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Final Design Report
Soil Operable Unit

Waukegan Manufactured Gas and Coke Plant Site
Waukegan, Illinois

February 2004

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Attachment B Construction Quality Assurance Plan and Performance Standard Verification Plan, (includes the Air Monitoring Plan)

Attachment C Field Sampling Plan

Attachment D Quality Assurance Project Plan

Attachment E Health and Safety Plan

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1.0 Overview

This document is the Final Design Report for the soil remedy at the Waukegan Manufactured Gas and Coke Plant Site, which is Operable Unit 2 of the Outboard Marine Corporation Superfund Site (the Site), located in Waukegan, Illinois. The Site location is shown on sheet G-01 (Attachment A). This Final Design is submitted in accordance with the requirements of the Remedial Design Administrative Order on Consent, U.S. EPA Docket No. V-W-'01-C-651 (RD AOC) Scope of Work, Task 4C.

1.1 Soil Final Design Work Plan Scope

The Soil Final Design represents the completed design and includes the following, as called for in the RD AOC Scope of Work, Task 4C:

1. Final plans, drawings, and sketches and responses to USEPA comments on the Prefinal Design calculations.
2. Results of studies and additional sampling and analyses conducted after the Pre-Design Study.
3. Responses to EPA comments on Prefinal Design assumptions and parameters, including design restrictions, process performance criteria, appropriate unit processes for the treatment train, and expected removal or treatment efficiencies for both the process and waste (concentration and volume).
4. Proposed cleanup verification methods, including compliance with ARARs.
5. Final technical specifications.
6. Planned siting of processes and construction activity.
7. Real estate, easement, and permit requirements.
8. Revised construction schedule, including contracting strategy.

The Final Design submittals are also to contain the following:

Performance Standard Verification Plan
Field Sampling Plan
Quality Assurance Project Plan
Health and Safety Plan
Contingency Plan
Construction Quality Assurance Plan
Operation and Maintenance Plan
Perimeter Air Monitoring
Project Schedule

The above items are incorporated in this Final Design Report, its appendices and attachments.

1.2 Background Information

The following list is a compilation of previous final reports for the Site.

- *Technical Memorandum. Summary of Site Background Information*. October 1, 1990.
- *Remedial Investigation / Feasibility Study, Final Work Plan*, October 24, 1991.
- *Final Sampling and Analysis Plan, Volume I: Field Sampling Plan*, October 24, 1991.
- *Final Sampling and Analysis Plan, Volume II: Quality Assurance Project Plan*, October 24, 1991. Amended January 14, 1994 and June 5, 1998.
- *Remedial Investigation / Feasibility Study, Phase I Technical Memorandum*. October 24, 1991.
- *Preliminary Site Characterization Summary*. April 1994.
- *Remedial Investigation Report*. February 1995.
- *Technical Memorandum. Waukegan Manufactured Gas and Coke Plant Site, Waukegan, Illinois. Human Health Risk Assessment*. 1995.
- *Technical Memorandum. Waukegan Manufactured Gas and Coke Plant Site, Waukegan, Illinois. Ecological Risk Assessment*. 1995.
- *Feasibility Study*. November 6, 1998.
- *Record of Decision*, September 1999.
- *Pilot Project Report*, July 2001.
- *Groundwater Plume Delineation Report*. December 2001.
- *Soil Pre-Design Study Work Plan*, January 2002.
- *Waste Characterization Plan*, September 2002.

1.3 Scope of Design

The selected remedy presented in the September 1999 ROD includes: Vadose Zone Soil Remedial Components (Soil Operable Unit) and Ground Water Remedial Components (Groundwater Operable Unit). The soil remedy consists of five components, the PAH Remediation Zone, the Arsenic Remediation Zone, the Marginal Zone, Institutional Controls, and a Soils Management Plan. Each soil remedy component is summarized in Section 1.4. The Groundwater Remedial Design will be presented in a separate document in accordance with the Groundwater Remedial Design schedule. The ROD also identifies a requirement to conduct Five-Year Reviews.

1.4 Soil Remedial Action Goals and Objectives

The ROD presents three Remedial Action Objectives for the contaminated soils:

- Protect human health and the environment by reducing or eliminating exposure (direct contact, ingestion, inhalation) to soil with a concentration of contaminants representing an excess cancer risk of greater than $1x10^{-6}$ as a point of departure and a hazard index (HI) greater than 1 for reasonably anticipated future land use scenarios.

- Protect the environment by minimizing/eliminating the migration of contaminants in the soil to ground water or to surrounding surface water bodies.

- Ensure future beneficial commercial/industrial use of the site.

The ROD states that the "basis and rationale for the soils remediation objectives is protection of reasonable future uses. This includes industrial, commercial and utility worker protection" (page 13). The ROD states, in the "Future Site Use" portion of the Summary of Site Characteristics section, that "based on current zoning requirements, discussions with Site owners, past operators, nearby businesses, the Illinois EPA and the community, U.S. EPA reasonably anticipates that the future use of the Site will be restricted to the current (and historical) use of industrial and commercial. Although a residential scenario was assessed in the Baseline Risk Assessment, it was done for comparison purposes only and is not considered an appropriate future use." The Remedial Design is consistent with these objectives and land use restrictions.

The soil remedial zones identified in the ROD are the PAH Remediation Zone, the Arsenic Remediation Zone, and the Marginal Zone. The delineation of these zones is shown on the Drawings

(Attachment A). Soil Cleanup Levels for individual parameters are presented in Table 1, which repeats the information from Table 4 of the ROD.

1.4.1 PAH Remediation Zone

The PAH Remediation Zone (PRZ) consists of areas of tar and tar-saturated soil, and PAH-contaminated soil exceeding ROD Soil Cleanup Levels. Excavation is required for the PRZ soils where the concentrations of polynuclear aromatic hydrocarbons (PAHs) are calculated to pose a carcinogenic risk exceeding 1×10^{-5} or a hazard index of 1 for the utility worker representative high exposure (RHE) scenario. The ROD benzo(a)pyrene excavation cleanup level is 116 mg/kg. It is estimated that eleven small surficial tar-impacted areas, two large tar-impacted areas, and five areas of PAH contaminated soil will be excavated (Attachment A, Drawing C-04). The PRZ materials will be thermally treated or disposed of in Subtitle D or C landfills according to their level and type of contamination. The clean overburden soils that are removed to expose the PRZ soils will be used as backfill for the site excavations. The system for categorizing and determining the management of PRZ soils is presented in the Construction Quality Assurance Plan and Performance Standard Verification Plan.

1.4.2 Arsenic Remediation Zone

The Arsenic Remediation Zone (ARZ) consists mainly of industrial pond deposits from the former manufactured gas and coking operations located in one large and two small areas (Attachment A, Drawing C-04). The ARZ includes soils where the concentrations of arsenic are expected to pose a carcinogenic risk of 1×10^{-5} for the utility worker RHE scenario. The ROD arsenic cleanup level is 940 mg/kg. There is some overlap between the arsenic-containing soil and the PAH-containing soil. The ARZ materials will be disposed of in Subtitle D or C landfills according to their level of contamination. The system for categorizing and determining the management of ARZ soils is presented in the Construction Quality Assurance Plan and Performance Standard Verification Plan.

1.4.3 Designated Soil Stockpile

The soils in the Designated Soil Stockpile (DSS) were excavated during construction of the new slip (Slip No. 4) in 1990 and 1991. The DSS soils are in a covered soil pile south of Slip No. 4 (Attachment A, Drawing C-04). The DSS material will be landfilled in a Subtitle D facility or treated thermally according to the level of contamination.

1.4.4 Marginal Zone

The ROD requires that the soil in the Marginal Zone (Attachment A, Drawing C-05) be covered with vegetation, pavement, or buildings. The cover is intended to minimize infiltration, manage surface water drainage/erosion control, provide a barrier to direct contact exposure, and, in the case of the vegetation cover, enhance in-situ degradation of low-level concentrations of residual soil organics. The Marginal Zone encompasses the area of the site associated with PAH and arsenic concentrations between 1.0×10^{-5} and 1.0×10^{-6} excess carcinogenic risk, RHE, or arsenic concentrations above the 25 mg/kg protection of groundwater value. The Marginal Zone cover is six inches of topsoil and selected vegetation, or buildings and pavement that will minimize infiltration and provide a barrier to direct contact with soil.

1.4.5 Institutional Controls

Institutional Controls are to be placed on the property, in accordance with the provisions of the Soils Management Plan, as required by the Remedial Design Administrative Order on Consent, U.S. EPA Docket No. V-W-'01-C-651 (see RD AOC Scope of Work, IV d.). The institutional controls are to consist of appropriate Site use restrictions, deed notifications, groundwater use prohibitions, and easements/covenants that limit the Site to industrial/commercial uses that do not adversely affect the remedy. Institutional controls will be summarized in the Soils Management Plan (SMP) which will be submitted after completion of the soil remedy. The SMP will be submitted in accordance with the Remedial Action Consent Decree requirements.

1.5 Soil Pre-Design Study Data

Soil pre-design study data is presented in the Appendices. The data from the Soil Pre-Design Study are summarized as part of the U.S. EPA-approved Waste Characterization Plan that is included in Appendix A. This data includes sampling of soils in and at the perimeter of anticipated excavation zones, material characterization samples from the DSS and from selected arsenic soil and tar soil samples. Data from the Waste Characterization Study is in Appendix B. Data from the Dredged Spoils Soil Stockpile (for remedy design, this stockpile will be referred to as On-Site Borrow) investigation is presented in Appendix C. The boring logs and test trench logs from the Soil Pre-Design Study investigation are in Appendix D.

2.0 Plans for Implementing the Soil Remedial Action

2.1 Soil Remedial Action Plans

The Soil Final Design submittal contains plans, specifications, and other documents that will be used to implement the soil remedial action (RA). The Plans and Specifications (Attachment A) outline the overall technical requirements for the soil RA and present performance criteria for key aspects of the soil RA that the Contractor will be required to attain. The Specifications require the soil RA Contractor to submit various plans prior to mobilizing for the soil RA that detail the means, methods, and techniques that will be used to meet the performance criteria. The required technical submittals from the soil RA Contractor are summarized in Section 01330 of the Specifications (see Attachment A).

The Contingency Plan is a required RA Contractor technical submittal, which will be submitted prior to contractor mobilization. Section 01503 of the Specifications (Attachment A) details the requirements of the RA Contractor Contingency Plan.

Satisfaction of the RA performance criteria established in the Plans and Specifications will be demonstrated by measurement and testing during the RA. The Construction Quality Assurance Plan (CQAP) (Attachment B), the Field Sampling Plan (FSP) (Attachment C) and the Quality Assurance Project Plan (QAPP) (Attachment D) outline the field and laboratory testing program that will be used to measure the RA performance criteria that are based on testing and analysis.

The CQAP discusses soil and debris categorization and soil and water testing. The Performance Standard Verification Plan (PSVP) and the Air Monitoring Plan are included in the CQAP. The PSVP section of the CQAP specifies excavation verification sampling procedures and frequency.

In addition to the topics outlined in the CQAP, FSP, and the QAPP, other measurements will be taken during the RA that pertain to measurement and payment for the RA Contractor (e.g., borrow soil quantities, wastewater discharge quantities, etc.). The specific RA work items that will be measured for payment will be established in the bidding documents for the RA Contractor. Those types of quantities will be tabulated during the RA and reported in a RA construction report.

The Health and Safety Plan (Attachment E) outlines the Engineer's health and safety procedures to be followed during the RA. The RA Contractor will also prepare and submit a health and safety plan detailing site safety requirements that will be followed during RA implementation.

Operation and maintenance for the native grasses is specified in Attachment A, Section 02946 Tallgrass Maintenance Plan. A separate Operation and Maintenance Plan (Attachment F) describes the program for maintenance of the Marginal Zone Soil Cover and tallgrass establishment.

2.2 Soils Management Plan

The Soils Management Plan (SMP) (Attachment G) will describe the process and procedures for approving future uses/development of the Site. The SMP will also define roles and responsibilities to implement, monitor, and enforce institutional controls. The SMP will be completed after completion of the RA, in accordance with the requirements of the Remedial Action Consent Decree. The SMP submittal with this design provides an outline of the anticipated document.

2.3 Remedial Action Quantity Estimates

This section summarizes key assumptions concerning excavation areas and volumes. These assumptions and quantities are included in Table 2. Drawing C-04 in Attachment A shows the excavation areas. Excavations will proceed based on the limits shown on Drawing C-04 and excavation verification sampling. Excavation verification sampling is described in the CQAP (Attachment B). The excavations will not extend below the groundwater table. The delineations and volume estimates were prepared based upon the Soil Pre-Design Investigation data (Appendix A) and the boring and test trench logs (Appendix D) as well as the Remedial Investigation data and logs.

2.3.1 PAH Remediation Zone

The PRZ consists of areas of tar and tar-saturated soil, and PAH-contaminated soil exceeding ROD Soil Cleanup Levels. It is estimated that eleven small surficial tar-impacted areas, two large tar-impacted areas, and five areas of PAH contaminated soil will be excavated. The depths of the excavations are estimated to range between 2.5 feet and the water table (generally present at 4 to 6 feet below ground surface). The estimated quantity of material in the PAH Remediation Zone is 29,000 cubic yards (CY). The shapes of the excavation areas shown on the Drawings represent practical excavation limits that encompass all the identified material exceeding the ROD Soil Cleanup Levels. The volume calculations assume excavations with straight sidewalls and no oversizing for sideslopes.

2.3.2 Arsenic Remediation Zone

The Arsenic Remediation Zone consists mainly of industrial pond deposits from the former manufactured gas and coking operations located in one large and two small areas. The estimated volume of material in the ARZ is 6,000 CY. The anticipated size of the large excavation area is approximately 27,000 square feet, with a depth of excavation typically extending to the water table. The two small excavation areas consist of less than 100 CY collectively, with depths of 3 ft and 4 ft.

There is overlap between the ARZ and PRZ (see Drawing C-04, Attachment A). The volume of overlapping ARZ and PRZ materials is included in the ARZ volume estimate on Table 2.

The dimensions and volumes represent the excavation area required to remove the identified material that exceeds the cleanup criteria. The volume calculations assume excavations with straight sidewalls and no oversizing for sideslopes.

2.3.3 Designated Soil Stockpile

The soils in the DSS were excavated during construction of the new slip (Slip No. 4) in 1990 and 1991. The volume of material in the DSS was estimated in the range of 4,000 CY to 5,000 CY.

2.3.4 Marginal Zone

The ROD requires that the area of the site associated with PAH and arsenic concentrations between 1.0×10^{-5} and 1.0×10^{-6} RHE or arsenic concentrations above the 25 mg/kg groundwater protection value be covered as part of the remedial action. This area is approximately 15 acres and is outlined on Drawing C-05 of Attachment A. The cover will consist of six inches of topsoil and selected vegetation.

2.4 On-Site Borrow

The On-Site Borrow (OSB), previously referred to as the Dredged Spoils Soil Stockpile (DSSS), is to be used as necessary as backfill for the Site excavations. Sixteen samples collected from 12 borings in the OSB are presented in Table 3. Data summary tables and copies of the OSB boring logs are in Appendix C. The locations of the OSB borings are shown on the Drawings. Fifteen of the 16 samples are below the marginal zone soil criteria of 1.0×10^{-6} RHE for all of the cleanup goals, and all the samples are below the 1.0×10^{-5} RHE criteria. One sample marginally exceeded the 1.0×10^{-6} RHE soil criteria for benzo(a)pyrene (13 mg/kg reported versus 11.6 mg/kg ROD standard for marginal zone limits). PCB concentrations in the OSB range from non-detect to 9.2 mg/kg. Eleven

of the 16 samples had total PCB concentrations less than 1 mg/kg. The OSB soil will be used to backfill RA excavations within specified areas of the Marginal Zone (Attachment A, Drawing C-05, 10-inch cover areas). Because of PCB concentrations in the OSB, backfilled OSB will be covered with 10 inches of soil. Stockpiled OSB remaining after completion of the RA activities will be seeded. It has been previously estimated that the volume of soil in the OSB is approximately 30,000 CY to 40,000 CY.

2.5 Off-Site Borrow

Off-site borrow soils will be necessary for various RA activities including, but not limited to, cover for backfilled OSB, Marginal Zone soil cover, and asphalt subbase restoration. Off-site borrow sources will be tested according to the Construction Quality Assurance Plan (CQAP) (Attachment B). Off-site borrow soils will be required to meet the soil quality criteria specified in the CQAP and other requirements specified in Section 02300 of the Specifications (Attachment A).

3.0 Other Remedial Design Planning Efforts

3.1 Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

The Final Design has been prepared to account for all of the identified chemical, location, and action-specific ARARs. Chemical and location-specific ARARs are presented in Tables 4 and 5. Table 6 is a summary of the action-specific ARARs and includes a description of how the soil remedy addresses the ARARs. Many of the potential ARARs listed in the 1999 ROD are not ARARs because the remediation waste at the Site is not considered to be a hazardous waste. The key ARARs for excavation and off-site disposal of soil and waste include the following:

- Clean Air Act requirements of 40 CFR 50, which define National Ambient Air Quality Standards (NAAQS).
- Occupational Safety and Health Act (OSHA) requirements of 29 CFR, Parts 1910 and 1926, which provide occupational and safety and health requirements for workers engaged in on-site field activities.
- Subtitle C and Subtitle D landfill disposal requirements.

Clean Air Act ARAR is addressed in the CQAP (Attachment B), Specification Section 01710 Emission Controls and Air Monitoring (Attachment A), and will be further addressed in the RA Contractor's Odor and Emission Control Plan submittal.

OSHA requirements are addressed in the Health and Safety Plan (Attachment E) and will be further addressed in the RA Contractor's health and safety plan submittal.

Subtitle C and Subtitle D landfill disposal will be in accordance with the requirements of the state receiving the waste.

The Toxic Substances Control Act (TSCA) is an ARAR and was considered in the design, specifically for OSB fill placement and cover. OSB cover thickness is addressed in Section 2.4 and the CQAP (Attachment B).

3.2 Contracting Strategy

A competitive bidding process will be used to select a remedial action contractor. Performance based plans and technical specifications have been prepared for use in the competitive bidding process and for Remedial Action construction. The plans and technical specifications for the work are included in Attachment A.

The selected remedial action contractor will be responsible for managing the waste material from excavation through off-site disposal. It will be the responsibility of the remedial action contractor to complete the specified tasks in accordance with applicable local, state, and federal regulations.

3.3 Construction Schedule

The construction schedule is summarized on Figure 1. The schedule has been structured to accommodate remedial action fieldwork beginning in the fall and backfill, cover placement, and vegetation establishment in the late winter and spring of the following year. Fall/winter excavation is targeted in order to avoid congestion associated with the Public Beach located just east of the Site.

The schedule assumes the administrative and RA design approvals processes are completed prior to beginning the bidding process. Bidding, contractor selection, review of contractor submittals, and mobilization to the Site can be expected to require five or more months. Thus, the bidding process should be initiated in the spring of the year when construction is to begin.

The remedial action schedule includes the following key assumptions:

- Equipment mobilization and site preparation time of 6 weeks.
- The excavation volumes and excavation limits as summarized in Section 2.0
- An average load out and disposal of 550 CY (in place soil volume) per day
- The absence of significant delays or contingency plan events.

The schedule calls for the excavation work to be performed during the late fall and winter. However, backfilling (frozen soil conditions may delay placement of the final three feet of backfill until spring), site restoration, soil cover, and seeding are assumed to be performed during the following spring. Conditions that may impose schedule delays include wet weather, snow and ice conditions, nesting birds, and other adverse circumstances.

4.0 External Relations

External relations presented in this section consist of 3 items: (1) access, (2) real estate, easement, and permit requirements, and (3) assistance with community relations for construction.

4.1 Access

The Site is owned by the City of Waukegan and by Larsen Marine A provision of a future Consent Decree for implementation of the soil remedy design must assure access from the City of Waukegan and Larsen Marine Service, Inc., for all RA work. Access to the Bombardier Inc. property to the south of the Site may be required during RA construction.

4.2 Real Estate, Easement, and Permit Requirements

No real estate requirements have been identified for the soil RA implementation at the Site.

RA work, including excavation of PRZ and/or ARZ materials will extend east onto the parking and turfed areas near the former OMC IT building. This property is part of the Site, and is owned by the City of Waukegan.

RA work, including excavation of PRZ materials, will extend south into the parking area used by Bombardier. This property is part of the Site and is owned by the City of Waukegan. Construction support activity may need to extend south of the City-owned property. The WCP Group will coordinate with Bombardier for this work, but does not expect to need to acquire a construction easement.

Excavation activities may encounter underground power supply lines and other utilities (e.g. sanitary sewer) serving Bombardier or the City-owned buildings. Commonwealth Edison will be contacted to arrange safety and service supply continuity matters regarding power lines for the period when excavation will be near these lines.

Power supply lines to light standards in the excavation area will be disconnected, and disturbed lines will not be replaced.

No permits are required for the on-site work. The work will be conducted to meet the substantive requirements for fugitive particle matter (IAC 35 Subpart B, Part 212, Subpart K) and for odors (IAC 35 Subpart B, Part 245).

The contractor will be contractually required to conduct all off-site transportation and disposal activities in compliance with applicable rules and regulations, including acquisition of permits or approvals as required by law.

4.3 Community Relations

The WCP Group will cooperate with the U.S. EPA in the U.S. EPA's community relations activities. If so requested, the WCP Group will be prepared to assist U.S. EPA with construction progress updates at meetings of the Waukegan Harbor Citizen's Advisor Group.

The property owners at and immediately adjacent to the site are Larsen Marine, the City of Waukegan and Bombardier. They have been contacted to establish liaison for coordination of construction activities. A list of contacts is in Table 7.

The WCP Group and the selected remediation contractor will exchange contact names and numbers with Larsen, the City of Waukegan, and Bombardier, including after-hours emergency contacts. During the construction project, the WCP Group will communicate schedules and anticipated activity and receive concerns through these contact people.

The WCP Group has met with representatives from Larsen Marine and Bombardier to discuss the RA activities including: likely extent of excavation, scheduling of work, identification of liaisons, and specific concerns the property owners may have, such as odors, dust, traffic, and disruptions to their normal activities.

Tables

Table 1

ROD Soil Cleanup Levels
Waukegan Manufactured Gas and Coke Plant Site
Waukegan, Illinois

Chemical	Commercial/Industrial RHE[1] (mg/kg)	Utility/Construction RHE[1] (mg/kg)
Arsenic	2,050	940
Benzo(a)anthracene	1,500	1,160
Benzo(a)pyrene	150	116
Benzo(b)fluoranthene	1,500	1,160
Dibenzo(a,h)anthracene	150	116
Indeno(1,2,3-cd)pyrene	1,500	1,160
Dibenzofuran[2]	NA	5,390
4-Methylphenol[2]	NA	6,738
Naphthalene[2]	NA	48,556

[1] RHE - Representative high exposure, 1 x 10-5 excess cancer risk.
[2] Non-cancer risk, hazard index = 1.

Table 2

Soil Design Excavation Quantities and Assumptions
Waukegan Manufactured Gas and Coke Plant Site
Waukegan, Illinois

Remediation Zone	Volume (cy, in-place)	Weight (tons)
PAH (PRZ)		
PAH Soil	2,500	4,250
Tar/Tar Saturated Soil	26,000	44,200
Total PAH	28,500	48,450
Designated Soil Stockpile (DSS)	4,000 - 5,000	6,800 - 8,500
Arsenic (ARZ)	6,000	10,200

Item	Assumption
In-place soil density	1.7 tons/cubic yard
Debris volume of excavated material	10% by weight
Soil volume expansion	28%

Note: The PRZ material is to be segregated by field characteristics into material suitable for backfill and materials for disposal or treatment. These categories will be tested to verify accurate management of the PRZ materials. The ARZ material and DSS material is to be tested to verify disposal category, but without segregation according to field characteristics.

Table 3

On-Site Borrow (OSB) Data Summary
Waukegan Manufactured Gas and Coke Plant Site
Waukegan, Illinois

(concentrations in mg/kg)

CHEMICAL	RHE	SB-3003 4.5-6.5' 10/1993	SB-3007 14.5-16.5' 10/1993	SB-3009 19.5-21.5' 10/1993	SB-3103 4.5-6.5' 10/1993	SB-3107 14.5-16.5' 10/1993	SB-3110 22-24' 10/1993	SB-237* 0-10' 07/2002	SB-238* 0-10' 07/2002	SB-239* 2.5-12.5' 07/2002
Cancer Risk: 1.0 x 10^{-6}										
Total PCBs	16.5	1.95 P	0.14	ND	ND	0.81P	0.038 J	0.13	0.17	ND
Arsenic	94	9.8 J	3.5 J	1.4 BJ	6.0 J	1.6 BJ	1.2 BJ	3.4	7.7	4
Benzene	238	ND (0.012)	ND (0.011)	ND (0.012)	ND (0.011)	ND (0.011)	ND (0.012)	ND (0.006)	ND (0.0083)	ND (0.0057)
Benzo(a)anthracene	116	15	ND (0.043)	ND (0.049)	0.16 J	0.39	ND (0.049)	0.35	1.4	1.6
Benzo(a)pyrene	11.6	[redacted]	ND (0.044)	ND (0.051)	0.15 J	0.3 J	ND (0.051)	ND (0.34)	1.4	1.4
Benzo(b)fluoranthene	116	19	ND (0.031)	ND (0.035)	0.18 J	0.41	ND (0.035)	0.43	1.9	1.8
Dibenzo(a,h)anthracene	11.6	1.5 J	ND (0.047)	ND (0.054)	0.035 J	0.075 J	ND (0.054)	ND (0.34)	ND (0.48)	ND (1.4)
Indeno(1,2,3,cd)pyrene	116	2.3 J	ND (0.043)	ND (0.05)	ND (0.081)	0.17 J	ND (0.05)	ND (0.34)	0.7	ND (1.4)
Non-Cancer Risk: HI=1										
Dibenzofuran	5,390	1 J	ND (0.041)	ND (0.047)	0.058 J	0.12 J	ND (0.047)	ND (0.34)	ND (0.48)	ND (1.4)
4-Methylphenol	6,738	NA	NA	NA	NA	NA	NA	ND (0.34)	ND (0.48)	ND (1.4)
Naphthalene	48,556	2.7 J	ND (0.046)	ND (0.053)	0.49	0.29 J	ND (0.053)	ND (0.34)	0.76	ND (1.4)

Footnotes:

ND: Not detected

NA: Not Analyzed

* VOC sample collected from 2-foot section of interval

RHE: Representative High Exposure

B: The reported value is less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection limit (IDL).

J: Associated value is qualified as an estimate. The value is considered acceptable and usable.

P: Greater than 25 percent difference for detected concentrations between primary and confirmation GC columns, result reported is the lower of the two values.

Note: The 1993 sample names are composed of the boring number (SB-30 or SB-31) and the sample sequence number (03, 07, etc.).

Table 3

On-Site Borrow (OSB) Data Summary
Waukegan Manufactured Gas and Coke Plant Site
Waukegan, Illinois

(concentrations in mg/kg)

CHEMICAL	RHE	SB-240* 0-10.5' 07/2002	SB-241* 0-10' 07/2002	SB-242* 5-15' 07/2002	SB-243* 2-12' 07/2002	SB-244* 6-16' 07/2002	SB-245* 0-10' 07/2002	SB-246* 4-14' 07/2002
Cancer Risk: 1.0 x 10^{-6}								
Total PCBs	16.5	0.86	3.9	9.2	0.73	1.4	0.9	0.98
Arsenic	94	5.8	7	4.5	9.3	4	6.2	5.6
Benzene	238	ND (0.007)	ND (0.0088)	NDJ (0.013)	NDJ (0.0062)	NDJ (0.0081)	NDJ (0.0084)	ND (0.0067)
Benzo(a)anthracene	116	9.5	0.35	0.66	0.84	ND (0.34)	0.47	15
Benzo(a)pyrene	11.6	6.5	ND (0.35)	0.61	0.64	ND (0.34)	0.41	9.1
Benzo(b)fluoranthene	116	7.5	0.39	0.74	1	0.35	0.57	13
Dibenzo(a,h)anthracene	11.6	ND (2.7)	ND (0.35)	ND (0.35)	ND (0.34)	ND (0.34)	ND (0.34)	ND (7.3)
Indeno(1,2,3,cd)pyrene	116	ND (2.7)	ND (0.35)	0.35	0.38	ND (0.34)	ND (0.34)	ND (7.3)
Non-Cancer Risk: HI=1								
Dibenzofuran	5,390	ND (2.7)	ND (0.35)	0.61	ND (0.34)	ND (0.34)	ND (0.34)	ND (7.3)
4-Methylphenol	6,738	ND (2.2)	ND (0.35)	ND (0.35)	ND (0.34)	ND (0.34)	ND (0.34)	ND (7.3)
Naphthalene	48,556	ND (2.7)	ND (0.35)	2.3	0.59	ND (0.34)	ND (0.34)	ND (7.3)

Footnotes:

ND: Not detected

NA: Not Analyzed

* VOC sample collected from 2-foot section of interval

RHE: Representative High Exposure

B: The reported value is less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection limit (IDL).

J: Associated value is qualified as an estimate. The value is considered acceptable and usable.

P: Greater than 25 percent difference for detec ted concentrations between primary and confirmation GC columns, result reported is the lower of the two values.

Note: The 1993 sample names are composed of the boring number (SB-30 or SB-31) and the sample sequence number (03, 07, etc.).

Table 4

Chemical-Specific ARARs for Soil
Waukegan Manufactured Gas and Coke Plant Site

Regulation	Requirement	ARAR Status	Analysis
Soil and Groundwater			
35 Illinois Administrative Code, Part 742, Tiered Approach to Corrective Action Objectives (TACO)	TACO establishes a framework for determining soil cleanup standards, for developing groundwater quality objectives, and for establishing institutional controls.	To be considered.	Provides guidance for development of site-specific soil and groundwater remediation objectives. The soil remediation standards were developed using risk assessment procedures consistent with TACO Tier 3 requirements.
Toxic Substances Control Act (TSCA)	Establishes requirements and thresholds for management of PCBs.	Relevant and appropriate.	TSCA is relevant and appropriate to defining the management of PCBs in soils. The Consent Decree for the OMC/Waukegan Harbor Site (see Location-Specific ARARs) establishes the relevant application of TSCA to this site. Cover thickness for OSB soils used as backfill will be according to TSCA.
CERCLA Guidance Land Use in the CERCLA Remedy Selection Process	Establishes appropriate considerations in defining future land use.	To be considered.	Provides guidance to EPA in selecting land use for remedy selection purposes. According to the ROD, EPA has selected industrial/commercial land use as the basis for site cleanup.

Table 5

Location-Specific ARARs for Soil
Waukegan Manufactured Gas and Coke Plant Site

Location-Specific Concern	Requirement	Prerequisite	Citation	ARAR Status	Analysis
Consent Decree for the Outboard Marine Corporation/Waukegan Harbor site	Actions must be consistent with the Consent Decree and Record of Decision (as amended) for the Waukegan Harbor site	The Consent Decree became effective April 27, 1989.	Outboard Marine Corporation/Waukegan Harbor site court administered consent decree in the case of the United States of America and the People of the State of Illinois v. OMC	Potentially applicable	Establishes site use restrictions for operation of hazardous waste storage units, land transfer restrictions, and sets a PCB remediation standard of 50 mg/kg.

Table 6

Action-Specific ARARs for Soil
Waukegan Manufctured Gas and Coke Plant

Regulations	ARAR Status	Analysis for ROD Remedial Action
Federal Requirements		
Clean Air Act		
National Ambient Air Quality Standards (NAAQS) Section 109 (40 CFR 50) NAAQS specify the maximum concentration of the pollutant which is to be permitted in the ambient air, as averaged over a specified time period. NAAQS created for carbon monoxide, lead, nitrogen dioxide, particulate matter, ozone, and sulfur dioxide. Preconstruction review for new sources.	Relevant and appropriate to remedial actions that include emissions to the atmosphere. On-site CERCLA actions are exempt from permitting; however, the remedial action is obligated to comply with the substantive requirements of air regulations and emissions standards.	NAAQS exist for particulate matter (as PM10 and PM2.5) and may require monitoring to demonstrate compliance with the standard.
State Implementation Plan (SIP) Section 110 (40 CFR 51) Development of SIP for implementation, maintenance, and enforcement of NAAQS in air quality control regions. State sets requirements for emission sources in order to achieve NAAQS.	Not an ARAR. State air regulations developed under SIP.	Actions to satisfy the NAAQS will satisfy the SIP.
Toxic Substances Control Act (TSCA) PCBs Not applicable. PCBs less than 50 ppm on site.	Relevant and appropriate.	TSCA is relevant and appropriate to defining the management of PCBs in soils. The Consent Decree for the OMC/Waukegan Harbor Site (see Location-Specific ARARs) establishes the relevant application of TSCA to this site. Cover thickness for OSB soils used as backfill will be according to TSCA.
Occupational Safety and Health Act		
29 U.S.C. 651 29 CFR 1910 29 CFR 1910.126 General Industry Standards—Protection of worker health at hazardous waste operations. Requires training, protective equipment, proper handling of wastes, monitoring of employee health, and emergency procedures for workers at hazardous waste operations.	Applicable. OSHA applies to all workers on the site during construction and operation of remedial actions.	The remedial action contractor will prepare and enforce a health and safety plan for the site for construction activities, in accordance with these regulations.

Table 6

Action-Specific ARARs for Soil
Waukegan Manufctured Gas and Coke Plant

Regulations	ARAR Status	Analysis for ROD Remedial Action
29 CFR 1926 Safety and health standard.	Potential ARAR. Applies to all workers.	The remedial action contractor will prepare and enforce a health and safety plan for the site for construction activities, in accordance with these regulations.
State Requirements		
Waste Disposal Illinois Adm. Code Title 35 Subtitle G Chapter 1		
Subchapter f Site remediation program. Development of risk-based remediation objectives.	May be relevant and appropriate for waste excavated. Risk based cleanup goals were developed in Chapter 3 of Feasibility Study.	Risk based cleanup goals were developed consistent with pertinent guidance and are being used in accordance with the 1999 ROD.
Subchapter g Requires chief operator of certain waste disposal sites (solid and hazardous waste) to obtain prior conduct certification.	CERCLA site is exempt from permitting. Chief operator of waste disposal site would be required to comply with substantive requirements. Requirement may be relevant and appropriate to capping.	The ROD determined that this is not an ARAR.
Subchapter I, Parts 807-810 Solid Waste and Special Waste Hauling	May be applicable to solid waste/special waste, possibly including wastewater sludge, stored on-site prior to off-site disposal.	Off-site transport of PRZ and ARZ material from the site must comply with these regulations.
Air Pollution Illinois Adm. Code Title 35 Subtitle B		
Part 212, Subpart K (Fugitive Particulate Matter). Site construction activities would be subject to Sections 212.304 to .310 and .312 which relate to dust control.	Potential ARAR. Remedial action may generate fugitive dust. Rules require dust control for storage piles, on-site traffic, and processing equipment. An operating program (plan) is required and is to be designed for significant reduction of fugitive emissions.	The contractor will be required to prepare and execute a dust control plan.
Part 245 Odors May apply if pollutants have strong odors that are determined to be a nuisance.	Potential ARAR. Excavation of soil may create odors.	Nuisance odors will be alleviated by conducting the PRZ excavation during cool weather, outside of the normal beach use and boating season.

Table 6

Action-Specific ARARs for Soil
Waukegan Manufctured Gas and Coke Plant

Regulations	ARAR Status	Analysis for ROD Remedial Action
Part 900 Noise: General Provisions; may apply if sustained noise intensity exceeds nuisance levels.	Potential ARAR. Excavation and truck transportation will generate noise.	Work is being performed in an industrial area. There are no residents, so no nuisance noise mitigation is anticipated.

Table 7

List of Contacts
Waukegan Manufactured Gas and Coke Plant Site
Waukegan, Illinois

Entity	Address	Phone/Fax	Email Address
General Motors Corporation			
James Campbell **Engineering Management, Inc.**	1500 Ardmore Boulevard, Suite 502 Pittsburgh, PA 15221-4468	412-244-0917 ext. 22 412-243-3704 (fax)	jrc@e-emi.com
Jerome Maynard **Dykema Gossett**	55 East Monroe Street, Suite 3050 Chicago, IL 60603-5709	312-551-4911 312-551-4919 (fax)	jmaynard@dykema.com
North Shore Gas Company			
Steven Matuszak	130 East Randolph Dr. Chicago, IL 60601-6207	312-240-4560 312-240-4765 (fax)	s.matuszak@pecorp.com
Stephen Armstrong **McGuireWoods**	77 West Wacker Drive, Suite 4400 Chicago IL 60601-1635	312-849-8270 312-849-8271 (fax)	sarmstrong@mcguirewoods.com
WCP Group Consultants			
Alan Van Norman ***Conestoga-Rovers & Associates***	651 Colby Drive *Waterloo, Ontario* Canada N2V 1C2	519-725-3313 519-725-1394 (fax)	avannorman@craworld.com
Walt Pochran **Conestoga-Rovers & Associates**	8615 Bryn Mawr Avenue Chicago, IL 60631-3501	773-380-9933 773-380-6421 (fax)	wpochron@craworld.com
Jim Langseth Julie Sullivan **Barr Engineering Co.**	*4700 West 77th Street* Minneapolis, MN 55435	952-832-2731 952-832-2678 952-832-2601 (fax)	jlangseth@barr.com jsullivan@barr.com
United States Environmental Protection Agency, Region 5			
Kevin Adler Susan Tennenbaum	77 West Jackson Boulevard Chicago, IL 60604	312-886-7078 312-353-5541 (fax) 312-886-0273 312-886-0747 (fax)	adler.kevin@epa.gov tennenbaum.susan@epa.gov

Table 7

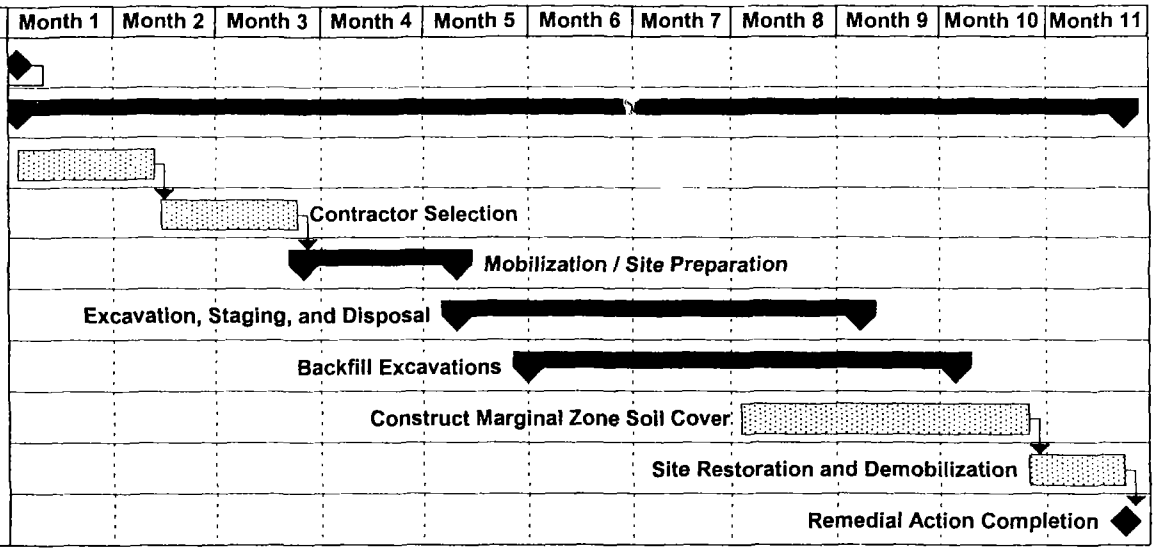
List of Contacts
Waukegan Manufactured Gas and Coke Plant Site
Waukegan, Illinois

Entity	Address	Phone/Fax	Email Address
U.S. EPA Consultants			
Jewelle Keiser Phil Smith **CH2M Hill**	135 South 84th Street, Suite 325 Milwaukee, WI 53214	414-272-2426 414-272-4408 (fax)	jkeiser1@CH2M.com psmith@CH2M.com
Illinois Environmental Protection Agency			
Erin Rednour	1021 North Grand Avenue East Springfield, IL 62702	217-785-8725 217-782-3258 (fax)	erin.rednour@epa.state.il.us
City of Waukegan			
William Johnston Director of Public Works	1700 McAree Road Waukegan, Illinois 60085-1436	847-625-6832 847-360-0950 (fax)	
John Moore City Engineer	1700 McAree Road Waukegan, Illinois 60085-1436	847-625-6854 847-360-0950 (fax)	john.moore@ci.waukegan.il.us
City of Waukegan Consultants			
Gary Deigan **Deigan & Associates, LLC**	1309 Hackberry Ct Libertyville, IL 60048	847-362-9356 847-362-0459 (fax)	gdeigan@deiganassociates.com
Bombardier Inc.			
Rich Burnet	200 Sea Horse Drive Waukegan, Illinois 60085	847-689-6053	
Madhav Mhaskar	10101 Science Drive Sturtevant, WI 53177	262-884-5082 262-884-5943 (fax)	madhav.mhaskar@recreation.bombardier.com
Dewey Caton Director, Legal Services	10101 Science Drive Sturtevant, WI 53177	262-884-5810 262-884-5004 (fax)	dewey.caton@recreation.bombardier.com
Larsen Marine			
Jerry Larsen Brian Larsen	625 Sea Horse Drive Waukegan, IL 60085	847-336-5456 847-336-5530 (fax)	jlarsen@larsenmarine.com blarsen@larsenmarine.com

Figures

Figure 1
Schedule for Soil Remedial Action
Waukegan Manufactured Gas and Coke Plant Site

ID	Task Name
1	**Court enters Remedial Action Consent Decree**
2	**Remedial Action**
3	Remedial Action Bidding
4	Contractor Selection
5	**Mobilization / Site Preparation**
11	**Excavation, Staging, and Disposal**
17	**Backfill Excavations**
21	**Construct Marginal Zone Soil Cover**
22	**Site Restoration and Demobilization**
23	**Remedial Action Completion**



Notes:
1. Excavation and staging is to begin after Labor Day and be complete by Memorial Day
2. Backfilling may be limited during winter due to frozen soil conditions, which may extend schedule

Task
Summary
Milestone

Appendices

Appendix A

Soil Pre-Design Stability Data

CONESTOGA-ROVERS
& ASSOCIATES

1811 Executive Drive, Suite O, Indianapolis, IN 46241
Telephone: 317-381-0677 Facsimile: 317-381-0670
www.CRAworld.com

September 13, 2002

Reference No. 019023-50

Mr. Kevin R. Adler
Remedial Project Manager
Superfund Division
U.S. Environmental Protection Agency - SR-6J
77 West Jackson Blvd.
Chicago, Illinois 60604

Dear Mr. Adler:

Re: Waste Characterization Plan
Waukegan Manufactured Gas and Coke Site
Waukegan, Illinois

OVERVIEW

The purpose of this letter is to provide the United States Environmental Protection Agency (U.S. EPA) with a plan for completing waste characterization activities associated the soil pre-design study. In accordance with Section 4.4.3 of the Soil Pre-Design Study Work Plan, this Waste Characterization Plan provides the soil pre-design analytical results, identifies the number of composite soil samples to be developed and analyzed, and identifies which of the samples collected during the soil pre-design study will be composited for waste characterization analysis.

