NA	Weathered bedrock encountered at 100.17, boring was terminated within weathered bedrock	107.96	Shallow	
MW-15A	109.01	81.01 - 91 Mudstone interbedded with siltstone	81 - 87	98 - 102	109.60	Bedrock	6" diameter steel casing was set to 91.01 ft AMSL
MW-16A	124.22	82 - 104.22 Interbedded sand stone silt stone and mudstone	84	114 - 115	119.94	Bedrock	6"diameter steel casing was set to 104.22
MW-17A	135.57	97.49 - 122.49 interbedded siltstone, mudstone and sandstone	129.57	133.57 - 135.07	132.49	Bedrock	6" diameter steel casing was set to 125.5 ft. AMSL
MW-18	134.07	110.07 - 125.07 weathered siltstone sandstone	NA	109-125	119.77	Shallow	
MW-19	134.83	110.13 - 123.83 weathered siltstone and sandstone	NA	109.83 - 120.83	118.87	Shallow	
MW-20	136.13	110.13 - 125.13 silt some clay and fine sand/weathered siltstone and sandstone	NA	110.13 - 121.13	127.13	Shallow	
UST-1	131.69	71.69 - 106.69 Siltstone, shale, fine sandstone	77	111.69 - 117.69	117.48	Bedrock	6" diameter steel casing - was set to 106.69

TABLE 5-25 (Continued)
EVALUATION OF WATER BEARING ZONES MONITORED

Monitoring Well ID	Ground Surface Elevations	Elevation Range of Water Bearing Zone Monitored (AMSL) and Lithologic Description of Zone	Elevation (AMSL) of Fractures Noted on Boring Logs	Elevation Range (AMSL) of Weathered Bedrock	Groundwater Elevation (AMSL) Recorded on 3/29/94	Aquifer Monitored	Comments
UST-2	131.71	91.71 - 106.69 siltstone and shale	94	Not noted on log	118.11	Bedrock	6" diameter steel casing was set to 106.71
UST-3	132.44	71.44 - 107.44 Siltstone and shale	80.44 - 81.44	Not noted on log	114.58	Bedrock	6" diameter steel casing was set to 107.44
UST-4	131.98	91.98 - 103.98 Siltstone	97	113.98 - 116.98	115.99	Bedrock	6" diameter steel casing was set to 103.98
UST-5	132.25	112.25 - 122.25 Silty sand/weathered siltstone	NA	Not noted on log	117.96	Shallow	
UST-6	131.90	112.9 - 122.9 Silty-clayey-sand	NA	Not noted on log	Was not recorded riser was damaged	Shallow	
UST-7	132.53	17.53 - 32.53 Medium grained sandstone	23.5	Not noted on log	114.02	Lower bedrock	6" diameter steel casing was set to 32.53 ft AMSL
UST-8	131.84	81.84 - 110.84 Siltstone	None noted on log	Not noted on log	117.53	Bedrock	6" diameter steel casing 110.84 ft AMSL
UST-9	130.90	75.90 - 105.9	75.9 - 79.9	110.9 - 115.9	1117.56	Bedrock	6" diameter steel casing was set to 105.9 ft AMSL

* Boring log was not available. Zone monitored recorded from Work Plan Summary Table.
** Ground elevation from previous survey.

TABLE 5-26

SHALLOW AQUIFER
WATER ELEVATION DATA

Monitoring Well	Ground Elevation	Protective Casing Elevation	Riser Elevation	Water Level Elevation 2/28/94	Water Level Elevation 3/29/94
MW-1	120.09	122.26	122.03	112.27	116.29
MW-2	115.61	117.45	117.24	110.14	111.72
MW-3	113.98	116.19	116.00	110.16	110.96
MW-4	112.18	114.25	113.96	105.42	106.74
MW-5	111.45	113.43	113.01	104.33	106.39
MW-6	111.11	113.49	113.19	104.37	104.94
MW-7	118.53	120.73	120.60	109.55	110.08
MW-8	131.65	133.21	132.85	121.48	121.52
MW-9	127.79	129.96	129.66	113.76	114.75
MW-10	123.87	125.83	125.44	112.46	112.52
MW-11	125.77	126.55	126.38	112.70	113.90
MW-12	124.50	127.18	126.70	113.32	114.44
MW-15	109.17	111.25	110.35	106.77	107.96
MW-18	134.07	134.07	133.61	118.57	119.77
MW-19	134.83	134.83	134.39	117.34	118.87
MW-20	136.13	136.13	135.63	126.55	127.13
UST-5	132.25	132.25	131.87	NR	117.96
UST-6	131.90	131.90	131.73	NR	NR

TABLE 5-27

HYDRAULIC CONDUCTIVITY TEST RESULTS

WELL	Hydraulic Conductivity Rising Head (cm/sec)
MW-18	2.57×10^{-3}
MW-19	1.44×10^{-2}
MW-20	7.45×10^{-3}

TABLE 5-28

BEDROCK AQUIFER
WATER ELEVATION DATA

Monitoring Well	Ground Elevation	Protective Casing Elevation	Riser Elevation	Water Level Elevation 2/28/94	Water Level Elevation 3/29/94
MW-1A	120.27	121.66	No Riser	111.23	113.36
MW-7A	118.50	120.37	No Riser	105.91	106.82
MW-9A	127.06	129.37	No Riser	113.45	115.03
MW-13	107.29	108.92	No Riser	103.65	105.95
MW-14A	---	---	*134.50	131.42	132.06
MW-15A	109.01	112.48	No Riser	108.22	109.60
MW-16A	124.22	128.10	No Riser	116.82	119.94
MW-17A	135.57	135.57	134.91	132.3	132.49
UST-1	131.69	131.69	131.28	115.85	117.48
UST-2	131.71	131.71	131.47	116.12	118.11
UST-3	132.44	132.44	132.03	NR	114.58
UST-4	131.98	131.98	131.48	114.31	115.99
UST-7	132.53	132.53	132.40	NR	114.02
UST-8	131.84	131.84	131.62	115.89	117.53
UST-9	130.90	132.32	No Riser	114.87	117.56

* Elevation From Previous Survey

TABLE 5-29

FIRST ROUND GROUNDWATER SAMPLING RESULTS

MANUFACTURING BUILDING WELLS

Location I.D.		MW-18	MW-19	MW-20	UST-1
Sample I.D.		GW-MW-18	GW-MW-19	GW-MW-20	GW-UST-1
Matrix		Water	Water	Water	Water
Date Sampled		03/24/94	03/24/94	03/24/94	03/24/94
Parameter	Units				
Volatiles					
Acetone	ug/l	15 U	15 U	15 U	15 U
Benzene	ug/l	5 U	5 U	5 U	10
Bromodichloromethane	ug/l	5 U	5 U	5 U	5 U
Bromoform	ug/l	5 U	5 U	5 U	5 U
Carbon disulfide	ug/l	10 U	10 U	10 U	10 U
Carbon tetrachloride	ug/l	5 U	5 U	5 U	5 U
Chlorobenzene	ug/l	5 U	5 U	5 U	5 U
Chloroethane	ug/l	10 U	10 U	10 U	10 U
Chloroform	ug/l	5 U	5	5 U	5 U
Dibromochloromethane	ug/l	5 U	5 U	5 U	5 U
m-Dichlorobenzene	ug/l	5 U	5 U	5 U	5 U
o-Dichlorobenzene	ug/l	5 U	5 U	5 U	5 U
p-Dichlorobenzene	ug/l	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/l	5 U	5 U	5 U	5 U
1,1-Dichloroethylene	ug/l	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/l	5 U	5 U	5 U	5 U
1,2-Dichloroethylene	ug/l	5	6	5 U	52
1,2-Dichloropropane	ug/l	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/l	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	ug/l	5 U	5 U	5 U	5 U
Ethylbenzene	ug/l	2 J	5 U	5 U	5 U
2-Hexanone	ug/l	15 U	15 U	15 U	15 U
Methyl bromide	ug/l	10 U	10 U	10 U	10 U
Methyl chloride	ug/l	10 U	10 U	10 U	10 U
2-butanone	ug/l	15 U	15 U	15 U	15 U
4-Methyl-2-Pentanone	ug/l	15 U	15 U	15 U	15 U
Methylene chloride	ug/l	10 U	10 U	10 U	10 U
Styrene	ug/l	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/l	5 U	5 U	5 U	5 U
Tetrachloroethylene	ug/l	5 U	5 U	5 U	5 U
Toluene	ug/l	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	ug/l	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/l	5 U	5 U	5 U	5 U
Trichloroethylene	ug/l	9	37	41	180
Vinyl Acetate	ug/l	15 U	15 U	15 U	15 U
Vinyl chloride	ug/l	10 U	10 U	10 U	10 U
Xylenes	ug/l	10	5 U	5 U	5 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-29

FIRST ROUND GROUNDWATER SAMPLING RESULTS

MANUFACTURING BUILDING WELLS

Location I.D.		MW-18	MW-19	MW-20	UST-1
Sample I.D.		GW-MW-18	GW-MW-19	GW-MW-20	GW-UST-1
Matrix		Water	Water	Water	Water
Date Sampled		03/24/94	03/24/94	03/24/94	03/24/94
Parameter	Units				
BNA					
Acenaphthene	ug/l	10 U	10 U	10 U	10 U
Acenaphthylene	ug/l	10 U	10 U	10 U	10 U
Anthracene	ug/l	10 U	10 U	10 U	10 U
Benzo(a)anthracene	ug/l	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ug/l	10 U	10 U	10 U	10 U
Benzo(ghi)perylene	ug/l	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	ug/l	10 U	10 U	10 U	10 U
Bis(2-chloro-1-methylethyl) ether	ug/l	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane	ug/l	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether	ug/l	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/l	2 J	2 J	10 U	10 U
4-Bromophenyl phenyl ether	ug/l	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	ug/l	10 U	10 U	10 U	10 U
Carbazole	ug/l	10 U	10 U	10 U	10 U
p-Chloroaniline	ug/l	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/l	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	ug/l	10 U	10 U	10 U	10 U
Chrysene	ug/l	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	ug/l	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	ug/l	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	ug/l	10 U	10 U	10 U	10 U
Dibenzofuran	ug/l	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine	ug/l	10 U	10 U	10 U	10 U
Diethyl phthalate	ug/l	10 U	10 U	10 U	10 U
Dimethyl phthalate	ug/l	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/l	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	10 U	10 U	10 U	10 U
Fluoranthene	ug/l	10 U	10 U	10 U	10 U
Fluorene	ug/l	10 U	10 U	10 U	10 U
Hexachlorobenzene	ug/l	10 U	10 U	10 U	10 U
Hexachlorobutadiene	ug/l	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	ug/l	10 U	10 U	10 U	10 U
Hexachloroethane	ug/l	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	ug/l	10 U	10 U	10 U	10 U
Isophorone	ug/l	10 U	10 U	10 U	10 U
2-Methylnaphthalene	ug/l	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	ug/l	10 U	10 U	10 U	10 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-30

SECOND ROUND GROUNDWATER SAMPLING RESULTS

MANUFACTURING BUILDING WELLS

Location I.D.		MW-18	MW-19	MW-20	UST-1
Sample I.D.		GW-MW-18	GW-MW-19	GW-MW-20	GW-UST-1
Matrix		Water	Water	Water	Water
Date Sampled		05/05/94	05/05/94	05/05/94	05/05/94
Parameter	Units				
Volatiles					
Benzene	ug/l	1.2 U	1.2 U	1.2 U	8.8
Bromodichloromethane	ug/l	1.6 U	1.6 U	1.6 U	1.6 U
Bromoform	ug/l	2.5 U	2.5 U	2.5 U	2.5 U
Carbon tetrachloride	ug/l	1.2 U	1.2 U	1.8 U	1.2 U
Chlorobenzene	ug/l	1 U	1 U	1 U	1 U
Chloroethane	ug/l	5.3 U	5.3 U	5.3 U	5.3 U
Chloroform	ug/l	1.4 U	6.3	1.4 U	1.4 U
Dibromochloromethane	ug/l	1.1 U	1.1 U	1.1 U	1.1 U
m-Dichlorobenzene	ug/l	1 U	1 U	1 U	1 U
o-Dichlorobenzene	ug/l	1 U	1 U	1 U	1 U
p-Dichlorobenzene	ug/l	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	ug/l	1.6 U	1.6 U	1.6 U	1.6 U
1,1-Dichloroethylene	ug/l	2.1 U	2.1 U	2.1 U	2.1 U
1,2-Dichloroethane	ug/l	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichloroethylene	ug/l	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichloropropane	ug/l	1.7 U	1.7 U	1.7 U	1.7 U
cis-1,3-Dichloropropene	ug/l	1.6 U	1.6 U	1.6 U	1.6 U
trans-1,3-Dichloropropene	ug/l	1.6 U	1.6 U	1.6 U	1.6 U
Ethylbenzene	ug/l	1.7	1.3 U	1.3 U	1.3 U
2-Hexanone	ug/l	15 U	15 U	15 U	15 U
Methyl bromide	ug/l	5.9 U	5.9 U	5.9 U	5.9 U
Methyl chloride	ug/l	2.2 U	2.2 U	2.2 U	2.2 U
2-butanone	ug/l	15 U	15 U	15 U	15 U
Methylene chloride	ug/l	6 J	5 J	6 J	5 J
1,1,2,2-Tetrachloroethane	ug/l	1.5 U	1.5 U	1.5 U	1.5 U
Tetrachloroethylene	ug/l	2.1 U	2.1 U	2.1 U	2.1 U
Toluene	ug/l	5.1 U	5.1 U	5.1 U	5.1 U
1,1,1-Trichloroethane	ug/l	1.4 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	ug/l	1.3 U	1.3 U	1.3 U	1.3 U
Trichloroethylene	ug/l	15	35	70	180
Vinyl chloride	ug/l	3 U	3 U	3 U	3 U
Xylenes	ug/l	7.6	1.8 U	1.8 U	1.8 U
BNA					
Acenaphthene	ug/l	6.6 U	6.6 U	6.6 U	6.6 U
Acenaphthylene	ug/l	5.1 U	5.1 U	5.1 U	5.1 U
Anthracene	ug/l	5 U	5 U	5 U	5 U
Benzo(a)anthracene	ug/l	4.2 U	4.2 U	4.2 U	4.2 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-29

FIRST ROUND GROUNDWATER SAMPLING RESULTS

MANUFACTURING BUILDING WELLS

Location I.D.		MW-18	MW-19	MW-20	UST-1
Sample I.D.		GW-MW-18	GW-MW-19	GW-MW-20	GW-UST-1
Matrix		Water	Water	Water	Water
Date Sampled		03/24/94	03/24/94	03/24/94	03/24/94
Parameter	Units				
BNA					
N-Nitrosodipropylamine	ug/l	10 U	10 U	10 U	10 U
Naphthalene	ug/l	10 U	10 U	10 U	10 U
m-Nitroaniline	ug/l	25 U	25 U	25 U	25 U
o-Nitroaniline	ug/l	25 U	25 U	25 U	25 U
p-Nitroaniline	ug/l	25 U	25 U	25 U	25 U
Nitrobenzene	ug/l	10 U	10 U	10 U	10 U
Phenanthrene	ug/l	1 J	10 U	10 U	10 U
Pyrene	ug/l	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/l	10 U	10 U	10 U	10 U
Metals					
Antimony	ug/l	5 U	5 U	5 U	5 U
Arsenic	ug/l	5 U	5 U	5 U	5 U
Beryllium	ug/l	5 U	5 U	5 U	5 U
Cadmium	ug/l	10 U	10 U	10 U	10 U
Chromium	ug/l	15 U	44	15 U	15 U
Copper	ug/l	25 U	28	25 U	26
Lead	ug/l	5 U	7	5 U	7
Mercury	ug/l	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	ug/l	40 U	40 U	40 U	75
Selenium	ug/l	5 U	5 U	5 U	5 U
Silver	ug/l	15 U	15 U	15 U	15 U
Thallium	ug/l	5 U	5 U	5 U	5 U
Zinc	ug/l	41	74	53	240
Antimony (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Beryllium (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/l	10 U	10 U	10 U	10 U
Chromium (Dissolved)	ug/l	15 U	23	15 U	15 U
Copper (Dissolved)	ug/l	25 U	25 U	25 U	25 U
Lead (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Mercury (Dissolved)	ug/l	0.20 U	0.20 U	0.20 U	0.20 U
Nickel (Dissolved)	ug/l	40 U	40 U	40 U	71
Selenium (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/l	15 U	15 U	15 U	15 U
Thallium (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Zinc (Dissolved)	ug/l	84	NA	70	160

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-30

SECOND ROUND GROUNDWATER SAMPLING RESULTS

MANUFACTURING BUILDING WELLS

Location I.D.		MW-18	MW-19	MW-20	UST-1
Sample I.D.		GW-MW-18	GW-MW-19	GW-MW-20	GW-UST-1
Matrix		Water	Water	Water	Water
Date Sampled		05/05/94	05/05/94	05/05/94	05/05/94
Parameter	Units				
BNA					
Benzo(a)pyrene	ug/l	3.6 U	3.6 U	3.6 U	3.6 U
Benzo(ghi)perylene	ug/l	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	ug/l	2 U	2 U	2 U	2 U
Bis(2-chloroethoxy)methane	ug/l	3.8 U	3.8 U	3.8 U	3.8 U
Bis(2-chloroethyl)ether	ug/l	3.8 U	3.8 U	3.8 U	3.8 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/l	5.9 U	5.9 U	5.9 U	5.9 U
4-Bromophenyl phenyl ether	ug/l	3.9 U	3.9 U	3.9 U	3.9 U
Butyl benzyl phthalate	ug/l	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/l	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	ug/l	7.3 U	7.3 U	7.3 U	7.3 U
Chrysene	ug/l	3.8 U	3.8 U	3.8 U	3.8 U
Di-n-octyl phthalate	ug/l	4.4 U	4.4 U	4.4 U	4.4 U
Dibenzo(a,h)anthracene	ug/l	8.4 U	8.4 U	8.4 U	8.4 U
Dibenzofuran	ug/l	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine	ug/l	3.5 U	3.5 U	3.5 U	3.5 U
Diethyl phthalate	ug/l	10 U	10 U	10 U	10 U
Dimethyl phthalate	ug/l	8.3 U	8.3 U	8.3 U	8.3 U
2,4-Dinitrotoluene	ug/l	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	6.6 U	6.6 U	6.6 U	6.6 U
Fluoranthene	ug/l	7 U	7 U	7 U	7 U
Fluorene	ug/l	7.2 U	7.2 U	7.2 U	7.2 U
Hexachlorobenzene	ug/l	4 U	4 U	4 U	4 U
Hexachlorobutadiene	ug/l	4.5 U	4.5 U	4.5 U	4.5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	ug/l	8.5 U	8.5 U	8.5 U	8.5 U
Isophorone	ug/l	4.1 U	4.1 U	4.1 U	4.1 U
N-Nitrosodiphenylamine	ug/l	5.6 U	5.6 U	5.6 U	5.6 U
N-Nitrosodipropylamine	ug/l	5.2 U	5.2 U	5.2 U	5.2 U
Naphthalene	ug/l	5.7 U	5.7 U	5.7 U	5.7 U
Nitrobenzene	ug/l	3.5 U	3.5 U	3.5 U	3.5 U
Phenanthrene	ug/l	4.8 U	4.8 U	4.8 U	4.8 U
Pyrene	ug/l	3.2 U	3.2 U	3.2 U	3.2 U
1,2,4-Trichlorobenzene	ug/l	6.3 U	6.3 U	6.3 U	6.3 U
Metals					
Antimony	ug/l	5 U	5 U	5 U	5 U
Arsenic	ug/l	5 U	5 U	5 U	5 U
Beryllium	ug/l	1 U	1 U	2.9	6.4

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-30

SECOND ROUND GROUNDWATER SAMPLING RESULTS

MANUFACTURING BUILDING WELLS

Location I.D.		MW-18	MW-19	MW-20	UST-1
Sample I.D.		GW-MW-18	GW-MW-19	GW-MW-20	GW-UST-1
Matrix		Water	Water	Water	Water
Date Sampled		05/05/94	05/05/94	05/05/94	05/05/94
Parameter	**Units**				
Metals					
Cadmium	ug/l	2.5 U	2.5 U	2.5 U	2.5 U
Chromium	ug/l	20	84	48	10 U
Copper	ug/l	80 U	80 U	80 U	80 U
Lead	ug/l	8.8	5 U	12	17
Mercury	ug/l	1 U	1 U	1 U	1 U
Nickel	ug/l	20 U	20 U	46	73
Selenium	ug/l	5 U	5 U	5 U	5 U
Silver	ug/l	2.5 U	2.5 U	2.5 U	2.5 U
Thallium	ug/l	5 U	5 U	5 U	5 U
Zinc	ug/l	79	85	130	210
Antimony (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Beryllium (Dissolved)	ug/l	1 U	1 U	1 U	4.5
Cadmium (Dissolved)	ug/l	2.5 U	2.5 U	2.5 U	2.5 U
Chromium (Dissolved)	ug/l	1 U	80	1 U	10 U
Copper (Dissolved)	ug/l	80 U	80 U	80 U	80 U
Lead (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Mercury (Dissolved)	ug/l	1 U	1 U	1 U	1 U
Nickel (Dissolved)	ug/l	20 U	20 U	23	73
Selenium (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/l	2.5 U	2.5 U	2.5 U	2.5 U
Thallium (Dissolved)	ug/l	5 U	5 U	5 U	5 U
Zinc (Dissolved)	ug/l	55	55	49	180

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-32

SECOND ROUND GROUNDWATER SAMPLING RESULTS

UST WELLS

Location I.D.		UST-2	UST-4	UST-5	UST-7	UST-8
Sample I.D.		GW-UST-2	GW-UST-4	GW-UST-5	GW-UST-7	GW-UST-8
Matrix		Water	Water	Water	Water	Water
Date Sampled		05/05/94	05/05/94	05/05/94	05/05/94	05/05/94
Parameter	Units					
BTEX						
Benzene	ug/l	6.8	3.9 J	170	1.2 J	330
Ethylbenzene	ug/l	28	1.3 J	140	1.3 J	110
Toluene	ug/l	14	5	250	5.0	25
Xylenes	ug/l	56	1.8 J	270	1.8 J	90
Metals						
Lead	ug/l	16	5.7	41	26	17
Lead (Dissolved)	ug/l	5 U	5 U	5 U	5 U	5 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-31

FIRST ROUND GROUNDWATER SAMPLING RESULTS

UST WELLS

Location I.D.		UST-2	UST-4	UST-5	UST-7	UST-8
Sample I.D.		GW-UST-2	GW-UST-4	GW-UST-5	GW-UST-7	GW-UST-8
Matrix		Water	Water	Water	Water	Water
Date Sampled		03/23/94	03/23/94	03/23/94	03/23/94	03/23/94
Parameter	Units					
BTEX						
Benzene	ug/l	18	5 U	79	5 U	440
Ethylbenzene	ug/l	55	2 J	190	5 U	180
Toluene	ug/l	39	5 U	150	5 U	52
Xylenes	ug/l	160	4 J	590	5 U	230
Metals						
Lead	ug/l	5 U	5 U	7	5 U	6
Lead (Dissolved)	ug/l	5 U	5 U	5 U	5 U	5 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-33

SUMMARY OF QUARTERLY GROUNDWATER SAMPLES

WELL	ANALYTICAL PARAMETERS					
	VOA	BN	Metals	Phenols	Cyanide	Hexavalent Chromium
MW-1A	X	X	X	X	X	X
MW-2	X	X	X	X	X	X
MW-3	X	X	X	X	X	X
MW-4	X	X	X	X	X	X
MW-5	X	X	X	X	X	X
MW-6	X	X	X	X	X	X
MW-7	X	X	X	X	X	X
MW-7A	X	X	X	X	X	X
MW-9A	X	X	X	X	X	X
MW-10	X	X	X	X	X	X
MW-11	X	X	X	X	X	X
MW-13	X	X	X	X	X	X
MW-15	X	X	X	X	X	X
MW-15A	X	X	X	X	X	X
MW-16A	X	X	X	X	X	X

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-10	MW-11	MW-13	MW-15	MW-15A
Sample I.D.		GW-MW-10	GW-MW-11	GW-MW-13	GW-MW-15	GW-MW-15A
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/01/94	02/01/94	02/03/94	02/01/94	02/03/94
Parameter	Units					
Volatiles						
Acrolein	ug/l	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	ug/l	50 U	50 U	50 U	50 U	50 U
Benzene	ug/l	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Bromodichloromethane	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Bromoform	ug/l	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon tetrachloride	ug/l	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Chlorobenzene	ug/l	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/l	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
Chloroform	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Dibromochloromethane	ug/l	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
1,1-Dichloroethylene	ug/l	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
1,2-Dichloroethane	ug/l	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichloropropane	ug/l	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
cis-1,3-Dichloropropene	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
trans-1,3-Dichloropropene	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Ethene, (2-chloroethoxy)-	ug/l	50 U	50 U	50 U	50 U	50 U
Ethene, 1,2-dichloro-, (E)-	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Ethylbenzene	ug/l	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Methyl bromide	ug/l	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
Methyl chloride	ug/l	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Methylene chloride	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/l	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Tetrachloroethylene	ug/l	2.1 U	2.1 U	2.1 U	2.2	2.1 U
Toluene	ug/l	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
1,1,1-Trichloroethane	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	ug/l	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Trichloroethylene	ug/l	4.5	23.0	120	100	25
Vinyl chloride	ug/l	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Xylenes	ug/l	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
BNA						
Acenaphthene	ug/l	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U
Acenaphthylene	ug/l	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Anthracene	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	ug/l	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
Benzo(a)pyrene	ug/l	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Benzo(ghi)perylene	ug/l	10 U	10 U	10 U	10 U	10 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-10	MW-11	MW-13	MW-15	MW-15A
Sample I.D.		GW-MW-10	GW-MW-11	GW-MW-13	GW-MW-15	GW-MW-15A
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/01/94	02/01/94	02/03/94	02/01/94	02/03/94
Parameter	Units					
BNA						
Benzo(k)fluoranthene	ug/l	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bis(2-chloroethoxy)methane	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Bis(2-chloroethyl)ether	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/l	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
4-Bromophenyl phenyl ether	ug/l	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
Butyl benzyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/l	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	ug/l	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
Chrysene	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Di-n-butyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	ug/l	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U
Dibenzo(a,h)anthracene	ug/l	8.4 U	8.4 U	8.4 U	8.4 U	8.4 U
3,3-Dichlorobenzidine	ug/l	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Diethyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	ug/l	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U
2,4-Dinitrotoluene	ug/l	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U
Fluoranthene	ug/l	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Fluorene	ug/l	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U
Hexachlorobenzene	ug/l	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Hexachlorobutadiene	ug/l	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Hexachlorocyclopentadiene	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/l	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene	ug/l	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U
Isophorone	ug/l	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U
N-Nitrosodiphenylamine	ug/l	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U
N-Nitrosodipropylamine	ug/l	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
Naphthalene	ug/l	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
Nitrobenzene	ug/l	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Phenanthrene	ug/l	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Pyrene	ug/l	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
1,2,4-Trichlorobenzene	ug/l	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U
Metals						
Arsenic	ug/l	5 U	5 U	5 U	5 U	5 U
Cadmium	ug/l	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chromium	ug/l	10 U	10 U	10 U	37	10 U
Copper	ug/l	80 U	92	80 U	80 U	80 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-10	MW-11	MW-13	MW-15	MW-15A
Sample I.D.		GW-MW-10	GW-MW-11	GW-MW-13	GW-MW-15	GW-MW-15A
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/01/94	02/01/94	02/03/94	02/01/94	02/03/94
Parameter	**Units**					
Metals						
Lead	ug/l	5 U	5.1	5 U	5 U	5 U
Mercury	ug/l	1 U	1 U	1 U	1 U	1 U
Nickel	ug/l	50 U	50 U	50 U	50 U	50 U
MISC						
Cyanide	mg/l	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenolics, Total Recoverable	ug/l	100 U	100 U	100 U	100 U	100 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-16A	MW-1A	MW-2	MW-3	MW-4
Sample I.D.		GW-MW-16A	GW-MW-1A	GW-MW-2	GW-MW-3	GW-MW-4
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/03/94	02/03/94	02/01/94	02/01/94	02/01/94
Parameter	Units					
Volatiles						
Acrolein	ug/l	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	ug/l	50 U	50 U	50 U	50 U	50 U
Benzene	ug/l	1.2 U	1.2 U	1.2 U	1.2 U	8.8
Bromodichloromethane	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Bromoform	ug/l	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon tetrachloride	ug/l	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Chlorobenzene	ug/l	1.0 U	1.0 U	1.0 U	1.0 U	78.0
Chloroethane	ug/l	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
Chloroform	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Dibromochloromethane	ug/l	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	ug/l	1.6 U	1.6 U	1.6 U	3.3	1.6 U
1,1-Dichloroethylene	ug/l	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
1,2-Dichloroethane	ug/l	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichloropropane	ug/l	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
cis-1,3-Dichloropropene	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
trans-1,3-Dichloropropene	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Ethene, (2-chloroethoxy)-	ug/l	50 U	50 U	50 U	50 U	50 U
Ethene, 1,2-dichloro-, (E)-	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Ethylbenzene	ug/l	1.3 U	1.3 U	1.3 U	1.3 U	30.0
Methyl bromide	ug/l	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
Methyl chloride	ug/l	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Methylene chloride	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/l	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Tetrachloroethylene	ug/l	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Toluene	ug/l	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
1,1,1-Trichloroethane	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	ug/l	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Trichloroethylene	ug/l	3.4	4.0	13.0	14.0	1.1 U
Vinyl chloride	ug/l	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Xylenes	ug/l	1.8 U	1.8 U	1.8 U	4.9	110.0
BNA						
Acenaphthene	ug/l	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U
Acenaphthylene	ug/l	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Anthracene	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	ug/l	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
Benzo(a)pyrene	ug/l	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Benzo(ghi)perylene	ug/l	10 U	10 U	10 U	10 U	10 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-16A	MW-1A	MW-2	MW-3	MW-4
Sample I.D.		GW-MW-16A	GW-MW-1A	GW-MW-2	GW-MW-3	GW-MW-4
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/03/94	02/03/94	02/01/94	02/01/94	02/01/94
Parameter	Units					
BNA						
Benzo(k)fluoranthene	ug/l	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bis(2-chloroethoxy)methane	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Bis(2-chloroethyl)ether	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/l	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
4-Bromophenyl phenyl ether	ug/l	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
Butyl benzyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/l	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	ug/l	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
Chrysene	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Di-n-butyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	ug/l	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U
Dibenzo(a,h)anthracene	ug/l	8.4 U	8.4 U	8.4 U	8.4 U	8.4 U
3,3-Dichlorobenzidine	ug/l	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Diethyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	ug/l	8.3 U	8.3 U	8.3 U	8.3 U	13
2,4-Dinitrotoluene	ug/l	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U
Fluoranthene	ug/l	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Fluorene	ug/l	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U
Hexachlorobenzene	ug/l	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Hexachlorobutadiene	ug/l	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Hexachlorocyclopentadiene	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/l	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene	ug/l	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U
Isophorone	ug/l	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U
N-Nitrosodiphenylamine	ug/l	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U
N-Nitrosodipropylamine	ug/l	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
Naphthalene	ug/l	5.7 U	5.7 U	5.7 U	5.7 U	13
Nitrobenzene	ug/l	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Phenanthrene	ug/l	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Pyrene	ug/l	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
1,2,4-Trichlorobenzene	ug/l	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U
Metals						
Arsenic	ug/l	5 U	5 U	5 U	5 U	5 U
Cadmium	ug/l	2.5 U	2.5 U	14	2.5 U	2.5 U
Chromium	ug/l	10 U	10 U	12	10 U	10 U
Copper	ug/l	80 U	80 U	80 U	80 U	80 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-16A	MW-1A	MW-2	MW-3	MW-4
Sample I.D.		GW-MW-16A	GW-MW-1A	GW-MW-2	GW-MW-3	GW-MW-4
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/03/94	02/03/94	02/01/94	02/01/94	02/01/94
Parameter	Units					
Metals						
Lead	ug/l	5 U	5 U	5 U	5 U	5 U
Mercury	ug/l	1 U	1 U	1 U	1 U	1 U
Nickel	ug/l	50 U	50 U	50 U	50 U	120
MISC						
Cyanide	mg/l	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenolics, Total Recoverable	ug/l	100 U	100 U	100 U	100 U	100 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-5	MW-6	MW-7	MW-7A	MW-9A
Sample I.D.		GW-MW-5	GW-MW-6	GW-MW-7	GW-MW-7A	GW-MW-9A
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/01/94	02/01/94	02/01/94	02/03/94	02/03/94
Parameter	Units					
Volatiles						
Acrolein	ug/l	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	ug/l	50 U	50 U	50 U	50 U	50 U
Benzene	ug/l	2.2	23.0	9.0	1.2 U	1.2 U
Bromodichloromethane	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Bromoform	ug/l	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon tetrachloride	ug/l	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Chlorobenzene	ug/l	6.7	47.0	38.0	1.0 U	1.0 U
Chloroethane	ug/l	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
Chloroform	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Dibromochloromethane	ug/l	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
1,1-Dichloroethylene	ug/l	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
1,2-Dichloroethane	ug/l	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichloropropane	ug/l	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
cis-1,3-Dichloropropene	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
trans-1,3-Dichloropropene	ug/l	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Ethene, (2-chloroethoxy)-	ug/l	50 U	50 U	50 U	50 U	50 U
Ethene, 1,2-dichloro-, (E)-	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	4.9
Ethylbenzene	ug/l	4.4	1.3 U	20.0	1.3 U	1.3 U
Methyl bromide	ug/l	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
Methyl chloride	ug/l	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Methylene chloride	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/l	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Tetrachloroethylene	ug/l	2.1 U	2.1	2.1 U	2.1 U	2.1 U
Toluene	ug/l	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
1,1,1-Trichloroethane	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	ug/l	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Trichloroethylene	ug/l	1.1 U	1.1 U	1.1 U	1.1 U	2.8
Vinyl chloride	ug/l	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Xylenes	ug/l	6.5	1.9	41.0	1.8 U	1.8 U
BNA						
Acenaphthene	ug/l	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U
Acenaphthylene	ug/l	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Anthracene	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	ug/l	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
Benzo(a)pyrene	ug/l	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Benzo(ghi)perylene	ug/l	10 U	10 U	10 U	10 U	10 U

See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-5	MW-6	MW-7	MW-7A	MW-9A
Sample I.D.		GW-MW-5	GW-MW-6	GW-MW-7	GW-MW-7A	GW-MW-9A
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/01/94	02/01/94	02/01/94	02/03/94	02/03/94
Parameter	Units					
BNA						
Benzo(k)fluoranthene	ug/l	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bis(2-chloroethoxy)methane	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Bis(2-chloroethyl)ether	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Bis(2-ethylhexyl)phthalate (BEHP)	ug/l	5.9 U	5.9 U	5.9 U	5.9 U	5.9 U
4-Bromophenyl phenyl ether	ug/l	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
Butyl benzyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/l	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	ug/l	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
Chrysene	ug/l	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Di-n-butyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	ug/l	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U
Dibenzo(a,h)anthracene	ug/l	8.4 U	8.4 U	8.4 U	8.4 U	8.4 U
3,3-Dichlorobenzidine	ug/l	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Diethyl phthalate	ug/l	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	ug/l	8.3 U	12	140	8.3 U	8.3 U
2,4-Dinitrotoluene	ug/l	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U
Fluoranthene	ug/l	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Fluorene	ug/l	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U
Hexachlorobenzene	ug/l	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Hexachlorobutadiene	ug/l	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Hexachlorocyclopentadiene	ug/l	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/l	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene	ug/l	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U
Isophorone	ug/l	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U
N-Nitrosodiphenylamine	ug/l	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U
N-Nitrosodipropylamine	ug/l	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
Naphthalene	ug/l	5.7 U	5.7 U	55	5.7 U	5.7 U
Nitrobenzene	ug/l	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Phenanthrene	ug/l	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Pyrene	ug/l	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
1,2,4-Trichlorobenzene	ug/l	6.3 U	6.3 U	6.3 U	6.3 U	10
Metals						
Arsenic	ug/l	5 U	5 U	5 U	5 U	5 U
Cadmium	ug/l	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chromium	ug/l	10 U	25	22	10 U	10 U
Copper	ug/l	80 U	80 U	80 U	80 U	80 U

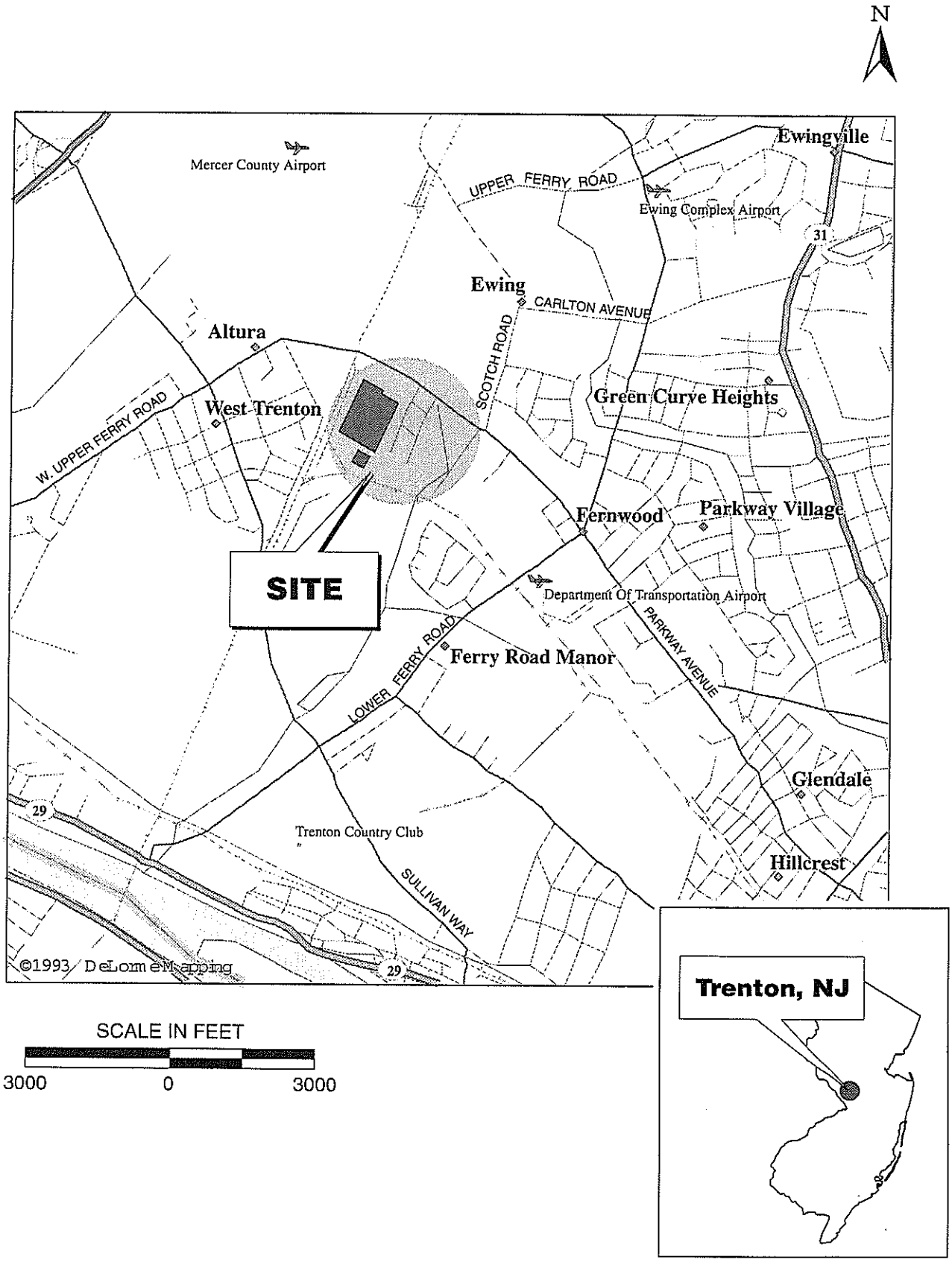
See Section 4.7.3 for explanation of Data Qualifiers.

TABLE 5-34

QUARTERLY GROUNDWATER SAMPLING RESULTS

Location I.D.		MW-5	MW-6	MW-7	MW-7A	MW-9A
Sample I.D.		GW-MW-5	GW-MW-6	GW-MW-7	GW-MW-7A	GW-MW-9A
Matrix		Water	Water	Water	Water	Water
Date Sampled		02/01/94	02/01/94	02/01/94	02/03/94	02/03/94
Parameter	Units					
Metals						
Lead	ug/l	5 U	7.2	5 U	5 U	5 U
Mercury	ug/l	1 U	1 U	2.4	1 U	1 U
Nickel	ug/l	160	50 U	450	50 U	50 U
MISC						
Cyanide	mg/l	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenolics, Total Recoverable	ug/l	100 U	140	100 U	100 U	100 U

See Section 4.7.3 for explanation of Data Qualifiers.



AG5497-35355.01-011194

URS CONSULTANTS, INC.

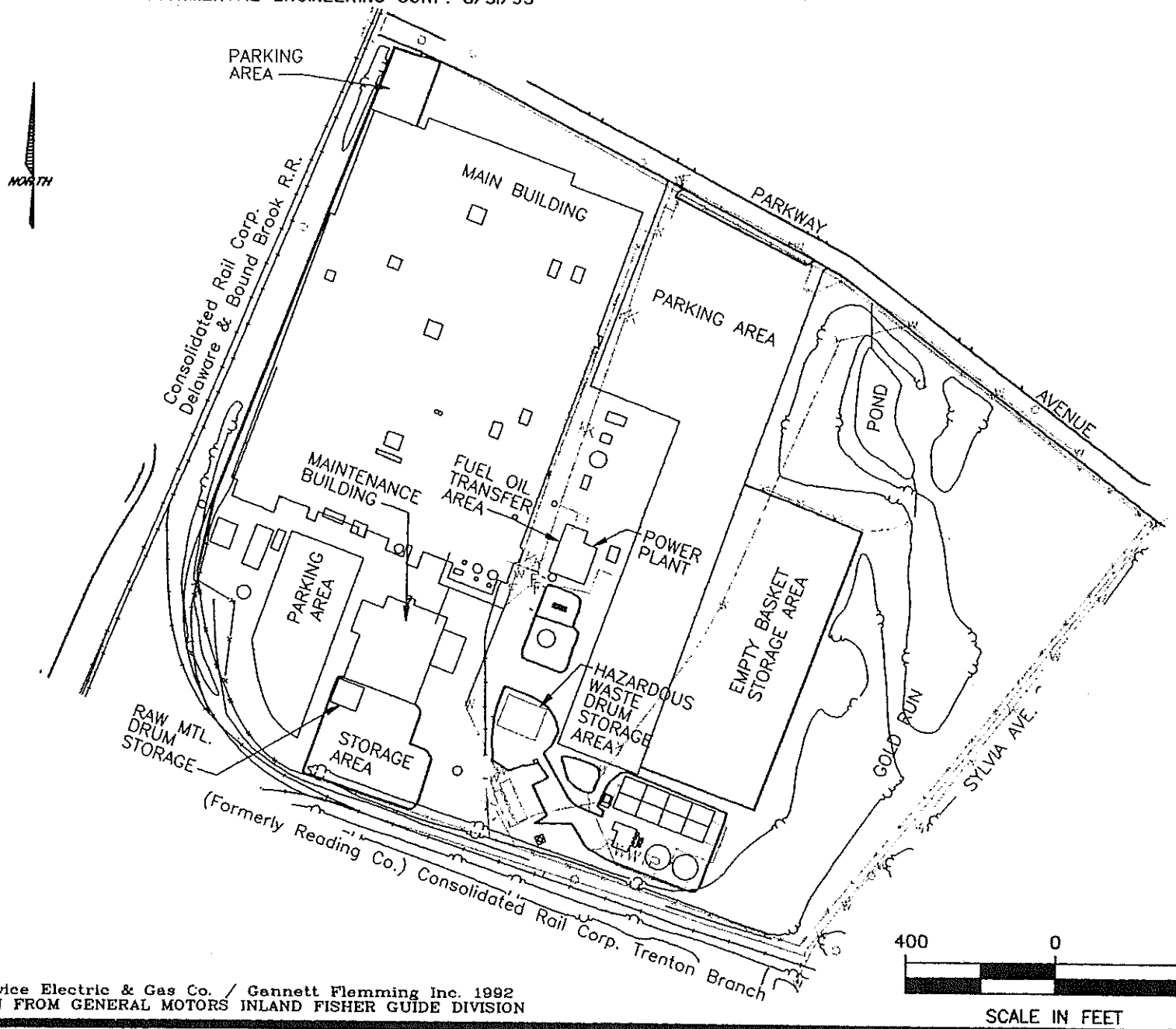
GM - DELPHI TRENTON PLANT
SITE LOCATION MAP

FIGURE 2-1

AC-5503A

/35355/CAD/ 1=400 6/2/97-5 HBB

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



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URS CONSULTANTS, INC.

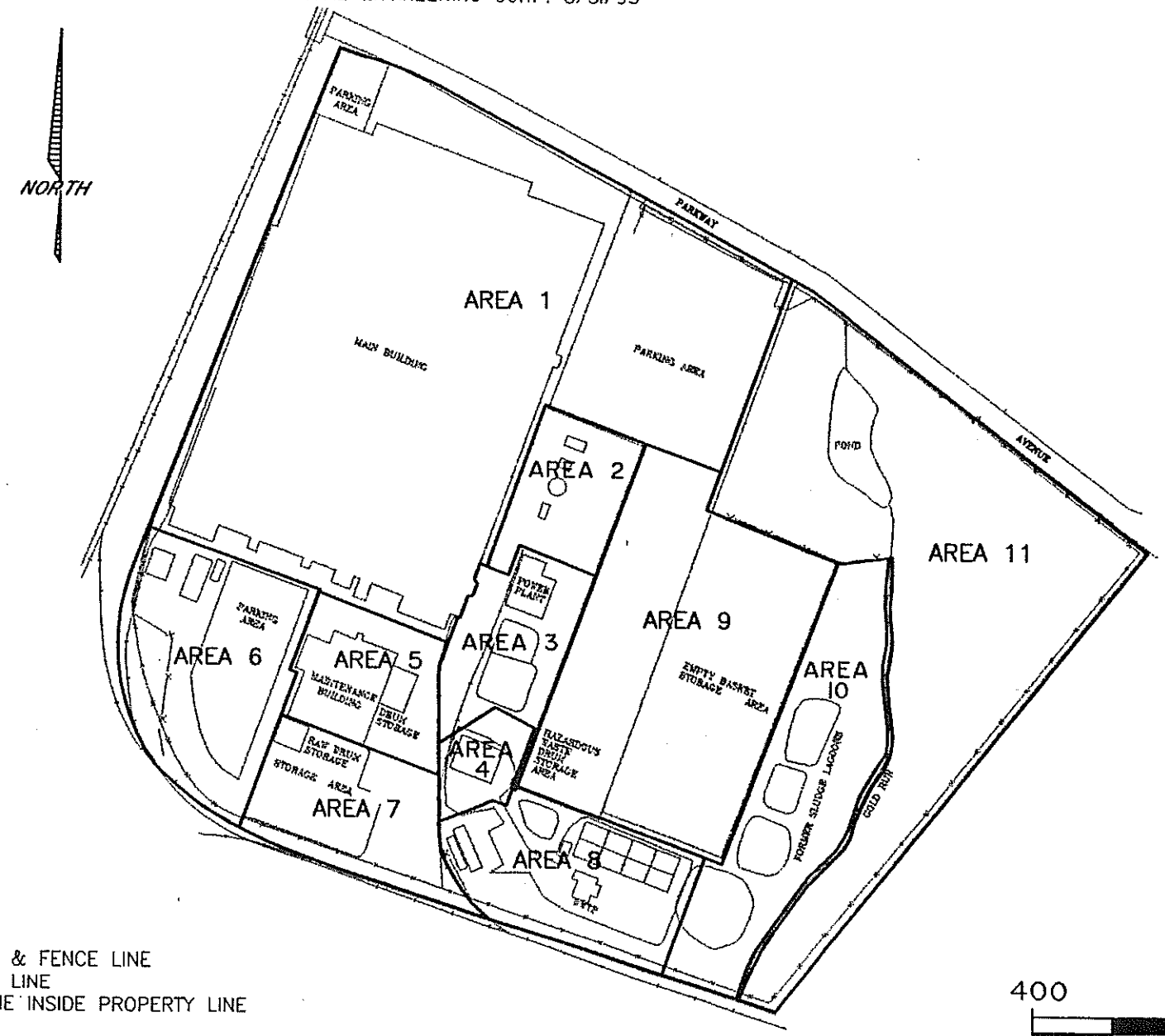
SITE PLAN

FIGURE 2-2

AC-6089

/0535355/ 1=400 7/28/94 -1 RAL

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- PROPERTY & FENCE LINE
- PROPERTY LINE
- FENCE LINE INSIDE PROPERTY LINE

400 0 400

SCALE IN FEET

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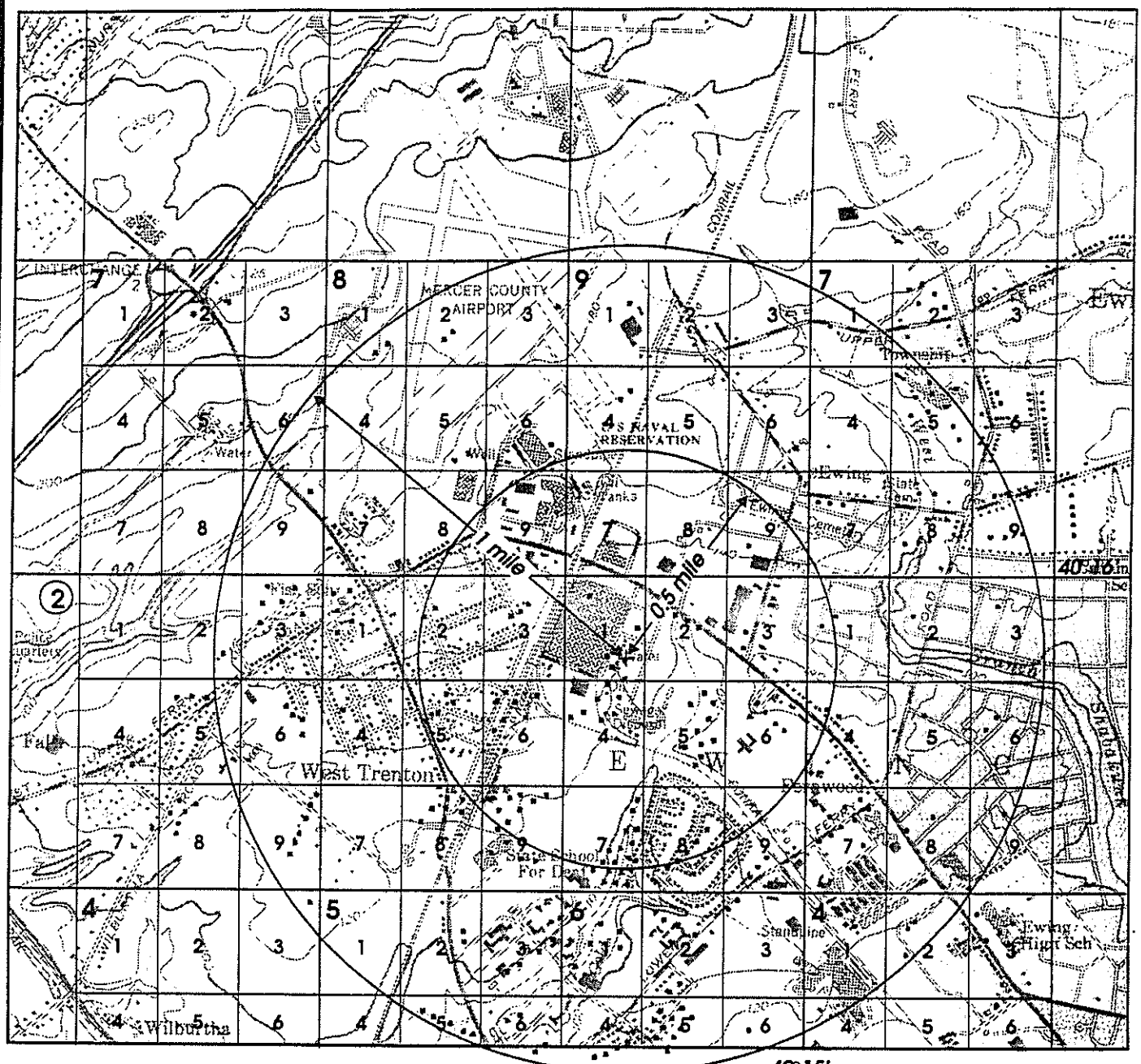
AREA LOCATION MAP

FIGURE 2-3



AG5887-35355.00-072894

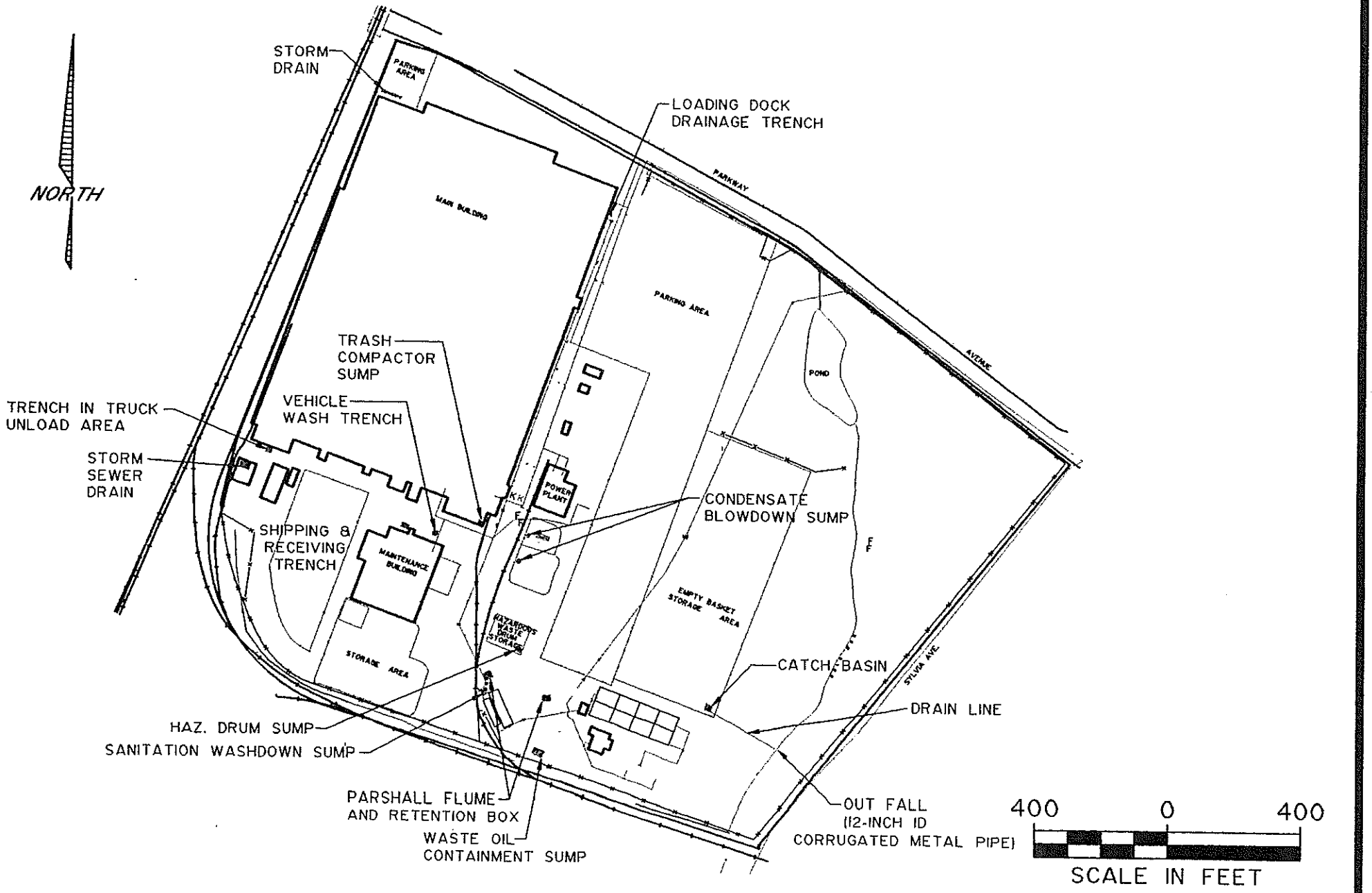
URS CONSULTANTS, INC.

APPROXIMATE LOCATIONS OF WELLS WITHIN A ONE MILE RADIUS

FIGURE 3-1

AC-6121

\35355\CAD\ 1=400 5/27/97-4 HBB

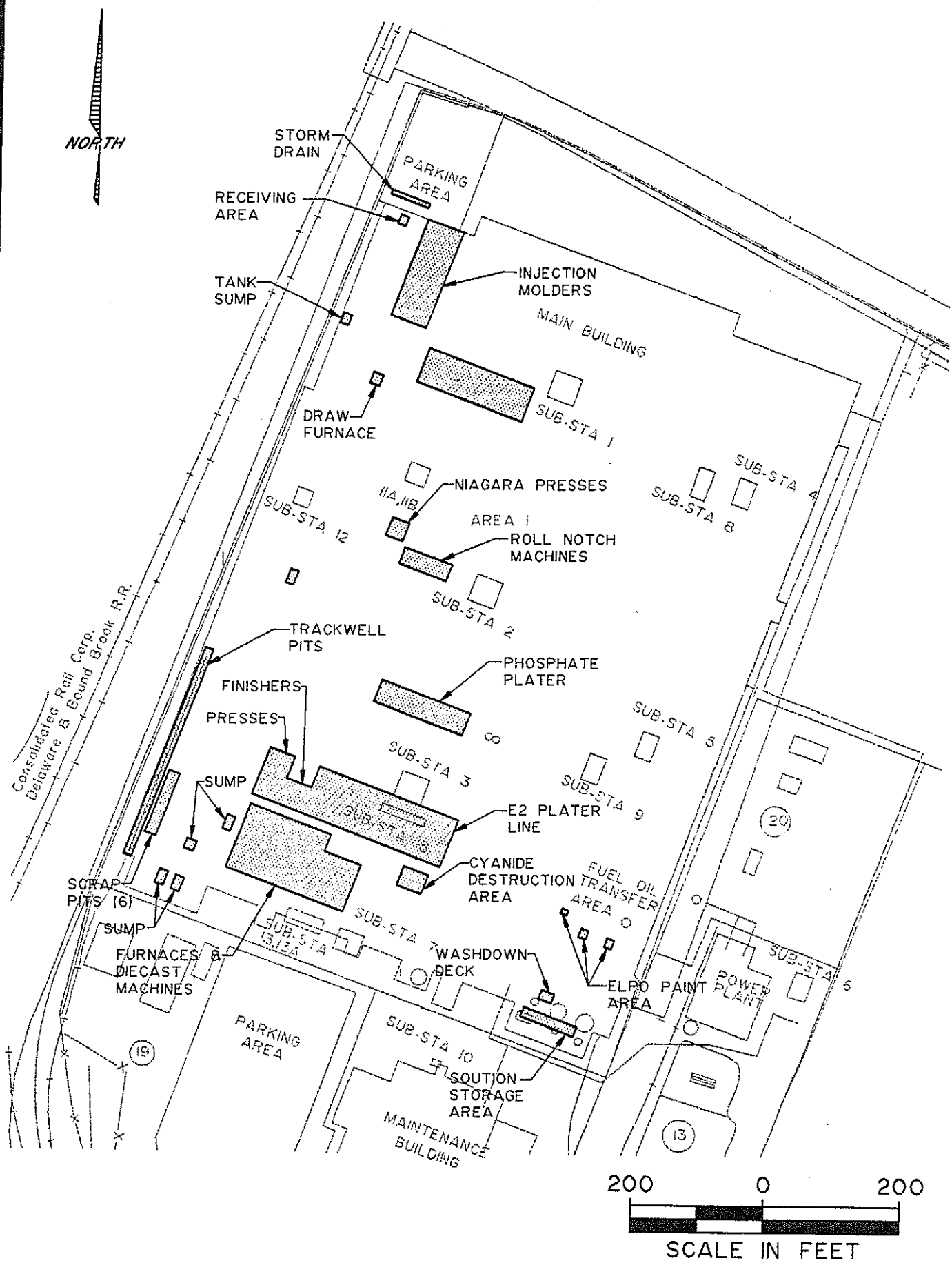


URS CONSULTANTS, INC.

GM - DELPHI - TRENTON PLANT
APPROXIMATE LOCATION OF EXTERIOR PITS, SUMPS & TRENCHES

FIGURE 4-1

\35355\ 1=200 8/10/94-2 FAO

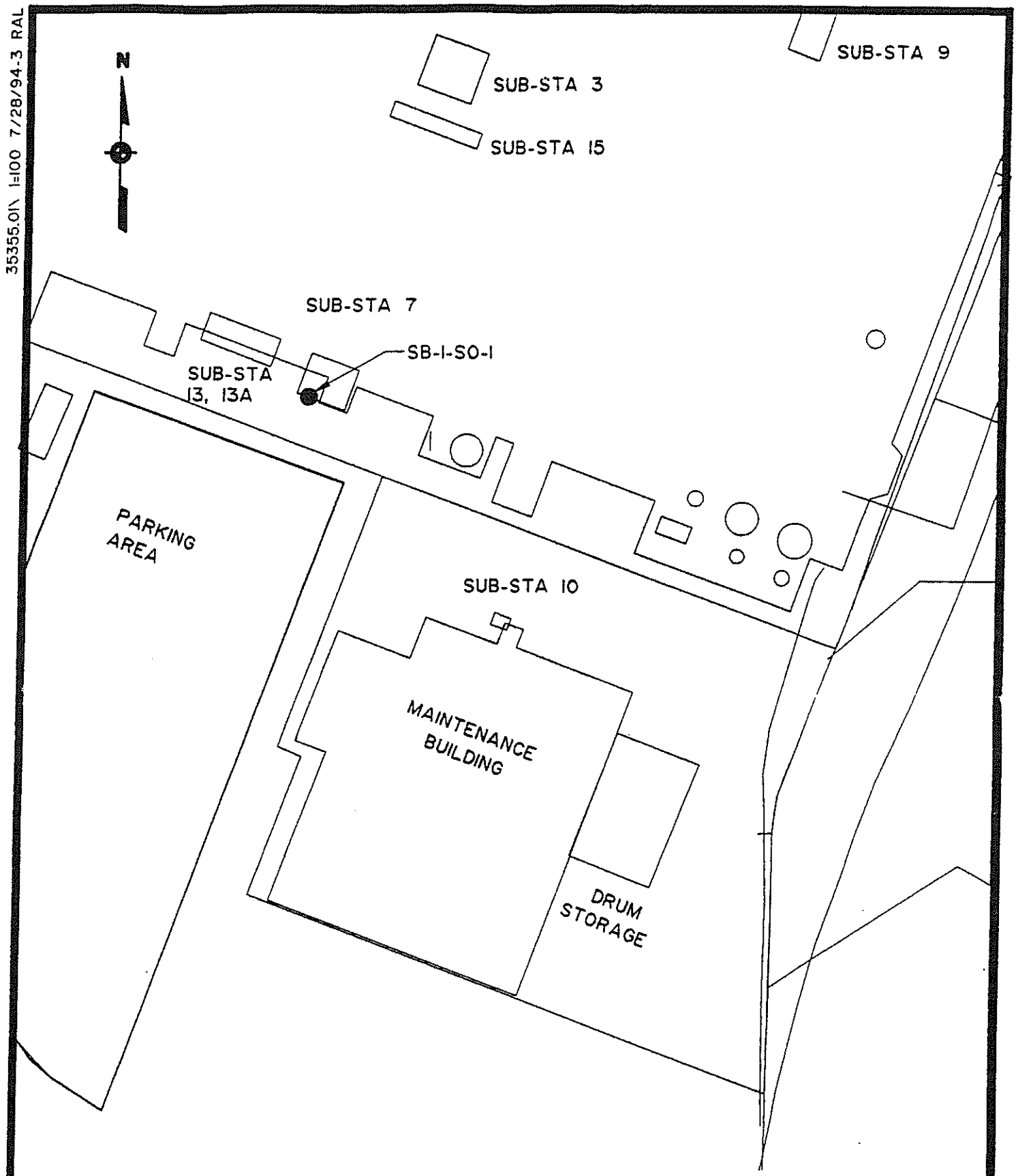


AC-6123

URS CONSULTANTS, INC.

APPROXIMATE LOCATIONS OF INTERIOR PITS, SUMPS, AND TRENCHES IN MAIN BUILDING

FIGURE 4-2



AC-5847

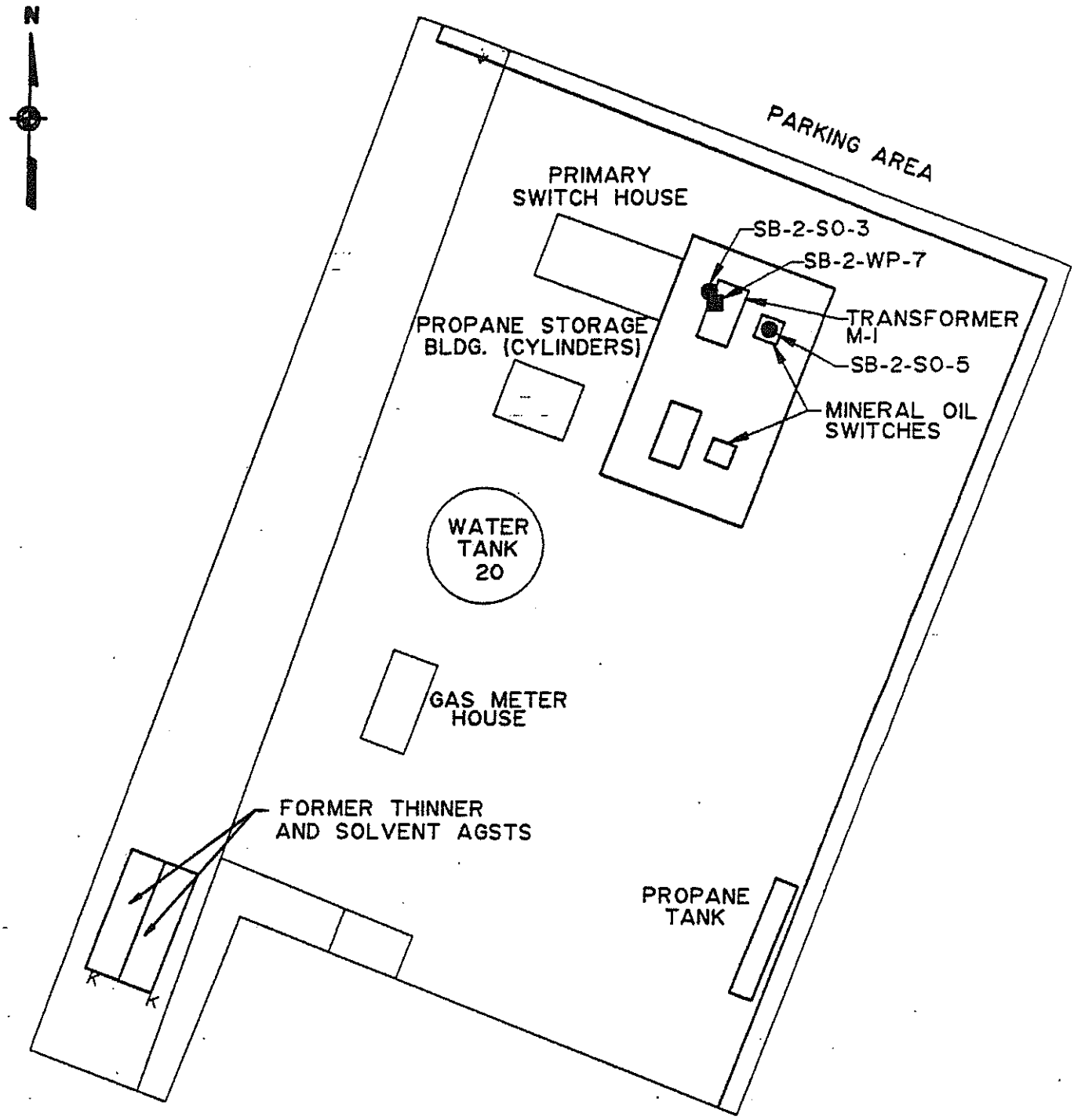
URS CONSULTANTS, INC.

AREA 1 - PRESS STORAGE AREA
SOIL BORING LOCATION

FIGURE 5-1

/0535355/ 1:60 7/29/94-7 RA

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

■ WIPE SAMPLE

● SOIL BORING LOCATION

60 0 60

SCALE IN FEET

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URS CONSULTANTS, INC.

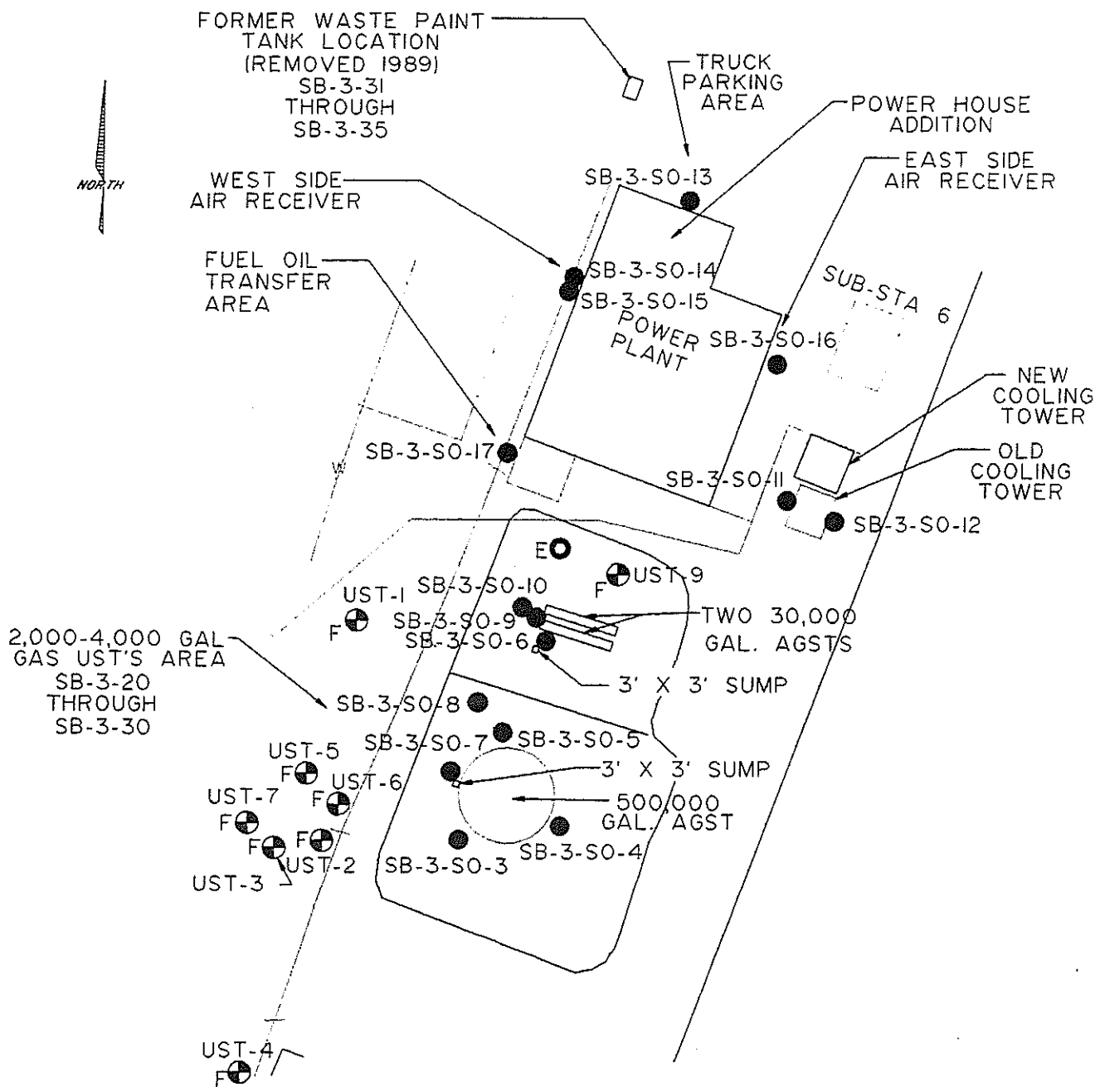
AREA 2 - ABOVE GROUND STORAGE TANK/TRANSFORMER AREA SOIL BORING AND WIPE SAMPLE LOCATIONS

FIGURE 5-2

AC-5487A

J:\35355\ I=80 7/17/97-8 HBB

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- MAIN SANITARY SEWER ON EASEMENT 20' WIDE (TO EWING TWP.)
- PROPERTY & FENCE LINE
- PROPERTY LINE
- FENCE LINE INSIDE PROPERTY LINE
- APPROXIMATE EXISTING MONITORING WELL LOCATION
- SOIL BORING LOCATION

80 0 80

SCALE IN FEET

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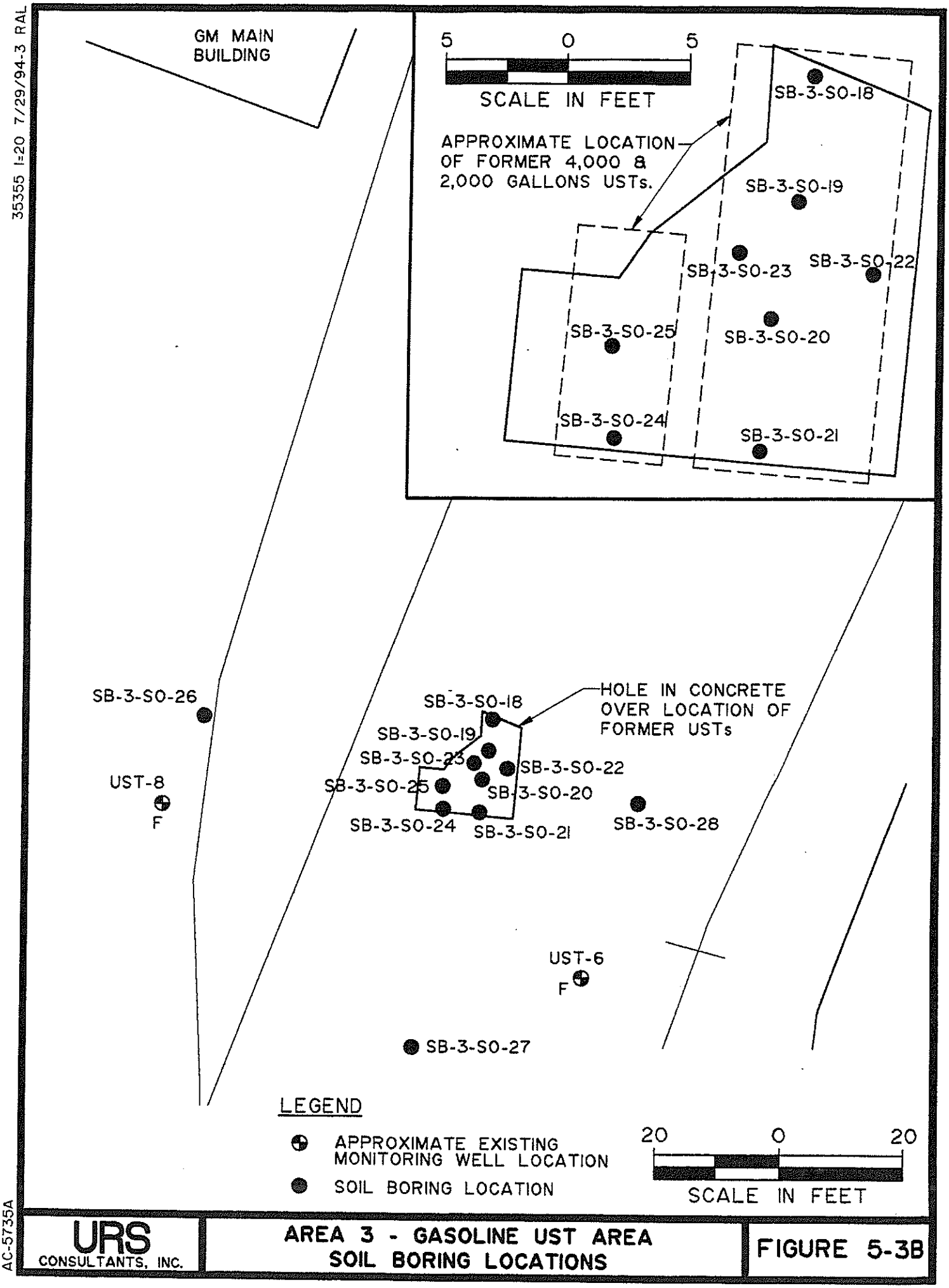
URS CONSULTANTS, INC.

AREA 3 - POWER STATION AND FUEL STORAGE SOIL BORING LOCATIONS

FIGURE 5-3A

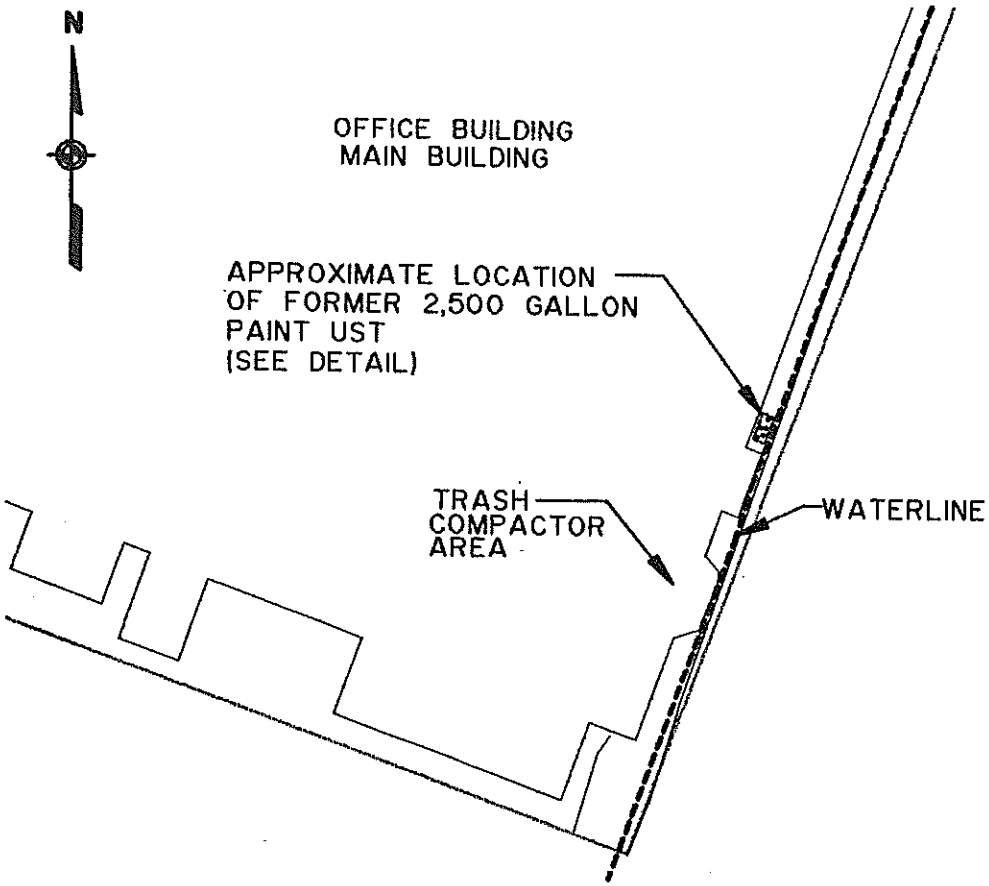
AC-5488A

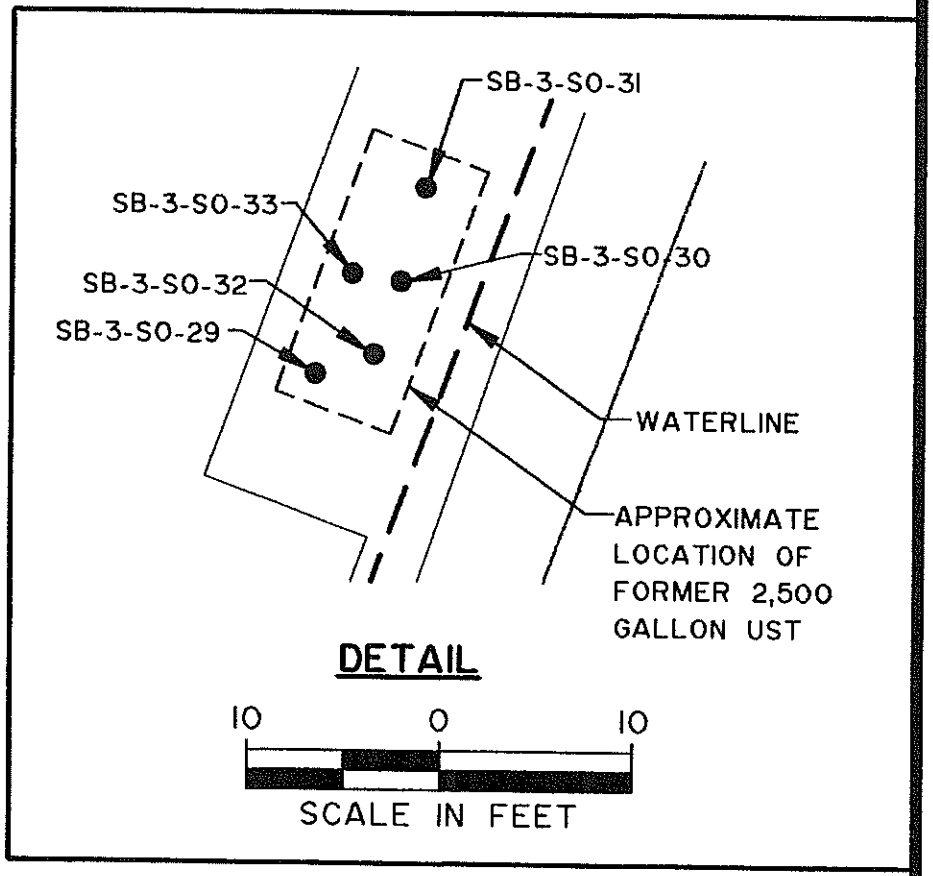

35355 1=20 7/29/94-3 RAL
GM MAIN BUILDING
5 0 5
SCALE IN FEET
APPROXIMATE LOCATION OF FORMER 4,000 & 2,000 GALLONS USTs.
SB-3-SO-18
SB-3-SO-19
SB-3-SO-23
SB-3-SO-22
SB-3-SO-25
SB-3-SO-20
SB-3-SO-24
SB-3-SO-21
SB-3-SO-26
UST-8
F
SB-3-SO-18
HOLE IN CONCRETE OVER LOCATION OF FORMER USTs
SB-3-SO-19
SB-3-SO-23
SB-3-SO-22
SB-3-SO-25
SB-3-SO-20
SB-3-SO-24
SB-3-SO-21
SB-3-SO-28
UST-6
F
SB-3-SO-27
LEGEND
APPROXIMATE EXISTING MONITORING WELL LOCATION
SOIL BORING LOCATION
20 0 20
SCALE IN FEET
AC-5735A
URS CONSULTANTS, INC.
AREA 3 - GASOLINE UST AREA
SOIL BORING LOCATIONS
FIGURE 5-3B

AC-5778

/35355.01/ 1=100 8/3/94-4 PAL

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93





LEGEND

● SOIL BORING LOCATION

100 0 100

SCALE IN FEET

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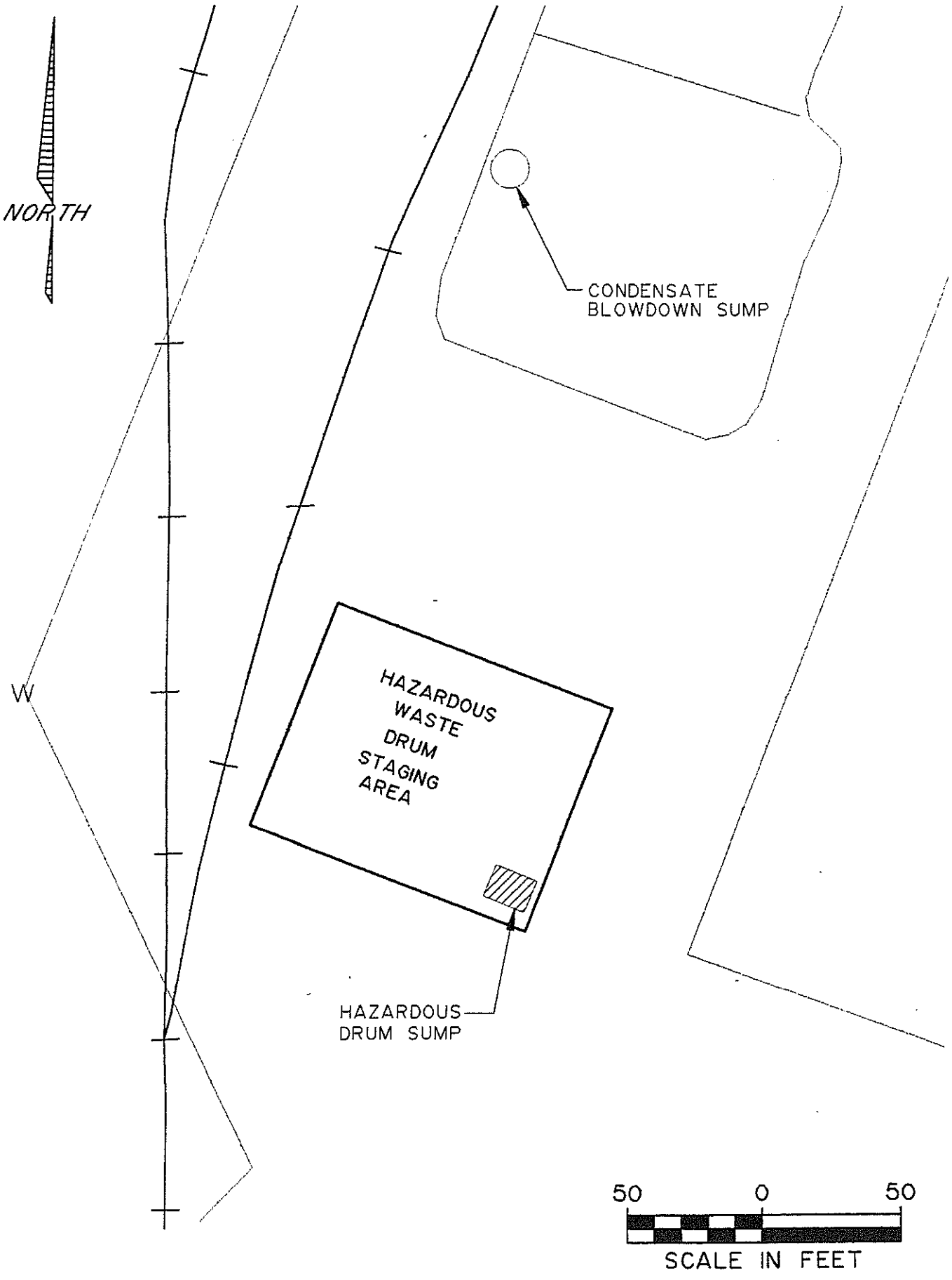
URS CONSULTANTS, INC.

AREA 3 - PAINT UST AREA SOIL BORING LOCATIONS

FIGURE 5-3C

/35355/ 1=50 5/27/97-3 HBB



AC-6132

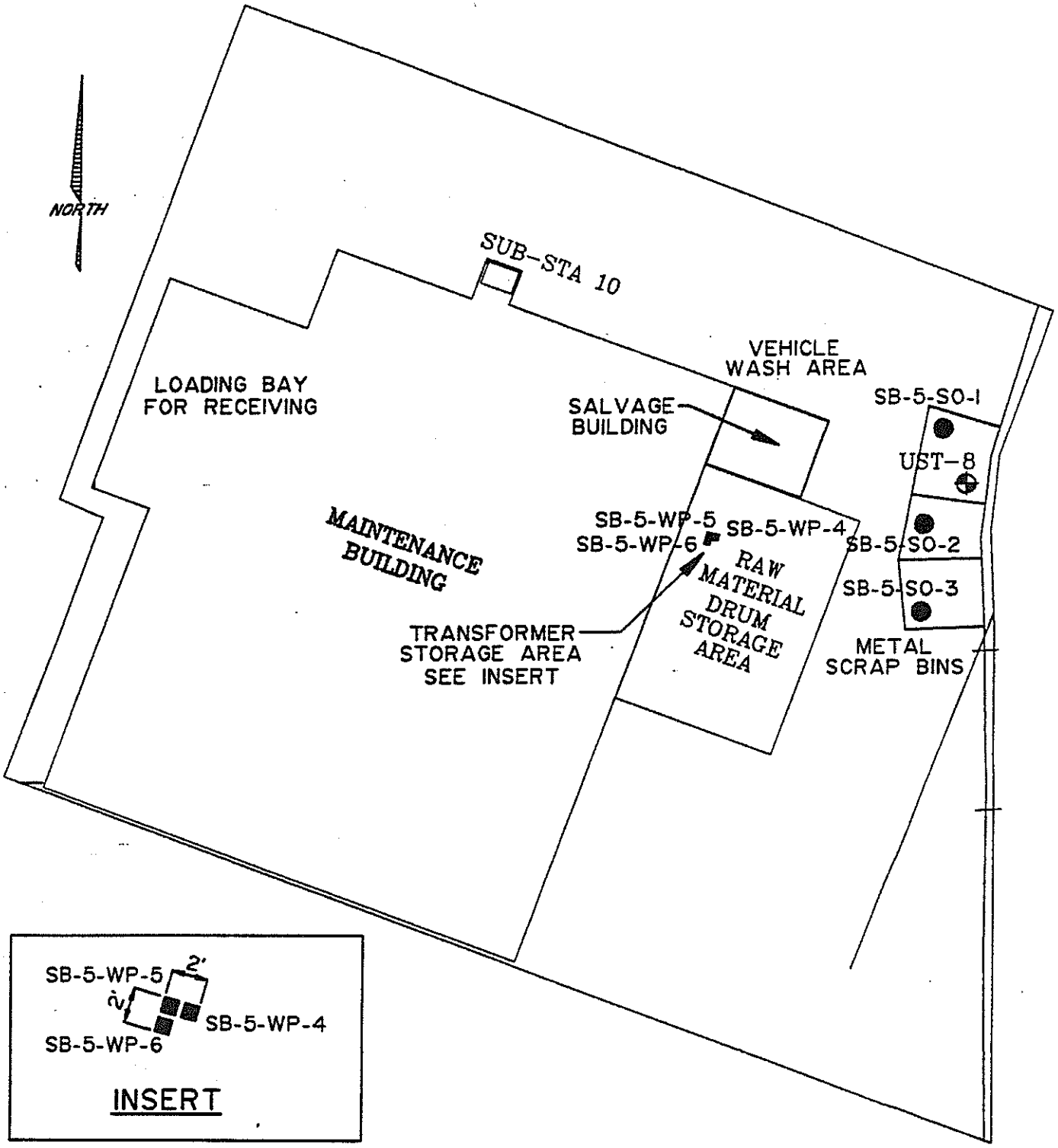
URS CONSULTANTS, INC.

AREA 4 - HAZARDOUS WASTE DRUM STAGING AREA

FIGURE 5-4

/0535355/ [illegible] 8/11/94-4 RAI

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- WIPE SAMPLE LOCATION

60 0 60

SCALE IN FEET

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URS CONSULTANTS, INC.

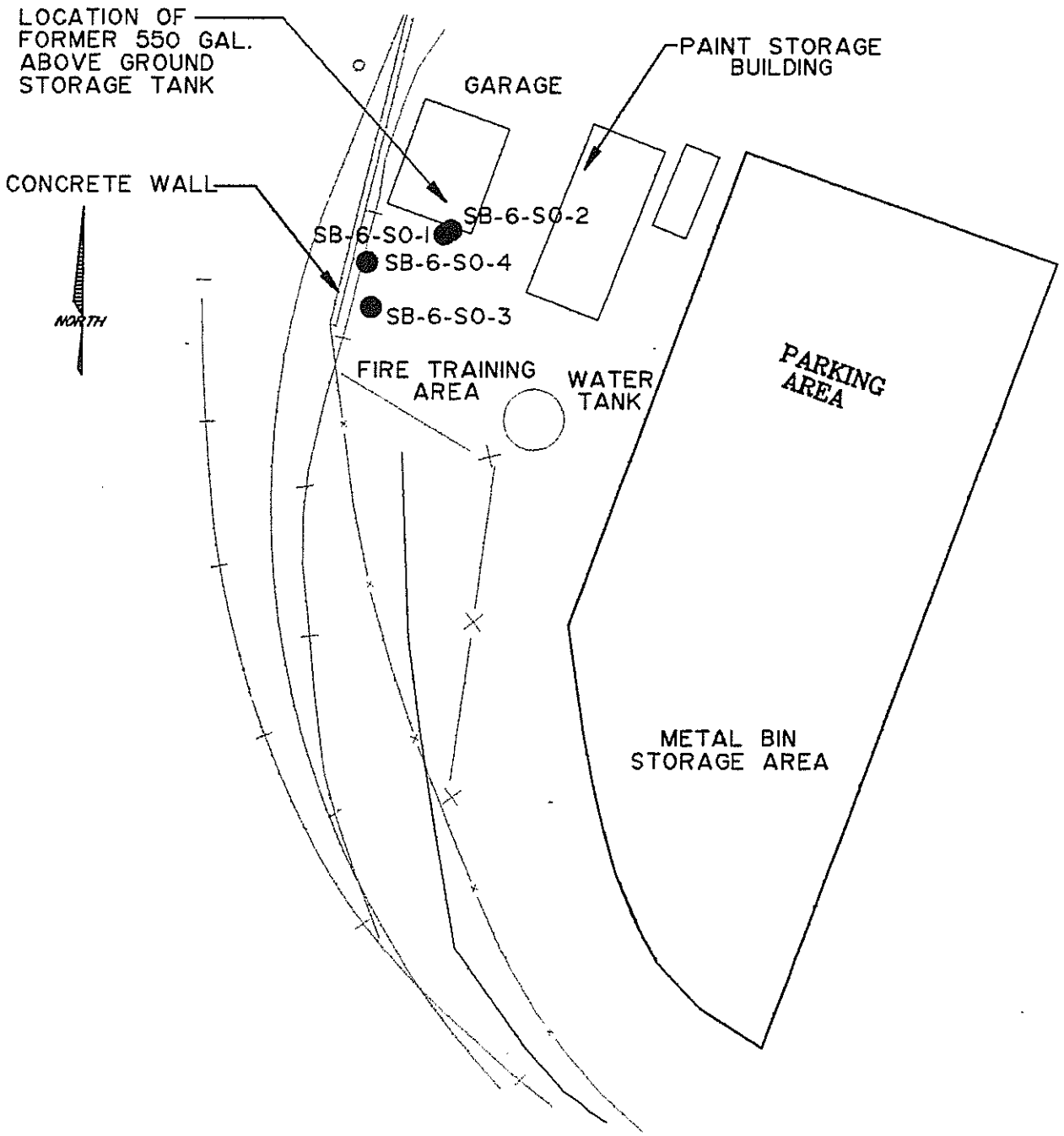
AREA 5 - SCRAP METAL BINS/TRANSFORMER STORAGE AREA SOIL BORING AND WIPE SAMPLE LOCATIONS

FIGURE 5-5

AC-6102

\35355\CAD\ 1=100 5/27/97-3 HBB

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

FENCE LINE INSIDE PROPERTY LINE

SOIL BORING LOCATION

100 0 100

SCALE IN FEET

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URS CONSULTANTS, INC.

AREA 6 - FIRE FIGHTING PRACTICE/FORMER 550-GALLON AST SOIL BORING LOCATIONS

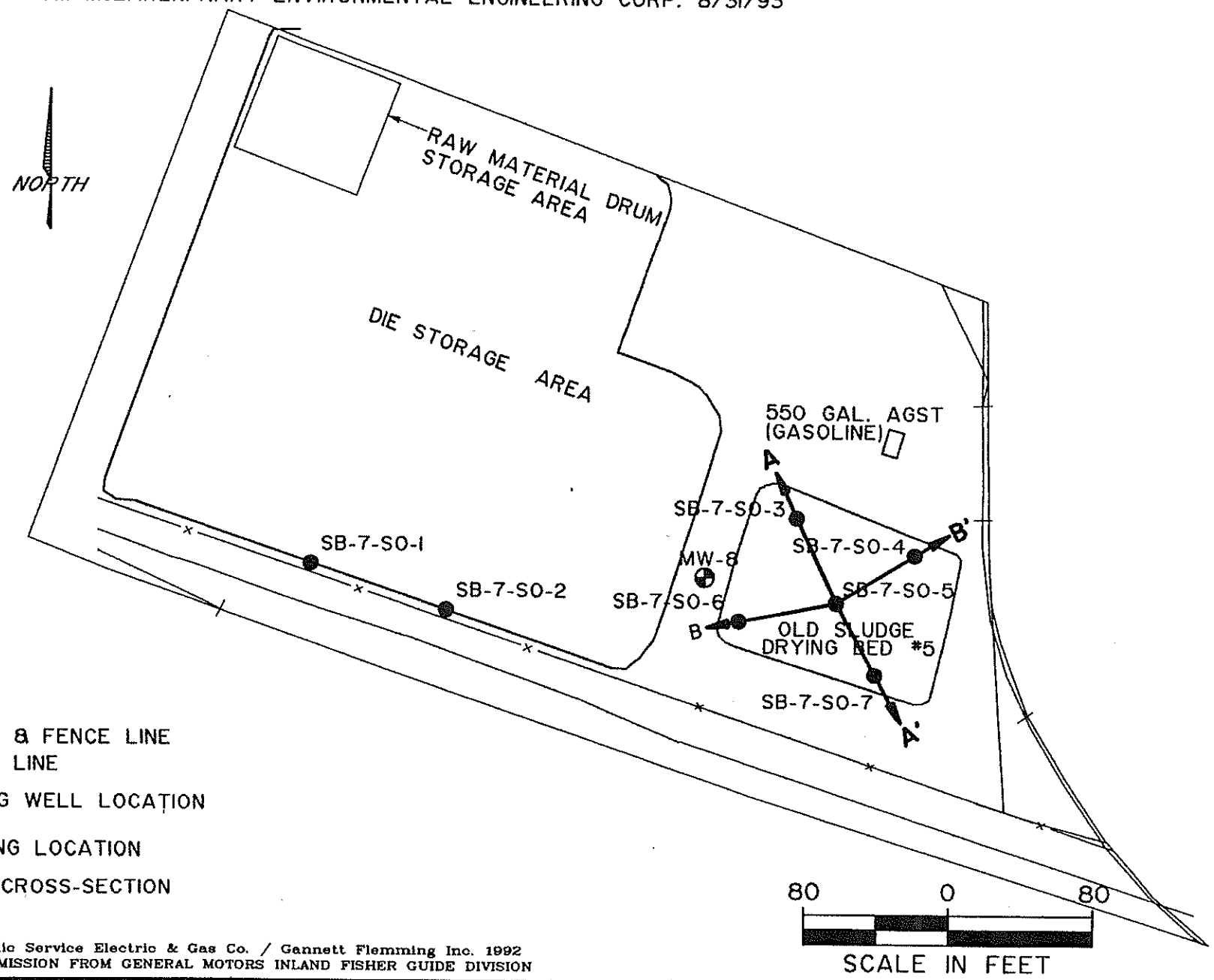
FIGURE 5-6

AC-6107

AC-5492A

/0535355/ I=80 8/10/94-7 FAO

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- PROPERTY & FENCE LINE
- PROPERTY LINE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- A GEOLOGIC CROSS-SECTION

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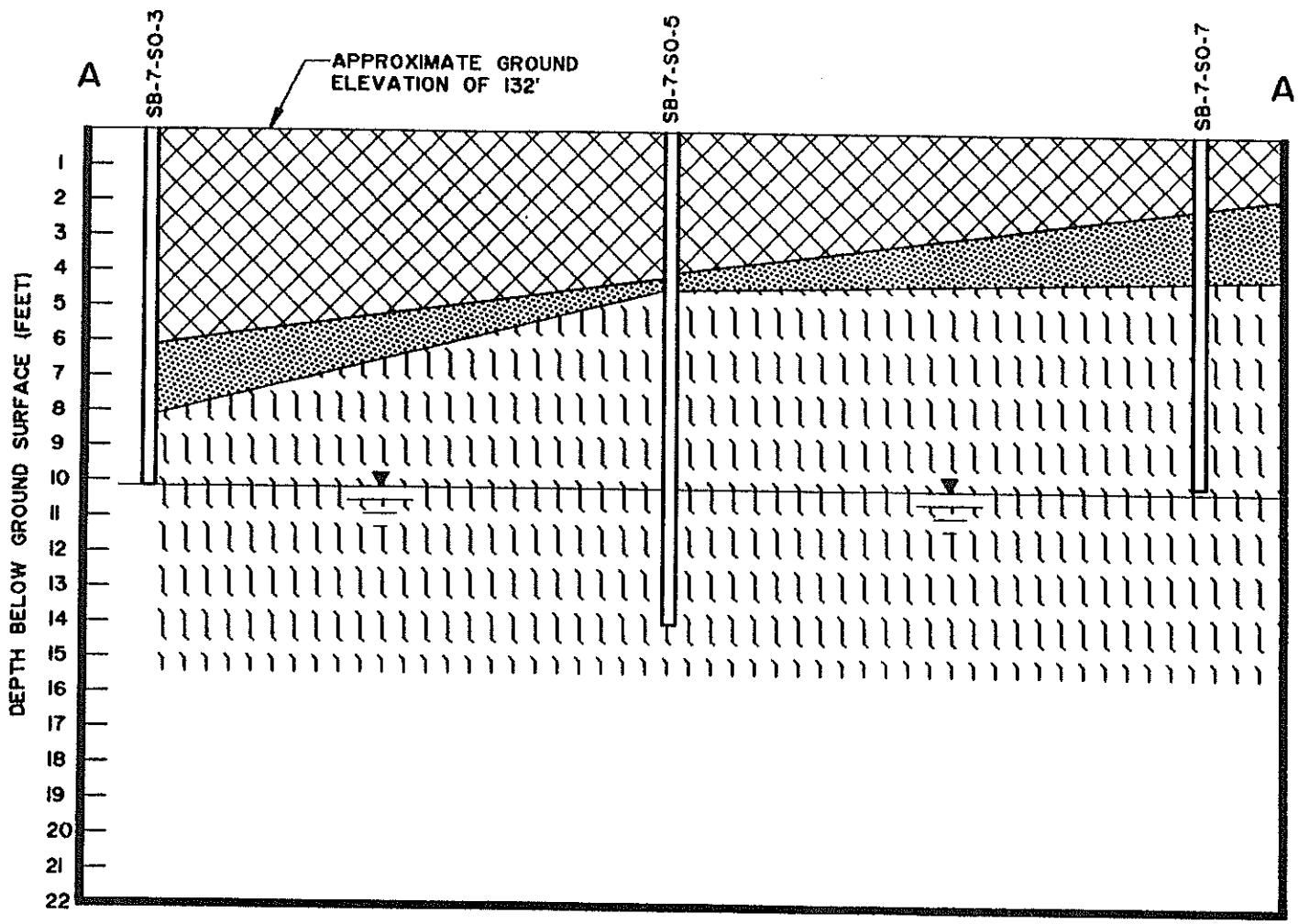
URS CONSULTANTS, INC.

AREA 7 DIE STORAGE / FORMER SLUDGE DRYING BED NO. 5 SOIL BORING LOCATIONS

FIGURE 5-7

AC-5899

\35355.01\ 1=1' 8/1/94-3 MAB



NOTES:

1. SURFACE ELEVATIONS ARE ASSUMED TO BE APPROXIMATELY 132' AMSL BASED UPON THE GROUND ELEVATION AT MONITORING WELL MW-8.
2. THE WATER TABLE SHOWN IS APPROXIMATE BASED UPON THE DEPTH TO WATER MEASURED IN WELL MW-8 ON 2/28/94.
3. GEOLOGIC CONDITIONS SHOWN ARE REPRESENTATIVE OF CONDITIONS ENCOUNTERED AT EACH BORING LOCATION TO THE DEPTH DRILLED. EXTRAPOLATIONS BETWEEN BORINGS HAVE BEEN INTERPRETED USING STANDARD PRACTICES AND PRINCIPLES. ACTUAL CONDITIONS MAY VARY BETWEEN BORINGS FROM THOSE SHOWN.

LEGEND

FILL OF VARYING COMPOSITION (SANDY TO SILTY)

SLUDGE/SANDY FILL MIXED WITH SLUDGE

SILT WITH VARYING AMOUNTS OF CLAY

SB-7-SO-7

SOIL BORING

10 0 10

HORIZ. SCALE IN FEET

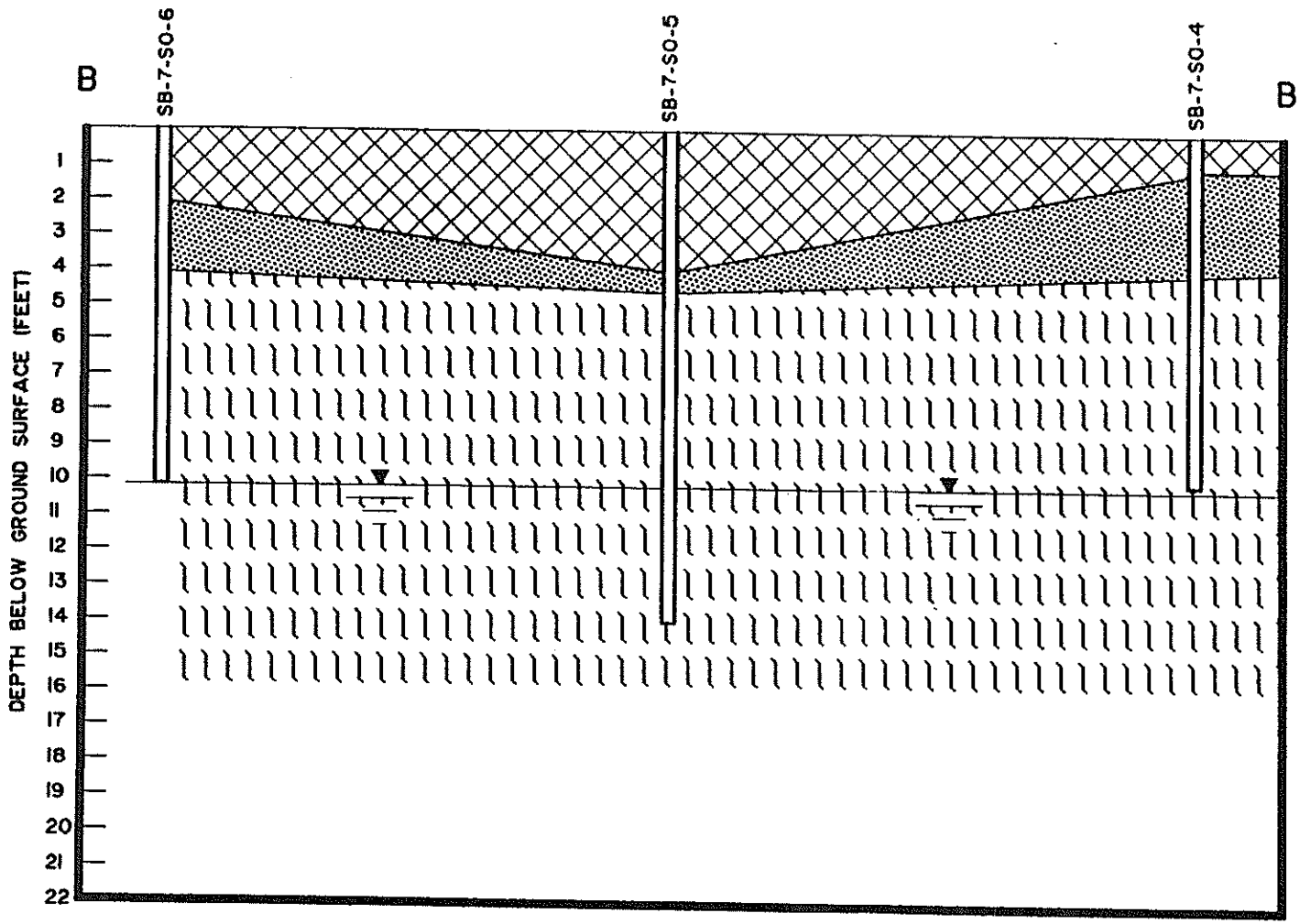
5 0 5

VERT. SCALE IN FEET

URS CONSULTANTS, INC.

AREA 7
CROSS SECTION A-A'

FIGURE 5-7A



NOTES:

1. SURFACE ELEVATIONS ARE ASSUMED TO BE APPROXIMATELY 132' AMSL BASED UPON THE GROUND ELEVATION AT MONITORING WELL MW-8.
2. THE WATER TABLE SHOWN IS APPROXIMATE BASED UPON THE DEPTH TO WATER MEASURED IN WELL MW-8 ON 2/28/94.
3. GEOLOGIC CONDITIONS SHOWN ARE REPRESENTATIVE OF CONDITIONS ENCOUNTERED AT EACH BORING LOCATION TO THE DEPTH DRILLED. EXTRAPOLATIONS BETWEEN BORINGS HAVE BEEN INTERPRETED USING STANDARD PRACTICES AND PRINCIPLES. ACTUAL CONDITIONS MAY VARY BETWEEN BORINGS FROM THOSE SHOWN.

LEGEND

FILL OF VARYING COMPOSITION (SANDY TO SILTY)

SLUDGE/SANDY FILL MIXED WITH SLUDGE

SILT WITH VARYING AMOUNTS OF CLAY

SB-7-SO-5

SOIL BORING

10 0 10

HORIZ. SCALE IN FEET

5 0 5

VERT. SCALE IN FEET

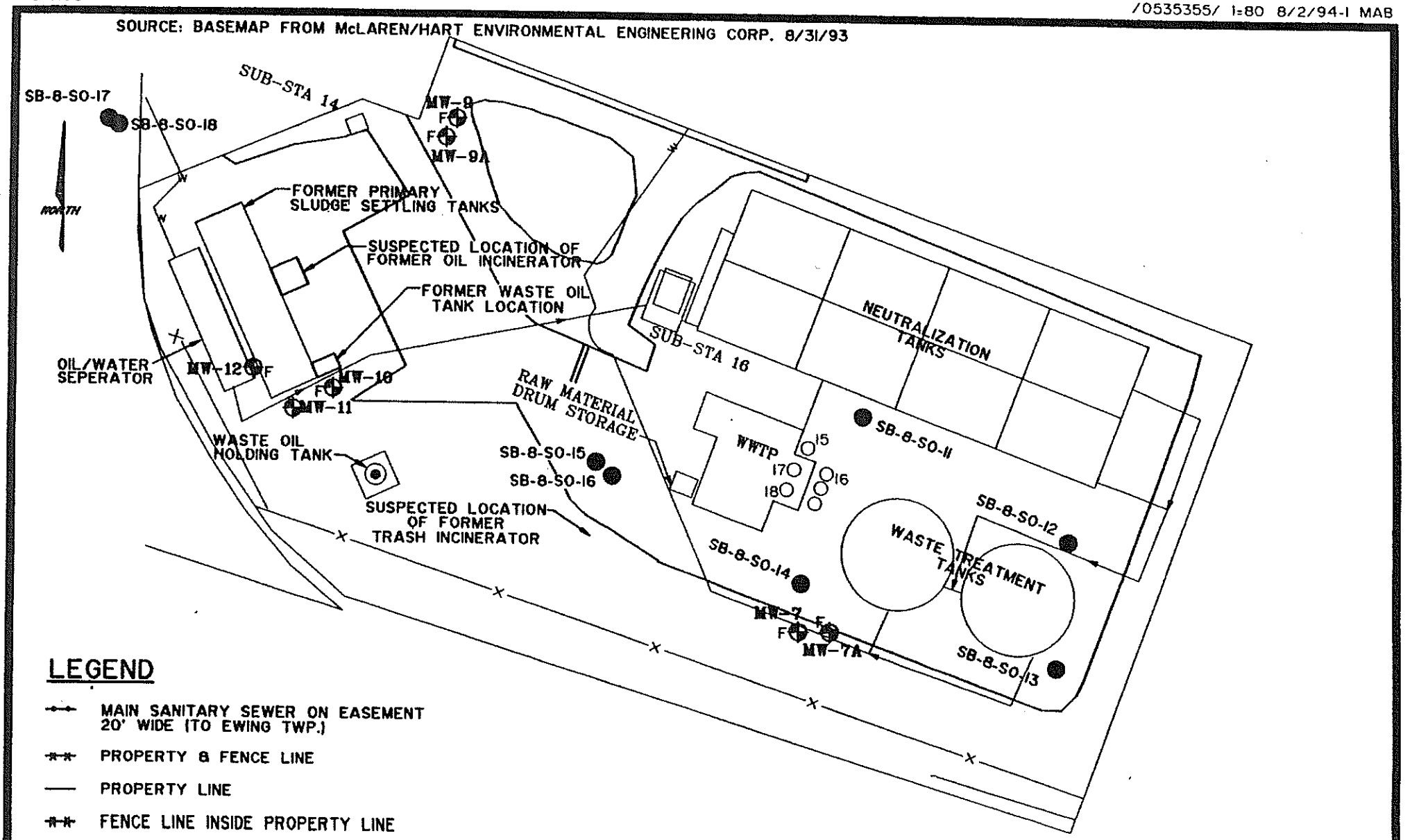
URS CONSULTANTS, INC.