Work completed during the soil pre-design study included a surface inspection for tar deposits, excavation of 53 test pits, and advancement of 33 soil borings to investigate Site soil (Figure 1). Samples were collected from multiple depth intervals and locations within selected test pits and soil borings. Samples collected were analyzed for arsenic and/or polynuclear aromatic hydrocarbons (PAHs). In addition, selected samples were analyzed for waste characterization analyses.

The locations of test pits excavated and soil borings advanced during the soil pre-design investigation are depicted on Drawing No. 1. Pre-design soil analytical data are provided in Table 1 (samples collected from test pits) and Table 2 (samples collected from soil borings). Waste characterization data obtained during the soil pre-design study are provided in Table 3. Figure 2 provides a summary of detected PAH concentrations above Record of Decision (ROD) cleanup levels. Figure 3 provides a summary of the arsenic analytical data.

WASTE CHARACTERIZATION PLAN

Results from the soil pre-design study have identified several portions of the Site where PAH and arsenic concentrations exceed the ROD cleanup levels and where tar deposits were observed. These areas will be the focus of future remediation efforts. The proposed waste characterization plan outlined herein consists of selecting, compositing, and analyzing several samples from within each of potential remediation areas to characterize these areas. Table 4 provides a summary of the proposed samples to be composited by the project laboratory.

In general, the plan consists of preparing seven waste characterization samples using the samples collected during the soil pre-design study that were archived by the project laboratory. Five waste characterization samples would be prepared from areas where PAH concentrations in soils exceeded the ROD cleanup levels and/or where tar deposits were observed. One composite sample for waste characterization would be prepared from samples collected within the area were arsenic concentrations in soil exceeded the ROD cleanup levels. Finally, because these areas appear to be localized and separate from the other PAH remediation areas, one composite sample for waste characterization would be prepared from samples collected from locations where elevated naphthalene concentrations were observed.

Composite samples will be analyzed for waste characterization parameters including toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs), TCLP semivolatile organic compounds (SVOCs), TCLP Resource Conservation and Recovery Act (RCRA) metals, TCLP pesticide/herbicides, polychlorinated biphenyls (PCBs), and general chemistry/physical parameters (ignitability, paint filter, pH, reactive cyanide, and reactive sulfide).

Composite samples for waste characterization samples will be prepared by the project laboratory (Severn Trent Laboratories, North Canton, Ohio) using an equal aliquot of material by weight from each of the selected samples shown in Table 4. The laboratory will determine the amount of soil that needs to be obtained from each sample to prepare the composite sample. Once the sample aliquots are obtained, the composite sample will be thoroughly homogenized prior to analysis.

Waste characterization data will be used during the Remedial Design to assist with the selection of appropriate soil management options.

Please feel free to contact me should you have any questions or comments on this matter.

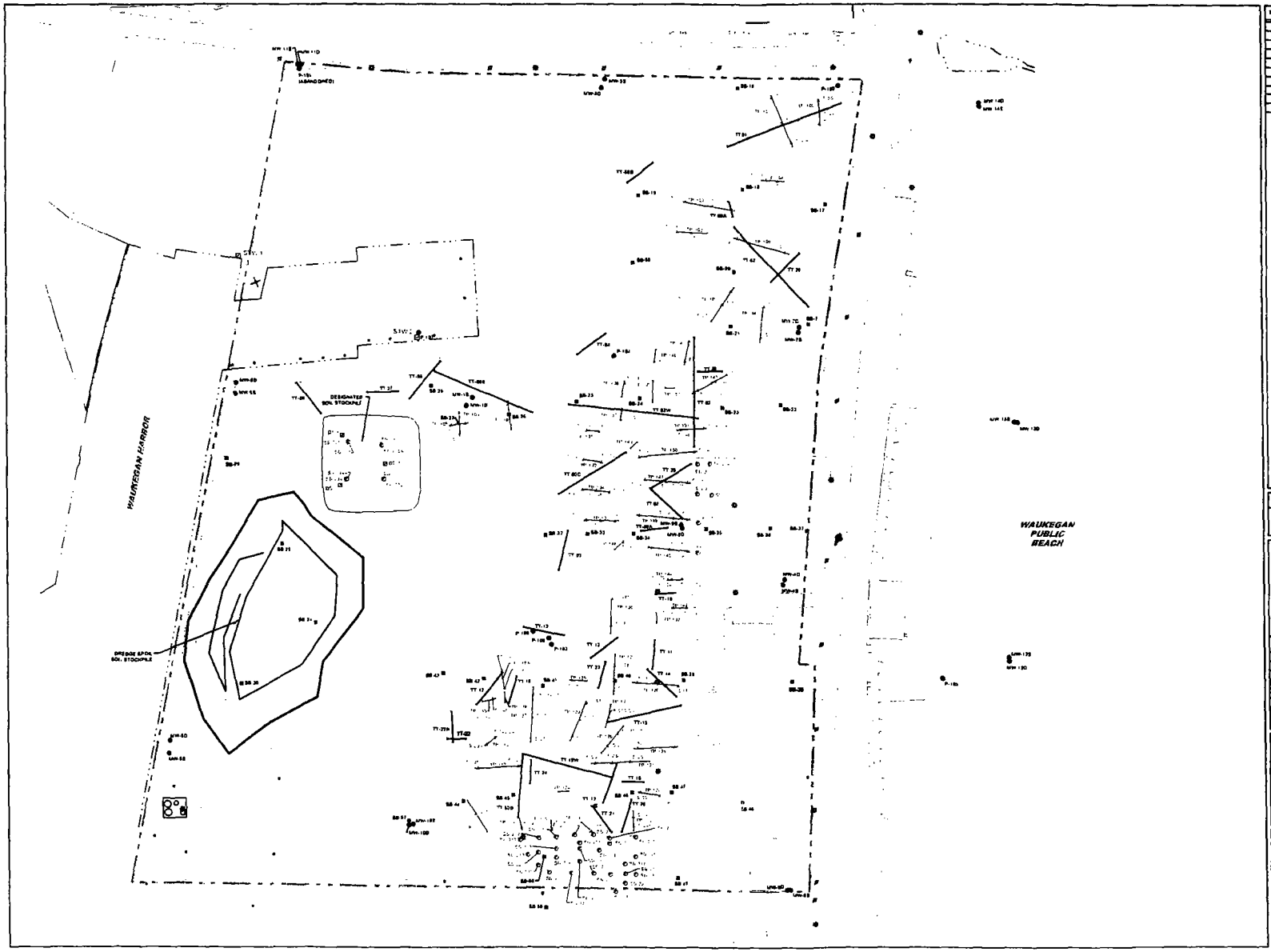
Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Steven J. Wanner, L.P.G.

SJW/br/07
Encl.

c.c.: J. Keiser; CH2M Hill
P. Smith; CH2M Hill
E. Rednour; IEPA (2)
S. Matuszak; Peoples Energy
J. Langseth; Barr Engineering
J. Campbell; EMI
A. Van Norman; CRA
S. Castagneri; CRA
W. Pochron; CRA



No.	Revision	Date	Initials

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING FENCE LINE
- EXISTING POWER POLE
- MONITORING WELL LOCATION AND IDENTIFIER
- SOIL BORING LOCATION AND IDENTIFIER (BY SARR)
- TEST TRENCH LOCATION AND IDENTIFIER (BY SARR)
- TEST PIT LOCATION AND IDENTIFIER (CRA)
- SOIL BORING LOCATION AND IDENTIFIER (BY CRA)
- SOIL BORING LOCATION AND IDENTIFIER (BY SARR)
- SOIL SAMPLING LOCATION

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

DRAWING STATUS

Status	Date	Initials

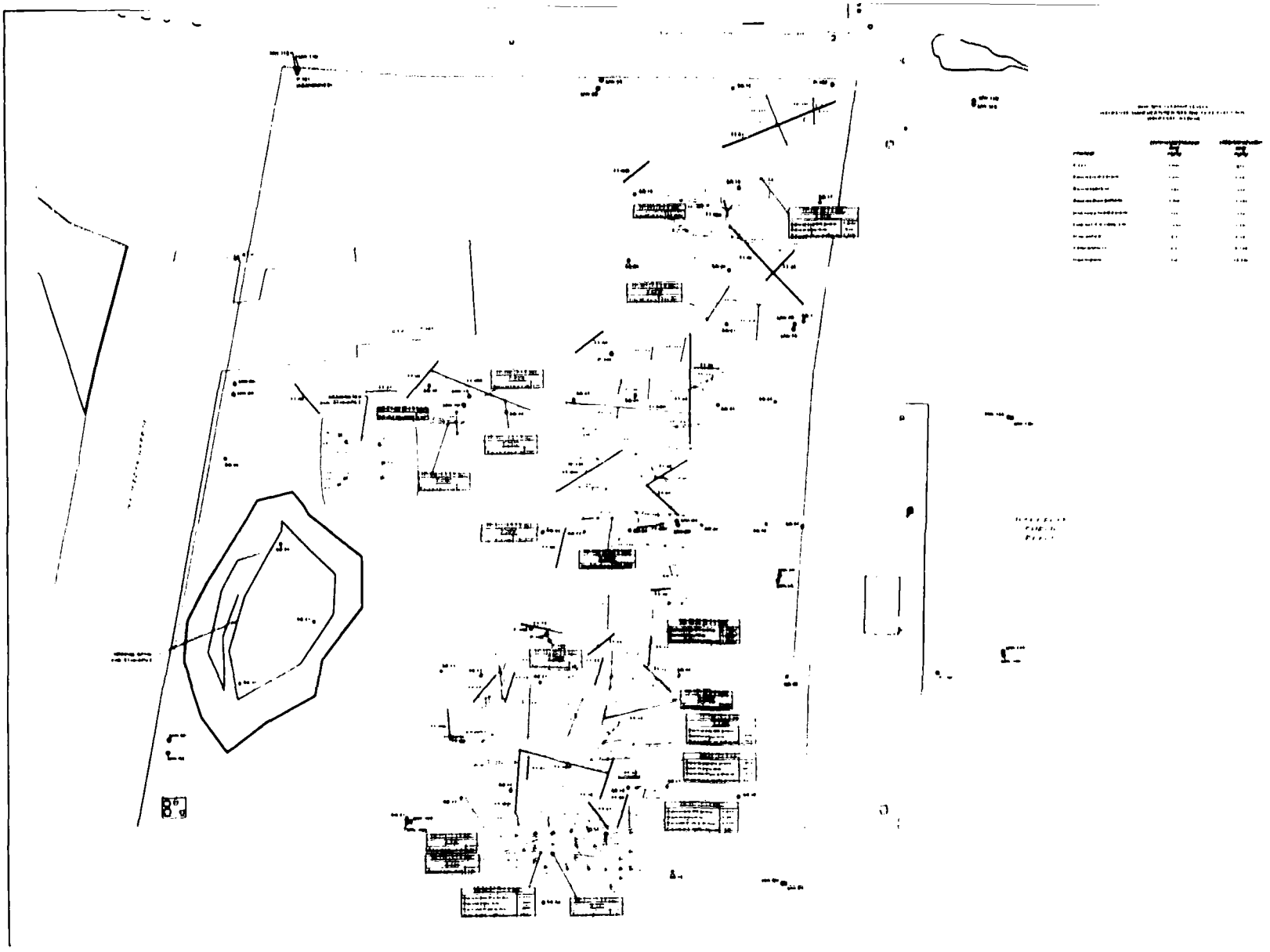
WAUKEGAN, ILLINOIS

WAUKEGAN COKE SITE

TEST EXCAVATION, SOIL BORINGS AND SOIL SAMPLING LOCATIONS

CONESTOGA-ROVERS & ASSOCIATES

Project Manager: A. VAN NORMAN
Prepared By: W. HIGGINSON
Date: JULY 30, 2002
Scale: as shown
Project No.: 19023-50
Project Site: ADLE009
Drawing No.: 1

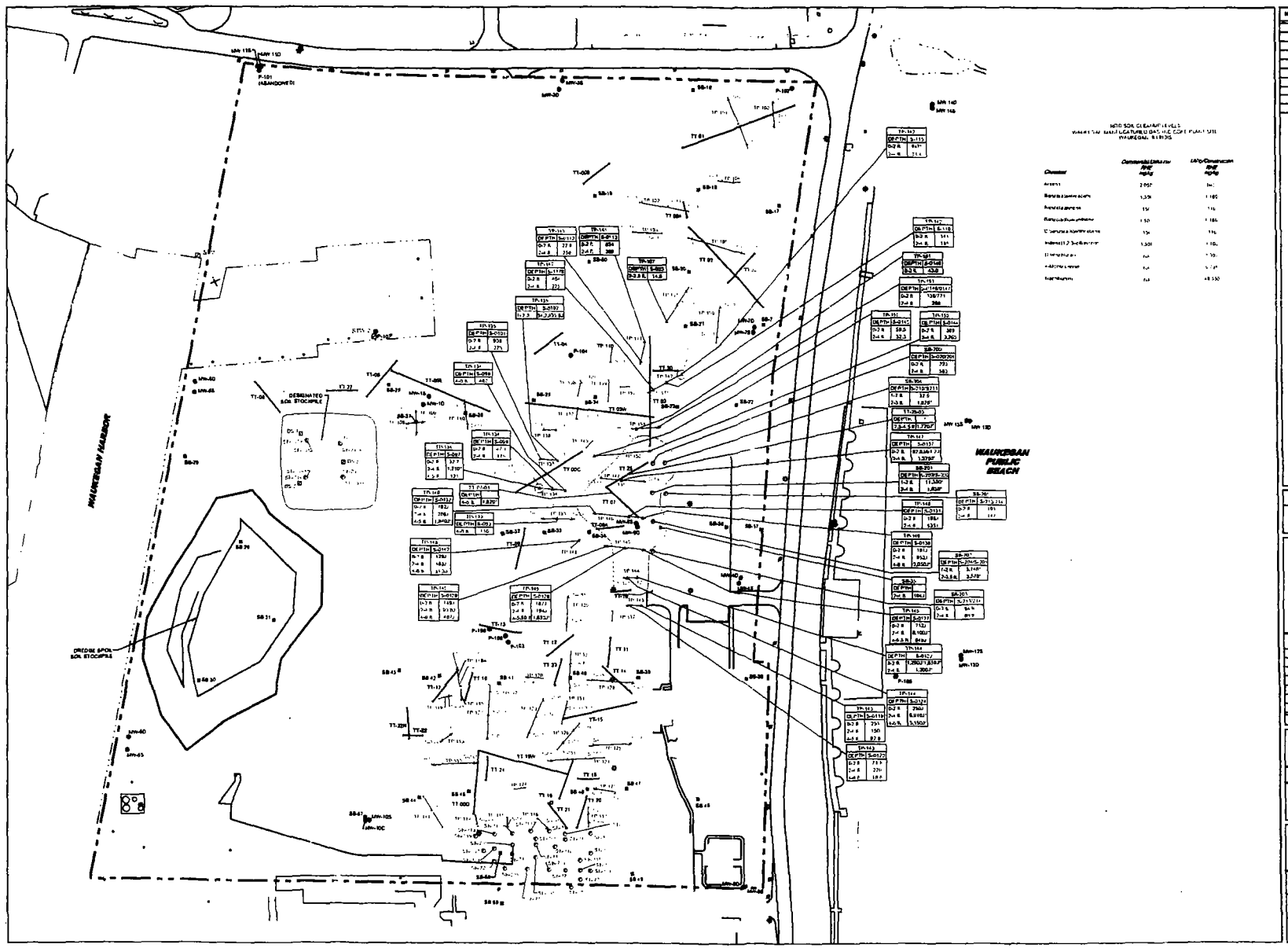


WAUKEGAN, ILLINOIS

WAUKEGAN COKE SITE

PAH EXCEEDENCE IN SOIL

CONESTOGA-ROVERS & ASSOCIATES



Chemical	Commercial/Industrial RAL mg/kg	Utility/Construction RAL mg/kg
Arsenic	2 057	[illegible]
Benzo(a)anthracene	1,370	1,185
Benzo(a)pyrene	137	116
Benzo(b)fluoranthene	1,370	1,185
Chrysene	137	116
Indeno(1,2,3-cd)pyrene	1,370	1,185
[illegible]	n/a	[illegible]
[illegible]	n/a	[illegible]
[illegible]	n/a	[illegible]

0 20 200

- EXISTING PROPERTY BOUNDARY
- EXISTING FENCE LINE
- EXISTING POWER POLE
- MW-75 MONITORING WELL LOCATION AND IDENTIFIER
- SB-7 SOIL BORING LOCATION AND IDENTIFIER (BY BARR)
- TT 02 TEST TRENCH LOCATION AND IDENTIFIER (BY CRA)
- TP 102 TEST PIT LOCATION AND IDENTIFIER (CRA)
- SOIL BORING LOCATION AND IDENTIFIER (BY CRA)
- SOIL BORING LOCATION AND IDENTIFIER (BY BARR)
- SOIL SAMPLING LOCATION
- TP-107 ARSENIC SOIL SAMPLE LOCATION

SB-101	
TP-101	SAMPLE LOCATION
12.0 ft	SAMPLE IDENTIFIER
1.0-2.0 ft	ARSENIC CONCENTRATION mg/kg
	SAMPLE INTERVAL FEET BELOW GROUND SURFACE

- EXCEEDS CLEAN UP OBJECTIVE
- J THE ANALYTE WAS POSITIVELY IDENTIFIED THE ASSOCIATED NUMERICAL VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY

Approved

DRAWING STATUS

Status	Date

WAUKEGAN, ILLINOIS

WAUKEGAN COKE SITE

ARSENIC DISTRIBUTION IN SOIL

CONESTOGA-ROVERS & ASSOC

Project Manager	Reviewed By:	Date:
A. VAN HORNAN	W. POCHRON	JULY 30, 20[illegible]
Scale: as shown	Project No: 19023-50	Report No: ADLE009

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-100*	*TP-100*	*TP-100*	*TP-100*
CRA Sample I.D.				*6/3/2002*	*6/3/2002*	*6/3/2002*	*6/3/2002*
Sample Date				*S-060302-WP-001A*	*S-060302-WP-001B*	*S-060302-WP-001C*	*S-060302-WP-002A*
Sample Time				*12:20*	*12:25*	*12:25*	*12:28*
Test Pit Reference Location				*South End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*8*	*8*	*8*	*28*
Direction From Reference		*RHE*	*RHE*	*North*	*North*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*4-5.5 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.76)	ND (0.39)	ND (0.38)	ND (0.34)
Benzo(a)anthracene	mg/Kg	1500	1160	4	1.6	1.7	ND (0.34)
Benzo(a)pyrene	mg/Kg	150	116	4.5	1.4	1.2	ND (0.34)
Benzo(b)fluoranthene	mg/Kg	1500	1160	8.8	2.1	1.8	0.37
Dibenz(a,h)anthracene	mg/Kg	150	116	1.2	ND (0.39)	ND (0.38)	ND (0.34)
Dibenzofuran	mg/Kg	NA	5390	ND (0.76)	ND (0.39)	0.38	ND (0.34)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	2.8	0.87	0.48	ND (0.34)
Naphthalene	mg/Kg	NA	48556	ND (0.76)	0.71	0.89	ND (0.34)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	86.7	85.1	85.8	97.1

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-100	TP-100	TP-100	TP-100
CRA Sample I.D.				6/3/2002	6/3/2002	6/3/2002	6/3/2002
Sample Date				S-060302-WP-002B	S-060302-WP-002C	S-060302-WP-003A	S-060302-WP-003B
Sample Time				12:30	12:32	12:35	12:37
Test Pit Reference Location				South End	South End	South End	South End
Distance From Reference (feet)		Commercial/Industrial	Utility/Construction	28	28	40	40
Direction From Reference		RHE	RHE	North	North	North	North
Sample Interval (feet bgs)		Criteria	Criteria	2-4 ft	4-5.5 ft	0-2 ft	2-4 ft
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (1.5)	ND (39)	ND (0.38)	ND (0.36)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (1.5)	ND (39)	ND (0.38)	ND (0.36)
Benzo(a)pyrene	mg/Kg	150	116	3.9	ND (39)	ND (0.38)	ND (0.36)
Benzo(b)fluoranthene	mg/Kg	1500	1160	5	ND (39)	ND (0.38)	ND (0.36)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (1.5)	ND (39)	ND (0.38)	ND (0.36)
Dibenzofuran	mg/Kg	NA	5390	ND (1.5)	ND (39)	ND (0.38)	ND (0.36)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	2.6	ND (39)	ND (0.38)	ND (0.36)
Naphthalene	mg/Kg	NA	48556	9.8	190	ND (0.38)	ND (0.36)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	85.2	85.7	87.7	92.8

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-100*	*TP-101*	*TP-101*	*TP-101*
CRA Sample I.D.				*6/3/2002*	*6/3/2002*	*6/3/2002*	*6/3/2002*
Sample Date				*S-060302-WP-003C*	*S-060302-WP-004A*	*S-060302-WP-004B*	*S-060302-WP-005A*
Sample Time				*12:39*	*14:00*	*14:02*	*14:05*
Test Pit Reference Location				*South End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*40*	*12*	*12*	*45*
Direction From Reference		*RHE*	*RHE*	*North*	*North*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-5.5 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.43)	ND (1.8)	ND (0.74)	ND (0.37)
Benzo(a)anthracene	mg/Kg	1500	1160	0.74	6.2	2.5	0.46
Benzo(a)pyrene	mg/Kg	150	116	0.68	4.1	1.8	0.4
Benzo(b)fluoranthene	mg/Kg	1500	1160	0.96	8.9	3.9	0.77
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.43)	ND (1.8)	ND (0.74)	ND (0.37)
Dibenzofuran	mg/Kg	NA	5390	0.75	ND (1.8)	ND (0.74)	ND (0.37)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.43)	2.5	1.3	ND (0.37)
Naphthalene	mg/Kg	NA	48556	3	1.9	0.74	ND (0.37)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	77.1	75.3	89.6	88.2

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-101	TP-101	TP-101	TP-101
CRA Sample I.D.				6/3/2002	6/3/2002	6/3/2002	6/3/2002
Sample Date				S-060302-WP-006B	S-060302-WP-006A	S-060302-WP-006B	S-060302-WP-007
Sample Time				14:07	14:12	14:14	14:15
Test Pit Reference Location				South End	South End	South End	South End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	48	90	90	90
Direction From Reference		*RHE*	*RHE*	North	North	North	North
Sample Interval (feet bgs)		*Criteria*	*Criteria*	2-4 ft	0-2 ft	2-4 ft	2-4 ft
Comment							Duplicate
Parameter	***Unit***						
Semi-Volatiles							
4 Methylphenol	mg/Kg	NA	6738	ND (4.5)	ND (0.36)	ND (29)	ND (73)
Benzo(a)anthracene	mg/Kg	1500	1160	33	0.68	ND (29)	ND (73)
Benzo(a)pyrene	mg/Kg	150	116	24	0.63	ND (29)	ND (73)
Benzo(b)fluoranthene	mg/Kg	1500	1160	33	1.2	ND (29)	ND (73)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (4.5)	ND (0.36)	ND (29)	ND (73)
Dibenzofuran	mg/Kg	NA	5390	15	ND (0.36)	ND (29)	ND (73)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	9.7	0.52	ND (29)	ND (73)
Naphthalene	mg/Kg	NA	48556	24	ND (0.36)	150 J	670 J
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	73.0	92.5	89.9	90.8

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-101*	*TP-102*	*TP-102*	*TP-102*
CRA Sample I.D.				*6/3/2002*	*6/3/2002*	*6/3/2002*	*6/3/2002*
Sample Date				*S-060302-WP-006C*	*S-060302-WP-010A*	*S-060302-WP-010B*	*S-060302-WP-011A*
Sample Time				*14:16*	*15:20*	*15:22*	*15:24*
Test Pit Reference Location				*South End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*90*	*4*	*4*	*39*
Direction From Reference		*RHE*	*RHE*	*North*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-6 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (190)	ND (9.7)	ND (0.6)	ND (0.4)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (190)	77	2.2	1.7
Benzo(a)pyrene	mg/Kg	150	116	ND (190)	67	1.7	1.7
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (190)	77	2.3	2.5
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (190)	10	ND (0.6)	ND (0.4)
Dibenzofuran	mg/Kg	NA	5390	ND (190)	ND (9.7)	ND (0.6)	ND (0.4)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (190)	29	0.92	0.85
Naphthalene	mg/Kg	NA	48556	2800	ND (9.7)	ND (0.6)	ND (0.4)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	67.9	85.0	54.9	82.0

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-102*	*TP-102*	*TP-102*	*TP-103*
CRA Sample I.D.				*6/3/2002*	*6/3/2002*	*6/3/2002*	*6/5/2002*
Sample Date				*S-060302-WP-011B*	*S-060302-WP-012A*	*S-060302-WP-012B*	*S-060502-WP-013A*
Sample Time				*15:26*	*15:28*	*15:30*	*08:42*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*39*	*82*	*82*	*44*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
			d				
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.62)	ND (2100)	ND (19)	ND (1.1)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.62)	ND (2100)	ND (19)	ND (1.1)
Benzo(a)pyrene	mg/Kg	150	116	ND (0.62)	ND (2100)	ND (19)	ND (1.1)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.62)	ND (2100)	ND (19)	ND (1.1)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.62)	ND (2100)	ND (19)	ND (1.1)
Dibenzofuran	mg/Kg	NA	5390	ND (0.62)	ND (2100)	ND (19)	ND (1.1)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.62)	ND (2100)	ND (19)	ND (1.1)
Naphthalene	mg/Kg	NA	48556	ND (0.62)	16000	160	11
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	53.6	78.6	84.6	74.2

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-103*	*TP-103*	*TP-103*	*TP-104*
CRA Sample I.D.				*6/5/2002*	*6/5/2002*	*6/5/2002*	*6/5/2002*
Sample Date				*S-060502-WP-013B*	*S-060502-WP-014A*	*S-060502-WP-014B*	*S-060502-WP-015A*
Sample Time				*08:44*	*08:46*	*08:48*	*09:30*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*44*	*62*	*62*	*13*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (13000)	ND (0.37)	ND (0.39)	ND (0.4)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (13000)	ND (0.37)	ND (0.39)	1.1
Benzo(a)pyrene	mg/Kg	150	116	ND (13000)	ND (0.37)	ND (0.39)	0.84
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (13000)	ND (0.37)	ND (0.39)	1.6
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (13000)	ND (0.37)	ND (0.39)	ND (0.4)
Dibenzofuran	mg/Kg	NA	5390	ND (13000)	ND (0.37)	ND (0.39)	ND (0.4)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (13000)	ND (0.37)	ND (0.39)	0.41
Naphthalene	mg/Kg	NA	48556	85000	ND (0.37)	0.6	0.56
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	51.7	88.8	85.4	83.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-104*	*TP-104*	*TP-104*	*TP-104*
CRA Sample I.D.				*6/5/2002*	*6/5/2002*	*6/5/2002*	*6/5/2002*
Sample Date				*S-060502-WP-015B*	*S-060502-WP-015C*	*S-060502-WP-016A*	*S-060502-WP-016B*
Sample Time				*09:32*	*09:34*	*09:36*	*09:38*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*13*	*13*	*33*	*33*
Direction From Reference		*RHB*	*RHB*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*4-6 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4 Methylphenol	mg/Kg	NA	6738	ND (33)	ND (33)	530	ND (9.4)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (33)	88	1900	40
Benzo(a)pyrene	mg/Kg	150	116	ND (33)	42	910	26
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (33)	65	1400	46
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (33)	ND (33)	ND (270)	ND (9.4)
Dibenzofuran	mg/Kg	NA	5390	ND (33)	61	2200	12
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (33)	ND (33)	330	13
Naphthalene	mg/Kg	NA	48556	270	260	13000	78
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	80.0	81.0	79.0	70.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-104*	*TP-105*	*TP-105*	*TP-105*
CRA Sample I.D.				*6/5/2002*	*6/5/2002*	*6/5/2002*	*6/5/2002*
Sample Date				*S-060502-WP-016C*	*S-060502-WP-017A*	*S-060502-WP-016*	*S-060502-WP-019A*
Sample Time				*09:40*	*10:26*	*10:26*	*10:28*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*33*	*10*	*10*	*92*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-6 ft*	*0-2 ft*	*0-2 ft*	*0-2 ft*
Comment						*Duplicate*	
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.62)	ND (0.41)	ND (0.41)	ND (0.49)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.62)	1.6	1.7	ND (0.49)
Benzo(a)pyrene	mg/Kg	150	116	ND (0.62)	1.1	1.3	ND (0.49)
Benzo(b)fluoranthene	mg/Kg	1500	1160	0.63	2.1	2.4	ND (0.49)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.62)	ND (0.41)	ND (0.41)	ND (0.49)
Dibenzofuran	mg/Kg	NA	5390	0.65	ND (0.41)	ND (0.41)	ND (0.49)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.62)	0.56	0.6	ND (0.49)
Naphthalene	mg/Kg	NA	48556	4.9	1.7	1.3	ND (0.49)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	52.9	80.3	79.9	66.8

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-106*	*TP-106*	*TP-106*	*TP-106*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-019B*	*S-060602-WP-021A*	*S-060602-WP-021B*	*S-060602-WP-022A*
Sample Time				*10:30*	*08:46*	*08:47*	*08:50*
Test Pit Reference Location				*East End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*92*	*19*	*19*	*60*
Direction From Reference		*RHB*	*RHB*	*West*	*North*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	0.89	ND (1)	ND (0.45)	ND (0.45)
Benzo(a)anthracene	mg/Kg	1500	1160	0.61	2.5	ND (0.45)	2.9
Benzo(a)pyrene	mg/Kg	160	116	ND (0.49)	2.6	ND (0.45)	2.3
Benzo(b)fluoranthene	mg/Kg	1500	1160	0.7	3.2	ND (0.45)	3.3
Dibenz(a,h)anthracene	mg/Kg	160	116	ND (0.49)	ND (1)	ND (0.45)	0.64
Dibenzofuran	mg/Kg	NA	5390	ND (0.49)	1.5	ND (0.45)	ND (0.45)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.49)	1.5	ND (0.45)	1.2
Naphthalene	mg/Kg	NA	48556	0.62	8.9	ND (0.45)	1.1
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	67.2	80.7	72.8	72.6

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-106*	*TP-107*	*TP-107*	*TP-107*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-022B*	*S-060602-WP-023A*	*S-060602-WP-023B*	*S-060602-WP-024*
Sample Time				*08:52*	*09:25*	*09:27*	*09:30*
Test Pit Reference Location				*South End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*60*	*4*	*4*	*34*
Direction From Reference		*RHE*	*RHE*	*North*	*North*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*2-3.5 ft*	*0-3 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.5)	0.99	ND (26000)	ND (0.45)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.5)	0.51	ND (26000)	ND (0.45)
Benzo(a)pyrene	mg/Kg	150	116	ND (0.5)	ND (0.4)	ND (26000)	ND (0.45)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.5)	0.93	ND (26000)	ND (0.45)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.5)	ND (0.4)	ND (26000)	ND (0.45)
Dibenzofuran	mg/Kg	NA	5390	ND (0.5)	0.95	ND (26000)	ND (0.45)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.5)	0.4	ND (26000)	ND (0.45)
Naphthalene	mg/Kg	NA	48556	ND (0.5)	11	310000	ND (0.45)
Metals							
Arsenic	mg/Kg	2050	940	-	-	14.6	-
General Chemistry							
Total Solids	%	NA	NA	65.7	83.2	ND (0.10)	72.6

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-107*	*TP-107*	*TP-107*	*TP-108*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-026*	*S-060602-WP-026A*	*S-060602-WP-026B*	*S-060602-WP-027A*
Sample Time				*09:32*	*09:34*	*09:36*	*10:22*
Test Pit Reference Location				*South End*	*South End*	*South End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*34*	*69*	*69*	*8*
Direction From Reference		*RHE*	*RHE*	*North*	*North*	*North*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-3 ft*	*0-2 ft*	*2-3 ft*	*0-2 ft*
Comment				*Duplicate*			
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.44)	ND (4.4)	ND (2.6)	ND (14)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.44)	29	18	46
Benzo(a)pyrene	mg/Kg	150	116	ND (0.44)	19	10	28
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.44)	33	15	48
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.44)	5.2	2.6	ND (14)
Dibenzofuran	mg/Kg	NA	5390	ND (0.44)	ND (4.4)	ND (2.6)	ND (14)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.44)	7.7	4.2	ND (14)
Naphthalene	mg/Kg	NA	48556	ND (0.44)	12	4.6	ND (14)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	75.0	75.9	64.2	96.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-108*	*TP-108*	*TP-108*	*TP-108*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-027B*	*S-060602-WP-027C*	*S-060602-WP-028A*	*S-060602-WP-028B*
Sample Time				*10:24*	*10:26*	*10:30*	*10:32*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*5*	*30*	*30*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*4-5.5 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (2.4)	ND (16)	ND (2.5)	ND (0.42)
Benzo(a)anthracene	mg/Kg	1500	1160	16	54	11	2.3
Benzo(a)pyrene	mg/Kg	150	116	13	39	7.1	1.9
Benzo(b)fluoranthene	mg/Kg	1500	1160	20	58	18	3
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (2.4)	ND (16)	ND (2.5)	ND (0.42)
Dibenzofuran	mg/Kg	NA	5390	ND (2.4)	ND (16)	ND (2.5)	ND (0.42)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	6.1	19	4.3	1
Naphthalene	mg/Kg	NA	48556	ND (2.4)	ND (16)	ND (2.5)	0.76
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	90.1	83.5	86.3	79.0

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-108*	*TP-109*	*TP-109*	*TP-109*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-028C*	*S-060602-WP-030A*	*S-060602-WP-030B*	*S-060602-WP-030C*
Sample Time				*10:34*	*10:38*	*10:37*	*10:39*
Test Pit Reference Location				*East End*	*North End*	*North End*	*North End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*30*	*5*	*5*	*5*
Direction From Reference		*RHE*	*RHE*	*West*	*South*	*South*	*South*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-5.5 ft*	*0-2 ft*	*2-4 ft*	*4-5.5 ft*
Comment							
Parameter	*Unit*						
Semi-Volatiles							
4 Methylphenol	mg/Kg	NA	6738	ND (38)	ND (4.5)	ND (46)	ND (9.6)
Benzo(a)anthracene	mg/Kg	1500	1160	370	18	270	54
Benzo(a)pyrene	mg/Kg	150	116	170	14	170	44
Benzo(b)fluoranthene	mg/Kg	1500	1160	260	21	250	76
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (38)	ND (4.5)	ND (46)	ND (9.6)
Dibenzofuran	mg/Kg	NA	5390	550	ND (4.5)	ND (46)	ND (9.6)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	78	7.2	81	18
Naphthalene	mg/Kg	NA	48556	ND (38)	ND (4.5)	ND (46)	ND (9.6)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	86.4	91.0	96.4	85.9

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-109*	*TP-109*	*TP-109*	*TP-110*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-031A*	*S-060602-WP-031B*	*S-060602-WP-031C*	*S-060602-WP-032A*
Sample Time				*10:45*	*10:47*	*10:49*	*11:15*
Test Pit Reference Location				*North End*	*North End*	*North End*	*North End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*35*	*35*	*35*	*7*
Direction From Reference		*RHE*	*RHE*	*South*	*South*	*South*	*South*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*4-5.5 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.4)	ND (0.34)	ND (50)	ND (0.39)
Benzo(a)anthracene	mg/Kg	1500	1160	0.46	1.6	350	1.8
Benzo(a)pyrene	mg/Kg	150	116	0.43	1.7	200	1.8
Benzo(b)fluoranthene	mg/Kg	1500	1160	0.66	2.6	360	3.1
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.4)	ND (0.34)	ND (50)	ND (0.39)
Dibenzofuran	mg/Kg	NA	5390	ND (0.4)	ND (0.34)	500	ND (0.39)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.4)	0.71	78	0.78
Naphthalene	mg/Kg	NA	48556	ND (0.4)	ND (0.34)	ND (50)	ND (0.39)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	82.4	95.8	87.5	83.6

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-110*	*TP-110*	*TP-110*	*TP-110*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-032B*	*S-060602-WP-032C*	*S-060602-WP-033A*	*S-060602-WP-033B*
Sample Time				*11:17*	*11:18*	*11:20*	*11:22*
Test Pit Reference Location				*North End*	*North End*	*North End*	*North End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*7*	*7*	*36*	*36*
Direction From Reference		*RHI*	*RHI*	*South*	*South*	*South*	*South*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*4-5.5 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.34)	ND (0.39)	ND (0.41)	ND (0.43)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.34)	0.39	0.76	ND (0.43)
Benzo(a)pyrene	mg/Kg	150	116	ND (0.34)	0.4	0.78	ND (0.43)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.34)	0.59	1.3	ND (0.43)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.34)	ND (0.39)	ND (0.41)	ND (0.43)
Dibenzofuran	mg/Kg	NA	5390	ND (0.34)	ND (0.39)	ND (0.41)	ND (0.43)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.34)	ND (0.39)	ND (0.41)	ND (0.43)
Naphthalene	mg/Kg	NA	48566	ND (0.34)	ND (0.39)	ND (0.41)	ND (0.43)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	95.7	84.3	81.4	77.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-110*	*TP-111*	*TP-111*	*TP-112*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-033C*	*S-060602-WP-035A*	*S-060602-WP-035B*	*S-060602-WP-036A*
Sample Time				*11:24*	*12:55*	*12:58*	*13:35*
Test Pit Reference Location				*North End*	*South End*	*South End*	*West End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*36*	*35*	*35*	*2*
Direction From Reference		*RHE*	*RHE*	*South*	*North*	*North*	*East*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-5 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.44)	ND (0.4)	ND (0.44)	ND (0.43)
Benzo(a)anthracene	mg/Kg	1500	1160	1.2	1.8	2.7	0.49
Benzo(a)pyrene	mg/Kg	150	116	1.1	1.5	2	ND (0.43)
Benzo(b)fluoranthene	mg/Kg	1500	1160	1.7	2.2	3.4	0.54
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.44)	ND (0.4)	0.51	ND (0.43)
Dibenzofuran	mg/Kg	NA	5390	ND (0.44)	ND (0.4)	ND (0.44)	ND (0.43)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	0.45	0.61	0.81	ND (0.43)
Naphthalene	mg/Kg	NA	48556	4.4	ND (0.4)	0.56	0.81
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	75.1	83.1	74.5	76.6

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-112	TP-112	TP-112	TP-112
CRA Sample I.D.				6/6/2002	6/6/2002	6/6/2002	6/6/2002
Sample Date				S-060602-WP-036B	S-060602-WP-037A	S-060602-WP-037B	S-060602-WP-038
Sample Time				13:38	13:40	13:42	13:46
Test Pit Reference Location				West End	East End	East End	
Distance From Reference (feet)		Commercial/Industrial	Utility/Construction	2	2	2	
Direction From Reference		RHE	RHE	East	West	West	
Sample Interval (feet bgs)		Criteria	Criteria	2-4 ft	0-2 ft	2-4 ft	
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.47)	ND (3.6)	7.8 J	1000
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.47)	18 J	14 J	620
Benzo(a)pyrene	mg/Kg	150	116	ND (0.47)	15	17 J	ND (510)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.47)	21	26 J	650
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.47)	ND (3.6)	ND (5.4)	ND (510)
Dibenzofuran	mg/Kg	NA	5390	ND (0.47)	ND (3.6)	20 J	2300
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.47)	5.5 J	6.8 J	ND (510)
Naphthalene	mg/Kg	NA	48556	ND (0.47)	ND (3.6)	10 J	4600
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	69.8	91.2	61.2	80.3