AREA 7
CROSS SECTION B-B'

FIGURE 5-7B

AC-6106

/0535355/ I=80 8/2/94-I MAB



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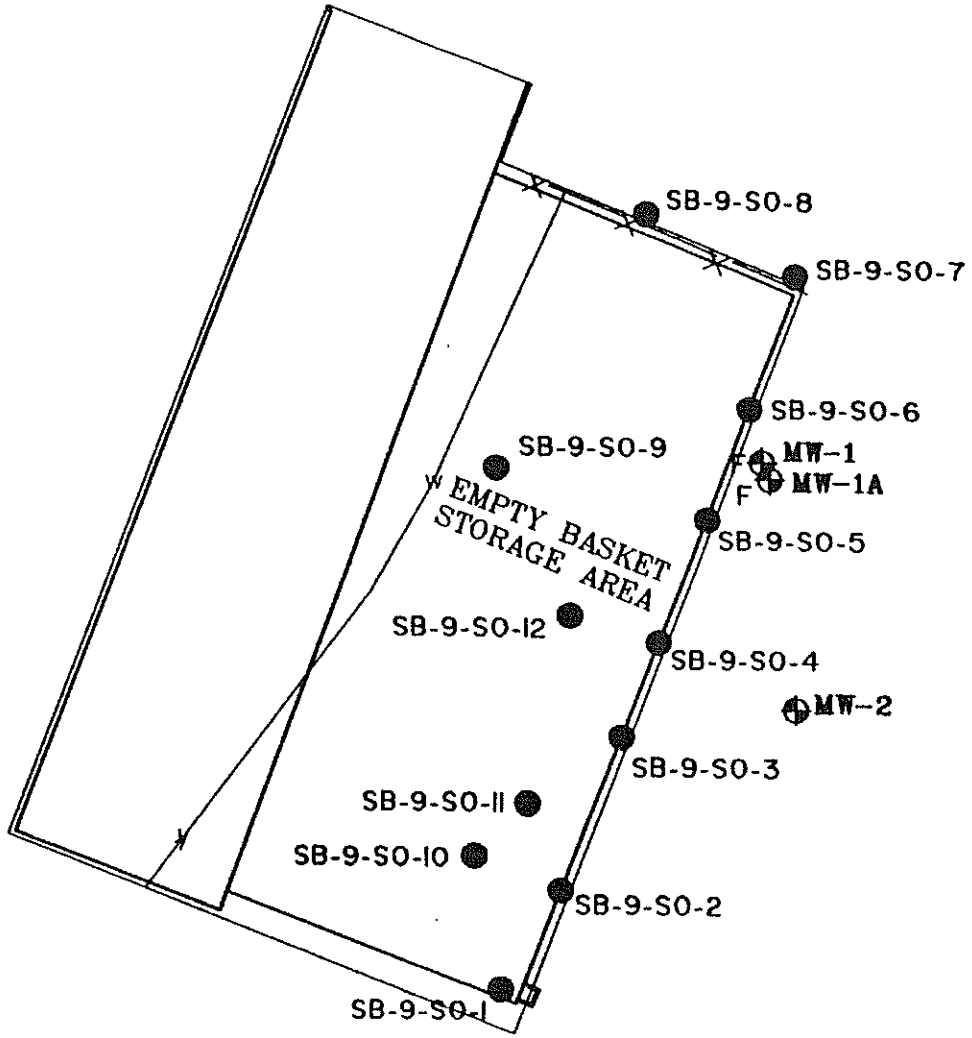
AREA 8 - SOIL BORING LOCATIONS

FIGURE 5-8

AC-6105

/0535355/ 1=200 8/2/94-I MAB

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION

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200 0 200

SCALE IN FEET

URS CONSULTANTS, INC.

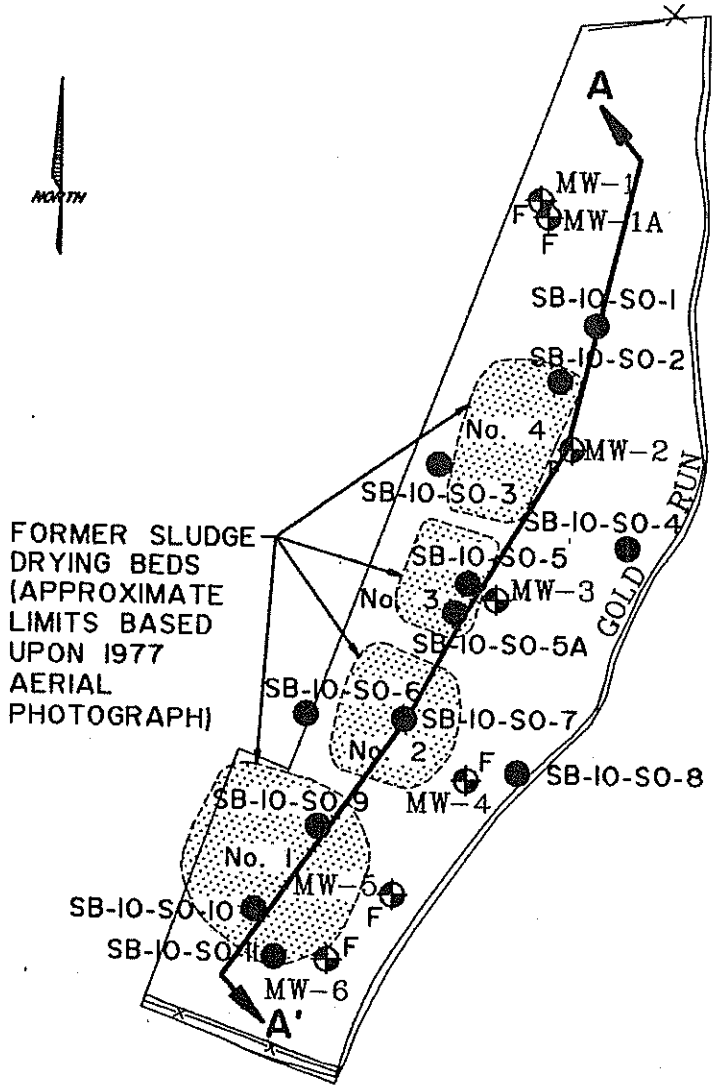
AREA 9 - SOIL BORING LOCATIONS

FIGURE 5-9

AC-6104

/0535355/ 1=200 8/3/94-2 MAB

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- A — LINE OF CROSS-SECTION A-A'
- FENCE LINE INSIDE PROPERTY LINE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION

200 0 200

SCALE IN FEET

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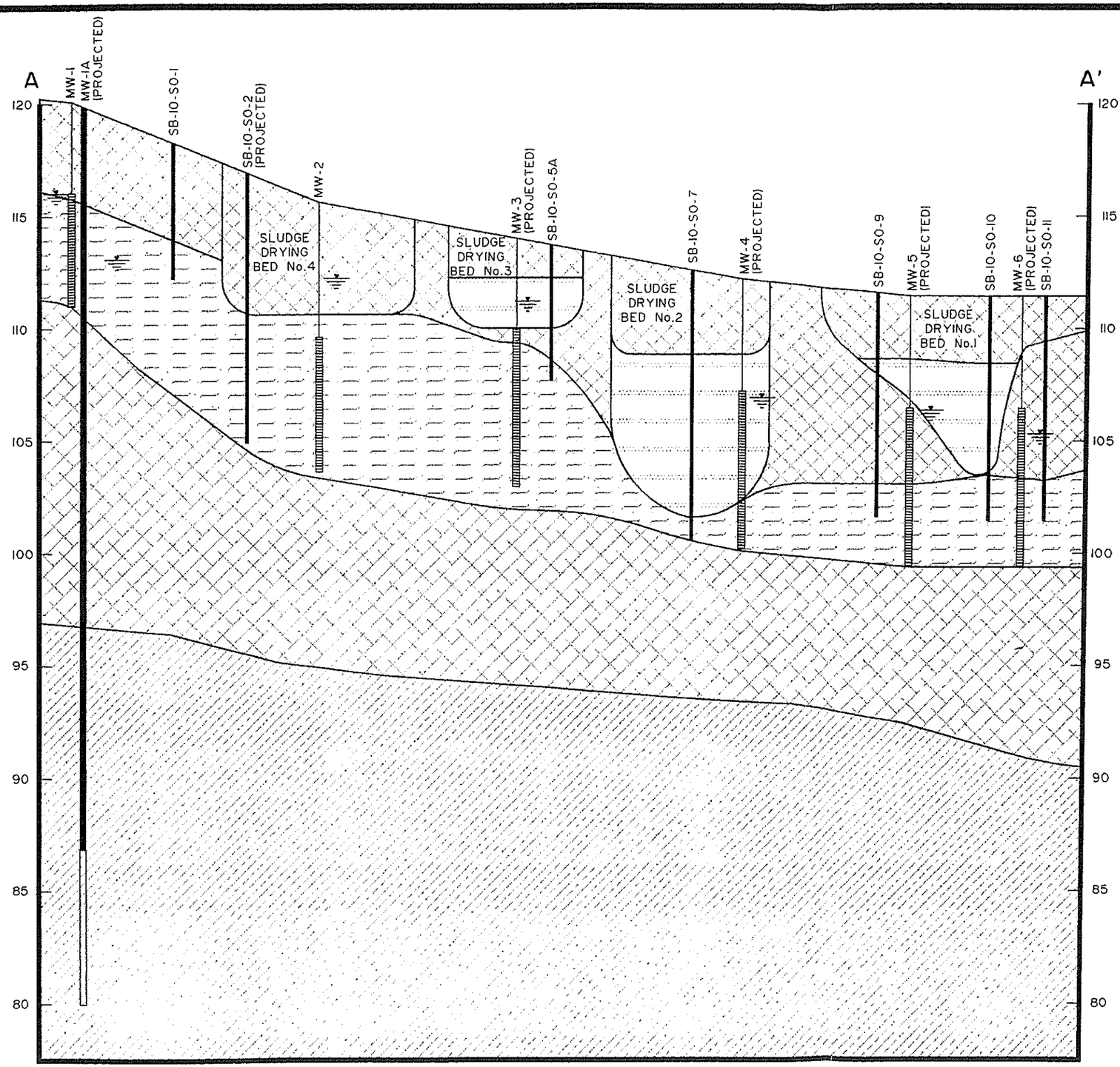
URS CONSULTANTS, INC.

AREA 10 - SOIL BORING LOCATION

FIGURE 5-10

J:\35355\CAD\ 1-1 7/17/97-2 HBB



NOTES:

1. SURFACE ELEVATIONS ARE APPROXIMATE BASED UPON THE GROUND ELEVATIONS FROM EACH MONITORING WELL SHOWN.
2. THE MONITORING WELLS SHOWN DO NOT FALL ALONG THE DIRECT LINE OF CROSS-SECTION. THUS, THE GROUNDWATER ELEVATIONS SHOWN MAY NOT BE REPRESENTITIVE OF GROUNDWATER CONDITIONS ALONG THE CROSS-SECTION LINE.
3. GROUNDWATER ELEVATIONS SHOWN WERE RECORDED ON MARCH 29, 1994.
4. THE HORIZONTAL EXTENT OF THE SLUDGE BEDS ARE APPROXIMATE BASED UPON A 1977 AERIAL PHOTOGRAPH.
5. GEOLOGIC CONDITIONS SHOWN ARE REPRESENTATIVE OF CONDITIONS ENCOUNTERED AT EACH BORING LOCATION TO THE DEPTH DRILLED. EXTRAPOLATIONS BETWEEN BORINGS HAVE BEEN INTERPRETED USING STANDARD PRACTICES AND PRINCIPLES. ACTUAL CONDITIONS MAY VARY BETWEEN BORINGS FROM THOSE SHOWN.

LEGEND

- FILL OF VARYING COMPOSITION (SANDY TO SILTY MATRIX WITH WOOD, BRICK AND CONCRETE.)
- SLUDGE-LIKE MATERIAL
- SILT WITH VARYING AMOUNTS OF CLAY SAND AND GRAVEL
- WEATHERED SILTSTONE, MUDSTONE AND SANDSTONE
- SHALE (MUDSTONE) INTERBEDDED WITH FINE GRAINED SANDSTONE
- 6" STEEL CASING
- OPEN ROCK HOLE
- PVC RISER
- PVC SCREEN
- BOTTOM OF BORING

5 0 5
VERT. SCALE IN FEET

100 0 100
HORIZ. SCALE IN FEET

AREA 10
CROSS SECTION A-A'

URS CONSULTANTS, INC.

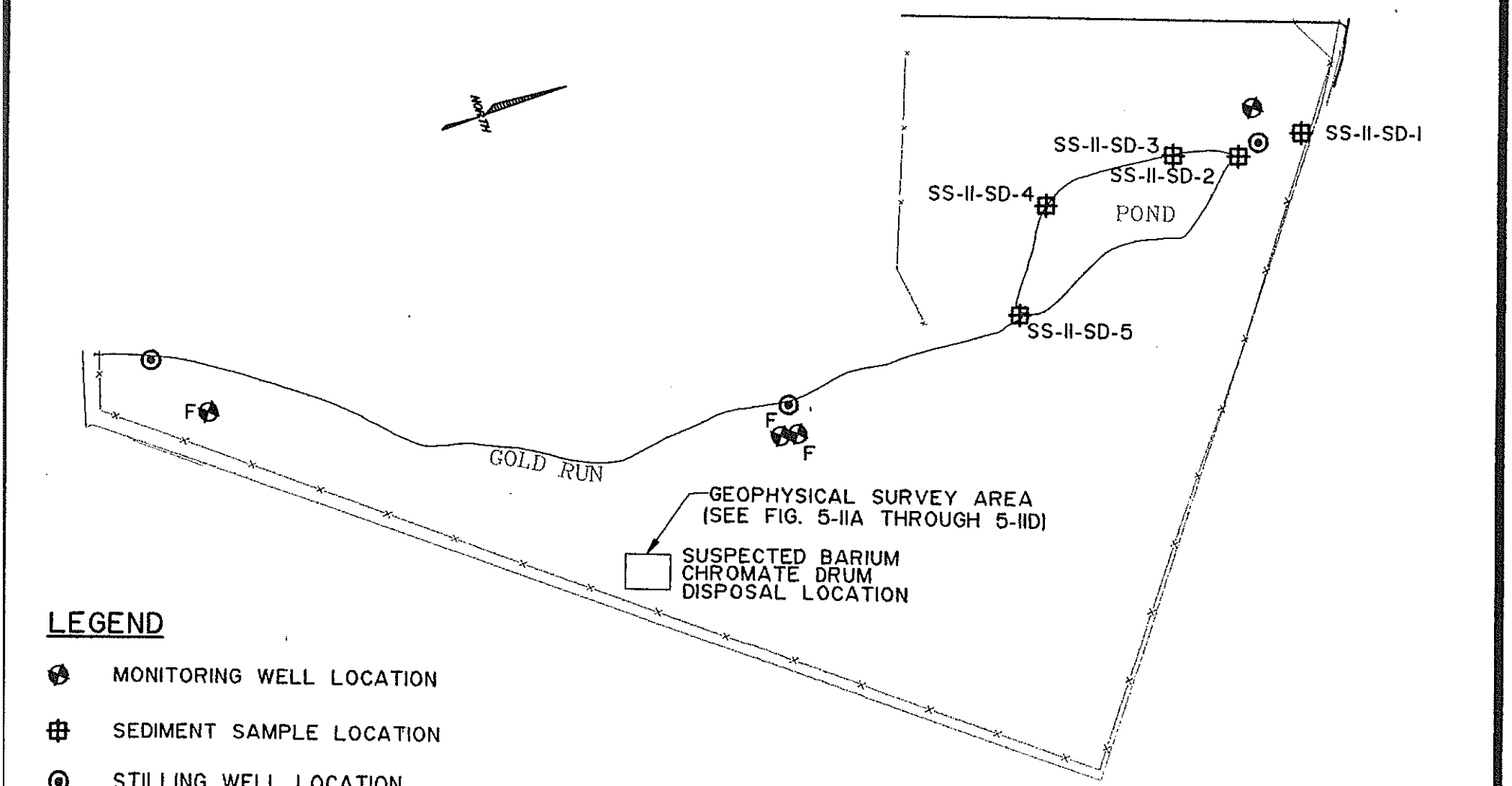
FIGURE 5-10A

C-2950

AC-6103

/35355/CAD/ I=200 5/27/97-2 HBB

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- MONITORING WELL LOCATION
- SEDIMENT SAMPLE LOCATION
- STILLING WELL LOCATION
- FENCE LINE INSIDE PROPERTY LINE

200 0 200

SCALE IN FEET

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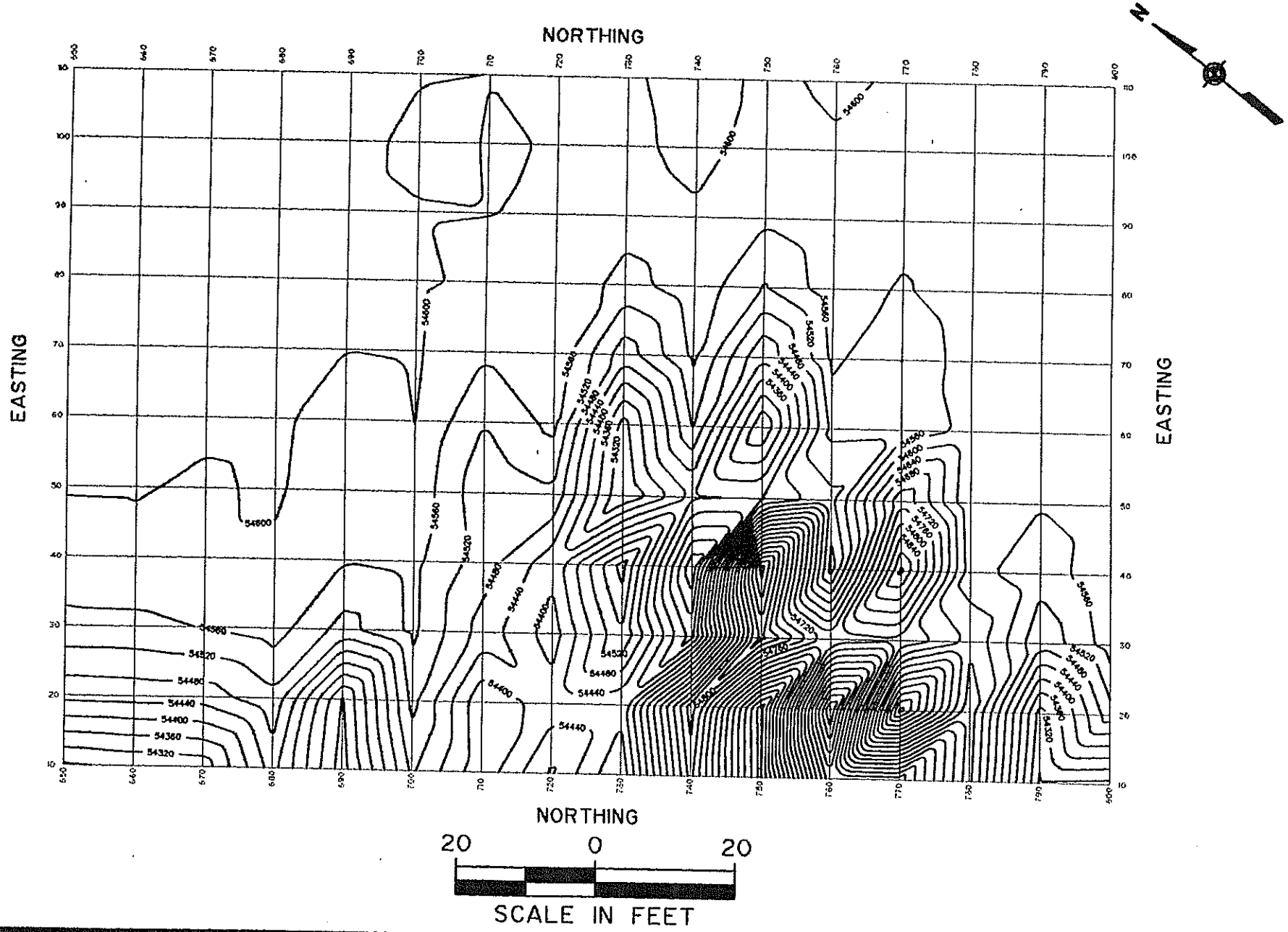
URS CONSULTANTS, INC.

AREA II - SEDIMENT SAMPLE LOCATIONS

FIGURE 5-II



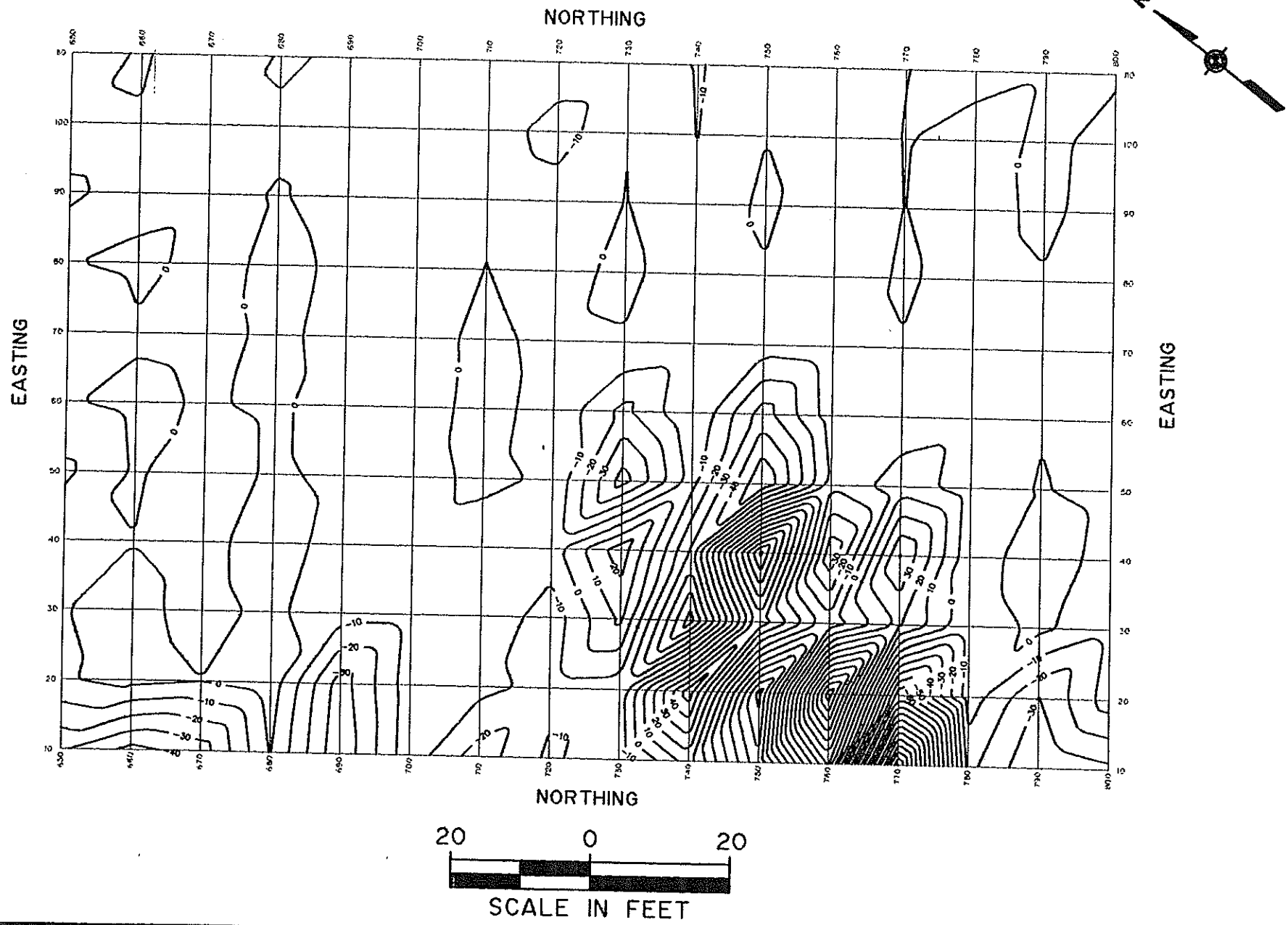
URS CONSULTANTS, INC.

SUSPECTED DRUM DISPOSAL AREA
TOTAL MAGNETIC FIELD MAP

FIGURE 5-11A

AC-6117

/35355.01/ I=20 6/4/97-5 BJG

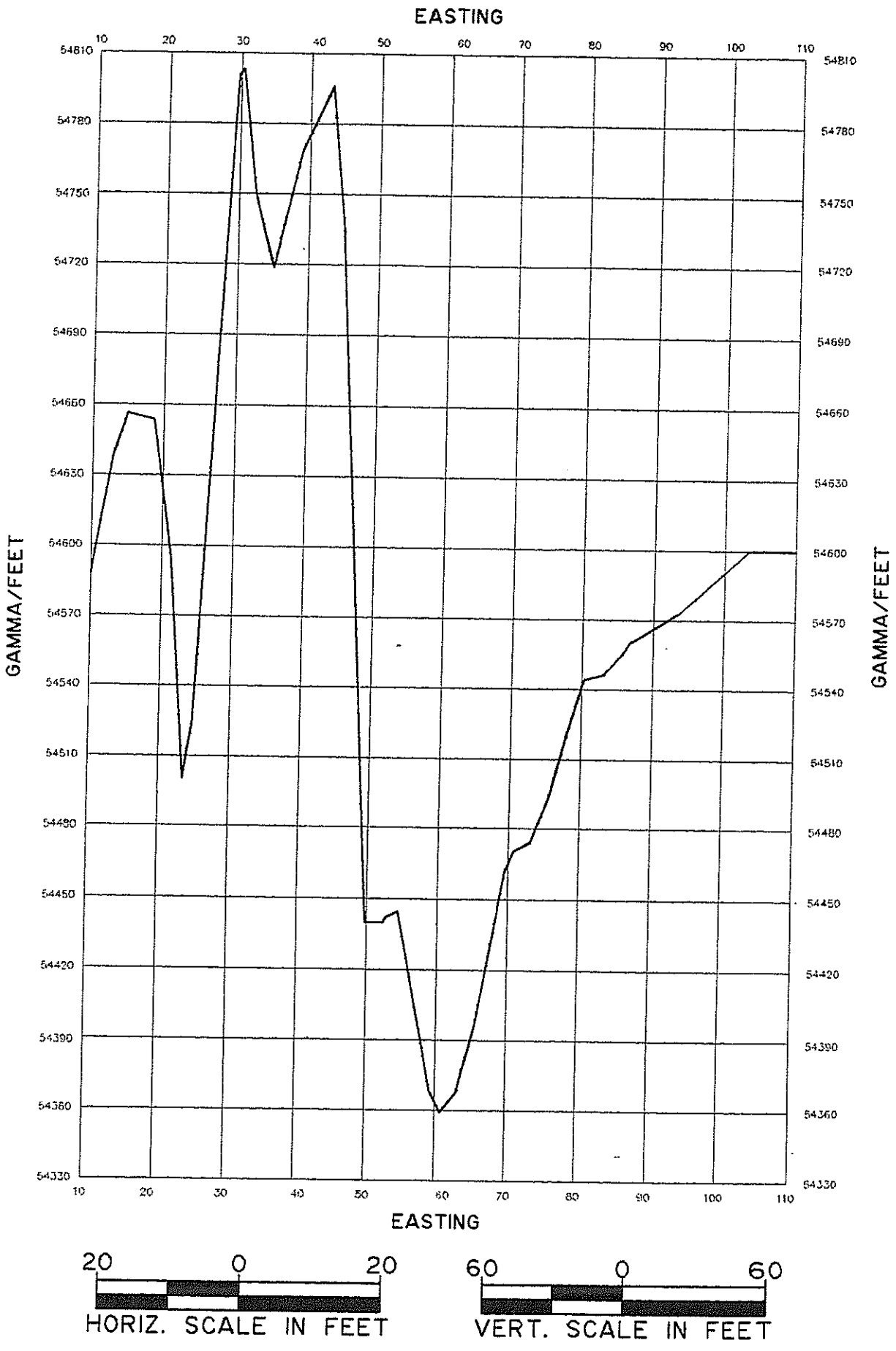


URS CONSULTANTS, INC.

SUSPECTED DRUM DISPOSAL AREA
VERTICAL MAGNETIC GRADIENT MAP

FIGURE 5-11B

/35355.01/ I=20 6/4/97-5 BJG



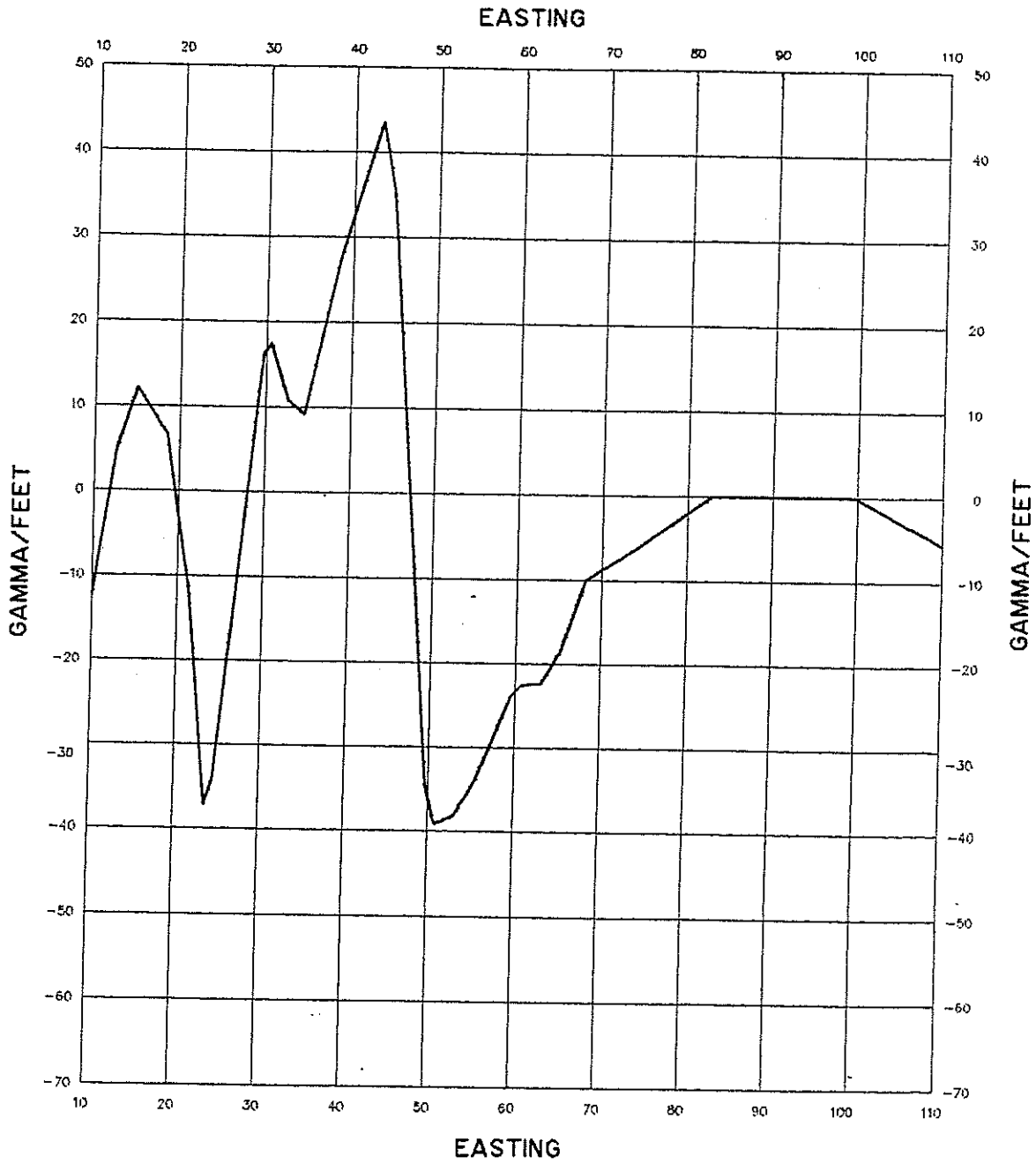
URS CONSULTANTS, INC.

SUSPECTED DRUM DISPOSAL AREA
TOTAL MAGNETIC FIELD PROFILE, 754N

FIGURE 5-11C

AC-6118

/35355.01/ I=20 6/4/97-5 BJG



20 0 20

SCALE IN FEET

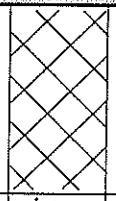
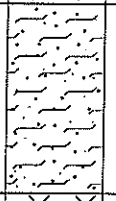
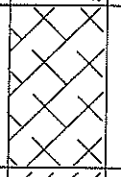
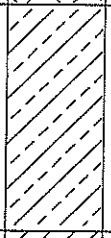
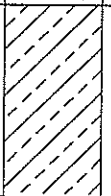
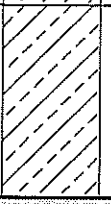
AC-6119

URS CONSULTANTS, INC.

SUSPECTED DRUM DISPOSAL AREA
VERTICAL MAGNETIC GRADIENT PROFILE, 754N

FIGURE 5-11D

GM-Delphi Trenton
Generalized Geologic/Hydrogeologic Column

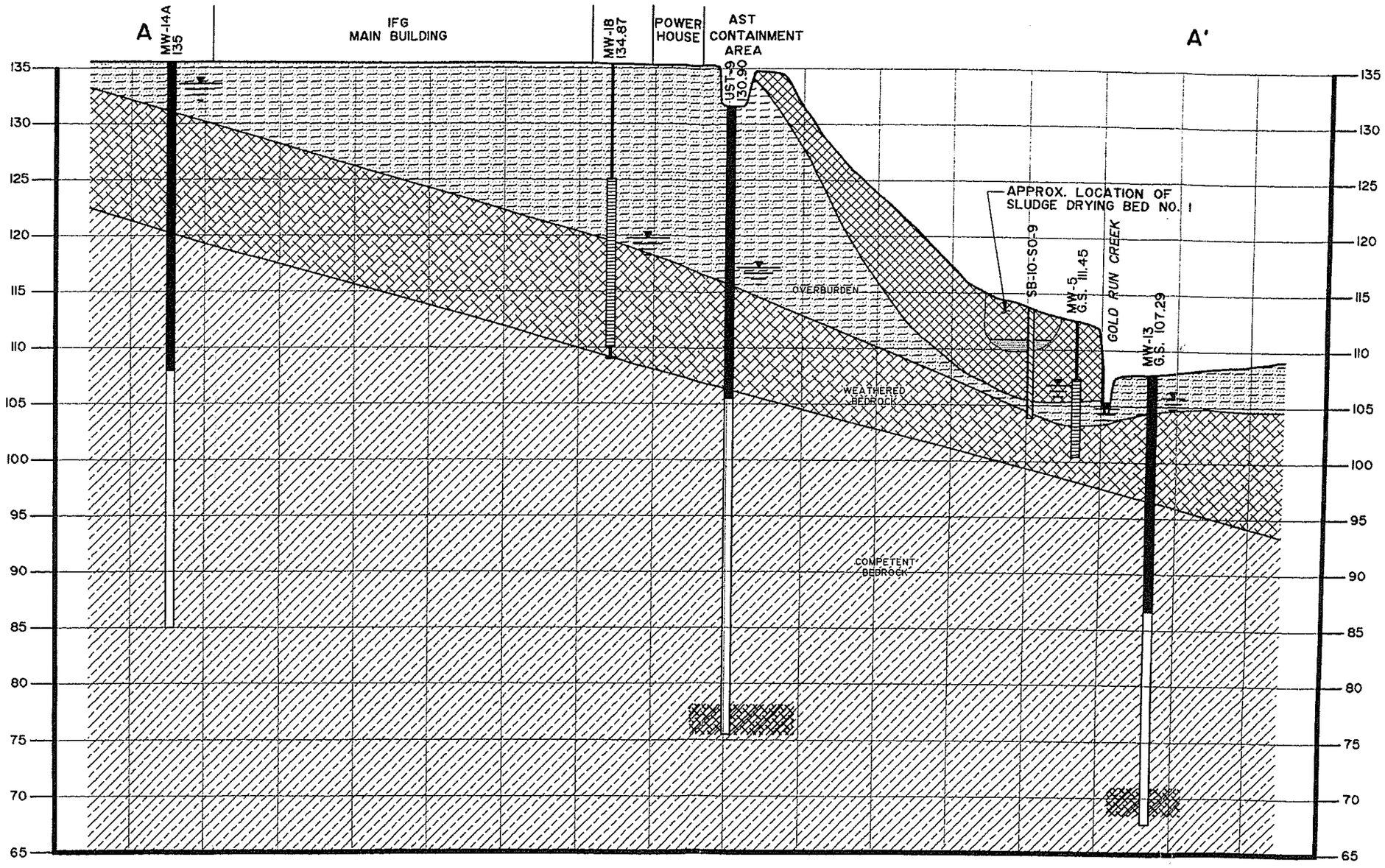
Hydrogeologic Unit	Lithologic Unit	Stratigraphic Profile	Material Description	Hydrogeologic Properties	Origin
Shallow Aquifer	Fill		Ranges from silt to sand and gravel. In portions of the site fill contains wood, concrete, brick and metal.	Low to high hydraulic conductivity.	Man emplaced.
	Fluvial Overburden		Sandy silt (clays, sands, and gravel.	Low to moderate hydraulic conductivity. Published values for silty sand-sandy silt range from 10^{-6} to 10^{-3} cm/sec (ref. 1).	Preglacial fluvial and floodplain deposits.
	Weathered Bedrock		Highly weathered siltstone, sandstone, and mudstone. Silt, sand, and clay contained in fractures.	Moderate hydraulic conductivity on the order of $K=10^{-3}$ (based on URS slug tests).	Near-surface bedrock decomposition.
Bedrock Aquifer	Bedrock		Stockton Formation sandstone, siltstone, and mudstone (shale). Fractured zone at elevations ranging from approximately 90 to 70 feet AMSL.	Flow along fractures. Competent zones provide barriers to vertical groundwater flow. Monitoring wells estimated to yield 1 to 15 gpm.	Triassic-age sedimentary rock suspected to have originated within the depositional system of the ancestral Hudson River.
Confining Unit *	Bedrock		Stockton Formation massive siltstone unit. No vertical or horizontal fractures observed.	Not tested, however, published values for un-fractured shale and sandstone range from 10^{-9} cm/sec to 10^{-4} cm/sec. (ref. 18)	Triassic-age sedimentary rock suspected to have originated within the depositional system of the ancestral Hudson River.
Lower Bedrock Aquifer *	Bedrock		Stockton Formation fractured zone of sandstone and siltstone at elevations ranging from approximately 33 to 17 feet AMSL.	Not tested, however, published values for fractured rocks range from 10^{-6} cm/sec to 10^{-1} cm/sec. (ref. 18)	Triassic-age sedimentary rock suspected to have originated within the depositional system of the ancestral Hudson River.

* These units were only identified by one deeper monitoring well installed (UST-7). The lateral extent of these units have not been confirmed.

URS
CONSULTANTS, INC.

Figure 5-12

\35355\CAD\ 1=200 5/27/97-4 HBB



NOTES:

1. GEOLOGIC CONDITIONS SHOWN ARE REPRESENTATIVE OF CONDITIONS ENCOUNTERED AT EACH BORING LOCATION TO THE DEPTH DRILLED. EXTRAPOLATIONS BETWEEN BORINGS HAVE BEEN INTERPRETED USING STANDARD PRACTICES AND PRINCIPLES. ACTUAL CONDITIONS MAY VARY BETWEEN BORINGS FROM THOSE SHOWN.
2. GROUNDWATER ELEVATIONS SHOWN WERE RECORDED ON 3/29/94.
3. GEOLOGIC CONDITIONS AT MW-14 WERE OBTAINED FROM THE GROUNDWATER REMEDIATION PLAN PREPARED BY WESTON, JUNE, 1989. GEOLOGIC CONDITIONS AT THE OTHER MONITORING WELL LOCATIONS WERE OBTAINED FROM BORING LOGS.
4. THE SURFACE WATER ELEVATION OF GOLD RUN CREEK SHOWN REPRESENTS THE AVERAGE WATER ELEVATIONS REPORTED FOR STILLING WELL SW-13 BY LMS ENGINEERS FOR THE TIME PERIOD OF DECEMBER 10, 1990 THROUGH DECEMBER 20, 1990.
5. THE HORIZONTAL EXTENT OF THE SLUDGE BED IS APPROXIMATE BASED UPON A 1977 AERIAL PHOTOGRAPH.
6. VERTICAL EXAGGERATION 30X.

LEGEND

- FILL OF VARYING COMPOSITION (SANDY TO SILTY MATRIX WITH WOOD, BRICK AND CONCRETE)
- SLUDGE-LIKE MATERIAL
- SILT WITH VARING AMOUNTS OF CLAY, SAND AND GRAVEL
- WEATHERED SILTSTONE, MUDSTONE AND SANDSTONE
- SHALE (MUDSTONE) INTERBEDDED WITH FINE GRAINED SANDSTONE
- APPROXIMATE ZONE OF FRACTURES AS NOTED ON BORING LOGS

BEDROCK MONITORING WELLS: 6" STEEL CASING; OPEN ROCK HOLE

SHALLOW AQUIFER MONITORING WELLS: PVC RISER; GROUNDWATER ELEVATION; PVC SCREEN; BOTTOM OF BORING

SOIL BORING ADVANCED BY URS 1994

150 0 150 — HORIZ. SCALE IN FEET

5 0 5 — VERT. SCALE IN FEET

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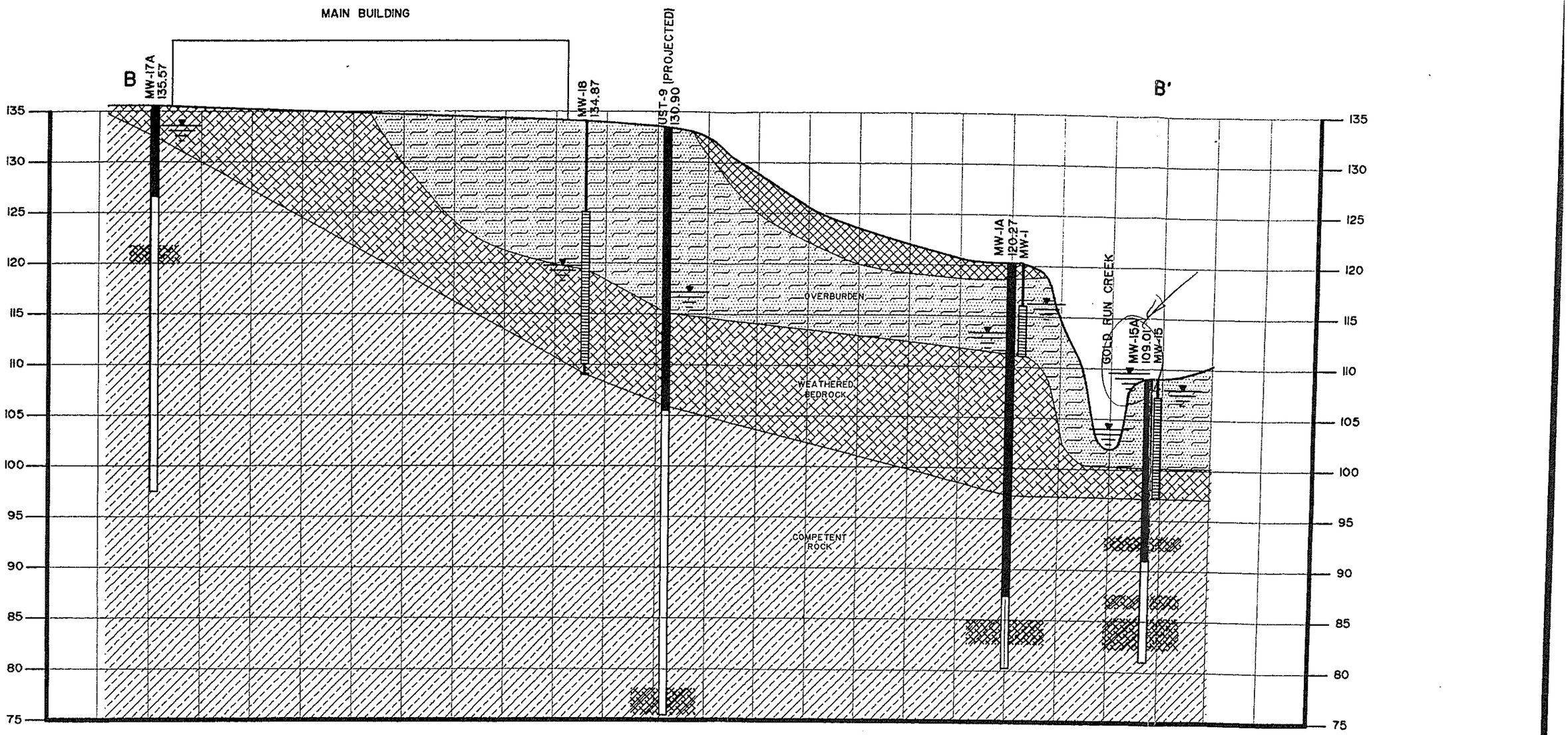
SITE-WIDE CROSS SECTION A-A'

URS CONSULTANTS, INC.

FIGURE 5-13

AC-3014

\35355\CAD\ 1=200 5/27/97-4 HBB



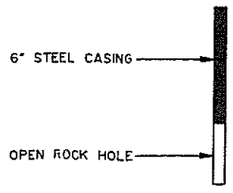
NOTES:

1. GEOLOGIC CONDITIONS SHOWN ARE REPRESENTATIVE OF CONDITIONS ENCOUNTERED AT EACH BORING LOCATION TO THE DEPTH DRILLED. EXTRAPOLATIONS BETWEEN BORINGS HAVE BEEN INTERPRETED USING STANDARD PRACTICES AND PRINCIPLES. ACTUAL CONDITIONS MAY VARY BETWEEN BORINGS FROM THOSE SHOWN.
2. GROUNDWATER ELEVATIONS SHOWN WERE RECORDED ON 3/29/94.
3. THE SURFACE WATER ELEVATION OF GOLD RUN CREEK SHOWN REPRESENTS THE AVAERAGE WATER ELEVATIONS REPORTED FOR STILLING WELL SW-15 BY LMS ENGINEERS FOR THE TIME PERIOD OF DECEMBER 20, 1994.
4. VERTICAL EXAGGERATION 20X.

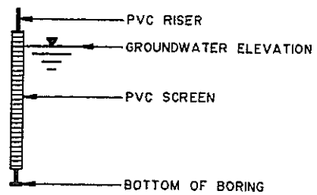
LEGEND

- FILL OF VARYING COMPOSITION (SANDY TO SILTY MATRIX WITH WOOD, BRICK AND CONCRETE)
- SILT WITH VARING AMOUNTS OF CLAY, SAND AND GRAVEL
- WEATHERED SILTSTONE, MUDSTONE AND SANDSTONE
- SHALE (MUDSTONE) INTERBEDDED WITH FINE GRAINED SANDSTONE
- APPROXIMATE ZONE OF FRACTURES AS NOTED ON BORING LOGS

BEDROCK MONITORING WELLS



SHALLOW AQUIFER MONITORING WELLS



100 0 100 HORIZ. SCALE IN FEET

5 0 5 VERT. SCALE IN FEET

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CC-3003

SITE-WIDE CROSS SECTION B-B'

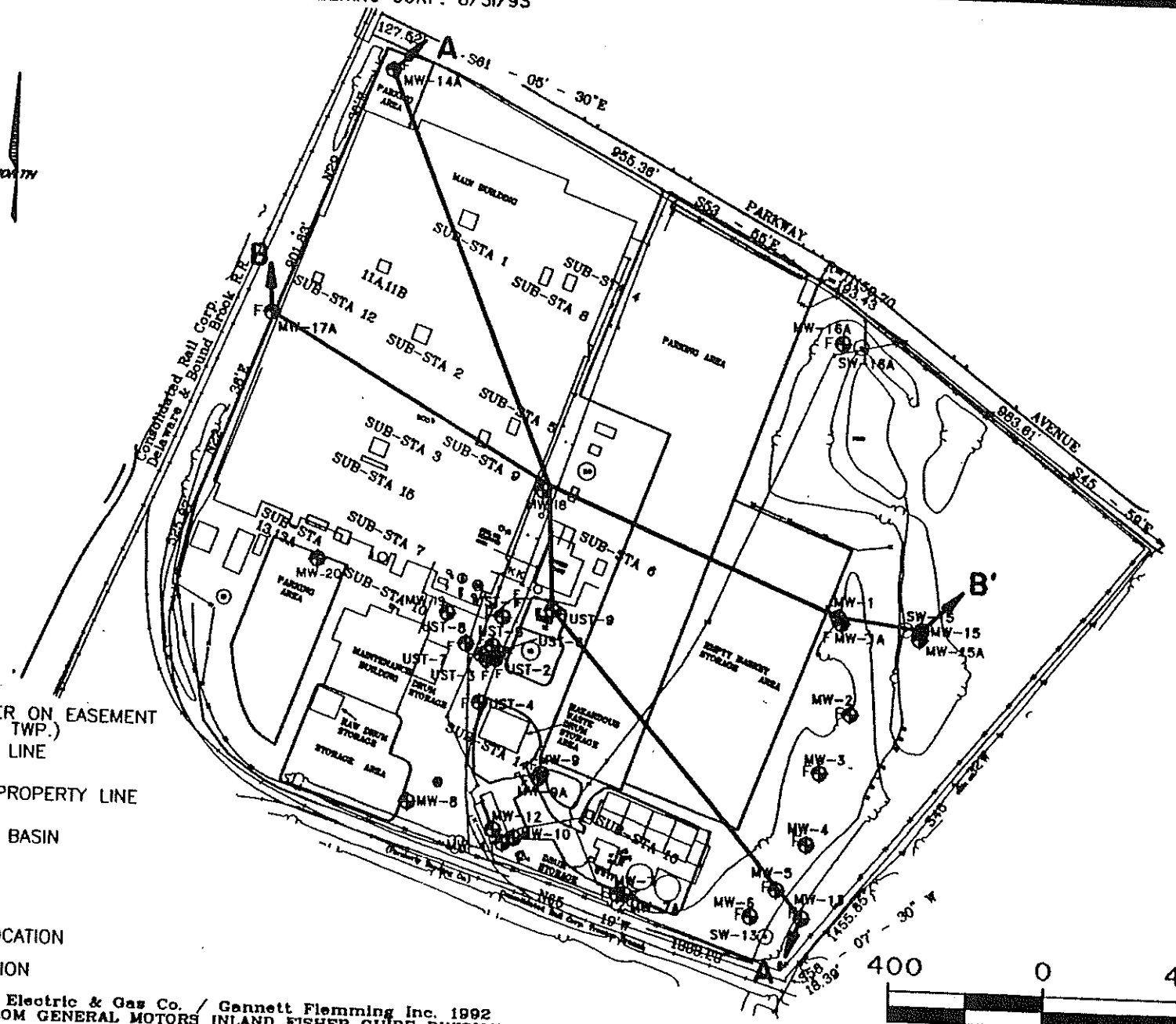
URS CONSULTANTS, INC.

FIGURE 5-14

AC-6III

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93

/0535355/ 1=400 8/5/94-2 RAL



LEGEND

- MAIN SANITARY SEWER ON EASEMENT 20' WIDE (TO EWING TWP.)
- PROPERTY & FENCE LINE
- PROPERTY LINE
- FENCE LINE INSIDE PROPERTY LINE
- MANHOLE
- MANHOLE W/ CATCH BASIN
- INLET
- CATCH BASIN
- TANK - (TYP)
- MONITORING WELL LOCATION
- STILLING WELL LOCATION

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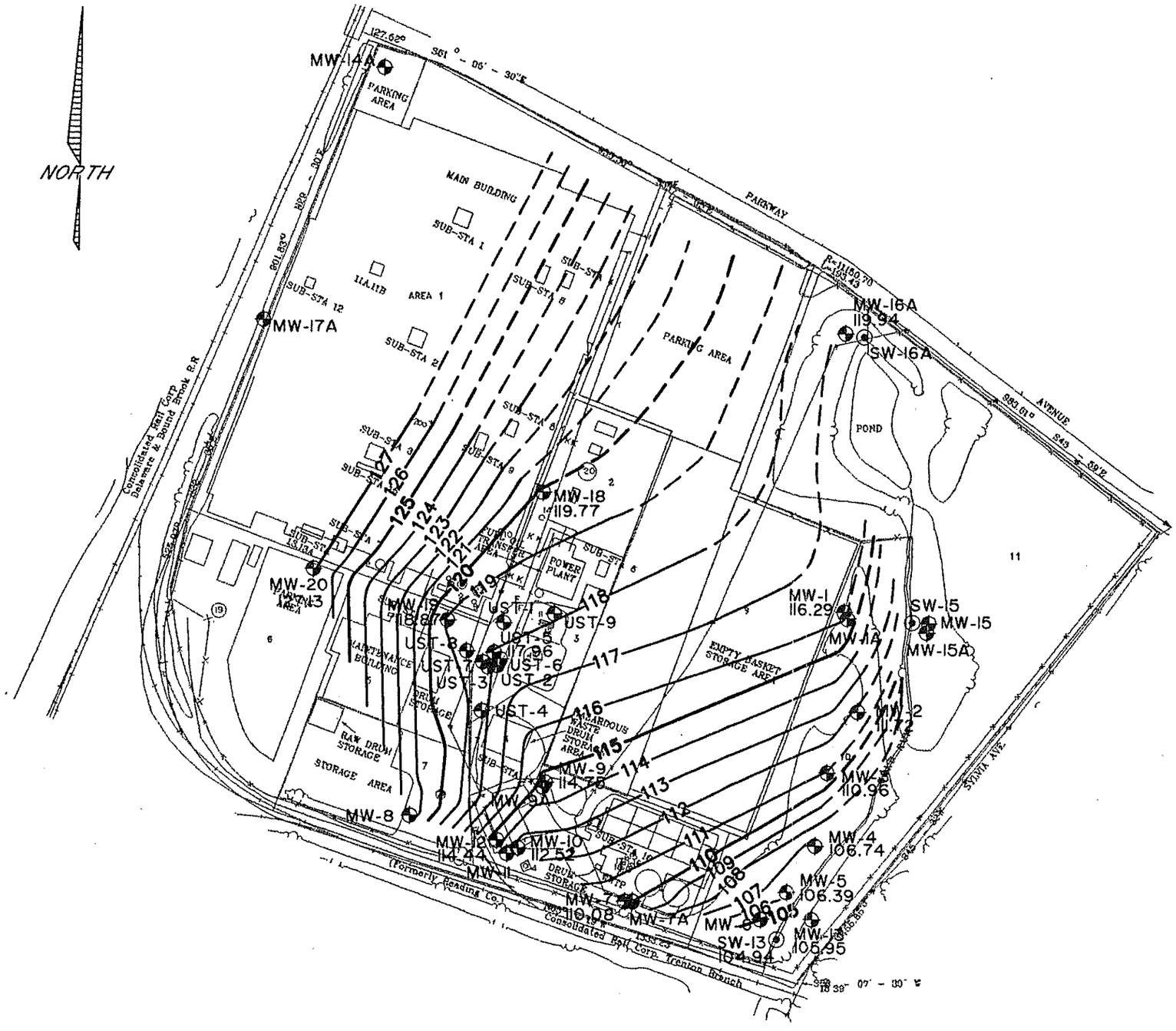
URS CONSULTANTS, INC.

LINES OF CROSS-SECTIONS

FIGURE 5-15

35355/ 1=300 8/2/94-I MAB

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- MAIN SANITARY SEWER ON EASEMENT 20' WIDE (TO EWING TWP.)
- PROPERTY & FENCE LINE
- PROPERTY LINE
- FENCE LINE INSIDE PROPERTY LINE
- TANK - (TYP)
- MONITORING WELL LOCATION
- STILLING WELL LOCATION
- —110— SHALLOW AQUIFER POTENTIOMETRIC SURFACE BASED UPON WATER LEVELS RECORDED ON MARCH 29, 1994.

300 0 300

SCALE IN FEET

SHALLOW AQUIFER POTENTIOMETRIC SURFACE MAP

URS CONSULTANTS, INC.

FIGURE 5-16

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CC-3016

35355/ I=300 6/4/97-3 BJG

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93

LEGEND

- MAIN SANITARY SEWER ON EASEMENT 20' WIDE (TO EWING TWP.)
- PROPERTY & FENCE LINE
- PROPERTY LINE
- FENCE LINE INSIDE PROPERTY LINE
- TANK - (TYP)
- MONITORING WELL LOCATION
- STILLING WELL LOCATION
- —110— CONTOUR OF COMPETENT BEDROCK SURFACE

300 0 300

SCALE IN FEET

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COMPETENT BEDROCK SURFACE MAP

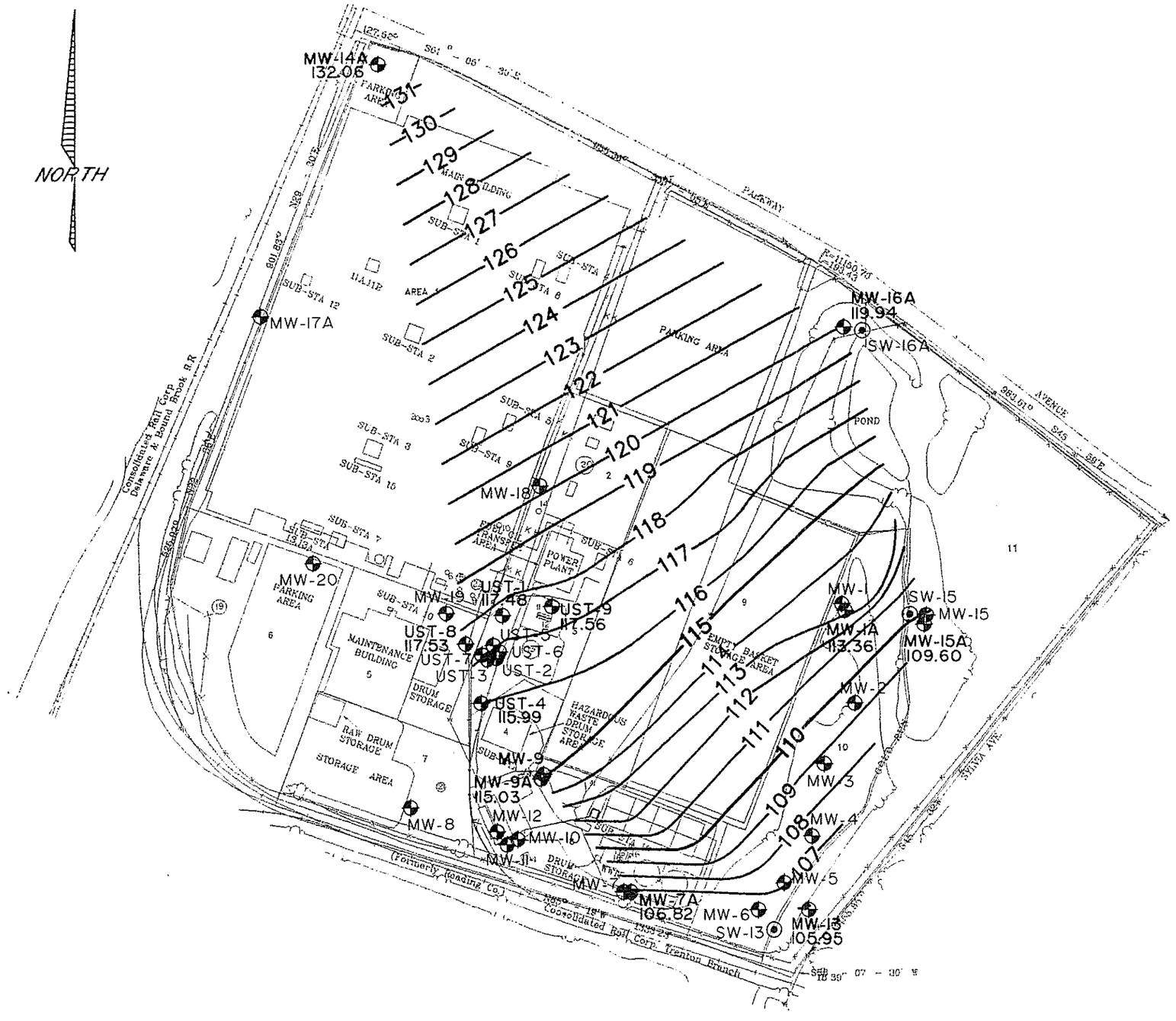
URS CONSULTANTS, INC.

FIGURE 5-17

CC-3017

35355/CAD/ 1=300 5/27/97-3 HBB

SOURCE: BASEMAP FROM McLAREN/HART ENVIRONMENTAL ENGINEERING CORP. 8/31/93



LEGEND

- MAIN SANITARY SEWER ON EASEMENT 20' WIDE (TO EWING TWP.)
- PROPERTY & FENCE LINE
- PROPERTY LINE
- FENCE LINE INSIDE PROPERTY LINE
- TANK - (TYP)
- MONITORING WELL LOCATION
- STILLING WELL LOCATION
- —110— BEDROCK AQUIFER POTENTIOMETRIC SURFACE BASED UPON WATER LEVELS RECORDED ON MARCH 29, 1994.

300 0 300

SCALE IN FEET

BEDROCK AQUIFER POTENTIOMETRIC SURFACE MAP

URS CONSULTANTS, INC.

FIGURE 5-18

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CC-3015

APPENDIX A

SOIL BORING LOGS

AREA 1

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. MW-18

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140	16.	
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 3
GROUND ELEVATION:
DATE STARTED: 2/25/94
DATE FINISHED: 2/25/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS HNU
						BROWN		SILT, SOME CLAY		ND
5		S-1	SS	3 4 / 6 6	85	ORANGE BROWN	MED STIFF		ML	SLIGHTLY MOIST
						RED BROWN				ND
10		S-2	SS	12 15 / 26 50	75		VERY STIFF	SILT, TRACE CLAY, HIGHLY WEATHERED SILTSTONE	ML	SLIGHTLY MOIST
15		S-3	SS	100/2"	0			SILT, HIGHLY WEATHERED SILTSTONE WITH FINE SANDSTONE FRAGMENTS		
20		S-4	SS	100/1"	0					
25		S-5	SS	100/1"	0			E.O.B.		AUGER REFUSAL WATER @ 16.0' AND RISING
30										
35										

A-3205

COMMENTS WELL INSTALLATION & 2" WELL, SCREENED INTERVAL @ 9'-24', SAND-7' TO 9', BENTONITE-5' TO 7', GROUT-GS TO 5'

PROJECT NO. 35355
BORING NO. MW-18

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. MW-19

PROJECT: I.F.G. TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140	16	
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 3
GROUND ELEVATION:
DATE STARTED: 2/21/94
DATE FINISHED: 2/21/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS HNU
						RED BROWN		SILT, SOME CLAY		
5		S-1	SS	3 4 / 4 6	25				ML	—
10		S-2	SS	4 6 / 6 7	55			SILT, SOME CLAY AND FINE SAND	ML	—
15		S-3	SS	25 25 / 25 25	65	BROWN		FINE SAND, SOME SILT, ROCK FRAGS.	SM	—
20						RED BROWN		SILT, WEATHERED ROCK FRAGS.		
25										
								E.O.B.		
30										
35										

COMMENTS: WELL INSTALLATION: 2" WELL, SCREENED INTERVAL 11'-26', SAND ROCK 9' TO 11', BENTONITE 7' TO 9', BENT. GROUT 1' TO 7'

PROJECT NO. 35355
BORING NO. MW-19

~-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. MW-20

PROJECT: IFG TRENTON	SHEET NO. | OF |
CLIENT: GENERAL MOTORS	JOB NO. : 35355
BORING CONTRACTOR: TABASCO	BORING LOCATION: AREA 3
GROUND WATER:	GROUND ELEVATION:
DATE: TIME: LEV: TYPE:	DATE STARTED: 2/24/94
	DATE FINISHED: 2/24/94
	DRILLER: BILL SHINN
	GEOLOGIST: JOHN TOMASELLO
* POCKET PENETROMETER READING	REVIEWED BY:

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140	16	
FALL		30"		

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	REMARKS HNU
0						RED BROWN		ASPHALT AT SURFACE	ML	—
								SILT, SOME CLAY		
5										
10										
15										
								SILT, SOME CLAY AND HIGHLY WEATHERED SILTSTONE AND FINE SANDSTONE AT BOTTOM		—
20										
25										—
				100/3"				E.O.B.		
30										
35										

A-3205

COMMENTS AUGER TO 26', SPLIT SPOON DRIVEN AT 26' DEPTH; ENCOUNTERED REFUSAL

WELL INSTALLATION: 2" WELL, SCREENED INTERVAL @ 11'-26', SAND 9-11', BENTONITE 7-9', GROUT 1-7'

PROJECT NO. 35355
BORING NO. MW-20

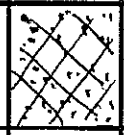
URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-1-So-1

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 1 PRESS STORAGE AREA
Date: 3/25/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN		FINE TO MEDIUM SAND, SOME WOOD FRAGMENTS		ND ↓	FILL MOIST
1.0							
1.5							
2.0							
2.5							
3.0							

Comments:

Project No: 35355
Boring No: SB-1-So-1

sblog/2/22/94

AREA 2

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-2-SO-3

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 2 ADJACENT TO TRANSFORMER
Date: 3124194

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		LT BROWN		SILT SOME SAND		ND	MOIST
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: BORING ADVACED BELOW STAINED GRAVEL ADJACENT TO TRANSFORMER

Project No: 35355
Boring No: SB-2-SO-3

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-2-SO-5

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA-2
Date: 3/24/94 BELOW MINERAL S.W. TEH

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5				SILT, SOME SAND		ND	MOIST
1.0							
1.5							
2.0							
2.5							
3.0							

Comments:

Project No:

Boring No:

sblog/2/22/94

AREA 3

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-3-SO-7

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 3 CONDENSATE SUMP, 500,000 GALLON TANK
Date: 7/7/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
1.0				GRAVEL SURROUNDING SUMP	FILL		
1.5							
2.0		GRAY BROWN		SILT, SOME F-SAND, TRACE CLAY, SAT'D WITH OIL, WET	SM	15	STRONG ODOR GROUNDWATER CONTAINS OIL
2.5							
3.0							
3.5							

Comments: SAMPLE COLLECTED USING A 3" DIA. BUCKET AUGER
SAMPLES COLLECTED AT 1.5 TO 2.0 AND 3.0 TO 3.5 FEET BGS.

Project No: 35355
Boring No: SB-3-SO-7

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-3-50-11

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 3 COOLING TOWER (WEST SIDE)
Date: 2/7/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		DARK BROWN		F-M SAND, SOME F-M GRAVELS	SW	ND	DRY
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA. BUCKET AUGER.

Project No: 35355
Boring No: SB-3-50-11

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-3-SO-12

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 3 COOLING TOWER (EAST SIDE)
Date: 2/7/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		REDDISH BROWN		F-M SAND, SOME SILT AND F-M GRAVEL TRACE C-GRAVEL	SW	ND	WET PERCHED WATER TABLE AT 4 INCHES
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA. BUCKET AUGER

Project No: 35355
Boring No: SB-3-SO-12

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-3-SO-13

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA-3 TRUCK PARKING
Date: 2/17/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		OLIVE GRAY		F-SAND, SOME SILT BOTTOM 2" GRAY SILT	SP/ML	N.D	MOIST
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA BUCKET AUGER

Project No: 35355
Boring No: SB-3-SO-13

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-3-SO-14

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 3 WEST SIDE OF BLDG
Date: 2/7/94 NORTH RECIEVER

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN		F-M SAND, SOME SILT, LITTLE F-C GRAVEL	SW	17	MOIST, STRONG ODOR
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA. BUCKET AUGER

Project No: 35355
Boring No: SB-3-SO-14

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-3-SO-15

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 3 - WEST SIDE OF BLDG
Date: 2/7/94 SOUTH RECIEVER

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		ORANGE BROWN		F-SAND, SOME SILT, TRACE M-SAND	SM	ND	SLIGHTLY MOIST
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA. BUCKET AUGER

Project No: 35355
Boring No: SB-3-SO-15

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-3-SO-16

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 3 EAST SIDE OF BLDG AIR RECIEVER
Date: 2/7/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		DARK BROWN		F-M SAND, SOME F-C GRAVEL, TRACE SILT		ND	DRY
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA. BUCKET AUGER

Project No: 35355
Boring No: SB-3-SO-16

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-3-SO-17

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 3 TRUCK PARKING LOADING AREA
Date: 2/7/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		DARK BROWN		F-M SAND, SOME F-C GRAVEL, LITTLE C SAND	SW	ND	DRY
1.0				EOB.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA. BUCKET AUGER

Project No: 35355.
Boring No: SB-3-SO-17

sblog/2/22/94

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-18

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140 lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/18/94
DATE FINISHED: 2/18/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	28 11 12 6	85	GRAY	MED DENSE	F-M GRAVEL & F-C SAND	FILL		
						GRAY/BLACK	MED DENSE	ASH, CINDERS MIXED WITH F-SAND	FILL	5	MOIST
		S-2	SS	11 12 14 14	70	RED BROWN	VERY STIFF	SILT, SOME F-SAND, TRACE CLAY	ML	10	
5		S-3	SS	8 8 9 10	40					6	
		S-4	SS	8 8 9 9	60					12	
		S-5	SS	6 5 3 4	60	OLIVE GRAY	STIFF	SILT	ML	12	
10		S-6	SS	17 4 4 5	50	RD BROWN	MED DENSE	F-SAND, SOME SILT	SP	9	
		S-7	SS	4 4 4 7	85	OLIVE GRAY	STIFF	SILT, TRACE CLAY	ML	3	
15		S-8	SS	8 18 27 30	90	RED BROWN	DENSE	FINE SAND	SP	1	
20								E.O.B. SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 10' & 14'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-18

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-19

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/18/94
DATE FINISHED: 2/18/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140 lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID ppm	REMARKS
	XXX	S-1	SS	30 14 / 9 8	65	GRAY	DENSE	F-C GRAVEL & F-C SAND	FILL		
						RED BROWN	VERY STIFF	SILT, SOME F-SAND	ML	6	MOIST
		S-2	SS	7 15 / 26 15	45					20	
5		S-3	SS	19 10 / 7 9	45					6	
		S-4	SS	9 8 / 8 8	85					5	
		S-5	SS	6 5 / 3 4	65	RED BROWN	STIFF	SILT, SOME CLAY	ML	5	
10		S-6	SS	4 4 / 4 4	100	DRK GRAY BROWN	STIFF ↓ MED STIFF	SILT, SOME CLAY	ML	15	
		S-7	SS	3 3 / 3 4	85					6	
15		S-8	SS	9 10 / 13 13	90	RED BROWN	MED DENSE	FINE SAND	SP	1	
								E.O.B.			
20								SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 10' & 14'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-19

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-20

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/18/94
DATE FINISHED: 2/18/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	20	11	70		MED DENSE	F-C SAND AND FC GAVEL			
				8	5		LT BROWN	MED DENSE ↓ LOOSE	F-M-C SAND			MOIST ↓
		S-2	SS	5	3	60						
				4	4		GRAY BROWN	LOOSE ↓	F-M SAND SOME C-SAND	FILL		
5		S-3	SS	3	2	35						
				2	3							
		S-4	SS	3	2	50	ORANGE BROWN / RED BROWN	MED STIFF ↓	SILT, TRACE CLAY	ML		
				2	1							
		S-5	SS	2	2	60						
10				2	3		RED BROWN	MED STIFF	FINE SAND, SOME SILT			
									E.O.B			
15									SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 7.5' & 8.5'			
20												
25												
30												
35												

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-20

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-21

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/18/94
DATE FINISHED: 2/18/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID ppm	REMARKS
		S-1	SS	32 20 / 14 4	85	DRK GRAY	DENSE ↓ LOOSE	TOP 3" FC GRAVEL F-M-C SAND	FILL		MOIST
		S-2	SS	4 4 / 2 2	40						
5		S-3	SS	2 2 / 2 2	25	BROWN	LOOSE	FINE SAND, SOME SILT, TRACE M-C SAND	FILL		
		S-4	SS	2 2 / 2 2	35						
		S-5	SS	2 2 / 2 2	40	ORANGE BROWN	SOFT	SILT, TRACE CLAY	ML		
10		S-6	SS	3 3 / 3 4	85	RED BROWN	MED STIFF	SILT, SOME FINE SAND, TRACE CLAY	ML		
						GRAY	MED STIFF	SILT, SOME CLAY	ML		
								E.O.B			
15								SOIL SAMPLES COLLECTED FOR VOLITALE ANALYSIS FROM DISCRETE INTERVALS @ 8.5' & 8'			
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-21

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-22

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/21/94
DATE FINISHED: 2/21/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS		REMARKS
		S-1	SS	25 18 / 10 7	60	LT BROWN	MED DENSE	TOP 3" GRAVEL F-M SAND, SOME SILT		2	MOIST
		S-2	SS	5 7 / 7 4	50					35	
5		S-3	SS	4 4 / 3 4	35	RED BROWN	MED STIFF	SILT, SOME F SAND, TRACE CLAY		3	VERY MOIST
		S-4	SS	7 8 / 6 7	60		STIFF			4	
		S-5	SS	3 2 / 3 2	50	BROWN	MED STIFF	SILT, SOME CLAY		5	
10		S-6	SS	1 1 / 2 4	100	DRK BROWN	SOFT	TRACE ORGANICS (ROOTS, PEAT)		25	
		S-7	SS	4 2 / 2 3	70					25	
15		S-8	SS	3 4 / 6 22	85	RED BROWN	STIFF	SILT, SOME F-SAND, TRACE CLAY, TRACE ROCK FRAGMENTS		3	
								E.O.B.			
20								SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 10.5' & 15'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-22

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-23

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/18/94
DATE FINISHED: 2/18/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID ppm	REMARKS
		S-1	SS	20 18 / 6 8	70	GRAY	DENSE	F-C SAND & GRAVEL	FILL	12	
		S-2	SS	5 3 / 3 3	40	LT BROWN	LOOSE	F-M SAND, SOME SILT		40	
5		S-3	SS	3 4 / 4 6	35					9	
		S-4	SS	7 5 / 5 6	85					10	
		S-5	SS	4 3 / 3 4	85	BROWN	MED STIFF	SILT, SOME CLAY		9	
10		S-6	SS	3 4 / 4 5	100	ORANGE BROWN	MED STIFF	SILT, TRACE CLAY		15	
		S-7	SS	2 3 / 2 2	40	BROWN	MED STIFF	SILT, SOME F. SAND, TRACE CLAY		15	
15		S-8	SS	4 6 / 6 7	25	RED BROWN	STIFF	SILT AND FINE SAND		1	
								E.O.B			
20								SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 11' & 14'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-23

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-50-24

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	TYPE	CAS.	SAMP	CORE	TUBE
TYPE			SS		
DIA.			2"		
WT.			140lb		
FALL			30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 3
GROUND ELEVATION:
DATE STARTED: 2/22/94
DATE FINISHED: 2/22/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
						BROWN	LOOSE	FM-C SAND	FILL		MOIST
								MIXED WITH CONCRETE FRAGMENTS FROM 4-8'			
5		S-1	SS	2 4 / 3 2	55					6	
		S-2	SS	2 2 / 2 3	30					3	
		S-3	SS	1 3 / 3 2	46	ORANGE BROWN/ OLIVE	MED STIFF	SILT, SOME CLAY		ND	
10		S-4	SS	4 4 / 6 6	90	RD BROWN	LOOSE	F-SAND, SOME SILT		11	
		S-5	SS	2 4 / 4 5	70	OLIVE GRAY	STIFF	SILT, SOME CLAY		120	
15		S-6	SS	5 7 / 7 12	80	RED BROWN	STIFF	SILT, SOME CLAY		60	
		S-7	SS	50/2 100	100			DECOMPOSED ROCK		4	
								E.O.B			
20								SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 13' & 18'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-50-24

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-25

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/22/94
DATE FINISHED: 2/22/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS		
				DIA.		2"		
				WT.		140lb		
				FALL		30"		
				* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
						BROWN	LOOSE	F-M-C SAND	FILL		MOIST
5		S-1	SS	4 2 / 2 1	45					4	
		S-2	SS	1 2 / 2 1	40					12	
	SSS	S-3	SS	1 1 / 2 2	65	OLIVE BROWN	MED STIFF	SILT, SOME CLAY	ML	120	
10	SSS	S-4	SS	2 2 / 3 5	45					50	
	SSS	S-5	SS	2 3 / 3 3	5						
15	SSS	S-6	SS	10 12 / 15 20	70	RED BROWN	VERY STIFF	SILT, TRACE F-SAND	ML		
	SSS	S-7	SS	40 100/0"	100						
								E.O.B			
20								SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 9' & 16'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-25

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-50-26

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140lb		
FALL		30"		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/22/94
DATE FINISHED: 2/22/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY / RQD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
						RED BROWN	STIFF	SILT, TRACE F-SAND			DRY
5		S-1	SS	3 8 / 10 14	30		VERY STIFF			6	MOIST
		S-2	SS	7 6 / 7 10	70	OLIVE BROWN	STIFF	SILT, SOME CLAY		7	
10		S-3	SS	6 5 / 5 6	65			GRAY MOTTLING		7	
		S-4	SS	3 5 / 7 8	70					8	
		S-5	SS	3 6 / 12 18	70	RED BROWN	VERY STIFF	SILT, SOME CLAY		20	
15		S-6	SS	6 22 / 60 60	65			DECOMPOSED SILTSTONE		20	
								E.O.B.			
20								SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 10.5' & 15'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-50-26

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-50-27

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/22/94
DATE FINISHED: 2/22/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE				
DIA.				
WT.				
FALL				

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
				7 5		RED BROWN	LOOSE	F-SAND, SOME SILT			MOIST
5		S-1	SS	3 4	60	DRK GRAY BROWN	STIFF → VERY STIFF → MED STIFF	SILT, SOME CLAY	ML	6	
		S-2	SS	7 12 / 10 12	75					7	
10		S-3	SS	4 3 / 4 5	55					7	
		S-4	SS	5 3 / 4 5	60	OLIVE GRAY	STIFF	SILT, SOME CLAY	ML	8	
		S-5	SS	5 7 / 7 10	75	RED BROWN	STIFF	SILT, SOME CLAY	ML	12	
15		S-6	SS	4 4 / 12 70	60					6	
								E.O.B.			
20								SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 12' & 15'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-50-27

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-50-28

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140 lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2|22|94
DATE FINISHED: 2|22|94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	REMARKS
	SS SS SS					BROWN	LOOSE ↓	SILT, SOME F-SAND		
5	SS SS SS	S-1	SS	3 3 / 5 7	15	RED BROWN	STIFF ↓	SILT, SOME CLAY	ML	9
	SS SS SS	S-2	SS	2 2 / 3 3	40					8
	SS SS SS	S-3	SS	2 1 / 2 1	35	ORANGE BROWN	SOFT ↓ MED STIFF	SILT, SOME CLAY TRACE ORGANICS (ROOTS PLANTS)	ML	9
10	SS SS SS	S-4	SS	2 2 / 3 3	65					7
	SS SS SS	S-5	SS	3 2 / 2 4	70	OLIVE GRAY	MED STIFF ↓	SILT, SOME CLAY	ML	7
15	SS SS SS	S-6	SS	4 6 / 9 19	90	RED BROWN	STIFF	SILT, TRACE CLAY ROCK FRAGMENTS	ML	
								E.O.B.		
20								SOIL SAMPLES COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 11' & 16.5'		
25										
30										
35										

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-50-28

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-29

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA - 3
GROUND ELEVATION:
DATE STARTED: 2/19/93
DATE FINISHED: 2/19/93
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS
		S-1	SS	2 2 / 2 1	60	BROWN	VERY LOOSE	F-M-C SAND, TRACE SILT	FILL	MOIST
		S-2	SS	2 2 / 2 2	45					
5		S-3	SS	2 1 / 1 2	75					
		S-4	SS	2 2 / 2 2	40					
		S-5	SS	4 4 / 5 6	90	ORANGE BROWN	STIFF	SILT, TRACE CLAY	ML	
10		S-6	SS	5 5 / 6 6	90					
								E.O.B		
15								SOIL SAMPLE COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 8' & 9'		
20										
25										
30										
35										

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-29

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SD-30

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/19/94
DATE FINISHED: 2/19/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	5 4 / 4 3	70	LT Brown	Loose	F-M-C SAND	FILL	ND	Moist
		S-2	SS	2 2 / 2 1	45	↓	Very			ND	
5		S-3	SS	2 2 / 2 2	80	Brown	Soft	SILT, some F-SAND	FILL	ND	
		S-4	SS	2 2 / 2 4	50	Brown	Very Loose	F-M-C Sand	FILL	ND	
		S-5	SS	4 5 / 5 6	80	↓	↓ Loose			ND	↓
10						Brown	Soft	SILT, TRACE CLAY	ML		
								E.O.B.			
								Soil Samples Collected From Volatile Analytics From Discrete Intervals @ 8' & 9'			
15											
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SD-30

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-31

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/18/94
DATE FINISHED: 2/18/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	4	4	60	LT BROWN	LOOSE	F-M SAND, SOME C-SAND	FILL	ND	MOIST
				4	3							
		S-2	SS	3	3	50	RD BROWN	MED STIFF	SILT, TRACE CLAY	FILL	ND	
				3	2							
5		S-3	SS	4	4	35	BROWN	MED STIFF	SILT, SOME F-SAND, TRACE C-SAND	FILL	ND	
				4	12							
		S-4	SS	4	4	50	BROWN	LOOSE	F-M SAND, SOME C-SAND	FILL	ND	
				4	5							
		S-5	SS	4	5	70						
10				5	6		ORANGE BROWN	STIFF	SILT, TRACE CLAY	ML	ND	
									E.O.B.			
									SOIL SAMPLE COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 8' & 9'			
15												
20												
25												
30												
35												

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COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-31

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-32

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE				
DIA.				
WT.				
FALL				

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/19/94
DATE FINISHED: 2/19/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	PID	REMARKS
		S-1	SS	3 4 / 4 3	60	BROWN	LOOSE ↓ VERY LOOSE ↓ LOOSE	F-M-C SAND, TRACE SILT		ND	MOIST
		S-2	SS	2 2 / 2 2	60					ND	
5		S-3	SS	2 1 / 2 2	30					ND	
		S-4	SS	2 2 / 3 4	60					ND	
		S-5	SS	3 4 / 4 4	75	ORANGE BROWN	STIFF	SILT, TRACE CLAY		ND	
10								E.O.B			
								SOIL SAMPLE COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 8' & 9'			
15											
20											
25											
30											
35											

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COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-32

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-3-SO-33

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-3
GROUND ELEVATION:
DATE STARTED: 2/18/94
DATE FINISHED: 2/18/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS		
				DIA.		2"		
				WT.		140		
				FALL		30"		
				* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	2 3 / 3 4	60	BROWN	LOOSE ↓	F-SAND, SOME SILT	FILL	ND	MOIST
		S-2	SS	3 3 / 3 3	40	LT BROWN	LOOSE ↓ VERY LOOSE	F-M SAND, SOME C-SAND, TRACE SILT	FILL	ND	
5		S-3	SS	2 2 / 2 2	40			MIXED WITH SILT & CONCRETE FRAGMENTS BETWEEN 6-6.5'		ND	
		S-4	SS	2 2 / 6 4	60		↓ LOOSE			ND	
		C-5	SS	4 5 / 6 7	70	GRAY	STIFF	SILT, TRACE CLAY		ND	
10								E.O.B			
15								SOIL SAMPLE COLLECTED FOR VOLATILE ANALYSIS FROM DISCRETE INTERVALS @ 8' & 9'			
20											
25											
30											
35											

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COMMENTS

PROJECT NO. 35355
BORING NO. SB-3-SO-33

AREA 5

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-5-SO-1

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 5 SCRAP METAL BINS
Date: 2/11/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		GRAY		CONCRETE			DRILLED THROUGH CONCRETE WITH 4¼" HSA
1.0		RED BROWN		F-SAND, SOME SILT WITH ASH & CINDERS	FILL	ND	DRY
1.5							
2.0				E.O.B A SOIL SAMPLE FOR CHEMICAL ANALYSIS WAS COLLECTED FROM 0-.5 BELOW THE CONCRETE			
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA SPLIT SPOON

Project No: 35355
Boring No: SB-5-SO-1

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URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-5-SO-2

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA-5 SCRAP METAL BINS
Date: 2/17/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5				CONCRETE			DRILLED THROUGH CONCRETE WITH 4¼ HSA
1.0		RED BROWN		SILT, SOME FINE SAND, ASH & CINDERS	FILL	ND	DRY
1.5							
2.0		DK. BROWN		FINE SAND, SOME SILT	SP	ND	
2.5				E.O.B 1 SOIL SAMPLE FOR CHEMICAL ANALYSIS WAS COLLECTED FROM 0-.5' BELOW THE CONCRETE			
3.0							

Comments: TRAFFIC COLLAR - 12" DIA - 3" DIA SPLIT SPOON

Project No: 35355
Boring No: SB-5-SO-2.

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URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-5-SO-3

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: FIELD E SCRAP METAL BINS
Date: 2/17/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
		GREY		CONCRETE			PRIMARILY CONCRETE WITH SOIL
0.5		RED BROWN		SILT, SOME F-SAND TRACE F-M GRAVEL WITH ASH & CINDERS	FILL	ND	DRY
1.0							
1.5				E 0.B			
2.0				A SOIL SAMPLE FOR CHEMICAL ANALYSIS WAS COLLECTED FROM 2'-2.5' BELOW THE CONCRETE			
2.5							
3.0							

Comments: SAMPLE COLLECTED WITH A 2" DIA SPLIT SPOON

Project No: 35355
Boring No: SB-5-SO-3

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AREA 7

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-7-50-3

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA 7
GROUND ELEVATION:
DATE STARTED: 2/10/94
DATE FINISHED: 2/10/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	100/6"	65	DRK BROWN/ BLACK		SILT, SOME F-SAND	ML	ND	MOIST
		S-2	SS	30 30 / 50 27	95	BROWN/ ORANGE BROWN		SILT, TRACE CLAY, TRACE FINE SAND	ML	ND	
5		S-3	SS	27 27 / 27 27	55	ORANGE BROWN/ RED BROWN				ND	
		S-4	SS	4 4 / 27 50	50	GREEN/ BLUE GREEN		SLUDGE, 2" SEAMS OF SILT	FILL	ND	
10		S-5	SS	100/6" / 200/6"	90	DRK BROWN		SILT, SOME CLAY, TRACE F-SAND	ML	ND	

E.O.B 10'

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:

(0-2')
(2-4')
(4-6')
(6-8')
(8-10')

VOLATILES FROM DISCRETE INTERVALS @ 2'
4'
6'
8'
10'

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COMMENTS

PROJECT NO. 35355
BORING NO. SB-7-50-3

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-7-S04

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA 7
GROUND ELEVATION:
DATE STARTED: 2/10/94
DATE FINISHED: 2/10/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	100 / 93	100	BROWN	HARD	SILT, SOME SAND, TRACE CLAY		ND	
				32 / 27							
		S-2	SS	37 / 37	65	BLUE GREEN	VERY DENSE	SLUDGE AND F-C SAND, BRICK FRAGMENTS	FILL	ND	MOIST
				93 / 100							
5		S-3	SS	52 / 48	90	ORANGE BROWN	HARD	SILT, SOME CLAY	ML	ND	
				42 / 42			SOFT				
		S-4	SS	7 / 8	90					ND	
				7 / 10							WET
		S-5	SS	8 / 8	70	RED BROWN	STIFF	SILT, SOME F-SAND	ML	ND	
10				15 / 17							
								E.O.B. 10'			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (1-2') (2-4') (4-6') (6-8') (8-10')			
20								VOLATILES FROM DISCRETE INTERVALS @ 2' 4' 6' 8' 10'			
25											
30											
35											

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COMMENTS

PROJECT NO. 35355
BORING NO. SB-7-S0-4

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-7-SO-5

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 7
GROUND ELEVATION:
DATE STARTED: 2/10/94
DATE FINISHED: 2/10/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	53 30 / 30 52	100	OLIVE/GRAY		FINE SAND SOME SILT, TRACE GRAVEL, ASH AND CINDERS THROUGHOUT	FILL	ND	MOIST
		S-2	SS	12 20 / 19 18	75	BROWN		F-C SAND AND FM GRAVEL 4" SEAM OF SLUDGE @4'	FILL	ND	
5		S-3	SS	9 9 / 10 11	75	ORANGE BROWN		SILT, SOME CLAY	ML	ND	
		S-4	SS	8 7 / 4 4	75	ORANGE BROWN		SILT, SOME CLAY TRACE F-SAND	ML	ND	
10		S-5	SS	3 2 / 7 15	45					ND	WET
		S-6	SS	4 6 / 10 15	100	ORANGE BROWN		SILT, TRACE CLAY 3" SEAM OF BLACK ORGANIC SILT WITH ROOTS	ML/OL	ND	
		S-7	SS	6 6 / 7 18	100	RED BROWN		6" SILT, TRACE CLAY 6" FINE SAND SOME SILT	ML/SP	ND	
15								E.O.B 14'			
20								SOIL SAMPLES COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-2') (2-4') (4-6') (8-10') (10-12') VOLATILES FROM DISCRETE INTERVALS @ 2' 4' 6' 10' 12'			
25											
30											
35											

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COMMENTS

PROJECT NO. 35355
BORING NO. SB-7-SO-5

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-7-50-6

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE				
DIA.				
WT.				
FALL				

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA 7
GROUND ELEVATION:
DATE STARTED: 2/10/94
DATE FINISHED: 2/10/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6"	SAMPLE RECOVERY RQD %	DESCRIPTION COLOR	DESCRIPTION CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	DESCRIPTION CLASS USCS	HNU PPM	REMARKS
		S-1	SS	100/4" / 200/3"	100	DRK BROWN/ BLACK	VERY DENSE	F. SAND, SOME SILT TRACE GRAVEL	FILL	ND	MOIST
		S-2	SS	27 17 / 19 20	90	BLACK	MED DENSE	SILT, F-SAND, SLAGE, ASH, AND CINDERS	FILL	ND	
5		S-3	SS	10 7 / 7 6	65	OLIVE BROWN	MED STIFF	SILT, SOME F-SAND	ML	ND	
		S-4	SS	4 4 / 4 7	80	GRAY/ ORANGE BROWN	MED STIFF	SILT, SOME CLAY MOTTLED	ML	ND	
10		S-5	SS	2 4 / 5 6	85					ND	

E.O.B. 10'

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:
(0-2')
(2-4')
(4-6')
(6-8')
(8-10')

VOLATILES FROM DISCRETE INTERVALS @
2'
4'
6'
8'
10'

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-7-50-6

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-7-SO-7

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 7
GROUND ELEVATION:
DATE STARTED: 2/10/94
DATE FINISHED: 2/10/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	62 100 / 52 100	85	ORANGE BROWN	HARD ↓	SILT, SOME CLAY, CINDERS AND ASH THROUGHOUT	FILL	ND	MOIST
		S-2	SS	30 32 / 62 66	70	BLUE GREEN	DENSE ↓	SLUDGE AND FM SAND; TRACE FM GRAVEL 2" SEAM SILT	FILL	ND	WET ↓
5		S-3	SS	17 16 / 7 3	40	ORANGE BROWN ↓	STIFF ↓ SOFT ↓	SILT SOME CLAY, ROCK FRAGMENTS	ML	ND	
		S-4	SS	2 2 / 2 7	85					ND	
		S-5	SS	4 4 / 3 4	90					ND	
10								E.O.B 10'			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-2') (2-4') (4.5-6') (6-8') (8-10') VOLATILES FROM DISCRETE INTERVALS @ 2' 4' 6' 8' 10'			
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-7-SO-7

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-7-SO-1

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: DIE STORAGE AREA 7
Date: 2/11/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5	SS1, SS2, SS3	ORANGE BROWN	STIFF	SILT, TRACE CLAY AND SAND	ML	ND	MOIST
1.0				EOB			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLES COLLECTED USING 3" BUCKET AUGER

Project No: 35355
Boring No: SB-7-SO-2

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-7-SO-2

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: DIE STORAGE AREA 7
Date: 2/11/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN	STIFF	SILT, SOME F-SAND, TRACE GRAVEL	ML	ND	MOIST
1.0				E.O.B			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING 3" DIA BUCKET AUGER,

Project No: 35355
Boring No: SB-7-SO-2

sblog/2/22/94

AREA 8

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-8-SO-11
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-8
GROUND ELEVATION:
DATE STARTED: 2/22/94
DATE FINISHED: 2/22/94
DRILLER: JAKE MITZELBERGER
GEOLOGIST: ANISH DESHPANDE
REVIEWED BY:

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO

GROUND WATER:				CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE	SS		
				DIA.	2"		
				WT.	140		
				FALL	30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	10 19 / 20 25	65	BROWN	DENSE ↓	F-M SAND, SOME SILT, TRACE GRAVEL ROOTS	FILL	ND	MOIST ↓
		S-2	SS	21 15 / 15 11	65	LT BROWN / BROWN	MED DENSE ↓	PAPER, WOOD, PLASTIC IN SAND AND SILT MATRIX	FILL	18	
5		S-3	SS	4 5 / 27 15	60					40	
		S-4	SS	9 8 / 7 7	65					60	WET ↓
		S-5	SS	2 1 / 4 3	40	RD BROWN ↓ DRK BROWN	MED STIFF ↓	SILT, SOME CLAY, TRACE F-M SAND	FILL	6	
10		S-6	SS	4 5 / 2 2	75					10	
		S-7	SS	4 6 / 16 10	15	RED/ BLUE GRAY	VERY STIFF	SILT & CLAY, TRACE SAND		ND	
15		S8	SS	8 12 / 16 27	75	RED BROWN	MED DENSE	F-C SAND, SOME F-C GRAVEL (SILTSTONE) WEATHERED BEDROCK		ND	
								E.O.B			
20								SOIL SAMPLES COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: 6-8' 14-16' VOLATILES FROM DISCRETE INTERVALS @ 6' & 14'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-8-SO-11

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-8-SO-12

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 8
GROUND ELEVATION:
DATE STARTED: 2/22/94
DATE FINISHED: 2/22/94
DRILLER: JAKE MITZELBERGER
GEOLOGIST: ANISH DESHPANDE
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS		REMARKS
		S-1	SS	16 15 / 21 10	60	BROWN	DENSE	F-M SAND, TRACE SILT, TRACE COARSE SAND PIECES OF RUBBER, ROOTS	FILL	ND	WET
		S-2	SS	10 16 / 16 15	50					4	
5		S-3	SS	3 9 / 6 8	25		MED DENSE			10	
		S-4	SS	5 3 / 5 13	20	GRAY BROWN	LOOSE	F-M SAND, SOME SILT, PAPER, WOOD, PLASTIC THROUGHOUT RED/ORANGE STAINING	FILL	25	
10		S-5	SS	15 19 / 21 32	0		DENSE			—	
		S-6	SS	2 2 / 2 2	40		LOOSE			45	
		S-7	SS	4 12 / 16 18	70	BLUE GRAY	VERY STIFF	SILT & CLAY, TRACE SAND		15	
15		S-8	SS	4 11 / 16 16	70	RED BROWN	DENSE	F-M SAND, TRACE F GRAVEL	SW	ND	
20								E.O.B SOIL SAMPLES COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: 10-12' 15-16' VOLATILES FROM DISCRETE INTERVALS 10' & 15'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-8-SO-12

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-8-SO-13

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-8
GROUND ELEVATION:
DATE STARTED: 2/21/94
DATE FINISHED: 2/21/94
DRILLER: JAKE MITZELBERGER
GEOLOGIST: ANISH DESHPANDE
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	PID ppm	REMARKS
		S-1	SS	14 25 / 24 20	85	BROWN	MED DENSE	F-M SAND, SOME SILT, TRACE GRAVEL (STAINED RED & PURPLE) PIECES OF WOOD THROUGHOUT	FILL	ND	MOIST
		S-2	SS	15 23 / 24 12	15					ND	
5		S-3	SS	15 17 / 25 30	75					ND	
		S-4	SS	13 15 / 17 20	60					ND	
		S-5	SS	6 7 / 7 10	60	LT BROWN/ RED BROWN	LOOSE	F-M SAND, TRACE C-SAND	FILL	ND	
10		S-6	SS	6 8 / 10 27	70					5	VERY MOIST ↓ WET
		S-7	SS	3 5 / 6 10	60	BLACK/ BROWN/ RED BROWN	LOOSE	RUBBER, GLASS, PLASTIC IN F-M SANDY MATRIX	FILL	17	
15		S-8	SS	3 4 / 7 10	75	BLUE GRAY	MED STIFF	SILT & CLAY, TRACE SAND		2	
		S-9	SS	3 4 / 7 35	65	RED BROWN		SILT (SILTSTONE) WEATHERED BEDROCK		10	
								E.O.B			
20								SOIL SAMPLES COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: 12-14' 14-16'			
25								VOLATILES FROM DISCRETE INTERVALS @ 12' & 16'			
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-8-SO-13

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-8-SO-14

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-8
GROUND ELEVATION:
DATE STARTED: 2/22/94
DATE FINISHED: 2/22/94
DRILLER: JAKE MITZELBERGER
GEOLOGIST: ANISH DESHPANDE
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3'' & 2''		
WT.		140lb		
FALL		30''		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	3'' SS	0 18 / 17 17	60	DRK BROWN	MED DENSE ↓	F-M SAND, SOME GRAVEL, TRACE SILT, ROOTS	FILL	ND	MOIST ↓ WET
		S-2	3'' SS	8 17 / 19 23	60					ND	
5		S-3	2'' SS	5 10 / 15 14	40	BROWN	MED DENSE ↓	F-SAND, SOME SILT TRACE M-SAND	FILL	—	
		S-4	2'' SS	11 8 / 6 5	0					17	
		S-5	2'' SS	1 5 / 12 6	50	DRK GRAY	STIFF ↓	SILT, SOME F-SAND MIXED WITH WOOD, PLASTIC, AND GLASS	FILL	4	
10		S-6	2'' SS	3 6 / 5 6	40					15	
		S-7	3'' SS	4 11 / 20 28	65	GRAY BLUE GRAY	STIFF ↓ VERY STIFF ↓	SILT & CLAY TRACE SAND		3	
15		S-8	2'' SS	8 33 / 36 25	80	RED BROWN		SILT, WEATHERED BEDROCK (SILTSTONE)		ND	
								E.O.B 16'			
20								SOIL SAMPLES COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: 8-10' 14-16' VOLATILES FROM DISCRETE INTERVALS @ 8' & 14'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-8-SO-14

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-8-SO-15

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		2"		
WT.		140		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 8
GROUND ELEVATION:
DATE STARTED: 2/17/94
DATE FINISHED: 2/17/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID ppm	REMARKS
		S-1	SS	18 / 60 / 55	100	ORANGE BROWN		0-.5 CONCRETE F-SAND, SOME SILT, TRACE M-C SAND	FILL	ND	
		S-2	SS	5 / 9 / 7 / 4	35	DRK GRAY		F-SAND MIXED WITH ASH & CINDERS	FILL	ND	
5		S-3	SS	3 / 2 / 2 / 1	35					ND	
								AUGER REFUSAL @ 6'			
10								SOIL SAMPLE FOR CHEMICAL ANALYSIS COLLECTED FROM 2-4'			
15											
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-8-SO-15

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-8-SO-16

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 8
GROUND ELEVATION:
DATE STARTED: 2/17/94
DATE FINISHED: 2/17/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	20 / 40 50	100	ORANGE BROWN	DENSE	0-.5' CONCRETE SAND, SOME SILT	FILL	ND	DRY
		S-2	SS	7 7 / 5 7	60		MED DENSE			ND	↓ MOIST
5		S-3	SS	7 10 / 10 4	25	GRAY BROWN	MED DENSE ↓ VERY LOOSE	ASH, SAND, BRICK, CINDERS	FILL	ND	↓
		S-4	SS	2 2 / 2 3	5					ND	
		S-5	SS	4 7 / 1 4	25		↓			ND	
10								EOB AUGER REFUSAL			
15								SOIL SAMPLE FOR CHEMICAL ANALYSIS COLLECTED FROM 4-6'			
20											
25											
30											
35											

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COMMENTS

PROJECT NO. 35355
BORING NO. SB-8-SO-16

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-8-SO-17

PROJECT: IFG TRENTON
SHEET NO. 1 OF 1
CLIENT: GENERAL MOTORS
JOB NO. : 35355
BORING CONTRACTOR: TABASCO
BORING LOCATION: AREA B NITRIC SP. AREA
GROUND ELEVATION:
DATE STARTED: 2/17/94
DATE FINISHED: 2/17/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS		
				DIA.		3"		
				WT.		140lb		
				FALL		30"		
				* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	45 45 / 18 40	85	RED BROWN	HARD ↓ VERY STIFF ↓	SILT, SOME F-SAND, TRACE GRAVEL, ASH	FILL	ND	DRY
		S-2	SS	22 22 / 22 17	50					ND	MOIST
5		S-3	SS	7 9 / 7 10	65	ORANGE BROWN	STIFF ↓ MED STIFF	SILT, TRACE CLAY	ML	ND	↓
		S-4	SS	4 4 / 6 11	70					ND	
								E.O.B.			
10								SOIL SAMPLE FOR CHEMICAL ANALYSIS COLLECTED FROM 4-4.5'			
15											
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-8-SO-17

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-8-50-18

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 8
GROUND ELEVATION:
DATE STARTED: 2/17/94
DATE FINISHED: 2/17/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE				
				DIA.				
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	21	40	95	RED BROWN	HARD ↓	SILT, SOME F-SAND, TRACE CLAY, TRACE F-GRAVEL, ASH & CINDERS	FILL	ND	MOIST ↓
				20	28							
		S-2	SS	16	16	80					ND	
				18	10		ORANGE BROWN	STIFF ↓	SILT, TRACE CLAY	ML		
5		S-3	SS	6	7	60					ND	
				7	9							
									E.O.B.			
10									SOIL SAMPLE FOR CHEMICAL ANALYSIS COLLECTED FROM 3.5-4.0'			
15												
20												
25												
30												
35												

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-8-50-18

AREA 9

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-SO-1

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		DARK BROWN		F-M SAND, SOME F-C GRAVEL, WOOD FRAGS.	SW	ND	WET
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLES COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-1

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-9-SO-2

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN		F-M SAND, SOME F-C GRAVEL (BROWN TO DARK GRAY) - PLANT & WOOD FRAGS.	SW	ND	DRY
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-2

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-SO-3

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		DARK BROWN		F-M SAND, SOME F-M GRAVEL	SW	ND	DRY
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-3

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-SO-4

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		ORANGE BROWN		F-M SAND, SOME F-M GRAVEL, TRACE SILT	SW	ND	DRY
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-4

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-SO-5

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		LIGHT TO DARK BROWN		F-M SAND, SOME F-M GRAVEL, TRACE SILT	SW	ND	DRY
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-5

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SR-9-SO-6

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		DARK BROWN		F-M SAND, SOME RED TO BLACK F-M GRAVEL	SW	ND	DRY
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-6

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-50-7

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN → DARK BROWN DARKGRAY →		F-M SAND, F-C GRAVELS	SW	ND	DRY
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" DIA. BUCKET AUGER

Project No: 35355
Boring No: SB-9-50-7

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-9-SO-8

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN		F-M SAND, SOME F-M GRAVEL WOOD FRAGS.	SW	ND	DRY
1.0				E.O.B.			
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLES COLLECTED USING A 3" DIA. BUCKET AUGER.

Project No: 35355
Boring No: SB-9-SO-8

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-SO.9

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		DARK BROWN		F-M SAND, SOME F-M GRAVELS, TRACE SILT, WOOD FRAGS.	SW	ND	DRY
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-9

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-SO-10

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN		F-M SAND, SOME BROWN TO DARK GRAY F-C GRAVEL	SW	ND	DRY
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-10

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-SO-11

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		RED-BROWN		F-M SAND, SOME RED BROWN TO DARK GRAY F-C GRAVEL, WOOD FRAGS.	SW	ND	DRY
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-11

sblog/2/22/94

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-9-SO-12

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: AREA 9 EAST SIDE PARKING LOT
Date: 2/9/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN		F-M SAND, AND F-M GRAVELS (BROWN TO DARK GRAY)	SW	ND	DRY
1.0							
1.5							
2.0							
2.5							
3.0							

Comments: SAMPLE COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-9-SO-12

sblog/2/22/94

AREA 10

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-1

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-10
GROUND ELEVATION:
DATE STARTED: 2/16/94
DATE FINISHED: 2/16/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS		
				DIA.		3"		
				WT.		140lb		
				FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	4 8 / 8 12	65	RED BROWN ↓	STIFF ↓	SILT, SOME F-SAND, TRACE CLAY		ND	MOIST ↓
		S-2	SS	9 6 / 10 11	20					ND	
5		S-3	SS	12 20 / 24 26	90	ORANGE BROWN ↓	VERY STIFF	SILT, SOME CLAY		ND	
								EOB 6'			
								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-2') (4-5') (5-6')			
10								VOLATILES FROM DISCRETE INTERVALS 2' 5' 6'			
15											
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-1

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-50-2

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-10
GROUND ELEVATION:
DATE STARTED: 2/16/94
DATE FINISHED: 2/16/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	48 45 / 16 30	41	RED BROWN	HARD ↓	SILT, SOME F-SAND, TRACE CLAY, GLASS FRAG	FILL	ND	MOIST ↓
		S-2	SS	16 40 / 30 30	35	RED BROWN	DENSE ↓	F-SAND, SOME SILT TRACE F-M GRAVEL	FILL SP/ML	ND	
5		S-3	SS	14 16 / 18 14	25	↓	MED DENSE ↓	MIXED WITH SILT FROM 4-6'		ND	
		S-4	SS	8 10 / 16 20	91	RUST/ GRAY	STIFF ↓	SILT, TRACE CLAY, MOTTLED	ML	ND	
		S-5	SS	16 20 / 20 26	91	RED BROWN	MED DENSE ↓	F-SAND, SOME SILT	SP	ND	
10		S-6	SS	28 30 / 30 50	91		DENSE ↓			ND	
15								E.O.B 12'			
20								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS (0-2') (2-3') (3-4') (4-6') (6-7'); VOLATILES FROM DISCRETE INTERVALS. 2', 6' 3', 7' 4',			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-50-2

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-3

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-10
GROUND ELEVATION:
DATE STARTED: 2/15/94
DATE FINISHED: 2/15/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS		
				DIA.		3"		
				WT.		140		
				FALL		30"		
				* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	12 24 / 18 20	90	BROWN ↓ BROWN/BLACK ↓	VERY STIFF	SILT, SOME F-SAND TRACE GRAVEL MIXED WITH ASH & CINDERS 1'-2'	FILL	ND	MOIST ↓
		S-2	SS	18 18 / 12 9	75					ND	
5		S-3	SS	16 10 / 10 18	25	ORANGE BROWN	STIFF ↓	SILT, SOME CLAY TRACE ROOTS	ML	ND	WET ↓
		S-4	SS	12 14 / 10 8	13					ND	
		S-5	SS	10 14 / 14 18	95	ORANGE GRAY ↓ RED BROWN	STIFF ↓ VERY STIFF	SILT, TRACE CLAY, MOTTLED / SILT, SOME FINE SAND	ML / ML	ND	
10								E.O.B			
								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-1') (1-2') (3-4') (5-6') (9-10')			
15								VOLATILES FROM DISCRETE INTERVALS 1' 2' 4' 6' 10'			
20											
25											
30											
35											

A-3265

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-3

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-10-SO-4

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: SLUDGE DRYING BEDS
Date: 2/11/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BLACK	SOFT	SILT, SOME F-SAND, TRACE CLAY, ROOTS & ORGANICS	ML	ND	MOIST #VOA
1.0		GRAY/ BROWN	MED STIFF	SILT, SOME CLAY	ML	ND	MOIST
1.5							# VOA WET
2.0							
2.5		GRAY/ RUST BROWN		SILT, RUST BROWN MOTTLING	ML	ND	
3.0							

Comments: SAMPLES COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-10-SO-4

sblog/2/22/94

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:

(0-.5')
(.5-2')

VOA @ .5' & 1.5'

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-50-5

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
BORING LOCATION: AREA-10
SHEET NO. 1 OF 1
JOB NO. : 35355
GROUND ELEVATION:
DATE STARTED: 2/16/94
DATE FINISHED: 2/16/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	14 10 / 10 6	75	RED BROWN / GRAY BROWN	LOOSE	F-SAND, SOME SILT TRACE GRAVEL, CONCRETE FRAGMENTS MIXED WITH SLUDGE @ 3'	FILL	ND	MOIST
		S-2	SS	2 4 / 6 10	25					ND	
5		S-3	SS	10 44 / 23 30	90	ORANGE BROWN	VERY STIFF	SILT, SOME F-SAND, TRACE GRAVEL	ML	ND	
		S-4	SS	11 16 / 18 18	70	GRAY/ BROWN	VERY STIFF	SILT, SOME CLAY, MOTTLED	ML	ND	
10								E.O.B. 8'			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-1') (1-2') (2-4') (5-6') (7-8')			
20								VOLATILES FROM DISCRETE INTERVALS 1' 2' 4' 6' 8'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-50-5

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-5A

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA -10
GROUND ELEVATION:
DATE STARTED: 2/16/94
DATE FINISHED: 2/16/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:				CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE	SS		
				DIA.	3"		
				WT.	140lb		
				FALL	30"		
				* POCKET PENETROMETER READING			

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
						BROWN		F-M SAND, SOME SILT, TRACE GRAVEL	FILL	ND	* MOIST
		S-1	SS	11 8 / 2 2	70	OLIVE GRAY	MED STIFF	SLUDGE, TRACE GRAVEL, WOOD	FILL	4	
5		S-2	SS	8 25 / 16 6	90	RD BROWN	MED DENSE	F-SAND, SOME SILT MIXED WITH ASH & CINDERS	FILL	ND	
	SSSSS					GRAY	MED STIFF	SILT & PEAT	OHPT		
								E.O.B 6'			
10								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:			
15								(2-4')			
								(5-6')			
20								VOLATILES FROM DISCRETE INTERVALS 4' 6'			
25								* 0-2' DESCRIPTION FROM AUGER CUTTINGS			
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-5A

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-50-6

PROJECT: IFG TRENTON
SHEET NO. 1 OF 1
CLIENT: GENERAL MOTORS
JOB NO. : 35355
BORING CONTRACTOR: TABASCO
BORING LOCATION: AREA 10
GROUND WATER:
GROUND ELEVATION:

DATE	TIME	LEV	TYPE		CAS.	SAMP	CORE	TUBE
				TYPE		SS		
				DIA.		3"		
				WT.		140 lb		
				FALL		30"		

DATE STARTED: 2/14/94
DATE FINISHED: 2/14/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	125 125 / 90 88	90	BROWN ↓ RED BROWN	VERY DENSE ↓ MED DENSE	F-M SAND, SOME F-M GRAVEL, TRACE SILT, CONCRETE FRAGMENTS THROUGHOUT	FILL	ND	MOIST ↓
		S-2	SS	25 23 / 100 80						ND	
5		S-3	SS	24 25 / 14 19	40					ND	
		S-4	SS	12 17 / 14 18	100	GRAY	VERY STIFF ↓	SILT, TRACE CLAY TRACE SAND	ML	ND	
10								E.O.B			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-1') (1-2') (2-4') (4-6') (6-7') VOLATILES FROM DISCRETE INTERVALS 1' 2' 4' 6' 7'			
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-50-6

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-7

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA 10
GROUND ELEVATION:
DATE STARTED: 2/15/94
DATE FINISHED: 2/15/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY RQD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	20 45 / 100/1"	100	ORANGE BROWN	VERY DENSE	F-M-C SAND, TRACE SILT	FILL	ND	MOIST
		S-2	SS	16 14 / 5 5	17		MED DENSE	CONCRETE & GLASS FRAGMENTS		ND	
5		S-3	SS	1 2 / 1 1	100	GRAY	VERY SOFT	SLUDGE	FILL	8	
		S-4	SS	WOR WOR / 12 12	60		MED STIFF			8	
10		S-5	SS	7 7 / 7 7	41			MIXED WITH SILT, CLOTH & WOOD		10	
		S-6	SS	8 8 / 18 18	75	GRAY	VERY STIFF	SILT	ML	5	
								E.O.B			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS			
20								(0-1')			
								(1-2')			
								(4-5')			
25								(8-10')			
								(11-12')			
								VOLATILES FROM DISCRETE INTERVALS: @ 1' 2' 5' 10' 12'			
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-7

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-10-SO-8

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: SLUDGE DRYING BEDS
Date: 2/11/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN/ DRK BROWN	MED STIFF	SILT, SOME FINE SAND, TRACE CLAY. ROOTS PRESENT IN TOP 4"	ML	ND	MOIST
1.0							
1.5							* VOA SAMPLE WET
2.0		ORANGE BROWN	MED STIFF	SILT, SOME CLAY	ML	ND	WET
2.5							
3.0							* VOA

Comments: SAMPLES COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-10-SO-8

sblog/2/22/94

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:

(0-1.5')

(1.5-3.0')

VOAs @ 1.5' & 3.0'

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-9

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-10
GROUND ELEVATION:
DATE STARTED: 2/14/94
DATE FINISHED: 2/14/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140		
FALL		30"		

• POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	75 / 95 / 100 / 50	95	BROWN	VERY DENSE	F-M SAND, SOME SILT, TRACE GRAVEL & COARSE SAND	FILL	ND	MOIST
		S-2	SS	45 / 54 / 45 / 35	30	BROWN	VERY DENSE	FM SAND, SOME SILT & FM GRAVEL, BRICK & CONCRETE FRAGMENTS THROUGHOUT	FILL	ND	
5		S-3	SS	15 / 42 / 25 / 8	25		↓ DENSE			ND	WET
		S-4	SS	25 / 54 / 12 / 25	20					ND	
		S-5	SS	3 / 3 / 3 / 12	90	BLACK/ BROWN	SOFT	3" PEAT & SILT SILT, SOME CLAY	OL/PT ML	ND	
10								EOB 10'			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-1') (1-2') (2-4') (4-6') (9-10')			
20								VOLATILES FROM DISCRETE INTERVALS: 1' 2' 4' 6' 10'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-9

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-10

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 10
GROUND ELEVATION:
DATE STARTED: 2/15/94
DATE FINISHED: 2/15/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	HNU PPM	REMARKS
		S-1	SS	50 20 / 10 9	80	ORANGE BROWN/ RED BROWN	MED DENSE ↓ LOOSE	F-M SAND, TRACE SILT, WOOD & ROOTS THROUGHOUT	SP	ND	MOIST WET ↓
		S-2	SS	4 7 / 7 10	50					30	
5		S-3	SS	12 47 / 15 12	40	OLIVE GRAY/ BLUE	STIFF ↓	SLUDGE, GLASS, METAL CLOTH, BLUE (PAINT?) CHIPS, RUBBER	FILL	30	
		S-4	SS	4 5 / 8 4	15					10	
10		S-5	SS	4 6 / 4 10	50	BLACK/ GRAY/ ORANGE	MED STIFF ↓	(3' BLACK ORGANIC SILT) & PEAT SILT, SOME CLAY, MOTTLED	OL/PT ML	2	

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:
(0-1')
(1-2')
(3-4')
(4-6')
(8-10')

VOLATILES FROM DISCRETE INTERVALS
1'
2'
4'
6'
10'

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-10

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-11

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA 10
GROUND ELEVATION:
DATE STARTED: 2/15/94
DATE FINISHED: 2/15/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE				
DIA.				
WT.				
FALL				

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		C-1	SS	8 10 / 10 12	85	BROWN		F-M SAND, SOME SILT	FILL	ND	WET
		S-2	SS	6 8 / 9 10	50	↓		MIXED WITH WOOD, ASH CINDERS, GLASS @ 2'		5	↓
5		S-3	SS	12 15 / 19 32	50	RED BROWN		SILT, SOME F-SAND, WOOD THROUGHOUT		15	
		S-4	SS	12 14 / 14 20	60					10	
10	SSSS CCC	S-5	SS	6 10 / 12 38	100	GRAY/ ORANGE BROWN		SILT, SOME CLAY, TRACE GRAVEL, MOTTLED		ND	MOIST
								E.O.B 10'			
								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-1') (1-2') (2-4') (4-6') (8-9')			
15								VOLATILES FROM DISCRETE INTERVALS 1' 2' 4' 6' 9'			
20											
25											
30											
35											

A-3205

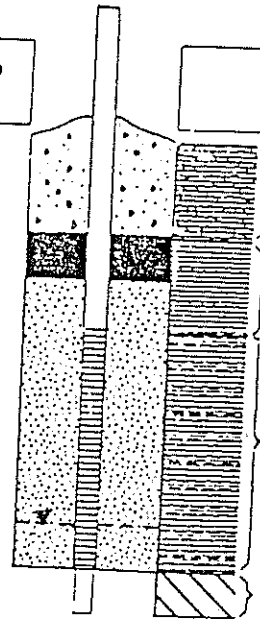
COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-11

BORING LOGS FROM PREVIOUS STUDIES

BORING No. MW-1

Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	5-11-16-19	1.0	MW-102	Clay and fill - red silt, some pebbles and coarse sand with decayed wood, concrete fragments, bituminous material
	17-13-14-13	NR	MW-124	Sandy clay - brown and grey with some orange, some pebbles, some cobbles, trace decayed plant stems
5	1-2-5-7	2.0	MW-146	
	11-7-12-16	2.0	MW-168	Silty clay - orange-brown to tan, some pebbles, trace cobble, some dark red spots (iron oxide), some decayed plant stems
	13-22-63-67	2.0	MW-1810	
10				Sandstone - red, very fine to fine-grained, thinly bedded, thin zones of white calcite
15				



Drilling Began:	3/14/86	SWL (date):	D.T.W. = 10.45' (4/10/86
Drilling Completed:	3/14/86	Elevation, Ground Surface:	119.88
Well Construction Completed:	3/14/86	Elevation, Top of Casing:	122.20
Development Completed:	3/18/86	Latitude:	40° 15' 47.02"
Total Depth:	10.0'	Longitude:	74° 48' 20.59"
Depth to Refusal:	9.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	4'-9'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

DRILLING ADMINISTRATION

Well MW 1A

Well Contractor: STOTHOFF DRILLING CO.