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-113	TP-113	TP-113	TP-113
CRA Sample I.D.				6/6/2002	6/6/2002	6/6/2002	6/6/2002
Sample Date				S-060602-WP-039A	S-060602-WP-039B	S-060602-WP-040A	S-060602-WP-041
Sample Time				14:24	14:26	14:28	14:30
Test Pit Reference Location				West End	West End	East End	East End
Distance From Reference (feet)		Commercial/Industrial	Utility/Construction	5	5	5	5
Direction From Reference		RHE	RHE	East	East	West	West
Sample Interval (feet bgs)		Criteria	Criteria	0-2 ft	2-4 ft	0-2 ft	0-2 ft
Comment							Duplicate
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.39)	1.6	ND (2)	ND (0.79)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.39)	7.9 J	12 J	4.2 J
Benzo(a)pyrene	mg/Kg	150	116	ND (0.39)	5.9	7.7	2.7
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.39)	9.2	13 J	5.1 J
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.39)	ND (1.6)	ND (2)	ND (0.79)
Dibenzofuran	mg/Kg	NA	5390	ND (0.39)	ND (1.6)	ND (2)	ND (0.79)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.39)	1.9 J	2.4 J	1
Naphthalene	mg/Kg	NA	48556	ND (0.39)	2.3	ND (2)	ND (0.79)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	84.1	80.1	80.5	83.4

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-114*	*TP-115*	*TP-115*	*TP-116*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-043A*	*S-060602-WP-044A*	*S-060602-WP-044B*	*S-060602-WP-045B*
Sample Time				*15:10*	*15:30*	*15:32*	*15:40*
Test Pit Reference Location				*South End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*5*	*5*	*5*
Direction From Reference		*RHI*	*RHI*	*North*	*North*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*0-3 ft*	*3-5 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.37)	ND (0.38)	ND (0.4)	ND (1.5)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.37)	ND (0.38)	ND (0.4)	7.8
Benzo(a)pyrene	mg/Kg	150	116	ND (0.37)	ND (0.38)	ND (0.4)	6.1
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.37)	ND (0.38)	ND (0.4)	9.2
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.37)	ND (0.38)	ND (0.4)	ND (1.5)
Dibenzofuran	mg/Kg	NA	5390	ND (0.37)	ND (0.38)	ND (0.4)	ND (1.5)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.37)	ND (0.38)	ND (0.4)	2.3
Naphthalene	mg/Kg	NA	48556	ND (0.37)	ND (0.38)	ND (0.4)	ND (1.5)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	89.1	86.1	82.2	87.0

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-117*	*TP-117*	*TP-117*	*TP-117*
CRA Sample I.D.				*6/6/2002*	*6/6/2002*	*6/6/2002*	*6/6/2002*
Sample Date				*S-060602-WP-046A*	*S-060602-WP-046B*	*S-060602-WP-046C*	*S-060602-WP-047B*
Sample Time				*16:20*	*16:22*	*16:24*	*16:26*
Test Pit Reference Location				*South End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*10*	*10*	*10*	*25*
Direction From Reference		*RHE*	*RHE*	*North*	*North*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*4-6 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (7.6)	ND (0.39)	ND (0.41)	ND (0.42)
Benzo(a)anthracene	mg/Kg	1500	1160	35	ND (0.39)	ND (0.41)	0.74
Benzo(a)pyrene	mg/Kg	150	116	33	ND (0.39)	ND (0.41)	0.77
Benzo(b)fluoranthene	mg/Kg	1500	1160	48	ND (0.39)	ND (0.41)	1
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (7.6)	ND (0.39)	ND (0.41)	ND (0.42)
Dibenzofuran	mg/Kg	NA	5390	ND (7.6)	ND (0.39)	ND (0.41)	ND (0.42)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	12	ND (0.39)	ND (0.41)	ND (0.42)
Naphthalene	mg/Kg	NA	48556	ND (7.6)	ND (0.39)	ND (0.41)	ND (0.42)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	86.9	83.6	80.0	78.7

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-117*	*TP-118A*	*TP-118A*	*TP-118A*
CRA Sample I.D.				*6/6/2002*	*6/7/2002*	*6/7/2002*	*6/7/2002*
Sample Date				*S-060602-WP-047C*	*S-060702-WP-049A*	*S-060702-WP-049B*	*S-060702-WP-049C*
Sample Time				*16:28*	*09:14*	*09:16*	*09:18*
Test Pit Reference Location				*South End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*25*	*8*	*8*	*8*
Direction From Reference		*RHB*	*RHB*	*North*	*North*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-6 ft*	*0-2 ft*	*2-4 ft*	*4-5.5 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.4)	ND (0.35)	ND (0.39)	ND (0.53)
Benzo(a)anthracene	mg/Kg	1500	1160	0.4	ND (0.35)	0.96	ND (0.53)
Benzo(a)pyrene	mg/Kg	150	116	ND (0.4)	ND (0.35)	0.89	ND (0.53)
Benzo(b)fluoranthene	mg/Kg	1500	1160	0.56	ND (0.35)	1.3	ND (0.53)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.4)	ND (0.35)	ND (0.39)	ND (0.53)
Dibenzofuran	mg/Kg	NA	5390	ND (0.4)	ND (0.35)	ND (0.39)	ND (0.53)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.4)	ND (0.35)	0.45	ND (0.53)
Naphthalene	mg/Kg	NA	48556	ND (0.4)	ND (0.35)	1	0.62
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	81.6	95.2	85.0	62.6

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-118A*	*TP-118A*	*TP-118A*	*TP-118A*
CRA Sample I.D.				*6/7/2002*	*6/7/2002*	*6/7/2002*	*6/7/2002*
Sample Date				*S-060702-WP-050A*	*S-060702-WP-051*	*S-060702-WP-050B*	*S-060702-WP-050C*
Sample Time				*09:20*	*09:26*	*09:22*	*09:24*
Test Pit Reference Location				*North End*	*North End*	*North End*	*North End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*5*	*5*	*5*
Direction From Reference		*RHE*	*RHE*	*South*	*South*	*South*	*South*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*0-2 ft*	*2-4 ft*	*4-5.5 ft*
Comment					*Duplicate*		
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.77)	ND (0.38)	ND (0.39)	ND (0.38)
Benzo(a)anthracene	mg/Kg	1500	1160	3.7	1.2	ND (0.39)	ND (0.38)
Benzo(a)pyrene	mg/Kg	150	116	2.5	0.85	ND (0.39)	ND (0.38)
Benzo(b)fluoranthene	mg/Kg	1500	1160	4.4	1.5	ND (0.39)	0.38
Dibenz(a,h)anthracene	mg/Kg	150	116	0.77	ND (0.38)	ND (0.39)	ND (0.38)
Dibenzofuran	mg/Kg	NA	5390	ND (0.77)	ND (0.38)	ND (0.39)	ND (0.38)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	1.4	0.56	ND (0.39)	ND (0.38)
Naphthalene	mg/Kg	NA	48556	2.1	0.49	ND (0.39)	ND (0.38)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	85.3	87.7	84.0	87.9

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-119	TP-119	TP-119	TP-120
CRA Sample I.D.				6/7/2002	6/7/2002	6/7/2002	6/7/2002
Sample Date				S-060702-WP-048A	S-060702-WP-048B	S-060702-WP-048C	S-060702-WP-064A
Sample Time				08:40	08:42	08:44	10:00
Test Pit Reference Location				East End	East End	East End	East End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	8	8	8	8
Direction From Reference		*RHE*	*RHE*	West	West	West	West
Sample Interval (feet bgs)		*Criteria*	*Criteria*	0-2 ft	2-4 ft	4-6 ft	0-2 ft
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4 Methylphenol	mg/Kg	NA	6738	ND (0.39)	ND (0.36)	ND (1.3)	ND (0.84)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.39)	ND (0.36)	5.2	3.8
Benzo(a)pyrene	mg/Kg	150	116	ND (0.39)	ND (0.36)	8.3	2.8
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.39)	0.39	9.3	4.7
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.39)	ND (0.36)	2.1	0.85
Dibenzofuran	mg/Kg	NA	5390	ND (0.39)	ND (0.36)	ND (1.3)	ND (0.84)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.39)	ND (0.36)	6.1	1.5
Naphthalene	mg/Kg	NA	48556	ND (0.39)	ND (0.36)	4.5	ND (0.84)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	84.8	90.7	61.4	78.1

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-120*	*TP-120*	*TP-120*	*TP-120*
CRA Sample I.D.				*6/7/2002*	*6/7/2002*	*6/7/2002*	*6/7/2002*
Sample Date				*S-060702-WP-054B*	*S-060702-WP-054C*	*S-060702-WP-055A*	*S-060702-WP-055B*
Sample Time				*10:02*	*10:04*	*10:06*	*10:08*
Test Pit Reference Location				*East End*	*East End*	*West End*	*West End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*5*	*5*	*5*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*East*	*East*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*4-5.5 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.38)	ND (0.38)	ND (11)	ND (1.1)
Benzo(a)anthracene	mg/Kg	1500	1160	1	0.43	85	8.1
Benzo(a)pyrene	mg/Kg	150	116	0.73	0.38	53	5
Benzo(b)fluoranthene	mg/Kg	1500	1160	0.98	0.53	65	6.6
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.38)	ND (0.38)	11	ND (1.1)
Dibenzofuran	mg/Kg	NA	5390	ND (0.38)	ND (0.38)	18	ND (1.1)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	0.4	ND (0.38)	23	2.1
Naphthalene	mg/Kg	NA	48556	ND (0.38)	ND (0.38)	25	1.3
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	87.6	86.8	76.4	75.9

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-120*	*TP-121*	*TP-121*	*TP-121*
CRA Sample I.D.				*6/7/2002*	*6/7/2002*	*6/7/2002*	*6/7/2002*
Sample Date				*S-060702-WP-086C*	*S-060702-WP-087A*	*S-060702-WP-088A*	*S-060702-WP-088B*
Sample Time				*10:10*	*11:10*	*11:12*	*11:14*
Test Pit Reference Location				*West End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*8*	*38*	*67*	*67*
Direction From Reference		*RHB*	*RHB*	*East*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-6 ft*	*0-2 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.42)	ND (1.7)	ND (9.5)	ND (9.4)
Benzo(a)anthracene	mg/Kg	1500	1160	0.58	5.9	52	45
Benzo(a)pyrene	mg/Kg	150	116	0.5	5.6	44	32
Benzo(b)fluoranthene	mg/Kg	1500	1160	0.6	6.6	57	43
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.42)	ND (1.7)	ND (9.5)	ND (9.4)
Dibenzofuran	mg/Kg	NA	5390	ND (0.42)	ND (1.7)	ND (9.5)	ND (9.4)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.42)	3.1	16	15
Naphthalene	mg/Kg	NA	48556	ND (0.42)	ND (1.7)	ND (9.5)	ND (9.4)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	77.9	79.0	86.9	87.7

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-121*	*TP-121*	*TP-121*	*TP-121*
CRA Sample I.D.				*6/7/2002*	*6/7/2002*	*6/7/2002*	*6/7/2002*
Sample Date				*S-060702-WP-058C*	*S-060702-WP-059A*	*S-060702-WP-059B*	*S-060702-WP-059C*
Sample Time				*11:16*	*11:18*	*11:20*	*11:22*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*67*	*93*	*93*	*93*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-6 ft*	*0-2 ft*	*2-4 ft*	*4-6 ft*
Comment							
Parameter	*Unit*						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (2.2)	ND (7.6)	ND (3.7)	ND (4.1)
Benzo(a)anthracene	mg/Kg	1500	1160	16	65	31	27
Benzo(a)pyrene	mg/Kg	150	116	10	44	24	19
Benzo(b)fluoranthene	mg/Kg	1500	1160	15	58	33	27
Dibenz(a,h)anthracene	mg/Kg	150	116	2.3	12	5.2	4.5
Dibenzofuran	mg/Kg	NA	5390	8.2	ND (7.6)	ND (3.7)	4.6
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	4.4	21	10	9.2
Naphthalene	mg/Kg	NA	48556	2.2	ND (7.6)	ND (3.7)	ND (4.1)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	76.4	86.3	89.9	79.8

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-122	TP-122	TP-122	TP-122
CRA Sample I.D.				6/7/2002	6/7/2002	6/7/2002	6/7/2002
Sample Date				S-060702-WP-061A	S-060702-WP-061B	S-060702-WP-062A	S-060702-WP-062B
Sample Time				13:26	13:26	13:22	13:24
Test Pit Reference Location				South End	South End	South End	South End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	36	36	8	8
Direction From Reference		*RHI*	*RHI*	North	North	North	North
Sample Interval (feet bgs)		*Criteria*	*Criteria*	0-2 ft	2-4 ft	0-2 ft	2-4 ft
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.43)	ND (3.4)	ND (0.41)	ND (0.38)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.43)	15	3.3	3.7
Benzo(a)pyrene	mg/Kg	150	116	ND (0.43)	17	2.1	2.3
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.43)	23	3	3.3
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.43)	4.6	0.59	0.72
Dibenzofuran	mg/Kg	NA	5390	ND (0.43)	7.5	ND (0.41)	ND (0.38)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.43)	12	1	1
Naphthalene	mg/Kg	NA	48556	ND (0.43)	17	ND (0.41)	0.75
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	77.0	65.5	80.1	87.8

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-122*	*TP-122*	*TP-122*	*TP-122*
CRA Sample I.D.				*6/7/2002*	*6/7/2002*	*6/7/2002*	*6/7/2002*
Sample Date				*S-060702-WP-064A*	*S-060702-WP-065*	*S-060702-WP-064B*	*S-060702-WP-064C*
Sample Time				*14:12*	*14:18*	*14:16*	*14:18*
Test Pit Reference Location				*South End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*77*	*77*	*77*	*77*
Direction From Reference		*RHE*	*RHE*	*North*	*North*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*0-2 ft*	*2-4 ft*	*4-5.5 ft*
Comment					*Duplicate*		
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (100)	ND (360)	ND (99)	ND (5.1)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (100)	ND (360)	ND (99)	26
Benzo(a)pyrene	mg/Kg	150	116	ND (100)	ND (360)	ND (99)	22
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (100)	ND (360)	ND (99)	33
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (100)	ND (360)	ND (99)	ND (5.1)
Dibenzofuran	mg/Kg	NA	5390	ND (100)	ND (360)	ND (99)	ND (5.1)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (100)	ND (360)	ND (99)	11
Naphthalene	mg/Kg	NA	48556	1100 J	2300 J	560	ND (5.1)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	81.1	90.9	83.1	81.1

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-123*	*TP-123*	*TP-123*	*TP-123*
CRA Sample I.D.				*6/7/2002*	*6/7/2002*	*6/7/2002*	*6/7/2002*
Sample Date				*S-060702-WP-068A*	*S-060702-WP-068B*	*S-060702-WP-069A*	*S-060702-WP-069B*
Sample Time				*18:00*	*18:02*	*18:04*	*18:06*
Test Pit Reference Location				*North End*	*North End*	*North End*	*North End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*8*	*8*	*32*	*32*
Direction From Reference		*RHI*	*RHI*	*South*	*South*	*South*	*South*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (8.9)	ND (0.39)	ND (250)	ND (4.8)
Benzo(a)anthracene	mg/Kg	1500	1160	64	2.7	540	20
Benzo(a)pyrene	mg/Kg	150	116	55	1.6	280	19
Benzo(b)fluoranthene	mg/Kg	1500	1160	67	2.4	340	30
Dibenz(a,h)anthracene	mg/Kg	150	116	12	0.5	ND (250)	6
Dibenzofuran	mg/Kg	NA	5390	ND (8.9)	ND (0.39)	470	ND (4.8)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	25	0.91	ND (250)	11
Naphthalene	mg/Kg	NA	48556	ND (8.9)	1	1400	ND (4.8)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	92.4	83.8	88.4	85.3

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-123*	*TP-123*	*TP-125*	*TP-125*
CRA Sample I.D.				*6/7/2002*	*6/7/2002*	*6/10/2002*	*6/10/2002*
Sample Date				*S-060702-WP-070A*	*S-060702-WP-070B*	*S-061002-WP-072A*	*S-061002-WP-072B*
Sample Time				*15:08*	*15:10*	*09:10*	*09:12*
Test Pit Reference Location				*North End*	*North End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*58*	*58*	*5*	*5*
Direction From Reference		*RHE*	*RHE*	*South*	*South*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (2.8)	2200	ND (0.74)	ND (0.77)
Benzo(a)anthracene	mg/Kg	1500	1160	16	1100	2.5	2.4
Benzo(a)pyrene	mg/Kg	150	116	11	ND (660)	2.5	2.3
Benzo(b)fluoranthene	mg/Kg	1500	1160	17	670	3.6	3.3
Dibenz(a,h)anthracene	mg/Kg	150	116	2.9	ND (660)	ND (0.74)	ND (0.77)
Dibenzofuran	mg/Kg	NA	5390	ND (2.8)	670	ND (0.74)	ND (0.77)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	5.5	ND (660)	ND (0.74)	ND (0.77)
Naphthalene	mg/Kg	NA	48556	ND (2.8)	4400	ND (0.74)	ND (0.77)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	93.1	62.8	89.6	86.0

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-128	TP-128	TP-128	TP-128
CRA Sample I.D.				6/10/2002	6/10/2002	6/10/2002	6/10/2002
Sample Date				S-061002-WP-072C	S-061002-WP-073A	S-061002-WP-073B	S-061002-WP-073C
Sample Time				09:14	09:16	09:18	09:20
Test Pit Reference Location				East End	West End	West End	West End
Distance From Reference (feet)		*Commercial/Industrial RHB Criteria*	*Utility/Construction RHB Criteria*	8	8	8	8
Direction From Reference				West	East	East	East
Sample Interval (feet bgs)				4-5.5 ft	0-2 ft	2-4 ft	4-6 ft
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.41)	ND (2.6)	ND (0.37)	ND (0.39)
Benzo(a)anthracene	mg/Kg	1500	1160	1.7	14	ND (0.37)	ND (0.39)
Benzo(a)pyrene	mg/Kg	150	116	1.9	12	ND (0.37)	ND (0.39)
Benzo(b)fluoranthene	mg/Kg	1500	1160	2.8	18	ND (0.37)	ND (0.39)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.41)	ND (2.6)	ND (0.37)	ND (0.39)
Dibenzofuran	mg/Kg	NA	5390	ND (0.41)	ND (2.6)	ND (0.37)	ND (0.39)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	0.55	5.4	ND (0.37)	ND (0.39)
Naphthalene	mg/Kg	NA	48566	ND (0.41)	ND (2.6)	ND (0.37)	ND (0.39)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	
General Chemistry							
Total Solids	%	NA	NA	80.6	85.8	88.2	84.4

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-126*	*TP-126*	*TP-126*	*TP-126*
CRA Sample I.D.				*6/10/2002*	*6/10/2002*	*6/10/2002*	*6/10/2002*
Sample Date				*S-061002-WP-075A*	*S-061002-WP-077*	*S-061002-WP-075B*	*S-061002-WP-075C*
Sample Time				*10:05*	*10:05*	*10:07*	*10:09*
Test Pit Reference Location				*North End*	*North End*	*North End*	*North End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*15*	*15*	*15*	*15*
Direction From Reference		*RHE*	*RHE*	*South*	*South*	*South*	*South*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*0-2 ft*	*2-4 ft*	*4-5 ft*
Comment					*Duplicate*		
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (4.4)	ND (1.5)	ND (0.36)	ND (0.41)
Benzo(a)anthracene	mg/Kg	1500	1160	17	5.8	ND (0.36)	ND (0.41)
Benzo(a)pyrene	mg/Kg	150	116	20	5.8	ND (0.36)	ND (0.41)
Benzo(b)fluoranthene	mg/Kg	1500	1160	24 J	7.4 J	ND (0.36)	ND (0.41)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (4.4)	ND (1.5)	ND (0.36)	ND (0.41)
Dibenzofuran	mg/Kg	NA	5390	ND (4.4)	ND (1.5)	ND (0.36)	ND (0.41)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	9.6	2.8	ND (0.36)	ND (0.41)
Naphthalene	mg/Kg	NA	48556	ND (4.4)	1.8	ND (0.36)	0.53
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	93.4	90.5	91.5	80.0

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-126*	*TP-126*	*TP-127*	*TP-127*
CRA Sample I.D.				*6/10/2002*	*6/10/2002*	*6/10/2002*	*6/10/2002*
Sample Date				*S-061002-WP-076B*	*S-061002-WP-076C*	*S-061002-WP-079A*	*S-061002-WP-079B*
Sample Time				*10:12*	*10:14*	*11:38*	*11:40*
Test Pit Reference Location				*North End*	*North End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*43*	*43*	*8*	*8*
Direction From Reference		*RHI*	*RHI*	*South*	*South*	*North*	*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*4-6 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	*Unit*						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (190)	ND (0.42)	ND (4.7)	ND (2.5)
Benzo(a)anthracene	mg/Kg	1500	1160	1400	ND (0.42)	15	18
Benzo(a)pyrene	mg/Kg	160	116	1000	ND (0.42)	34	13
Benzo(b)fluoranthene	mg/Kg	1500	1160	1200	ND (0.42)	39	15
Dibenz(a,h)anthracene	mg/Kg	160	116	ND (190)	ND (0.42)	7.2	ND (2.5)
Dibenzofuran	mg/Kg	NA	5390	1000	ND (0.42)	ND (4.7)	27
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	310	ND (0.42)	17	4.2
Naphthalene	mg/Kg	NA	48556	1900	ND (0.42)	10	120
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	86.0	77.8	88.5	88.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-127*	*TP-127*	*TP-127*	*TP-127*
CRA Sample I.D.				*6/10/2002*	*6/10/2002*	*6/10/2002*	*6/10/2002*
Sample Date				*S-061002-WP-079C*	*S-061002-WP-080A*	*S-061002-WP-080B*	*S-061002-WP-080C*
Sample Time				*11:42*	*11:45*	*11:48*	*11:50*
Test Pit Reference Location				*South End*	*South End*	*South End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial RHE Criteria*	*Utility/Construction RHE Criteria*	*8*	*45*	*45*	*45*
Direction From Reference				*North*	*North*	*North*	*North*
Sample Interval (feet bgs)				*4-6 ft*	*0-2 ft*	*2-4 ft*	*4-6 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (190)	ND (1.5)	ND (150)	ND (370)
Benzo(a)anthracene	mg/Kg	1500	1160	520	3.2	ND (150)	ND (370)
Benzo(a)pyrene	mg/Kg	150	116	390	4.4	ND (150)	ND (370)
Benzo(b)fluoranthene	mg/Kg	1500	1160	410	5.2	ND (150)	ND (370)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (190)	ND (1.5)	ND (150)	ND (370)
Dibenzofuran	mg/Kg	NA	5390	620	ND (1.5)	ND (150)	ND (370)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (190)	2.4	ND (150)	ND (370)
Naphthalene	mg/Kg	NA	48556	1900	11	1500	3600
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	88.8	86.7	90.4	88.6

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-128*	*TP-128*	*TP-128*	*TP-128*
CRA Sample I.D.				*6/10/2002*	*6/10/2002*	*6/10/2002*	*6/10/2002*
Sample Date				*S-061002-WP-083A*	*S-061002-WP-083B*	*S-061002-WP-083C*	*S-061002-WP-084A*
Sample Time				*13:50*	*13:57*	*13:54*	*13:56*
Test Pit Reference Location				*West End*	*West End*	*West End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*13*	*13*	*13*	*0*
Direction From Reference		*RHE*	*RHE*	*East*	*East*	*East*	
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*4-6 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (3.6)	ND (1.9)	ND (370)	ND (2.4)
Benzo(a)anthracene	mg/Kg	1500	1160	26	7.9	ND (370)	28
Benzo(a)pyrene	mg/Kg	150	116	19	6.6	ND (370)	22
Benzo(b)fluoranthene	mg/Kg	1500	1160	23	7.8	ND (370)	26
Dibenz(a,h)anthracene	mg/Kg	150	116	4.7	ND (1.9)	ND (370)	5.2
Dibenzofuran	mg/Kg	NA	5390	ND (3.6)	10	ND (370)	ND (2.4)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	11	2.9	ND (370)	11
Naphthalene	mg/Kg	NA	48556	ND (3.6)	4.9	2400	ND (2.4)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	90.6	87.5	88.2	90.1

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-128*	*TP-128*	*TP-129*	*TP-129*
CRA Sample I.D.				*6/10/2002*	*6/10/2002*	*6/10/2002*	*6/10/2002*
Sample Date				*S-061002-WP-084B*	*S-061002-WP-084C*	*S-061002-WP-085A*	*S-061002-WP-085B*
Sample Time				*13:58*	*13:59*	*14:20*	*14:22*
Test Pit Reference Location				*East End*	*East End*	*West End*	*West End*
Distance From Reference (feet)		*Commercial/Industrial RHE Criteria*	*Utility/Construction RHE Criteria*	*0*	*0*	*5*	*5*
Direction From Reference						*East*	*East*
Sample Interval (feet bgs)				*2-4 ft*	*4-6 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.35)	ND (0.38)	ND (140)	ND (610)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.35)	ND (0.38)	ND (140)	ND (610)
Benzo(a)pyrene	mg/Kg	150	116	ND (0.35)	ND (0.38)	ND (140)	ND (610)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.35)	ND (0.38)	ND (140)	ND (610)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.35)	ND (0.38)	ND (140)	ND (610)
Dibenzofuran	mg/Kg	NA	5390	ND (0.35)	ND (0.38)	ND (140)	ND (610)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.35)	ND (0.38)	ND (140)	ND (610)
Naphthalene	mg/Kg	NA	48556	0.49	ND (0.38)	1500	5400
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	93.0	86.3	95.8	90.4

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-129	TP-130	TP-130	TP-130
CRA Sample I.D.				6/10/2002	6/11/2002	6/11/2002	6/11/2002
Sample Date				S-061002-WP-085C	S-061102-WP-087A	S-061102-WP-087B	S-061102-WP-087C
Sample Time				14:24	09:20	09:22	09:24
Test Pit Reference Location				West End	South End	South End	South End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	5	24	24	24
Direction From Reference		*RHE*	*RHE*	East	North	North	North
Sample Interval (feet bgs)		*Criteria*	*Criteria*	4-5 ft	0-2 ft	2-4 ft	4-5.5 ft
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738[g]	ND (390)	ND (0.7)	ND (29)	ND (65)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (390)	0.75	ND (29)	ND (65)
Benzo(a)pyrene	mg/Kg	150	116	ND (390)	1.7	ND (29)	ND (65)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (390)	2.7	ND (29)	ND (65)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (390)	ND (0.7)	ND (29)	ND (65)
Dibenzofuran	mg/Kg	NA	5390	ND (390)	ND (0.7)	ND (29)	ND (65)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (390)	1.5	ND (29)	ND (65)
Naphthalene	mg/Kg	NA	48556	2600	3.4	200	500
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	85.4	94.1	91.9	67.9

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-130*	*TP-130*	*TP-130*	*TP-131*
CRA Sample I.D.				*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*
Sample Date				*S-061102-WP-088A*	*S-061102-WP-088B*	*S-061102-WP-088C*	*S-061102-WP-090A*
Sample Time				*09:26*	*09:28*	*09:30*	*10:00*
Test Pit Reference Location				*North End*	*North End*	*North End*	*South End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*0*	*0*	*0*	*18*
Direction From Reference		*RHE*	*RHE*				*North*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*4-6 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.35)	ND (7)	ND (13)	ND (7.3)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.35)	ND (7)	ND (13)	28
Benzo(a)pyrene	mg/Kg	150	116	ND (0.35)	ND (7)	ND (13)	25
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.35)	ND (7)	ND (13)	40
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.35)	ND (7)	ND (13)	ND (7.3)
Dibenzofuran	mg/Kg	NA	5390	ND (0.35)	ND (7)	ND (13)	ND (7.3)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.35)	ND (7)	ND (13)	13
Naphthalene	mg/Kg	NA	48556	ND (0.35)	ND (7)	68	ND (7.3)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	94.8	93.8	85.6	90.2

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-131*	*TP-131*	*TP-131*	*TP-133*
CRA Sample I.D.				*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*
Sample Date				*S-061102-WP-090B*	*S-061102-WP-091B*	*S-061102-WP-090C*	*S-061102-WP-092A*
Sample Time				*10:02*	*00:00*	*10:04*	*12:38*
Test Pit Reference Location				*South End*	*South End*	*South End*	*West End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*18*	*18*	*18*	*6*
Direction From Reference		*RHE*	*RHE*	*North*	*North*	*North*	*East*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*2-4 ft*	*4-5.5 ft*	*0-2 ft*
Comment					*Duplicate*		
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (7.4)	ND (7.5)	ND (3.9)	ND (10)
Benzo(a)anthracene	mg/Kg	1500	1160	46	46	14	ND (10)
Benzo(a)pyrene	mg/Kg	150	116	31	28	9.5	ND (10)
Benzo(b)fluoranthene	mg/Kg	1500	1160	44	32	15	ND (10)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (7.4)	ND (7.5)	ND (3.9)	ND (10)
Dibenzofuran	mg/Kg	NA	5390	37	31	11	ND (10)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	12	11	4.4	ND (10)
Naphthalene	mg/Kg	NA	48556	46	30	24	88
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	88.8	87.9	84.4	80.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-133*	*TP-133*	*TP-133*	*TP-133*
CRA Sample I.D.				*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*
Sample Date				*S-061102-WP-092B*	*S-061102-WP-092C*	*S-061102-WP-093A*	*S-061102-WP-093B*
Sample Time				*12:40*	*12:42*	*12:45*	*12:47*
Test Pit Reference Location				*West End*	*West End*	*West End*	*West End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*6*	*6*	*24*	*24*
Direction From Reference		*RHE*	*RHE*	*East*	*East*	*East*	*East*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*4-5.5 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (43)	ND (1)	ND (0.41)	ND (10)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (43)	ND (1)	1	16
Benzo(a)pyrene	mg/Kg	150	116	ND (43)	ND (1)	0.82	11
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (43)	ND (1)	1.6	12
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (43)	ND (1)	ND (0.41)	ND (10)
Dibenzofuran	mg/Kg	NA	5390	ND (43)	ND (1)	ND (0.41)	ND (10)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (43)	ND (1)	0.48	ND (10)
Naphthalene	mg/Kg	NA	48556	240	5.6	0.86	71
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	77.6	79.1	79.7	79.8

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-133*	*TP-133*	*TP-133*	*TP-133*
CRA Sample I.D.				*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*
Sample Date				*S-061102-WP-093C*	*S-061102-WP-094A*	*S-061102-WP-094B*	*S-061102-WP-094C*
Sample Time				*12:49*	*12:58*	*12:57*	*12:59*
Test Pit Reference Location				*West End*	*West End*	*West End*	*West End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*24*	*49*	*49*	*49*
Direction From Reference		*RHE*	*RHE*	*East*	*East*	*East*	*East*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-8.5 ft*	*0-2 ft*	*2-4 ft*	*4-8.5 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (6600)	ND (2.7)	ND (0.84)	ND (3500)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (6600)	13	1.6	ND (3500)
Benzo(a)pyrene	mg/Kg	150	116	ND (6600)	11	1.8	ND (3500)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (6600)	19	3.3	ND (3500)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (6600)	3.4	ND (0.84)	ND (3500)
Dibenzofuran	mg/Kg	NA	5390	ND (6600)	ND (2.7)	ND (0.84)	ND (3500)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (6600)	6.4	1.2	ND (3500)
Naphthalene	mg/Kg	NA	48556	230000	9.4	4.8	230000
Metals							
Arsenic	mg/Kg	2050	940	116	-	-	-
General Chemistry							
Total Solids	%	NA	NA	ND (10.0)	82.5	78.8	28.2

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-134*	*TP-134*	*TP-134*	*TP-134*
CRA Sample I.D.				*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*
Sample Date				*S-061102-WP-097A*	*S-061102-WP-097B*	*S-061102-WP-097C*	*S-061102-WP-098A*
Sample Time				*13:41*	*13:43*	*13:45*	*13:48*
Test Pit Reference Location				*West End*	*West End*	*West End*	*West End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*5*	*5*	*22*
Direction From Reference		*RHE*	*RHE*	*East*	*East*	*East*	*East*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*4-5 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (54)	ND (0.36)	ND (0.65)	ND (2.6)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (54)	1 J	6.1	7.9
Benzo(a)pyrene	mg/Kg	150	116	ND (54)	0.82 J	4.4	8.7
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (54)	1.4 J	6.2	17
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (54)	ND (0.36)	ND (0.65)	3
Dibenzofuran	mg/Kg	NA	5390	160	ND (0.36)	ND (0.65)	ND (2.6)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (54)	0.5 J	1.4	5.8
Naphthalene	mg/Kg	NA	48556	1300	0.66	ND (0.65)	4.2
Metals							
Arsenic	mg/Kg	2050	940	32.2	1210	121	47.1
General Chemistry							
Total Solids	%	NA	NA	81.8	92.2	67.2	83.1

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-134	TP-134	TP-134	TP-135
CRA Sample I.D.				6/11/2002	6/11/2002	6/11/2002	6/11/2002
Sample Date				S-061102-WP-098B	S-061102-WP-098C	S-061102-WP-099C	S-061102-WP-101A
Sample Time				13:50	13:51	13:53	14:15
Test Pit Reference Location				West End	West End	East End	West End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	22	22	5	5
Direction From Reference		*RHE*	*RHE*	East	East	West	East
Sample Interval (feet bgs)		*Criteria*	*Criteria*	2-4 ft	4-6 ft	4-6 ft	0-2 ft
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (4.2)	3.2	ND (0.97)	ND (0.75)
Benzo(a)anthracene	mg/Kg	1500	1160	12	ND (2)	5	3.4 J
Benzo(a)pyrene	mg/Kg	150	116	9.6	ND (2)	3.4	3.4
Benzo(b)fluoranthene	mg/Kg	1500	1160	14	ND (2)	6.5	5.2
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (4.2)	ND (2)	ND (0.97)	ND (0.75)
Dibenzofuran	mg/Kg	NA	5390	ND (4.2)	ND (2)	ND (0.97)	ND (0.75)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	5.1	ND (2)	2	1.5
Naphthalene	mg/Kg	NA	48556	35	17	2	1.3
Metals							
Arsenic	mg/Kg	2050	940	175	630	467	906
General Chemistry							
Total Solids	%	NA	NA	78.4	84.2	68.4	88.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-135*	*TP-135*	*TP-135*	*TP-136*
CRA Sample I.D.				*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*
Sample Date				*S-061102-WP-101B*	*S-061102-WP-102A*	*S-061102-WP-103A*	*S-061102-WP-104A*
Sample Time				*14:16*	*14:18*	*14:18*	*14:50*
Test Pit Reference Location				*West End*	*East End*	*East End*	*West End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*5*	*5*	*3*
Direction From Reference		*RHE*	*RHE*	*East*	*West*	*West*	*East*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*0-2 ft*	*0-2 ft*
Comment						*Duplicate*	
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.41)	ND (0.4)	ND (0.75)	ND (5)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.41)	2.2	3.4	37
Benzo(a)pyrene	mg/Kg	150	116	ND (0.41)	1.7	2.4	17
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.41)	3.1	4.4	28
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.41)	0.52	ND (0.75)	ND (5)
Dibenzofuran	mg/Kg	NA	5390	ND (0.41)	0.4	ND (0.75)	ND (5)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.41)	0.89	1.3	6
Naphthalene	mg/Kg	NA	48556	0.48	1.7	1.2	ND (5)
Metals							
Arsenic	mg/Kg	2050	940	273	64.2 J	35.8 J	-
General Chemistry							
Total Solids	%	NA	NA	79.9	83.2	88.4	82.1

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-136	TP-136	TP-136	TP-137
CRA Sample I.D.				6/11/2002	6/11/2002	6/11/2002	6/12/2002
Sample Date				S-061102-WP-104B	S-061102-WP-105A	S-061102-WP-105B	S-061202-WP-0106A
Sample Time				14:51	14:53	14:56	08:50
Test Pit Reference Location				West End	East End	East End	South End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	3	3	3	8
Direction From Reference		*RHE*	*RHE*	East	West	West	North
Sample Interval (feet bgs)		*Criteria*	*Criteria*	2-4 ft	0-2 ft	2-4 ft	0-2 ft
Comment							
Parameter	***Unit***						
			d				
Semi-Volatiles							
4 Methylphenol	mg/Kg	NA	6738	ND (0.46)	ND (0.39)	ND (1.9)	ND (4)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.46)	1.4	11	ND (4)
Benzo(a)pyrene	mg/Kg	150	116	ND (0.46)	1.1	8.1	ND (4)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.46)	2.1	10	ND (4)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.46)	ND (0.39)	ND (1.9)	ND (4)
Dibenzofuran	mg/Kg	NA	5390	ND (0.46)	ND (0.39)	3.6	ND (4)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.46)	0.64	2.6	ND (4)
Naphthalene	mg/Kg	NA	48556	0.46	ND (0.39)	5.8	ND (4)
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	
General Chemistry							
Total Solids	%	NA	NA	71.4	83.6	71.2	82.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-137*	*TP-138*	*TP-138*	*TP-138*
CRA Sample I.D.				*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
Sample Date				*S-061202-WP-0107A*	*S-061202-WP-0108A*	*S-061202-WP-0108B*	*S-061202-WP-0108C*
Sample Time				*08:50*	*09:15*	*09:18*	*09:20*
Test Pit Reference Location				*South End*	*North End*	*North End*	*North End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*4*	*4*	*4*
Direction From Reference		*RHE*	*RHE*	*North*	*South*	*South*	*South*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*0-2 ft*	*2-4 ft*	*4-5 ft*
Comment				*Duplicate*			
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (20)	ND (0.81)	0.58	17
Benzo(a)anthracene	mg/Kg	1500	1160	26	3.5	1.3	ND (16)
Benzo(a)pyrene	mg/Kg	150	116	21	3.3	1	ND (16)
Benzo(b)fluoranthene	mg/Kg	1500	1160	32	5.3	1.2	ND (16)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (20)	ND (0.81)	ND (0.44)	ND (16)
Dibenzofuran	mg/Kg	NA	5390	ND (20)	0.9	ND (0.44)	ND (16)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (20)	1.4	0.52	ND (16)
Naphthalene	mg/Kg	NA	48556	ND (20)	5.5	1.2	35
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	-
General Chemistry							
Total Solids	%	NA	NA	83.3	81.8	75.4	42.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-140	TP-140	TP-140	TP-141
CRA Sample I.D.				6/12/2002	6/12/2002	6/12/2002	6/12/2002
Sample Date				S-061202-WP-0110A	S-061202-WP-0110B	S-061202-WP-0110C	S-061202-WP-0112A
Sample Time				10:40	10:42	10:44	12:18
Test Pit Reference Location				South End	South End	South End	South End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	8	8	8	10
Direction From Reference		*RHE*	*RHE*	North	North	North	North
Sample Interval (feet bgs)		*Criteria*	*Criteria*	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (8.6)	ND (26)	27	32
Benzo(a)anthracene	mg/Kg	1500	1160	ND (8.6)	ND (26)	ND (19)	ND (8.1)
Benzo(a)pyrene	mg/Kg	150	116	ND (8.6)	ND (26)	ND (19)	ND (8.1)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (8.6)	ND (26)	ND (19)	ND (8.1)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (8.6)	ND (26)	ND (19)	ND (8.1)
Dibenzofuran	mg/Kg	NA	5390	ND (8.6)	ND (26)	ND (19)	ND (8.1)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (8.6)	ND (26)	ND (19)	ND (8.1)
Naphthalene	mg/Kg	NA	48556	ND (8.6)	ND (26)	150	57
Metals							
Arsenic	mg/Kg	2050	940	-	-	-	22.6
General Chemistry							
Total Solids	%	NA	NA	76.9	63.9	43.5	81.2

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-141*	*TP-141*	*TP-141*	*TP-142*
CRA Sample I.D.				*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
Sample Date				*S-061202-WP-0112B*	*S-061202-WP-0113A*	*S-061202-WP-0113B*	*S-061202-WP-0115A*
Sample Time				*12:17*	*12:25*	*12:27*	*13:20*
Test Pit Reference Location				*South End*	*North End*	*North End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*10*	*0*	*0*	*2*
Direction From Reference		*RHE*	*RHE*	*North*			*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	33	ND (40)	ND (8.6)	0.59
Benzo(a)anthracene	mg/Kg	1500	1160	ND (31)	ND (40)	ND (8.6)	2.2
Benzo(a)pyrene	mg/Kg	150	116	ND (31)	ND (40)	ND (8.6)	2.3
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (31)	ND (40)	ND (8.6)	3.9
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (31)	ND (40)	ND (8.6)	ND (0.41)
Dibenzofuran	mg/Kg	NA	5390	110	ND (40)	ND (8.6)	0.71
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (31)	ND (40)	ND (8.6)	0.72
Naphthalene	mg/Kg	NA	48556	2200	ND (40)	75	2
Metals							
Arsenic	mg/Kg	2050	940	256	534	369	947
General Chemistry							
Total Solids	%	NA	NA	53.1	82.5	76.9	80.0