Address: Flemington, NJ Phone: (201) 782-2116

Name of Driller: Dennis Wene Helper(s) Jim

Rig: Number Make Reich Model T-650-W Bar Length: 20'

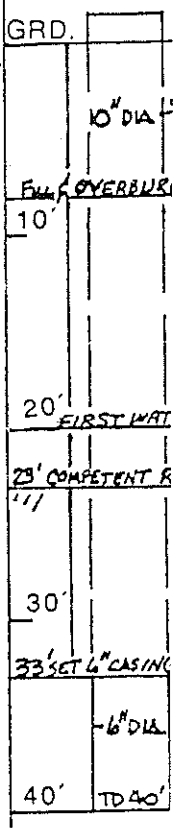
Reference Point: Grd

Casing & Grouting Summary (Amounts, Lengths, diameters): Used 9 bags of grout and 35' of 6" casing
4/27 3 additional bags of grout (cement)

Diary of Drilling

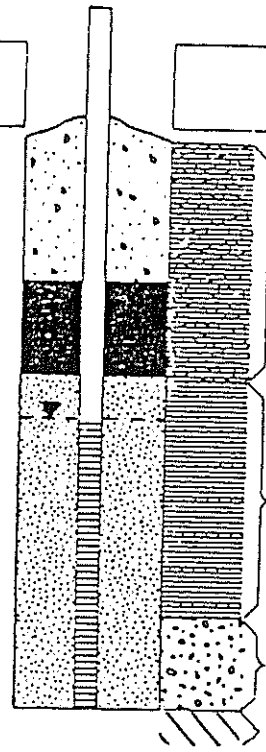
Date	Time	What Was Done & (Problems if Any)
4/26	1:00	0-8' cindery fill material w/wood fragments, shale fragments and various other material. Grading into a red sand and silt and orange silt and clay soil zone (also containing wood frags. etc.)
		8' hit rock weathered sandstone fragments coming up. Very soft from 8-20'. Abundant silt coming up with sandstone fragments. (Weathered rock)
		20' hit water (no odor in water).
		23' Rock firmed up slightly (shaley)
		28' Firm shale with silty sediment and some clay coming up in drill cuttings.
		33' Set casing in rock to 33' took weight of rig. Rock appears competent.
	1:45	Setting up to grout at 33'.
	2:20	Finished grouting.
	2:25	Steam cleaning.
		10" hole to 33' (no odor in soil or water noted)
4/27	10:30	Well did not appear to blow dry (indicating water is in the shallower fractures of the rock). More sandstone than shale fairly weathered (soft), large quantity of water. Approximately 40 gpm. Cuttings indicate red to grey fine grained sandstone and shale. Possibly in a vertical fracture as indicated by
	11:00	the large volume of water. Blew for 10 minutes on well and flooded the area. Greater than 5 vols purged water cleared.
	11:06	Steam cleaning
		TD 40' 10" hole to 33' 6" hole 33'-40'
	11:15	Finished off cement pad and diversion Apron.
		Cuttings:
		Geologist: Chris R. Young
		Other Persons on Site:

Drilling Log



BORING No. MW-2

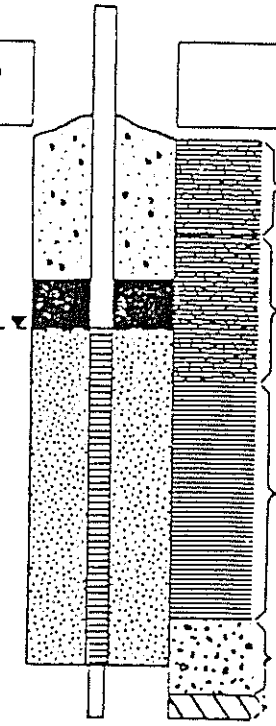
Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	1-9-7-7	2.0	MW-202	Clay and fill - tan to brown, trace pebble, trace coarse sand, trace concrete and bituminous fragments, red sandstone cobble at 1.5', scrap steel fragment at 5.0'
5	3-7-8-12	0.5	MW-257	Sandy clay - brown, some coarse sand, some plant fibers and roots, trace pebble
10	11-15-27-49	2.0	MW-21012	Sandstone - red, weathered, very fine-grained with shale, zones altered to clay, trace pebble, trace zones of grey clay
15				Competent sandstone (inferred)



Drilling Began:	3/17/86	SWL (date):	D.T.W. = 7.45' (4/10/86)
Drilling Completed:	3/17/86	Elevation, Ground Surface:	115.60
Well Construction Completed:	3/17/86	Elevation, Top of Casing:	117.33
Development Completed:	3/18/86	Latitude:	40° 15' 44.52"
Total Depth:	12.0'	Longitude:	74° 48' 20.11"
Depth to Refusal:	12.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	6'-12'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-3

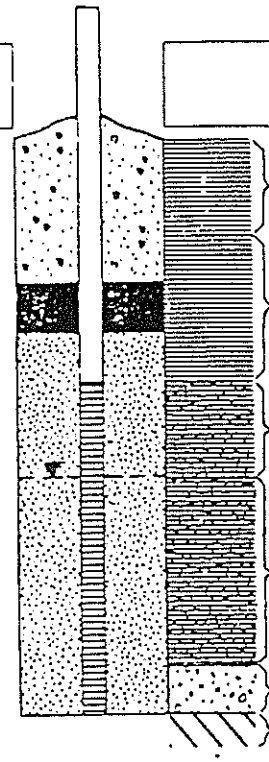
Depth in feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	3-30-10-18	1.5	MW-302	Clay and fill - reddish-brown, some pebbles, trace concrete fragments, some fine sand, plant fibers
				Clay and fill - red, some cobbles, some concrete fragments
5	2-7-11-11	2.0	MW-357	Clay - mottled grey and reddish-brown, trace very fine-grained sand, some zones of brighter red within
10	20-36-37-58	2.0	MW-31012	Sandstone - red, weathered, very fine to fine grained, thinly bedded, fissile
				Sandstone - red, very fine to fine-grained, thinly bedded, thin bands of white calcite
15				



Drilling Began:	3/14/86	SWL (date):	D.T.W. = 6.31' (4/10/86)
Drilling Completed:	3/14/86	Elevation, Ground Surface:	113.87
Well Construction Completed:	3/14/86	Elevation, Top of Casing:	116.17
Development Completed:	3/18/86	Latitude:	40° 15' 42.92"
Total Depth:	12.0'	Longitude:	74° 48' 21.11"
Depth to Refusal:	11.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	4'-11'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-4

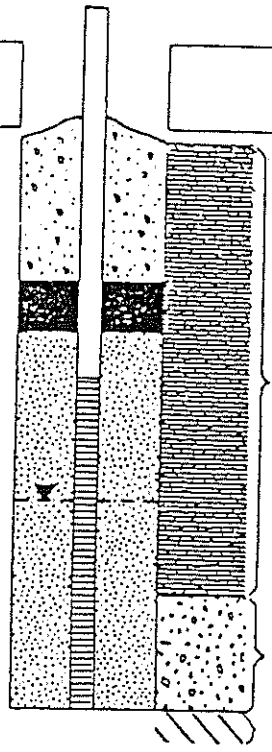
Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	3-3-4-4	0.3	MW-402	Clay - light-grey-tan, plant material, trace medium sand, mottled with brown streaks
				Clay - dark grey, trace coarse sand, heavy turpentine odor, red sandstone boulder in auger tip at 5'
5	2-1-3-28	0.9	MW-457	Clay and fill - brown, trace coarse sand, wood fragments, trace hardened sludge, metal shards, heavy turpentine odor
				Clay fill - brown to grey, trace coarse sand, some wood fragments, green and orange streaks, heavy turpentine odor
10	19-100/3"	0.75	MW-41012	Sandstone - red, weathered, very fine to fine grained, thinly bedded, fissile
15				Competent sandstone (inferred)



Drilling Began:	3/12/86	SWL (date):	D.T.W. = 9.0' (4/10/86)
Drilling Completed:	3/12/86	Elevation, Ground Surface:	112.29
Well Construction Completed:	3/12/86	Elevation, Top of Casing:	114.19
Development Completed:	3/18/86	Latitude:	40° 15' 41.05"
Total Depth:	12.0'	Longitude:	74° 48' 21.57"
Depth to Refusal:	12.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5'-12'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-5

Depth in feet	Blow Count	Recovery (ft.)	Sample No.
0	1-3-4-4	1.0	
5	3-3-3-4	0.9	
10	1-22-33-11	2.0	
15			



Description

Clay and fill - grey to brown, trace pebble, black plastic, rusty metal fragments, some bituminous fragments, large pieces of rotted wood, heavy turpentine odor

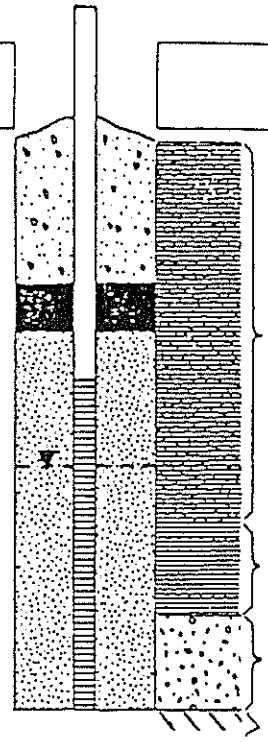
Sandstone - red, weathered, very fine to fine-grained, streaked with grey clay containing plant fibers, more competent material at 11.5'

Competent sandstone (inferred)

Drilling Began:	3/12/86	SWL (date):	D.T.W. = 9.52' (4/10/86)
Drilling Completed:	3/12/86	Elevation, Ground Surface:	111.45
Well Construction Completed:	3/12/86	Elevation, Top of Casing:	113.35
Development Completed:	3/18/86	Latitude:	40° 15' 39.88"
Total Depth:	12.0'	Longitude:	74° 48' 22.54"
Depth to Refusal:	12.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5'-12'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

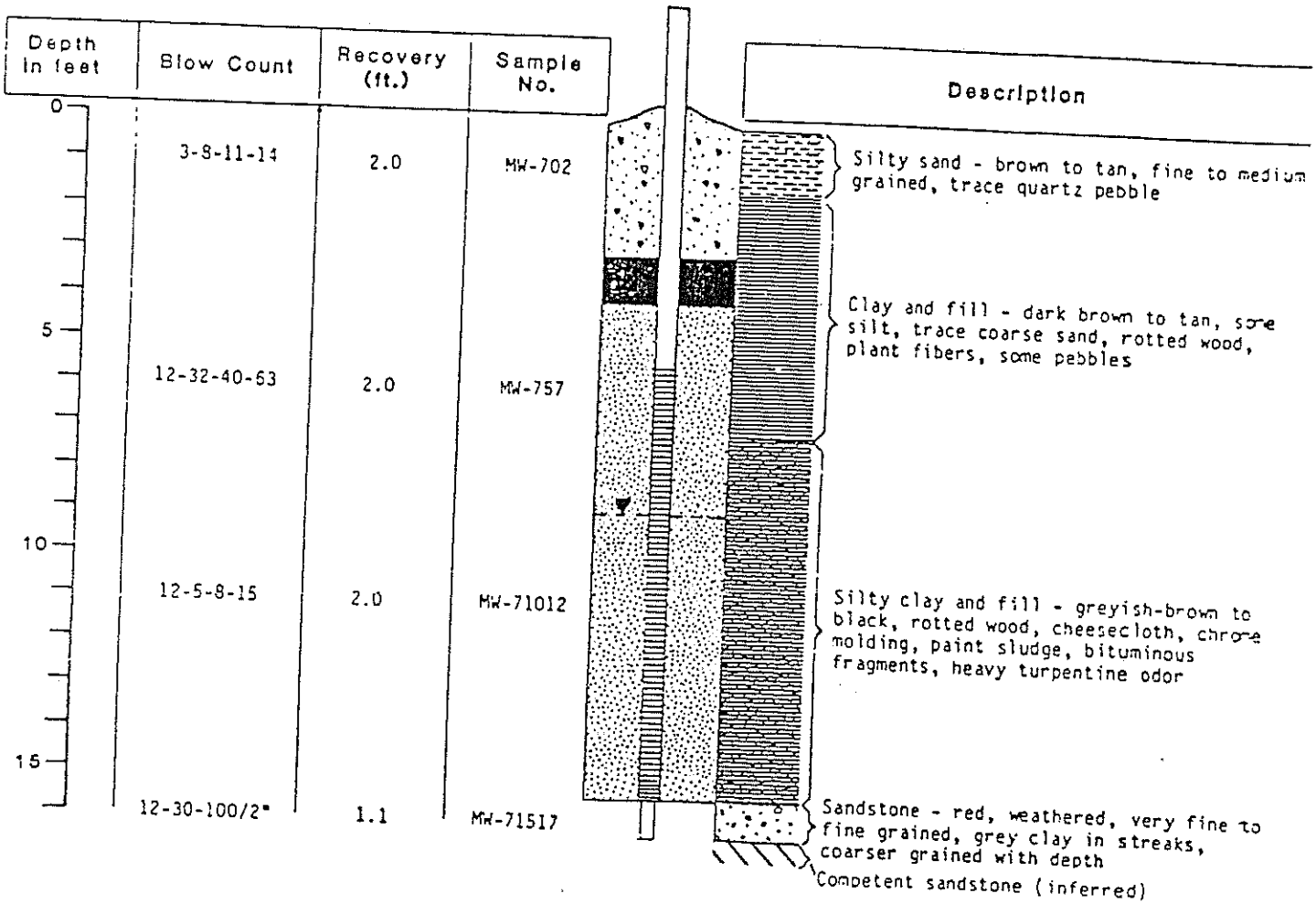
BORING No. MW-6

Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	3-5-4-4	2.0	MW-602	Clay and fill - brown to grey, trace coarse sand, glass fragments, rotted wood, bituminous fragments, rusted metal fragments, trace dried sludge between 2.5-2.65', occasional red sandstone pebble, notable turpentine odor
	4-4-4-4	2.0	MW-624	
5	1-4-4-2	2.0	MW-646	
	3-3-4-5	2.0	MW-668	
	1-2-5-11	2.0	MW-6810	Sandy clay - greyish-brown, medium grained, trace pebble
10	4-15-33-100/5"	1.9	MW-61012	Sandstone - light grey to brown, weathered, fine to medium grained, some clay in streaks, weathered with more competent material at 11.0'
15				Competent sandstone (inferred)



Drilling Began:	3/10/86	SWL (date):	D.T.W. = 9.26' (4/10/86)
Drilling Completed:	3/10/86	Elevation, Ground Surface:	110.92
Well Construction Completed:	3/10/86	Elevation, Top of Casing:	113.30
Development Completed:	3/17/86	Latitude:	40° 15' 39.20"
Total Depth:	12.0'	Longitude:	74° 48' 23.42"
Depth to Refusal:	12.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5'-12'	Monitoring Jube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-7



Drilling Began:	3/7/86	SWL (date):	D.T.W. = 11.28' (4/9/86)
Drilling Completed:	3/7/86	Elevation, Ground Surface:	118.32
Well Construction Completed:	3/7/86	Elevation, Top of Casing:	120.71
Development Completed:	3/17/86	Latitude:	40° 15' 39.65"
Total Depth:	16.2'	Longitude:	74° 48' 27.93"
Depth to Refusal:	15.5'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5.5'-15.5'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

DRILLING ADMINISTRATION

Well 7A

Well Contractor: STOTHOFF DRILLING CO.

Address: Flemington, NJ Phone: (201) 782-2116

Name of Driller: Dennis Wene Helper(s) Jim

Rig: Number Make Reich Model T-650-W Bar Length: 20'

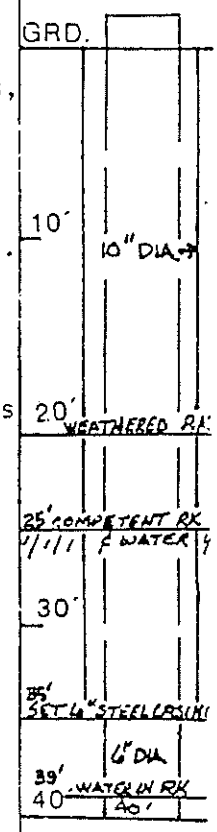
Reference Point: GRO

Casing & Grouting Summary (Amounts, Lengths, diameters): Set casing at 35' (38' of 6" steel casing). 15 bags of cement - 3 additional bags of cement 4/28/88.

Diary of Drilling

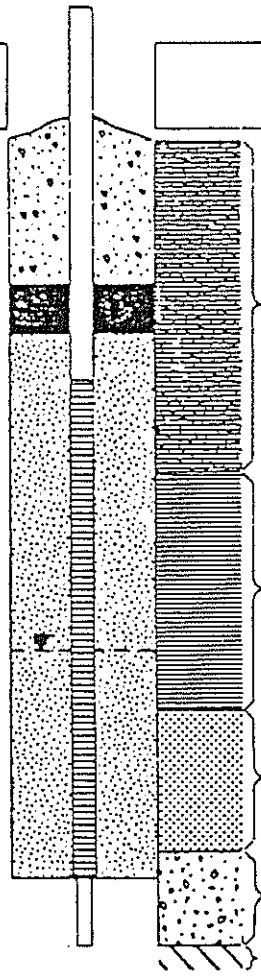
Date	Time	What Was Done & (Problems if Any)
4/27	1:45	10" hole to 6' on something hard moved off initial location
		10" hole 0-20' appears to be all fill material w/10-20' having the highest volatile organic readings on the Tip II Photo Ionizor. Fill included wood fragments, plastic, car parts, etc.
		20' started into a weathered sandstone unit with sandstone fragments, brown to red brown silt and sand, and a trace of clay coming up. Some cobble material also noted.
		25' hit water and competent rock (water at the rock interface). Rock is red to grey sand stone. A large volume of water being blown from hole.
	3:00	35' Done drilling setting casing.
	4:00	Done grouting well.
4/28	8:15	Drilling down to 40' fracture zone at 39' (water). Prior to this fracture well blew dry therefore the water encountered on 4/27 was cased off and is suspected to be all from the bedrock interface.
	8:25	Blowing well 15 gpm.
	8:45	Blowing well 15 gpm.
	9:00	Water in well bore clear stopped blowing well.
	9:00	Finished off cement diversion apron around well casing.
		Cuttings:
		Geologist: Chris R. Young
		Other Persons on Site:

Drilling Log



BORING No. MW-8

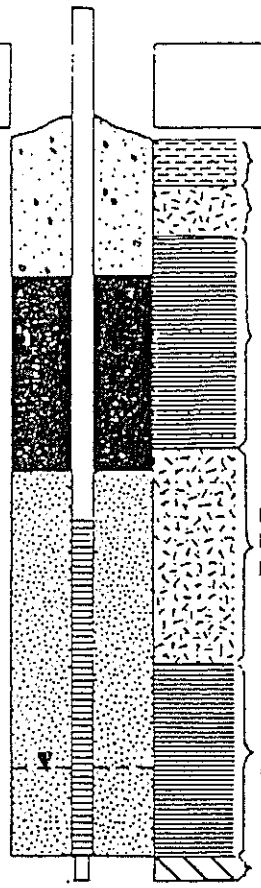
Depth in feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	7-7-10-22	2.0	MW-802	Clay and fill - brown to grey with some orange, some coarse sand, brick fragments, rotted wood, rags, paint sludge (luminescent sheen), bituminous fragments
5	4-4-4-5	2.0	MW-857	
10	2-4-4-14	2.0	MW-81012	Clay - brown to red, trace coarse sand, trace pebble, cohesive
				Sand - reddish-brown, medium to coarse grained, mostly quartz, trace grey clay
15	16-15-37-50	2.0	MW-81517	Sandstone - red, weathered, fine to medium grained, fissile
				Competent sandstone (inferred)



Drilling Began:	3/10/86	SWL (date):	D.T.W. = 12.56' (4/10/86)
Drilling Completed:	3/10/86	Elevation, Ground Surface:	131.27
Well Construction Completed:	3/10/86	Elevation, Top of Casing:	133.07
Development Completed:	3/17/86	Latitude:	40° 15' 41.83"
Total Depth:	17.0'	Longitude:	74° 48' 35.05"
Depth to Refusal:	15.5'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5.5'-15.5'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORiNG No. MW-9

Depth in feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	2-3-9-24	2.0	MW-902	Silty sand - light brown, fine to medium grained
				Fill - black to brown, rock fragments (quartz-plagioclase), concrete and some bituminous fragments, some pebbles
5	12-9-10-15	1.75	MW-957	Sandy clay - red, fine to medium grained, some pebbles and cobbles
				Fill and sand - medium grained, orange-brown and black, paint sludge, metal parts, heavy turpentine odor
10	4-11-10-5	1.0	MW-91012	
				Clay - red, trace coarse sand, streaks of grey, plant fibers
15	100/6"	0.5	MW-91517	Sandstone - grey to white, medium to very coarse grained, mostly quartz, trace grey clay present



Drilling Began:	3/7/86	SWL (date):	D.T.W. = 15.55' (4/10/86
Drilling Completed:	3/7/86	Elevation, Ground Surface:	127.51
Well Construction Completed:	3/7/86	Elevation, Top of Casing:	129.83
Development Completed:	3/17/86	Latitude:	40° 15' 42.65"
Total Depth:	15.5'	Longitude:	74° 48' 30.54"
Depth to Refusal:	15.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	8'-15'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

DRILLING ADMINISTRATION

Well MW 9A

Well Contractor: STOTHOFF COMPANY

Address: Flemington, New Jersey Phone: (201) 782-2116

Name of Driller: Dennis Wene Helper(s) Jim

Rig: Number Make Reich Model T-650-W Bar Length: 20'

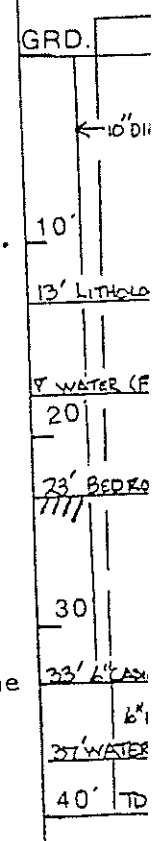
Reference Point: Grd

Casing & Grouting Summary (Amounts, Lengths, diameters): Set 6" steel casing to 35', used 12 bags of cement on 4/26, used 4 additional bags on 4/27, grouted using pressure grouting system.

Diary of Drilling

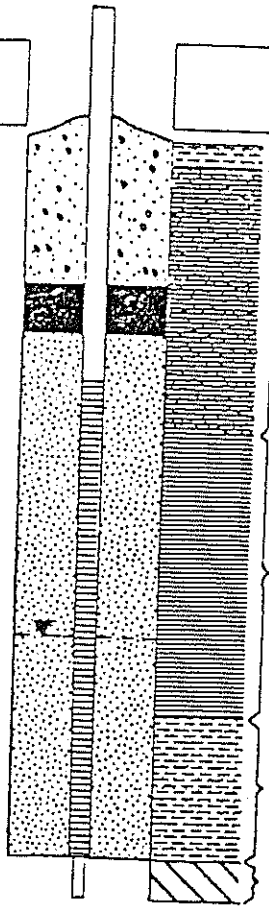
Date	Time	What Was Done & (Problems if Any)
4/26	9:00	- 0-13' went through an overburden zone of red brown silt with some sand - slight hydrocarbon odor. Used a Tip II Photo-ionizer to detect Volatile Organics (calibrated for Benzene) - not functioning properly - low battery signal.
		- 13'-23' grey white to brown sand/silt/cobbles trace clay. Predominantly coarse grained. Suspected weathered sandstone, however, tried to set casing and casing pushed through. water at 18' (detectable hydrocarbon odor in water). Pulled casing and continued drilling.
	10:00	- Casing pulled - red-brown weathered shale plugged in tip of casing (rk).
		- rk starts at 23' (red shale) argillaceous drilled to 33' set 6" casing. 10" hole continues from 0-33'.
	11:00	Grouting casing (top shale weathered oxidation staining noted on surfaces of shale).
4/27	11:20	Set-up on well
		- Blew water out of casing, well blew dry (water was entering at overburden - rk interface which was cased off.
	11:50	Drilling down (red sandstone/shale units intermixed) water at 37' (fine grained red sandstone)
	12:00	Down at 40' blowing out well (developing). Blown yield @ 20 gpm. Well not clearing immeidately, picking up sandstone
	12:20	wash, 6" hole 33'-40' water cleared 5 vols blown slight hydrocarbon odor in water.
	12:30	Done placing cement diversion apron around well casing.
		Cuttings:
		Geologist: Chris R. Young
		Other Persons on Site:

Drilling



BORING No. MW-10

Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	9-11-14-23	2.0	MW-1002	Sandy silt - brown, trace fine sand clay
5	8-32-12-4	2.0	MW-1057	Clay and fill - grey to black, gravel, red sandstone fragments, some red clay, bituminous fragments
10	25-5-7-9	2.0	MW-101012	Clay - red, trace fine sand, some competent shale zones within, occasional cobbles
15	60-100/4"	0.9	MW-101517	Silty sand - tan to brown, medium to coarse grained
				Sandstone - red, medium to very coarse grained, poorly sorted



Drilling Began:	3/6/86	SWL (date):	D.T.W. = 12.39' (4/9/86)
Drilling Completed:	3/6/86	Elevation, Ground Surface:	123.53
Well Construction Completed:	3/6/86	Elevation, Top of Casing:	125.63
Development Completed:	3/17/86	Latitude:	40° 15' 41.14"
Total Depth:	15.9'	Longitude:	74° 48' 30.70"
Depth to Refusal:	15.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5'-15'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

AREA 10

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-1

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3'		
WT.		140lb		
FALL		30'		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA -10
GROUND ELEVATION:
DATE STARTED: 2/16/94
DATE FINISHED: 2/16/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	4 8 / 8 12	65	RED BROWN	STIFF	SILT, SOME F-SAND, TRACE CLAY		ND	MOIST
		S-2	SS	9 6 / 10 11	20	↓	↓			ND	↓
5		S-3	SS	12 20 / 24 26	90	ORANGE BROWN	VERY STIFF	SILT, SOME CLAY		ND	
								EOB 6'			
10								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-2') (4-5') (5-6')			
15								VOLATILES FROM DISCRETE INTERVALS 2' 5' 6'			
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-1

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-50-2

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-10
GROUND ELEVATION:
DATE STARTED: 2/16/94
DATE FINISHED: 2/16/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	48 45 / 16 30	41	RED BROWN	HARD ↓	SILT, SOME F-SAND, TRACE CLAY, GLASS FRAG	FILL	ND	MOIST ↓
		S-2	SS	16 40 / 30 30	95	RED BROWN	DENSE ↓	F-SAND, SOME SILT TRACE F-M GRAVEL	FILL SP/ML	ND	
5		S-3	SS	14 16 / 18 14	25	↓	MED DENSE ↓	MIXED WITH SILT FROM 4-6'		ND	
		S-4	SS	8 10 / 16 20	91	RUST/ GRAY	STIFF ↓	SILT, TRACE CLAY, MOTTLED	ML	ND	
		S-5	SS	16 20 / 20 26	91	RED BROWN	MED DENSE ↓	F-SAND, SOME SILT	SP	ND	
10		S-6	SS	28 30 / 30 50	91		DENSE ↓			ND	
15								EOB 12'			
								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS			
20								(0-2')			
								(2-3')			
								(3-4')			
25								(4-6')			
								(6-7')			
								VOLATILES FROM DISCRETE INTERVALS. 2', 6' 3', 7' 4',			
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-50-2

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-3

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-10
GROUND ELEVATION:
DATE STARTED: 2/15/94
DATE FINISHED: 2/15/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS		
				DIA.		3"		
				WT.		140		
				FALL		30"		
				* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID-HNU PPM	REMARKS
		S-1	SS	12 24 / 18 20	90	BROWN ↓ BROWN/BLACK ↓	VERY STIFF	SILT, SOME F-SAND TRACE GRAVEL MIXED WITH ASH & CINDERS 1'-2'	FILL	ND	MOIST ↓
		S-2	SS	18 18 / 12 9	75					ND	
5		S-3	SS	16 10 / 10 18	25	ORANGE BROWN	STIFF ↓	SILT, SOME CLAY TRACE ROOTS	ML	ND	WET ↓
		S-4	SS	12 14 / 10 8	13					ND	
		S-5	SS	10 14 / 14 18	95	ORANGE GRAY	STIFF ↓	SILT, TRACE CLAY, MOTLED	ML	ND	
10						RED BROWN	VERY STIFF	SILT, SOME FINE SAND	ML		

E.O.B

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:

(0-1')
(1-2')
(3-4')
(5-6')
(9-10')

VOLATILES FROM DISCRETE INTERVALS

1'
2'
4'
6'
10'

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-3

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG
BORING No: SB-10-SO-4

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: SLUDGE DRYING BEDS
Date: 2/11/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BLACK	SOFT	SILT, SOME F-SAND, TRACE CLAY, ROOTS & ORGANICS	ML	ND	MOIST VOA
1.0		DK. TO BROWN	MED STIFF	SILT, SOME CLAY	ML	ND	MOIST
1.5							# VOA WET
2.0							
2.5		GRAY/ RUST BROWN		SILT, RUST BROWN MOTTLING	ML	ND	
3.0							

Comments: SAMPLES COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-10-SO-4

sblog/2/22/94

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:

(0-.5')
(.5-2')

VOA @ .5' & 1.5'

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-5

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA-10
GROUND ELEVATION:
DATE STARTED: 2/16/94
DATE FINISHED: 2/16/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	14 10 / 10 6	75	RED BROWN / GRAY BROWN	LOOSE	F-SAND, SOME SILT TRACE GRAVEL, CONCRETE FRAGMENTS MIXED WITH SLUDGE @ 3'	FILL	ND	MOIST
		S-2	SS	2 4 / 6 10	25					ND	
5		S-3	SS	10 44 / 23 30	90	ORANGE BROWN	VERY STIFF	SILT, SOME F-SAND, TRACE GRAVEL	ML	ND	
		S-4	SS	11 16 / 18 18	70	GRAY/ BROWN	VERY STIFF	SILT, SOME CLAY, MOTTLED	ML	ND	
10								E.O.B 8'			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-1') (1-2') (2-4') (5-6') (7-8')			
20								VOLATILES FROM DISCRETE INTERVALS 1' 2' 4' 6' 8'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-5

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-5A

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA -10
GROUND ELEVATION:
DATE STARTED: 2/16/94
DATE FINISHED: 2/16/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS		
				DIA.		3"		
				WT.		140lb		
				FALL		30"		
				* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
						BROWN		F-M SAND, SOME SILT, TRACE GRAVEL	FILL	ND	* MOIST
		S-1	SS	11 8 / 2 2	70	OLIVE GRAY	MED STIFF	SLUDGE, TRACE GRAVEL, WOOD	FILL	4	
5		S-2	SS	8 25 / 16 6	90	RD BROWN	MED DENSE	F-SAND, SOME SILT MIXED WITH ASH & CINDERS	FILL	ND	
	SSSS					GRAY	MED STIFF	SILT & PEAT	OH/PT		
10								E.O.B 6'			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (2-4') (5-6') VOLATILES FROM DISCRETE INTERVALS 4' 6'			
20								* 0-2' DESCRIPTION FROM AUGER CUTTINGS			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-5A

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-50-6

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140 lb		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 10
GROUND ELEVATION:
DATE STARTED: 2/14/94
DATE FINISHED: 2/14/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
0		S-1	SS	125 / 125 / 90 / 88	90	BROWN ↓ RED BROWN	VERY DENSE ↓ MED DENSE	F-M SAND, SOME F-M GRAVEL, TRACE SILT, CONCRETE FRAGMENTS THROUGHOUT	FILL	ND	MOIST ↓
		S-2	SS	25 / 23 / 100 / 80						ND	
5		S-3	SS	24 / 25 / 14 / 19	40					ND	
	SS	S-4	SS	12 / 17 / 14 / 18	100	GRAY	VERY STIFF ↓	SILT, TRACE CLAY TRACE SAND	ML	ND	
10								E.O.B			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-1') (1-2') (2-4') (4-6') (6-7') VOLATILES FROM DISCRETE INTERVALS 1' 2' 4' 6' 7'			
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-50-6

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-7

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA 10
GROUND ELEVATION:
DATE STARTED: 2/15/94
DATE FINISHED: 2/15/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU PPM	REMARKS
		S-1	SS	20 45 / 100/1"	100	ORANGE BROWN	VERY DENSE	F-M-C SAND, TRACE SILT	FILL	ND	MOIST
		S-2	SS	16 14 / 5 5	17		MED DENSE	CONCRETE & GLASS FRAGMENTS		ND	
5		S-3	SS	1 2 / 1 1	100	GRAY	VERY SOFT	SLUDGE	FILL	8	
		S-4	SS	WOR WOR / 12 12	60		MED STIFF			8	
		S-5	SS	7 7 / 7 7	41			MIXED WITH SILT, CLOTH & WOOD		10	
10		S-6	SS	8 8 / 18 18	75	GRAY	VERY STIFF	SILT	ML	5	
								E.O.B			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS (0-1') (1-2') (4-5') (8-10') (11-12')			
20								VOLATILES FROM DISCRETE INTERVALS: (1' 2' 5' 10' 12'			
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO7

URS CONSULTANTS, Inc.

SHALLOW TEST BORING LOG

BORING No: SB-10-SO-8

Project : Inland Fisher Guide Trenton
Client: General Motors

Boring location: SLUDGE DRYING BEDS
Date: 2/11/94

Depth ft	Strata	Color	Consistency	Materials Description	USCS Class	PID ppm	Comments
0.5		BROWN/ DRK BROWN	MED STIFF	SILT, SOME FINE SAND, TRACE CLAY. ROOTS PRESENT IN TOP 4"	ML	ND	MOIST
1.0							
1.5							* VOA SAMPLE WET
2.0		ORANGE BROWN	MED STIFF	SILT, SOME CLAY	ML	ND	WET
2.5							
3.0							* VOA

Comments: SAMPLES COLLECTED USING A 3" BUCKET AUGER

Project No: 35355
Boring No: SB-10-SO-8

sblog/2/22/94

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:

(0-1.5')

(1.5-3.0')

VOAs @ 1.5' & 3.0'

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-9

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140		
FALL		30"		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA-10
GROUND ELEVATION:
DATE STARTED: 2/14/94
DATE FINISHED: 2/14/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	75 / 95 / 100 / 50	95	BROWN	VERY DENSE	F-M SAND, SOME SILT, TRACE GRAVEL & COARSE SAND	FILL	ND	MOIST
		S-2	SS	45 / 54 / 45 / 35	30	BROWN	VERY DENSE	FM SAND, SOME SILT & FM GRAVEL, BRICK & CONCRETE FRAGMENTS THROUGHOUT	FILL	ND	
5		S-3	SS	15 / 42 / 25 / 8	25		↓ DENSE			ND	WET
		S-4	SS	25 / 54 / 12 / 25	20		↓			ND	
		S-5	SS	3 / 3 / 3 / 12	90	BLACK/ BROWN	SOFT ↓	3" PEAT & SILT SILT, SOME CLAY	OL/PT ML	ND	
10								EOB 10'			
15								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS: (0-1') (1-2') (2-4') (4-6') (9-10') VOLATILES FROM DISCRETE INTERVALS: 1' 2' 4' 6' 10'			
20											
25											
30											
35											

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-9

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-10

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
SHEET NO. 1 OF 1
JOB NO.: 35355
BORING LOCATION: AREA 10
GROUND ELEVATION:
DATE STARTED: 2/15/94
DATE FINISHED: 2/15/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS		
DIA.		3"		
WT.		140lb		
FALL		30"		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		S-1	SS	50 20 / 10 9	80	ORANGE BROWN/ RED BROWN	MED DENSE ↓ LOOSE	F-M SAND, TRACE SILT, WOOD & ROOTS THROUGHOUT	SP	ND	MOIST ↓ WET
		S-2	SS	4 7 / 7 10	50					30	
5		S-3	SS	12 47 / 15 12	40	OLIVE GRAY/ BLUE	STIFF ↓	SLUDGE, GLASS, METAL CLOTH, BLUE (PAINT?) CHIPS, RUBBER	FILL	30	
		S-4	SS	4 5 / 8 4	15					10	
10		S-5	SS	4 6 / 4 10	50	BLACK/ GRAY/ ORANGE	MED STIFF ↓	(3' BLACK ORGANIC SILT & PEAT) SILT, SOME CLAY, MOTTLED	OL/PT ML	2	

SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:

(0-1')
(1-2')
(3-4')
(4-6')
(8-10')

VOLATILES FROM DISCRETE INTERVALS

1'
2'
4'
6'
10'

A-3205

COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-10

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. SB-10-SO-11

PROJECT: IFG TRENTON
CLIENT: GENERAL MOTORS
BORING CONTRACTOR: TABASCO
GROUND WATER:

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE				
DIA.				
WT.				
FALL				

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35355
BORING LOCATION: AREA 10
GROUND ELEVATION:
DATE STARTED: 2/15/94
DATE FINISHED: 2/15/94
DRILLER: BILL SHINN
GEOLOGIST: JOHN TOMASELLO
REVIEWED BY:

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	PID PPM	REMARKS
		C-1	SS	8 10 10 12	95	BROWN		F-M SAND, SOME SILT	FILL	ND	WET
		S-2	SS	6 8 9 10	50	↓		MIXED WITH WOOD, ASH CINDERS, GLASS @ 2'		5	↓
5		S-3	SS	12 15 19 32	50	RED BROWN		SILT, SOME F-SAND, WOOD THROUGHOUT		15	
		S-4	SS	12 14 14 20	60					10	
	SSSS	S-5	SS	6 10 12 38	100	GRAY/ ORANGE BROWN		SILT, SOME CLAY, TRACE GRAVEL, MOTTLED		ND	MOIST
10								E.O.B 10'			
								SOIL SAMPLES WERE COLLECTED FOR CHEMICAL ANALYSIS FROM THE FOLLOWING INTERVALS:			
15								(0-1')			
								(1-2')			
								(2-4')			
								(4-6')			
20								(8-9')			
								VOLATILES FROM DISCRETE INTERVALS			
								1'			
								2'			
25								4'			
								6'			
								9'			
30											
35											

A-3205

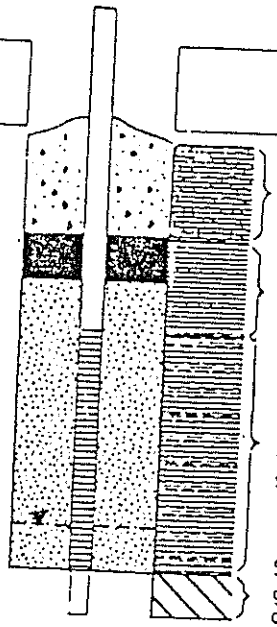
COMMENTS

PROJECT NO. 35355
BORING NO. SB-10-SO-11

BORING LOGS FROM PREVIOUS STUDIES

BORING No. MW-1

Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	5-11-16-19	1.0	MW-102	Clay and fill - red silt, some pebbles and coarse sand with decayed wood, concrete fragments, bituminous material
	17-13-14-13	NR	MW-124	Sandy clay - brown and grey with some orange, some pebbles, some cobbles, trace decayed plant stems
5	1-2-5-7	2.0	MW-146	
	11-7-12-16	2.0	MW-168	Silty clay - orange-brown to tan, some pebbles, trace cobble, some dark red spots (iron oxide), some decayed plant stems
	13-22-63-67	2.0	MW-1810	
10				Sandstone - red, very fine to fine-grained, thinly bedded, thin zones of white calcite
15				



Drilling Began:	3/14/86	SWL (date):	D.T.W. = 10.45' (4/10/86
Drilling Completed:	3/14/86	Elevation, Ground Surface:	119.88
Well Construction Completed:	3/14/86	Elevation, Top of Casing:	122.20
Development Completed:	3/18/86	Latitude:	40° 15' 47.02"
Total Depth:	10.0'	Longitude:	74° 48' 20.59"
Depth to Refusal:	9.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	4'-9'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

DRILLING ADMINISTRATION

Well MW 1A

Well Contractor: STOTHOFF DRILLING CO.

Address: Flemington, NJ Phone: (201) 782-2116

Name of Driller: Dennis Wene Helper(s) Jim

Rig: Number Make Reich Model T-650-W Bar Length: 20'

Reference Point: Grd

Casing & Grouting Summary (Amounts, Lengths, diameters): Used 9 bags of grout and 35' of 6" casing
4/27 3 additional bags of grout (cement)

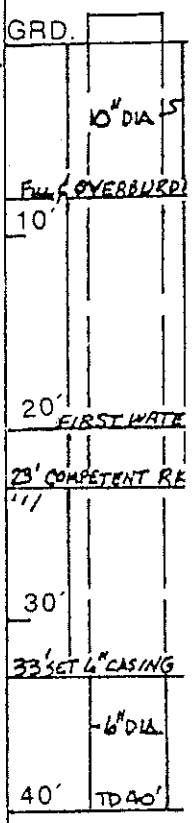
Diary of Drilling

Date	Time	What Was Done & (Problems if Any)
4/26	1:00	0-8' cindery fill material w/wood fragments, shale fragments and various other material. Grading into a red sand and silt and orange silt and clay soil zone (also containing wood frags. etc.) 8' hit rock weathered sandstone fragments coming up. Very soft from 8-20'. Abundant silt coming up with sandstone fragments. (Weathered rock) 20' hit water (no odor in water). 23' Rock firmed up slightly (shaley) 28' Firm shale with silty sediment and some clay coming up in drill cuttings. 33' Set casing in rock to 33' took weight of rig. Rock appears competent.
	1:45	Setting up to grout at 33'.
	2:20	Finished grouting.
	2:25	Steam cleaning.
4/27	10:30	10" hole to 33' (no odor in soil or water noted) Well did not appear to blow dry (indicating water is in the shallower fractures of the rock). More sandstone than shale fairly weathered (soft), large quantity of water. Approximately 40 gpm. Cuttings indicate red to grey fine grained sandstone and shale. Possibly in a vertical fracture as indicated by
	11:00	the large volume of water. Blew for 10 minutes on well and flooded the area. Greater than 5 vols purged water cleared.
	11:06	Steam cleaning TD 40' 10" hole to 33' 6" hole 33'-40'
	11:15	Finished off cement pad and diversion Apron.

Cuttings:

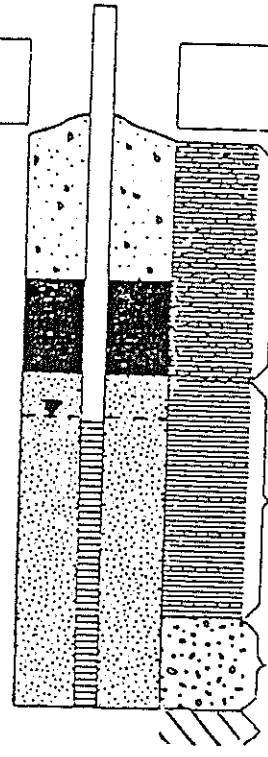
Geologist: Chris R. Young
Other Persons on Site:

Drilling Log



BORING No. MW-2

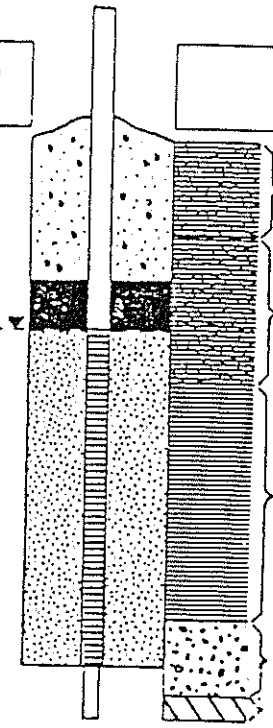
Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	1-9-7-7	2.0	MW-202	Clay and fill - tan to brown, trace pebble, trace coarse sand, trace concrete and bituminous fragments, red sandstone cobble at 1.5', scrap steel fragment at 5.0'
5	3-7-8-12	0.5	MW-257	Sandy clay - brown, some coarse sand, some plant fibers and roots, trace pebble
10	11-15-27-49	2.0	MW-21012	Sandstone - red, weathered, very fine-grained with shale, zones altered to clay, trace pebble, trace zones of grey clay
15				Competent sandstone (inferred)



Drilling Began:	3/17/86	SWL (date):	D.T.W. = 7.45' (4/10/86)
Drilling Completed:	3/17/86	Elevation, Ground Surface:	115.60
Well Construction Completed:	3/17/86	Elevation, Top of Casing:	117.33
Development Completed:	3/18/86	Latitude:	40° 15' 44.52"
Total Depth:	12.0'	Longitude:	74° 48' 20.11"
Depth to Refusal:	12.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	6'-12'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-3

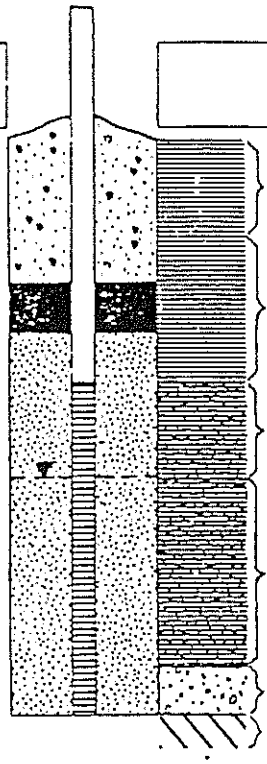
Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	3-30-10-18	1.5	MW-302	Clay and fill - reddish-brown, some pebbles, trace concrete fragments, some fine sand, plant fibers
				Clay and fill - red, some cobbles, some concrete fragments
5	2-7-11-11	2.0	MW-357	Clay - mottled grey and reddish-brown, trace very fine-grained sand, some zones of brighter red within
10	20-36-37-58	2.0	MW-31012	Sandstone - red, weathered, very fine to fine grained, thinly bedded, fissile
				Sandstone - red, very fine to fine-grained, thinly bedded, thin bands of white calcite
15				



Drilling Began:	3/14/86	SWL (date):	D.T.W. = 6.31' (4/10/86)
Drilling Completed:	3/14/86	Elevation, Ground Surface:	113.87
Well Construction Completed:	3/14/86	Elevation, Top of Casing:	116.17
Development Completed:	3/18/86	Latitude:	40° 15' 42.92"
Total Depth:	12.0'	Longitude:	74° 48' 21.11"
Depth to Refusal:	11.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	4'-11'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-4

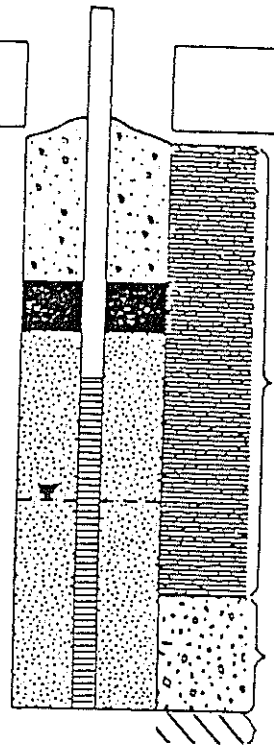
Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0				
	3-3-4-4	0.3	MW-402	Clay - light-grey-tan, plant material, trace medium sand, mottled with brown streaks
				Clay - dark grey, trace coarse sand, heavy turpentine odor, red sandstone boulder in auger tip at 5'
5				
	2-1-3-28	0.9	MW-457	Clay and fill - brown, trace coarse sand, wood fragments, trace hardened sludge, metal shards, heavy turpentine odor
				Clay fill - brown to grey, trace coarse sand, some wood fragments, green and orange streaks, heavy turpentine odor
10				
	19-100/3"	0.75	MW-41012	Sandstone - red, weathered, very fine to fine grained, thinly bedded, fissile
				Competent sandstone (inferred)
15				



Drilling Began:	3/12/86	SWL (date):	D.T.W. = 9.0' (4/10/86)
Drilling Completed:	3/12/86	Elevation, Ground Surface:	112.29
Well Construction Completed:	3/12/86	Elevation, Top of Casing:	114.19
Development Completed:	3/18/86	Latitude:	40° 15' 41.05"
Total Depth:	12.0'	Longitude:	74° 48' 21.57"
Depth to Refusal:	12.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5'-12'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-5

Depth In feet	Blow Count	Recovery (ft.)	Sample No.
0	1-3-4-4	1.0	
5	3-3-3-4	0.9	
10	1-22-33-11	2.0	
15			



Description

Clay and fill - grey to brown, trace pebble, black plastic, rusty metal fragments, some bituminous fragments, large pieces of rotted wood, heavy turpentine odor

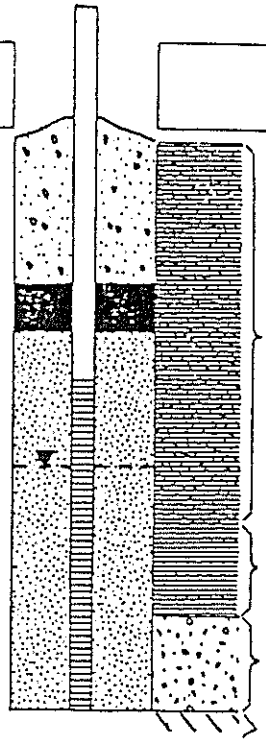
Sandstone - red, weathered, very fine to fine-grained, streaked with grey clay containing plant fibers, more competent material at 11.5'

Competent sandstone (inferred)

Drilling Began:	3/12/86	SWL (date):	D.T.W. = 9.52' (4/10/86)
Drilling Completed:	3/12/86	Elevation, Ground Surface:	111.45
Well Construction Completed:	3/12/86	Elevation, Top of Casing:	113.35
Development Completed:	3/18/86	Latitude:	40° 15' 39.88"
Total Depth:	12.0'	Longitude:	74° 48' 22.54"
Depth to Refusal:	12.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5'-12'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

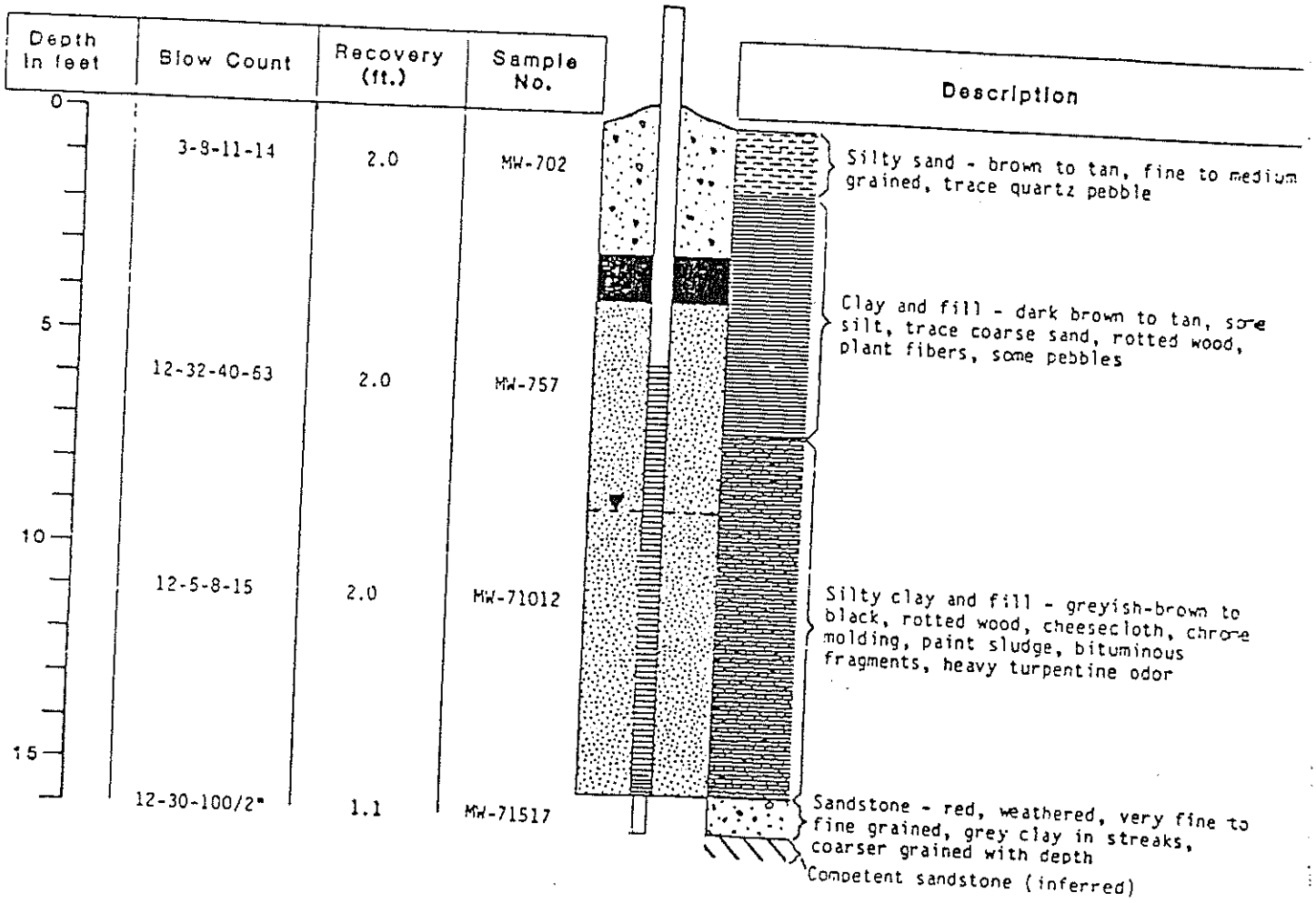
BORING No. MW-6

Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	3-5-4-4	2.0	MW-602	Clay and fill - brown to grey, trace coarse sand, glass fragments, rotted wood, bituminous fragments, rusted metal fragments, trace dried sludge between 2.5-2.65', occasional red sandstone pebble, notable turpentine odor
	4-4-4-4	2.0	MW-624	
5	1-4-4-2	2.0	MW-646	
	3-3-4-5	2.0	MW-668	
	1-2-5-11	2.0	MW-6810	Sandy clay - greyish-brown, medium grained, trace pebble
10	4-15-33-100/5"	1.9	MW-61012	Sandstone - light grey to brown, weathered, fine to medium grained, some clay in streaks, weathered with more competent material at 11.0'
				Competent sandstone (inferred)
15				



Drilling Began:	3/10/86	SWL (date):	D.T.W. = 9.26' (4/10/86)
Drilling Completed:	3/10/86	Elevation, Ground Surface:	110.92
Well Construction Completed:	3/10/86	Elevation, Top of Casing:	113.30
Development Completed:	3/17/86	Latitude:	40° 15' 39.20"
Total Depth:	12.0'	Longitude:	74° 48' 23.42"
Depth to Refusal:	12.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5'-12'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-7



Drilling Began:	3/7/86	SWL (date):	D.T.W. = 11.28' (4/9/86)
Drilling Completed:	3/7/86	Elevation, Ground Surface:	118.32
Well Construction Completed:	3/7/86	Elevation, Top of Casing:	120.71
Development Completed:	3/17/86	Latitude:	40° 15' 39.65"
Total Depth:	16.2'	Longitude:	74° 48' 27.93"
Depth to Refusal:	15.5'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5.5'-15.5'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

DRILLING ADMINISTRATION

Well 7A

Well Contractor: STOTHOFF DRILLING CO.

Address: Flemington, NJ Phone: (201) 782-2116

Name of Driller: Dennis Wene Helper(s) Jim

Rig: Number Make Reich Model T-650-W Bar Length: 20'

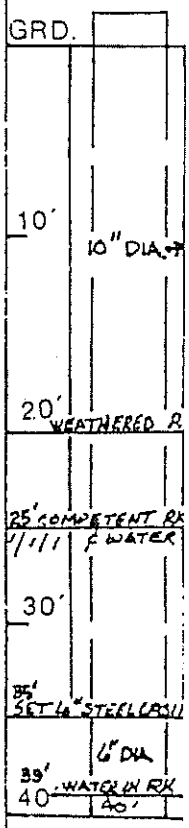
Reference Point: GRO

Casing & Grouting Summary (Amounts, Lengths, diameters) Set casing at 35' (38' of 6" steel casing). 15 bags of cement - 3 additional bags of cement 4/28/88.

Diary of Drilling

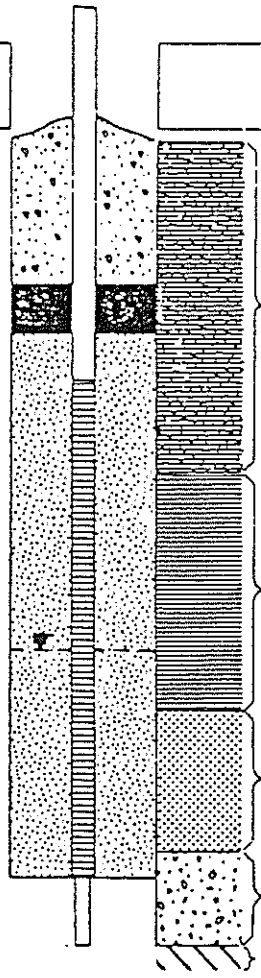
Date	Time	What Was Done & (Problems if Any)
4/27	1:45	10" hole to 6' on something hard moved off initial location 10" hole 0-20' appears to be all fill material w/10-20' having the highest volatile organic readings on the Tip II Photo Ionizor. Fill included wood fragments, plastic, car parts, etc. 20' started into a weathered sandstone unit with sandstone fragments, brown to red brown silt and sand, and a trace of clay coming up. Some cobble material also noted. 25' hit water and competent rock (water at the rock interface). Rock is red to grey sand stone. A large volume of water being blown from hole.
	3:00	35' Done drilling setting casing.
	4:00	Done grouting well.
4/28	8:15	Drilling down to 40' fracture zone at 39' (water). Prior to this fracture well blew dry therefore the water encountered on 4/27 was cased off and is suspected to be all from the bedrock interface.
	8:25	Blowing well 15 gpm.
	8:45	Blowing well 15 gpm.
	9:00	Water in well bore clear stopped blowing well.
	9:00	Finished off cement diversion apron around well casing.
		Cuttings:
		Geologist: Chris R. Young Other Persons on Site:

Drilling Log



BORING No. MW-8

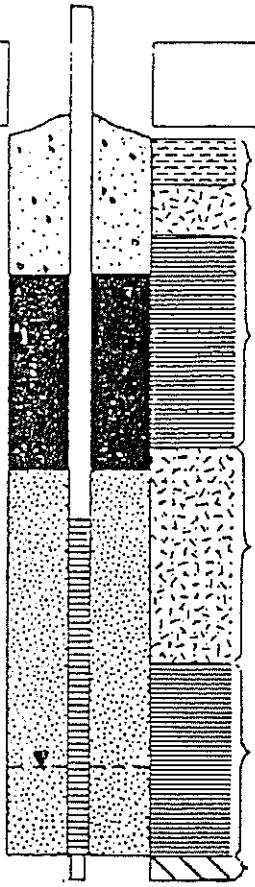
Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	7-7-10-22	2.0	MW-802	Clay and fill - brown to grey with some orange, some coarse sand, brick fragments, rotted wood, rags, paint sludge (luminescent sheen), bituminous fragments
5	4-4-4-5	2.0	MW-857	
10	2-4-4-14	2.0	MW-81012	Clay - brown to red, trace coarse sand, trace pebble, cohesive
				Sand - reddish-brown, medium to coarse grained, mostly quartz, trace grey clay
15	16-15-37-50	2.0	MW-81517	Sandstone - red, weathered, fine to medium grained, fissile
				Competent sandstone (inferred)



Drilling Began:	3/10/86	SWL (date):	D.T.W. = 12.56' (4/10/86)
Drilling Completed:	3/10/86	Elevation, Ground Surface:	131.27
Well Construction Completed:	3/10/86	Elevation, Top of Casing:	133.07
Development Completed:	3/17/86	Latitude:	40° 15' 41.83"
Total Depth:	17.0'	Longitude:	74° 48' 35.05"
Depth to Refusal:	15.5'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5.5'-15.5'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORiNG No. MW-9

Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	2-3-9-24	2.0	MW-902	Silty sand - light brown, fine to medium grained
				Fill - black to brown, rock fragments (quartz-plagioclase), concrete and some bituminous fragments, some pebbles
				Sandy clay - red, fine to medium grained, some pebbles and cobbles
5	12-9-10-15	1.75	MW-957	
				Fill and sand - medium grained, orange-brown and black, paint sludge, metal parts, heavy turpentine odor
10	4-11-10-5	1.0	MW-91012	
				Clay - red, trace coarse sand, streaks of grey, plant fibers
15	100/6"	0.5	MW-91517	Sandstone - grey to white, medium to very coarse grained, mostly quartz, trace grey clay present



Drilling Began:	3/7/86	SWL (date):	D.T.W. = 15.55' (4/10/86
Drilling Completed:	3/7/86	Elevation, Ground Surface:	127.51
Well Construction Completed:	3/7/86	Elevation, Top of Casing:	129.83
Development Completed:	3/17/86	Latitude:	40° 15' 42.65"
Total Depth:	15.5'	Longitude:	74° 48' 30.54"
Depth to Refusal:	15.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	8'-15'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

DRILLING ADMINISTRATION

Well MW 9A

Well Contractor: STOTHOFF COMPANY

Address: Flemington, New Jersey Phone: (201) 782-2116

Name of Driller: Dennis Wene Helper(s) Jim

Rig: Number Make Reich Model T-650-W Bar Length: 20'

Reference Point: Grd

Casing & Grouting Summary (Amounts, Lengths, diameters): Set 6" steel casing to 35', used 12 bags of cement on 4/26, used 4 additional bags on 4/27, grouted using ~~pressure grouting system~~.

Diary of Drilling

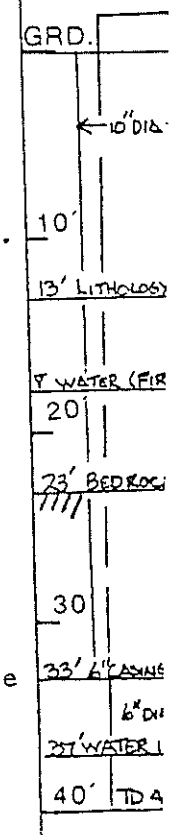
Date	Time	What Was Done & (Problems if Any)
4/26	9:00	- 0-13' went through an overburden zone of red brown silt with some sand - slight hydrocarbon odor. Used a Tip II Photo-ionizer to detect Volatile Organics (calibrated for Benzene) - not functioning properly - low battery signal.
		- 13'-23' grey white to brown sand/silt/cobbles trace clay. Predominantly coarse grained. Suspected weathered sandstone, however, tried to set casing and casing pushed through.water at 18' (detectable hydrocarbon odor in water). Pulled casing and continued drilling.
	10:00	- Casing pulled - red-brown weathered shale plugged in tip of casing (rk).
		- rk starts at 23' (red shale) argillaceous drilled to 33' set 6" casing. 10" hole continues from 0-33'.
	11:00	Grouting casing (top shale weathered oxidation staining noted on surfaces of shale).
4/27	11:20	Set-up on well
		- Blew water out of casing, well blew dry (water was entering at overburden - rk interface which was cased off.
	11:50	Drilling down (red sandstone/shale units intermixed) water at 37' (fine grained red sandstone)
	12:00	Down at 40' blowing out well (developing). Blown yield @ 20 gpm. Well not clearing immeidately, picking up sandstone wash, 6" hole 33'-40' water cleared 5 vols blown slight hydrocarbon odor in water.
	12:20	
	12:30	Done placing cement diversion apron around well casing.

Cuttings:

Geologist: Chris R. Young

Other Persons on Site:

Drilling L



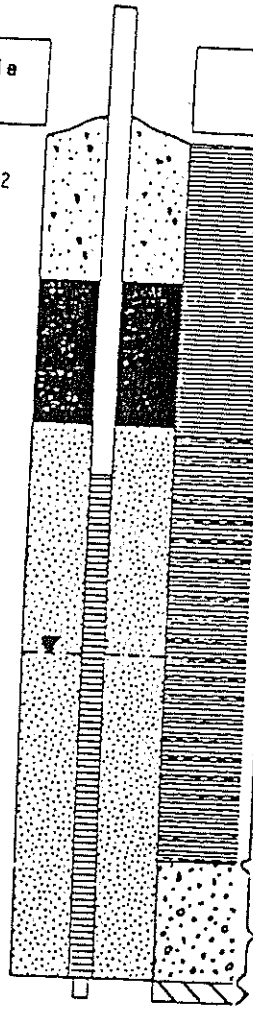
BORING No. MW-10

Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	9-11-14-23	2.0	MW-1002	Sandy silt - brown, trace fine sand clay
				Clay and fill - grey to black, gravel, red sandstone fragments, some red clay, bituminous fragments
5	8-32-12-4	2.0	MW-1057	
				Clay - red, trace fine sand, some competent shale zones within, occasional cobbles
10	25-5-7-9	2.0	MW-101012	
				Silty sand - tan to brown, medium to coarse grained
15	60-100/4"	0.9	MW-101517	Sandstone - red, medium to very coarse grained, poorly sorted

Drilling Began:	3/6/86	SWL (date):	D.T.W. = 12.39' (4/9/86)
Drilling Completed:	3/6/86	Elevation, Ground Surface:	123.53
Well Construction Completed:	3/6/86	Elevation, Top of Casing:	125.63
Development Completed:	3/17/86	Latitude:	40° 15' 41.14"
Total Depth:	15.9'	Longitude:	74° 48' 30.70"
Depth to Refusal:	15.0'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	5'-15'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-11

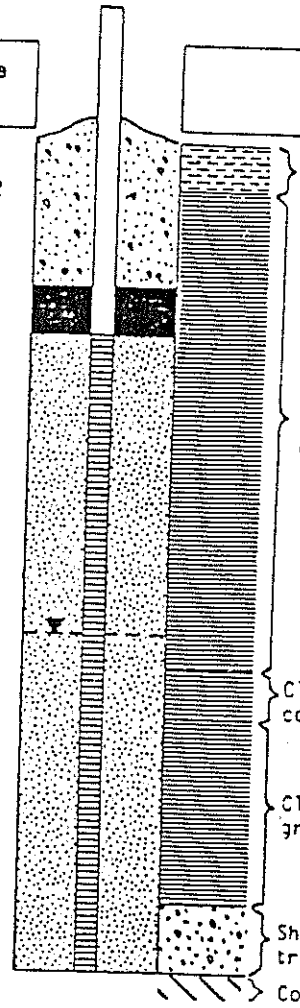
Depth in feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	6-10-12-9	2.0	MW-1102	Clay - red, trace fine sand, grey clay present in thin streaks, zones of competent red shale within, some red sandstone pebbles
5	5-16-6-5	2.0	MW-1157	
10	3-2-4-54	2.0	MW-111012	Silty clay - dark grey to brown, plant fibers, cohesive, occasional harder zones increasing with depth
15	20-39-37-44	0.9	MW-111517	Sandstone - red, weathered, fine to medium grained, fissile
	44-100/4"	0.7	MW-111719	Sandstone - red, fine to coarse grained, poorly sorted, mostly quartz



Drilling Began:	3/5/86	SWL (date):	D.T.W. = 12.78' (4/9/86)
Drilling Completed:	3/5/86	Elevation, Ground Surface:	124.38
Well Construction Completed:	3/6/86	Elevation, Top of Casing:	126.43
Development Completed:	3/17/86	Latitude:	40° 15' 41.06"
Total Depth:	17.9'	Longitude:	74° 48' 31.16"
Depth to Refusal:	17.5'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	6.5'-17.5'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

BORING No. MW-12

Depth In feet	Blow Count	Recovery (ft.)	Sample No.	Description
0	3-8-12-16	2.0	MW-1202	Silty sand - brown, fine to medium grained
	10-10-11-18	2.0	MW-1224	
5	12-7-6-4	1.75	MW-1246	Clay - red, some silt, some competent red shale is fissile, some zones of grey clay
	3-4-4-6	2.0	MW-1268	
	9-7-8-9	2.0	MW-12810	
10	2-3-5-7	2.0	MW-121012	Clay - dark grey to brown, plant fibers, cohesive
	6-12-16-27	2.0	MW-121214	
16	23-44-55-20	2.0	MW-121416	Clay - red, some sand (medium to coarse grained), trace sandstone pebbles
	40-42-58	1.5	MW-121517	Shale - red, weathered, fissile, trace coarse sand
				Competent shale (inferred)



Drilling Began:	3/5/86	SWL (date):	D.T.W. = 12.56' (4/9/86)
Drilling Completed:	3/5/86	Elevation, Ground Surface:	124.83
Well Construction Completed:	3/5/86	Elevation, Top of Casing:	127.13
Development Completed:	3/17/86	Latitude:	40° 15' 41.28"
Total Depth:	17.5'	Longitude:	74° 48' 31.76"
Depth to Refusal:	17.5'	Hole Dia.:	12" O.D., 6-5/8" I.D.
Screened Interval:	4'-17.5'	Monitoring Tube:	4" SCH 40 PVC
Aquifer:	Overburden		

DRILLING ADMINISTRATION

Well MW 13

Well Contractor: Stottoff Drilling Co.

Address: Flemington, New Jersey Phone: (201) 782-2116

Name of Driller: Dennis Wene Helper(s) Jim

Rig: Number Make Reich Model T-650-W Bar Length: 20'

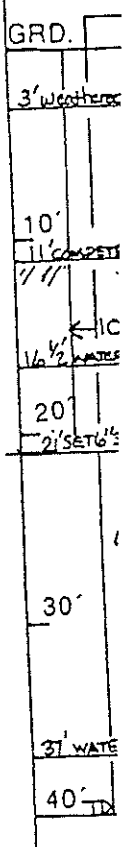
Reference Point: Grd

Casing & Grouting Summary (Amounts, Lengths, diameters) 23' of steel casing set. 9 bags of cement grount.

Diary of Drilling

Date	Time	What Was Done & (Problems if Any)
4/26	3:20	0-3' Red silt with shale and sandstone fragments. 3-7', Greater % fragments coming up suspect weathered rock. 7'-11' Rock appears to be firming 11' competent rock, red argillaceous shale (no odor in sediments). 16 1/2' Water (rose in casing to @ 3' below surface).
	3:40	Grouting.
	4:45	Done grouting.
4/27	8:00	Blew well out "dry". Casing cased off water (at overburden rock interface). Drilling through both sandstone and shale units. 37'-39', Soft drilling water encountered. Drilling to 40'. 40' TD No odor in water or soil noted
	9:00	Blowing well Flow 2.5 gpm.
	9:20	Flow 3 gpm.
	9:45	Well water clear - Done developing.

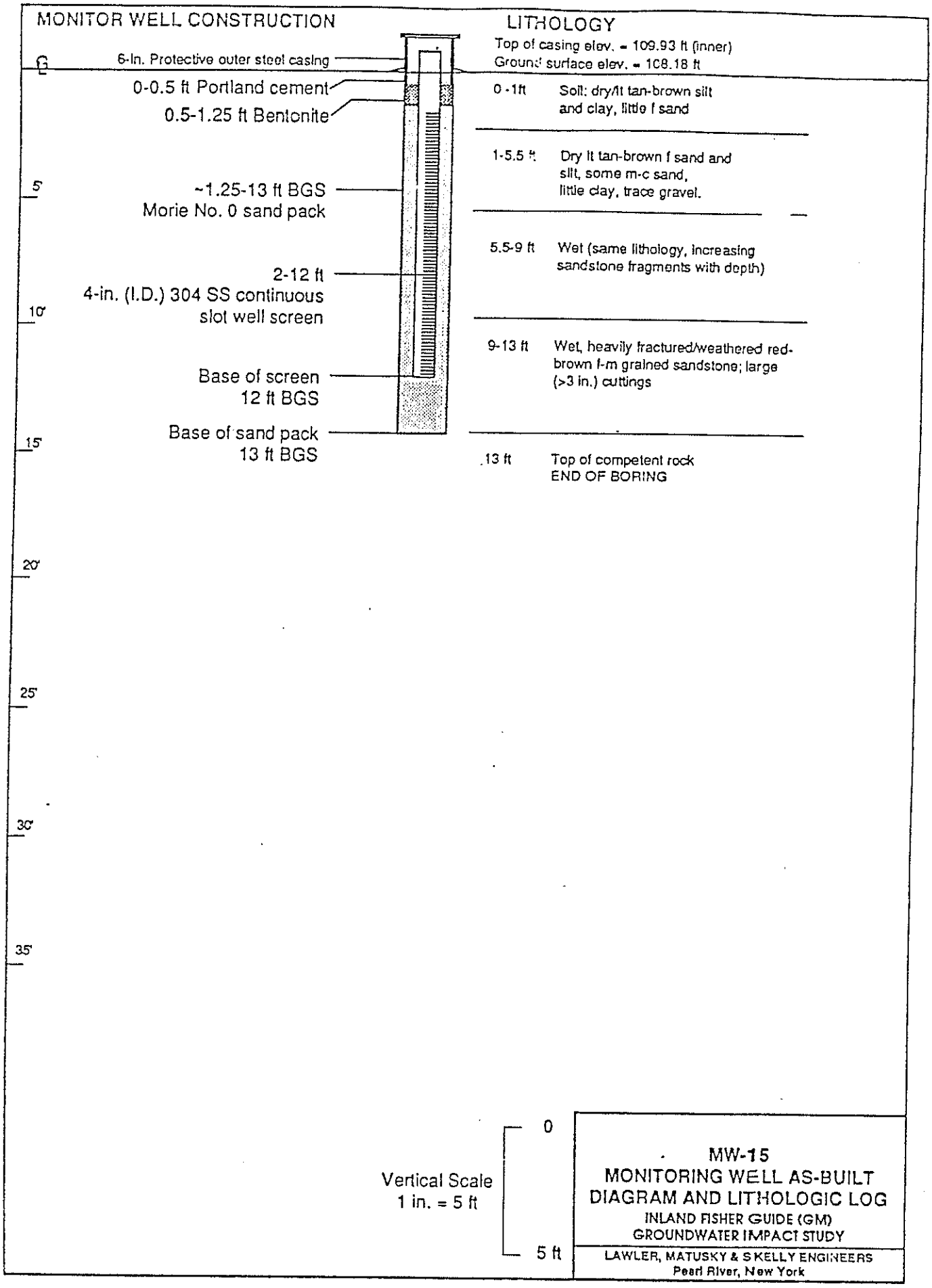
Drilling

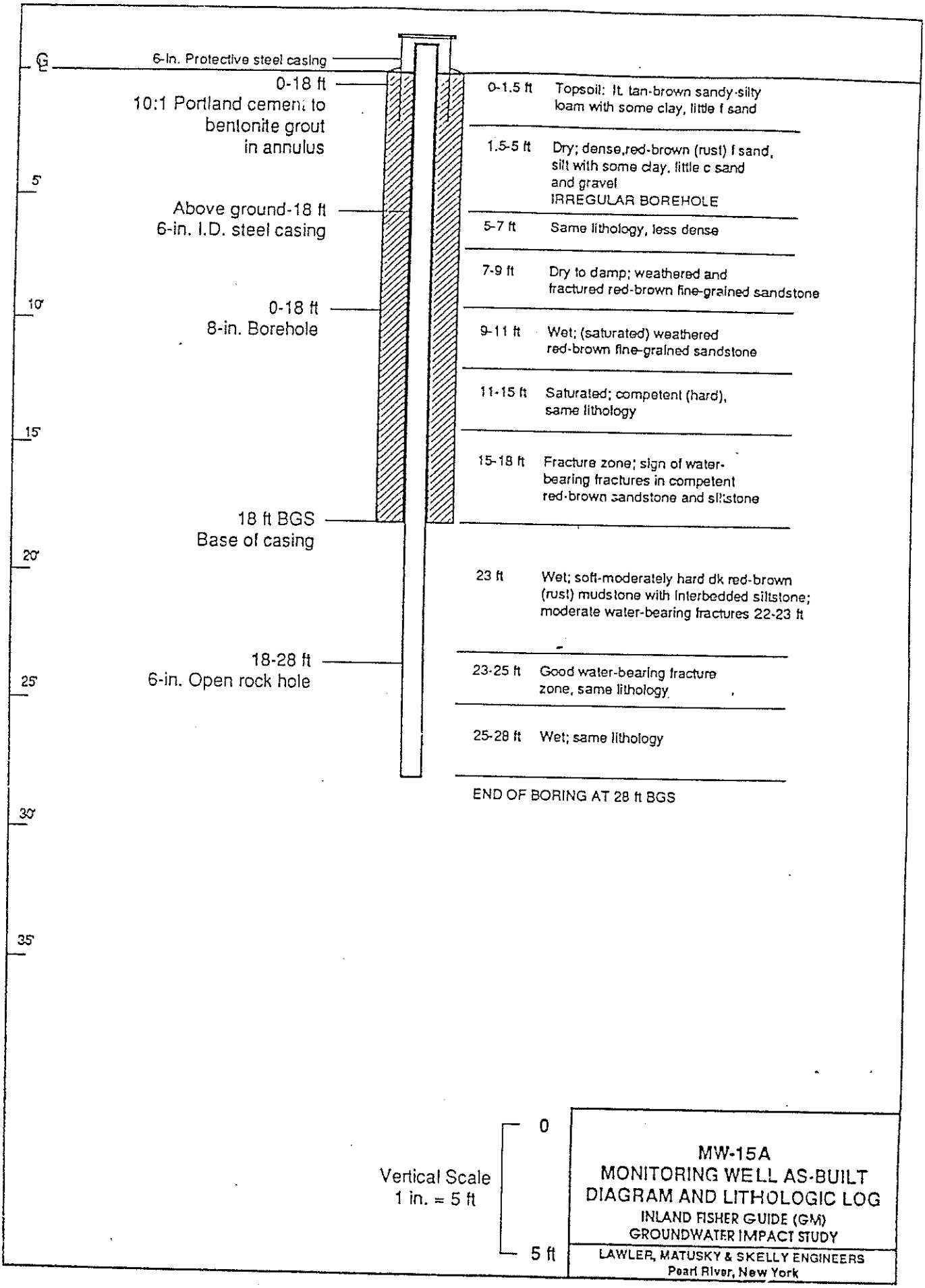


Cuttings:

Geologist: Chris R. Young

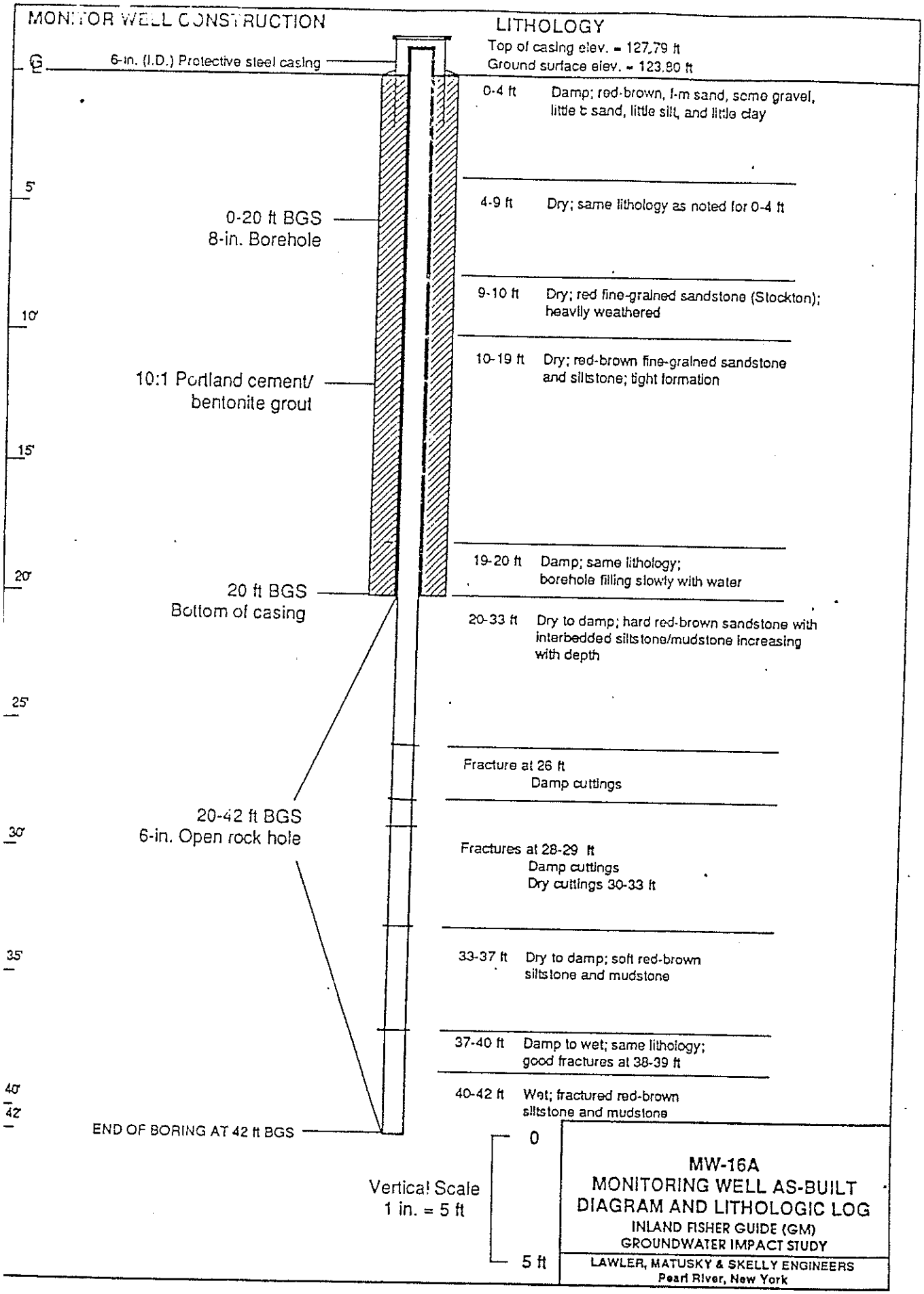
Other Persons on Site:

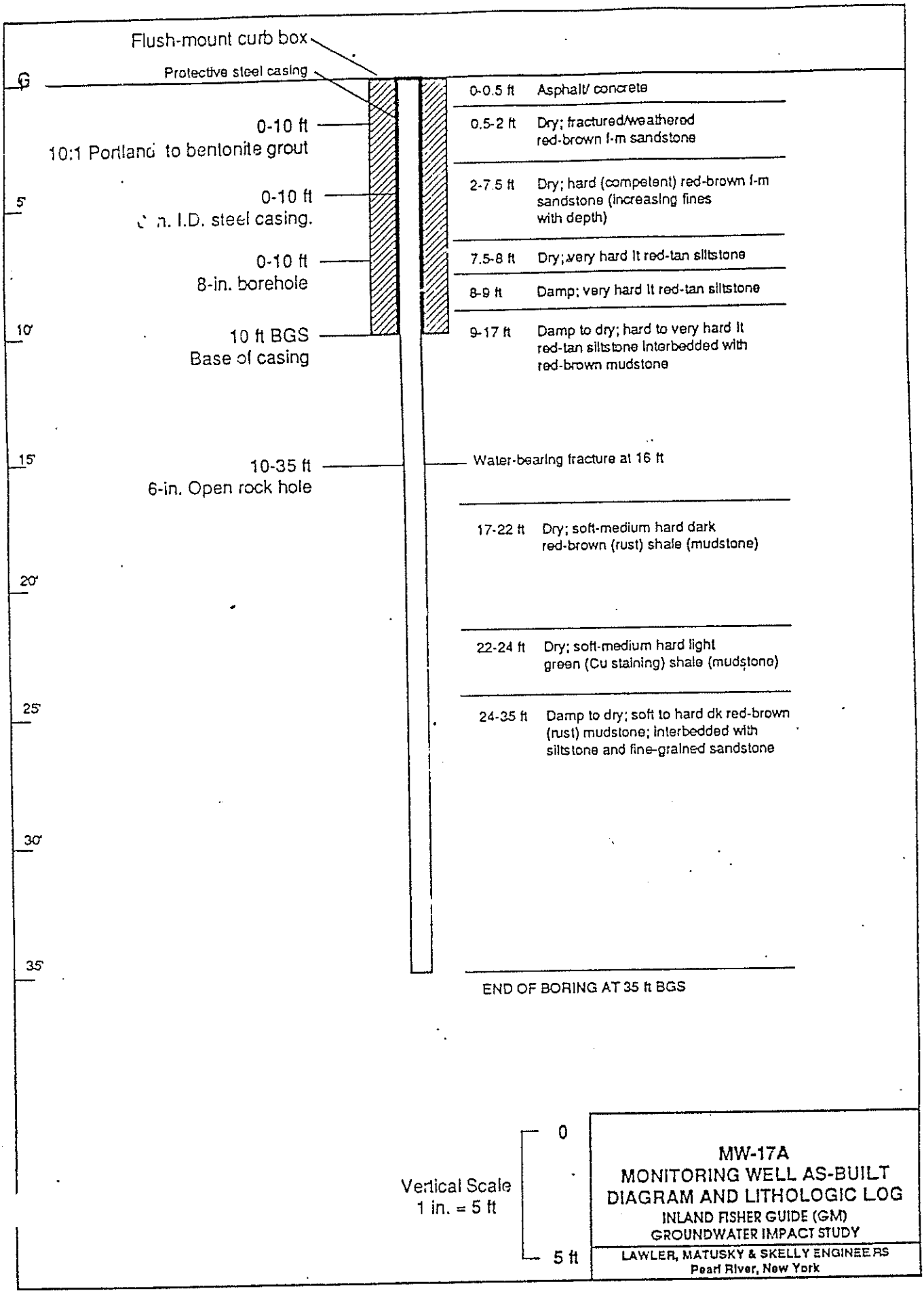

MONITOR WELL CONSTRUCTION
LITHOLOGY
Top of casing elev. = 109.93 ft (inner)
Ground surface elev. = 108.18 ft
6-in. Protective outer steel casing
0-0.5 ft Portland cement
0.5-1.25 ft Bentonite
~1.25-13 ft BGS
Morie No. 0 sand pack
2-12 ft
4-in. (I.D.) 304 SS continuous
slot well screen
Base of screen
12 ft BGS
Base of sand pack
13 ft BGS
0 - 1ft
Soil: dry/lt tan-brown silt and clay, little f sand
1-5.5 ft
Dry lt tan-brown f sand and silt, some m-c sand, little clay, trace gravel.
5.5-9 ft
Wet (same lithology, increasing sandstone fragments with depth)
9-13 ft
Wet, heavily fractured/weathered red-brown f-m grained sandstone; large (>3 in.) cuttings
13 ft
Top of competent rock
END OF BORING
5'
10'
15'
20'
25'
30'
35'
Vertical Scale
1 in. = 5 ft
0
5 ft
MW-15
MONITORING WELL AS-BUILT
DIAGRAM AND LITHOLOGIC LOG
INLAND FISHER GUIDE (GM)
GROUNDWATER IMPACT STUDY
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York



MW-15A
MONITORING WELL AS-BUILT DIAGRAM AND LITHOLOGIC LOG
INLAND FISHER GUIDE (GM)
GROUNDWATER IMPACT STUDY

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York


MONITOR WELL CONSTRUCTION
LITHOLOGY
Top of casing elev. = 127.79 ft
Ground surface elev. = 123.80 ft
6-in. (I.D.) Protective steel casing
0-20 ft BGS
8-in. Borehole
10:1 Portland cement/
bentonite grout
20 ft BGS
Bottom of casing
20-42 ft BGS
6-in. Open rock hole
END OF BORING AT 42 ft BGS
5'
10'
15'
20'
25'
30'
35'
40'
42'
0-4 ft Damp; red-brown, f-m sand, some gravel, little c sand, little silt, and little clay
4-9 ft Dry; same lithology as noted for 0-4 ft
9-10 ft Dry; red fine-grained sandstone (Stockton); heavily weathered
10-19 ft Dry; red-brown fine-grained sandstone and siltstone; tight formation
19-20 ft Damp; same lithology; borehole filling slowly with water
20-33 ft Dry to damp; hard red-brown sandstone with interbedded siltstone/mudstone increasing with depth
Fracture at 26 ft
Damp cuttings
Fractures at 28-29 ft
Damp cuttings
Dry cuttings 30-33 ft
33-37 ft Dry to damp; soft red-brown siltstone and mudstone
37-40 ft Damp to wet; same lithology; good fractures at 38-39 ft
40-42 ft Wet; fractured red-brown siltstone and mudstone
Vertical Scale
1 in. = 5 ft
0
5 ft
MW-16A
MONITORING WELL AS-BUILT
DIAGRAM AND LITHOLOGIC LOG
INLAND FISHER GUIDE (GM)
GROUNDWATER IMPACT STUDY
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York


Flush-mount curb box
Protective steel casing
G
0-10 ft
10:1 Portland to bentonite grout
0-10 ft
in. I.D. steel casing.
0-10 ft
8-in. borehole
10 ft BGS
Base of casing
10-35 ft
6-in. Open rock hole
5'
10'
15'
20'
25'
30'
35'
0-0.5 ft Asphalt/ concrete
0.5-2 ft Dry; fractured/weathered red-brown f-m sandstone
2-7.5 ft Dry; hard (competent) red-brown f-m sandstone (increasing fines with depth)
7.5-8 ft Dry; very hard lt red-tan siltstone
8-9 ft Damp; very hard lt red-tan siltstone
9-17 ft Damp to dry; hard to very hard lt red-tan siltstone interbedded with red-brown mudstone
Water-bearing fracture at 16 ft
17-22 ft Dry; soft-medium hard dark red-brown (rust) shale (mudstone)
22-24 ft Dry; soft-medium hard light green (Cu staining) shale (mudstone)
24-35 ft Damp to dry; soft to hard dk red-brown (rust) mudstone; interbedded with siltstone and fine-grained sandstone
END OF BORING AT 35 ft BGS
Vertical Scale
1 in. = 5 ft
0
5 ft
MW-17A
MONITORING WELL AS-BUILT
DIAGRAM AND LITHOLOGIC LOG
INLAND FISHER GUIDE (GM)
GROUNDWATER IMPACT STUDY
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

193.5 gallons Casing Purge 36 gallons Total Purge = 472.8 gall.

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION	PAGE NO.	HOLE NO.
GMC-Fisher Guide, Trenton, New Jersey	1 of 1	UST-1

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
4/18/88	4/18/88	W.C. Services	Pneumatic hammer	10"	6"	60.00'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
S. Clough		131.54	17.28'/114.26' 2/16/89

SAMPLE NO.	SAMPLE TYPE	RECOVERY "	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
				130	0					0 to 14 ft. TOPSOIL: some rock fragments, moist, reddish brown	No Hnu detections.
				125	5						
				120	10						
				115	15					14 to 39 ft. SILTSTONE: dry, brick red	
				110	20						
				105	25					Casing set at 25 ft.	
				100	30						
				95	35						
				90	40					39 to 60 ft. SHALE: a little very fine sand, moist, dark red. Dry between 42 to 55 ft. Moist below 55 ft.	
				85	45						
				80	50						
				75	55						
					60					End of boring @ 60 ft.	

ASTM D1586
SS = SPLIT SPOON ST = SHELBY TUBE
D = DENNISON C = CORE CS = CONTINUOUS SAMPLER
CT = CUTTINGS OT = OTHER

~~Purge~~ Total Purge = 103.5 gallons Purge = 223.2 gallons

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: GMC-Fisher Guide, Trenton, New Jersey

PAGE NO.: 1 of 1 | HOLE NO.: UST-2

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
./21/88	4/21/88	W.C. Services	Pneumatic hammer	10"	6"	40.00'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER · DATE MEASURED
S. Clough		131.58	17.35'/114.23' 2/16/89

SAMPLE NO.	SAMPLE TYPE	RECOVERY "	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
				130	0					0 to 0.5 ft. CONCRETE	
										0.5 to 5 ft. FILL: some gravel, silt, clay, sand, moist, brown to red	
				125	5					5 to 15 ft. SILT: some clay, some rock fragments at base, moist, red	Hnu=3 to 5 units
				120	10						
				115	15					15 to 37 ft. SILTSTONE: massive, dry, red	Hnu=20 units
				110	20						Hnu=35 units
				105	25					Casing set at 25 ft.	
				100	30					Fracture at 31 and 37 ft. producing water.	
				95	35						
					40					37 to 40 ft. SHALE: wet, brick red	
										End of boring @ 40 ft.	

*ASTM D1586
SS = SPLIT SPOON ST = SHELBY TUBE
D = DENNISON C = CORE CS = CONTINUOUS SAMPLER
CT = CUTTINGS OT = OTHER

GMC-Fisher Guide
Trenton, New Jersey

PAGE NO. 1 of 1 | HOLE NO. UST-2

Purge = 462.78 gallons

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION	PAGE NO.	HOLE NO.
GMC-Fisher Guide, Trenton, New Jersey	1 of 1	UST-3

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
4/21/88	4/21/88	W.C. Services	Pneumatic hammer	10"	6"	61.00'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER · DATE MEASURED
S. Clough		132.25	22.10'/110.15' 2/16/89

SAMPLE NO.	SAMPLE TYPE	RECOVERY "	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
				130	0					0 to 0.5 ft. CONCRETE	
										0.5 to 15 ft. SILT: some clay, a little cobbles, moist, brown. Color change to brownish red at 7 ft.	
				125	5						
					10						Hnu=3 units
				120							Hnu=3 units
					15					15 to 40 ft. SILTSTONE: massive (no fractures), dry, red	Hnu=50 units
				115	20						
										Facture at 22 ft., producing no water.	Hnu=1 units
				110						Casing set at 25 ft.	
					25						
				105	30						
				100							
					35						
				95							
					40					40 to 61 ft. SHALE: fissile, fracture at 51 to 52 ft.(appears dry), some fine grain sand, dry, brick red	
				90							
					45						
				85							
					50					Fractures at 51 and 52 ft.	
				80							
					55						
				75							
					60					End of boring @ 61 ft.	

*ASTM D1586 — ST = SHELBY TUBE
SS = SPLIT SPOON — C = CORE — CS = CONTINUOUS SAMPLER
D = DENNISON — CT = CUTTINGS — OT = OTHER

GMC-Fisher Guide
Trenton, New Jersey

Purge = 90 gallons Purge = 161,76 gallons

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: GMC-Fisher Guide, Trenton, New Jersey

PAGE NO.: 1 of 1 | HOLE NO.: UST-4

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
4/20/88	4/20/88	W.C. Services	Pneumatic hammer	10"	6"	40.00'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
S. Clough		131.80	20.00'/111.80' 2/16/89

SAMPLE NO.	SAMPLE TYPE	RECOVERY "	SAMPLE BLOWS"	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
				130	0					0 to 0.5 ft. CONCRETE	No Hnu detections.
				125	5					0.5 to 15 ft. SILT: very clayey, moist, brown, some olive-gray mottling. Color change to reddish brown at 11 ft.	
				120	10						
				115	15					15 to 40 ft. SILTSTONE: soft until 18 ft. (top of competent rock), dry, red	
				110	20						
				105	25					Casing set at 28 ft.	
				100	30						
				95	35					Fracture at 35 ft., producing water.	
					40					End of boring @ 40 ft.	

ASTM D1586
SS = SPLIT SPOON ST = SHELBY TUBE
D = DENNISON C = CORE CS = CONTINUOUS SAMPLER
CT = CUTTINGS OT = OTHER

Purge = 1,53 gallons

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: GMC-Fisher Guide, Trenton, New Jersey

PAGE NO.: 1 of 1 | HOLE NO.: UST-5

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
-/3/89	2/3/89	W.C. Services	Pneumatic hammer	6"	2"	20.00'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
S. Clough	131.47	131.83	17.80'/114.03' 2/16/89

SAMPLE NO.	SAMPLE TYPE	RECOVERY *	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
				130	0					0 to 0.5 ft. CONCRETE	No HNu detections.
										0.5 to 15 ft. FILL: silty, sandy, clayey, moist, red	
				125	5						
					10						
				120							
					15					15 to 20 ft. SILTSTONE: massive, dry, red	
				115	20					End of boring @ 20 ft.	

*ASTM D1586
SS = SPLIT SPOON ST = SHELBY TUBE
D = DENNISON C = CORE CS = CONTINUOUS SAMPLER
CT = CUTTINGS OT = OTHER

GMC-Fisher Guide
Trenton, New Jersey

PAGE NO.: 1 of 1 | HOLE NO.: UST-5

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION	PAGE NO.	HOLE NO.
GMC-Fisher Guide, Trenton, New Jersey	1 of 1	UST-6

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
2/3/89	2/3/89	W.C. Services	Pneumatic hammer	6"	2"	20.00'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
S. Clough	131.36	131.50	12.41'/119.09' 2/16/89

SAMPLE NO.	SAMPLE TYPE	RECOVERY "	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
				130						0 to 0.5 ft. CONCRETE	No Hnu detections.
					5					0.5 to 15 ft. FILL: silty, clayey, sandy, moist, red	
				125							
					10						
				120							
					15					15 to 20 ft. SILTSTONE: massive, dry, red	
				115							
					20					End of boring @ 20 ft.	

*ASTM D1586
SS = SPLIT SPOON ST = SHELBY TUBE
D = DENNISON C = CORE CS = CONTINUOUS SAMPLER
CT = CUTTINGS OT = OTHER

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: GMC-Fisher Guide, Trenton, New Jersey

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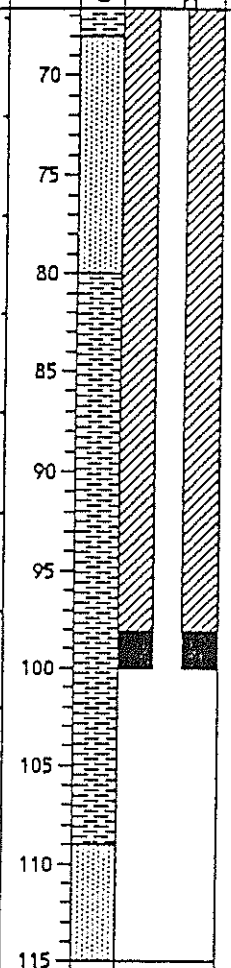
HOLE NO.: UST-7



DESCRIPTION	NOTES
68 to 80 ft. SANDSTONE: fine grain, massive, quartz rich, producing 20 GPM at 70 ft.	
As above, grain size increasing to medium, and poorly cemented	
80 to 109 ft. SILTSTONE: massive, cuttings are angular fragments, about 1 cm. in size, sandy below 93 ft. (very fine grain) dark red.	
Casing set at 100 ft.	
Fracture at 108.5 ft. producing approximately 2 GPM.	
109 to 115 ft. SANDSTONE: medium grain, massive, quartz rich, well cemented, red, making about 15 to 20 GPM	
End of boring @ 115 ft.	

*ASTM D1586
SS = SPLIT SPOON ST = SHELBY TUBE
D = DENNISON C = CORE CS = CONTINUOUS SAMPLER
CT = CUTTINGS OT = OTHER

GMC-Fisher Guide
Trenton, New Jersey

PAGE NO. 2 of 2

HOLE NO. UST-7

Purge=414 gallons Purge = 529.2 gallons

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: GMC-Fisher Guide, Trenton, New Jersey

PAGE NO.: 1 of 2 | HOLE NO.: UST-7

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
2/. 3	2/3/89	W.C. Services	Pneumatic hammer	10"	6"	115.00'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
S. Clough	131.96	132.09	23.25'/108.84' 2/16/89

SAMPLE NO.	SAMPLE TYPE	RECOVERY *	SAMPLE BLOWS*	ELEV.	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
				130	0					0 to 0.5 ft. CONCRETE	
				125	5					0.5 to 15 ft. SILT: some clay, a little cobbles, moist (below 7 ft.) brown to red-brown	
				120	10						
				115	15					15 to 42 ft. SILTSTONE: massive, dry, red, fuel odor	Hnu=1 unit Hnu=5 units
				110	20						Hnu=2 units
				105	25						Hnu=1 unit
				100	30						
				95	35						
				90	40						Hnu=1 unit Hnu=1 unit
				85	45					42 to 60 ft. SHALE: hard, dry, brick red	
				80	50						
				75	55						
				70	60					60 to 68 ft. SILTSTONE: massive, micaceous, cuttings are angular fragments about 2 cm. in diameter, dark red	Hnu=1 unit
				65	65					Fracture producing about 20 GPM at 65 ft.	

*ASTM D1586 ST = SHELBY TUBE
SS = SPLIT SPOON C = CORE CS = CONTINUOUS SAMPLER
D = DENNISON CT = CUTTINGS OT = OTHER

Purge = 144 gallons

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: GMC-Fisher Guide, Trenton, New Jersey

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TA	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
/31/89	1/31/89	W.C. Services	Pneumatic hammer	10"	6"	50.00'

OGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
S. Clough	131.27	131.44	17.75'/113.69' 2/16/89

SAMPLE TYPE	RECOVERY *	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
			130	0					0 to 0.5 ft. CONCRETE	No Hnu detections.
									0.5 to 2.5 ft. FILL: wood, railroad tie, gravel	
			125	5					2.5 to 12 ft. SILT: a little clay, moist, dark red. Below 9.5 ft. color changes to red-brown, clay content increases	
			120	10						
			115	15					12 to 50 ft. SILTSTONE: micaceous, gray laminae or nodules, dry, brick red, lightens at 22 ft. to gray-red.	
			110	20					Casing set at 21 ft.	
			105	25						
			100	30						
			95	35						
			90	40						
			85	45					Cuttings moist at 44 ft.	
				50					End of boring @ 50 ft.	

STM D1586 ST = SHELBY TUBE
= SPLIT SPOON C = CORE CS = CONTINUOUS SAMPLER
= DENNISON CT = CUTTINGS OT = OTHER

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: GMC-Fisher Guide, Trenton, New Jersey

PAGE NO.: 1 of 1 | HOLE NO.: UST-9

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
..0/89	1/31/89	W.C. Services	Pneumatic hammer	8"	6"	55.00'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER · DATE MEASURED
S. Clough	131.91	130.37	21.85'/108.52' 2/16/89

Six inch open hole below casing.

SAMPLE NO.	SAMPLE TYPE	RECOVERY *	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
				130						0-15 ft. FILL: silty, slightly clayey, some wood fragments, and fiber-glass insulation, brown	No Hnu detections.
				125	5						
				120	10						
				115	15					15-33 ft. SANDSTONE: very fine, dry	
				110	20					Drilling slow at 20 ft. Competent rock.	
				105	25						
				100	30						
				95	35					33 to 55 ft. SILTSTONE: hard, dry, brick red	
				90	40					Drilling slightly slower at 40 ft., color lightens.	
				85	45						
				80	50					As above, with laminae, still dry. Fractures at 51 to 55 ft., producing about a GPM.	
					55					End of boring at 55 ft.	

*ASTM D1586 ST = SHELBY TUBE
SS = SPLIT SPOON C = CORE CS = CONTINUOUS SAMPLER
D = DENNISON CT = CUTTINGS OT = OTHER

GEOTECH, INC.

FIELD RECORD OF SOIL EXPLORATION

GM PLANT

JOB NO. E1822 PROJ. _____ BORING NO. 2 DEPTH 6.5' ELEV. _____

DATE STARTED 10-5-90 DATE COMPLETED 10-5-90 DATUM _____

CASING HAMMER WT. _____ LBS. DROP _____" SAMPLER HAMMER WT. 140 LBS. DROP 30 "

	METHOD OF ADVANCING BORING	DEPTH
1	HOLLOW STEM	0 – 6½'
		–
		–

SAMPLE CONDITION: DISTURBED; FAIR; GOOD; LOST

SAMPLE TYPES: SS – 2" O.D. SPLIT SPOON; TW – 3"O.D. THIN WALLED TUBE; AS – AUGER SAMPLE; RS – ROCK CORE; WS – WASH SAMPLE; CS – CHUNK SAMPLE

SOIL DESCRIPTION	DEPTH ELEV.	CAS. BLOWS / FT.	DEPTH SCALE	SAMPLES S.C.	S.T.	NO.	REC.	BLOWS / 6" FORCE	NOTES
FILL - REDBROWN DECOMPOSED SHALE, WOOD, ETC. STRONG CHEMICAL ODOR	6.5'		5 0 5 0 5 0 5 0						TIME DURING DEPTH 5'-6' W.L. WET
BORING ABANDONED AT 6.5' DEPTH									INSP. DRLR. KG HLPR. JW TIME COMP. DEPTH 6.5' W.L. WET

PLATE 1

BH-2

GEOTECH, INC.

FIELD RECORD OF SOIL EXPLORATION

GM PLANT

JOB NO. E1822 PROJ. _____ BORING NO. 4 DEPTH 14.0' ELEV. _____

DATE STARTED 10-5-90 DATE COMPLETED 10-5-90 DATUM _____

CASING HAMMER WT. _____ LBS. DROP _____" SAMPLER HAMMER WT. 140 LBS. DROP 30"

	METHOD OF ADVANCING BORING	DEPTH
1	CONTINUOUS SAMPLING	0' - 14.0'
2	HOLLOW STEM AUGER	0' - 12.0'
3	SPLIT SPOON SAMPLER	12.0' - 14.0'

SAMPLE CONDITION: DISTURBED, FAIR, GOOD, LOST

SAMPLE TYPES:
- SS - 2" O.D SPLIT SPOON
- TW - 3" O.D. THIN WALLED TUBE
- AS - AUGER SAMPLE
- RS - ROCK CORE
- WS - WASH SAMPLE
- CS - CHUNK SAMPLE

SOIL DESCRIPTION	DEPTH ELEV.	CAS. BLOWS/FT.	DEPTH SCALE	SAMPLES S.C.	S.T.	NO.	REC.	BLOWS/6" FORCE	NOTES
TOP SOIL, BROWN SILT, TRACE OF FINE TO COARSE SAND, GRASS ROOTS	0.16"			X	SS	1		2-8-15-11	TIME DURING
BROWN SILT, TRACE OF FINE TO COARSE SAND, SOME ROCK FRAGMENTS, SOME SHALE, POSSIBLE FILL	6.0'			X	SS	2		8-4-3-2	DEPTH 14.0
			5	X	SS	3		3-2-2-3	W.L. 13.5'
				X	SS	4		2-3-5-7	
				X	SS	5		8-6-5-5	
RED BROWN, DECOMPOSED SHALE, TRACE OF FINE SAND	10.0		10	X	SS	6		5-6-6-7	
BROWN CLAYEY DECOMPOSED SHALE, TRACE OF FINE SAND	14.0'			X	SS	7		6-4-4-5	
END OF BORING			15						
			20						
			6						
			0						
			5						
			0						
			5						
			0						

INSP.
DRLR. KG
HLPR. JW
TIME COMPLETION
DEPTH 14.0'
W.L. 13.5'

PLATE 2

RH-A

GEOTECH, INC.

FIELD RECORD OF SOIL EXPLORATION

JOB NO. 5822 PROJ. GM PLANT BORING NO. 5 DEPTH 14.0' ELEV. _____

DATE STARTED 10-5-90 DATE COMPLETED 10-5-90 DATUM _____

CASING HAMMER WT. _____ LBS. DROP _____" SAMPLER HAMMER WT. 140 LBS. DROP 30 "

METHOD OF ADVANCING BORING	DEPTH
1 CONTINUOUS SAMPLING	0' - 4.0'
2 HOLLOW STEM AUGER	0' - 12.0'
3 SPLIT SPOON SAMPLER	12.0' - 14.0'

SAMPLE CONDITION: DISTURBED, FAIR, GOOD, LOST

SAMPLE TYPES: SS - 2" O.D. SPLIT SPOON; TW - 3" O.D. THIN WALLED TUBE; AS - AUGER SAMPLE; RS - ROCK CORE; WS - WASH SAMPLE; CS - CHUNK SAMPLE

SOIL DESCRIPTION	DEPTH ELEV.	CAS. BLOWS/FT.	DEPTH SCALE	SAMPLES S.C.	S.T.	NO.	REC.	BLOWS/6" FORCE	NOTES
BROWN SILT, TRACE OF FINE TO MEDIUM SAND, GRASS ROOTS	5.0'			X	SS	1		6-7-7-7	TIME DURING DEPTH 14.0' W.L. DRY
				X	SS	2		8-15-13-10	
BROWN SHALE, TRACE OF FINE SAND, TRACE TO SOME ROCK FRAGMENTS, POSSIBLE FILL	10.0'		5	X	SS	3		5-3-2-1	
				X	SS	4		4-12-10-3	
				X	SS	5		2-2-2-2	
BROWN CLAY, TRACE OF FINE SAND	12.0'		10	X	SS	6		1-1-2-2	
BROWN CLAYEY DECOMPOSED SHALE, TRACE OF FINE SAND, WITH SHALE FRAGMENTS	14.0'			X	SS	7		2-4-6-8	
END OF BORING			15						INSP. DRLR. KG HLPR. JW TIME COMPLETION DEPTH 14.0' W.L. DRY
			0						
			5						
			0						
			5						
			0						
			5						
			0						

PLATE 2

GEOTECH, INC.

FIELD RECORD OF SOIL EXPLORATION

C & M PLANT

JOB NO. E1822 PROJ. _____ BORING NO. 6 DEPTH 14 ELEV. _____

DATE STARTED 10-5-90 DATE COMPLETED 10-5-90 DATUM _____

CASING HAMMER WT. _____ LBS. DROP _____" SAMPLER HAMMER WT. 140 LBS. DROP 30 "

METHOD OF ADVANCING BORING		DEPTH
1	CONTINUOUS SAMPLING	0' - 14.0'
2	HOLLOW STEM AUGER	0' - 12.0'
3	SPLIT SPOON SAMPLER	12.0' - 14.0'

SAMPLE CONDITION: DISTURBED, FAIR, GOOD, LOST

SAMPLE TYPES: SS - 2" O.D. SPLIT SPOON; TW - 3" O.D. THIN WALLED TUBE; AS - AUGER SAMPLE; RS - ROCK CORE; WS - WASH SAMPLE; CS - CHUNK SAMPLE

SOIL DESCRIPTION	DEPTH ELEV.	CAS. BLOWS/FT.	DEPTH SCALE	SAMPLES S.C.	S.T.	NO.	REC.	BLOWS/6" FORCE	NOTES
TOPSOIL, BROWN SILT, TRACE OF FINE TO COARSE SAND, TRACE OF ROOT				X	SS	1		0-0-0-7	TIME DRILL DEPTH 8.0'-10.0' W.L. DAMP
				X	SS	2		5-5-8-8	
BROWN DECOMPOSED SHALE, POSSIBLE FILL			5	X	SS	3		0-8-7-10	
	8.0'			X	SS	4		6-10-8-7	
BROWN CLAY, TRACE OF FINE SAND				X	SS	5		2-3-4-2	
	10.0'		10	X	SS	6		3-2-1-2	
BROWN DECOMPOSED SHALE, TRACE OF FINE SAND				X	SS	7		3-1-2-2	
	14.0'								
END OF BORING			15						INSP. DRLR. KG HLPR. JW TIME COMPLETED DEPTH 14.0 W.L. DAMP
			0						
			5						
			0						
			5						
			0						
			5						
			0						

PLATE 4

BH-6

GEOTECH, INC.

FIELD RECORD OF SOIL EXPLORATION

GM PLANT

JOB NO. E1822 PROJ. _____ BORING NO. 9 DEPTH 14.0' ELEV. _____

DATE STARTED 10-5-90 DATE COMPLETED 10-5-90 DATUM _____

CASING HAMMER WT. _____ LBS. DROP _____" SAMPLER HAMMER WT. 140 LBS. DROP 30 "

METHOD OF ADVANCING BORING		DEPTH
1	CONTINUOUS SAMPLING	0' – 14.0'
2	HOLLOW STEM AUGER	0' – 12.0'
3	SPLIT SPOON SAMPLER	12.0' – 14.0'

SAMPLE CONDITION: DISTURBED, FAIR, GOOD, LOST

SAMPLE TYPES: SS – 2" O.D. SPLIT SPOON; TW – 3" O.D. THIN WALLED TUBE; AS – AUGER SAMPLE; RS – ROCK CORE; WS – WASH SAMPLE; CS – CHUNK SAMPLE

SOIL DESCRIPTION	DEPTH ELEV.	CAS. BLOWS FT.	DEPTH SCALE	SAMPLES S.C.	S.T.	NO.	REC.	BLOWS/6" FORCE	NOTES
TOP SOIL, BROWN SILT, SOME FINE TO MEDIUM SAND, ROOTS				X	SS	1		7-10-11-15	TIME DURING DRILLING 8:00-10:00
				X	SS	2		8-9-11-7	W.L. WET
RED SHALE, TRACE TO SOME ROCK AND ROCK FRAGMENTS, TRACE OF FINE SAND			5	X	SS	3		5-4-6-5	
				X	SS	4		3-3-4-8	
	9.0'			X	SS	5		10-5-5-6	
			10	X	SS	6		40-9-1-8	
BROWN CLAY, TRACE OF FINE SAND	14.0'			X	SS	7		2-2-3-4	
END OF BORING			15						
			0						
			5						
			0						
			5						
			0						
			5						
			0						

INSP.
DRLR. KG
HLPR. JW
TIME COMPLETION
DEPTH 14'
W.L. SOIL DAMP

PLATE 5
BH-9

APPENDIX B

MONITORING WELL CONSTRUCTION LOGS/WELL CERTIFICATION FORMS

DRILLING SUMMARY

Geologist: John Tomasello

Drilling Company: Tabasco Drilling Corp.