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-142*	*TP-142*	*TP-142*	*TP-142*
CRA Sample I.D.				*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
Sample Date				*S-061202-WP-0115B*	*S-061202-WP-0116A*	*S-061202-WP-0116B*	*S-061202-WP-0117A*
Sample Time				*13:22*	*13:24*	*13:26*	*13:30*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*2*	*27*	*27*	*51*
Direction From Reference		*RHB*	*RHB*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.41)	ND (0.37)	ND (0.43)	ND (19)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.41)	1.7	ND (0.43)	ND (19)
Benzo(a)pyrene	mg/Kg	150	116	ND (0.41)	1.3	ND (0.43)	ND (19)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.41)	2.4	ND (0.43)	ND (19)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.41)	ND (0.37)	ND (0.43)	ND (19)
Dibenzofuran	mg/Kg	NA	5390	ND (0.41)	ND (0.37)	ND (0.43)	ND (19)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.41)	0.68	ND (0.43)	ND (19)
Naphthalene	mg/Kg	NA	48556	ND (0.41)	1.1	ND (0.43)	ND (19)
Metals							
Arsenic	mg/Kg	2050	940	21.4	141	135	464
General Chemistry							
Total Solids	%	NA	NA	80.0	88.3	77.5	85.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-142*	*TP-142*	*TP-143*	*TP-143*
CRA Sample I.D.				*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
Sample Date				*S-061202-WP-0118A*	*S-061202-WP-0117B*	*S-061202-WP-0119A*	*S-061202-WP-0119B*
Sample Time				*13:30*	*13:32*	*14:46*	*14:46*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*51*	*51*	*5*	*5*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*0-2 ft*	*2-4 ft*
Comment				*Duplicate*			
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (20)	17	ND (1.5)	ND (3.8)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (20)	19 J	1.5	ND (3.8)
Benzo(a)pyrene	mg/Kg	150	116	ND (20)	9.8	1.7	ND (3.8)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (20)	17	3.2	ND (3.8)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (20)	ND (9.3)	ND (1.5)	ND (3.8)
Dibenzofuran	mg/Kg	NA	5390	ND (20)	61 J	1.6	ND (3.8)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (20)	ND (9.3)	1.7	ND (3.8)
Naphthalene	mg/Kg	NA	48556	ND (20)	1100	11	32
Metals							
Arsenic	mg/Kg	2050	940	-	225	251	150
General Chemistry							
Total Solids	%	NA	NA	81.9	71.0	88.9	87.5

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-143	TP-143	TP-143	TP-143
CRA Sample I.D.				6/12/2002	6/12/2002	6/12/2002	6/12/2002
Sample Date				S-061202-WP-0119C	S-061202-WP-0120A	S-061202-WP-0120B	S-061202-WP-0120C
Sample Time				14:50	14:52	14:54	14:56
Test Pit Reference Location				East End	West End	West End	West End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	5	5	5	5
Direction From Reference		*RHE*	*RHE*	West	East	East	East
Sample Interval (feet bgs)		*Criteria*	*Criteria*	4-5 ft	0-2 ft	2-4 ft	4-6 ft
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (20)	ND (35)	ND (7.3)	ND (41)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (20)	ND (35)	ND (7.3)	ND (41)
Benzo(a)pyrene	mg/Kg	150	116	ND (20)	ND (35)	ND (7.3)	ND (41)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (20)	ND (35)	ND (7.3)	ND (41)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (20)	ND (35)	ND (7.3)	ND (41)
Dibenzofuran	mg/Kg	NA	5390	66	ND (35)	73 J	ND (41)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (20)	ND (35)	ND (7.3)	ND (41)
Naphthalene	mg/Kg	NA	48556	1500	200	2700	380
Metals							
Arsenic	mg/Kg	2050	940	92.8	71.9	220	16.6
General Chemistry							
Total Solids	%	NA	NA	82.8	94.1	90.1	80.7

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-144*	*TP-144*	*TP-144*	*TP-144*
CRA Sample I.D.				*6/13/2002*	*6/13/2002*	*6/13/2002*	*6/13/2002*
Sample Date				*S-061302-WP-0122A*	*S-061302-WP-0123A*	*S-061302-WP-0122B*	*S-061302-WP-0124A*
Sample Time				*08:25*	*08:25*	*08:33*	*08:32*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*4*	*4*	*4*	*18*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment					*Duplicate*		
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (2.5)	ND (2.6)	ND (1.8)	-
Benzo(a)anthracene	mg/Kg	1500	1160	5.7	11	6.7	-
Benzo(a)pyrene	mg/Kg	150	116	7.1	12	6.8	-
Benzo(b)fluoranthene	mg/Kg	1500	1160	12	17	11	-
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (2.5)	3.6	1.8	-
Dibenzofuran	mg/Kg	NA	5390	3.8	3.6	2.2	-
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	5.9	8.6	4.8	-
Naphthalene	mg/Kg	NA	48556	18	16	12	-
Metals							
Arsenic	mg/Kg	2050	940	1290 J	1850 J	1200 J	250 J
General Chemistry							
Total Solids	%	NA	NA	86.9	83.7	72.9	89.9

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-144	TP-144	TP-144	TP-145
CRA Sample I.D.				6/13/2002	6/13/2002	6/13/2002	6/13/2002
Sample Date				S-061302-WP-0124B	S-061302-WP-0124C	S-061302-WP-0125C	S-061302-WP-0127A
Sample Time				08:34	08:36	08:40	09:18
Test Pit Reference Location				East End	East End	West End	East End
Distance From Reference (feet)		Commercial/Industrial	Utility/Construction	18	18	28	0
Direction From Reference		RHE	RHE	West	West	East	
Sample Interval (feet bgs)		Criteria	Criteria	2-4 ft	4-6 ft	4-6 ft	0-2 ft
Comment							
Parameter	***Unit***						
			d				
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	-	-	ND (99)	-
Benzo(a)anthracene	mg/Kg	1500	1160	-	-	ND (99)	
Benzo(a)pyrene	mg/Kg	150	116	-	-	ND (99)	-
Benzo(b)fluoranthene	mg/Kg	1500	1160	-	-	ND (99)	-
Dibenz(a,h)anthracene	mg/Kg	150	116	-	-	ND (99)	-
Dibenzofuran	mg/Kg	NA	5390	-	-	ND (99)	-
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	-	-	ND (99)	-
Naphthalene	mg/Kg	NA	48556	-	-	730	-
Metals							
Arsenic	mg/Kg	2050	940	8010 J	3150 J	-	712 J
General Chemistry							
Total Solids	%	NA	NA	74.7	88.2	83.2	85.4

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-145*	*TP-145*	*TP-145*	*TP-145*
CRA Sample I.D.				*6/13/2002*	*6/13/2002*	*6/13/2002*	*6/13/2002*
Sample Date				*S-061302-WP-0127B*	*S-061302-WP-0127C*	*S-061302-WP-0128A*	*S-061302-WP-0128B*
Sample Time				*09:20*	*09:22*	*09:40*	*09:42*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*0*	*0*	*37*	*37*
Direction From Reference		*RHE*	*RHE*			*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*4-5.5 ft*	*0-2 ft*	*2-4 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	-	-	ND (0.39)	ND (0.38)
Benzo(a)anthracene	mg/Kg	1500	1160	-	-	ND (0.39)	1.3
Benzo(a)pyrene	mg/Kg	150	116	-	-	ND (0.39)	1.2
Benzo(b)fluoranthene	mg/Kg	1500	1160	-	-	ND (0.39)	2
Dibenz(a,h)anthracene	mg/Kg	150	116	-	-	ND (0.39)	ND (0.38)
Dibenzofuran	mg/Kg	NA	5390	-	-	ND (0.39)	ND (0.38)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	-	-	ND (0.39)	0.79
Naphthalene	mg/Kg	NA	48556	-	-	ND (0.39)	0.45
Metals							
Arsenic	mg/Kg	2050	940	6100 J	649 J	167 J	194 J
General Chemistry							
Total Solids	%	NA	NA	74.5	77.7	85.4	86.3

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-148*	*TP-148*	*TP-148*	*TP-148*
CRA Sample I.D.				*6/13/2002*	*6/13/2002*	*6/13/2002*	*6/13/2002*
Sample Date				*S-061302-WP-0128C*	*S-061302-WP-0129A*	*S-061302-WP-0129B*	*S-061302-WP-0129C*
Sample Time				*09:44*	*10:04*	*10:07*	*10:10*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*37*	*64*	*64*	*64*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*4-8.5 ft*	*0-2 ft*	*2-4 ft*	*4-8.5 ft*
Comment							
Parameter	**Unit**						
			d				
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (67)	ND (0.37)	ND (2.6)	ND (110)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (67)	1.9	ND (2.6)	120
Benzo(a)pyrene	mg/Kg	150	116	ND (67)	1.6	ND (2.6)	ND (110)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (67)	2.4	ND (2.6)	ND (110)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (67)	0.53	ND (2.6)	ND (110)
Dibenzofuran	mg/Kg	NA	5390	ND (67)	0.4	ND (2.6)	200
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (67)	1.2	ND (2.6)	ND (110)
Naphthalene	mg/Kg	NA	48556	550	1.7	19	1100
Metals							
Arsenic	mg/Kg	2050	940	1880 J	149 J	93.9 J	467 J
General Chemistry							
Total Solids	%	NA	NA	48.9	88.3	86.0	75.6

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-146*	*TP-146*	*TP-146*	*TP-146*
CRA Sample I.D.				*6/13/2002*	*6/13/2002*	*6/13/2002*	*6/13/2002*
Sample Date				*S-061302-WP-0130A*	*S-061302-WP-0130B*	*S-061302-WP-0130C*	*S-061302-WP-0131A*
Sample Time				*10:33*	*10:35*	*10:37*	*11:30*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*4*	*4*	*4*	*33*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*4-6 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	-	-	-	-
Benzo(a)anthracene	mg/Kg	1500	1160	-	-	-	-
Benzo(a)pyrene	mg/Kg	150	116	-	-	-	-
Benzo(b)fluoranthene	mg/Kg	1500	1160	-	-	-	-
Dibenz(a,h)anthracene	mg/Kg	150	116	-	-	-	-
Dibenzofuran	mg/Kg	NA	5390	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	-	-	-	-
Naphthalene	mg/Kg	NA	48556	-	-	-	-
Metals							
Arsenic	mg/Kg	2050	940	101 J	652 J	3050 J	168 J
General Chemistry							
Total Solids	%	NA	NA	79.8	65.0	60.8	82.4

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-146	TP-146	TP-146	TP-146
CRA Sample I.D.				6/13/2002	6/13/2002	6/13/2002	6/13/2002
Sample Date				S-061302-WP-01318	S-061302-WP-0132A	S-061302-WP-01328	S-061302-WP-0132C
Sample Time				10:42	11:04	11:07	11:10
Test Pit Reference Location				East End	East End	East End	East End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	33	87	87	87
Direction From Reference		*RHE*	*RHE*	West	West	West	West
Sample Interval (feet bgs)		*Criteria*	*Criteria*	3- ft	0-2 ft	2-4 ft	4-5 ft
Comment							
Parameter	**Unit**						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	-	ND (16)	ND (2100)	ND (5000)
Benzo(a)anthracene	mg/Kg	1500	1160	-	ND (16)	ND (2100)	ND (5000)
Benzo(a)pyrene	mg/Kg	150	116	-	ND (16)	ND (2100) [4ra]	ND (5000) [1ra]
Benzo(b)fluoranthene	mg/Kg	1500	1160	-	ND (16)	ND (2100)	ND (5000)
Dibenz(a,h)anthracene	mg/Kg	150	116	-	ND (16)	ND (2100)	ND (5000)
Dibenzofuran	mg/Kg	NA	5390	-	ND (16)	ND (2100)	ND (5000)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	-	ND (16)	ND (2100)	ND (5000)
Naphthalene	mg/Kg	NA	48556	-	110	10000	43000
Metals							
Arsenic	mg/Kg	2050	940	535 J	102 J	206 J	1940 J
General Chemistry							
Total Solids	%	NA	NA	52.7	81.4	77.2	65.9

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-147*	*TP-147*	*TP-147*	*TP-147*
CRA Sample I.D.				*6/13/2002*	*6/13/2002*	*6/13/2002*	*6/13/2002*
Sample Date				*S-061302-WP-0136B*	*S-061302-WP-0137A*	*S-061302-WP-0138A*	*S-061302-WP-0137B*
Sample Time				*12:43*	*13:02*	*13:02*	*13:06*
Test Pit Reference Location				*East End*	*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*4*	*40*	*40*	*40*
Direction From Reference		*RHE*	*RHE*	*West*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*0-2 ft*	*2-4 ft*
Comment						*Duplicate*	
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.51)	ND (0.43)	ND (0.43)	ND (0.68)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.51)	1.7	1.8	0.7
Benzo(a)pyrene	mg/Kg	150	116	ND (0.51)	1.7	1.8	ND (0.68)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.51)	2.5	4	ND (0.68)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.51)	0.52	0.69	ND (0.68)
Dibenzofuran	mg/Kg	NA	5390	ND (0.51)	0.62	0.68	4.1
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.51)	1.1	1.5	ND (0.68)
Naphthalene	mg/Kg	NA	48556	ND (0.51)	3.9	4.9	81
Metals							
Arsenic	mg/Kg	2050	940	816 J	82.6 J	91.2 J	1270 J
General Chemistry							
Total Solids	%	NA	NA	64.4	77.1	76.0	48.8

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				TP-148	TP-148	TP-148	TP-150
CRA Sample I.D.				6/13/2002	6/13/2002	6/13/2002	6/14/2002
Sample Date				S-061302-WP-0142A	S-061302-WP-0142B	S-061302-WP-0142C	S-061402-WP-0144A
Sample Time				14:08	14:10	14:12	09:00
Test Pit Reference Location				East End	East End	East End	East End
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	4	4	4	8
Direction From Reference		*RHI*	*RHI*	West	West	West	West
Sample Interval (feet bgs)		*Criteria*	*Criteria*	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft
Comment							
Parameter	***Unit***						
			d				
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (0.38)	ND (0.39)	ND (3.8)	ND (0.4)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.38)	ND (0.39)	ND (3.8)	0.75
Benzo(a)pyrene	mg/Kg	150	116	ND (0.38)	ND (0.39)	ND (3.8)	0.62
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.38)	ND (0.39)	ND (3.8)	1
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.38)	ND (0.39)	ND (3.8)	ND (0.4)
Dibenzofuran	mg/Kg	NA	5390	ND (0.38)	ND (0.39)	ND (3.8)	ND (0.4)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.38)	ND (0.39)	ND (3.8)	ND (0.4)
Naphthalene	mg/Kg	NA	48556	ND (0.38)	ND (0.39)	24	ND (0.4)
Metals							
Arsenic	mg/Kg	2050	940	129 J	163 J	34.3 J	369
General Chemistry							
Total Solids	%	NA	NA	87.4	83.6	87.2	83.4

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-150*	*TP-150*	*TP-150*	*TP-151*
CRA Sample I.D.				*6/14/2002*	*6/14/2002*	*6/14/2002*	*6/14/2002*
Sample Date				*S-061402-WP-0144B*	*S-061402-WP-0145A*	*S-061402-WP-0145B*	*S-061402-WP-0146A*
Sample Time				*09:02*	*09:04*	*09:06*	*09:40*
Test Pit Reference Location				*East End*	*West End*	*West End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*5*	*5*	*5*
Direction From Reference		*RHE*	*RHE*	*West*	*East*	*East*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*2-4 ft*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment							
Parameter	***Unit***						
Semi-Volatiles							
4-Methylphenol	mg/Kg	NA	6738	ND (11)	ND (2.7)	ND (2300)	ND (0.38)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (11)	4.7	ND (2300)	ND (0.38)
Benzo(a)pyrene	mg/Kg	150	116	ND (11)	3	ND (2300)	ND (0.38)
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (11)	5.5	ND (2300)	ND (0.38)
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (11)	ND (2.7)	ND (2300)	ND (0.38)
Dibenzofuran	mg/Kg	NA	5390	ND (11)	ND (2.7)	ND (2300)	ND (0.38)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (11)	ND (2.7)	ND (2300)	ND (0.38)
Naphthalene	mg/Kg	NA	48556	64	17	17000	ND (0.38)
Metals							
Arsenic	mg/Kg	2050	940	3260	59.5	32.3	838
General Chemistry							
Total Solids	%	NA	NA	61.8	80.1	72.7	86.1

TABLE 1

ANALYTICAL RESULTS SUMMARY - TEST PITS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT

Sample Source				*TP-181*	*TP-181*	*TP-181*
CRA Sample I.D.				*6/14/2002*	*6/14/2002*	*6/14/2002*
Sample Date				*S-061402-WP-0147A*	*S-061402-WP-0146B*	*S-061402-WP-0148A*
Sample Time				*09:40*	*09:42*	*10:08*
Test Pit Reference Location				*East End*	*East End*	*East End*
Distance From Reference (feet)		*Commercial/Industrial*	*Utility/Construction*	*5*	*5*	*41*
Direction From Reference		*RHI*	*RHI*	*West*	*West*	*West*
Sample Interval (feet bgs)		*Criteria*	*Criteria*	*0-2 ft*	*2-4 ft*	*0-2 ft*
Comment				*Duplicate*		
Parameter	***Unit***					
Semi-Volatiles						
4-Methylphenol	mg/Kg	NA	6738	ND (0.38)	ND (10)	ND (1.8)
Benzo(a)anthracene	mg/Kg	1500	1160	ND (0.38)	53 J	7.8
Benzo(a)pyrene	mg/Kg	150	116	ND (0.38)	37 J	6.8
Benzo(b)fluoranthene	mg/Kg	1500	1160	ND (0.38)	60 J	10
Dibenz(a,h)anthracene	mg/Kg	150	116	ND (0.38)	ND (10)	ND (1.8)
Dibenzofuran	mg/Kg	NA	5390	ND (0.38)	21 J	ND (1.8)
Indeno(1,2,3-cd)pyrene	mg/Kg	1500	1160	ND (0.38)	12 J	3.2
Naphthalene	mg/Kg	NA	48556	ND (0.38)	22	ND (1.8)
Metals						
Arsenic	mg/Kg	2050	940	771	266	43.0
General Chemistry						
Total Solids	%	NA	NA	86.3	63.4	73.2

Notes:
J - The associated value is an estimated quantity. (Inorganics)
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. (Organics)
ND - Non-detect at associated value.
- - Not applicable.

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	*SB-200*	*SB-200*	*SB-201*	*SB-201*	*SB-202*	*SB-202*
			CRA Sample I.D.	*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*	*6/11/2002*
			Sample Date	*S-061102-WP-200*	*S-061102-WP-201*	*S-061102-WP-202*	*S-061102-WP-203*	*S-061102-WP-204*	*S-061102-WP-205*
			Sample Time	*09:10*	*09:15*	*09:40*	*09:45*	*10:05*	*10:15*
		Commercial/ Industrial RHE Criteria	*Utility/ Construction RHE Criteria*	*1-2 ft*	*2-4 ft*	*1-2 ft*	*2-4 ft*	*1-2 ft*	*2-3.5 ft*
Parameter	***Unit***								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	1500	1160	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	150	116	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	1500	1160	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	150	116	-	-	-	-	-	-
Dibenzofuran	mg/kg	NA	5390	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	-	-	-	-	-	-
Naphthalene	mg/kg	NA	48556	-	-	-	-	-	-
Metals									
Arsenic	mg/kg	2050	940	223	583	11300	1630	3140	3570
General Chemistry									
Total Solids	%	NA	NA	67.6	75.7	78.8	75.7	96.5	78.0

TABLE 2

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	SB-203	SB-203	SB-203	SB-204	SB-204	SB-205
			CRA Sample I.D.	6/11/2002	6/11/2002	6/11/2002	6/11/2002	6/11/2002	6/11/2002
			Sample Date	S-061102-WP-206	S-061102-WP-207	S-061102-WP-208	S-061102-WP-210	S-061102-WP-211	S-061102-WP-213
			Sample Time	10:25	10:27	10:30	12:15	12:20	12:40
		Commercial/ Industrial RHE Criteria	*Utility/ Construction RHE Criteria*	1-2 ft	1-2 ft Duplicate	2-4 ft	1-2 ft	2-3 ft	1-2 ft
Parameter	Unit								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	-	-	-	-	-	
Benzo(a)anthracene	mg/kg	1500	1160	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	150	116	-	-	-	-		
Benzo(b)fluoranthene	mg/kg	1500	1160	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	150	116	-	-	-	-	-	-
Dibenzofuran	mg/kg	NA	5390	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	-	-	-	-	-	-
Naphthalene	mg/kg	NA	48556	-	-	-	-	-	-
Metals									
Arsenic	mg/kg	2050	940	8.1	6.7	53.2	32.5	1620	191
General Chemistry									
Total Solids	%	NA	NA	88.6	82.1	84.4	74.8	77.6	84.9

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	*SB-205*	*SB-206*	*SB-206*	*SB-207*	*SB-207*	*SB-208*
			CRA Sample I.D.	*6/11/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
			Sample Date	*S-061102-WP-214*	*S-061202-WP-215*	*S-061202-WP-216*	*S-061202-WP-217*	*S-061202-WP-218*	*S-061202-WP-219*
			Sample Time	*12:45*	*09:15*	*09:18*	*09:25*	*09:30*	*09:37*
		Commercial/ Industrial RHE Criteria	*Utility/ Construction RHE Criteria*	*2-3.5 ft*	*1-2 ft*	*2-4 ft*	*1-2 ft*	*2-3 ft*	*1-2 ft*
Parameter	***Unit***								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	-	ND (0.39)	ND (0.41)	ND (0.39)	ND (250)	ND (0.37)
Benzo(a)anthracene	mg/kg	1500	1160	-	ND (0.39)	ND (0.41)	ND (0.39)	2900	ND (0.37)
Benzo(a)pyrene	mg/kg	150	116	-	ND (0.39)	ND (0.41)	ND (0.39)	2300	ND (0.37)
Benzo(b)fluoranthene	mg/kg	1500	1160	-	ND (0.39)	ND (0.41)	ND (0.39)	3100	ND (0.37)
Dibenz(a,h)anthracene	mg/kg	150	116	-	ND (0.39)	ND (0.41)	ND (0.39)	320	ND (0.37)
Dibenzofuran	mg/kg	NA	5390	-	ND (0.39)	ND (0.41)	ND (0.39)	ND (250)	ND (0.37)
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	-	ND (0.39)	ND (0.41)	ND (0.39)	910	ND (0.37)
Naphthalene	mg/kg	NA	48556	-	ND (0.39)	ND (0.41)	ND (0.39)	ND (250)	ND (0.37)
Metals									
Arsenic	mg/kg	2050	940	147	-	-	-	-	-
General Chemistry									
Total Solids	%	NA	NA	80.9	84.7	80.2	84.4	58.4	88.3

TABLE 2

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	*SB-208*	*SB-209*	*SB-210*	*SB-210*	*SB-211*	*SB-211*
			CRA Sample I.D.	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
			Sample Date	*S-061202-WP-220*	*S-061202-WP-222*	*S-061202-WP-223*	*S-061202-WP-224*	*S-061202-WP-225*	*S-061202-WP-226*
			Sample Time	*09:40*	*09:58*	*10:20*	*10:30*	*10:40*	*10:45*
		Commercial/ Industrial RIIE Criteria	*Utility/ Construction RIIE Criteria*	*2-3.5 ft*	*2-3 ft*	*1-2 ft*	*5-6 ft*	*1-2 ft*	*3-5 ft*
Parameter	**Unit**								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	ND (0.38)	ND (5400)	ND (180)	ND (4)	ND (0.38)	ND (0.38)
Benzo(a)anthracene	mg/kg	1500	1160	ND (0.38)	ND (5400)	1100	4.1	ND (0.38)	ND (0.38)
Benzo(a)pyrene	mg/kg	150	116	ND (0.38)	ND (5400)	720	ND (4)	ND (0.38)	ND (0.38)
Benzo(b)fluoranthene	mg/kg	1500	1160	ND (0.38)	ND (5400)	1000	ND (4)	ND (0.38)	ND (0.38)
Dibenz(a,h)anthracene	mg/kg	150	116	ND (0.38)	ND (5400)	ND (180)	ND (4)	ND (0.38)	ND (0.38)
Dibenzofuran	mg/kg	NA	5390	ND (0.38)	ND (5400)	640	4.2	ND (0.38)	ND (0.38)
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	ND (0.38)	ND (5400)	330	ND (4)	ND (0.38)	ND (0.38)
Naphthalene	mg/kg	NA	48556	ND (0.38)	29000	1400	23	ND (0.38)	0.85
Metals									
Arsenic	mg/kg	2050	940	-	-	-	-	-	-
General Chemistry									
Total Solids	%	NA	NA	86.2	86.0	90.1	82.7	86.4	87.4

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	*SB-212*	*SB-212*	*SB-212*	*SB-213*	*SB-214*	*SB-214*
			CRA Sample I.D.	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
			Sample Date	*S-061202-WP-227*	*S-061202-WP-228*	*S-061202-WP-229*	*S-061202-WP-230*	*S-061202-WP-231*	*S-061202-WP-232*
			Sample Time	*11:00*	*11:03*	*11:05*	*11:15*	*12:35*	*12:40*
		Commercial/ Industrial RHE Criteria	*Utility/ Construction RHE Criteria*	*1-3 ft*	*1-3 ft Duplicate*	*3-5 ft*	*1-3 ft*	*1-3 ft*	*4-5 ft*
Parameter	*Unit*								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	ND (4.4)	ND (9.3)	ND (8.1)	ND (35)	ND (93)	0.99
Benzo(a)anthracene	mg/kg	1500	1160	12	26	10	170	510	0.47
Benzo(a)pyrene	mg/kg	150	116	7.8	18	ND (8.1)	130	410	0.48
Benzo(b)fluoranthene	mg/kg	1500	1160	11	25	9.2	170	590	0.86
Dibenz(a,h)anthracene	mg/kg	150	116	ND (4.4)	ND (9.3)	ND (8.1)	ND (35)	ND (93)	ND (0.43)
Dibenzofuran	mg/kg	NA	5390	5.7	12	9.8	40	290	0.9
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	ND (4.4)	ND (9.3)	ND (8.1)	52	170	ND (0.43)
Naphthalene	mg/kg	NA	48556	41 J	77 J	65	ND (35)	270	2.5
Metals									
Arsenic	mg/kg	2050	940	-	-	-	-	-	-
General Chemistry									
Total Solids	%	NA	NA	93.0	88.5	81.5	94.1	88.3	76.1

TABLE 2

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	SB-215	SB-215	SB-216	SB-217	SB-218	SB-218
			CRA Sample I.D.	6/12/2002	6/12/2002	6/12/2002	6/12/2002	6/12/2002	6/12/2002
			Sample Date	S-061202-WP-233	S-061202-WP-234	S-061202-WP-235	S-061202-WP-237	S-061202-WP-238	S-061202-WP-239
			Sample Time	12:47	12:50	13:10	13:30	13:40	13:45
		Commercial/ Industrial	Utility/ Construction						
		RHE	RHE						
		Criteria	Criteria	1-3 ft	4-5 ft	4-5 ft	2-4 ft	2-2.5 ft	4.5-5.5 ft
Parameter	*Unit*								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	ND (0.39)	ND (0.77)	ND (2)	ND (0.55)	ND (3.5)	ND (20)
Benzo(a)anthracene	mg/kg	1500	1160	ND (0.39)	ND (0.77)	ND (2)	ND (0.55)	13	110
Benzo(a)pyrene	mg/kg	150	116	ND (0.39)	ND (0.77)	ND (2)	ND (0.55)	11	84
Benzo(b)fluoranthene	mg/kg	1500	1160	ND (0.39)	ND (0.77)	ND (2)	ND (0.55)	13	110
Dibenz(a,h)anthracene	mg/kg	150	116	ND (0.39)	ND (0.77)	ND (2)	ND (0.55)	ND (3.5)	ND (20)
Dibenzofuran	mg/kg	NA	5390	ND (0.39)	0.84	4.2	ND (0.55)	7.5	110
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	ND (0.39)	ND (0.77)	ND (2)	ND (0.55)	4.9	34
Naphthalene	mg/kg	NA	48556	ND (0.39)	5	15	ND (0.55)	18	ND (20)
Metals									
Arsenic	mg/kg	2050	940	-	-	-	-	-	-
General Chemistry									
Total Solids	%	NA	NA	84.3	85.8	82.1	59.7	95.6	82.1

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	*SB-219*	*SB-219*	*SB-220*	*SB-220*	*SB-220*	*SB-221*
			CRA Sample I.D.	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
			Sample Date	*S-061202-WP-240*	*S-061202-WP-241*	*S-061202-WP-242*	*S-061202-WP-243*	*S-061202-WP-244*	*S-061202-WP-245*
			Sample Time	*14:00*	*14:05*	*14:15*	*14:20*	*14:25*	*14:35*
		Commercial/ Industrial RHE Criteria	*Utility/ Construction RHE Criteria*	*2-4 ft*	*4-6 ft*	*1-3 ft*	*3-5 ft*	*3-5 ft Duplicate*	*1.5-3.5 ft*
Parameter	*Unit*								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	ND (0.41)	3.4	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Benzo(a)anthracene	mg/kg	1500	1160	ND (0.41)	ND (0.45)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Benzo(a)pyrene	mg/kg	150	116	ND (0.41)	ND (0.45)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Benzo(b)fluoranthene	mg/kg	1500	1160	0.46	ND (0.45)	ND (0.38)	ND (0.38)	0.73	ND (0.38)
Dibenz(a,h)anthracene	mg/kg	150	116	ND (0.41)	ND (0.45)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dibenzofuran	mg/kg	NA	5390	ND (0.41)	ND (0.45)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	ND (0.41)	ND (0.45)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Naphthalene	mg/kg	NA	48556	ND (0.41)	2.7	0.59	ND (0.38)	ND (0.38)	ND (0.38)
Metals									
Arsenic	mg/kg	2050	940	-	-	-	-	-	-
General Chemistry									
Total Solids	%	NA	NA	80.7	73.2	86.3	86.2	85.7	85.9

TABLE 2

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	*SB-222*	*SB-222*	*SB-223*	*SB-223*	*SB-224*	*SB-224*
			CRA Sample I.D.	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*	*6/12/2002*
			Sample Date	*S-061202-WP-246*	*S-061202-WP-247*	*S-061202-WP-249*	*S-061202-WP-250*	*S-061202-WP-251*	*S-061202-WP-252*
			Sample Time	*14:50*	*14:55*	*15:10*	*15:15*	*15:25*	*15:30*
		Commercial/ Industrial	*Utility/ Construction*						
		RHE	*RHE*						
		Criteria	*Criteria*	*1-2 ft*	*3-5 ft*	*1-3 ft*	*3-5 ft*	*1.5-3 ft*	*3-4.5 ft*
Parameter	***Unit***								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	ND (0.41)	ND (0.45)	ND (94)	ND (200)	ND (4.8)	ND (7.7)
Benzo(a)anthracene	mg/kg	1500	1160	ND (0.41)	ND (0.45)	140	ND (200)	5.8	ND (7.7)
Benzo(a)pyrene	mg/kg	150	116	ND (0.41)	ND (0.45)	ND (94)	ND (200)	ND (4.8)	ND (7.7)
Benzo(b)fluoranthene	mg/kg	1500	1160	ND (0.41)	ND (0.45)	130	ND (200)	6.2	ND (7.7)
Dibenz(a,h)anthracene	mg/kg	150	116	ND (0.41)	ND (0.45)	ND (94)	ND (200)	ND (4.8)	ND (7.7)
Dibenzofuran	mg/kg	NA	5390	ND (0.41)	ND (0.45)	130	250	ND (4.8)	ND (7.7)
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	ND (0.41)	ND (0.45)	ND (94)	ND (200)	ND (4.8)	ND (7.7)
Naphthalene	mg/kg	NA	48556	ND (0.41)	ND (0.45)	980	1500	39	43
Metals									
Arsenic	mg/kg	2050	940	-	-	-	-	-	-
General Chemistry									
Total Solids	%	NA	NA	80.6	73.5	70.0	67.2	86.7	85.7

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	*SB-225*	*SB-225*	*SB-226*	*SB-226*	*SB-227*	*SB-228*
			CRA Sample I.D.	*6/12/2002*	*6/12/2002*	*6/14/2002*	*6/14/2002*	*6/14/2002*	*6/14/2002*
			Sample Date	*S-061202-WP-253*	*S-061202-WP-254*	*S-061402-WP-255*	*S-061402-WP-256*	*S-061402-WP-257*	*S-061402-WP-258*
			Sample Time	*15:35*	*15:40*	*08:25*	*08:30*	*08:40*	*08:50*
		Commercial/ Industrial RHE Criteria	*Utility/ Construction RHE Criteria*	*1-3 ft*	*4-5 ft*	*1-3 ft*	*3-5 ft*	*2-4 ft*	*1.5-3.5 ft*
Parameter	*Unit*								
Semi-Volatiles									
4-Methylphenol	mg/kg	NA	6738	ND (0.41)	ND (4.5)	ND (2)	ND (0.41)	ND (0.38)	ND (0.41)
Benzo(a)anthracene	mg/kg	1500	1160	0.98	13	3.5	ND (0.41)	ND (0.38)	ND (0.41)
Benzo(a)pyrene	mg/kg	150	116	1	9.6	2.7	ND (0.41)	ND (0.38)	ND (0.41)
Benzo(b)fluoranthene	mg/kg	1500	1160	1.7	14	4.8	ND (0.41)	ND (0.38)	0.56
Dibenz(a,h)anthracene	mg/kg	150	116	ND (0.41)	ND (4.5)	ND (2)	ND (0.41)	ND (0.38)	ND (0.41)
Dibenzofuran	mg/kg	NA	5390	ND (0.41)	22	ND (2)	ND (0.41)	ND (0.38)	ND (0.41)
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	0.59	ND (4.5)	ND (2)	ND (0.41)	ND (0.38)	ND (0.41)
Naphthalene	mg/kg	NA	48556	0.45	33	ND (2)	ND (0.41)	ND (0.38)	ND (0.41)
Metals									
Arsenic	mg/kg	2050	940	-	-	-	-	-	-
General Chemistry									
Total Solids	%	NA	NA	79.6	73.9	66.2	81.4	86.8	80.9

TABLE 2

ANALYTICAL RESULTS SUMMARY - SOIL BORINGS
SOIL PRE-DESIGN STUDY SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

			Sample Source	*SB-229*	*SB-230*	*SB-231*	*SB-231*	*SB-232*
			CRA Sample I.D.	*6/14/2002*	*6/14/2002*	*6/14/2002*	*6/14/2002*	*6/14/2002*
			Sample Date	*S-061402-WP-259*	*S-061402-WP-260*	*S-061402-WP-261*	*S-061402-WP-262*	*S-061402-WP-263*
			Sample Time	*09:05*	*09:20*	*09:40*	*09:45*	*10:10*
		Commercial/ Industrial RIIE Criteria	*Utility/ Construction RIIE Criteria*	*1-3 ft*	*2-4 ft*	*1-3 ft*	*4-5 ft*	*2-4 ft*
Parameter	***Unit***							
Semi-Volatiles								
4-Methylphenol	mg/kg	NA	6738	ND (0.38)	ND (7.7)	ND (2.4)	ND (26)	1.6
Benzo(a)anthracene	mg/kg	1500	1160	ND (0.38)	38	3.1	100	3.5
Benzo(a)pyrene	mg/kg	150	116	ND (0.38)	29	ND (2.4)	71	2.7
Benzo(b)fluoranthene	mg/kg	1500	1160	ND (0.38)	42	3.2	96	4.1
Dibenz(a,h)anthracene	mg/kg	150	116	ND (0.38)	ND (7.7)	ND (2.4)	ND (26)	0.46
Dibenzofuran	mg/kg	NA	5390	ND (0.38)	16	ND (2.4)	93	ND (0.4)
Indeno(1,2,3-cd)pyrene	mg/kg	1500	1160	ND (0.38)	13	ND (2.4)	31	1.3
Naphthalene	mg/kg	NA	48556	0.53	ND (7.7)	15	220	1.9
Metals								
Arsenic	mg/kg	2050	940	-	-	-	-	-
General Chemistry								
Total Solids	%	NA	NA	85.7	85.7	93.5	79.3	82.2

Notes:

J - The associated value is an estimated quantity. (Inorganics)

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. (Organics)

ND - Non-detect at associated value.

- - Not applicable.

ANALYTICAL RESULTS SUMMARY
WASTE CHARACTERIZATION SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

		Designated Soil Stockpile Samples				PAH Soil Investigation Zone 6		
Sample Location:		SB-233	SB-234	SB-235	SB-236	TP-121	TP-124	TP-127
Sample ID:		S-061402-WP-264	S-061402-WP-266	S-061402-WP-268	S-061402-WP-270	S-060702-WP-060	S-061002-WP-071	S-061002-WP-081
Sample Date:		6/14/2002	6/14/2002	6/14/2002	6/14/2002	6/7/2002	6/10/2002	6/10/2002
Sample Time:		11:42	12:01	12:13	00:00	11:35	08:17	11:55
Sample Type		Soil	Soil	Soil	Soil	Soil	Tar	Tar-Saturated Sand
Parameter	Unit							
TCLP Volatiles								
1,1-Dichloroethene	mg/L	ND (0.070)	ND (0.070)	ND (0.070)	ND (0.070)	ND (0.070)	ND (0.47)	ND (0.47)
1,2-Dichloroethane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.17)	ND (0.17)
2-Butanone	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.33)	ND (0.33)
Benzene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	0.11	1.5	1.8
Carbon tetrachloride	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.17)	ND (0.17)
Chlorobenzene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.17)	ND (0.17)
Chloroform (Trichloromethane)	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.17)	ND (0.17)
Tetrachloroethene	mg/L	ND (0.070)	ND (0.070)	ND (0.070)	ND (0.070)	ND (0.070)	ND (0.47)	ND (0.47)
Trichloroethene	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.33)	ND (0.33)
Vinyl chloride	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.33)	ND (0.33)
TCLP Semi-Volatiles								
1,4-Dichlorobenzene	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.20)	ND (20)	ND (0.25)
2,4,5-Trichlorophenol	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.20)	ND (20)	ND (0.25)
2,4,6-Trichlorophenol	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.20)	ND (20)	ND (0.25)
2,4-Dinitrotoluene	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.20)	ND (20)	ND (0.25)
2-Methylphenol	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	0.33	ND (20)	ND (0.25)
3&4-Methylphenol	mg/L	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.40)	ND (40)	ND (0.50)
Hexachlorobenzene	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.20)	ND (20)	ND (0.25)
Hexachlorobutadiene	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.20)	ND (20)	ND (0.25)
Hexachloroethane	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.20)	ND (20)	ND (0.25)
Nitrobenzene	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.20)	ND (20)	ND (0.25)
Pentachlorophenol	mg/L	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.40)	ND (40)	ND (0.50)
Pyridine	mg/L	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.40)	ND (40)	ND (0.50)
TCLP Metals								
Arsenic	mg/L	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Barium	mg/L	ND (10.0)	ND (10.0)	ND (10.0)	ND (10.0)	ND (10.0)	ND (10.0)	ND (10.0)
Cadmium	mg/L	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Chromium	mg/L	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Lead	mg/L	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Mercury	mg/L	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)
Selenium	mg/L	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Silver	mg/L	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
PCBs								
Aroclor-1016 (PCB-1016)	ug/Kg	ND (340)	ND (3600)	ND (34)	ND (34)	ND (96)	ND (430)	ND (38)
Aroclor-1221 (PCB-1221)	ug/Kg	ND (340)	ND (3600)	ND (34)	ND (34)	ND (96)	ND (430)	ND (38)
Aroclor-1232 (PCB-1232)	ug/Kg	ND (340)	ND (3600)	ND (34)	ND (34)	ND (96)	ND (430)	ND (38)
Aroclor-1242 (PCB-1242)	ug/Kg	ND (340)	ND (3600)	ND (34)	ND (34)	ND (96)	ND (430)	ND (38)
Aroclor-1248 (PCB-1248)	ug/Kg	4400	41000	230	220	660	ND (430)	ND (38)
Aroclor-1254 (PCB-1254)	ug/Kg	ND (340)	ND (3600)	ND (34)	ND (34)	ND (96)	ND (430)	ND (38)
Aroclor-1260 (PCB-1260)	ug/Kg	550	5300	37	57	100	ND (430)	ND (38)
TCLP Pesticides								
Chlordane	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Endrin	mg/L	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
gamma-BHC (Lindane)	mg/L	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Heptachlor epoxide	mg/L	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Heptachlor	mg/L	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)	0.0019	ND (0.00050)
Methoxychlor	mg/L	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Toxaphene	mg/L	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
TCLP Herbicides								
2,4,5-TP (Silvex)	mg/L	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
General Chemistry								
Ignitability	deg f	180 >	180 >	180 >	180 >	180 >	180 >	180 >
Paint filter	%	NEG	NEG	NEG	NEG	NEG	NEG	NEG
pH Corrosivity	S.U.	8.0	7.9	8.1	8.3	7.3	7.9	8.5
Reactive Cyanide	mg/Kg	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)
Reactive Sulfide	mg/Kg	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)
Sulfate	mg/Kg	704	1280	871	174	56.9	39.2	ND (11.6)
Sulfide	mg/Kg	ND (5.2)	ND (5.4)	ND (5.1)	62.6	ND (14.6)	ND (12.9)	46.5
Total Solids	%	95.9	92.3	98.2	95.8	68.6	77.5	86.0

TABLE 3

ANALYTICAL RESULTS SUMMARY
WASTE CHARACTERIZATION SAMPLING
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

		Arsenic Bees		
Sample Location:		TP-101	TP-105	TP-107
Sample ID:		S-001302-WP-0114	S-001302-WP-0115	S-001302-WP-0120
Sample Date:		6/13/2000	6/13/2000	6/13/2000
Sample Time:		11:30	11:10	13:30
Sample Type:		Coal Fines/Pond Deposits	Pond Deposit	Tar/Pond Deposit
Parameter	**Unit**			
TCLP Volatiles				
1,1-Dichloroethane	mg/L	ND (0.070)	ND (0.070)	ND (0.070)
1,2-Dichloroethane	mg/L	ND (0.035)	ND (0.035)	ND (0.035)
2-Butanone	mg/L	ND (0.080)	ND (0.080)	ND (0.080)
Benzene	mg/L	0.073	ND (0.035)	0.36
Carbon tetrachloride	mg/L	ND (0.035)	ND (0.035)	ND (0.035)
Chlorobenzene	mg/L	ND (0.035)	ND (0.035)	ND (0.035)
Chloroform (Trichloromethane)	mg/L	ND (0.035)	ND (0.035)	ND (0.035)
Tetrachloroethene	mg/L	ND (0.070)	ND (0.070)	ND (0.070)
Trichloroethene	mg/L	ND (0.080)	ND (0.080)	ND (0.080)
Vinyl chloride	mg/L	ND (0.080)	ND (0.080)	ND (0.080)
TCLP Semi-Volatiles				
1,4-Dichlorobenzene	mg/L	ND (0.10)	ND (0.080)	ND (10)
2,4,5-Trichlorophenol	mg/L	ND (0.20)	ND (0.080)	ND (10)
2,4,6-Trichlorophenol	mg/L	ND (0.20)	ND (0.080)	ND (10)
2,4-Dinitrotoluene	mg/L	ND (0.20)	ND (0.080)	ND (10)
2-Methylphenol	mg/L	ND (0.20)	ND (0.080)	ND (10)
3&4-Methylphenol	mg/L	ND (0.50)	ND (0.10)	23
Hexachlorobenzene	mg/L	ND (0.20)	ND (0.080)	ND (10)
Hexachlorobutadiene	mg/L	ND (0.20)	ND (0.080)	ND (10)
Hexachloroethane	mg/L	ND (0.20)	ND (0.080)	ND (10)
Nitrobenzene	mg/L	ND (0.20)	ND (0.080)	ND (10)
Pentachlorophenol	mg/L	ND (0.50)	ND (0.10)	ND (30)
Pyridine	mg/L	ND (0.50)	ND (0.10)	ND (30)
TCLP Metals				
Arsenic	mg/L	ND (0.50)	ND (0.50)	ND (0.50)
Barium	mg/L	ND (10.0)	ND (10.0)	ND (10.0)
Cadmium	mg/L	ND (0.10)	ND (0.10)	ND (0.10)
Chromium	mg/L	ND (0.50)	ND (0.50)	ND (0.50)
Lead	mg/L	ND (0.50)	ND (0.50)	ND (0.50)
Mercury	mg/L	ND (0.0020)	ND (0.0020)	ND (0.0020)
Selenium	mg/L	ND (0.25)	ND (0.25)	ND (0.25)
Silver	mg/L	ND (0.50)	ND (0.50)	ND (0.50)
PCBs				
Aroclor-1016 (PCB-1016)	ug/Kg	ND (63)	ND (62)	ND (44)
Aroclor-1221 (PCB-1221)	ug/Kg	ND (63)	ND (62)	ND (44)
Aroclor-1232 (PCB-1232)	ug/Kg	ND (63)	ND (62)	ND (44)
Aroclor-1242 (PCB-1242)	ug/Kg	ND (63)	ND (62)	ND (44)
Aroclor-1248 (PCB-1248)	ug/Kg	ND (63)	ND (62)	ND (44)
Aroclor-1254 (PCB-1254)	ug/Kg	ND (63)	ND (62)	ND (44)
Aroclor-1260 (PCB-1260)	ug/Kg	ND (63)	ND (62)	ND (44)
TCLP Pesticides				
Chlordane	mg/L	ND (0.0080)	ND (0.0080)	ND (0.010)
Endrin	mg/L	ND (0.00080)	ND (0.00080)	ND (0.0010)
gamma-BHC (Lindane)	mg/L	ND (0.00080)	ND (0.00080)	ND (0.0010)
Heptachlor epoxide	mg/L	ND (0.00080)	ND (0.00080)	ND (0.0010)
Heptachlor	mg/L	ND (0.00080)	ND (0.00080)	ND (0.0010)
Methoxychlor	mg/L	ND (0.0010)	ND (0.0010)	ND (0.0020)
Toxaphene	mg/L	ND (0.020)	ND (0.020)	ND (0.040)
TCLP Herbicides				
2,4,5-TP (Silvex)	mg/L	ND (0.10)	ND (0.10)	ND (0.10)
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	ND (0.50)	ND (0.50)	ND (0.50)
General Chemistry				
Ignitability	deg F	180 >	180 >	180 >
Paint filter	%	NEG	NEG	NEG
pH Corrosivity	S.U.	6.1	1.3	7.6
Reactive Cyanide	mg/Kg	ND (200)	ND (200)	ND (200)
Reactive Sulfide	mg/Kg	ND (200)	ND (200)	ND (200)
Sulfate	mg/Kg	394	15200	456
Sulfide	mg/Kg	228	37.8	ND (6.6)
Total Solids	%	82.7	53.0	75.8

Notes;

> - Greater [illegible]

ND - No[illegible] [illegible]st associated value.