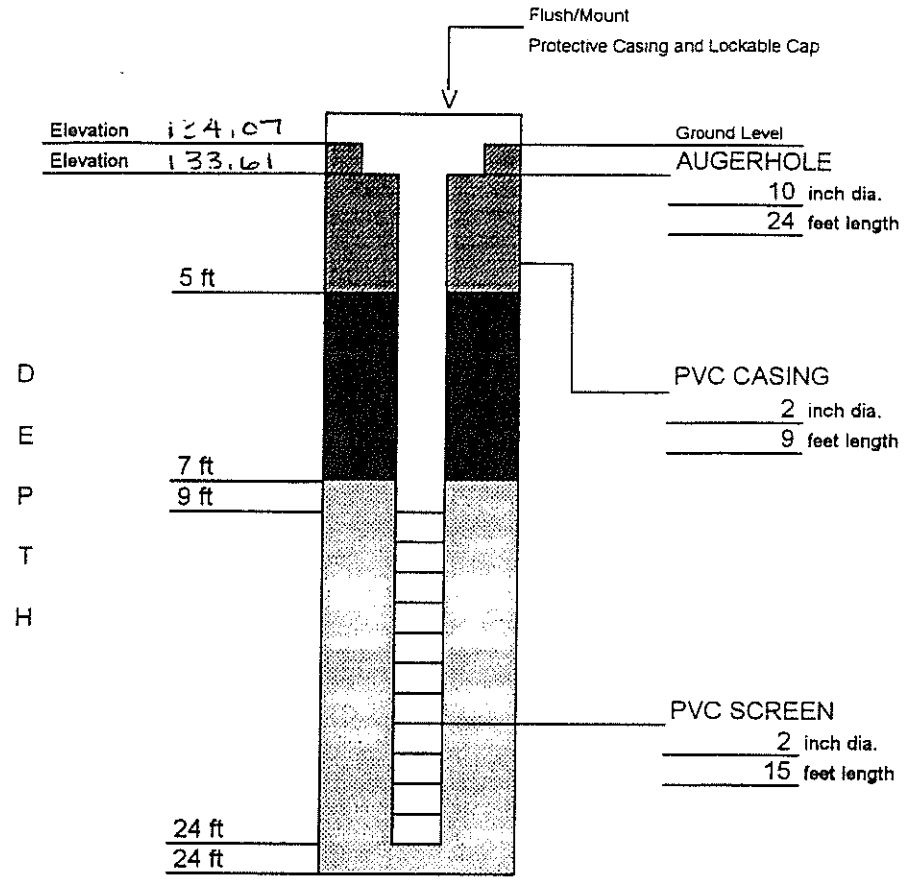
Driller: Bill Shinn

Rig Make/Model: Dietrich D-120

Date: February 25, 1994

GEOLOGIC LOG

depth(ft.)	lithology
0' - 9'	Silt, some clay
9' - 15'	Silt, trace clay, highly weathered siltstone
15' - 25'	Silt, highly weathered siltstone with fine sandstone fragments



WELL DESIGN

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Flush Mount	Type: 2" PVC	Type: #2 Sand Setting: 7' - 24'
Monitor: 2" PVC	Slot Size: # 20	SEAL MATERIAL Type: Bentonite Pellets Setting: 5' - 7'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: General Motors - IFG	Location: Trenton , New Jersey	Project No.: 0535355.01.00002
URS Consultants, Inc.	SHALLOW MONITORING WELL CONSTRUCTION DETAILS	Well Number: MW-18

A:\GMW18.WB1\kht
08-Mar-94

DRILLING SUMMARY

Geologist:
John Tomasello

Drilling Company:
Tabasco Drilling Corp.

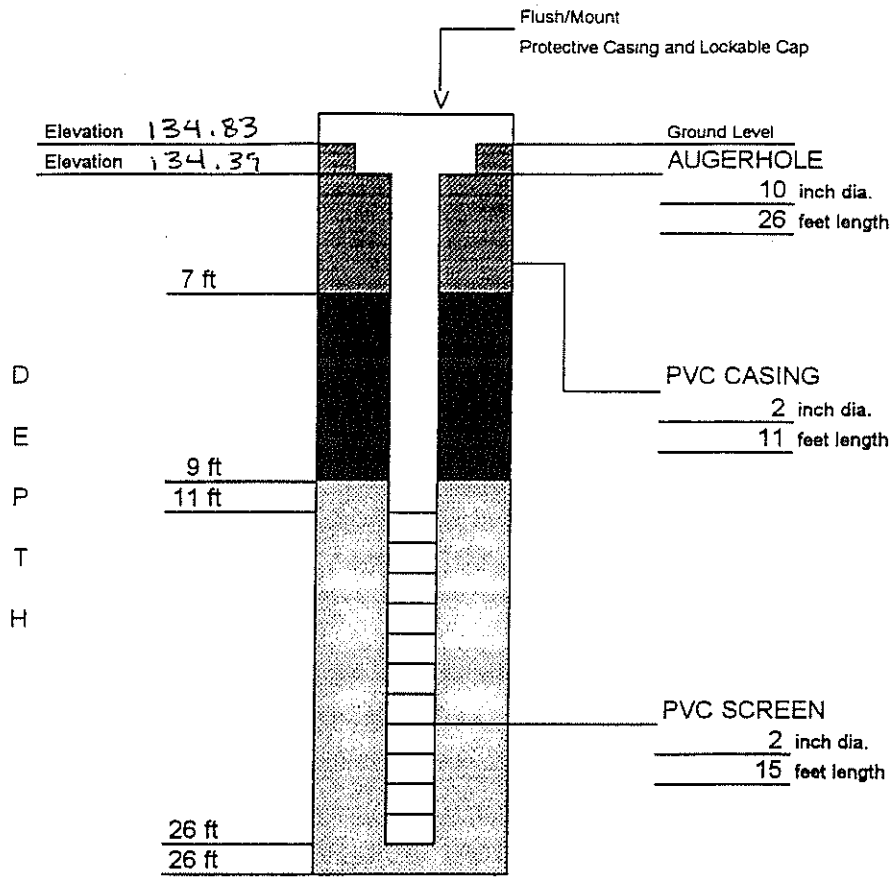
Driller:
Bill Shinn

Rig Make/Model:
Dietrich D-120

Date:
February 21, 1994

GEOLOGIC LOG

depth(ft.)	lithology
0' - 9'	Silt, some clay
9' - 14'	Silt, some clay and fine sand
14' - 18'	Fine sand, some silt, rock fragments
18' - 25'	Silt, weathered rock fragments



WELL DESIGN

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Flush Mount	Type: 2" PVC	Type: #2 Sand Setting: 9' - 11'
Monitor: 2" PVC	Slot Size: # 20	SEAL MATERIAL Type: Bentonite Pellets Setting: 7' - 9'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: General Motors - IFG	Location: Trenton , New Jersey	Project No.: 0535355.01.00002
URS Consultants, Inc.	SHALLOW MONITORING WELL CONSTRUCTION DETAILS	Well Number: MW-19

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08-Mar-94

DRILLING SUMMARY

Geologist:
John Tomasello

Drilling Company:
Tabasco Drilling Corp.

Driller:
Bill Shinn

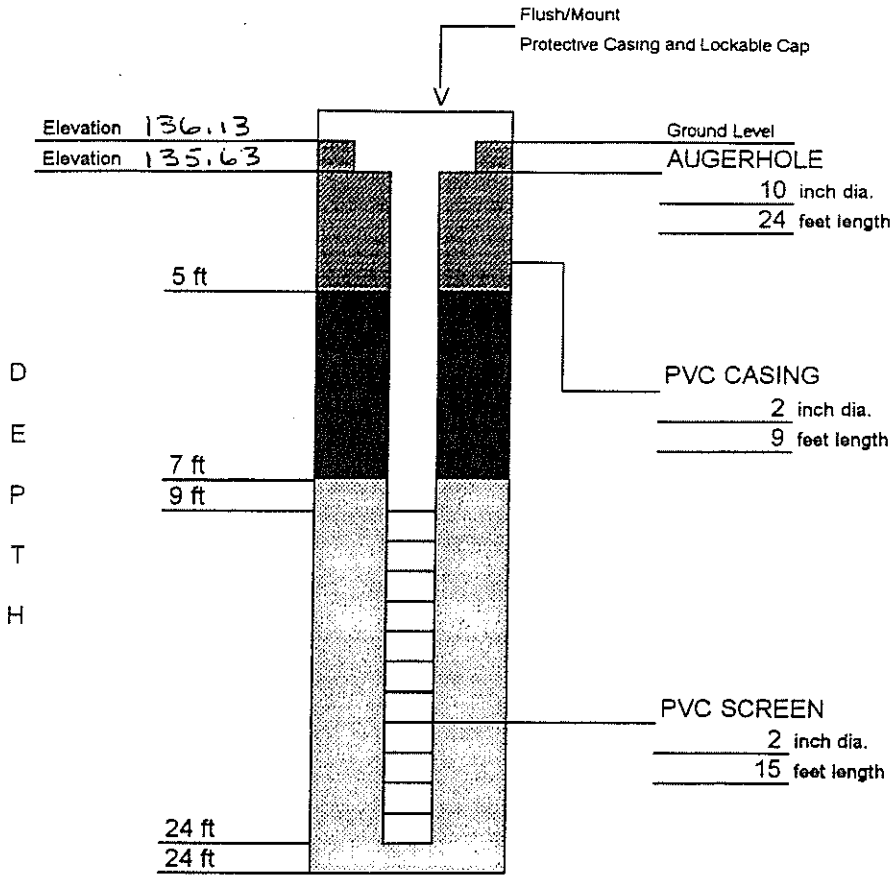
Rig Make/Model:
Dietrich D-120

Date:
February 24, 1994

GEOLOGIC LOG

depth(ft.)	lithology
0' - 15'	Asphalt at surface, silt, some clay
15' - 26'	Silt, some clay and highly weathered siltstone and fine sandstone at bottom

WELL DESIGN



CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Flush Mount	Type: 2" PVC	Type: #2 Sand Setting: 7' - 24'
Monitor: 2" PVC	Slot Size: # 20	SEAL MATERIAL Type: Bentonite Pellets Setting: 5' - 7'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: General Motors - IFG	Location: Trenton , New Jersey	Project No.: 0535355.01.00002
URS Consultants, Inc.	SHALLOW MONITORING WELL CONSTRUCTION DETAILS	Well Number: MW-20

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08-Mar-94

WELL CERTIFICATION FORMS

MONITORING WELL CERTIFICATION - FORM A - AS-BUILT CERTIFICATION
(One form must be completed for each well)

Name of Permittee: INLAND FISHER GUIDE DIVISION
Name of Facility: SAMO
Location: 1445 PARKWAY AVE., TRENTON NJ
NJPDES Permit No.: NJ00 92713 or ECRA case No.:

CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	27-12651-
Owner's Well Number (As shown on the application or plans):	MW-19
Well Completion Date:	2.24.94
Distance from Top of Casing (cap off) to ground surface (one-hundredth of a foot):	0.25
Total Depth of Well to the nearest 1/2 foot:	26.0
Depth to Top of Screen From Top of Casing (one-hundredth of a foot):	11.00
Screen Length (or length of open hole) in feet:	15.0
Screen or Slot Size:	20 SLOT
Screen or Slot Material:	PVC
Casing Material: (PVC, Steel or Other-Specify):	PVC
Casing Diameter (inches):	2
Static Water Level From Top of Casing at the Time of Installation (one-hundredth of a foot):	16.00
Yield (gallons per minute):	2
Development Technique (specify)	SUBMERSIBLE PUMP
Length of Time Well is Developed/ Pumped or Bailed:	3 Hours 0 Minutes
Lithologic Log:	Attach

Authentication

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

WILLIAM A. SHINN JR.
Name (Type or Print)

Signature

M-1289
Certification or License No.

Seal

Certification by Executive Officer or Duly Authorized Representative

JOSEPH JABLONSKI
Name (Type or Print)

Signature

PRESIDENT
Title

4/20/96
Date

GROUNDWATER
MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

(This form must be completed by the permittee or his/her agent)

Name of Permittee: General Motors Corporation
Name of Facility: Inland Fisher Guide Division
Location: 1445 Parkway Avenue
Trenton, NJ
NJPDES Permit No.: 007469

LAND SURVEYOR'S CERTIFICATION:

Well Permit Number (As assigned by NJDEP's Water Allocation Section (609-984-6831): 2 7 1 2 6 5 1

This number must be permanently affixed to the well casing.

Longitude (one-tenth of a second): 44-12-47.64224N
Latitude (one-tenth of a second): 74-23-26.80112W
Elevation of Top of Casing (cap off) (one-hundredth of a foot): 134.39 (inner casing)
Owner's Well Number (as shown on application or plans): MW-19

AUTHENTICATION:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitted false information including the possibility of fine and imprisonment.

Professional Land Surveyor's Signature

Earle Newman, P.L.S
Professional Land Surveyor's Name
(please type or print)

GS31388
Professional Land Surveyor's License Number

Original Embossed

The Department reserves the right in cases of violation of permit specified groundwater limits or Groundwater Quality Standards (N.J.A.C. 7:9-6.1 et seg.) to require that wells be resurveyed to an accuracy of one-hundredth of a second latitude and longitude. This shall not be considered to be a major modification of the NJPDES permit.

MONITORING WELL CERTIFICATION - FORM A - AS-BUILT CERTIFICATION
(One form must be completed for each well)

Name of Permittee: INLAND FISHER GUIDE DIVISION
Name of Facility: SAME
Location: 1445 PARKWAY SOUTH, TRENTON NJ
NJPDES Permit No.: NJ00 92713 or ECRA case No.:

CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	27-12650-
Owner's Well Number (As shown on the application or plans):	MW-18
Well Completion Date:	2.25.94
Distance from Top of Casing (cap off) to ground surface (one-hundredth of a foot):	0.25
Total Depth of Well to the nearest 1/2 foot:	24.0
Depth to Top of Screen From Top of Casing (one-hundredth of a foot):	9.00
Screen Length (or length of open hole) in feet:	15
Screen or Slot Size:	20 SLOT
Screen or Slot Material:	PVC
Casing Material: (PVC, Steel or Other-Specify):	PVC
Casing Diameter (inches):	2
Static Water Level From Top of Casing at the Time of Installation (one-hundredth of a foot):	16.00
Yield (gallons per minute):	2
Development Technique (specify)	SUBMERSIBLE PUMP
Length of Time Well is Developed/ Pumped or Bailed:	1 Hours Minutes
Lithologic Log:	Attach

Authentication
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

WILLIAM A. SHINN JR. — Name (Type or Print)
Signature
Seal
M-1289 — Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

JOSEPH TARSE — Name (Type or Print)
Signature
PRESIDENT — Title
4/20/94 — Date

GROUNDWATER
MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

(This form must be completed by the permittee or his/her agent)

Name of Permittee: General Motors Corporation
Name of Facility: Inland Fisher Guide Division
Location: 1445 Parkway Avenue
Trenton, NJ
NJPDES Permit No.: 0075469

LAND SURVEYOR'S CERTIFICATION:

Well Permit Number (As assigned by NJDEP's Water Allocation Section (609-984-6831): 2 7 1 2 6 0 5 0

This number must be permanently affixed to the well casing.

Longitude (one-tenth of a second): 44-12-50.05745N
Latitude (one-tenth of a second): 74-23-22.21032W
Elevation of Top of Casing (cap off) (one-hundredth of a foot): 133.61 (inner casing)
Owner's Well Number (as shown on application or plans): MW-18

AUTHENTICATION:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitted false information including the possibility of fine and imprisonment.

Professional Land Surveyor's Signature

Earle Newman, P.L.S.
Professional Land Surveyor's Name
(please type or print)

GS 31388
Professional Land Surveyor's License Number

Original Embossed

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MONITORING WELL CERTIFICATION - FORM A - AS-BUILT CERTIFICATION
(One form must be completed for each well)

Name of Permittee: INLAND FISHER GUIDE DIVISION
Name of Facility: SAME
Location: 1445 PARKWAY AVE. TRENTON NJ
NJPDES Permit No.: NJ00 72713 or ECRA case No.:

CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	27-126522
Owner's Well Number (As shown on the application or plans):	MW-20
Well Completion Date:	2.22.94
Distance from Top of Casing (cap off) to ground surface (one-hundredth of a foot):	0.25
Total Depth of Well to the nearest 1/2 foot:	26.0
Depth to Top of Screen From Top of Casing (one-hundredth of a foot):	11.00
Screen Length (or length of open hole) in feet:	15
Screen or Slot Size:	20 SLOT
Screen or Slot Material:	PVC
Casing Material: (PVC, Steel or Other-Specify):	PVC
Casing Diameter (inches):	2
Static Water Level From Top of Casing at the Time of Installation (one-hundredth of a foot):	18.00
Yield (gallons per minute):	2
Development Technique (specify)	SUBMERSIBLE PUMP
Length of Time Well is Developed/ Pumped or Bailed:	2 Hours 0 Minutes
Lithologic Log:	Attach

Authentication
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

WILLIAM A. SHINN JR.
Name (Type or Print)

Signature

M-1289
Certification or License No.

Seal

Certification by Executive Officer or Duly Authorized Representative

JOSEPH J ASBASCO
Name (Type or Print)

Signature

PRESIDENT
Title

4/20/94
Date

GROUNDWATER
MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

(This form must be completed by the permittee or his/her agent)

Name of Permittee: General Motors Corporation
Name of Facility: Inland Fisher Guide Division
Location: 1445 Parkway Avenue
Trenton, NJ
NJPDES Permit No.: 007469

LAND SURVEYOR'S CERTIFICATION:

Well Permit Number (As assigned by NJDEP's Water Allocation Section (609-984-6831): 2 7 1 2 6 5 2

This number must be permanently affixed to the well casing.

Longitude (one-tenth of a second): 44-12-44.07523N
Latitude (one-tenth of a second): 74-23-24.98147W
Elevation of Top of Casing (cap off) (one-hundredth of a foot): 135.63 (inner casing)
Owner's Well Number (as shown on application or plans): MW-20

AUTHENTICATION:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitted false information including the possibility of fine and imprisonment.

Professional Land Surveyor's Signature

Earle Newman, P.L.S.
Professional Land Surveyor's Name
(please type or print)

GS31388
Professional Land Surveyor's License Number

Original Embossed

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APPENDIX C

WELL DEVELOPMENT LOGS/PURGE LOGS

URS Company, Inc. CONSULTING ENGINEERS NEW YORK NEW JERSEY

WELL DEVELOPMENT / PURGING LOG

PROJECT TITLE: General Motors - Inland Fisher Guide : Trenton, NJ

PROJECT NO.: 0535355.01.00002

STAFF: Anish Deshpande

DATE: February 25, 1994

WELL NO.: MW-18

① TOTAL CASING AND SCREEN LENGTH (FT.): 23.32

② CASING INTERNAL DIAMETER (in.): 2"

③ WATER LEVEL BELOW TOP OF CASING (FT.) 11.35

④ VOLUME OF WATER IN CASING (GAL.) 2.03

$V = 0.0408 (②)^2 \times (① - ③)$ = 6.10 GAL.

WELL I.D.	VOL. GAL./FT
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)											
	0	5	10	15	20	25	30	35	40	45	50	55
pH	6.87	6.29	6.22	6.19	6.18	6.12	6.03	5.94	5.88	5.91	6.07	6.0
Specific Cond. (mS)	0.821	0.884	0.820	0.818	0.817	0.824	0.828	0.830	0.831	0.833	0.834	0.83
Color	Red-Brown	←		→	Light Red				→	Slight Cloudy Tint	→	Clear Slig. Tint
Description	Very Silty	→	Silty-Fine Susp. Solids	→	Less Silty	→		Few Fine Susp. Solids	→	→	Clear-No Silt	→

COMMENTS:

Well was developed using a Waterra hydrolift pump with 5/8" ID HDPE tubing and check valve.

A-2347

URS URS Company, Inc. CONSULTING ENGINEERS NEW YORK NEW JERSEY

WELL DEVELOPMENT/PURGING LOG

PROJECT TITLE: General Motors - Inland Fisher Guide: Trenton, NJ

PROJECT NO.: 0535355.01.00002

STAFF: Anish Deshpande

DATE: February 24, 1994

WELL NO.: MW-19

① TOTAL CASING AND SCREEN LENGTH (FT.):	25.48
② CASING INTERNAL DIAMETER (in.):	2"
③ WATER LEVEL BELOW TOP OF CASING (FT.)	17.65
④ VOLUME OF WATER IN CASING (GAL.)	1.33

$V = 0.0408 (②)^2 \times (① - ③) =$ 4.00 GAL.

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)											
	0	5	10	15	20	25	30	35	40	45	50	55
pH	7.76	8.14	7.44	7.08	6.92	6.88	6.97	6.83	6.71	6.64	6.54	6.51
Specific Cond. (mS)	1.22	1.05	1.02	0.959	0.953	0.949	0.961	0.958	0.963	0.967	0.955	0.954
Color	Red-Brown	→	→	Light Red-Brown	→	Slightly Cloudy Tint	→	→	Clear-Slight Tint	→	Very Clear	→
Description	Silty Susp. Solids	→	→	→	Slightly Silty-Few Fine Susp. Solids	→	→	→	Clear-No Silt	→	Extremely Clear	→

COMMENTS: Well was Developed using a Waterra hydrolift pump with 5/8" ID HDPE tubing and Check Valve

A-2347

URS Company, Inc. CONSULTING ENGINEERS NEW YORK NEW JERSEY

WELL DEVELOPMENT/PURGING LOG

PROJECT TITLE: General Motors - Inland Fisher Guide ; Trenton, NJ

PROJECT NO.: 0535355.01.00002

STAFF: Anish Deshpande

DATE: February 25, 1994

WELL NO.: MW-20

① TOTAL CASING AND SCREEN LENGTH (FT.):	25.05'
② CASING INTERNAL DIAMETER (in.):	2"
③ WATER LEVEL BELOW TOP OF CASING (FT.)	12.42
④ VOLUME OF WATER IN CASING (GAL.)	2.15

$V = 0.0408 (②)^2 \times (① - ③) =$ 6.44 GAL.

WELL I.D.	VOL. GAL./F
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)											
	0	5	10	15	20	25	30	35	40	45	50	55
pH	6.62	6.48	6.45	6.40	6.32	6.53	6.51	6.48	6.46	6.32	6.35	6.3
Specific Cond (mS)	1.215	1.496	1.120	1.428	1.240	1.398	1.270	1.292	1.302	1.315	1.337	1.34
Color	Red Brown	→		→	Light Red Brown	→		→	Slightly Cloudy Tint	→		→
Description	Very Silty	→		→	→	Silty-Fine/ Susp. Solids	→		→	Less Silty	→	Very F Fine Susp. S

COMMENTS: Well was developed using a Waterra hydrolift pump with 5/8" ID HDPE tubing and check valve.

A-2347 — 2

PURGE LOGS

URS CONSULTANTS, INC.

WELL DEVELOPMENT / PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 5/24/94

WELL NO.: MW-18

① TOTAL CASING AND SCREEN LENGTH (FT.):	23.32
② CASING INTERNAL DIAMETER (in.):	2"
③ WATER LEVEL BELOW TOP OF CASING (FT.)	14.05
④ VOLUME OF WATER IN CASING (GAL.)	1.51

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$V = 0.0408 (②)^2 \times (① - ③)$ = 1.51 GAL. (3 casings) = 4.53

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	5gal	AFTER SAMPLING								
pH	6.5	6.4	6.0								
Spec. Cond. (µmho)	723	662	697								
Turbidity VISUAL	CLEAR	SLIGHTLY TURBID	SLIGHTLY TURBID								
Temperature (°C)	16.6	16.8	17.4								

COMMENTS:
TIME: 1130 WATER LEVEL PRIOR TO PURGING 14.05'
1140 WATER LEVEL FOLLOWING PURGING 14.10'
1230 WATER LEVEL AT TIME OF SAMPLING 14.10'
@ WELL PURGED USING A WATERRA HYDROLIFT PUMP, PURGE RATE ≈ 1 gpm

A-2347

URS CONSULTANTS, INC.

WELL DEVELOPMENT / PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 3/24/95

WELL NO.: MW-19

		WELL I.D.	VOL. GAL./FT.
① TOTAL CASING AND SCREEN LENGTH (FT.):	25.48'	1"	0.04
② CASING INTERNAL DIAMETER (in.):	2"	2"	0.17
③ WATER LEVEL BELOW TOP OF CASING (FT.)	15.78	3"	0.38
④ VOLUME OF WATER IN CASING (GAL.)	1.58	4"	0.66
		5"	1.04
		6"	1.50
		8"	2.60

$V = 0.0408 (②)^2 \times (① - ③)$ = 1.58 GAL. (3 casings) = 4.74

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	5gal	AFTER SAMPLING								
pH	7.0	6.8	6.4								
Spec. Cond. (μmho)	832	8.48	8.45								
Turbidity (VISUAL)	SLTY LT-RED TINT TURBD	SLTY LT-RED TINT TURBD	SLTY LT-RED TINT TURBD								
Temperature (°C)	16.6	16.8	16.9								

COMMENTS: TIME:

0940 WATER LEVEL PRIOR TO PURGING 15.78'

0945 WATER LEVEL FOLLOWING PURGING 16.12'

1130 WATER LEVEL AT TIME OF SAMPLING 15.77'

- WELL PURGED USING A WATERRA HYDROLIFT PUMP, PURGE RATE ≈ 1 gpm

A-2347

URS CONSULTANTS, INC.

WELL DEVELOPMENT/PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 3/24/94

WELL NO.: MW-20

① TOTAL CASING AND SCREEN LENGTH (FT.):	25.05
② CASING INTERNAL DIAMETER (in.):	2"
③ WATER LEVEL BELOW TOP OF CASING (FT.)	15.47'
④ VOLUME OF WATER IN CASING (GAL.)	2.52

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$V = 0.0408 (②)^2 X (① - ③) =$ 2.52 GAL. (3 casings) 7.56

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	8gal	AFTER SAMPLING								
pH	6.7	6.8	6.6								
Spec. Cond. (µmho)	1345	1218	988								
Turbidity VISUAL	SLIGHTLY TURBID	SLIGHTLY TURBID	SLIGHTLY TURBID								
Temperature (°C)	18.6	18.5	18.4								

COMMENTS:

TIME: 1315 WATER LEVEL PRIOR TO PURGING 9.58'

1328 WATER LEVEL FOLLOWING PURGING 9.42'

1501 WATER LEVEL FOLLOWING SAMPLING 10.12'

- WELL PURGED USING A WATERRA HYDROLIFT PUMP, PURGE RATE ≈ 1 gpm

A-2347

URS CONSULTANTS, INC.

WELL DEVELOPMENT/PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 3/24/94

WELL NO.: UST-1

		WELL I.D.	VOL. GAL./FT.
① TOTAL CASING AND SCREEN LENGTH (FT.): (OPEN ROCK HOLE)	59.7'	1"	0.04
		2"	0.17
② CASING INTERNAL DIAMETER (in.):	6"	3"	0.38
		4"	0.66
③ WATER LEVEL BELOW TOP OF CASING (FT.)	14.21'	5"	1.04
		6"	1.50
④ VOLUME OF WATER IN CASING (GAL.)	66.8	8"	2.60

$V = 0.0408 (②)^2 \times (① - ③) =$ 66.8 GAL. (3 casings) 200.44

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	210 gal	AFTER SAMPLING								
pH	6.9	6.0	5.8								
Spec. Cond. (μmho)	947	824	827								
Turbidity VISUAL	SLIGHTLY TURBID	CLEAR	CLEAR								
Temperature (°C)	16.7	16.3	16.8								

COMMENTS: TIME: 0830 WATER LEVEL PRIOR TO PURGING 14.21'

0915 WATER LEVEL FOLLOWING PURGING 21.2'

1030 WATER LEVEL AT TIME OF SAMPLING 14.25'

WELL PURGED USING A GRUNFOS SUBMERSIBLE PUMP, PURGE RATE 7 gpm TOTAL VOLUME PURGED 210

A-2347

URS CONSULTANTS, INC.

WELL DEVELOPMENT / PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 3/23/94

WELL NO.: UST-2

① TOTAL CASING AND SCREEN LENGTH (FT.): (OPEN ROCK HOLE)	39.6
② CASING INTERNAL DIAMETER (in.):	6"
③ WATER LEVEL BELOW TOP OF CASING (FT.)	14.2'
④ VOLUME OF WATER IN CASING (GAL.)	37.3

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$V = 0.0408 (②)^2 \times (① - ③) =$ 37.3 GAL. (3 casings) 111.9 gal

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	120 gal	AFTER SAMPLING								
pH	6.41	6.42	6.5								
Spec. Cond. (µmho)	343	177	177								
Turbidity VISUAL	SLIGHTLY TURB.	CLEAR	CLEAR								
Temperature (°C)	20.4	16.9	15.9								

COMMENTS:

TIME: 1118 WATER LEVEL PRIOR TO PURGING 14.2'

1135 WATER LEVEL FOLLOWING PURGING 14.2'

1235 WATER LEVEL AT TIME OF SAMPLING 14.2'

- WELL PURGED USING A GRUNFOS SUBMERSIBLE PUMP
  PURGE RATE = 7 gpm, 120 gal TOTAL VOL PURGED

A-2347

URS CONSULTANTS, INC.

WELL DEVELOPMENT / PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 3/23/94

WELL NO.: UST-4

① TOTAL CASING AND SCREEN LENGTH (FT.): (OPEN ROCK HOLE)	39.6'
② CASING INTERNAL DIAMETER (in.):	6"
③ WATER LEVEL BELOW TOP OF CASING (FT.)	15.63'
④ VOLUME OF WATER IN CASING (GAL.)	35.2

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$V = 0.0408 (②)^2 \times (① - ③) =$ 35.2 GAL. (3 casings) 105.62

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	120 gal	AFTER SAMPLING								
pH	6.3	6.2	6.5								
Spec. Cond. (µmho)	536	551	533								
Turbidity (VISUAL)	SLIGHTLY TURBID	CLEAR	CLEAR								
Temperature (°C)	15.5	15.2	15.7								

COMMENTS: TIME:

1445 WATER LEVEL PRIOR TO SAMPLING 15.63'

1530 WATER LEVEL FOLLOWING PURGE 15.70'

1555 WATER LEVEL FOLLOWING SAMPLING 15.68'

- WELL PURGED USING A GRUNFOS SUBMERSIBLE PUMP, PURGE RATE 7 gpm, TOTAL VOLUME PURGED 120 gal

A-2347

URS CONSULTANTS, INC.

WELL DEVELOPMENT/PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 3/23/94

WELL NO.: UST-5

① TOTAL CASING AND SCREEN LENGTH (FT.):	20'
② CASING INTERNAL DIAMETER (in.):	2"
③ WATER LEVEL BELOW TOP OF CASING (FT.)	14.38'
④ VOLUME OF WATER IN CASING (GAL.)	0.92

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$V = 0.0408 (②)^2 \times (① - ③)$ = 0.92 GAL. (3 casings) 2.76 gal

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	3gal	AFTER SAMPLING								
pH	7.27	7.18	6.83								
Spec. Cond. (μmho)	365	300	245								
Turbidity VISUAL "	SLIGHTLY TURBID	SLIGHTLY TURB.D	CLEAR								
Temperature (°C)	15.1	15.3	15.8								

COMMENTS:

TIME: 1030 WATER LEVEL PRIOR TO PURGING 14.38'

1046 WATER LEVEL FOLLOWING PURGING 14.98'

1210 WATER LEVEL AT TIME OF SAMPLING 14.20

WELL WAS PURGED USING A WATERRA HYDROLIFT PUMP. PURGE RATE ≈ 1 gpm.

A-2347

URS CONSULTANTS, INC.

WELL DEVELOPMENT/PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 3/23/94

WELL NO.: UST-7

① TOTAL CASING AND SCREEN LENGTH (FT.):	115'
② CASING INTERNAL DIAMETER (in.):	6"
③ WATER LEVEL BELOW TOP OF CASING (FT.)	14.3'
④ VOLUME OF WATER IN CASING (GAL.)	65

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$V = 0.0408 (②)^2 \times (① - ③)$ = 147.9 GAL. (3 casings) 433.7

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	463 gal	AFTER SAMPLING								
pH	7.06	6.91	6.83								
Spec. Cond. (μmho)	602	476	381								
Turbidity (VISUAL)	CLEAR	CLEAR	CLEAR								
Temperature (°C)	15.3	15.2	15.1								

COMMENTS: TIME: 1000 WATER LEVEL PRIOR TO PURGING 14.30'

1055 WATER LEVEL FOLLOWING PURGING 19.30'

1150 WATER LEVEL AT TIME OF SAMPLING 19.05'

ⓔ WELL PURGED USING A GRUNFOS SUBMERSIBLE PUMP, PURGE RATE ≈ 10 gpm, TOTAL VOLUME PURGED 463 gal

A-2347

URS CONSULTANTS, INC.

WELL DEVELOPMENT/PURGING LOG

PROJECT TITLE: GM TRENTON

PROJECT NO.: 35355

STAFF: B. KREUZER / A. DESHPANDE

DATE: 3/23/94

WELL NO.: UST-8

		WELL I.D.	VOL. GAL./FT.
① TOTAL CASING AND SCREEN LENGTH (FT.):	50'	1"	0.04
② CASING INTERNAL DIAMETER (in.):	6"	2"	0.17
		3"	0.38
		4"	0.66
③ WATER LEVEL BELOW TOP OF CASING (FT.)	14.5'	5"	1.04
		6"	1.50
④ VOLUME OF WATER IN CASING (GAL.)	52.1	8"	2.60

$V = 0.0408 (②)^2 \times (① - ③)$ = 52.1 GAL. (3 casings) 156.3 gal

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	175gal	AFTER SAMPLING								
pH	6.8	6.2	6.3								
Spec. Cond. (μmho)	1252	589	512								
Turbidity (VISUAL)	CLEAR	CLEAR	CLEAR								
Temperature (°C)	16.7	16.5	16.6								

COMMENTS: TIME: 1410 WATER LEVEL PRIOR TO PURGING 14.5'

1495 WATER LEVEL FOLLOWING PURGING 16.38'

1525 WATER LEVEL AT TIME OF SAMPLING 14.3'

WELL PURGED USING A GRUNFOS SUBMERSIBLE PUMP. PURGE RATE ≈ 7.0 GPM, TOTAL VOL PURGED 175gal

A-2347

APPENDIX D

SLUG-TEST ANALYSES

BOUWER AND RICE METHOD FOR INTERPRETATION OF SLUG TESTS: FOR UNCONFINED AND LEAKY CONFINED AQUIFERS.
TO UTILIZE THIS WORKSHEET, ENTER YOUR DATA AT LOCATIONS MARKED BY AN "*".
PROGRAM CAN INCLUDE EFFECTS OF SANDPACK DEWATERING (ASSUMING WATER IS RISING WITHIN THE SANDPACK).

#	*TIME mi (X)	*WATER LEVEL Ft.	DRAWDO (Y)	TIME sec (X')	LN (Y)
1	0.001	12.89	0.621	0.1	-0.4762
2	0.01	13.23	0.281	0.6	-1.2690
3	0.02	12.93	0.581	1.2	-0.5428
4	0.03	13.00	0.511	1.8	-0.6712
5	0.05	13.15	0.361	3.0	-1.0186
6	0.08	13.32	0.191	4.8	-1.6549
7	0.10	13.38	0.131	6.0	-2.0317
8	0.15	13.40	0.111	9.0	-2.1972
9	0.20	13.41	0.101	12.0	-2.2915
10	0.30	13.43	0.081	18.0	-2.5119
11	0.50	13.45	0.061	30.0	-2.7951
12	1.00	13.47	0.041	60.0	-3.1915
13	2.00	13.49	0.021	120.0	-3.8580
14	3.00	13.49	0.021	180.0	-3.8580
15	4.00	13.49	0.021	240.0	-3.8580
16	5.00	13.50	0.011	300.0	-4.4999
17	7.00	13.49	0.021	420.0	-3.8580
18	10.00	13.49	0.021	600.0	-3.8580
19	12.00	13.50	0.011	720.0	-4.4999
20	14.00	13.50	0.011	840.0	-4.4999
21	16.00	13.50	0.011	960.0	-4.4999

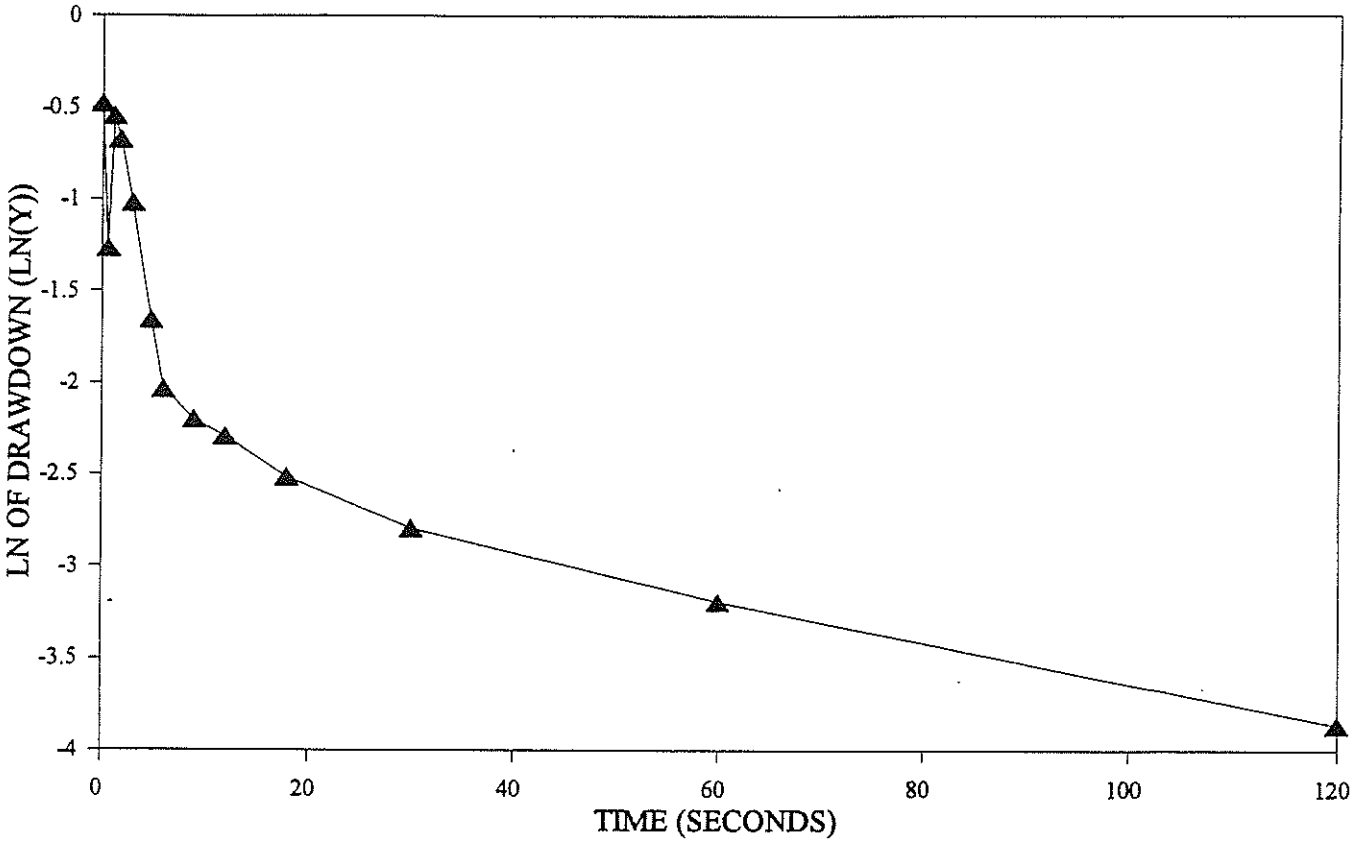
* PROJECT NAME : GM Inbland Fisher Guide : Trenton, N.J.				
* PROJECT NO : 35355.02				
* WELL NO : MW-18 (SLUG OUT)				
* ANALYST : BYRNE				
* DATE COLLECTED 3/31/94				
* RISER PIPE (ID): (2 r sub c) =	2.0	in. =	0.0833	(radius in ft.)
* EFFECTIVE SCREEN AMETER:(2 r sub w) =	10.0	in. =	0.4167	(radius in ft.)
* EFFECTIVE SCREEN NGTH: (L) =	15.00	Ft		
* MAX DRAWDOWN (BSET): (Ymax) =	1.00	Ft.		
* STATIC WATER LEV (SWL) =	13.51	Ft.		
* DEPTH FROM SWL TO EFF. SCREEN BOTTOM:	11.50	Ft		
* EST. AQUIFER DEPTH (SWL TO AQUIFER BOTTOM): (D) =	11.50	Ft.		
* INCLUDE SANDPACK DEWATERING (ENTER 1 IF YES, 0 IF NO)?	1			
* SANDPACK'S SPECIFIC YIELD (Sy) =	0.15			
BOUWER AND RICE CURVE COEFFICIENTS:				
RATIO OF L/(r sub w) =	36.00			
---LOG OF L/(r sub w) =	1.5563			
FOR PARTIALLY PENETRATING WELLS--				
A =	2.64			
B =	0.36			
FOR FULLY PENETRATING WELLS--				
C =	2.08			
---EVALUATION OF LN(Re/(r sub w)):				
CONST.1 =	0.3315			
CONST.2 =	ERR	=(MAX. OF 6.0)=	ERR	
LN(Re/(r sub w) =	2.57			
EFFECTIVE r sub c (for sandpack dewatering) =	0.1787			
(1/T)(LN(Yo/Yt)) (SLOPE) =	-3.09E-02	sec^(-1)		
HYDRAULIC CONDUCTIVITY (K) =	8.45E-05	ft/sec	<==========	
	2.57E-03	cm/sec	<==========	

Regression Output:

Constant		-1.90
Std Err of Y Est		5.09E-02
R Squared		0.9778
No. of Observations		5.0000
Degrees of Freedom		3
X Coefficient(s)	-3.09E-02	
Std Err of Coef.	2.68E-03	
Regression Range	t=6.0-30.0	

RATE OF RECOVERY TEST

MW-18 (SLUG OUT)



BOUWER AND RICE METHOD FOR INTERPRETATION OF SLUG TESTS: FOR UNCONFINED AND LEAKY CONFINED AQUIFERS.
TO UTILIZE THIS WORKSHEET, ENTER YOUR DATA AT LOCATIONS MARKED BY AN "*".
PROGRAM CAN INCLUDE EFFECTS OF SANDPACK DEWATERING (ASSUMING WATER IS RISING WITHIN THE SANDPACK).

#	*TIME mi (X)	*WATER LEVEL Ft.	DRAWDO (Y)	TIME sec (X')	LN (Y)
1	0.001	15.06	0.021	0.1	-3.8632
2	0.01	14.77	0.311	0.6	-1.1680
3	0.02	14.38	0.701	1 2	-0.3552
4	0.03	14.31	0.771	1.8	-0.2601
5	0.05	14.81	0.271	3.0	-1.3056
6	0.08	14.91	0.171	4.8	-1.7661
7	0.10	14.92	0.161	6.0	-1.8264
8	0.15	14.93	0.151	9.0	-1.8905
9	0.20	14.94	0.141	12.0	-1.9590
10	0.30	14.95	0.131	18.0	-2.0326
11	0.50	14.97	0.111	30.0	-2.1982
12	1.00	15.00	0.081	60.0	-2.5133
13	2.00	15.03	0.051	120.0	-2.9759
14	3.00	15.05	0.031	180.0	-3.4738
15	4.00	15.07	0.011	240.0	-4.5099
16	5.00	15.08	0.001	300.0	-6.9078
17	7.00	15.09	0.009	420.0	-4.7105
18	10.00	15.09	0.009	600.0	-4.7105
19	12.00	15.11	0.029	720.0	-3.5405
20	14.00	15.11	0.029	840.0	-3.5405
21	16.00	15.10	0.019	960.0	-3.9633

* PROJECT NAME	: GM Inbland Fisher Guide : Trenton, N.J.		
* PROJECT NO	: 35355.02		
* WELL NO	: MW-19 (SLUG OUT)		
* ANALYST	: BYRNE		
* DATE COLLECTED	3/31/94		
* RISER PIPE (ID):	(2 r sub c) =	2.0 in. =	0.0833 (radius in ft.)
* EFFECTIVE SCREEN AMETER:	(2 r sub w) =	10.0 in. =	0.4167 (radius in ft.)
* EFFECTIVE SCREEN NGTH:	(L) =	15.00 Ft.	
* MAX DRAWDOWN (BSET):	(Ymax) =	1.00 Ft.	
* STATIC WATER LEV	(SWL) =	15.08 Ft.	
* DEPTH FROM SWL TO EFF. SCREEN BOTTOM:		9.92 Ft.	
* EST. AQUIFER DEPTH (SWL TO AQUIFER BOTTOM):	(D) =		9.92 Ft.
* INCLUDE SANDPACK DEWATERING (ENTER 1 IF YES, 0 IF NO)?			1
* SANDPACK'S SPECIFIC YIELD (Sy) =		0.15	

BOUWER AND RICE CURVE COEFFICIENTS:					
RATIO OF L/(r sub w) =		36.00			
—LOG OF L/(r sub w) =		1.5563			
FOR PARTIALLY PENETRATING WELLS—					
A =	2.64				
B =	0.36				
FOR FULLY PENETRATING WELLS--					
C =	2.08				
—EVALUATION OF LN(Re/(r sub w)):					
CONST.1 =	0.3470				
CONST.2 =	ERR	=(MAX. OF 6.0)=		ERR	
LN(Re/(r sub w) =		2.47			

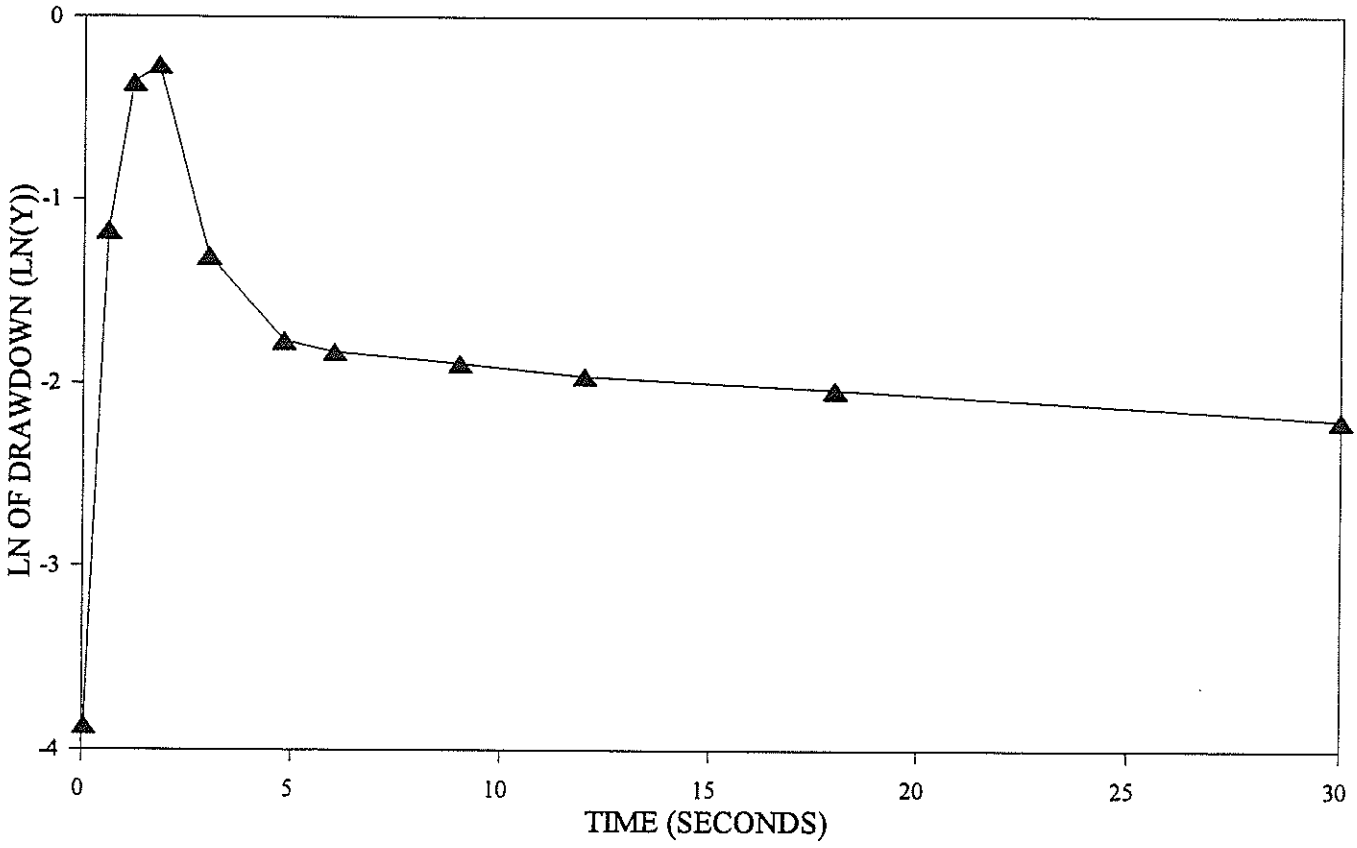
EFFECTIVE r sub c (for sandpack dewatering) =		0.1787	
(1/T)[LN(Yo/Yt)) (SLOPE) =	-1.80E-01	sec^(-1)	
HYDRAULIC CONDUCTIVITY (K) =	4.74E-04	ft/sec	<==========
	1.44E-02	cm/sec	<==========

Regression Output:

Constant		-0.80
Std Err of Y Est		1.20E-01
R Squared		0.9112
No. of Observations		3.0000
Degrees of Freedom		1
X Coefficient(s)	-1.80E-01	
Std Err of Coef.	5.62E-02	
Regression Range	t=3.0-6.0	

RATE OF RECOVERY TEST

MW-19 (SLUG OUT)



BOUWER AND RICE METHOD FOR INTERPRETATION OF SLUG TESTS: FOR UNCONFINED AND LEAKY CONFINED AQUIFERS.
TO UTILIZE THIS WORKSHEET, ENTER YOUR DATA AT LOCATIONS MARKED BY AN "*".
PROGRAM CAN INCLUDE EFFECTS OF SANDPACK DEWATERING (ASSUMING WATER IS RISING WITHIN THE SANDPACK).

#	*TIME mi (X)	*WATER LEVEL Ft.	DRAWDO (Y)	TIME sec (X')	LN (Y)
1	0.001	8.67	0.141	0.1	-1.9590
2	0.01	8.56	0.251	0.6	-1.3823
3	0.02	8.37	0.441	1.2	-0.8187
4	0.03	8.38	0.431	1.8	-0.8416
5	0.08	8.31	0.501	4.8	-0.6911
6	0.10	8.31	0.501	6.0	-0.6911
7	0.15	8.40	0.411	9.0	-0.8892
8	0.20	8.41	0.401	12.0	-0.9138
9	0.30	8.43	0.381	18.0	-0.9650
10	0.50	8.46	0.351	30.0	-1.0470
11	1.00	8.51	0.301	60.0	-1.2006
12	2.00	8.59	0.221	120.0	-1.5096
13	3.00	8.65	0.161	180.0	-1.8264
14	4.00	8.69	0.121	240.0	-2.1120
15	5.00	8.71	0.101	300.0	-2.2926
16	7.00	8.74	0.071	420.0	-2.6451
17	10.00	8.76	0.051	600.0	-2.9759
18	12.00	8.80	0.011	720.0	-4.5099
19	14.00	8.80	0.011	840.0	-4.5099
20	16.00	8.82	0.009	960.0	-4.7105
21					

* PROJECT NAME	: GM Inbland Fisher Guide : Trenton, N.J.		
* PROJECT NO	: 35355.02		
* WELL NO	: MW-20 (SLUG OUT)		
* ANALYST	BYRNE		
* DATE COLLECTED	3/31/94		
* RISER PIPE (ID)	(2 r sub c) =	2.0 in. =	0.0833 (radius in ft.)
* EFFECTIVE SCREEN AMETER:	(2 r sub w) =	10.0 in. =	0.4167 (radius in ft.)
* EFFECTIVE SCREEN NGTH:	(L) =	15.00 Ft.	
* MAX DRAWDOWN (BSET):	(Ymax) =	1.00 Ft.	
* STATIC WATER LEV	(SWL) =	8.81 Ft.	
* DEPTH FROM SWL TO EFF. SCREEN BOTTOM:		15.00 Ft.	
* EST. AQUIFER DEPTH (SWL TO AQUIFER BOTTOM):	(D) =	15.00 Ft.	
* INCLUDE SANDPACK DEWATERING (ENTER 1 IF YES, 0 IF NO)?		1	
* SANDPACK'S SPECIFIC YIELD (Sy) =	0.15		

BOUWER AND RICE CURVE COEFFICIENTS:

RATIO OF L/(r sub w) =	36.00		
---LOG OF L/(r sub w) =	1.5563		
FOR PARTIALLY PENETRATING WELLS--			
A =	2.64		
B =	0.36		
FOR FULLY PENETRATING WELLS--			
C =	2.08		
---EVALUATION OF LN(Re/(r sub w)):			
CONST.1 =	0.3070		
CONST.2 =	ERR	=(MAX. OF 6.0)=	ERR
LN(Re/(r sub w) =	2.74		

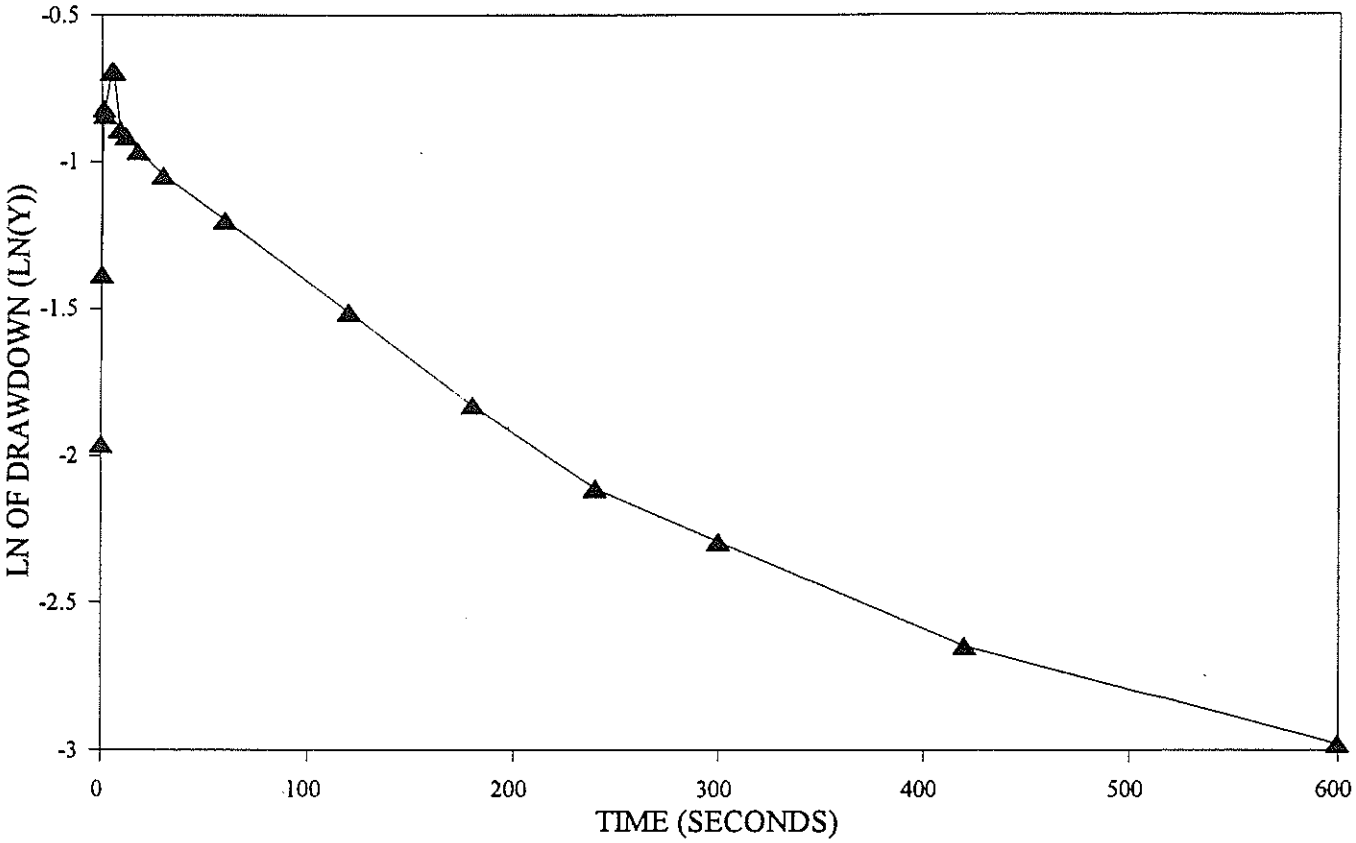
EFFECTIVE r sub c (for sandpack dewatering) =		0.1787	
(1/T)(LN(Yo/Yt)) (SLOPE) =	8.38E-02	sec^(-1)	
HYDRAULIC CONDUCTIVITY (K) =	2.45E-04	ft/sec	<==========
	7.45E-03	cm/sec	<==========

Regression Output:

Constant		8.39
Std Err of Y Est		4.23E-02
R Squared		0.9017
No. of Observations		9.0000
Degrees of Freedom		7
X Coefficient(s)	8.38E-02	
Std Err of Coef.	1.05E-02	
Regression Range	t=6.0-240.0	

RATE OF RECOVERY TEST

MW-20 (SLUG OUT)



APPENDIX F

SUMMARY OF TENTATIVELY IDENTIFIED COMPOUNDS

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-18 SB-3-SO-18 10	3-18 SB-3-SO-18 14	3-18 RE SB-3-SO-18 RE 14	3-19 SB-3-SO-19 10
1,2-Dichlorobenzene	20.78				6 JN	
1,2-Dichlorobenzene	20.83		800 JNB			
1,3-Dichlorobenzene	20.06				8 JN	
1,3-Dichlorobenzene	20.07		860 JNB			
1,4-Dichlorobenzene	20.20				7 JNB	
1,4-Dichlorobenzene	20.24		920 JNB			
1-ethyl-4-methyl-benzene	20.29		22 JN			
2-methyl-Hexane	9.51					130 JN
3-methyl-Hexane	9.92					91 JN
4-methyl-Octane	15.93					37 JN
Alkane	12.09					67 J
Alkane	12.73					60 J
Alkane	13.19		40 J			
Alkane	13.39		29 J			
Alkane	13.44					67 J
Alkane	13.85		23 J			
Benzene, ethyl-methyl isomer	18.41					
Benzene, ethyl-methyl isomer	19.25					
Benzene, ethyl-methyl isomer	19.69					
Benzene, ethyl-methyl isomer	19.99					
Benzene, ethyl-methyl isomer	20.63					
Benzene, propyl	19.07					
C10 H14 Isomer	21.56					
C10 H14 Isomer	21.70					
C10 H14 Isomer	22.34					
C4 H8 Isomer	8.19		47 J			
C6 H14 Isomer	5.35		79 J			
C7 H14 Isomer	12.36		19 J			
C8 H16 Isomer	12.08		760 JB			
C8 H16 Isomer	12.56		41 JB			
C8 H18 Isomer	13.19					43 J
C9 H10 Isomer	20.94					
C9 H12 Isomer	18.86					28 J
C9 H12 Isomer	19.00					27 J

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-18 SB-3-SO-18 10	3-18 SB-3-SO-18 14	3-18 RE SB-3-SO-18 RE 14	3-19 SB-3-SO-19 10
C9 H12 Isomer	19.30					22 J
C9 H12 Isomer	19.38					
C9 H12 Isomer	19.60					29 J
C9 H12 Isomer	19.65		38 J			
C9 H18 Isomer	18.14					
Carbon Dioxide	1.78		3900 JNB			
Carbon Dioxide	1.80					930 JNB
Carbon Dioxide	1.84					
Carbon Dioxide	1.92			12 JNB		
Carbon Dioxide	2.01				48 JNB	
Carbon Dioxide	2.03		69 JNB			
Dichlorobenzene Isomer	20.21			6 JB		
Dichlorobenzene Isomer	20.79			6 J		
Hexane	5.91		780 JNB			
Unknown	2.01			24 J		
Unknown	5.56		920 JB			
Unknown	10.04		34 J			
Unknown	10.45		67 J			
Unknown	12.35					
Unknown	12.53			7 JB		
Unknown	18.99					
Unknown	21.55			7 J		
Unknown	21.93					
Unknown	21.94		780 JB			
Unknown	23.47				10 J	
Unknown	5.56		920 JB			
Unknown	10.04		34 J			
Unknown	10.45		67 J			
Unknown	12.35					
Unknown	12.53			7 JB		
Unknown	18.99					
Unknown	21.55			7 J		
Unknown	21.93					
Unknown	21.94		780 JB			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (FT)	3-19 DL SB-3-SO-19 DL 10	3-19 SB-3-SO-19 14	3-20 SB-3-SO-20 7.5	3-20 RE SB-3-SO-20 RE 7.5	3-20 SB-3-SO-20 8.5	3-21 SB-3-SO-21 7.5	3-21 DL SB-3-SO-21 DL 7.5	3-21 SB-3-SO-21 8
1,2-Dichlorobenzene	20.78			720 JNB						
1,3-Dichlorobenzene	20.02			720 JNB						
1,4-Dichlorobenzene	20.18			740 JNB						
2-Propanol	5.04		44 JN							
Alkane	10.46		49 J							
C10 H12 Isomer	21.47							7 J		
C10 H14 Isomer	20.57								33 J	
C10 H14 Isomer	20.58							14 J		
C11 H14 Isomer	23.40							12 J		
C7 H14 O2 Isomer	5.56									6 J
C8 H16 Isomer	12.05				7 JB					
C8 H16 Isomer	12.06							10 JB	35 JB	
C8 H16 Isomer	12.07									7 JB
C9 H12 Isomer	19.76		34 J							
Carbon Dioxide	1.78			3600 JNB						
Carbon Dioxide	1.79					530 JNB			2100 JNB	
Carbon Dioxide	1.80				310 JNB			510 JNB		400 JNB
Carbon Dioxide	2.01		200 JNB				52 JNB			
Decanal	23.64								120 JNB	
Dichlorobenzene Isomer	20.01								47 JB	
Dichlorobenzene Isomer	20.17								35 J	
Dichlorobenzene Isomer	20.20							8 J		6 J
Dichlorobenzene Isomer	20.25				6 J	6 J				
Dimethyl Naphthalene Isomer	22.89		33 J							
Dimethyl Naphthalene Isomer	23.47		40 J							
Hexane	5.97			800 JNB						
Unknown	4.61							7 J		
Unknown	5.43				6 J					
Unknown	5.62			890 JB						
Unknown	21.65						6 J			
Unknown	21.91								78 JB	
Unknown	23.63			770 JB						

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-23 SB-3-SO-23 11	3-23 SB-3-SO-23 14	3-24 SB-3-SO-24 13	3-24 DL SB-3-SO-24 DL 13	3-24 SB-3-SO-24 18	3-25 SB-3-SO-25 9	3-25 DL SB-3-SO-25 DL 9	3-25 SB-3-SO-25 16	3-26 SB-3-SO-26 10.5
Alkane	5.28								880 J		
Alkane	10.44				5900 J						
Alkane	19.14					3400 J					
Alkane	19.16				15000 J				4200 J		
Alkane	19.28							14000 J			
Alkane	19.60					810 J					
Alkane	19.62								1200 J		
Alkane	20.37								2400 J		
Alkane	20.51								970 J		
Alkane	20.98						6 J				
Alkane	21.00				13000 J	4800 J					
Alkane	21.01								5800 J		
Alkane	21.11							8000 J			
Alkane	21.96						8 J				
Alkane	22.67						11 J				
Alkane	22.68				8700 J						
Alkane	22.69					6500 J					
Alkane	22.91						10 J				
Alkane	22.92					740 J					
Alkane	22.93								6200 J		
Alkane	23.05									22 J	
Alkane	23.48						14 J				
Alkane	23.83					1600 J					
Alkane	23.85								4100 J		
Alkane	23.97									19 J	
Alkane	24.24				9100 J						
Alkane	24.25					3400 J					
C10 H14 Isomer	20.72					1600 J					
C10 H14 Isomer	20.74				8500 J						
C10 H14 Isomer	20.75								1500 J		
C10 H14 Isomer	20.86							20000 J			
C10 H14 Isomer	21.28					2100 J					
C10 H14 Isomer	21.30				6300 J				2000 J		
C10 H14 Isomer	21.40							11000 J			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (FT)	3-23 SB-3-SO-23 11	3-23 SB-3-SO-23 14	3-24 SB-3-SO-24 13	3-24 DL SB-3-SO-24 DL 13	3-24 SB-3-SO-24 18	3-25 SB-3-SO-25 9	3-25 DL SB-3-SO-25 DL 9	3-25 SB-3-SO-25 16	3-26 SB-3-SO-26 10.5
C10 H14 Isomer	21.53							7300 J			
C10 H14 Isomer	22.09					2200 J					
C10 H14 Isomer	22.10				7000 J						
C10 H14 Isomer	22.23							11000 J			
C10 H14 Isomer	22.88									13 J	
C10 H14 Isomer	22.89							19000 J			
C11 H14 Isomer	24.63				4200 J						
C11 H14 Isomer	24.75							8900 J			
C11 H16 Isomer	23.46							11000 J			
C11 H16 Isomer	23.47									8 J	
C7 H14 Isomer	12.38		8 J								
C8 H16 Isomer	12.05		840 JB								
C8 H16 Isomer	12.49			6 JB							
C8 H16 Isomer	12.52		6 JB								
C8 H16 Isomer	21.90					1200 J					
C9 H14 O Isomer	20.62		9 J								
Carbon Dioxide	1.77			4100 JNB							
Carbon Dioxide	1.78		4000 JNB								
Carbon Dioxide	1.88						8 JNB				
Carbon Dioxide	1.92									10 JNB	
Carbon Dioxide	2.01		83 JNB								110 JNB
Cyclohexane substituted	18.11							8800 J			
Cyclohexane substituted	20.01					940 J					
Cyclohexane substituted	20.15							7100 J			
Decanal	23.62		1900 JNB								
Dichlorobenzene Isomer	20.03		990 JB								
Dichlorobenzene Isomer	20.05			16 JB							
Dichlorobenzene Isomer	20.18			7 JB							
Dichlorobenzene Isomer	20.19			820 JB							
Dichlorobenzene Isomer	20.20		830 JB								
Dichlorobenzene Isomer	20.25		13 JB								
Dichlorobenzene Isomer	20.79			760 JB							
Dimethyl Naphthalene Isomer	23.39				10000 JB						
Dimethyl Naphthalene Isomer	23.49										45 J

APPENDIX F

SUMMARY OF TENTATIVELY IDENTIFIED COMPOUNDS

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (FT)	3-18 SB-3-SO-18 10	3-18 SB-3-SO-18 14	3-18 RE SB-3-SO-18 RE 14	3-19 SB-3-SO-19 10
1,2-Dichlorobenzene	20.78				6 JN	
1,2-Dichlorobenzene	20.83		800 JNB			
1,3-Dichlorobenzene	20.06				8 JN	
1,3-Dichlorobenzene	20.07		860 JNB			
1,4-Dichlorobenzene	20.20				7 JNB	
1,4-Dichlorobenzene	20.24		920 JNB			
1-ethyl-4-methyl-benzene	20.29		22 JN			
2-methyl-Hexane	9.51					130 JN
3-methyl-Hexane	9.92					91 JN
4-methyl-Octane	15.93					37 JN
Alkane	12.09					67 J
Alkane	12.73					60 J
Alkane	13.19		40 J			
Alkane	13.39		29 J			
Alkane	13.44					67 J
Alkane	13.85		23 J			
Benzene, ethyl-methyl isomer	18.41					
Benzene, ethyl-methyl isomer	19.25					
Benzene, ethyl-methyl isomer	19.69					
Benzene, ethyl-methyl isomer	19.99					
Benzene, ethyl-methyl isomer	20.63					
Benzene, propyl	19.07					
C10 H14 Isomer	21.56					
C10 H14 Isomer	21.70					
C10 H14 Isomer	22.34					
C4 H8 Isomer	8.19		47 J			
C6 H14 Isomer	5.35		79 J			
C7 H14 Isomer	12.36		19 J			
C8 H16 Isomer	12.08		760 JB			
C8 H16 Isomer	12.56		41 JB			
C8 H18 Isomer	13.19					43 J
C9 H10 Isomer	20.94					
C9 H12 Isomer	18.86					28 J
C9 H12 Isomer	19.00					27 J

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-18 SB-3-SO-18 10	3-18 SB-3-SO-18 14	3-18 RE SB-3-SO-18 RE 14	3-19 SB-3-SO-19 10
C9 H12 Isomer	19.30					22 J
C9 H12 Isomer	19.38					
C9 H12 Isomer	19.60					29 J
C9 H12 Isomer	19.65		38 J			
C9 H18 Isomer	18.14					
Carbon Dioxide	1.78		3900 JNB			
Carbon Dioxide	1.80					930 JNB
Carbon Dioxide	1.84					
Carbon Dioxide	1.92			12 JNB		
Carbon Dioxide	2.01				48 JNB	
Carbon Dioxide	2.03		69 JNB			
Dichlorobenzene Isomer	20.21			6 JB		
Dichlorobenzene Isomer	20.79			6 J		
Hexane	5.91		780 JNB			
Unknown	2.01			24 J		
Unknown	5.56		920 JB			
Unknown	10.04		34 J			
Unknown	10.45		67 J			
Unknown	12.35					
Unknown	12.53			7 JB		
Unknown	18.99					
Unknown	21.55			7 J		
Unknown	21.93					
Unknown	21.94		780 JB			
Unknown	23.47				10 J	
Unknown	5.56		920 JB			
Unknown	10.04		34 J			
Unknown	10.45		67 J			
Unknown	12.35					
Unknown	12.53			7 JB		
Unknown	18.99					
Unknown	21.55			7 J		
Unknown	21.93					
Unknown	21.94		780 JB			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-19 DL SB-3-SO-19 DL 10	3-19 SB-3-SO-19 14	3-20 SB-3-SO-20 7.5	3-20 RE SB-3-SO-20 RE 7.5	3-20 SB-3-SO-20 8.5	3-21 SB-3-SO-21 7.5	3-21 DL SB-3-SO-21 DL 7.5	3-21 SB-3-SO-21 8
1,2-Dichlorobenzene	20.78			720 JNB						
1,3-Dichlorobenzene	20.02			720 JNB						
1,4-Dichlorobenzene	20.18			740 JNB						
2-Propanol	5.04		44 JN							
Alkane	10.46		49 J							
C10 H12 Isomer	21.47							7 J		
C10 H14 Isomer	20.57								33 J	
C10 H14 Isomer	20.58							14 J		
C11 H14 Isomer	23.40							12 J		
C7 H14 O2 Isomer	5.56									6 J
C8 H16 Isomer	12.05				7 JB					
C8 H16 Isomer	12.06							10 JB	35 JB	
C8 H16 Isomer	12.07									7 JB
C9 H12 Isomer	19.76		34 J							
Carbon Dioxide	1.78			3600 JNB						
Carbon Dioxide	1.79					530 JNB			2100 JNB	
Carbon Dioxide	1.80				310 JNB			510 JNB		400 JNB
Carbon Dioxide	2.01		200 JNB				52 JNB			
Decanal	23.64								120 JNB	
Dichlorobenzene Isomer	20.01								47 JB	
Dichlorobenzene Isomer	20.17								35 J	
Dichlorobenzene Isomer	20.20							8 J		6 J
Dichlorobenzene Isomer	20.25				6 J	6 J				
Dimethyl Naphthalene Isomer	22.89		33 J							
Dimethyl Naphthalene Isomer	23.47		40 J							
Hexane	5.97			800 JNB						
Unknown	4.61							7 J		
Unknown	5.43				6 J					
Unknown	5.62			890 JB						
Unknown	21.65						6 J			
Unknown	21.91								78 JB	
Unknown	23.63			770 JB						

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-23 SB-3-SO-23 11	3-23 SB-3-SO-23 14	3-24 SB-3-SO-24 13	3-24 DL SB-3-SO-24 DL 13	3-24 SB-3-SO-24 18	3-25 SB-3-SO-25 9	3-25 DL SB-3-SO-25 DL 9	3-25 SB-3-SO-25 16	3-26 SB-3-SO-26 10.5
Alkane	5.28								880 J		
Alkane	10.44				5900 J						
Alkane	19.14					3400 J					
Alkane	19.16				15000 J				4200 J		
Alkane	19.28							14000 J			
Alkane	19.60					810 J					
Alkane	19.62								1200 J		
Alkane	20.37								2400 J		
Alkane	20.51								970 J		
Alkane	20.98						6 J				
Alkane	21.00				13000 J	4800 J					
Alkane	21.01								5800 J		
Alkane	21.11							8000 J			
Alkane	21.96						8 J				
Alkane	22.67						11 J				
Alkane	22.68				8700 J						
Alkane	22.69					6500 J					
Alkane	22.91						10 J				
Alkane	22.92					740 J					
Alkane	22.93								6200 J		
Alkane	23.05									22 J	
Alkane	23.48						14 J				
Alkane	23.83					1600 J					
Alkane	23.85								4100 J		
Alkane	23.97									19 J	
Alkane	24.24				9100 J						
Alkane	24.25					3400 J					
C10 H14 Isomer	20.72					1600 J					
C10 H14 Isomer	20.74				8500 J						
C10 H14 Isomer	20.75								1500 J		
C10 H14 Isomer	20.86							20000 J			
C10 H14 Isomer	21.28					2100 J					
C10 H14 Isomer	21.30				6300 J				2000 J		
C10 H14 Isomer	21.40							11000 J			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE	3-23	3-23	3-24	3-24 DL	3-24	3-25	3-25 DL	3-25	3-26
		SAMPLE ID	SB-3-SO-23	SB-3-SO-23	SB-3-SO-24	SB-3-SO-24 DL	SB-3-SO-24	SB-3-SO-25	SB-3-SO-25 DL	SB-3-SO-25	SB-3-SO-26
		DATE									
		DEPTH (Ft)	11	14	13	13	18	9	9	16	10.5
C10 H14 Isomer	21.53							7300 J			
C10 H14 Isomer	22.09					2200 J					
C10 H14 Isomer	22.10				7000 J						
C10 H14 Isomer	22.23							11000 J			
C10 H14 Isomer	22.88									13 J	
C10 H14 Isomer	22.89							19000 J			
C11 H14 Isomer	24.63				4200 J						
C11 H14 Isomer	24.75							8900 J			
C11 H16 Isomer	23.46							11000 J			
C11 H16 Isomer	23.47									8 J	
C7 H14 Isomer	12.38		8 J								
C8 H16 Isomer	12.05		840 JB								
C8 H16 Isomer	12.49			6 JB							
C8 H16 Isomer	12.52		6 JB								
C8 H16 Isomer	21.90					1200 J					
C9 H14 O Isomer	20.62		9 J								
Carbon Dioxide	1.77			4100 JNB							
Carbon Dioxide	1.78		4000 JNB								
Carbon Dioxide	1.88						8 JNB				
Carbon Dioxide	1.92									10 JNB	
Carbon Dioxide	2.01		83 JNB								110 JNB
Cyclohexane substituted	18.11							8800 J			
Cyclohexane substituted	20.01					940 J					
Cyclohexane substituted	20.15							7100 J			
Decanal	23.62		1900 JNB								
Dichlorobenzene Isomer	20.03		990 JB								
Dichlorobenzene Isomer	20.05			16 JB							
Dichlorobenzene Isomer	20.18			7 JB							
Dichlorobenzene Isomer	20.19			820 JB							
Dichlorobenzene Isomer	20.20		830 JB								
Dichlorobenzene Isomer	20.25		13 JB								
Dichlorobenzene Isomer	20.79			760 JB							
Dimethyl Naphthalene Isomer	23.39				10000 JB						
Dimethyl Naphthalene Isomer	23.49										45 J

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE	3-23	3-23	3-24	3-24 DL	3-24	3-25	3-25 DL	3-25	3-26
		SAMPLE ID	SB-3-SO-23	SB-3-SO-23	SB-3-SO-24	SB-3-SO-24 DL	SB-3-SO-24	SB-3-SO-25	SB-3-SO-25 DL	SB-3-SO-25	SB-3-SO-26
		DATE									
		DEPTH (Ft)	11	14	13	13	18	9	9	16	10.5
Hexane	6.57		12 JN								
Pentane, 2-methyl	5.29				6300 JN						
Unknown	3.26		18 J								
Unknown	5.39		28 J								
Unknown	5.64		870 JB								
Unknown	10.45		17 J								
Unknown	20.77			7 J							
Unknown	21.51			6 J							
Unknown	21.56		16 J								
Unknown	21.62				4500 J						
Unknown	21.84			36 JB							
Unknown	21.93		1300 JB								
Unknown	21.94								2800 J		
Unknown	22.72								4000 J		
Unknown	23.77									11 J	
Unknown Aromatic	21.74							15000 J			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-26 DL SB-3-SO-26 DL 15	3-27 DL SB-3-SO-27 DL 12	3-27 SB-3-SO-27 15	3-28 SB-3-SO-28 11	3-28 SB-3-SO-28 16.5	3-29 SB-3-SO-29 8	3-29 SB-3-SO-29 9	3-29 D SB-3-SO-29 D 9
2,4,4-trimethyl-2-Pentene	12.08							6 JNB		
Alkane	5.31						15 J			
Alkane	10.45			260 J						
Alkane	10.62					18 J				
Alkane	11.57					7 J				
Alkane	12.61			94 J						
Alkane	12.72					14 J				
Alkane	13.39			92 J						
Alkane	13.66			110 J						
Alkane	13.78					10 J				
Alkane	13.88			130 J						
Alkane	14.02					13 J				
Alkane	16.37					12 J				
Alkane	16.57					7 J				
Alkane	19.16						9 J			
Alkane	23.76					13 J				
C11 H16 Isomer	22.68						14 J			
C11 H16 Isomer	23.35						9 J			
C12 H18 Isomer	23.63						13 J			
C6 H12O Isomer	10.25					15 J				
C7 H14 Isomer	12.37			110 J						
C8 H16 Isomer	12.15								8 JB	
C8 H18 Isomer	13.34					15 J				
C9 H12 Isomer	19.04			100 J						
C9 H12 Isomer	19.16			110 J						
C9 H12 Isomer	19.72			150 J						
C9 H12 Isomer	19.75						14 J			
C9 H12 Isomer	20.39						13 J			
C9 H20 Isomer	15.60						7 J			
Carbon Dioxide	1.79							190 JNB	310 JNB	
Carbon Dioxide	2.00			400 JNB						
Carbon Dioxide	2.01		210 JNB				11 JNB			85 JNB
Carbon Dioxide	2.04					8 JNB				
Dimethyl Naphthalene Isomer	23.75				20 J					

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-26 DL SB-3-SO-26 DL 15	3-27 DL SB-3-SO-27 DL 12	3-27 SB-3-SO-27 15	3-28 SB-3-SO-28 11	3-28 SB-3-SO-28 16.5	3-29 SB-3-SO-29 8	3-29 SB-3-SO-29 9	3-29 D SB-3-SO-29 D 9
Pentane, 2,3,4-trimethyl	13.20			200 JN						
Unknown	5.58							7 JB		
Unknown	5.63								6 J	
Unknown	8.16			170 J						
Unknown	21.65						15 J			
Unknown	21.66		41 J							
Unknown	21.97						18 J			
Unknown	24.62						10 J			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	3-26 DL SB-3-SO-26 DL 15	3-27 DL SB-3-SO-27 DL 12	3-27 SB-3-SO-27 15	3-28 SB-3-SO-28 11	3-28 SB-3-SO-28 16.5	3-29 SB-3-SO-29 8	3-29 SB-3-SO-29 9	3-29 D SB-3-SO-29 D 9
2,4,4-trimethyl-2-Pentene	12.08							6 JNB		
Alkane	5.31						15 J			
Alkane	10.45			260 J						
Alkane	10.62					18 J				
Alkane	11.57					7 J				
Alkane	12.61			94 J						
Alkane	12.72					14 J				
Alkane	13.39			92 J						
Alkane	13.66			110 J						
Alkane	13.78					10 J				
Alkane	13.88			130 J						
Alkane	14.02					13 J				
Alkane	16.37					12 J				
Alkane	16.57					7 J				
Alkane	19.16						9 J			
Alkane	23.76					13 J				
C11 H16 Isomer	22.68						14 J			
C11 H16 Isomer	23.35						9 J			
C12 H18 Isomer	23.63						13 J			
C6 H12O Isomer	10.25					15 J				
C7 H14 Isomer	12.37			110 J						
C8 H16 Isomer	12.15								8 JB	
C8 H18 Isomer	13.34					15 J				
C9 H12 Isomer	19.04			100 J						
C9 H12 Isomer	19.16			110 J						
C9 H12 Isomer	19.72			150 J						
C9 H12 Isomer	19.75						14 J			
C9 H12 Isomer	20.39						13 J			
C9 H20 Isomer	15.60						7 J			
Carbon Dioxide	1.79							190 JNB	310 JNB	
Carbon Dioxide	2.00			400 JNB						
Carbon Dioxide	2.01		210 JNB				11 JNB			85 JNB
Carbon Dioxide	2.04					8 JNB				
Dimethyl Naphthalene Isomer	23.75				20 J					

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID	3-26 DL SB-3-SO-26 DL	3-27 DL SB-3-SO-27 DL	3-27 SB-3-SO-27	3-28 SB-3-SO-28	3-28 SB-3-SO-28	3-29 SB-3-SO-29	3-29 SB-3-SO-29	3-29 D SB-3-SO-29 D
		DATE								
		DEPTH (Ft)	15	12	15	11	16.5	8	9	9
Pentane, 2,3,4-trimethyl	13.20			200 JN						
Unknown	5.58							7 JB		
Unknown	5.63								6 J	
Unknown	8.16			170 J						
Unknown	21.65						15 J			
Unknown	21.66		41 J							
Unknown	21.97						18 J			
Unknown	24.62						10 J			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE	3-30	3-30	3-31	3-31	3-32	3-32	3-32 RE	3-33	3-33 RE
		SAMPLE ID	SB-3-SO-30	SB-3-SO-30	SB-3-SO-31	SB-3-SO-31	SB-3-SO-32	SB-3-SO-32	SB-3-SO-32 RE	SB-3-SO-33	SB-3-SO-33 RE
		DATE									
		DEPTH (FO)	8	9	8	9	8	9	9	8	8
2,4,4-trimethyl-2-Pentene	12.01			7 JNB							
C7 H14 O Isomer	21.93								7 JB		
C8 H16 Isomer	12.04				6 JB					7 JB	
C8 H16 Isomer	12.05		7 JB								
C8 H16 Isomer	12.07								7 JB		
C8 H16 Isomer	12.10					8 JB					
C8 H16 Isomer	12.13						7 JB				
Carbon Dioxide	1.78					510 JNB					
Carbon Dioxide	1.79			390 JNB							160 JNB
Carbon Dioxide	1.80		140 JNB		120 JNB				660 JNB	77 JN	
Carbon Dioxide	1.81						120 JNB				
Carbon Dioxide	2.02							83 JNB			
Dichlorobenzene Isomer	20.04								6 JB		
Dichlorobenzene Isomer	20.18						5 J				
Dichlorobenzene Isomer	20.22							6 J			
Unknown	5.44									6 J	
Unknown	5.62								7 JB		
Unknown	12.12										7 JB
Unknown	23.66								11 JB		

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE	3-33	7-5	7-5	7-5 D	7-5	7-5	7-5
		SAMPLE ID	SB-3-SO-33	SB-7-SO-5	SB-7-SO-5	SB-7-SO-5 D	SB-7-SO-5	SB-7-SO-5	SB-7-SO-5
		DATE							
		DEPTH (Ft)	9	2	4	4	6	10	12
C8 H16 Isomer	12.12		8 JB						
C9 H12 Isomer	19.12				7 J				
Carbon Dioxide	1.80		440 JNB						
Carbon Dioxide	1.95							85 JNB	330 JNB
Carbon Dioxide	1.96			99 JNB	190 JNB	98 JNB	190 JNB		
Unknown	3.15							890 J	
Unknown	3.19						1900 J		
Unknown	4.90							10 J	
Unknown	21.25						4100 J		
Unknown	21.53				18 J				
Unknown	22.26				19 J				

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	7-5 DL SB-7-SO-5 DL 12	7-7 SB-7-SO-7 0.5	7-7 SB-7-SO-7 4	7-7 SB-7-SO-7 6	7-7 DL SB-7-SO-7 DL 6	7-7 SB-7-SO-7 8	7-7 DL SB-7-SO-7 DL 8	7-7 SB-7-SO-7 10
1H-Indene, 2,3-dihydro-1,1,5-trim	23.20				9 JN					
Alkane	20.98									
Alkane	21.10									
Alkane	22.28					9 J				
Alkane	22.68									
Alkane	22.81									
Alkane	22.90									
Alkane	23.78				16 J					
Alkane	23.79					8 J				
Alkane	23.82									
Alkane	24.23									
Benzene, cyclopropyl	20.68									
Benzene, propyl	18.99									
C10 H14 Isomer	20.48				11 J					
C10 H14 Isomer	20.83									
C10 H14 Isomer	20.95									
C10 H14 Isomer	21.41									
C10 H14 Isomer	21.52									
C10 H14 Isomer	22.30				27 J					
C11 H16 Isomer	22.90				24 J					
C9 H10 Isomer	20.80									
C9 H12 Isomer	18.70									1000 J
C9 H12 Isomer	18.73				9 J					
C9 H12 Isomer	18.87				13 J					
C9 H12 Isomer	19.02									
C9 H12 Isomer	19.03									
C9 H12 Isomer	19.14				9 J					
C9 H12 Isomer	19.15									
C9 H12 Isomer	19.16									
C9 H12 Isomer	19.29									
C9 H12 Isomer	19.38				1200 J					
C9 H12 Isomer	19.39									1600 J
C9 H12 Isomer	19.41				13 J					
C9 H12 Isomer	19.46									

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (ft)	7-5 DL SB-7-SO-5 DL 12	7-7 SB-7-SO-7 0.5	7-7 SB-7-SO-7 4	7-7 SB-7-SO-7 6	7-7 DL SB-7-SO-7 DL 6	7-7 SB-7-SO-7 8	7-7 DL SB-7-SO-7 DL 8	7-7 SB-7-SO-7 10
C9 H12 Isomer	19.59									
C9 H12 Isomer	19.73									
C9 H12 Isomer	19.74									
C9 H12 Isomer	19.86									
C9 H12 Isomer	20.37									
C9 H12 Isomer	20.39									
C9 H12 Isomer	20.50									
Carbon Dioxide	1.94					31 JN				
Carbon Dioxide	1.95		280 JNB				410 JNB		640 JNB	29 JN
Carbon Dioxide	1.96							64 JN		
Carbon Dioxide	1.97			1200 JNB						
Carbon Dioxide	1.98				63 JN					
Carbon Dioxide	2.01									
Disulfide, dimethyl	13.88				15 JN					
Unknown	21.23				18 J					
Unknown	21.28					10 J				
Unknown	21.51						58 J			
Unknown	23.13						62 J			
Unknown	23.18					7 J				

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	8-11 DL SB-8-SO-11 DL 8	8-11 SB-8-SO-11 16	8-12 DL SB-8-SO-11 DL 12
1H-Indene, 2,3-dihydro-1,1,5-trim	23.20				
Alkane	20.98				350 J
Alkane	21.10		84000 J		
Alkane *	22.28				
Alkane	22.68				690 J
Alkane	22.81		58000 J		
Alkane	22.90				390 J
Alkane	23.78				
Alkane	23.79				
Alkane	23.82				350 J
Alkane	24.23				490 J
Benzene, cyclopropyl	20.68				440 JN
Benzene, propyl	18.99		210000 JN		
C10 H14 Isomer	20.48				
C10 H14 Isomer	20.83				390 J
C10 H14 Isomer	20.95		120000 J		
C10 H14 Isomer	21.41		120000 J		
C10 H14 Isomer	21.52		96000 J		
C10 H14 Isomer	22.30				
C11 H16 Isomer	22.90				
C9 H10 Isomer	20.80		200000 J		
C9 H12 Isomer	18.70				
C9 H12 Isomer	18.73				
C9 H12 Isomer	18.87				
C9 H12 Isomer	19.02				1000 J
C9 H12 Isomer	19.03			8 J	
C9 H12 Isomer	19.14				
C9 H12 Isomer	19.15				630 J
C9 H12 Isomer	19.16		1200000 J	7 J	
C9 H12 Isomer	19.29		600000 J		
C9 H12 Isomer	19.38				
C9 H12 Isomer	19.39				
C9 H12 Isomer	19.41				
C9 H12 Isomer	19.46				390 J

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	8-11 DL SB-8-SO-11 DL 8	8-11 SB-8-SO-11 16	8-12 DL SB-8-SO-11 DL 12
C9 H12 Isomer	19.59		540000 J		
C9 H12 Isomer	19.73				1700 J
C9 H12 Isomer	19.74			23 J	
C9 H12 Isomer	19.86		1800000 J		
C9 H12 Isomer	20.37				560 J
C9 H12 Isomer	20.39			9 J	
C9 H12 Isomer	20.50		540000 J		
Carbon Dioxide	1.94				
Carbon Dioxide	1.95				
Carbon Dioxide	1.96				
Carbon Dioxide	1.97				
Carbon Dioxide	1.98				
Carbon Dioxide	2.01			45 JNB	
Disulfide, dimethyl	13.88				
Unknown	21.23				
Unknown	21.28				
Unknown	21.51				
Unknown	23.13				
Unknown	23.18				

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	8-12 SB-8-SO-12 16	8-13 SB-8-SO-13 14	8-13 DL SB-8-SO-13 DL 14	8-13 SB-8-SO-13 18	8-14 SB-8-SO-14 10	8-14 DL SB-8-SO-14 DL 10	8-14 DL SB-8-SO-14 DL 16
Alkane	10.46								
Alkane	19.61				210 J				
Alkane	20.97			180 J					
Alkane	20.99				1200 J	140 J			
Alkane	22.69				520 J				
Alkane	22.91				240 J				
Alkane	24.22		6 J						
Benzene, propyl	18.85								580 JN
Benzene, propyl	18.88						9400 JN		
Benzene, propyl	18.98							31000 JN	
C10 H14 Isomer	20.70			300 J					
C10 H14 Isomer	20.72				250 J	170 J			
C10 H14 Isomer	20.81			250 J					560 J
C10 H14 Isomer	20.82					130 J	11000 J		
C10 H14 Isomer	20.84				220 J				
C10 H14 Isomer	20.94							26000 J	
C10 H14 Isomer	21.26								520 J
C10 H14 Isomer	21.27			280 J		160 J	7700 J		
C10 H14 Isomer	21.29				390 J				
C10 H14 Isomer	21.38			230 J					
C10 H14 Isomer	21.39							21000 J	510 J
C10 H14 Isomer	21.40					120 J	7500 J		
C10 H14 Isomer	21.52							20000 J	
C10 H14 Isomer	22.02		10 J						
C10 H14 Isomer	22.08			260 J					430 J
C10 H14 Isomer	22.09					160 J			
C10 H14 Isomer	22.10				330 J		7000 J		
C10 H14 Isomer	22.22							18000 J	
C10 H14 Isomer	22.71			270 J					
C10 H14 Isomer	22.73					170 J			270 J
C10 H14 Isomer	22.74		8 J				4600 J		
C10 H14 Isomer	22.86							12000 J	
C9 H10 Isomer	20.66								940 J
C9 H10 Isomer	20.68						20000 J		

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	S-12 SB-S-SO-12 16	S-13 SB-S-SO-13 14	S-13 DL SB-S-SO-13 DL 14	S-13 SB-S-SO-13 18	S-14 SB-S-SO-14 10	S-14 DL SB-S-SO-14 DL 10	S-14 DL SB-S-SO-14 DL 16
C9 H10 Isomer	20.69		6 J						
C9 H10 Isomer	20.80							47000 J	
C9 H12 Isomer	19.01			570 J					3100 J
C9 H12 Isomer	19.02					210 J			
C9 H12 Isomer	19.03				360 J				
C9 H12 Isomer	19.05						58000 J		
C9 H12 Isomer	19.14								1900 J
C9 H12 Isomer	19.15			450 J		200 J		190000 J	
C9 H12 Isomer	19.16				570 J				
C9 H12 Isomer	19.18						32000 J		
C9 H12 Isomer	19.29							110000 J	
C9 H12 Isomer	19.44			240 J					1200 J
C9 H12 Isomer	19.47						28000 J		
C9 H12 Isomer	19.58							83000 J	
C9 H12 Isomer	19.73		17 J	940 J		390 J			6200 J
C9 H12 Isomer	19.74				650 J				
C9 H12 Isomer	19.77						92000 J		
C9 H12 Isomer	19.86							340000 J	
C9 H12 Isomer	20.36					260 J			2100 J
C9 H12 Isomer	20.37			610 J					
C9 H12 Isomer	20.38		8 J		390 J				
C9 H12 Isomer	20.39						41000 J		
C9 H12 Isomer	20.51							110000 J	
Carbon Dioxide	2.01					230 JNB			
Carbon Dioxide	2.02		51 JNB						

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	8-22 SB-8-SO-22 10.5	8-22 DL SB-8-SO-22 DL 10.5	8-22 SB-8-SO-22 15	8-22 DL SB-8-SO-22 DL 15	10-1 SB-10-SO-1 2	10-1 RE SB-10-SO-1 R 2	10-1 SB-10-SO-1 5	10-1 SB-10-SO-1 6
1-Pentene, 4,4-dimethyl-	20.53									22 JN
Alkane	5.30		110 J							
Alkane	6.49		21 J							
Alkane	10.04		66 J							
Alkane	10.43		49 J							
Alkane	13.20		23 J							
Alkane	20.53									22 J
Alkane	21.96				7 J					
Alkane	23.65				9 J					
C9 H12 Isomer	19.03			36 J						
C9 H12 Isomer	19.15			55 J						
C9 H12 Isomer	19.16		24 J							
C9 H12 Isomer	19.45		22 J							
C9 H12 Isomer	19.46			41 J						
C9 H12 Isomer	19.73			92 J						
C9 H12 Isomer	20.37			50 J						
Carbon Dioxide	1.79							1000 JNB	1100 JNB	
Carbon Dioxide	1.80						720 JNB			
Carbon Dioxide	1.81									1200 JNB
Carbon Dioxide	2.01		100 JNB	170 JNB	98 JNB					
Carbon Dioxide	2.02					38 JNB				
Cyclohexane, methyl-	12.37		23 JN							
Cyclopentane, methyl-	8.19		49 JN							
Unknown	3.20		22 J							
Unknown	13.38		32 J							

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE	10-3	10-3	10-3	10-5	10-5	10-5	10-5 RE	10-5
		SAMPLE ID	SB-10-SO-3	SB-10-SO-3	SB-10-SO-3	SB-10-SO-5	SB-10-SO-5	SB-10-SO-5	SB-10-SO-5 RE	SB-10-SO-5
		DATE								
		DEPTH (Ft)	4	6	10	1	2	4	4	6
Alkane	20.16							19 J		
Alkane	20.81						34 J			
Alkane	20.83							74 J		
Alkane	21.15							23 J		
Alkane	21.80						21 J			
Alkane	21.82							37 J		
Alkane	21.96							41 J		
Alkane	22.08						10 J			
Alkane	22.11							17 J		
Alkane	22.55						95 J			
Alkane	22.57		780 J							
Alkane	22.59							170 J		
Alkane	22.80						70 J			
Alkane	22.84							130 J		
Alkane	23.47							39 J		
Alkane	23.55									83 J
Alkane	23.74						97 J			
Alkane	23.78							150 J		
Alkane	24.16						220 J			
Alkane	24.20							270 J		
C9 H12 Isomer	19.50		1200 JB							
Carbon Dioxide	1.72					1600 JNB				
Carbon Dioxide	1.77									
Carbon Dioxide	1.78		9000 JNB				110 JNB			
Carbon Dioxide	1.79		520 JNB					170 JNB	3900 JNB	
Carbon Dioxide	1.90									8 JNB
Carbon Dioxide	1.94				85 JNB					
Carbon Dioxide	1.96			320 JNB						
Decanal	23.53								11 JNB	
Decanal	23.55		4200 JN							
Decanal	23.56		24 JNB							
N-Pentafluorobenzylide	21.28				1200 JN					
Unknown	3.47				2300 J					
Unknown	3.48			1900 J						

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	10-3 SB-10-SO-3 4	10-3 SB-10-SO-3 6	10-3 SB-10-SO-3 10	10-5 SB-10-SO-5 1	10-5 SB-10-SO-5 2	10-5 SB-10-SO-5 4	10-5 RE SB-10-SO-5 RE 4	10-5 SB-10-SO-5 6
Unknown	9.17				7 J					
Unknown	21.12						12 J			
Unknown	21.29			1600 J						
Unknown	21.50								15 JB	
Unknown	21.57						9 J			
Unknown	21.83		980 J							
Unknown	21.84		10 JB							
Unknown	21.91						25 J			
Unknown	23.42						21 J			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID	10-2 SB-10-SO-2	10-2 RE SB-10-SO-2 RE	10-2 SB-10-SO-2	10-2 SB-10-SO-2	10-2 SB-10-SO-2	10-2 RE SB-10-SO-2 RE	10-2 SB-10-SO-2	10-3 SB-10-SO-3	10-3 SB-10-SO-3
		DATE									
		DEPTH (FT)	2	2	3	4	6	6	7	1	2
Alkane	18.83							18 J			
Alkane	19.65							17 J			
Alkane	20.61										6 J
Alkane	20.62							36 J			
Alkane	22.26										10 J
Alkane	23.76										9 J
Alkane	24.20						12 J				
C9 H12 Isomer	18.72										23 JB
C9 H12 Isomer	18.79						9 J				
C9 H12 Isomer	18.86										14 J
C9 H12 Isomer	18.93						13 J				
C9 H12 Isomer	19.14										11 J
C9 H12 Isomer	19.39										43 J
C9 H12 Isomer	19.42										980 JB
C9 H12 Isomer	19.52						15 J				
C9 H12 Isomer	20.02										13 J
C9 H12 Isomer	20.21						22 J				
Carbon Dioxide	1.79			300 JNB	33 JNB		2100 JNB				
Carbon Dioxide	1.80		280 JNB						2300 JNB	1100 JNB	
Carbon Dioxide	1.94										87 JNB
Carbon Dioxide	1.96							600 JNB			
Cyclohexane, 1,2-diethyl-1	20.88						20 JN				
Decanal	23.56					23 JNB					
Decanal	23.57			9 JN							
Dimethyl Naphthalene Isomer	22.31										1100 J
Naphthalene, decahydro-, cis	20.58						49 JN				
Phthalate	21.49							16 J			
Phthalate	21.80						13 J				
Unknown	20.01							23 J			
Unknown	20.35							24 J			
Unknown	21.59							17 J			
Unknown	21.94						18 J				
Unknown	22.25							12 J			
Unknown	22.46							19 J			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID	10-2 SB-10-SO-2	10-2 RE SB-10-SO-2 RE	10-2 SB-10-SO-2	10-2 SB-10-SO-2	10-2 SB-10-SO-2	10-2 RE SB-10-SO-2 RE	10-2 SB-10-SO-2	10-3 SB-10-SO-3	10-3 SB-10-SO-3
		DATE									
		DEPTH (Ft)	2	2	3	4	6	6	7	1	2
Unknown	22.59						11 J				
Unknown	22.84						23 J				
Unknown	23.77							10 J			
Unknown	24.74										11 J
Unknown	25.00										25 J
Unknown Aromatic	20.30										6 J

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE	10-5	10-5A	10-6	10-6 RE	10-6	10-6	10-6	10-6 DL	10-7
		SAMPLE ID	SB-10-SO-5	SB-10-SO-5A	SB-10-SO-6	SB-10-SO-6 RE	SB-10-SO-6	SB-10-SO-6	SB-10-SO-6	SB-10-SO-6 DL	SB-10-SO-7
		DATE									
		DEPTH (Ft)	8	4	1	1	2	6	7	7	1
Alkane	18.90			1600 J							
Alkane	20.14			1800 J							
Alkane	20.78			1000 J							
Alkane	21.11			1300 J							
Alkane	22.05			790 J							
Alkane	22.53			2400 J							
Alkane	22.76			2000 J							
Alkane	23.68			1300 J							
Alkane	24.10			1600 J							
Benzeneacetic acid, alpha, 4-bis	21.29										1800 JN
C9 H12 Isomer	18.76			1100 J							
C9 H12 Isomer	19.38										13 J
C9 H12 Isomer	19.41										1200 JB
C9 H12 Isomer	20.02										840 JB
Carbon Dioxide	1.78			7000 JNB							
Carbon Dioxide	1.79		1900 JNB								
Carbon Dioxide	1.94				140 JNB						
Carbon Dioxide	1.95						130 JNB			840 JNB	
Carbon Dioxide	1.96					79 JNB			320 JNB		87 JNB
Carbon Dioxide	1.97							320 JNB			
Cyclopentane, 1-methyl-3-(1	21.73			1500 JN							
Decanal	23.54		22 JN								
Limonene	19.75										26 JN
Unknown	3.06										1100 J
Unknown	3.92										12 J
Unknown	4.90										8 J
Unknown	21.83		14 J								
beta,-Pinene	18.83										18 JN

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID	10-7 SB-10-SO-7	10-7 SB-10-SO-7	10-7 SB-10-SO-7	10-7 SB-10-SO-7	10-7 DL SB-10-SO-7 DL	10-7 D SB-10-SO-7 D	10-8 SB-10-SO-8	10-8 RE SB-10-SO-8 RE
		DATE								
		DEPTH (Ft)	2	5	10	12	12	20	0.5	0.5
Alkane	20.63			27000 J						
Alkane	22.26			26000 J						
Alkane	22.50			14000 J						
Benzene, cyclopropyl	20.33				14000 JN	18000 JN				
Benzene, propyl	18.57				9500 JN					
Benzene, propyl	18.58					13000 JN				
Benzene, propyl	18.87						16000 JN			
Benzeneacetic acid, alpha, 4-bis	21.21								11 JN	
C10 H14 Isomer	20.36			23000 J						
C10 H14 Isomer	20.47				11000 J	14000 J				
C10 H14 Isomer	20.48			27000 J						
C10 H14 Isomer	20.85						20000 J			
C10 H14 Isomer	20.89			16000 J	8700 J					
C10 H14 Isomer	20.90					12000 J				
C10 H14 Isomer	21.02				8500 J	9300 J				
C10 H14 Isomer	21.29						16000 J			
C10 H14 Isomer	21.41						14000 J			
C9 H12 Isomer	18.73			57000 J	55000 J	75000 J				
C9 H12 Isomer	18.86			31000 J	28000 J	37000 J				
C9 H12 Isomer	19.04						100000 J			
C9 H12 Isomer	19.14			14000 J	19000 J	28000 J				
C9 H12 Isomer	19.17						55000 J			
C9 H12 Isomer	19.39		11 J							
C9 H12 Isomer	19.41			57000 JB	75000 JB					
C9 H12 Isomer	19.42					100000 JB				
C9 H12 Isomer	19.47						40000 JB			
C9 H12 Isomer	19.74						150000 J			
C9 H12 Isomer	20.02			14000 JB		38000 J				
C9 H12 Isomer	20.03				26000 J					
C9 H12 Isomer	20.39						53000 J			
Carbon Dioxide	1.79							1300 JNB		
Carbon Dioxide	1.95		38 JNB							
Carbon Dioxide	1.96								150 JNB	390 JNB
Carbon Dioxide	1.97								320 JNB	

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	10-7 SB-10-SO-7 2	10-7 SB-10-SO-7 5	10-7 SB-10-SO-7 10	10-7 SB-10-SO-7 12	10-7 DL SB-10-SO-7 DL 12	10-7 D SB-10-SO-7 D 20	10-8 SB-10-SO-8 0,5	10-8 RE SB-10-SO-8 RE 0.5
Naphthalene	23.27					7300 JN				
Naphthalene	23.28				4100 JN					
Unknown	21.24			17000 J						
Unknown	21.26								2200 J	
Unknown	22.32				7700 J					
Unknown Aromatic	20.71						24000 J			
Unknown Aromatic	22.76						12000 J			
alpha,-Pinene	17.87					10000 JN				
alpha,-Pinene	18.15						12000 JN			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE	10-8	10-9	10-9	10-9 D	10-9 DL	10-9	10-9 DL	10-9	10-9 DL	10-10
		SAMPLE ID	SB-10-SO-8	SB-10-SO-9	SB-10-SO-9	SB-10-SO-9 D	SB-10-SO-9 DL	SB-10-SO-9	SB-10-SO-9 DL	SB-10-SO-9	SB-10-SO-9 DL	SB-10-SO-10
		DATE										
		DEPTH (Ft)	3	1	2	2	4	6	6	10	10	1
1,1'-Oxybis-heptane	20.32							11 JN				
Carbon Dioxide	1.94									97 JNB		
Carbon Dioxide	1.95		180 JNB			130 JNB	53 JNB		380 JNB			
Carbon Dioxide	1.96										120 JNB	64 JNB
Carbon Dioxide	1.97			190 JNB	180 JNB			190 JNB				
Dimethyl Naphthalene Isomer	20.90											1300 J
Dimethyl Naphthalene Isomer	21.54											3100 J
Dimethyl Naphthalene Isomer	22.24											3600 J
Oxybis-methane	2.40				31 JN			24 JN				
Unknown	20.29						19 J					
Unknown	21.27											1300 J
Unknown	23.16							7J				

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	10-10 SB-10-SO-10 2	10-10 SB-10-SO-10 4	10-10 SB-10-SO-10 6	10-10 DL SB-10-SO-10 DL 6	10-10 SB-10-SO-10 10	10-11 SB-10-SO-11 1	10-11 SB-10-SO-11 2	10-11 SB-10-SO-11 4
1-Methylnaphthalene	17.24						1500 JN			
1-ethyl-2-methyl-benzene	20.28						54 JN			
2-Propenylbenzene	20.28									440 JN
2-Propenylbenzene	20.31				35000 JN					
Alkane	20.60						23 J			300 J
Alkane	22.46									290 J
Alkane	23.34									230 J
Alkane	23.74						16 J			370 J
Benzene, cyclopropyl	20.34			18000 JN						
Benzene, cyclopropyl	20.68					1100000 JN				
Benzene, propyl	18.55						54 JN			
Benzene, propyl	18.58			11000 JN	30000 JN					
Benzene, propyl	18.87					790000 JN				
C10 H14 Isomer	20.45						34 J			
C10 H14 Isomer	20.48			13000 J	25000 J					
C10 H14 Isomer	20.84					660000 J				
C10 H14 Isomer	20.86									300 J
C10 H14 Isomer	20.87						21 J			
C10 H14 Isomer	20.89				17000 J					
C10 H14 Isomer	20.90			11000 J						
C10 H14 Isomer	21.02				14000 J					
C10 H14 Isomer	21.03			10000 J						
C10 H14 Isomer	21.27					540000 J				
C10 H14 Isomer	21.40					480000 J				
C10 H14 Isomer	21.63				9800 J					
C10 H14 Isomer	21.69			14000 J						
C10 H14 Isomer	22.03					240000 J				
C10 H14 Isomer	22.25									500 J
C10 H14 Isomer	22.26						31 J			
C9 H12 Isomer	22.74					460000 J				
C9 H12 Isomer	18.71						230 J			800 J
C9 H12 Isomer	18.74			57000 J						
C9 H12 Isomer	18.75				11000 J					
C9 H12 Isomer	18.78						2000 J			

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	10-10 SB-10-SO-10 2	10-10 SB-10-SO-10 4	10-10 SB-10-SO-10 6	10-10 DL SB-10-SO-10 DL 6	10-10 SB-10-SO-10 10	10-11 SB-10-SO-11 1	10-11 SB-10-SO-11 2	10-11 SB-10-SO-11 4
C9 H12 Isomer	18.84						110 J			550 J
C9 H12 Isomer	18.86				58000 J					
C9 H12 Isomer	18.87			31000 JB						
C9 H12 Isomer	18.93						1100 J			
C9 H12 Isomer	19.03					4600000 J				
C9 H12 Isomer	19.12						95 J			
C9 H12 Isomer	19.15			26000 J						
C9 H12 Isomer	19.16				58000 J	2200000 J				
C9 H12 Isomer	19.39									2100 J
C9 H12 Isomer	19.42			84000 JB						
C9 H12 Isomer	19.44				160000 JB					
C9 H12 Isomer	19.46					1900000 JB				
C9 H12 Isomer	19.53						3900 JB			
C9 H12 Isomer	19.74					8000000 J				
C9 H12 Isomer	20.00						110 J			
C9 H12 Isomer	20.04			35000 JB	61000 JB					
C9 H12 Isomer	20.21						1400 J			
C9 H12 Isomer	20.38					2200000 J				
C9 H14 Isomer	20.44									210 J
Carbon Dioxide	1.81						7400 JNB			
Carbon Dioxide	1.82		770 JNB							
Carbon Dioxide	1.95									390 JNB
Carbon Dioxide	1.96						280 JNB	190 JNB		
Carbon Dioxide	1.97								180 JNB	
Decanal	23.61		6 JNB							
Dimethyl Naphthalene Isomer	22.50						1900 J			
Dimethyl Naphthalene Isomer	23.00						5700 J			
Dimethyl Naphthalene Isomer	23.55						100000 J			
Unknown	3.91							7 J		
Unknown	22.30			14000 J	14000 J					

Soil Sampling Results
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE DEPTH (Ft)	10-11 SB-10-SO-11 6	10-11 DL SB-10-SO-11 DL 6	10-11 SB-10-SO-11 9
1-propenylbenzene	20.28				12 JN
Alkane	20.63			1100 J	
Alkane	22.25			1400 J	
Alkane	23.76			840 J	
Benzene, cyclopropyl	20.31			1100 JN	
Benzene, propyl	18.57		11000 JN	1000 JN	
C10 H14 Isomer	20.34		19000 J		
C10 H14 Isomer	20.46		18000 J		
C10 H14 Isomer	20.88		13000 J		
C10 H14 Isomer	20.90			920 J	
C10 H14 Isomer	21.68		14000 J		
C10 H14 Isomer	22.28		12000 J		
C9 H12 Isomer	18.73		58000 J	3300 J	
C9 H12 Isomer	18.86		34000 J	2000 J	
C9 H12 Isomer	19.13		28000 J	2500 J	
C9 H12 Isomer	19.39				13 J
C9 H12 Isomer	19.41		88000 JB		
C9 H12 Isomer	19.44			3400 J	
C9 H12 Isomer	20.00				8 J
C9 H12 Isomer	20.02		33000 J		
C9 H12 Isomer	20.03			2200 J	
Carbon Dioxide	1.96				210 JNB
Naphthalene	23.24			1000 JN	
Naphthalene	23.25		13000 JN		

Groundwater Sampling Results
First Round
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID DATE	GW-MW-18	GW-MW-20	GW-UST-1	GW-UST-1 D
1,2-Dichlorobenzene	20.78					
1,2-Dichlorobenzene	20.83					
1,3-Dichlorobenzene	20.06					
1,3-Dichlorobenzene	20.07					
1,4-Dichlorobenzene	20.20					
1,4-Dichlorobenzene	20.24					
1-ethyl-4-methyl-benzene	20.29					
2-methyl-Hexane	9.51					
3-methyl-Hexane	9.92					
4-methyl-Octane	15.93					
Alkane	12.09					
Alkane	12.73					
Alkane	13.19					
Alkane	13.39					
Alkane	13.44					
Alkane	13.85					
Benzene, ethyl-methyl isomer	18.41		41 J			
Benzene, ethyl-methyl isomer	19.25		960 J			
Benzene, ethyl-methyl isomer	19.69		450 J			
Benzene, ethyl-methyl isomer	19.99		1600 J			
Benzene, ethyl-methyl isomer	20.63		390 J			
Benzene, propyl	19.07		230 JN			
C10 H14 Isomer	21.56		49 J			
C10 H14 Isomer	21.70		39 J			
C10 H14 Isomer	22.34		10 J			
C4 H8 Isomer	8.19					
C6 H14 Isomer	5.35					
C7 H14 Isomer	12.36					
C8 H16 Isomer	12.08					
C8 H16 Isomer	12.56					
C8 H18 Isomer	13.19					
C9 H10 Isomer	20.94		190 J			
C9 H12 Isomer	18.86					
C9 H12 Isomer	19.00					

Groundwater Sampling Results
First Round
Tentatively Identified Compounds

CONSTITUENT	RETENTION TIME	SITE SAMPLE ID	GW-MW-18	GW-MW-20	GW-UST-1	GW-UST-1 D
		DATE				
C9 H12 Isomer	19.30					
C9 H12 Isomer	19.38		490 J			
C9 H12 Isomer	19.60					
C9 H12 Isomer	19.65					
C9 H18 Isomer	18.14		11 J			
Carbon Dioxide	1.78					
Carbon Dioxide	1.80					
Carbon Dioxide	1.84					
Carbon Dioxide	1.92				3 JNB	
Carbon Dioxide	2.01					
Carbon Dioxide	2.03					
Dichlorobenzene Isomer	20.21					
Dichlorobenzene Isomer	20.79					
Hexane	5.91					
Unknown	2.01					
Unknown	5.56					
Unknown	10.04					
Unknown	10.45					
Unknown	12.35					3 J
Unknown	12.53					
Unknown	18.99			3 J		
Unknown	21.55					
Unknown	21.93			4 J		
Unknown	21.94					
Unknown	23.47					

Groundwater Sampling Results
Second Round
Tentatively Identified Compounds

	SITE	MW-18	MW-20
CONSTITUENT (Units in ug/l)	SAMPLE ID	GW-MW-18	GW-MW-20
	DATE	05/05/94	05/05/94
1,2,4-Trimethyl Benzene		680 J	ND
1-Ethyl-2-Methyl Benzene		380 J	ND
1,2,3-Trimethyl Benzene		170 J	ND
1-Ethyl-2-Methyl Benzene		160 J	ND
Propyl Benzene		110 J	ND
2,3-Dihydro Indene		75 J	ND
1-Methyl-3-(1-Methylethyl) Benzene		24 J	ND
1-Methyl-3-Propyl Benzene		16 J	ND
1-Methylethyl Benzene		14 J	ND
2-Ethyl-1,4-Dimethyl Benzene		11 J	ND
1-Methyl-4-Propyl Benzene		9 J	ND
Trimethyl Heptene		8 J	ND
2-Chloroethanol Phosphate		8 J	ND
1,2,3,4-Tetramethyl Benzene		7 J	ND
1,2,3,4-Tetramethyl Benzene		6 J	ND
Unknown (R.T. 21, 42 Min)		ND	13

Values represent total concentrations unless noted ND=Not detected at indicated reporting limit

Groundwater Sampling Results
Second Round
Tentatively Identified Compounds

CONSTITUENT (Units in ug/l)	SITE	UST-1	UST-1
	SAMPLE ID	GW-UST-1	GW-UST-1
	DATE	05/05/94	05/05/94
Benzene, (1-methylethyl)-		25 J	ND
Unknown		21 J	ND
Benzene, propyl-		230 J	ND
Benzene, 1-ethyl-3-methyl-		610 J	ND
Benzene, 1,2,3-trimethyl-		370 J	ND
Benzene, 1-ethyl-2-methyl-		400 J	ND
Benzene, 1,2,3-trimethyl-		1700 J	ND
Benzene, 1,2,3-trimethyl-		270 J	ND
Unknown		120 J	ND
Benzene, 1-methyl-3-propyl-		24 J	ND
Benzene, 2-ethyl-1,4-dimethy		57 J	ND
Ethene, 1,2-dichloro-, (Z)-		ND	48
Unknown Hydrocarbon		ND	5

Values represent total concentrations unless noted ND= Compound not detected