NEG - Ne[illegible] [illegible].

TABLE 4

SUMMARY OF COMPOSITE SOIL SAMPLE LOCATIONS
SOIL PRE DESIGN STUDY
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
WAUKEGAN, ILLINOIS

PAH Areas	*Composite Sample Number*	*Sample Location*	*Pre-Design Samples to be Composited*
PAH SIZ-1 [1]	CS-001	TP-104	S-060502-WP-016 A
		TP-103	S-060502-WP-013 A,B
PAH SIZ-3	CS-002	TP-109	S-060602-WP-030 B,C
		TP-108	S-060602-WP-028 B,C
		TP-109	S-060602-WP-031 B,C
PAH SIZ-7	CS-003	TP-112	S-060602-WP-037 A,B
		TP-112	S-060602-WP-038
		SB-207	S-061202-WP-0217
		SB-207	S-061202-WP-0218
		SB-210	S-061202-WP-0223
		SB-210	S-061202-WP-0224
		TP-123	S-060702-WP-069 A,B
PAH SIZ-5&6	CS-004	TP-127	S-061002-WP-079 B,C
		TP-130	S-061102-WP-087 A,B,C
		TP-143	S-061202-WP-0120 A,B,C
		TP-124	S-061002-WP-060
PAH SIZ-4	CS-005	TP-135	S-061102-WP-0102 A
		TP-137	S-061202-WP-0106 A
		TP-142	S-061202-WP-0117 A,B
		TP-150	S-061402-WP-0145 A,B
Arsenic Area As SIZ	CS-006	TP-144	S-061302-WP-0122 A,B
		TP-146	S-061302-WP-0132 A,B,C
		TP-147	S-061302-WP-0137 A,B
		SB-202	S-061102-WP-0205
		SB-204	S-061102-WP-0210
		SB-204	S-061102-WP-0211
Naphthalene Areas	CS-007	TP-107	S-060602-WP-023B
		TP-133	S-061102-WP-093C

[1] PAH SIZ-1 - Refers in general to the Soil Investigation Zones identified in the Soil Pre-Design Work Plan dated March 2002.

CONESTOGA-ROVERS
& ASSOCIATES

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BARR ENGINEERING CO.

October 16, 2002

Reference No. 019023-50

Mr. Kevin R. Adler
Remedial Project Manager
Superfund Division
U.S. Environmental Protection Agency - SR-6J
77 West Jackson Blvd.
Chicago, Illinois 60604

VIA ELECTRONIC MAIL
AND
FIRST CLASS MAIL

Dear Mr. Adler:

Re: Response to Comments
Soil Characterization Plan
Waukegan Manufactured Gas & Coke Plant Site
Waukegan, Illinois

We are in receipt of the comments provided by the U.S. Environmental Protection Agency (U.S. EPA or Agency). The comments were provided by electronic mail on October 1, 2002. The attached provides responses to the Agency's comments and proposed modifications to the Waste Characterization Plan based on the comments received. The Agency's comments are reiterated below in italics followed by our response.

U.S. EPA Comment

1. *How were the samples (collected in June) preserved such that the analytical holding times for the PAH analysis have not been exceeded?*

Response

The soil samples have been held by the project laboratory in the lab's sample storage coolers. Since collection during the soil pre-design study, the samples have been maintained at this location in the containers in which they were originally placed. Although the holding times have been exceeded for the polyaromatic hydrocarbons (PAHs), we do not expect any significant degradation of these compounds in the interim period between sample collection and waste characterization analysis. The intent of the waste characterization data is for use during Soil Remedial Design (RD) to assist with the selection of appropriate soil management options, not to determine the final status of the soil. We understand that additional data may be required during implementation of the remedy and this will be addressed during the Soil RD.

U.S. EPA Comment

2. *The waste characterization sample CS-001 is proposed to be a composite of three test pit samples. One of these samples (TP-103 S-060502-WP-013A) did not contain detectable PAH concentrations and the naphthalene concentration was 11 mg/kg, far less than the cleanup standard of 48,556 mg/kg. It is unclear as to why is this relatively uncontaminated soil sample would be included in the composite waste characterization sample as it would result in a diluted TCLP concentration.*

   Comment 2 is applicable to nearly all the remaining proposes composite samples. In essence the proposed composite samples were selected based on the approach of obtaining an average representation of each remediation target area for the purpose of determining whether the soil is a RCRA characteristic waste. This approach would not result in the RCRA classification of a thin lens of heavily contaminated soil (say a one-foot thick lens of black heavily contaminated soil), but rather assumes this soil will be intermixed with surrounding soil that is marginally contaminated. U.S. EPA's general policy has been to minimize the effects of dilution prior to characterizing wastes. Note the RCRA classification will also affect whether LDRs for contaminated soil are applicable to the soil prior to land disposal.

Response

The intent of the additional analyses in the Waste Characterization Plan is to obtain data from soil that is representative of the bulk of the material that will need to be managed during soil remediation. As summarized in Table 3 of the Waste Characterization Plan, some analytical data on the most heavily impacted soil (tar, tar-saturated sand, industrial pond deposits, and tar/industrial pond deposit mixture) have already been obtained during the soil pre-design study. We are now attempting to obtain analytical data from the soil, as it is likely to exist once it is excavated and stockpiled.

From a practical standpoint, it may be possible to segregate some of the soil containing elevated arsenic concentrations due to its distinct visual character. This is also true of the soil at two locations containing very elevated naphthalene concentrations. However, although it may be possible to segregate some of tar deposits at the Site, test pit observations indicate that tar deposits are present at various depths over much of the soil remediation zones and these deposits occur somewhat randomly. While we are aware of the U.S. EPA's policy with respect to dilution of wastes, it is likely that it will not be possible to effectively segregate the tar deposits from the soil over much of the remediation areas.

With respect to the Land Disposal Restrictions (LDRs), the soil is manufactured gas plant waste and not subject to the LDRs. In the Association of Battery Recyclers, Inc. v. U.S. EPA, 203 F.3d 1047 (D.C. Cir. 2000) case, the court vacated the Phase IV LDRs with respect to the use of the Toxicity Characteristic Leaching Procedure (TCLP) to determine whether manufactured gas plant (MGP) remediation waste exhibits the characteristic of toxicity. In response to the judicial decision, U.S. EPA and Illinois Environmental Protection Agency (IEPA) have amended their regulations to reflect the fact that use of the TCLP test is not allowed to determine whether MGP waste is hazardous (see 40 C.F.R. § 261.24 and 35 Ill. Adm. Code §721.124).

With respect to the three soil samples proposed for CS-001, the intent is to generate data that is as representative of the soil to be excavated as possible. Because it is not possible to visually distinguish between the elevated PAH soil and non-elevated PAH soil at these locations, the composite characterization sample is meant to approximate the likely character of the soil to be excavated from this location for Soil RD purposes.

U.S. EPA Comment

3. *The soil sample from TP-124 is proposed to be included in composite sample CS-003 for PAH SIZ 5 & 6 yet this test pit is in the PAH SIZ -7 area.*

Response

In Table 4, the sample from TP-124 is shown to be included in composite sample CS-004. Based on the results of the soil pre-design work, we do not view SIZs 5, 6, and 7 to be distinctly different in character either chemically or physically. Most likely, soil from these areas will likely be commingled during remedial activities. As a result, the intent of including the sample from TP-124 was to commingle some tar-containing soil with the other soil in this remediation area to form a sample that would be representative of excavated soil from this area.

U.S. EPA Comment

4. *Sample location TP-147 S-061302-WP-0137 is labeled on Drawing 3 as WP-138.*

Response

The data summarized on Figure 3 are correct, if not entirely clear. There was a sample and a duplicate sample collected from the 0 to 2-foot depth interval from the middle of test pit TP-147 (samples WP-137 and WP-138). The sample and duplicate sample result for arsenic for the 0 to 2-foot depth interval are shown on Figure 3 in the text box labeled TP-147.

We trust that these responses adequately address the Agency's comments. Please feel free to contact me with any questions.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Steven J. Wanner

SJW/sw/8

c.c.: J. Campbell, EMI
S. Matuszak, Peoples Energy
J. Langseth, Barr Engineering

Appendix B

Waste Characterization Study Data

ANALYTICAL REPORT

PROJECT NO. 019023-15/50

WAUKEGAN COKE

Lot #: A2J250333

Steve Castagneri

Conestoga-Rovers & Associates
8615 W. Bryn Mawr
Chicago, IL 60631

SEVERN TRENT LABORATORIES, INC.

Amy L. McCormick
Project Manager

November 15, 2002

CASE NARRATIVE

A2J250333

The following report contains the analytical results for seven solid samples submitted to STL North Canton by Conestoga-Rovers & Associates, Inc. from the Waukegan Coke Site, project number 019023-15/50. The samples were originally received June 6, 7, 8, 11, 12, 13, 14, and 15, 2002, according to documented sample acceptance procedures. Additional analyses were requested October 22, 2002.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. Preliminary results were provided to Julie Czech, Steve Wanner, and Jim Langseth on November 8, 2002, and to Steve Castagneri on November 8 and 11, 2002. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

Sample CS-001 was comprised of 61.15 grams of WP-016A, 65.0 grams of WP-013A, and 81.34 grams of WP-013B. Sample CS-002 was comprised of 70 grams each of WP-030B, WP-030C, WP-028B, WP-028C, WP-031B, and WP-031C. Sample CS-003 was comprised of 50 grams each of WP-037A, WP-037B, WP-038, WP-0217, WP-0218, WP-0223, WP-0224, WP069A, and WP-069B. Sample CS-004 was comprised of 40 grams each of WP-079B, WP-079C, WP-087A, WP-087B, WP-087C, WP-0120A, WP-0120B, WP-0120C, and WP-038. Sample CS-005 was comprised of 45 grams each of WP-0102A, WP-0106A, WP-0117A, WP-0117B, WP-0145A, and WP-0145B. Sample CS-006 was comprised of 40 grams each of WP-0122A, WP-0122B, WP-0132A, WP-0132B, WP-0132C, WP-0137A, WP-0137B, WP-0205, WP-0210, and WP-0211. Sample CS-007 was comprised of 54.0 grams of WP-023B and 146.59 grams of WP-093C. Samples CS-001, CS-005, and CS-007 required additional sample volume to complete requested analyses. Samples CS-001 and CS-007 were consumed during the original composite. The second composite for sample CS-005 was comprised of 58 grams each of samples WP-0102A, WP-0107A, WP-0117A, WP-0117B, WP-0145A, and WP-0145B.

SUPPLEMENTAL QC INFORMATION

GC/MS SEMIVOLATILES

Sample CS-007 had elevated reporting limits due to TICs.

GC SEMIVOLATILES - 8082

Surrogate recoveries were outside acceptance limits in sample CS-001. The sample was consumed; therefore, corrective action could not be initiated.

Samples CS-003 and CS-004 had elevated reporting limits due to matrix interferences.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reprepparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190), NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

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ANALYTICAL METHODS SUMMARY

A2J250333

PARAMETER	ANALYTICAL METHOD
Chlorinated Herbicides by GC	SW846 8151A
Corrosivity	SW846 9045C
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Organochlorine Pesticides	SW846 8081A
Paint Filter Test	SW846 9095A
Pensky-Martens Method for Determining Ignitability	SW846 1010
PCBs by SW-846 8082	SW846 8082
Reactive Cyanide	SW846 7.3.3
Reactive Sulfide	SW846 7.3.4
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A2J250333

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FATMK	001	CS-001	10/22/02	
FATMM	002	CS-002	10/22/02	
FATMQ	003	CS-003	10/22/02	
FATMR	004	CS-004	10/29/02	
FATMX	005	CS-005	10/22/02	
FATM1	006	CS-006	10/22/02	
FATM4	007	CS-007	10/22/02	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, pressure pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-001

TCLP GC/MS Volatiles

Lot-Sample #...:	A2J250333-001	Work Order #...:	FATMK1AA	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/30/02	Prep Date.....:	11/02/02	Analysis Date..:	11/02/02
Leach Batch #..:	P230206	Prep Batch #...:	2305335		
Dilution Factor:	28.57				
% Moisture.....:	30	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.71	mg/L
Carbon tetrachloride	ND	0.71	mg/L
Chlorobenzene	ND	0.71	mg/L
Chloroform	ND	0.71	mg/L
1,2-Dichloroethane	ND	0.71	mg/L
1,1-Dichloroethylene	ND	2.0	mg/L
Methyl ethyl ketone	ND	1.4	mg/L
Tetrachloroethylene	ND	2.0	mg/L
Trichloroethylene	ND	1.4	mg/L
Vinyl chloride	ND	1.4	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	111	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	92	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Elevated reporting limits due to TICs.

COMESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-001

TCLP GC/MS Semivolatiles

Lot-Sample #...:	A2J250333-001	Work Order #...:	FATMK1AD	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/29/02	Prep Date.....:	10/30/02	Analysis Date..:	11/02/02
Leach Batch #..:	P230213	Prep Batch #...:	2303245		
Dilution Factor:	12.5				
% Moisture.....:	30	Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	0.84	0.62	mg/L
m-Cresol & p-Cresol	1.3	1.2	mg/L
1,4-Dichlorobenzene	ND	0.62	mg/L
2,4-Dinitrotoluene	ND	0.62	mg/L
Hexachlorobenzene	ND	0.62	mg/L
Hexachlorobutadiene	ND	0.62	mg/L
Hexachloroethane	ND	0.62	mg/L
Nitrobenzene	ND	0.62	mg/L
Pentachlorophenol	ND	1.2	mg/L
Pyridine	ND	1.2	mg/L
2,4,5-Trichloro-phenol	ND	0.62	mg/L
2,4,6-Trichloro-phenol	ND	0.62	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80 DIL	(32 - 112)
2-Fluorobiphenyl	80 DIL	(30 - 110)
Terphenyl-d14	81 DIL	(10 - 144)
Phenol-d5	74 DIL	(10 - 113)
2-Fluorophenol	59 DIL	(13 - 110)
2,4,6-Tribromophenol	74 DIL	(21 - 122)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-001

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-001	Work Order #...:	FATMK1AE	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/29/02	Prep Date.....:	10/30/02	Analysis Date..:	10/31/02
Leach Batch #..:	P230213	Prep Batch #...:	2303246		
Dilution Factor:	1				
% Moisture.....:	30	Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	88	(31 - 115)
Tetrachloro-m-xylene	76	(47 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-001

GC Semivolatiles

Lot-Sample #...:	A2J250333-001	Work Order #...:	FATMK1AR	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Prep Date.....:	10/27/02	Analysis Date..:	10/29/02		
Prep Batch #...:	2300146				
Dilution Factor:	1				
% Moisture.....:	30	Method.....:	SW846 ˜.82		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	47	ug/kg
Aroclor 1221	ND	47	ug/kg
Aroclor 1232	ND	47	ug/kg
Aroclor 1242	ND	47	ug/kg
Aroclor 1248	ND	47	ug/kg
Aroclor 1254	ND	47	ug/kg
Aroclor 1260	ND	47	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	30 *	(31 - 127)
Decachlorobiphenyl	22 *	(23 - 141)

NOTE(S):

* Surrogate recovery is outside stand control limits.

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-001

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-001	Work Order #...:	FATMK1AF	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/29/02	Prep Date.....:	10/30/02	Analysis Date..:	11/03/02
Leach Batch #..:	P230213	Prep Batch #...:	2303248		
Dilution Factor:	1				
% Moisture.....:	30	Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	88	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

COMESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-001

TCLP Metals

Lot-Sample #...: A2J250333-001 Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
Leach Date.....: 10/29/02 Leach Batch #..: P230213

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2304118						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMK1AG
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FATMK1
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FATMK1AJ
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMK1AK
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMK1
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FATMK1AM
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMK1AN
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FATMK
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-001

General Chemistry

Lot-Sample #...: A2J250333-001 Work Order #...: FATMK Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
% Moisture.....: 30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	7.5		No Units	SW846 9045C	10/29/02	2302623
		Dilution Factor: 1				
Paint Filter Test	NEG	0.10	%	SW846 9095A	10/29/02	2302622
		Dilution Factor: 1				
Percent Solids	70.2	10.0	%	MCAWW 160.3 MOD	10/28-10/29/02	2301509
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

NEG Negative

COMESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-002

TCLP GC/MS Volatiles

Lot-Sample #...:	A2J250333-002	Work Order #...:	FATMM1AC	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/30/02	Prep Date.....:	11/02/02	Analysis Date..:	11/02/02
Leach Batch #..:	P230206	Prep Batch #...:	2305335		
Dilution Factor:	1				
% Moisture.....:	10	Method.....:	SW846 `.o0B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.025	mg/L
Carbon tetrachloride	ND	0.025	mg/L
Chlorobenzene	ND	0.025	mg/L
Chloroform	ND	0.025	mg/L
1,2-Dichloroethane	ND	0.025	mg/L
1,1-Dichloroethylene	ND	0.070	mg/L
Methyl ethyl ketone	ND	0.050	mg/L
Tetrachloroethylene	ND	0.070	mg/L
Trichloroethylene	ND	0.050	mg/L
Vinyl chloride	ND	0.050	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
1,2-Dichloroethane-d4	105	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	92	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-002

TCLP GC/MS Semivolatiles

Lot-Sample #...:	A2J250333-002	Work Order #...:	FATMM2AE	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/29/02	Prep Date.....:	11/05/02	Analysis Date..:	11/06/02
Leach Batch #..:	P230213	Prep Batch #...:	2309104		
Dilution Factor:	1				
% Moisture.....:	10	Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	ND	0.050	mg/L
m-Cresol & p-Cresol	ND	0.10	mg/L
1,4-Dichlorobenzene	ND	0.050	mg/L
2,4-Dinitrotoluene	ND	0.050	mg/L
Hexachlorobenzene	ND	0.050	mg/L
Hexachlorobutadiene	ND	0.050	mg/L
Hexachloroethane	ND	0.050	mg/L
Nitrobenzene	ND	0.050	mg/L
Pentachlorophenol	ND	0.10	mg/L
Pyridine	ND	0.10	mg/L
2,4,5-Trichloro-phenol	ND	0.050	mg/L
2,4,6-Trichloro-phenol	ND	0.050	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	65	(32 - 112)
2-Fluorobiphenyl	67	(30 - 110)
Terphenyl-d14	90	(10 - 144)
Phenol-d5	29	(10 - 113)
2-Fluorophenol	38	(13 - 110)
2,4,6-Tribromophenol	67	(21 - 122)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-002

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-002	Work Order #...:	FATMM1AF	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/29/02	Prep Date.....:	10/30/02	Analysis Date..:	10/31/02
Leach Batch #..:	P230213	Prep Batch #...:	2303246		
Dilution Factor:	1				
% Moisture.....:	10	Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	90	(31 - 115)
Tetrachloro-m-xylene	77	(47 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-002

GC Semivolatiles

Lot-Sample #...:	A2J250333-002	Work Order #...:	FATMM1AT	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Prep Date.....:	10/27/02	Analysis Date..:	10/29/02		
Prep Batch #...:	2300146				
Dilution Factor:	1				
% Moisture.....:	10	Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	37	ug/kg
Aroclor 1221	ND	37	ug/kg
Aroclor 1232	ND	37	ug/kg
Aroclor 1242	ND	37	ug/kg
Aroclor 1248	ND	37	ug/kg
Aroclor 1254	ND	37	ug/kg
Aroclor 1260	ND	37	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	106	(31 - 127)
Decachlorobiphenyl	94	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-002

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-002	**Work Order #...:**	FATMM1AG	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/03/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303248		
Dilution Factor:	1				
% Moisture.....:	10	**Method.....:**	SW846 9[illegible]1A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	80	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-002

TCLP Metals

Lot-Sample #...: A2J250333-002 Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
Leach Date.....: 10/29/02 Leach Batch #..: P230213

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2304118						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMM1AH
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FATMM1AJ
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FATMM1AK
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMM1AL
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMM1AM
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FATMM1AN
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMM1AP
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FATMM1AQ
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

COBESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-002

General Chemistry

Lot-Sample #...: A2J250333-002 Work Order #...: FATMM Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
% Moisture.....: 10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	8.4		No Units	SW846 9045C	10/29/02	2302623
		Dilution Factor: 1				
Flashpoint	>180		deg F	SW846 1010	10/30/02	23033[illegible]
		Dilution Factor: 1				
Paint Filter Test	NEG	0.10	%	SW846 9095A	10/29/02	2302622
		Dilution Factor: 1				
Percent Solids	89.8	10.0	%	MCAWW 160.3 MOD	10/28-10/29/02	2301509
		Dilution Factor: 1				
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	10/31/02	2304448
		Dilution Factor: 1				
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	10/31/02	2304479
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

NEG Negative

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-003

TCLP GC/MS Volatiles

Lot-Sample #...:	A2J250333-003	Work Order #...:	FATMQ1AC	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/30/02	Prep Date.....:	11/02/02	Analysis Date..:	11/02/02
Leach Batch #..:	P230206	Prep Batch #...:	2305335		
Dilution Factor:	4				
% Moisture.....:	26	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.10	mg/L
Carbon tetrachloride	ND	0.10	mg/L
Chlorobenzene	ND	0.10	mg/L
Chloroform	ND	0.10	mg/L
1,2-Dichloroethane	ND	0.10	mg/L
1,1-Dichloroethylene	ND	0.28	mg/L
Methyl ethyl ketone	ND	0.20	mg/L
Tetrachloroethylene	ND	0.28	mg/L
Trichloroethylene	ND	0.20	mg/L
Vinyl chloride	ND	0.20	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(59 - 138)
1,2-Dichloroethane-d4	108	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	92	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Elevated reporting limits due to TICs.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-003

TCLP GC/MS Semivolatiles

Lot-Sample #...:	A2J250333-003	**Work Order #...:**	PATMQ1AE	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/02/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303245		
Dilution Factor:	40				
% Moisture.....:	26	**Method.....:**	SW846 8? 0C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	ND	2.0	mg/L
m-Cresol & p-Cresol	**4.4**	**4.0**	**mg/L**
1,4-Dichlorobenzene	ND	2.0	mg/L
2,4-Dinitrotoluene	ND	2.0	mg/L
Hexachlorobenzene	ND	2.0	mg/L
Hexachlorobutadiene	ND	2.0	mg/L
Hexachloroethane	ND	2.0	mg/L
Nitrobenzene	ND	2.0	mg/L
Pentachlorophenol	ND	4.0	mg/L
Pyridine	**4.0**	**4.0**	**mg/L**
2,4,5-Trichloro-phenol	ND	2.0	mg/L
2,4,6-Trichloro-phenol	ND	2.0	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	85 DIL	(32 - 112)
2-Fluorobiphenyl	85 DIL	(30 - 110)
Terphenyl-d14	82 DIL	(10 - 144)
Phenol-d5	80 DIL	(10 - 113)
2-Fluorophenol	57 DIL	(13 - 110)
2,4,6-Tribromophenol	0.0 DIL,*	(21 - 122)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-003

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-003	**Work Order #...:**	FATMQ1AF	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	10/31/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303246		
Dilution Factor:	1				
% Moisture.....:	26	**Method.....:**	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	109	(31 - 115)
Tetrachloro-m-xylene	101	(47 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

COMESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-003

GC Semivolatiles

Lot-Sample #...:	A2J250333-003	Work Order #...:	FATMQ1AT	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Prep Date.....:	10/27/02	Analysis Date..:	10/29/02		
Prep Batch #...:	2300146				
Dilution Factor:	10				
% Moisture.....:	26	Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	440	ug/kg
Aroclor 1221	ND	440	ug/kg
Aroclor 1232	ND	440	ug/kg
Aroclor 1242	ND	440	ug/kg
Aroclor 1248	ND	440	ug/kg
Aroclor 1254	ND	440	ug/kg
Aroclor 1260	ND	440	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	0.0 DIL,*	(31 - 127)
Decachlorobiphenyl	0.0 DIL,*	(23 - 141)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-003

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-003	**Work Order #...:**	FATMQ1AG	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/03/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303248		
Dilution Factor:	1				
% Moisture.....:	26	**Method.....:**	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	88	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-003

TCLP Metals

Lot-Sample #...: A2J250333-003 Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
Leach Date.....: 10/29/02 Leach Batch #..: P230213

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2304128						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMQ1AH
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FATMC
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FATMQ1AK
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMQ1AL
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMQ1
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FATMQ1AN
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMQ1AP
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FATMQ
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-003

General Chemistry

Lot-Sample #...: A2J250333-003 Work Order #...: FATMQ Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
% Moisture.....: 26

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	7.3		No Units	SW846 9045C	10/29/02	2302623
		Dilution Factor: 1				
Flashpoint	>180		deg F	SW846 1010	10/30/02	2303385
		Dilution Factor: 1				
Paint Filter Test	NEG	0.10	%	SW846 9095A	10/29/02	2302622
		Dilution Factor: 1				
Percent Solids	74.2	10.0	%	MCAWW 160.3 MOD	10/28-10/29/02	2301509
		Dilution Factor: 1				
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	10/31/02	2304480
		Dilution Factor: 1				
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	10/31/02	2304479
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit
NEG Negative

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-004

TCLP GC/MS Volatiles

Lot-Sample #...:	A2J250333-004	**Work Order #...:**	FATMR1AC	**Matrix.....:**	SO
Date Sampled...:	10/29/02	**Date Received..:**	10/29/02		
Leach Date.....:	11/01/02	**Prep Date.....:**	11/03/02	**Analysis Date..:**	11/03/02
Leach Batch #..:	P230401	**Prep Batch #...:**	2307114		
Dilution Factor:	2				
% Moisture.....:	12	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.058**	**0.050**	**mg/L**
Carbon tetrachloride	ND	0.050	mg/L
Chlorobenzene	ND	0.050	mg/L
Chloroform	ND	0.050	mg/L
1,2-Dichloroethane	ND	0.050	mg/L
1,1-Dichloroethylene	ND	0.14	mg/L
Methyl ethyl ketone	ND	0.10	mg/L
Tetrachloroethylene	ND	0.14	mg/L
Trichloroethylene	ND	0.10	mg/L
Vinyl chloride	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	95	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Elevated reporting limits due to TICs

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-004

TCLP GC/MS Semivolatiles

Lot-Sample #...:	A2J250333-004	**Work Order #...:**	FATMR1AE	**Matrix.....:**	SO
Date Sampled...:	10/29/02	**Date Received..:**	10/29/02		
Leach Date.....:	10/30/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/02/02
Leach Batch #..:	P230303	**Prep Batch #...:**	2303245		
Dilution Factor:	20				
% Moisture.....:	12	**Method.....:**	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	ND	1.0	mg/L
m-Cresol & p-Cresol	**2.2**	**2.0**	**mg/L**
1,4-Dichlorobenzene	ND	1.0	mg/L
2,4-Dinitrotoluene	ND	1.0	mg/L
Hexachlorobenzene	ND	1.0	mg/L
Hexachlorobutadiene	ND	1.0	mg/L
Hexachloroethane	ND	1.0	mg/L
Nitrobenzene	ND	1.0	mg/L
Pentachlorophenol	ND	2.0	mg/L
Pyridine	ND	2.0	mg/L
2,4,5-Trichloro-phenol	ND	1.0	mg/L
2,4,6-Trichloro-phenol	ND	1.0	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	88 DIL	(32 - 112)
2-Fluorobiphenyl	80 DIL	(30 - 110)
Terphenyl-d14	86 DIL	(10 - 144)
Phenol-d5	76 DIL	(10 - 113)
2-Fluorophenol	47 DIL	(13 - 110)
2,4,6-Tribromophenol	73 DIL	(21 - 122)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-004

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-004	Work Order #...:	FATMR1AF	Matrix.....:	SO
Date Sampled...:	10/29/02	Date Received..:	10/29/02		
Leach Date.....:	10/30/02	Prep Date.....:	10/30/02	Analysis Date..:	10/31/02
Leach Batch #..:	P230303	Prep Batch #...:	2303246		
Dilution Factor:	1				
% Moisture.....:	12	Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	132 *	(31 - 115)
Tetrachloro-m-xylene	95	(47 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

* Surrogate recovery is outside stated control limits

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-004

GC Semivolatiles

Lot-Sample #...:	A2J250333-004	**Work Order #...:**	FATMR1AT	**Matrix.....:**	SO
Date Sampled...:	10/29/02	**Date Received..:**	10/29/02		
Prep Date.....:	10/29/02	**Analysis Date..:**	10/31/02		
Prep Batch #...:	2302398				
Dilution Factor:	5				
% Moisture.....:	12	**Method.....:**	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	190	ug/kg
Aroclor 1221	ND	190	ug/kg
Aroclor 1232	ND	190	ug/kg
Aroclor 1242	ND	190	ug/kg
Aroclor 1248	ND	190	ug/kg
Aroclor 1254	**280**	**190**	**ug/kg**
Aroclor 1260	ND	190	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	106 DIL	(31 - 127)
Decachlorobiphenyl	25 DIL	(23 - 141)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

COMESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-004

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-004	**Work Order #...:**	FATMR1AG	**Matrix.....:**	SO
Date Sampled...:	10/29/02	**Date Received..:**	10/29/02		
Leach Date.....:	10/30/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/03/02
Leach Batch #..:	P230303	**Prep Batch #...:**	2303248		
Dilution Factor:	1				
% Moisture.....:	12	**Method.....:**	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	86	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-004

TCLP Metals

Lot-Sample #...: A2J250333-004 **Matrix.....:** SO
Date Sampled...: 10/29/02 **Date Received..:** 10/29/02
Leach Date.....: 10/30/02 **Leach Batch #..:** P230303

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2304113						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMR1AH
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FATMR1AJ
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FATMR1AK
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMR1AL
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMR1AM
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FATMR1AN
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMR1AP
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FATMR1AQ
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-004

General Chemistry

Lot-Sample #...: A2J250333-004 Work Order #...: FATMR Matrix.....: SO
Date Sampled...: 10/29/02 Date Received..: 10/29/02
% Moisture.....: 12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	7.3		No Units	SW846 9045C	10/29/02	2302623
		Dilution Factor: 1				
Flashpoint	>180		deg F	SW846 1010	10/30/02	230338[illegible]
		Dilution Factor: 1				
Paint Filter Test	NEG	0.10	%	SW846 9095A	10/29/02	2302622
		Dilution Factor: 1				
Percent Solids	87.7	10.0	%	MCAWW 160.3 MOD	10/30-10/31/02	2303440
		Dilution Factor: 1				
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	10/31/02	230448[illegible]
		Dilution Factor: 1				
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	10/31/02	2304479
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

NEG Negative

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-005

TCLP GC/MS Volatiles

Lot-Sample #...:	A2J250333-005	**Work Order #...:**	FATMX1AC	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/30/02	**Prep Date.....:**	11/02/02	**Analysis Date..:**	11/02/02
Leach Batch #..:	P230206	**Prep Batch #...:**	2305335		
Dilution Factor:	1				
% Moisture.....:	19	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.025	mg/L
Carbon tetrachloride	ND	0.025	mg/L
Chlorobenzene	ND	0.025	mg/L
Chloroform	ND	0.025	mg/L
1,2-Dichloroethane	ND	0.025	mg/L
1,1-Dichloroethylene	ND	0.070	mg/L
Methyl ethyl ketone	ND	0.050	mg/L
Tetrachloroethylene	ND	0.070	mg/L
Trichloroethylene	ND	0.050	mg/L
Vinyl chloride	ND	0.050	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
1,2-Dichloroethane-d4	108	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-005

TCLP GC/MS Semivolatiles

Lot-Sample #...:	A2J250333-005	**Work Order #...:**	FATMX1AE	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/02/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303245		
Dilution Factor:	1				
% Moisture.....:	19	**Method.....:**	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	ND	0.050	mg/L
m-Cresol & p-Cresol	ND	0.10	mg/L
1,4-Dichlorobenzene	ND	0.050	mg/L
2,4-Dinitrotoluene	ND	0.050	mg/L
Hexachlorobenzene	ND	0.050	mg/L
Hexachlorobutadiene	ND	0.050	mg/L
Hexachloroethane	ND	0.050	mg/L
Nitrobenzene	ND	0.050	mg/L
Pentachlorophenol	ND	0.10	mg/L
Pyridine	ND	0.10	mg/L
2,4,5-Trichloro-phenol	ND	0.050	mg/L
2,4,6-Trichloro-phenol	ND	0.050	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	88	(32 - 112)
2-Fluorobiphenyl	85	(30 - 110)
Terphenyl-d14	88	(10 - 144)
Phenol-d5	83	(10 - 113)
2-Fluorophenol	75	(13 - 110)
2,4,6-Tribromophenol	89	(21 - 122)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-005

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-005	**Work Order #...:**	FATMX1AF	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	10/31/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303246		
Dilution Factor:	1				
% Moisture.....:	19	**Method.....:**	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	87	(31 - 115)
Tetrachloro-m-xylene	76	(47 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-005

GC Semivolatiles

Lot-Sample #...:	A2J250333-005	**Work Order #...:**	FA7MX1AT	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Prep Date.....:	10/27/02	**Analysis Date..:**	10/29/02		
Prep Batch #...:	2300146				
Dilution Factor:	1				
% Moisture.....:	19	**Method.....:**	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	41	ug/kg
Aroclor 1221	ND	41	ug/kg
Aroclor 1232	ND	41	ug/kg
Aroclor 1242	ND	41	ug/kg
Aroclor 1248	**130**	**41**	**ug/kg**
Aroclor 1254	ND	41	ug/kg
Aroclor 1260	ND	41	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	85	(31 - 127)
Decachlorobiphenyl	78	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-005

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-005	**Work Order #...:**	FATMX1AG	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/03/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303248		
Dilution Factor:	1				
% Moisture.....:	19	**Method.....:**	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	88	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

COBERSTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-005

TCLP Metals

Lot-Sample #...: A2J250333-005 Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
Leach Date.....: 10/29/02 Leach Batch #..: P230213

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2304118						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMX1AH
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FATMX[illegible]
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FATMX1AK
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMX1AL
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMX1[illegible]
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FATMX1AN
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FATMX1AP
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FATMX[illegible]
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-005

General Chemistry

Lot-Sample #...: A2J250333-005 **Work Order #...:** FATMX **Matrix.....:** SO
Date Sampled...: 10/22/02 **Date Received..:** 10/22/02
% Moisture.....: 19

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	7.6	-	No Units	SW846 9045C	10/29/02	2302623
		Dilution Factor: 1				
Flashpoint	>180		deg F	SW846 1010	11/07/02	2311349
		Dilution Factor: 1				
Paint Filter Test	NEG	0.10	%	SW846 9095A	10/29/02	2302622
		Dilution Factor: 1				
Percent Solids	80.6	10.0	%	MCAWW 160.3 MOD	10/28-10/29/02	2301512
		Dilution Factor: 1				
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	11/10/02	2315197
		Dilution Factor: 1				
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	11/10/02	2315194
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

NEG Negative

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-006

TCLP GC/MS Volatiles

Lot-Sample #...:	A2J250333-006	**Work Order #...:**	FATM11AC	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/30/02	**Prep Date.....:**	11/02/02	**Analysis Date..:**	11/02/02
Leach Batch #..:	P230206	**Prep Batch #...:**	2305335		
Dilution Factor:	10				
% Moisture.....:	25	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.25	mg/L
Carbon tetrachloride	ND	0.25	mg/L
Chlorobenzene	ND	0.25	mg/L
Chloroform	ND	0.25	mg/L
1,2-Dichloroethane	ND	0.25	mg/L
1,1-Dichloroethylene	ND	0.70	mg/L
Methyl ethyl ketone	ND	0.50	mg/L
Tetrachloroethylene	ND	0.70	mg/L
Trichloroethylene	ND	0.50	mg/L
Vinyl chloride	ND	0.50	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	108	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	92	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Elevated reporting limits due to TICs.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-006

TCLP GC/MS Semivolatiles

Lot-Sample #...:	A2J250333-006	**Work Order #...:**	FATM11AE	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/02/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303245		
Dilution Factor:	50				
% Moisture.....:	25	**Method.....:**	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	ND	2.5	mg/L
m-Cresol & p-Cresol	**5.1**	**5.0**	**mg/L**
1,4-Dichlorobenzene	ND	2.5	mg/L
2,4-Dinitrotoluene	ND	2.5	mg/L
Hexachlorobenzene	ND	2.5	mg/L
Hexachlorobutadiene	ND	2.5	mg/L
Hexachloroethane	ND	2.5	mg/L
Nitrobenzene	ND	2.5	mg/L
Pentachlorophenol	ND	5.0	mg/L
Pyridine	ND	5.0	mg/L
2,4,5-Trichloro-phenol	ND	2.5	mg/L
2,4,6-Trichloro-phenol	ND	2.5	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	0.0 DIL,*	(32 - 112)
2-Fluorobiphenyl	0.0 DIL,*	(30 - 110)
Terphenyl-d14	0.0 DIL,*	(10 - 144)
Phenol-d5	77 DIL	(10 - 113)
2-Fluorophenol	0.0 DIL,*	(13 - 110)
2,4,6-Tribromophenol	0.0 DIL,*	(21 - 122)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-006

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-006	**Work Order #...:**	FATM11AF	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	10/31/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303246		
Dilution Factor:	1				
% Moisture.....:	25	**Method.....:**	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	89	(31 - 115)
Tetrachloro-m-xylene	91	(47 - 120)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-006

GC Semivolatiles

Lot-Sample #...:	A2J250333-006	**Work Order #...:**	FATM11AT	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Prep Date.....:	10/27/02	**Analysis Date..:**	10/29/02		
Prep Batch #...:	2300146				
Dilution Factor:	1				
% Moisture.....:	25	**Method.....:**	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	44	ug/kg
Aroclor 1221	ND	44	ug/kg
Aroclor 1232	ND	44	ug/kg
Aroclor 1242	ND	44	ug/kg
Aroclor 1248	**47**	**44**	**ug/kg**
Aroclor 1254	ND	44	ug/kg
Aroclor 1260	ND	44	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	71	(31 - 127)
Decachlorobiphenyl	77	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-006

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-006	**Work Order #...:**	FATM11AG	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/03/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303248		
Dilution Factor:	1				
% Moisture.....:	25	**Method.....:**	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	85	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

North Canton

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-006

TCLP Metals

Lot-Sample #...: A2J250333-006 **Matrix.....:** SO
Date Sampled...: 10/22/02 **Date Received..:** 10/22/02
Leach Date.....: 10/29/02 **Leach Batch #..:** P230213

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2304118						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FATM11AH
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FATM11AJ
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FATM11AK
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FATM11AL
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FATM11AM
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FATM11AN
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FATM11AP
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FATM11AQ
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-006

General Chemistry

Lot-Sample #...: A2J250333-006 **Work Order #...:** FATM1 **Matrix.....:** SO
Date Sampled...: 10/22/02 **Date Received..:** 10/22/02
% Moisture.....: 25

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	7.3		No Units	SW846 9045C	10/29/02	2302623
		Dilution Factor: 1				
Flashpoint	>180		deg F	SW846 1010	10/30/02	2303[illegible]
		Dilution Factor: 1				
Paint Filter Test	NEG	0.10	%	SW846 9095A	10/29/02	2302622
		Dilution Factor: 1				
Percent Solids	75.4	10.0	%	MCAWW 160.3 MOD	10/28-10/29/02	2301512
		Dilution Factor: 1				
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	10/31/02	2304480
		Dilution Factor: 1				
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	10/31/02	2304479
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

NEG Negative

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-007

TCLP GC/MS Volatiles

Lot-Sample #...:	A2J250333-007	**Work Order #...:**	FATM41AC	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/30/02	**Prep Date.....:**	11/02/02	**Analysis Date..:**	11/02/02
Leach Batch #..:	P230206	**Prep Batch #...:**	2305335		
Dilution Factor:	28.57				
% Moisture.....:	79	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.71	mg/L
Carbon tetrachloride	ND	0.71	mg/L
Chlorobenzene	ND	0.71	mg/L
Chloroform	ND	0.71	mg/L
1,2-Dichloroethane	ND	0.71	mg/L
1,1-Dichloroethylene	ND	2.0	mg/L
Methyl ethyl ketone	ND	1.4	mg/L
Tetrachloroethylene	ND	2.0	mg/L
Trichloroethylene	ND	1.4	mg/L
Vinyl chloride	ND	1.4	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	111	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Elevated reporting limits due to TICs.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-007

TCLP GC/MS Semivolatiles

Lot-Sample #...:	A2J250333-007	**Work Order #...:**	FATM41AE	**Matrix.....:**	SO
Date Sampled...:	10/22/02	**Date Received..:**	10/22/02		
Leach Date.....:	10/29/02	**Prep Date.....:**	10/30/02	**Analysis Date..:**	11/02/02
Leach Batch #..:	P230213	**Prep Batch #...:**	2303245		
Dilution Factor:	20				
% Moisture.....:	79	**Method.....:**	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	ND	1.0	mg/L
m-Cresol & p-Cresol	ND	2.0	mg/L
1,4-Dichlorobenzene	ND	1.0	mg/L
2,4-Dinitrotoluene	ND	1.0	mg/L
Hexachlorobenzene	ND	1.0	mg/L
Hexachlorobutadiene	ND	1.0	mg/L
Hexachloroethane	ND	1.0	mg/L
Nitrobenzene	ND	1.0	mg/L
Pentachlorophenol	ND	2.0	mg/L
Pyridine	ND	2.0	mg/L
2,4,5-Trichloro-phenol	ND	1.0	mg/L
2,4,6-Trichloro-phenol	ND	1.0	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	65 DIL	(32 - 112)
2-Fluorobiphenyl	71 DIL	(30 - 110)
Terphenyl-d14	71 DIL	(10 - 144)
Phenol-d5	43 DIL	(10 - 113)
2-Fluorophenol	0.0 DIL,*	(13 - 110)
2,4,6-Tribromophenol	46 DIL	(21 - 122)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-007

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-007	Work Order #...:	FATM41AF	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/29/02	Prep Date.....:	10/30/02	Analysis Date..:	10/31/02
Leach Batch #..:	P230213	Prep Batch #...:	2303246		
Dilution Factor:	1				
% Moisture.....:	79	Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	104	(31 - 115)
Tetrachloro-m-xylene	99	(47 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

COMESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-007

GC Semivolatiles

Lot-Sample #...: A2J250333-007 Work Order #...: FATM41AT Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
Prep Date.....: 10/27/02 Analysis Date..: 10/29/02
Prep Batch #...: 2300146
Dilution Factor: 1
% Moisture.....: 79 Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	350	ug/kg
Aroclor 1221	ND	350	ug/kg
Aroclor 1232	ND	350	ug/kg
Aroclor 1242	ND	350	ug/kg
Aroclor 1248	ND	350	ug/kg
Aroclor 1254	ND	350	ug/kg
Aroclor 1260	ND	350	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	40	(31 - 127)
Decachlorobiphenyl	30	(23 - 141)

NOTE(S):
Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-007

TCLP GC Semivolatiles

Lot-Sample #...:	A2J250333-007	Work Order #...:	FATM41AG	Matrix.....:	SO
Date Sampled...:	10/22/02	Date Received..:	10/22/02		
Leach Date.....:	10/29/02	Prep Date.....:	10/30/02	Analysis Date..:	11/03/02
Leach Batch #..:	P230213	Prep Batch #...:	2303248		
Dilution Factor:	1				
% Moisture.....:	79	Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	86	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-007

TCLP Metals

Lot-Sample #...: A2J250333-007 Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
Leach Date.....: 10/29/02 Leach Batch #..: P230213

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2304118						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FATM41AH
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FATM4[illegible]
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FATM41AK
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FATM41AL
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FATM4[illegible]
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FATM41AN
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FATM41AP
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FATM41A[illegible]
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

CONESTOGA-ROVERS & ASSOCIATES INC

Client Sample ID: CS-007

General Chemistry

Lot-Sample #...: A2J250333-007 Work Order #...: FATM4 Matrix.....: SO
Date Sampled...: 10/22/02 Date Received..: 10/22/02
% Moisture.....: 79

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	7.6		No Units	SW846 9045C	10/29/02	2302623
		Dilution Factor: 1				
Paint Filter Test	NEG	0.10	%	SW846 9095A	10/29/02	2302622
		Dilution Factor: 1				
Percent Solids	20.8	10.0	%	MCAWW 160.3 MOD	10/28-10/29/02	2301512
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

NEG Negative

QUALITY CONTROL SECTION

METHOD BLANK REPORT

TCLP GC/MS Volatiles

Client Lot #...: A2J250333 Work Order #...: FA0TQ1AA Matrix.....: SOLID
MB Lot-Sample #: A2J290000-199
Leach Date.....: 10/30/02 Prep Date.....: 11/01/02 Analysis Date..: 11/01/02
Leach Batch #..: P230206 Prep Batch #...: 2305335
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.025	mg/L	SW846 8260B
Carbon tetrachloride	ND	0.025	mg/L	SW846 8260B
Chlorobenzene	ND	0.025	mg/L	SW846 8260B
Chloroform	ND	0.025	mg/L	SW846 8260B
1,2-Dichloroethane	ND	0.025	mg/L	SW846 8260B
1,1-Dichloroethylene	ND	0.070	mg/L	SW846 8260B
Methyl ethyl ketone	ND	0.050	mg/L	SW846 8260B
Tetrachloroethylene	ND	0.070	mg/L	SW846 8260B
Trichloroethylene	ND	0.050	mg/L	SW846 8260B
Vinyl chloride	ND	0.050	mg/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	91	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	83	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP GC/MS Volatiles

Client Lot #...: A2J250333 Work Order #...: FA42F1AA Matrix.....: SOLID
MB Lot-Sample #: A2J310000-128
Leach Date.....: 11/01/02 Prep Date.....: 11/02/02 Analysis Date..: 11/02/02
Leach Batch #..: P230401 Prep Batch #...: 2307114
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.025	mg/L	SW846 8260B
Carbon tetrachloride	ND	0.025	mg/L	SW846 8260B
Chlorobenzene	ND	0.025	mg/L	SW846 8260B
Chloroform	ND	0.025	mg/L	SW846 8260B
1,2-Dichloroethane	ND	0.025	mg/L	SW846 8260B
1,1-Dichloroethylene	ND	0.070	mg/L	SW846 8260B
Methyl ethyl ketone	ND	0.050	mg/L	SW846 8260B
Tetrachloroethylene	ND	0.070	mg/L	SW846 8260B
Trichloroethylene	ND	0.050	mg/L	SW846 8260B
Vinyl chloride	ND	0.050	mg/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	110	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	92	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP GC/MS Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FA29X1AA Matrix.....: SOLID
MB Lot-Sample #: A2J300000-245
Leach Date.....: 10/29/02 Prep Date.....: 10/30/02 Analysis Date..: 11/02/02
Leach Batch #..: P230213 Prep Batch #...: 2303245
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
o-Cresol	ND	0.050	mg/L	SW846 8270C
m-Cresol & p-Cresol	ND	0.10	mg/L	SW846 8270C
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270C
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270C
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270C
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270C
Hexachloroethane	ND	0.050	mg/L	SW846 8270C
Nitrobenzene	ND	0.050	mg/L	SW846 8270C
Pentachlorophenol	ND	0.10	mg/L	SW846 8270C
Pyridine	ND	0.10	mg/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	0.050	mg/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	0.050	mg/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(32 - 112)
2-Fluorobiphenyl	70	(30 - 110)
Terphenyl-d14	77	(10 - 144)
Phenol-d5	47	(10 - 113)
2-Fluorophenol	25	(13 - 110)
2,4,6-Tribromophenol	58	(21 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP GC/MS Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FCD291AA Matrix.....: SOLID
MB Lot-Sample #: A2K050000-104
Leach Date.....: 10/29/02 Prep Date.....: 11/05/02 Analysis Date..: 11/05/02
Leach Batch #..: P230213 Prep Batch #...: 2309104
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
o-Cresol	ND	0.050	mg/L	SW846 8270C
m-Cresol & p-Cresol	ND	0.10	mg/L	SW846 8270C
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270C
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270C
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270C
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270C
Hexachloroethane	ND	0.050	mg/L	SW846 8270C
Nitrobenzene	ND	0.050	mg/L	SW846 8270C
Pentachlorophenol	ND	0.10	mg/L	SW846 8270C
Pyridine	ND	0.10	mg/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	0.050	mg/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	0.050	mg/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(32 - 112)
2-Fluorobiphenyl	71	(30 - 110)
Terphenyl-d14	95	(10 - 144)
Phenol-d5	70	(10 - 113)
2-Fluorophenol	77	(13 - 110)
2,4,6-Tribromophenol	56	(21 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP GC Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FA2961AA Matrix.....: SOLID
MB Lot-Sample #: A2J300000-246
Leach Date.....: 10/29/02 Prep Date.....: 10/30/02 Analysis Date..: 10/31/02
Leach Batch #..: P230213 Prep Batch #...: 2303246
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chlordane (technical)	ND	0.0050	mg/L	SW846 8081A
Endrin	ND	0.00050	mg/L	SW846 8081A
Heptachlor	ND	0.00050	mg/L	SW846 8081A
Heptachlor epoxide	ND	0.00050	mg/L	SW846 8081A
Lindane	ND	0.00050	mg/L	SW846 8081A
Methoxychlor	ND	0.0010	mg/L	SW846 8081A
Toxaphene	ND	0.020	mg/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	88	(31 - 115)
Tetrachloro-m-xylene	90	(47 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FA13R1AA Matrix.....: SOLID
MB Lot-Sample #: A2J290000-398

Prep Date.....: 10/29/02
Analysis Date..: 10/30/02 Prep Batch #...: 2302398
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	33	ug/kg	SW846 8082
Aroclor 1221	ND	33	ug/kg	SW846 8082
Aroclor 1232	ND	33	ug/kg	SW846 8082
Aroclor 1242	ND	33	ug/kg	SW846 8082
Aroclor 1248	ND	33	ug/kg	SW846 8082
Aroclor 1254	ND	33	ug/kg	SW846 8082
Aroclor 1260	ND	33	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(31 - 127)
Decachlorobiphenyl	95	(23 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FAWA31AA Matrix.....: SOLID
MB Lot-Sample #: A2J270000-146

Prep Date.....: 10/27/02
Analysis Date..: 10/29/02 Prep Batch #...: 2300146
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	33	ug/kg	SW846 8082
Aroclor 1221	ND	33	ug/kg	SW846 8082
Aroclor 1232	ND	33	ug/kg	SW846 8082
Aroclor 1242	ND	33	ug/kg	SW846 8082
Aroclor 1248	ND	33	ug/kg	SW846 8082
Aroclor 1254	ND	33	ug/kg	SW846 8082
Aroclor 1260	ND	33	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	77	(31 - 127)
Decachlorobiphenyl	87	(23 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP GC Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FA3AA1AA Matrix.....: SOLID
MB Lot-Sample #: A2J300000-248
Leach Date.....: 10/29/02 Prep Date.....: 10/30/02 Analysis Date..: 11/03/02
Leach Batch #..: P230213 Prep Batch #...: 2303248
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-D	ND	0.50	mg/L	SW846 8151A
2,4,5-TP (Silvex)	ND	0.10	mg/L	SW846 8151A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	71	(37 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP Metals

Client Lot #...: A2J250333 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A2J290000-453 Prep Batch #...: 2304118						
Leach Date.....: 10/29/02 Leach Batch #..: P230213						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FA18D1AF
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FA18D1AG
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FA18D1AH
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FA18D1AJ
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FA18D1AK
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FA18D1AL
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FA18D1AA
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FA18D1AM
		Dilution Factor: 1				
MB Lot-Sample #: A2J300000-411 Prep Batch #...: 2304113						
Leach Date.....: 10/30/02 Leach Batch #..: P230303						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FA38F1AE
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FA38F1AF
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FA38F1AG
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FA38F1AH
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FA38F1AJ
		Dilution Factor: 1				

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METHOD BLANK REPORT

TCLP Metals

Client Lot #...: A2J250333 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FA38F1AK
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FA38F1AL
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FA38F1AM
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP Metals

Client Lot #...: A2J250333 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A2J310000-113 Prep Batch #...: 2304113						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FA41E1AA
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FA41E1AC
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FA41E1AD
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FA41E1AE
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FA41E1AF
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FA41E1AG
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FA41E1AH
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FA41E1AJ
		Dilution Factor: 1				
MB Lot-Sample #: A2J310000-118 Prep Batch #...: 2304118						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/31/02	FA41Q1AC
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/31/02	FA41Q1AD
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/31/02	FA41Q1AE
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/31/02	FA41Q1AF
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/31/02	FA41Q1AG
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/31/02	FA41Q1AH
		Dilution Factor: 1				

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METHOD BLANK REPORT

TCLP Metals

Client Lot #...: A2J250333 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	ND	0.50	mg/L	SW846 6010B	10/31/02	FA41Q1AJ
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/31/02	FA41Q1AK
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A2J250333 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FA1K81AA		MB Lot-Sample #:	A2J280000-509	
	ND	10.0	%	MCAWW 160.3 MOD	10/28-10/29/02	2301509
		Dilution Factor: 1				
Percent Solids		Work Order #: FA1LF1AA		MB Lot-Sample #:	A2J280000-512	
	ND	10.0	%	MCAWW 160.3 MOD	10/28-10/29/02	2301512
		Dilution Factor: 1				
Percent Solids		Work Order #: FA4GG1AA		MB Lot-Sample #:	A2J300000-440	
	ND	10.0	%	MCAWW 160.3 MOD	10/30-10/31/02	2303440
		Dilution Factor: 1				
Reactive Cyanide		Work Order #: FA64P1AA		MB Lot-Sample #:	A2J310000-480	
	ND	200	mg/kg	SW846 7.3.3	10/31/02	2304480
		Dilution Factor: 1				
Reactive Cyanide		Work Order #: FCTVE1AA		MB Lot-Sample #:	A2K110000-197	
	ND	200	mg/kg	SW846 7.3.3	11/10/02	2315197
		Dilution Factor: 1				
Reactive Sulfide		Work Order #: FA64R1AA		MB Lot-Sample #:	A2J310000-479	
	ND	200	mg/kg	SW846 7.3.4	10/31/02	2304479
		Dilution Factor: 1				
Reactive Sulfide		Work Order #: FCTT51AA		MB Lot-Sample #:	A2K110000-194	
	ND	200	mg/kg	SW846 7.3.4	11/10/02	2315194
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A2J250333 Work Order #...: FA8VM1AA-LCS Matrix.....: SOLID
LCS Lot-Sample#: A2K010000-335 FA8VM1AC-LCSD
Prep Date.....: 11/01/02 Analysis Date..: 11/01/02
Prep Batch #...: 2305335
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	89	(79 - 116)			SW846 8260B
	97	(79 - 116)	8.7	(0-20)	SW846 8260B
Chlorobenzene	90	(81 - 115)			SW846 8260B
	99	(81 - 115)	9.2	(0-20)	SW846 8260B
1,1-Dichloroethylene	91	(65 - 119)			SW846 8260B
	96	(65 - 119)	5.2	(0-20)	SW846 8260B
Trichloroethylene	81	(80 - 122)			SW846 8260B
	86	(80 - 122)	6.7	(0-20)	SW846 8260B
Toluene	89	(76 - 119)			SW846 8260B
	97	(76 - 119)	9.1	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(78 - 115)
	97	(78 - 115)
1,2-Dichloroethane-d4	86	(77 - 120)
	93	(77 - 120)
Toluene-d8	97	(78 - 111)
	97	(78 - 111)
4-Bromofluorobenzene	92	(80 - 114)
	94	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A2J250333 Work Order #...: FCA501AA Matrix.....: SOLID
LCS Lot-Sample#: A2K030000-114
Prep Date.....: 11/02/02 Analysis Date..: 11/02/02
Prep Batch #...: 2307114
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	96	(75 - 129)	SW846 8260B
Chlorobenzene	95	(75 - 127)	SW846 8260B
1,1-Dichloroethylene	94	(55 - 142)	SW846 8260B
Trichloroethylene	82	(70 - 131)	SW846 8260B
Toluene	93	(71 - 130)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	107	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FA29X1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: A2J300000-245 FA29X1AD-LCSD
Prep Date.....: 10/30/02 Analysis Date..: 11/02/02
Prep Batch #...: 2303245
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
o-Cresol	65	(33 - 115)			SW846 8270C
	68	(33 - 115)	5.3	(0-31)	SW846 8270C
m-Cresol & p-Cresol	72	(46 - 109)			SW846 8270C
	75	(46 - 109)	4.4	(0-32)	SW846 8270C
1,4-Dichlorobenzene	65	(28 - 110)			SW846 8270C
	69	(28 - 110)	6.0	(0-36)	SW846 8270C
2,4-Dinitrotoluene	89	(47 - 131)			SW846 8270C
	86	(47 - 131)	3.1	(0-32)	SW846 8270C
Hexachlorobenzene	86	(57 - 128)			SW846 8270C
	86	(57 - 128)	0.35	(0-22)	SW846 8270C
Hexachlorobutadiene	64	(36 - 116)			SW846 8270C
	65	(36 - 116)	2.2	(0-32)	SW846 8270C
Hexachloroethane	63	(30 - 110)			SW846 8270C
	68	(30 - 110)	8.1	(0-33)	SW846 8270C
Nitrobenzene	83	(45 - 130)			SW846 8270C
	84	(45 - 130)	0.89	(0-50)	SW846 8270C
Pentachlorophenol	65	(10 - 140)			SW846 8270C
	61	(10 - 140)	7.1	(0-56)	SW846 8270C
Pyridine	63	(10 - 148)			SW846 8270C
	65	(10 - 148)	3.4	(0-65)	SW846 8270C
2,4,5-Trichloro-phenol	79	(41 - 125)			SW846 8270C
	81	(41 - 125)	2.1	(0-22)	SW846 8270C
2,4,6-Trichloro-phenol	80	(46 - 135)			SW846 8270C
	81	(46 - 135)	1.5	(0-27)	SW846 8270C
Cresols (total)	69	(46 - 109)			SW846 8270C
	73	(46 - 109)	4.6	(0-32)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	81	(32 - 112)
	84	(32 - 112)
2-Fluorobiphenyl	77	(30 - 110)
	81	(30 - 110)
Terphenyl-d14	78	(10 - 144)
	79	(10 - 144)
Phenol-d5	71	(10 - 113)

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A2J250333 **Work Order #...:** FA29X1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A2J300000-245 FA29X1AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	78	(10 - 113)
2-Fluorophenol	61	(13 - 110)
	71	(13 - 110)
2,4,6-Tribromophenol	81	(21 - 122)
	81	(21 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FCD291AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: A2K050000-104 FCD291AD-LCSD
Prep Date.....: 11/05/02 Analysis Date..: 11/05/02
Prep Batch #...: 2309104
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
o-Cresol	70	(33 - 115)			SW846 8270C
	74	(33 - 115)	5.3	(0-31)	SW846 8270C
m-Cresol & p-Cresol	72	(46 - 109)			SW846 8270C
	78	(46 - 109)	8.0	(0-32)	SW846 8270C
1,4-Dichlorobenzene	73	(28 - 110)			SW846 8270C
	77	(28 - 110)	4.5	(0-36)	SW846 8270C
2,4-Dinitrotoluene	86	(47 - 131)			SW846 8270C
	90	(47 - 131)	4.5	(0-32)	SW846 8270C
Hexachlorobenzene	97	(57 - 128)			SW846 8270C
	97	(57 - 128)	0.17	(0-22)	SW846 8270C
Hexachlorobutadiene	74	(36 - 116)			SW846 8270C
	74	(36 - 116)	0.12	(0-32)	SW846 8270C
Hexachloroethane	76	(30 - 110)			SW846 8270C
	81	(30 - 110)	6.5	(0-33)	SW846 8270C
Nitrobenzene	77	(45 - 130)			SW846 8270C
	80	(45 - 130)	3.8	(0-50)	SW846 8270C
Pentachlorophenol	63	(10 - 140)			SW846 8270C
	69	(10 - 140)	10	(0-56)	SW846 8270C
Pyridine	70	(10 - 148)			SW846 8270C
	76	(10 - 148)	9.3	(0-65)	SW846 8270C
2,4,5-Trichlorophenol	77	(41 - 125)			SW846 8270C
	80	(41 - 125)	4.6	(0-22)	SW846 8270C
2,4,6-Trichlorophenol	81	(46 - 135)			SW846 8270C
	82	(46 - 135)	2.1	(0-27)	SW846 8270C
Cresols (total)	72	(46 - 109)			SW846 8270C
	77	(46 - 109)	7.1	(0-32)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	79	(32 - 112)
	82	(32 - 112)
2-Fluorobiphenyl	79	(30 - 110)
	81	(30 - 110)
Terphenyl-d14	93	(10 - 144)
	93	(10 - 144)
Phenol-d5	74	(10 - 113)

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A2J250333 **Work Order #...:** FCD291AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A2K050000-104 FCD291AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	80	(10 - 113)
2-Fluorophenol	82	(13 - 110)
	87	(13 - 110)
2,4,6-Tribromophenol	83	(21 - 122)
	87	(21 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FA2961AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: A2J300000-246 FA2961AD-LCSD
Prep Date.....: 10/30/02 Analysis Date..: 10/31/02
Prep Batch #...: 2303246
Dilution Factor: 5

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Endrin	87	(50 - 110)			SW846 8081A
	81	(50 - 110)	7.7	(0-93)	SW846 8081A
Heptachlor	91	(57 - 110)			SW846 8081A
	85	(57 - 110)	7.0	(0-88)	SW846 8081A
Heptachlor epoxide	94	(56 - 110)			SW846 8081A
	86	(56 - 110)	7.8	(0-86)	SW846 8081A
Lindane	95	(56 - 110)			SW846 8081A
	85	(56 - 110)	11	(0-88)	SW846 8081A
Methoxychlor	111	(41 - 126)			SW846 8081A
	101	(41 - 126)	9.8	(0-94)	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	100	(31 - 115)
	87	(31 - 115)
Tetrachloro-m-xylene	92	(47 - 110)
	86	(47 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FAWA31AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: A2J270000-146 FAWA31AD-LCSD
Prep Date.....: 10/27/02 Analysis Date..: 10/29/02
Prep Batch #...: 2300146
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	83	(49 - 122)			SW846 8082
	78	(49 - 122)	6.9	(0-39)	SW846 8082
Aroclor 1260	85	(51 - 127)			SW846 8082
	82	(51 - 127)	3.4	(0-33)	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	83	(31 - 127)
	73	(31 - 127)
Decachlorobiphenyl	88	(23 - 141)
	86	(23 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FA13R1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: A2J290000-398 FA13R1AD-LCSD
Prep Date.....: 10/29/02 Analysis Date..: 10/30/02
Prep Batch #...: 2302398
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	77	(49 - 122)			SW846 8082
	81	(49 - 122)	4.0	(0-39)	SW846 8082
Aroclor 1260	76	(51 - 127)			SW846 8082
	85	(51 - 127)	11	(0-33)	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	79	(31 - 127)
	82	(31 - 127)
Decachlorobiphenyl	83	(23 - 141)
	90	(23 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A2J250333 Work Order #...: FA3AA1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: A2J300000-248 FA3AA1AD-LCSD
Prep Date.....: 10/30/02 Analysis Date..: 11/03/02
Prep Batch #...: 2303248
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,4-D	91	(35 - 136)			SW846 8151A
	86	(35 - 136)	6.2	(0-50)	SW846 8151A
2,4,5-TP (Silvex)	85	(46 - 112)			SW846 8151A
	86	(46 - 112)	0.83	(0-63)	SW846 8151A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	78	(37 - 116)
	77	(37 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: A2J250333 Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A2J310000-113 Prep Batch #...: 2304113					
Arsenic	91	(50 - 150)	SW846 6010B	10/31/02	FA41E1AK
		Dilution Factor: 1			
Barium	93	(50 - 150)	SW846 6010B	10/31/02	FA41E1AL
		Dilution Factor: 1			
Cadmium	96	(50 - 150)	SW846 6010B	10/31/02	FA41E1AM
		Dilution Factor: 1			
Chromium	93	(50 - 150)	SW846 6010B	10/31/02	FA41E1AN
		Dilution Factor: 1			
Lead	95	(50 - 150)	SW846 6010B	10/31/02	FA41E1AP
		Dilution Factor: 1			
Selenium	93	(50 - 150)	SW846 6010B	10/31/02	FA41E1AQ
		Dilution Factor: 1			
Silver	101	(50 - 150)	SW846 6010B	10/31/02	FA41E1AR
		Dilution Factor: 1			
Mercury	111	(50 - 150)	SW846 7470A	10/31/02	FA41E1AT
		Dilution Factor: 1			
LCS Lot-Sample#: A2J310000-118 Prep Batch #...: 2304118					
Arsenic	93	(50 - 150)	SW846 6010B	10/31/02	FA41Q1AM
		Dilution Factor: 1			
Barium	96	(50 - 150)	SW846 6010B	10/31/02	FA41Q1AN
		Dilution Factor: 1			
Cadmium	99	(50 - 150)	SW846 6010B	10/31/02	FA41Q1AP
		Dilution Factor: 1			
Chromium	96	(50 - 150)	SW846 6010B	10/31/02	FA41Q1AQ
		Dilution Factor: 1			
Lead	97	(50 - 150)	SW846 6010B	10/31/02	FA41Q1AR
		Dilution Factor: 1			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: A2J250333 Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	95	(50 - 150)	SW846 6010B	10/31/02	FA41Q1AT
		Dilution Factor: 1			
Silver	103	(50 - 150)	SW846 6010B	10/31/02	FA41Q1AU
		Dilution Factor: 1			
Mercury	114	(50 - 150)	SW846 7470A	10/31/02	FA41Q1AV
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity		Work Order #: FA2XT1AA	LCS Lot Sample#: A2J290000-623		
	100	(97 - 103)	SW846 9045C	10/29/02	2302623
		Dilution Factor: 1			
Reactive Cyanide		Work Order #: FA64P1AC	LCS Lot-Sample#: A2J310000-480		
	21	(10 - 200)	SW846 7.3.3	10/31/02	2304480
		Dilution Factor: 1			
Reactive Cyanide		Work Order #: FCTVE1AC	LCS Lot-Sample#: A2K110000-197		
	16	(10 - 200)	SW846 7.3.3	11/10/02	2315197
		Dilution Factor: 1			
Reactive Sulfide		Work Order #: FA64R1AC	LCS Lot-Sample#: A2J310000-479		
	40	(10 - 200)	SW846 7.3.4	10/31/02	2304479
		Dilution Factor: 1			
Reactive Sulfide		Work Order #: FCTTS1AC	LCS Lot-Sample#: A2K110000-194		
	42	(10 - 200)	SW846 7.3.4	11/10/02	2315194
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP GC/MS Volatiles

Client Lot #...: A2J250333 Work Order #...: FAV0Q1CJ-MS Matrix.....: WATER
MS Lot-Sample #: A2J260164-001 FAV0Q1CK-MSD
Date Sampled...: 10/25/02 15:00 Date Received..: 10/26/02
Leach Date.....: 10/30/02 Prep Date.....: 11/02/02 Analysis Date..: 11/02/02
Leach Batch #..: P230206 Prep Batch #...: 2305335
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	96	(55 - 138)			SW846 8260B
	97	(55 - 138)	1.2	(0-20)	SW846 8260B
Chlorobenzene	95	(49 - 139)			SW846 8260B
	95	(49 - 139)	0.60	(0-22)	SW846 8260B
1,1-Dichloroethylene	96	(43 - 147)			SW846 8260B
	97	(43 - 147)	0.63	(0-27)	SW846 8260B
Trichloroethylene	89	(46 - 143)			SW846 8260B
	89	(46 - 143)	0.07	(0-23)	SW846 8260B
Toluene	94	(46 - 147)			SW846 8260B
	96	(46 - 147)	1.3	(0-24)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
	95	(59 - 138)
1,2-Dichloroethane-d4	100	(61 - 130)
	101	(61 - 130)
Toluene-d8	94	(60 - 143)
	93	(60 - 143)
4-Bromofluorobenzene	95	(47 - 158)
	93	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP GC/MS Volatiles

Client Lot #...: A2J250333 Work Order #...: FA3191AG-MS Matrix.....: SOLID
MS Lot-Sample #: A2J300196-001 FA3191AH-MSD
Date Sampled...: 10/29/02 10:45 Date Received..: 10/30/02
Leach Date.....: 11/01/02 Prep Date.....: 11/03/02 Analysis Date..: 11/03/02
Leach Batch #..: P230401 Prep Batch #...: 2307114
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	94	(55 - 138)			SW846 8260B
	98	(55 - 138)	3.9	(0-20)	SW846 8260B
Chlorobenzene	92	(49 - 139)			SW846 8260B
	96	(49 - 139)	4.2	(0-22)	SW846 8260B
1,1-Dichloroethylene	100	(43 - 147)			SW846 8260B
	100	(43 - 147)	0.14	(0-27)	SW846 8260B
Trichloroethylene	85	(46 - 143)			SW846 8260B
	88	(46 - 143)	4.0	(0-23)	SW846 8260B
Toluene	92	(46 - 147)			SW846 8260B
	96	(46 - 147)	4.0	(0-24)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(59 - 138)
	90	(59 - 138)
1,2-Dichloroethane-d4	87	(61 - 130)
	88	(61 - 130)
Toluene-d8	94	(60 - 143)
	94	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)
	90	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: A2J250333 Matrix.....: SO
Date Sampled...: 10/29/02 Date Received..: 10/29/02

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A2J250333-004 Prep Batch #...: 2304113							
Leach Date.....: 10/30/02 Leach Batch #..: P230303							
Arsenic	99	(50 - 150)			SW846 6010B	10/31/02	FATMR1A2
	95	(50 - 150)	4.8	(0-20)	SW846 6010B	10/31/02	FATMR1A3
		Dilution Factor: 5					
Barium	95	(50 - 150)			SW846 6010B	10/31/02	FATMR1A4
	91	(50 - 150)	4.6	(0-20)	SW846 6010B	10/31/02	FATMR1A5
		Dilution Factor: 5					
Cadmium	98	(50 - 150)			SW846 6010B	10/31/02	FATMR1A6
	94	(50 - 150)	5.0	(0-20)	SW846 6010B	10/31/02	FATMR1A7
		Dilution Factor: 5					
Chromium	96	(50 - 150)			SW846 6010B	10/31/02	FATMR1A8
	91	(50 - 150)	5.4	(0-20)	SW846 6010B	10/31/02	FATMR1A9
		Dilution Factor: 5					
Lead	99	(50 - 150)			SW846 6010B	10/31/02	FATMR1CA
	94	(50 - 150)	5.7	(0-20)	SW846 6010B	10/31/02	FATMR1CC
		Dilution Factor: 5					
Selenium	100	(50 - 150)			SW846 6010B	10/31/02	FATMR1CD
	95	(50 - 150)	5.2	(0-20)	SW846 6010B	10/31/02	FATMR1CE
		Dilution Factor: 5					
Silver	98	(50 - 150)			SW846 6010B	10/31/02	FATMR1CF
	93	(50 - 150)	4.8	(0-20)	SW846 6010B	10/31/02	FATMR1CG
		Dilution Factor: 5					
Mercury	118	(50 - 150)			SW846 7470A	10/31/02	FATMR1CH
	110	(50 - 150)	7.1	(0-20)	SW846 7470A	10/31/02	FATMR1CJ
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: A2J250333 Matrix.....: SOLID
Date Sampled...: 10/25/02 09:50 Date Received..: 10/25/02

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A2J250321-001 Prep Batch #...: 2304118							
Leach Date.....: 10/29/02 Leach Batch #..: P230213							
Arsenic	82	(50 - 150)			SW846 6010B	10/31/02	FATG41CG
	83	(50 - 150)	1.7	(0-20)	SW846 6010B	10/31/02	FATG41CH
		Dilution Factor: 5					
Barium	79	(50 - 150)			SW846 6010B	10/31/02	FATG41CJ
	81	(50 - 150)	1.6	(0-20)	SW846 6010B	10/31/02	FATG41CK
		Dilution Factor: 5					
Cadmium	83	(50 - 150)			SW846 6010B	10/31/02	FATG41CL
	84	(50 - 150)	1.9	(0-20)	SW846 6010B	10/31/02	FATG41CM
		Dilution Factor: 5					
Chromium	80	(50 - 150)			SW846 6010B	10/31/02	FATG41CN
	81	(50 - 150)	1.5	(0-20)	SW846 6010B	10/31/02	FATG41CP
		Dilution Factor: 5					
Lead	82	(50 - 150)			SW846 6010B	10/31/02	FATG41CQ
	84	(50 - 150)	1.5	(0-20)	SW846 6010B	10/31/02	FATG41CR
		Dilution Factor: 5					
Selenium	82	(50 - 150)			SW846 6010B	10/31/02	FATG41CT
	84	(50 - 150)	2.1	(0-20)	SW846 6010B	10/31/02	FATG41CU
		Dilution Factor: 5					
Silver	81	(50 - 150)			SW846 6010B	10/31/02	FATG41CV
	82	(50 - 150)	1.6	(0-20)	SW846 6010B	10/31/02	FATG41CW
		Dilution Factor: 5					
Mercury	119	(50 - 150)			SW846 7470A	10/31/02	FATG41CX
	121	(50 - 150)	1.6	(0-20)	SW846 7470A	10/31/02	FATG41C0
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 **Matrix.....:** SOLID
Date Sampled...: 11/01/02 13:45 **Date Received..:** 11/02/02

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
						% Moisture.....: 11	
Reactive Cyanide		WO#:	FA1461AW-MS/FA1461AX-MSD			MS Lot-Sample #:	C2J290234-001
	14	(10 - 200)			SW846 7.3.3	10/31/02	2304480
	16	(10 - 200)	15	(0-100)	SW846 7.3.3	10/31/02	2304480
		Dilution Factor: 1					
						% Moisture.....: 11	
Reactive Cyanide		WO#:	FCAR21A4-MS/FCAR21A5-MSD			MS Lot-Sample #:	A2K020142-002
	14	(10 - 200)			SW846 7.3.3	11/10/02	2315197
	14	(10 - 200)	0.0	(0-100)	SW846 7.3.3	11/10/02	2315197
		Dilution Factor: 1					
						% Moisture.....: 11	
Reactive Sulfide		WO#:	FATG41C1-MS/FATG41C2-MSD			MS Lot-Sample #:	A2J250321-001
	33	(10 - 200)			SW846 7.3.4	10/31/02	2304479
	31	(10 - 200)	6.1	(0-100)	SW846 7.3.4	10/31/02	2304479
		Dilution Factor: 1					
						% Moisture.....: 11	
Reactive Sulfide		WO#:	FCAR21A2-MS/FCAR21A3-MSD			MS Lot-Sample #:	A2K020142-002
	20	(10 - 200)			SW846 7.3.4	11/10/02	2315194
	19	(10 - 200)	5.1	(0-100)	SW846 7.3.4	11/10/02	2315194
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 Work Order #...: FATMQ-SMP Matrix.....: SO
FATMQ-DUP

Date Sampled...: 10/22/02 Date Received..: 10/22/02

% Moisture.....: 26

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #:	A2J250333-003	
	74.2	66.5	%	11	(0-20)	MCAWW 160.3 MOD	10/28-10/29/02	2301509

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 **Work Order #...:** FART0-SMP FART0-DUP **Matrix.....:** SOLID

Date Sampled...: 10/24/02 15:00 **Date Received..:** 10/25/02

% Moisture.....: 21

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #:	A2J250209-012	
	78.6	79.4	%	1.1	(0-20)	MCAWW 160.3 MOD	10/28-10/29/02	2301512

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 Work Order #...: FATMX-SMP Matrix.....: SO
FATMX-DUP
Date Sampled...: 10/22/02 Date Received..: 10/22/02
% Moisture.....: 19

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #:	A2J250333-005	
	80.6	79.7	%	1.1	(0-20)	MCAS 160.3 MOD	10/28-10/29/02	2301512

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 Work Order #...: FATMM-SMP FATMM-DUP Matrix.....: SO

Date Sampled...: 10/22/02 Date Received..: 10/22/02

% Moisture.....: 10

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity						SD Lot-Sample #:	A2J250333-002	
	8.4	8.2	No Units	2.3	(0-20)	SW846 9045C	10/29/02	2302623

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 Work Order #...: FATMR-SMP Matrix.....: SO
FATMR-DUP

Date Sampled...: 10/29/02 Date Received..: 10/29/02

% Moisture.....: 12

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH
Flashpoint						SD Lot-Sample #:	A2J250333-004	
	>180	>180	deg F	0.0	(0-20)	SW846 1010	10/30/02	230338

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 **Work Order #...:** FA0T8-SMP FA0T8-DUP **Matrix.....:** SOLID

Date Sampled...: 10/27/02 13:00 **Date Received..:** 10/28/02

% Moisture.....: 25

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #:	A2J290116-001	
	75.0	77.6	%	3.4	(0-20)	MCAWW 160.3 MOD	10/30-10/31/02	2303440

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 Work Order #...: FA2CL-SMP FA2CL-DUP Matrix.....: SOLID

Date Sampled...: 10/22/02 07:55 Date Received..: 10/29/02

% Moisture.....: 13

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD L-Sample #: A2J290265-002		
	87.0	88.1	%	1.3	(0-20)	MCAWW 160.3 MOD	10/30-10/31/02	2303440

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A2J250333 Work Order #...: FCDMT-SMP Matrix.....: SOLID
FCDMT-DUP
Date Sampled...: 11/01/02 Date Received..: 11/02/02
% Moisture.....: 25

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Flashpoint						SD Lot-Sample #:	A2K040222-002	
	>180	>180	deg F	0.0	(0-20)	SW846 1010	11/07/02	2311349

Dilution Factor: 1

Appendix C

Dredged Spoils Soil Stockpile Data [On-Site Borrow]

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		*SB-237*	*SB-237*	*SB-238*	*SB-238*	*SB-239*	*SB-239*
Sample ID:		*S-073002-MG-282*	*S-073002-MG-282*	*S-072902-MG-271*	*S-072902-MG-271*	*S-072902-MG-272*	*S-072902-MG-272*
Sample Date:		*7/30/2002*	*7/30/2002*	*7/29/2002*	*7/29/2002*	*7/29/2002*	*7/29/2002*
		0-10 ft (bgs)	*8-10 ft (bgs)*	*1-10 ft (bgs)*	*6-8 ft (bgs)*	*2.5-12.5 ft (bgs)*	*10-12 ft (bgs)*
Parameter	*Unit*						
Volatiles							
1,1,1-Trichloroethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,1,2,2-Tetrachloroethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,1,2-Trichloroethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,1-Dichloroethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,1-Dichloroethene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,2,4-Trichlorobenzene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,2-Dibromo-3-chloropropane (DBCP)	ug/Kg	-	ND (12)	-	ND (17)	-	ND (11)
1,2-Dibromoethane (Ethylene Dibromide)	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,2-Dichlorobenzene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,2-Dichloroethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,2-Dichloropropane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,3-Dichlorobenzene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
1,4-Dichlorobenzene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
2-Butanone	ug/Kg	-	ND (24)	-	ND (33)	-	ND (23)
2-Hexanone	ug/Kg	-	ND (24)	-	ND (33)	-	ND (23)
4-Methyl-2-pentanone	ug/Kg	-	ND (24)	-	ND (33)	-	ND (23)
Acetone	ug/Kg	-	ND (24)	-	ND (33)	-	ND (23)
Benzene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Bromodichloromethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Bromoform	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Bromomethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Carbon disulfide	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Carbon tetrachloride	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Chlorobenzene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Chloroethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Chloroform (Trichloromethane)	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Chloromethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
cis-1,2-Dichloroethene	ug/Kg	-	ND (3.0)	-	ND (4.1)	-	ND (2.8)
cis-1,3-Dichloropropene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Cyclohexane	ug/Kg	-	ND (12)	-	ND (17)	-	ND (11)
Dibromochloromethane	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Dichlorodifluoromethane (CFC-12)	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Ethylbenzene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Isopropylbenzene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Methyl acetate	ug/Kg	-	ND (12)	-	ND (17)	-	ND (11)
Methyl cyclohexane	ug/Kg	-	ND (12)	-	ND (17)	-	ND (11)
Methyl Tert Butyl Ether	ug/Kg	-	ND (24)	-	ND (33)	-	ND (23)
Methylene chloride	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Styrene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Tetrachloroethene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Toluene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
trans-1,2-Dichloroethene	ug/Kg	-	ND (3.0)	-	ND (4.1)	-	ND (2.8)
trans-1,3-Dichloropropene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Trichloroethene	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Trichlorofluoromethane (CFC-11)	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		SB-237	SB-237	SB-238	SB-238	SB-239	SB-239
Sample ID:		S-073002-MG-282	S-073002-MG-282	S-072902-MG-271	S-072902-MG-271	S-072902-MG-272	S-072902-MG-272
Sample Date:		7/30/2002	7/30/2002	7/29/2002	7/29/2002	7/29/2002	7/29/2002
		0-10 ft (bgs)	8-10 ft (bgs)	1-10 ft (bgs)	6-8 ft (bgs)	2.5-12.5 ft (bgs)	10-12 ft (bgs)
Parameter	***Unit***						
Trifluorotrichloroethane (Freon 113)	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Vinyl chloride	ug/Kg	-	ND (6.0)	-	ND (8.3)	-	ND (5.7)
Xylene (total)	ug/Kg	-	ND (12)	-	ND (17)	-	ND (11)
Semi-Volatiles							
2,2'-oxybis(1-Chloropropane)	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2,4,5-Trichlorophenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2,4,6-Trichlorophenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2,4-Dichlorophenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2,4-Dimethylphenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2,4-Dinitrophenol	ug/Kg	ND (1700)	-	ND (2300)	-	ND (6700)	-
2,4-Dinitrotoluene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2,6-Dinitrotoluene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2-Chloronaphthalene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2-Chlorophenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2-Methylnaphthalene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2-Methylphenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
2-Nitroaniline	ug/Kg	ND (1700)	-	ND (2300)	-	ND (6700)	-
2-Nitrophenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
3,3'-Dichlorobenzidine	ug/Kg	ND (1700)	-	ND (2300)	-	ND (6700)	-
3-Nitroaniline	ug/Kg	ND (1700)	-	ND (2300)	-	ND (6700)	-
4,6-Dinitro-2-methylphenol	ug/Kg	ND (1700)	-	ND (2300)	-	ND (6700)	-
4-Bromophenyl phenyl ether	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
4-Chloro-3-methylphenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
4-Chloroaniline	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
4-Chlorophenyl phenyl ether	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
4-Methylphenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
4-Nitroaniline	ug/Kg	ND (1700)	-	ND (2300)	-	ND (6700)	-
4-Nitrophenol	ug/Kg	ND (1700)	-	ND (2300)	-	ND (6700)	-
Acenaphthene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Acenaphthylene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Acetophenone	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Anthracene	ug/Kg	ND (340)	-	1100	-	8300	-
Atrazine	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Benzaldehyde	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Benzo(a)anthracene	ug/Kg	350	-	1400	-	1600	-
Benzo(a)pyrene	ug/Kg	ND (340)	-	1400	-	1400	-
Benzo(b)fluoranthene	ug/Kg	430	-	1900	-	1800	-
Benzo(g,h,i)perylene	ug/Kg	ND (340)	-	640	-	ND (1400)	-
Benzo(k)fluoranthene	ug/Kg	ND (340)	-	810	-	ND (1400)	-
Biphenyl	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
bis(2-Chloroethoxy)methane	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
bis(2-Chloroethyl)ether	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
bis(2-Ethylhexyl)phthalate	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Butyl benzylphthalate	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Caprolactam	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		*SB-237*	*SB-237*	*SB-238*	*SB-238*	*SB-239*	*SB-239*
Sample ID:		*S-073002-MG-282*	*S-073002-MG-282*	*S-072902-MG-271*	*S-072902-MG-271*	*S-072902-MG-272*	*S-072902-MG-272*
Sample Date:		*7/30/2002*	*7/30/2002*	*7/29/2002*	*7/29/2002*	*7/29/2002*	*7/29/2002*
		0-10 ft (bgs)	*8-10 ft (bgs)*	*1-10 ft (bgs)*	*6-8 ft (bgs)*	*2.5-12.5 ft (bgs)*	*10-12 ft (bgs)*
Parameter	***Unit***						
Carbazole	ug/Kg	ND (340)	-	ND (480)	-	4300	-
Chrysene	ug/Kg	520	-	2100	-	3100	-
Dibenz(a,h)anthracene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Dibenzofuran	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Diethyl phthalate	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Dimethyl phthalate	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Di-n-butylphthalate	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Di-n-octyl phthalate	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Fluoranthene	ug/Kg	530	-	2700	-	2800	-
Fluorene	ug/Kg	ND (340)	-	ND (480)	-	1400	-
Hexachlorobenzene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Hexachlorobutadiene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Hexachlorocyclopentadiene	ug/Kg	ND (1700)	-	ND (2300)	-	ND (6700)	-
Hexachloroethane	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Indeno(1,2,3-cd)pyrene	ug/Kg	ND (340)	-	700	-	ND (1400)	-
Isophorone	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Naphthalene	ug/Kg	ND (340)	-	760	-	ND (1400)	-
Nitrobenzene	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
N-Nitrosodi-n-propylamine	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
N-Nitrosodiphenylamine	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Pentachlorophenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Phenanthrene	ug/Kg	440	-	1100	-	3200	-
Phenol	ug/Kg	ND (340)	-	ND (480)	-	ND (1400)	-
Pyrene	ug/Kg	470	-	2500	-	ND (1400)	-
Metals							
Arsenic	mg/Kg	3.4	-	7.7	-	4.0	-
Barium	mg/Kg	ND (20.9)	-	ND (21.7)	-	ND (20.8)	-
Cadmium	mg/Kg	ND (0.52)	-	ND (0.54)	-	ND (0.52)	-
Chromium	mg/Kg	3.6	-	3.4	-	3.4	-
Lead	mg/Kg	4.5	-	3.6	-	2.0	-
Mercury	mg/Kg	ND (0.10)	-	ND (0.11)	-	ND (0.10)	-
Selenium	mg/Kg	ND (0.52)	-	0.57	-	ND (0.52)	-
Silver	mg/Kg	ND (1.0)	-	ND (1.1)	-	ND (1.0)	-
PCBs							
Aroclor-1016 (PCB-1016)	ug/Kg	ND (34)	-	ND (36)	-	ND (34)	-
Aroclor-1221 (PCB-1221)	ug/Kg	ND (34)	-	ND (36)	-	ND (34)	-
Aroclor-1232 (PCB-1232)	ug/Kg	ND (34)	-	ND (36)	-	ND (34)	-
Aroclor-1242 (PCB-1242)	ug/Kg	ND (34)	-	ND (36)	-	ND (34)	-
Aroclor-1248 (PCB-1248)	ug/Kg	130	-	170	-	ND (34)	-
Aroclor-1254 (PCB-1254)	ug/Kg	ND (34)	-	ND (36)	-	ND (34)	-
Aroclor-1260 (PCB-1260)	ug/Kg	ND (34)	-	ND (36)	-	ND (34)	-
General Chemistry							
Total Solids	%	95.9	95.9	92.0	92.0	96.2	96.2

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		*SB-240*	*SB-240*	*SB-241*	*SB-241*	*SB-241*	*SB-241*
Sample ID:		*S-072902-MG-274*	*S-072902-MG-274*	*S-073002-MG-275*	*S-073002-MG-276*	*S-073002-MG-275*	*S-073002-MG-276*
Sample Date:		*7/29/2002*	*7/29/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*
		0-10.5 ft (bgs)	*2-4 ft (bgs)*	*0-10 ft (bgs)*	*0-10 ft (bgs)* *Duplicate*	*2-4 ft (bgs)*	*2-4 ft (bgs)* *Duplicate*
Parameter	***Unit***						
Volatiles							
1,1,1-Trichloroethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
1,1,2,2-Tetrachloroethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
1,1,2-Trichloroethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
1,1-Dichloroethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
1,1-Dichloroethene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
1,2,4-Trichlorobenzene	ug/Kg	-	ND (7.0) UJ	-	-	ND (8.8) UJ	ND (11) UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/Kg	-	ND (14) UJ	-	-	ND (18) UJ	ND (23) UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
1,2-Dichlorobenzene	ug/Kg	-	ND (7.0) UJ	-	-	ND (8.8) UJ	ND (11) UJ
1,2-Dichloroethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
1,2-Dichloropropane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
1,3-Dichlorobenzene	ug/Kg	-	ND (7.0) UJ	-	-	ND (8.8) UJ	ND (11) UJ
1,4-Dichlorobenzene	ug/Kg	-	ND (7.0) UJ	-	-	ND (8.8) UJ	ND (11) UJ
2-Butanone	ug/Kg	-	ND (28)	-	-	ND (35)	ND (46)
2-Hexanone	ug/Kg	-	ND (28)	-		ND (35)	ND (46)
4-Methyl-2-pentanone	ug/Kg	-	ND (28)	-	-	ND (35)	ND (46)
Acetone	ug/Kg	-	ND (28)	-	-	ND (35)	ND (46)
Benzene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Bromodichloromethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Bromoform	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Bromomethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Carbon disulfide	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Carbon tetrachloride	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Chlorobenzene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Chloroethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Chloroform (Trichloromethane)	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Chloromethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
cis-1,2-Dichloroethene	ug/Kg	-	ND (3.5)	-	-	ND (4.4)	ND (5.7)
cis-1,3-Dichloropropene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Cyclohexane	ug/Kg	-	ND (14)	-	-	ND (18)	ND (23)
Dibromochloromethane	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Dichlorodifluoromethane (CFC-12)	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Ethylbenzene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Isopropylbenzene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Methyl acetate	ug/Kg	-	ND (14)	-	-	ND (18)	ND (23)
Methyl cyclohexane	ug/Kg	-	ND (14)	-	-	ND (18)	ND (23)
Methyl Tert Butyl Ether	ug/Kg	-	ND (28)	-	-	ND (35)	ND (46)
Methylene chloride	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Styrene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Tetrachloroethene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Toluene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
trans-1,2-Dichloroethene	ug/Kg	-	ND (3.5)	-	-	ND (4.4)	ND (5.7)
trans-1,3-Dichloropropene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Trichloroethene	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Trichlorofluoro[illegible]ne (CFC-11)	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (1[illegible]

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		*SB-240*	*SB-240*	*SB-241*	*SB-241*	*SB-241*	*SB-241*
Sample ID:		*S-072902-MG-274*	*S-072902-MG-274*	*S-073002-MG-275*	*S-073002-MG-276*	*S-073002-MG-275*	*S-073002-MG-276*
Sample Date:		*7/29/2002*	*7/29/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*
		0-10.5 ft (bgs)	*2-4 ft (bgs)*	*0-10 ft (bgs)*	*0-10 ft (bgs)*	*2-4 ft (bgs)*	*2-4 ft (bgs)*
					Duplicate		*Duplicate*
Parameter	*Unit*						
Trifluorotrichloroethane (Freon 113)	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Vinyl chloride	ug/Kg	-	ND (7.0)	-	-	ND (8.8)	ND (11)
Xylene (total)	ug/Kg	-	ND (14)	-	-	ND (18)	ND (23)
Semi-Volatiles							
2,2'-oxybis(1-Chloropropane)	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2,4,5-Trichlorophenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2,4,6-Trichlorophenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2,4-Dichlorophenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2,4-Dimethylphenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2,4-Dinitrophenol	ug/Kg	ND (13000)	-	ND (1700)	ND (1700)	-	-
2,4-Dinitrotoluene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2,6-Dinitrotoluene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2-Chloronaphthalene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2-Chlorophenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2-Methylnaphthalene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2-Methylphenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
2-Nitroaniline	ug/Kg	ND (13000)	-	ND (1700)	ND (1700)	-	-
2-Nitrophenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
3,3'-Dichlorobenzidine	ug/Kg	ND (13000)	-	ND (1700)	ND (1700)	-	-
3-Nitroaniline	ug/Kg	ND (13000)	-	ND (1700)	ND (1700)	-	-
4,6-Dinitro-2-methylphenol	ug/Kg	ND (13000)	-	ND (1700)	ND (1700)	-	-
4-Bromophenyl phenyl ether	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
4-Chloro-3-methylphenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
4-Chloroaniline	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
4-Chlorophenyl phenyl ether	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
4-Methylphenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
4-Nitroaniline	ug/Kg	ND (13000)	-	ND (1700)	ND (1700)	-	-
4-Nitrophenol	ug/Kg	ND (13000)	-	ND (1700)	ND (1700)	-	-
Acenaphthene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Acenaphthylene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Acetophenone	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Anthracene	ug/Kg	4500	-	ND (350)	ND (350)	-	-
Atrazine	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Benzaldehyde	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Benzo(a)anthracene	ug/Kg	9500	-	350	ND (350)	-	-
Benzo(a)pyrene	ug/Kg	6500	-	ND (350)	ND (350)	-	-
Benzo(b)fluoranthene	ug/Kg	7500	-	390	400	-	-
Benzo(g,h,i)perylene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Benzo(k)fluoranthene	ug/Kg	3500	-	ND (350)	ND (350)	-	-
Biphenyl	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
bis(2-Chloroethoxy)methane	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
bis(2-Chloroethyl)ether	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
bis(2-Ethylhexyl)phthalate	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Butyl benzylphthalate	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Caprolactam	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		*SB-240*	*SB-240*	*SB-241*	*SB-241*	*SB-241*	*SB-241*
Sample ID:		*S-072902-MG-274*	*S-072902-MG-274*	*S-073002-MG-275*	*S-073002-MG-276*	*S-073002-MG-275*	*S-073002-MG-276*
Sample Date:		*7/29/2002*	*7/29/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*
		0-10.5 ft (bgs)	*2-4 ft (bgs)*	*0-10 ft (bgs)*	*0-10 ft (bgs)*	*2-4 ft (bgs)*	*2-4 ft (bgs)*
					Duplicate		*Duplicate*
Parameter	***Unit***						
Carbazole	ug/Kg	2700	-	ND (350)	ND (350)	-	-
Chrysene	ug/Kg	9900	-	450	460	-	-
Dibenz(a,h)anthracene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Dibenzofuran	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Diethyl phthalate	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Dimethyl phthalate	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Di-n-butylphthalate	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Di-n-octyl phthalate	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Fluoranthene	ug/Kg	16000	-	630	560	-	-
Fluorene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Hexachlorobenzene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Hexachlorobutadiene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Hexachlorocyclopentadiene	ug/Kg	ND (13000)	-	ND (1700)	ND (1700)	-	-
Hexachloroethane	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Indeno(1,2,3-cd)pyrene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Isophorone	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Naphthalene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Nitrobenzene	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
N-Nitrosodi-n-propylamine	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
N-Nitrosodiphenylamine	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Pentachlorophenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Phenanthrene	ug/Kg	14000	-	670	580	-	-
Phenol	ug/Kg	ND (2700)	-	ND (350)	ND (350)	-	-
Pyrene	ug/Kg	13000	-	550	500	-	-
Metals							
Arsenic	mg/Kg	5.8	-	7.0	7.1	-	-
Barium	mg/Kg	ND (24.2)	-	ND (21.2)	ND (21.1)	-	-
Cadmium	mg/Kg	ND (0.60)	-	ND (0.53)	ND (0.53)	-	-
Chromium	mg/Kg	12.8	-	5.3	5.7	-	-
Lead	mg/Kg	17.7	-	13.2	11.7	-	-
Mercury	mg/Kg	ND (0.12)	-	ND (0.11)	ND (0.11)	-	-
Selenium	mg/Kg	ND (0.60)	-	ND (0.53)	0.71	-	-
Silver	mg/Kg	ND (1.2)	-	ND (1.1)	ND (1.1)	-	-
PCBs							
Aroclor-1016 (PCB-1016)	ug/Kg	ND (200)	-	ND (700)	ND (350)	-	-
Aroclor-1221 (PCB-1221)	ug/Kg	ND (200)	-	ND (700)	ND (350)	-	-
Aroclor-1232 (PCB-1232)	ug/Kg	ND (200)	-	ND (700)	ND (350)	-	-
Aroclor-1242 (PCB-1242)	ug/Kg	ND (200)	-	ND (700)	ND (350)	-	-
Aroclor-1248 (PCB-1248)	ug/Kg	860	-	3900	2500	-	-
Aroclor-1254 (PCB-1254)	ug/Kg	ND (200)	-	ND (700)	ND (350)	-	-
Aroclor-1260 (PCB-1260)	ug/Kg	ND (200)	-	ND (700)	ND (350)	-	-
General Chemistry							
Total Solids	%	82.7	82.7	94.5	[illegible]	94.5	94.7

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		*SB-242*	*SB-242*	*SB-243*	*SB-243*	*SB-244*	*SB-244*
Sample ID:		*S-073002-MG-277*	*S-073002-MG-277*	*S-073002-MG-279*	*S-073002-MG-279*	*S-073002-MG-280*	*S-073002-MG-280*
Sample Date:		*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*
		5-15 ft (bgs)	*8-10 ft (bgs)*	*2-12 ft (bgs)*	*10-12 ft (bgs)*	*6-16 ft (bgs)*	*10-12 ft (bgs)*
Parameter	***Unit***						
Volatiles							
1,1,1-Trichloroethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,1,2,2-Tetrachloroethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,1,2-Trichloroethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,1-Dichloroethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,1-Dichloroethene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,2,4-Trichlorobenzene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/Kg	-	ND (25) UJ	-	ND (12) UJ	-	ND (16) UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,2-Dichlorobenzene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,2-Dichloroethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,2-Dichloropropane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,3-Dichlorobenzene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
1,4-Dichlorobenzene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
2-Butanone	ug/Kg	-	ND (51) UJ	-	ND (25) UJ	-	ND (32) UJ
2-Hexanone	ug/Kg	-	ND (51) UJ	-	ND (25) UJ	-	ND (32) UJ
4-Methyl-2-pentanone	ug/Kg	-	ND (51) UJ	-	ND (25) UJ	-	ND (32) UJ
Acetone	ug/Kg	-	ND (51) UJ	-	ND (25) UJ	-	ND (32) UJ
Benzene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Bromodichloromethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Bromoform	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Bromomethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Carbon disulfide	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Carbon tetrachloride	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Chlorobenzene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Chloroethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Chloroform (Trichloromethane)	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Chloromethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
cis-1,2-Dichloroethene	ug/Kg	-	ND (6.4) UJ	-	ND (3.1) UJ	-	ND (4.1) UJ
cis-1,3-Dichloropropene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Cyclohexane	ug/Kg	-	ND (25) UJ	-	ND (12) UJ	-	ND (16) UJ
Dibromochloromethane	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Dichlorodifluoromethane (CFC-12)	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Ethylbenzene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Isopropylbenzene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Methyl acetate	ug/Kg	-	ND (25) UJ	-	ND (12) UJ	-	ND (16) UJ
Methyl cyclohexane	ug/Kg	-	ND (25) UJ	-	ND (12) UJ	-	ND (16) UJ
Methyl Tert Butyl Ether	ug/Kg	-	ND (51) UJ	-	ND (25) UJ	-	ND (32) UJ
Methylene chloride	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Styrene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Tetrachloroethene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Toluene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
trans-1,2-Dichloroethene	ug/Kg	-	ND (6.4) UJ	-	ND (3.1) UJ	-	ND (4.1) UJ
trans-1,3-Dichloropropene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Trichloroethene	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Trichlorofluoromethane (CFC-11)	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		SB-242	SB-242	SB-243	SB-243	SB-244	SB-244
Sample ID:		S-073002-MG-277	S-073002-MG-277	S-073002-MG-279	S-073002-MG-279	S-073002-MG-280	S-073002-MG-280
Sample Date:		7/30/2002	7/30/2002	7/30/2002	7/30/2002	7/30/2002	7/30/2002
		5-15 ft (bgs)	8-10 ft (bgs)	2-12 ft (bgs)	10-12 ft (bgs)	6-16 ft (bgs)	10-12 ft (bgs)
Parameter	***Unit***						
Trifluorotrichloroethane (Freon 113)	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Vinyl chloride	ug/Kg	-	ND (13) UJ	-	ND (6.2) UJ	-	ND (8.1) UJ
Xylene (total)	ug/Kg	-	ND (25) UJ	-	ND (12) UJ	-	ND (16) UJ
Semi-Volatiles							
2,2'-oxybis(1-Chloropropane)	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2,4,5-Trichlorophenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2,4,6-Trichlorophenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2,4-Dichlorophenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2,4-Dimethylphenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2,4-Dinitrophenol	ug/Kg	ND (1700)	-	ND (1700)	-	ND (1700)	-
2,4-Dinitrotoluene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2,6-Dinitrotoluene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2-Chloronaphthalene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2-Chlorophenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2-Methylnaphthalene	ug/Kg	900	-	ND (340)	-	ND (340)	-
2-Methylphenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
2-Nitroaniline	ug/Kg	ND (1700)	-	ND (1700)	-	ND (1700)	-
2-Nitrophenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
3,3'-Dichlorobenzidine	ug/Kg	ND (1700)	-	ND (1700)	-	ND (1700)	-
3-Nitroaniline	ug/Kg	ND (1700)	-	ND (1700)	-	ND (1700)	-
4,6-Dinitro-2-methylphenol	ug/Kg	ND (1700)	-	ND (1700)	-	ND (1700)	-
4-Bromophenyl phenyl ether	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
4-Chloro-3-methylphenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
4-Chloroaniline	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
4-Chlorophenyl phenyl ether	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
4-Methylphenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
4-Nitroaniline	ug/Kg	ND (1700)	-	ND (1700)	-	ND (1700)	-
4-Nitrophenol	ug/Kg	ND (1700)	-	ND (1700)	-	ND (1700)	-
Acenaphthene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Acenaphthylene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Acetophenone	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Anthracene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Atrazine	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Benzaldehyde	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Benzo(a)anthracene	ug/Kg	660	-	840	-	ND (340)	-
Benzo(a)pyrene	ug/Kg	610	-	640	-	ND (340)	-
Benzo(b)fluoranthene	ug/Kg	740	-	1000	-	350	-
Benzo(g,h,i)perylene	ug/Kg	350	-	370	-	ND (340)	-
Benzo(k)fluoranthene	ug/Kg	530	-	420	-	ND (340)	-
Biphenyl	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
bis(2-Chloroethoxy)methane	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
bis(2-Chloroethyl)ether	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
bis(2-Ethylhexyl)phthalate	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Butyl benzylphthalate	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Caprolactam	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		*SB-242*	*SB-242*	*SB-243*	*SB-243*	*SB-244*	*SB-244*
Sample ID:		*S-073002-MG-277*	*S-073002-MG-277*	*S-073002-MG-279*	*S-073002-MG-279*	*S-073002-MG-280*	*S-073002-MG-280*
Sample Date:		*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*	*7/30/2002*
		5-15 ft (bgs)	*8-10 ft (bgs)*	*2-12 ft (bgs)*	*10-12 ft (bgs)*	*6-16 ft (bgs)*	*10-12 ft (bgs)*
Parameter	*Unit*						
Carbazole	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Chrysene	ug/Kg	850	-	960	-	350	-
Dibenz(a,h)anthracene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Dibenzofuran	ug/Kg	610	-	ND (340)	-	ND (340)	-
Diethyl phthalate	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Dimethyl phthalate	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Di-n-butylphthalate	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Di-n-octyl phthalate	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Fluoranthene	ug/Kg	1100	-	1600	-	500	-
Fluorene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Hexachlorobenzene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Hexachlorobutadiene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Hexachlorocyclopentadiene	ug/Kg	ND (1700)	-	ND (1700)	-	ND (1700)	-
Hexachloroethane	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Indeno(1,2,3-cd)pyrene	ug/Kg	350	-	380	-	ND (340)	-
Isophorone	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Naphthalene	ug/Kg	2300	-	590	-	ND (340)	-
Nitrobenzene	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
N-Nitrosodi-n-propylamine	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
N-Nitrosodiphenylamine	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Pentachlorophenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Phenanthrene	ug/Kg	1400	-	520	-	440	-
Phenol	ug/Kg	ND (350)	-	ND (340)	-	ND (340)	-
Pyrene	ug/Kg	1000	-	960	-	440	-
Metals							
Arsenic	mg/Kg	4.5	-	9.3	-	4.0	-
Barium	mg/Kg	ND (21.4)	-	ND (20.8)	-	ND (20.8)	-
Cadmium	mg/Kg	ND (0.54)	-	ND (0.52)	-	ND (0.52)	-
Chromium	mg/Kg	7.1	-	4.1	-	7.7	-
Lead	mg/Kg	9.0	-	8.9	-	16.4	-
Mercury	mg/Kg	ND (0.11)	-	ND (0.10)	-	ND (0.10)	-
Selenium	mg/Kg	0.59	-	0.53	-	0.96	-
Silver	mg/Kg	ND (1.1)	-	ND (1.0)	-	ND (1.0)	-
PCBs							
Aroclor-1016 (PCB-1016)	ug/Kg	ND (1800)	-	ND (170)	-	ND (340)	-
Aroclor-1221 (PCB-1221)	ug/Kg	ND (1800)	-	ND (170)	-	ND (340)	-
Aroclor-1232 (PCB-1232)	ug/Kg	ND (1800)	-	ND (170)	-	ND (340)	-
Aroclor-1242 (PCB-1242)	ug/Kg	ND (1800)	-	ND (170)	-	ND (340)	-
Aroclor-1248 (PCB-1248)	ug/Kg	9200	-	730	-	1400	-
Aroclor-1254 (PCB-1254)	ug/Kg	ND (1800)	-	ND (170)	-	ND (340)	-
Aroclor-1260 (PCB-1260)	ug/Kg	ND (1800)	-	ND (170)	-	ND (340)	-
General Chemistry							
Total Solids	%	93.4	93.4	96.0	96.0	96.1	96.1

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		SB-245	SB-245	SB-246	SB-246
Sample ID:		S-073002-MG-281	S-073002-MG-281	S-072902-MG-273	S-072902-MG-273
Sample Date:		7/30/2002	7/30/2002	7/29/2002	7/29/2002
		0-10 ft (bgs)	6-8 ft (bgs)	4-14 ft (bgs)	10-12 ft (bgs)
Parameter	***Unit***				
Volatiles					
1,1,1-Trichloroethane	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
1,1,2,2-Tetrachloroethane	ug/Kg	-	ND (8.4) UJ		ND (6.7)
1,1,2-Trichloroethane	ug/Kg	-	ND (8.4) UJ		ND (6.7)
1,1-Dichloroethane	ug/Kg		ND (8.4) UJ	-	ND (6.7)
1,1-Dichloroethene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
1,2,4-Trichlorobenzene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7) UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/Kg	-	ND (17) UJ	-	ND (13) UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
1,2-Dichlorobenzene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7) UJ
1,2-Dichloroethane	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
1,2-Dichloropropane	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
1,3-Dichlorobenzene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7) UJ
1,4-Dichlorobenzene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7) UJ
2-Butanone	ug/Kg	-	ND (33) UJ	-	ND (27)
2-Hexanone	ug/Kg	-	ND (33) UJ	-	ND (27)
4-Methyl-2-pentanone	ug/Kg	-	ND (33) UJ	-	ND (27)
Acetone	ug/Kg	-	ND (33) UJ	-	ND (27)
Benzene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Bromodichloromethane	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Bromoform	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Bromomethane	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Carbon disulfide	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Carbon tetrachloride	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Chlorobenzene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Chloroethane	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Chloroform (Trichloromethane)	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Chloromethane	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
cis-1,2-Dichloroethene	ug/Kg	-	ND (4.2) UJ	-	ND (3.4)
cis-1,3-Dichloropropene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Cyclohexane	ug/Kg	-	ND (17) UJ	-	ND (13)
Dibromochloromethane	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Dichlorodifluoromethane (CFC-12)	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Ethylbenzene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Isopropylbenzene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Methyl acetate	ug/Kg	-	ND (17) UJ	-	ND (13)
Methyl cyclohexane	ug/Kg	-	ND (17) UJ	-	ND (13)
Methyl Tert Butyl Ether	ug/Kg	-	ND (33) UJ	-	ND (27)
Methylene chloride	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Styrene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Tetrachloroethene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Toluene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
trans-1,2-Dichloroethene	ug/Kg	-	ND (4.2) UJ	-	ND (3.4)
trans-1,3-Dichloropropene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Trichloroethene	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Tri[illegible]fluoromethane (CFC-11)	ug/Kg	-	ND (8.4) [illegible]	-	ND (6.7)

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		*SB-245*	*SB-245*	*SB-246*	*SB-246*
Sample ID:		*S-073002-MG-281*	*S-073002-MG-281*	*S-072902-MG-273*	*S-072902-MG-273*
Sample Date:		*7/30/2002*	*7/30/2002*	*7/29/2002*	*7/29/2002*
		0-10 ft (bgs)	*6-8 ft (bgs)*	*4-14 ft (bgs)*	*10-12 ft (bgs)*
Parameter	*Unit*				
Trifluorotrichloroethane (Freon 113)	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Vinyl chloride	ug/Kg	-	ND (8.4) UJ	-	ND (6.7)
Xylene (total)	ug/Kg	-	ND (17) UJ	-	ND (13)
Semi-Volatiles					
2,2'-oxybis(1-Chloropropane)	ug/Kg	ND (340)	-	ND (7300)	-
2,4,5-Trichlorophenol	ug/Kg	ND (340)	-	ND (7300)	-
2,4,6-Trichlorophenol	ug/Kg	ND (340)	-	ND (7300)	-
2,4-Dichlorophenol	ug/Kg	ND (340)	-	ND (7300)	-
2,4-Dimethylphenol	ug/Kg	ND (340)	-	ND (7300)	-
2,4-Dinitrophenol	ug/Kg	ND (1700)	-	ND (35000)	-
2,4-Dinitrotoluene	ug/Kg	ND (340)	-	ND (7300)	-
2,6-Dinitrotoluene	ug/Kg	ND (340)	-	ND (7300)	-
2-Chloronaphthalene	ug/Kg	ND (340)	-	ND (7300)	-
2-Chlorophenol	ug/Kg	ND (340)	-	ND (7300)	-
2-Methylnaphthalene	ug/Kg	ND (340)	-	ND (7300)	-
2-Methylphenol	ug/Kg	ND (340)	-	ND (7300)	-
2-Nitroaniline	ug/Kg	ND (1700)	-	ND (35000)	-
2-Nitrophenol	ug/Kg	ND (340)	-	ND (7300)	-
3,3'-Dichlorobenzidine	ug/Kg	ND (1700)	-	ND (35000)	-
3-Nitroaniline	ug/Kg	ND (1700)	-	ND (35000)	-
4,6-Dinitro-2-methylphenol	ug/Kg	ND (1700)	-	ND (35000)	-
4-Bromophenyl phenyl ether	ug/Kg	ND (340)	-	ND (7300)	-
4-Chloro-3-methylphenol	ug/Kg	ND (340)	-	ND (7300)	-
4-Chloroaniline	ug/Kg	ND (340)	-	ND (7300)	-
4-Chlorophenyl phenyl ether	ug/Kg	ND (340)	-	ND (7300)	-
4-Methylphenol	ug/Kg	ND (340)	-	ND (7300)	-
4-Nitroaniline	ug/Kg	ND (1700)	-	ND (35000)	-
4-Nitrophenol	ug/Kg	ND (1700)	-	ND (35000)	-
Acenaphthene	ug/Kg	ND (340)	-	ND (7300)	-
Acenaphthylene	ug/Kg	ND (340)	-	ND (7300)	-
Acetophenone	ug/Kg	ND (340)	-	ND (7300)	-
Anthracene	ug/Kg	ND (340)	-	14000	-
Atrazine	ug/Kg	ND (340)	-	ND (7300)	-
Benzaldehyde	ug/Kg	ND (340)	-	ND (7300)	-
Benzo(a)anthracene	ug/Kg	470	-	15000	-
Benzo(a)pyrene	ug/Kg	410	-	9100	-
Benzo(b)fluoranthene	ug/Kg	570	-	13000	-
Benzo(g,h,i)perylene	ug/Kg	ND (340)	-	ND (7300)	-
Benzo(k)fluoranthene	ug/Kg	ND (340)	-	ND (7300)	-
Biphenyl	ug/Kg	ND (340)	-	ND (7300)	-
bis(2-Chloroethoxy)methane	ug/Kg	ND (340)	-	ND (7300)	-
bis(2-Chloroethyl)ether	ug/Kg	ND (340)	-	ND (7300)	-
bis(2-Ethylhexyl)phthalate	ug/Kg	ND (340)	-	ND (7300)	-
Butyl benzylphthalate	ug/Kg	ND (340)	-	ND (7300)	-
Caprolactam	ug/Kg	ND (340)	-	ND (7300)	-

ANALYTICAL RESULTS SUMMARY
DREDGE SPOILS SOIL STOCKPILE INVESTIGATION
WAUKEGAN MANUFACTURED GAS AND COKE PLANT
JULY 2002

Sample Location:		SB-245	SB-245	SB-246	SB-246
Sample ID:		S-073002-MG-281	S-073002-MG-281	S-072902-MG-273	S-072902-MG-273
Sample Date:		7/30/2002	7/30/2002	7/29/2002	7/29/2002
		0-10 ft (bgs)	6-8 ft (bgs)	4-14 ft (bgs)	10-12 ft (bgs)
Parameter	***Unit***				
Carbazole	ug/Kg	ND (340)	-	ND (7300)	-
Chrysene	ug/Kg	600	-	18000	-
Dibenz(a,h)anthracene	ug/Kg	ND (340)	-	ND (7300)	-
Dibenzofuran	ug/Kg	ND (340)	-	ND (7300)	-
Diethyl phthalate	ug/Kg	ND (340)	-	ND (7300)	-
Dimethyl phthalate	ug/Kg	ND (340)	-	ND (7300)	-
Di-n-butylphthalate	ug/Kg	ND (340)	-	ND (7300)	-
Di-n-octyl phthalate	ug/Kg	ND (340)	-	ND (7300)	-
Fluoranthene	ug/Kg	700	-	39000	-
Fluorene	ug/Kg	ND (340)	-	ND (7300)	-
Hexachlorobenzene	ug/Kg	ND (340)	-	ND (7300)	-
Hexachlorobutadiene	ug/Kg	ND (340)	-	ND (7300)	-
Hexachlorocyclopentadiene	ug/Kg	ND (1700)	-	ND (35000)	-
Hexachloroethane	ug/Kg	ND (340)	-	ND (7300)	-
Indeno(1,2,3-cd)pyrene	ug/Kg	ND (340)	-	ND (7300)	-
Isophorone	ug/Kg	ND (340)	-	ND (7300)	-
Naphthalene	ug/Kg	500	-	ND (7300)	
Nitrobenzene	ug/Kg	ND (340)	-	ND (7300)	-
N-Nitrosodi-n-propylamine	ug/Kg	ND (340)	-	ND (7300)	-
N-Nitrosodiphenylamine	ug/Kg	ND (340)	-	ND (7300)	-
Pentachlorophenol	ug/Kg	ND (340)	-	ND (7300)	-
Phenanthrene	ug/Kg	500	-	29000	-
Phenol	ug/Kg	ND (340)	-	ND (7300)	-
Pyrene	ug/Kg	620	-	30000	-
Metals					
Arsenic	mg/Kg	6.2	-	5.6	-
Barium	mg/Kg	ND (20.8)	-	ND (22.1)	-
Cadmium	mg/Kg	ND (0.52)	-	ND (0.55)	-
Chromium	mg/Kg	4.0	-	4.2	-
Lead	mg/Kg	6.6	-	7.7	-
Mercury	mg/Kg	ND (0.10)	-	ND (0.11)	-
Selenium	mg/Kg	ND (0.52)	-	ND (0.55)	-
Silver	mg/Kg	ND (1.0)	-	ND (1.1)	-
PCBs					
Aroclor-1016 (PCB-1016)	ug/Kg	ND (170)	-	ND (180)	-
Aroclor-1221 (PCB-1221)	ug/Kg	ND (170)	-	ND (180)	-
Aroclor-1232 (PCB-1232)	ug/Kg	ND (170)	-	ND (180)	-
Aroclor-1242 (PCB-1242)	ug/Kg	ND (170)	-	ND (180)	-
Aroclor-1248 (PCB-1248)	ug/Kg	900	-	980	-
Aroclor-1254 (PCB-1254)	ug/Kg	ND (170)	-	ND (180)	-
Aroclor-1260 (PCB-1260)	ug/Kg	ND (170)	-	ND (180)	-
General Chemistry					
Total Solids	%	96.1	96.1	90.6	90.6

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-245
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2				1		2		0
	- turns brown, moist, compact							
4								
6	- black staining present		NATIVE BACKFILL	2		3.5		4
8								
10				3		4		0
12								
	END OF BOREHOLE @ 12.5ft BGS	12.50						
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-244
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2				1		3.5		0
	- becomes moist, compact							
4	- trace of black staining							
6				2		2.5		0
8			NATIVE BACKFILL					
10				3		3		2
12	- no trace of black staining							
14				4		3.5		0
16	END OF BOREHOLE @ 16.00 BGS	16.00						
18								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE: REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-246
DATE COMPLETED: July 29, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" Ø BOREHOLE					
	- becomes moist							
2				1		3		0
	- turns brown							
4								
	- becomes dry, turns light brown							
6				2		3		0
			NATIVE BACKFILL					
8								
	- black staining present							
10				3		4		1
12								
14				4		2		<1
	END OF BOREHOLE @ 14.0ft BGS	14.00						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-243
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, brown, dry		2" ø BOREHOLE					
2				1		4		0
	- becomes moist							
4								
	- turns light brown							
6				2		3.5		0
	- turns brown		NATIVE BACKFILL					
8								
10	- black staining present			3		3		5
12								
	- no trace of black staining							
14				4		3.5		0
16	END OF BOREHOLE @ 16.00ft BGS	16.00						
18								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-242
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2	- becomes moist, compact			1		4		0
4	- becomes dry - becomes moist, turns brown							
6				2		4		0
8	- black staining present, trace of gravel		NATIVE BACKFILL					
10				3		4		0
12								
14				4		3		0
	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-241
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
	- becomes moist, black staining present							
2				1		3		2
4								
	- trace of black staining							
6			NATIVE BACKFILL	2		2.5		1
	- no trace of black staining							
8								
10				3		3		0
12								
				4		1.5		0
	END OF BOREHOLE @ 13.5ft BGS	13.50						
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-240
DATE COMPLETED: July 29, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2	- black staining, moist			1		3		240
4								
	- black staining disappears		NATIVE BACKFILL					
6				2		4		25
8								
				3		2.5		0
10								
	END OF BOREHOLE @ 10.5ft BGS	10.50						
12								
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-239
DATE COMPLETED: July 29, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: ML GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2	- becomes moist			1		3.5		0
	- turns brown							
4								
	- becomes dry, turns light brown							
6			NATIVE BACKFILL	2		4		0
	- becomes moist, turns brown							
	- becomes wet, compact							
8								
10				3		3.5		0
12								
	END OF BOREHOLE @ 12.5ft BGS	12.50						
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-238
DATE COMPLETED: July 29, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" Ø BOREHOLE					
2				1		3		0
	- becomes moist							
4								
6	- becomes wet, compact		NATIVE BACKFILL	2		3.5		0
8								
10	- turning dark brown			3		4		0
12	END OF BOREHOLE @ 12.0ft BGS	12.00						
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-237
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, brown, dry		2" ø BOREHOLE					
	- becomes moist, compact							
2				1		3		0
4								
	- turning light brown		NATIVE BACKFILL					
6				2		4		0
8								
				3		2		0
10	END OF BOREHOLE @ 10.00 ft BGS	10.00						
12								
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

BORING LOG

PROJECT: WCP RI/FS PHASE 2.
DATE STARTED: 10/5/93
DATE COMPLETED: 10/5/93
FIELD INSPECTOR: K. French (Barr)
CREW CHIEF: M. Mueller (WTD)

BORING NUMBER: SB-31
RISER PIPE ELEVATION: N/A
GROUND SURFACE ELEVATION: 604.07 ft MSL

Depth (Feet)	Blows Per 6 In.	Sample Type/ Recovery (Ft.)	Non-Meth Org Vap Headspace (ppm)	Odor/Sheen	Soil pH	Analytical Sample Types	Moisture Content	Lithologic Unit	ASTM Soil Classification	DESCRIPTION OF MATERIALS AND REMARKS	Depth (Ft)
	3, 8, 12	SSB/1.7	300	L/N	7.6		W	LAKE SEDIMENTS-BEACH DEPOSITS	SP	Poorly graded sand (SP). About 95% fine subrounded sand, <5% silt. Very dark gray (10YR3/1). Lake sediments-beach deposits.	
	5, 12, 20, 28	SSB/2.0	800	S/N	8.3	GROUP 5			SP-SM	Poorly graded sand with silt (SP-SM). About 90% fine subrounded sand, 10% silt, trace coarse angular sand, trace fine angular to subangular gravel. Coarse sand and gravel fraction consisted of mostly mafic clasts. Black (10YR2/1). Lake sediments-beach deposits. ◄Sample contained approximately 30% fine gravel at 44.0 ft bgs.	
45	12, 9, 10, 27	SSB/2.0	350	M/T	8.2				GM	Silty gravel (GM). About 40% coarse angular black stained dolomite or limestone gravel, 35% fine sand, 15% silt, 10% medium to coarse sand. Black (10YR2/1). Lake sediments-beach deposits.	45
								GLACIAL DEPOSITS	ML/CL	Clayey silt (ML/CL). About 70% silt, 30% clay. Clayey silt exhibited low toughness, rapid dilatancy, and low plasticity. Black (10YR2/1). Glacial deposits.	
	25, 41, 100+	SSB/1.5	200	S/T	8.1	GROUP 5/M19			SP-SM /SM	Poorly graded sand with silt to silty sand (SP-SM/SM). About 85% to 90% fine to medium sand, 10% to 15% silt, trace coarse sand, trace fine angular gravel. Black (10YR2/1). Glacial deposits.	
									SM	Silty sand with gravel (SM). About 45% fine to medium sand, 20% coarse angular limestone or dolomite gravel, 20% coarse angular sand, 15% silt. Black (10YR2/1). Glacial deposits.	
50	11, 20, 20, 22	SSB/2.0	20	N/N	8.2		M	TILL	CL	Lean clay (CL). Mostly clay, trace coarse sand. Clay exhibited medium toughness, medium plasticity, no dilatancy, and high dry strength. Firm. Clay contained minute horizontal fractures. Gray (10YR5/1). Till.	50
										End of boring at 49.5 ft bgs. Split spoon driven to 51.5 ft bgs.	
55										The borehole was drilled with a 4¼" (I.D.) hollow stem auger mounted on an ORV Mobil B-57 ATV drill rig producing a 8¼" (O.D.) borehole. California samplers (3" diameter split spoon samplers with a 6" brass liner retained in the bottom of the sampler) were driven with a 300 lb hammer operated mechanically by a winch line mounted on the drill rig. Samples were logged by a Barr Engineering Company (Barr- 612/832-2600) geologist and the borehole was drilled by WTD Environmental Drilling (WTD-715/359-7090).	55
60											60

COMMENTS: SAMPLE METHOD: G=grab; SSB= split barrel with brass liner; SS= split spoon (no liner); TW= thin wall; HP= hydropunch water sample. ODOR: L= low; M= moderate; S= strong; VS= very strong; P= petroleum; D= diesel. SHEEN: N= none; T= trace; M= moderate; H= heavy. MOISTURE: D= dry; M= moist; W= wet. ANALYTICAL SAMPLE TYPES: GROUP 5= As/Cd/Pb/Se/Hg/tot. Cyanide/BETX/ PAH/Phenols. GROUP FS= Full scan analysis. M19= duplicate sample.

JRM30 rev.12/21/93 JAB

BORING LOG

PROJECT: WCP RI/FS PHASE 2.
DATE STARTED: 10/5/93
DATE COMPLETED: 10/5/93
FIELD INSPECTOR: K. French (Barr)
CREW CHIEF: M. Mueller (WTD)

BORING NUMBER: SB-31
RISER PIPE ELEVATION: N/A
GROUND SURFACE ELEVATION: 604.07 ft MSL

Depth (Feet)	Blows Per 6 in.	Sample Type/ Recovery (Ft.)	Non-Meth Org Vap Headspace (ppm)	Odor/Sheen	Soil pH	Analytical Sample Types	Moisture Content	Lithologic Unit	ASTM Soil Classification	DESCRIPTION OF MATERIALS AND REMARKS	Depth (Ft)
	9 9 13	SSB/1.8	0	N/N	7.4		M		SP / COAL / SM	Coal with coal fines. Black. Silty sand (SM). About 50% coarse sand, 30% fine to medium sand, 15% silt, 5% fine gravel. Coarse sand and gravel fractions consisted of coal furnace slag material. Black (10YR2/1). FILL	
	8 8 5 8	SSB/1.4	0	N/N	6.9	GROUP FS		LAKE SEDIMENTS-BEACH DEPOSITS	SP	Poorly graded sand (SP). About 75% fine subrounded sand, 20% medium subangular sand, <5% silt. Coarser grains consisted of shell fragments, quartz, and mafic and feldspathic lithologies. Brown (10YR5/3). Lake sediments-beach deposits.	
25	2 3 4 7	SSB/1.5	0	N/N	7.0					<Color changed to dark grayish brown (10YR4/2) at 24.5 to 28.5 ft bgs.	25
	3 5 7 10	SSB/1.4	1.0	N/N	7.2	GROUP 5					
30	4 5 8 17	SSB/1.8	4.0	N/N	7.1		M			Poorly graded sand (SP). About 95% fine subrounded sand, <5% silt. Sand fraction consisted of 75% quartz and 25% mafic and feldspathic lithologies. Very dark gray (10YR3/1). Lake sediments-beach deposits. <Sample contained trace medium sand-sized angular shell fragments beginning at 29.5 ft bgs.	30
	4 8 10 17	SSB/1.8	14	N/N	7.1				SP		
35	2 5 8 13	SSB/2.0	28	N/N	7.1						35
	4 4 8 13	SSB/1.9	300	N/N	7.4	GROUP 5					
40	3										

COMMENTS: SAMPLE METHOD: G=grab; SSB= split barrel with brass liner; SS= split spoon (no liner); TW= thin wall; HP= hydropunch water sample. ODOR: L= low; M= moderate; S= strong; VS= very strong; P= petroleum; D= diesel. SHEEN: N= none; T= trace; M= moderate; H= heavy. MOISTURE: D= dry; M= moist; W= wet. ANALYTICAL SAMPLE TYPES: GROUP 5= As/Cd/Pb/Se/Hg/tot. Cyanide/BETX/ PAH/Phenols. GROUP FS= Full scan analysis. M10= duplicate sample.

FORM30 rev.12/21/93 JAB

BORING LOG

PROJECT: WCP RI/FS PHASE 2.
DATE STARTED: 10/5/93
DATE COMPLETED: 10/5/93
FIELD INSPECTOR: K. French (Barr)
CREW CHIEF: M. Mueller (WTD)

BORING NUMBER: SB-31
RISER PIPE ELEVATION: N/A
GROUND SURFACE ELEVATION: 604.07 ft MSL

Depth (Feet)	Blows Per 6 In.	Sample Type/ Recovery (Ft.)	Non-Meth Org Vap Headspace (ppm)	Odor/Sheen	Soil pH	Analytical Sample Types	Moisture Content	Lithologic Unit	ASTM Soil Classification	DESCRIPTION OF MATERIALS AND REMARKS	Depth (Ft)
	1 1 1 1 2	SSB/1.3	0	N/N	8.3		D/M	FILL-DREDGE SPOILS	SP	Poorly graded sand (SP). About 80% fine subrounded sand, 10% to 15% medium subangular sand, <5% silt, trace coarse sand, trace fine subangular to subrounded gravel. Sand fraction consisted of 90% quartz and 10% mafic and miscellaneous lithologies. Sample contained root fibers. Brown (10YR5/3). Fill-dredge spoils.	
	1 1 2 2	SSB/1.7	0	N/N	8.4					◄ Sample from 2.0 to 4.0 ft below ground surface (bgs) contained coal pieces.	
5	3 4 7 9	SSB/1.9	0	N/N	8.4	GROUP FS	M			◄Sample from 4.5 to 6.5 ft bgs contained coarse coal gravel pieces.	5
	2 5 6 7	SSB/1.6	0	N/N	8.2		M/W				
10	1 3 2 3	SSB/1.6	10	N/N	7.6		M		SP-SM	Poorly graded sand with silt (SP-SM). About 70% fine subrounded sand, 10% to 15% medium subangular sand, 10% silt, trace to 5% fine subrounded quartz and basalt gravel. Dark grayish brown (10YR4/2). Fill-dredge spoils.	10
	1 2 5 6	SSB/1.8	0	N/N	8.3				SM	Silty sand (SM). About 70% fine subrounded sand, 30% silt, trace fine angular gravel. Black (10YR2/1). Fill-dredge spoils.	
15	2 4 5 4	SSB/1.8	0	N/N	8.2	GROUP FS			SP	Poorly graded sand (SP). About 90% fine subrounded sand, 5% medium sand, <5% silt. Brown (10YR5/3). Fill-dredge spoils.	15
									SP/ SP-SM	Poorly graded sand to poorly graded sand with silt (SP/SP-SM). About 90% to 95% fine subrounded sand, 5% to 10% silt, trace fine to coarse gravel. Sample contained coal fragments. Brown (10YR5/3) mottled with very dark brown (10YR2/2). Fill-dredge spoils.	
	2 5 6 7	SSB/1.4	0	N/N	8.2				SP	Poorly graded sand (SP). About 90% fine subrounded sand, 5% medium angular sand, <5% silt. Sand fraction consisted of 95% quartz and 5% mafic and feldspathic lithologies. Bottom of sampler contained a large fragment of weathered concrete . Fill-dredge spoils.	
20	4										20

COMMENTS: SAMPLE METHOD: G=grab; SSB= split barrel with brass liner; SS= split spoon (no liner); TW= thin wall; HP= hydropunch water sample. ODOR: L= low; M= moderate; S= strong; VS= very strong; P= petroleum; D= diesel. SHEEN: N= none; T= trace; M= moderate; H= heavy. MOISTURE: D= dry; M= moist; W= wet. ANALYTICAL SAMPLE TYPES: GROUP 5= As/Cd/Pb/Se/Hg/tot. Cyanide/BETX/ PAH/Phenols. GROUP FS= Full scan analysis. M19= duplicate sample.

RM30 rev.12/21/93 JAB

BORING LOG

PROJECT: WCP RI/FS PHASE 2
DATE STARTED: 10/5/93
DATE COMPLETED: 10/5/93
FIELD INSPECTOR: K. French (Barr)
CREW CHIEF: M. Mueller (WTD)

BORING NUMBER: SB-30
RISER PIPE ELEVATION: N/A
GROUND SURFACE ELEVATION: 602.08 ft MSL

Depth (Feet)	Blows Per 6 In.	Sample Type/ Recovery (Ft.)	Non-Meth Org Vap Headspace (ppm)	Odor/Sheen	Soil pH	Analytical Sample Types	Moisture Content	Lithologic Unit	ASTM Soil Classification	DESCRIPTION OF MATERIALS AND REMARKS
	8 7 9 1 8 15 20 24	SSB/2.0	110	S/T	8.5	GS	W		SP/ SP-SM	Poorly graded sand to poorly graded sand with silt (SP/SP-SM). About 90% to 95% fine subrounded sand, 5% to 10% silt, trace coarse sand. Black (10YR2/1). Lake sediments-beach deposits.
		SSB/2.2	35	S/T	8.6	GROUP 5	W	TILL	SM	Silty sand with gravel (SM). About 50% fine to medium subangular to subrounded sand, 15% coarse subangular sand, 20% fine to coarse subangular to subrounded gravel, 15% silt. Black (10YR2/1). Lake sediments-beach deposits.
									CL	Lean clay (CL). About 90% clay, 10% silt, trace coarse angular to subangular sand. Clay exhibited no dilatancy, very high dry strength, medium plasticity, and high toughness. Hard. Gray (10YR5/1) with black discoloration from 42.8 to 43.4 ft bgs. Till.
45										End of boring at 42.0 ft bgs. Split spoon driven to 44.0 ft bgs.
50										
55										The borehole was drilled with a 4.8" (I.D.) hollow stem auger mounted on an ORV Mobil B-57 ATV drill rig producing a 8.5" (O.D.) borehole. California samplers (3" diameter split spoon samplers with a 6" brass liner retained in the bottom of the sampler) were driven with a 300 lb hammer operated mechanically by a winch line mounted on the drill rig. Samples were logged by a Barr Engineering Company (Barr- 612/832-2800) geologist and the borehole was drilled by WTD Environmental Drilling (WTD-715/359-7080).
60										

FORM30 rev.12/21/93 JAB

COMMENTS: SAMPLE METHOD: G=grab; SSB= split barrel with brass liner; SS= split spoon (no liner); TW= thin wall; HP= hydropunch water sample. ODOR: L= low; M= moderate; S= strong; VS= very strong; P= petroleum; D= diesel. SHEEN: N= none; T= trace; M= moderate; H= heavy. MOISTURE: D= dry; M= moist; W= wet. ANALYTICAL SAMPLE TYPES: GROUP 5= As/Cd/Pb/Se/Hg/tot. Cyanide/BETX/ PAH/Phenols. FS= Full Scan analysis. MT/= duplicate sample. GEOTECHNICAL SAMPLE TYPES: G= grain size.

BORING LOG

PROJECT: WCP RI/FS PHASE 2.
DATE STARTED: 10/5/93
DATE COMPLETED: 10/5/93
FIELD INSPECTOR: K. French (Barr)
CREW CHIEF: M. Mueller (WTO)

BORING NUMBER: SB-30
RISER PIPE ELEVATION: N/A
GROUND SURFACE ELEVATION: 602.08 ft MSL

Depth (Feet)	Blows Per 6 in.	Sample Type/ Recovery (Ft.)	Non-Meth Org Vap Headspace (ppm)	Odor/Sheen	Soil pH	Analytical Sample Types	Moisture Content	Lithologic Unit	ASTM Soil Classification	DESCRIPTION OF MATERIALS AND REMARKS	Depth (Ft)
	18 20 22	SSB/1.6	0	N/N	7.9	FS	M/W	FILL	SP	Poorly graded sand (SP). About 95% fine to medium subangular to subrounded sand, <5% silt. Sand fraction consisted of 85% quartz, 15% mafic and miscellaneous lithologies. Brown (10YR5/3). Fill.	
	3 5 7 8	SSB/1.6	0	N/T	7.8				SM	Silty sand (SM). About 60% to 70% fine subrounded sand, 30% to 40% silt, trace coarse subangular sand. Black (10YR2/1). Fill.	
25	3 6 7 10	SSB/1.9	3.0	N/N	7.8	GROUP 5			SP	Poorly graded sand (SP). About 95% fine to medium subangular sand, trace coarse sand, 5% silt. Sample contained small coal fragments. Fill. ◄Poorly graded sand (SP) at 24.5 ft bgs. About 75% fine subrounded sand, 20% medium subangular sand, <5% silt. Medium sand fraction included basalt and feldspathic lithologies. Sample contained small coal fragments. Very dark grayish brown (10YR3/2). Fill.	25
	4 5 11 13	SSB/2.0	5.0	N/N	8.0	GS		LAKE SEDIMENTS-BEACH DEPOSITS	SP	Poorly graded sand (SP). About 75% fine subrounded sand, 20% medium subangular sand, <5% silt. Medium sand fraction included basalt and feldspathic lithologies. Very dark grayish brown (10YR3/2). Lake sediments-beach deposits. ◄Sample contained a 0.01-ft thick silt layer at 27.8 ft bgs. ◄Poorly graded sand (SP) at 27.7 ft bgs. About 95% fine subrounded sand, trace to 5% medium subangular sand, <5% silt, trace coarse sand. Very dark gray (10YR3/1). Lake sediments-beach deposits.	
30	3 4 4 7	SSB/1.6	3.0	N/N	8.0		W			◄Silt laminations at 30.8 ft bgs.	30
	9 9 10 12	SSB/2.0	50	L/T	8.2					◄Poorly graded sand (SP) at 32.0 ft bgs. About 85% fine subrounded sand, 10% medium subangular sand, trace coarse sand, <5% silt. Sand fraction included 80% quartz, 20% shell fragments, mafics, and feldspathics. Very dark gray (10YR3/1) to black (10YR2/1). Lake sediments-beach deposits.	
35	3 4 10 18	SSB/1.8	40	M/T	8.1	GROUP 5			SP-SM	Poorly graded sand with silt (SP-SM). About 90% fine subrounded sand, 10% silt, trace fine subrounded basaltic gravel. Black (10YR2/1). Lake sediments-beach deposits.	35
	2 4 5 7	SSB/2.0	70	S/T	8.6				SP/ SP-SM	Poorly graded sand to poorly graded sand with silt (SP/SP-SM). About 90% to 95% fine subrounded sand, 5% to 10% silt, trace coarse sand. Black (10YR2/1). Lake sediments-beach deposits.	
40	6										40

COMMENTS: SAMPLE METHOD: G=grab; SSB= split barrel with brass liner; SS= split spoon (no liner); TW= thin wall; HP= hydropunch water sample. ODOR: L= low; M= moderate; S= strong; VS= very strong; P= petroleum; D= diesel. SHEEN: N= none; T= trace; M= moderate; H= heavy. MOISTURE: D= dry; M= moist; W= wet. ANALYTICAL SAMPLE TYPES: GROUP 5= As/Cd/Pb/Se/Hg/tot. Cyanide/BETX/ PAH/Phenols. FS= Full Scan analysis. M17= duplicate sample. GEOTECHNICAL SAMPLE TYPES: G= grain size.

RM30 rev.12/21/93 JAB

BORING LOG

PROJECT: WCP RI/FS PHASE 2.
DATE STARTED: 10/5/93
DATE COMPLETED: 10/5/93
FIELD INSPECTOR: K. French (Barr)
CREW CHIEF: M. Mueller (WTD)

BORING NUMBER: SB-30
RISER PIPE ELEVATION: N/A
GROUND SURFACE ELEVATION: 602.08 ft MSL

Depth (Feet)	Blows Per 6 in.	Sample Type/ Recovery (Ft.)	Non-Meth Org Vap Headspace (ppm)	Odor/Sheen	Soil pH	Analytical Sample Types	Moisture Content	Lithologic Unit	ASTM Soil Classification	DESCRIPTION OF MATERIALS AND REMARKS	Depth
	1 2 2	SSB/1.2	0	N/N	9.0		D		SP	Poorly graded sand (SP). About 95% fine subrounded sand, <5% silt, trace medium to coarse subangular sand. Sand fraction consisted mostly of quartz, 10% to 15% miscellaneous lithologies. Brown (10YR5/3). Fill-dredge spoils.	
	3 3 5 8	SSB/1.0	0	N/N	8.7				ML	Silt (ML). About 85% to 100% silt, trace to 5% fine subrounded sand, trace medium to coarse sand. Medium to coarse sand fraction consisted mostly of coal fragments and small wood pieces. Silt exhibited low plasticity and low toughness. Fill-dredge spoils.	
5	2 1 1 1	SSB/1.0	0	N/N	8.2	FS					5
	1 1 1 1	SSB/1.3	0	N/N	8.8			FILL-DREDGE SPOILS		<Coal seam, 0.01-ft thick, at 7.9 ft below ground surface (bgs).	
10	1 3 3 3	SSB/1.7	0	N/N	7.8		M			Poorly graded sand (SP). About 95% fine subrounded sand, <5% silt, trace angular medium sand. Sand fraction consisted of 85% quartz, 15% shell fragments, basalts and miscellaneous lithologies. Fill-dredge spoils.	10
	2 5 7 11	SSB/1.0	0	N/N	7.9				SP	<Sample contained trace coarse sand and fine subangular to subrounded gravel from 14.5 to 18.5 ft bgs.	
15	3 5 8 7	SSB/1.0	0	N/N	8.1	FS/M17					15
	1 3 7 12	SSB/1.0	0	N/N	8.0			FILL	COAL	Coal and coal fine bed. Black (10YR2/1).	
20	8					FS			SP	Poorly graded sand (SP). Fill.	

COMMENTS: SAMPLE METHOD: G=grab; SSB= split barrel with brass liner; SS= split spoon (no liner); TW= thin wall; HP= hydropunch water sample. ODOR: L= low; M= moderate; S= strong; VS= very strong; P= petroleum; D= diesel. SHEEN: N= none; T= trace; M= moderate; H= heavy. MOISTURE: D= dry; M= moist; W= wet. ANALYTICAL SAMPLE TYPES: GROUP 5= As/Cd/Pb/Se/Hg/tot. Cyanide/BETX/ PAH/Phenols. FS= Full Scan analysis. M17= duplicate sample. GEOTECHNICAL SAMPLE TYPES: G= grain size.

FORM30 rev.12/21/93 JAB

Appendix D

Soil Pre-Design Study Boring Logs and Test Trench Logs

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

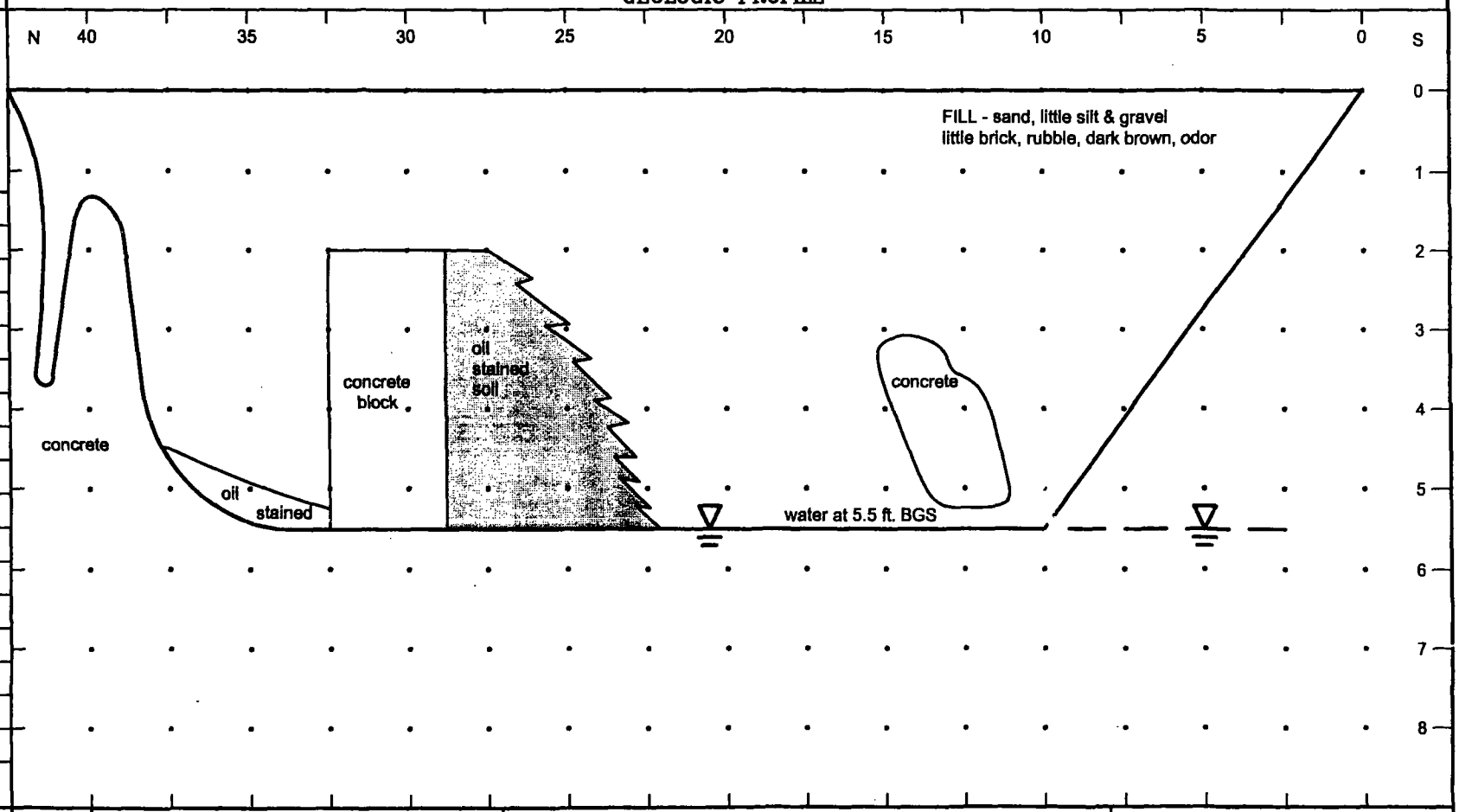
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-100
DATE/TIME STARTED 6/3/02 11:30
DATE/TIME COMPLETED 6/3/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060302-WP-003A
S-060302-WP-003B
S-060302-WP-003C

S-060302-WP-002A
S-060302-WP-002B
S-060302-WP-002C

S-060302-WP-001A
S-060302-WP-001B
S-060302-WP-001C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

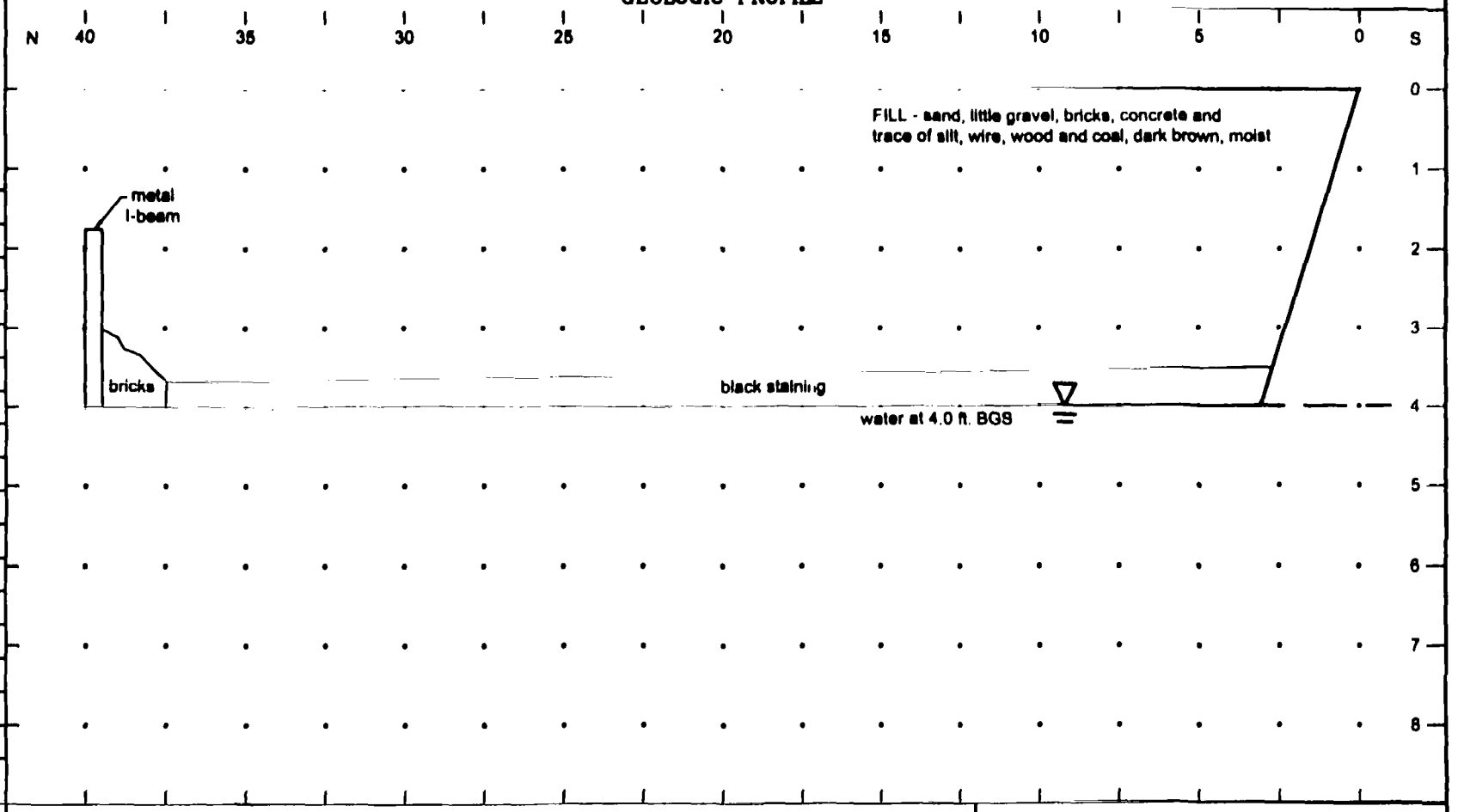
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-101
DATE/TIME STARTED: 6/3/02 13:00
DATE/TIME COMPLETED: 6/3/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060302-WP-004A
S-060302-WP-004B

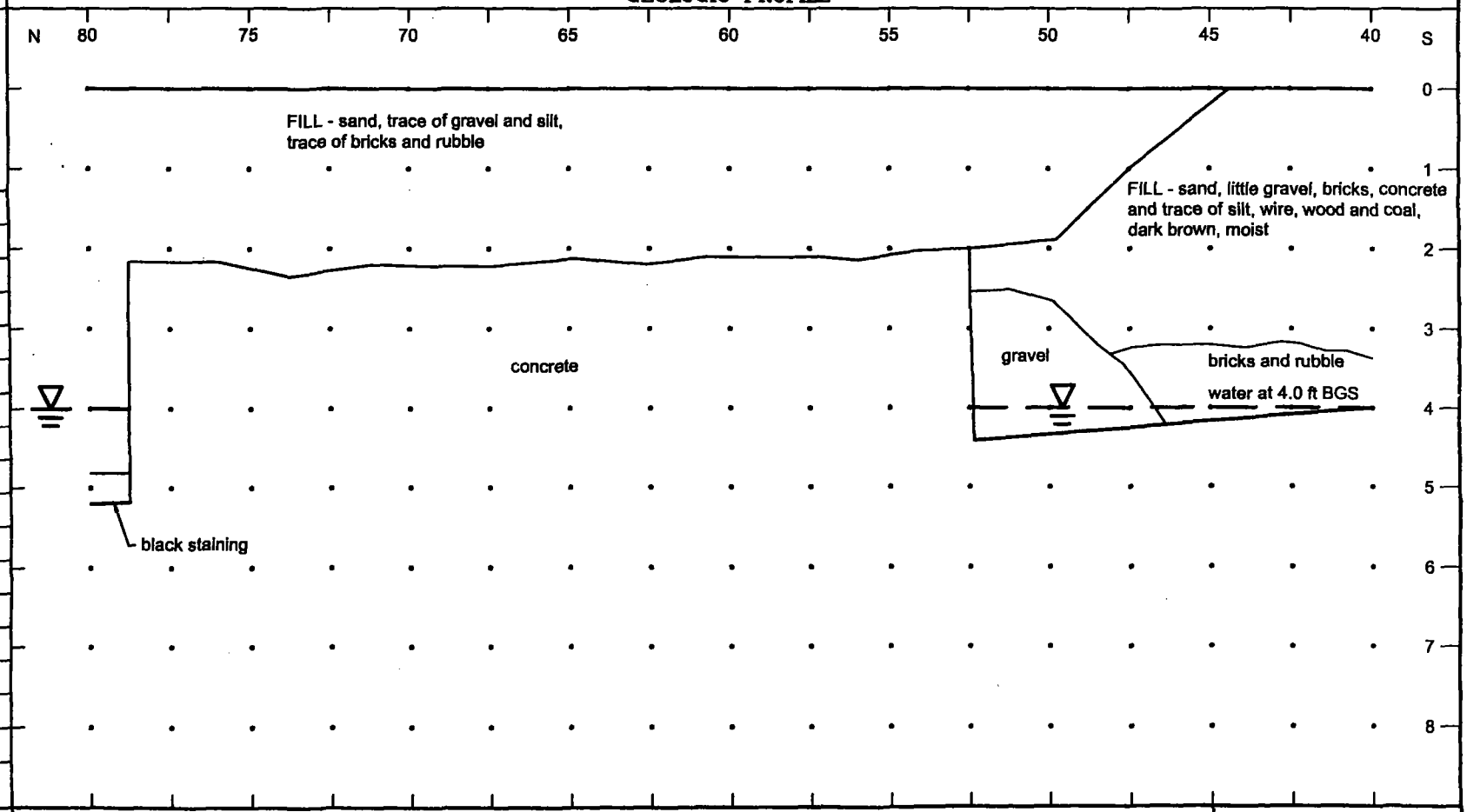
TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-101
DATE/TIME STARTED 6/3/02 13:00
DATE/TIME COMPLETED 6/3/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS			GEOLOGIC PROFILE
SAMPLE #	SAMPLE	INTERVA	PID/FI



NOTES AND COMMENTS

S-060302-WP-005A
S-060302-WP-005B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN CORE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

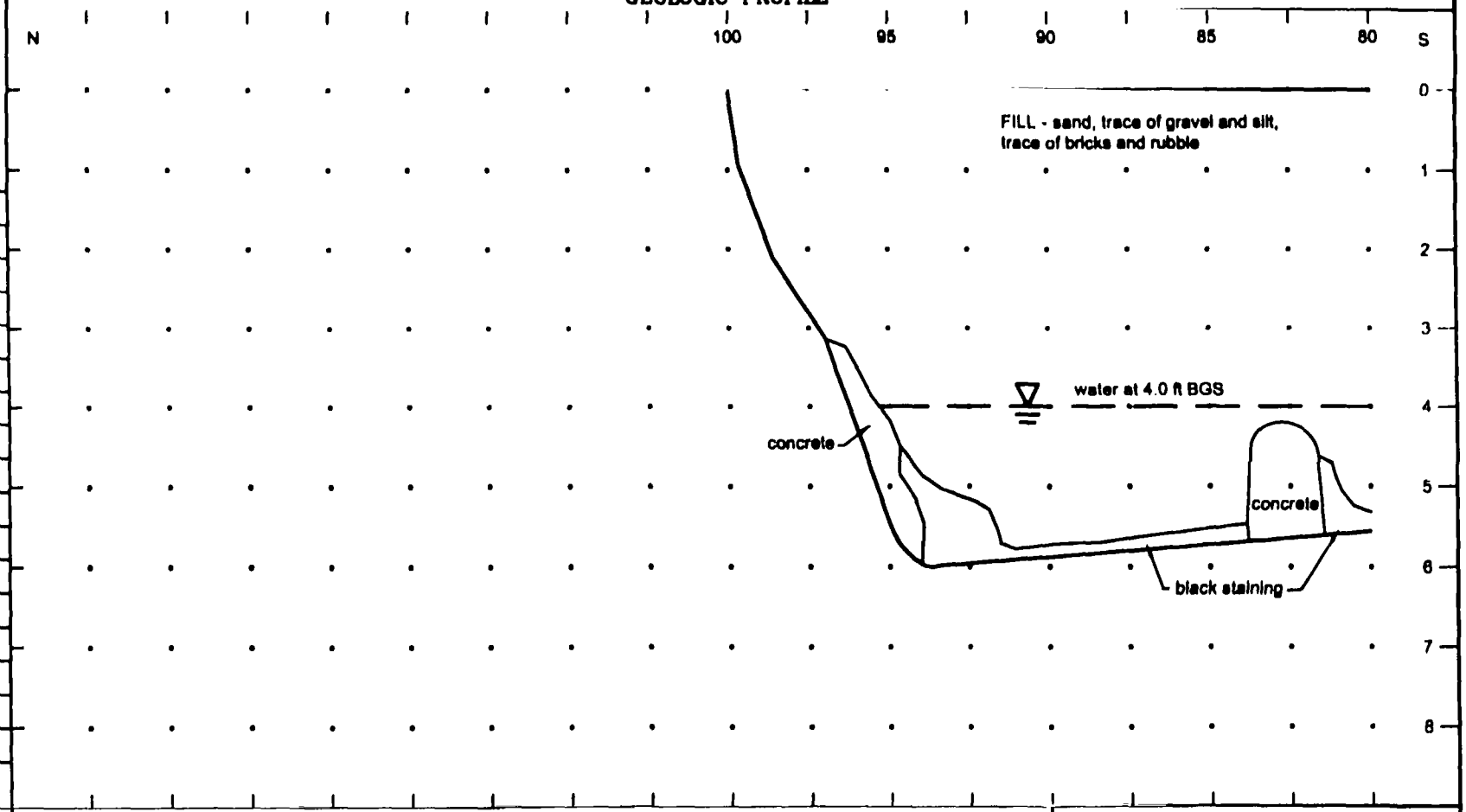
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-101
DATE/TIME STARTED: 6/8/08 13:00
DATE/TIME COMPLETED: 6/8/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

Composite Geotech sample collected from Trench S-060302-WP-009

S-060302-WP-006A
S-060302-WP-006B
S-060302-WP-006C
S-060302-WP-007B-DUP

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

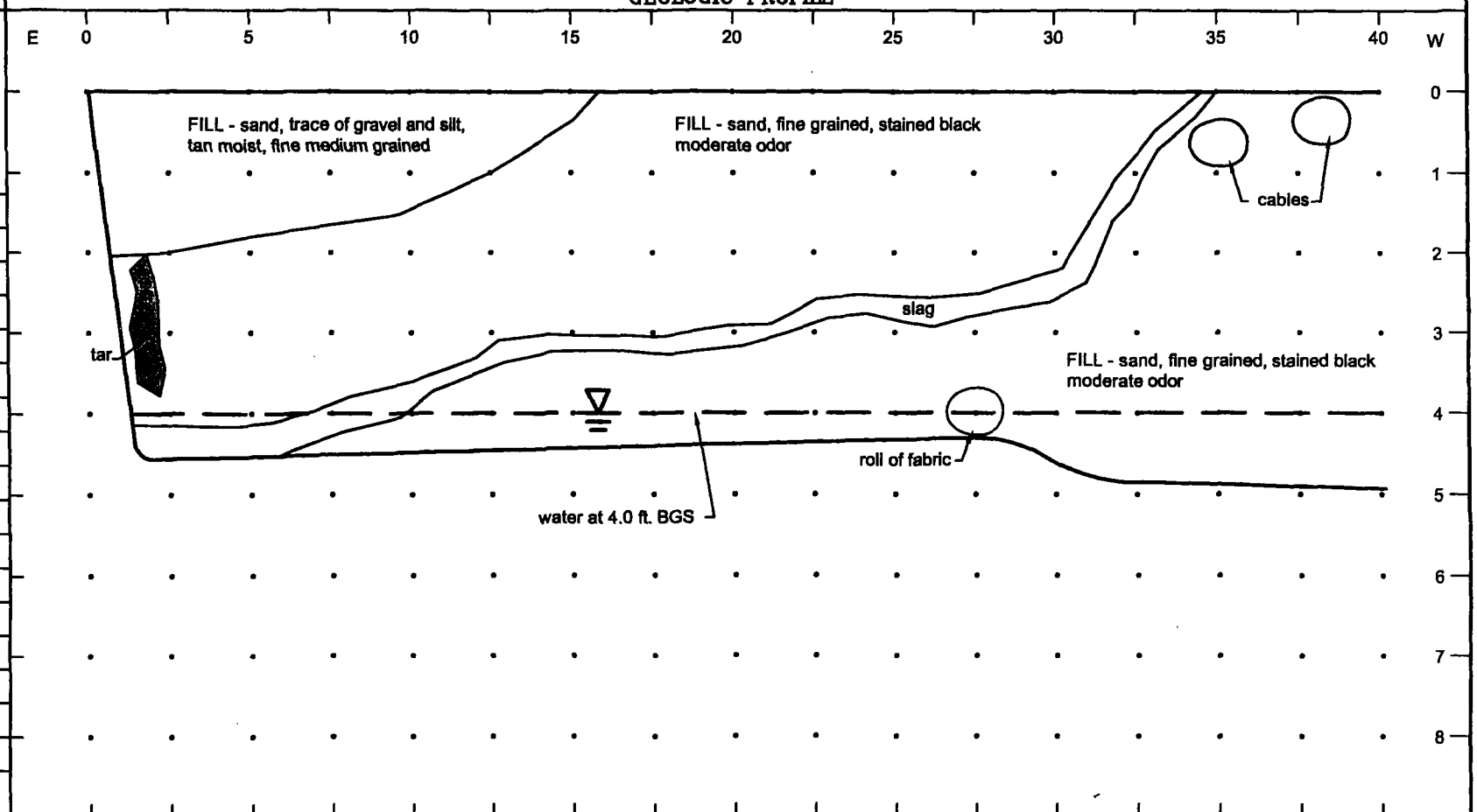
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-102
DATE/TIME STARTED: 6/3/02 14:30
DATE/TIME COMPLETED: 6/3/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060302-WP-010A
S-060302-WP-010B

S-060302-WP-011A ms/msd
S-060302-WP-011B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

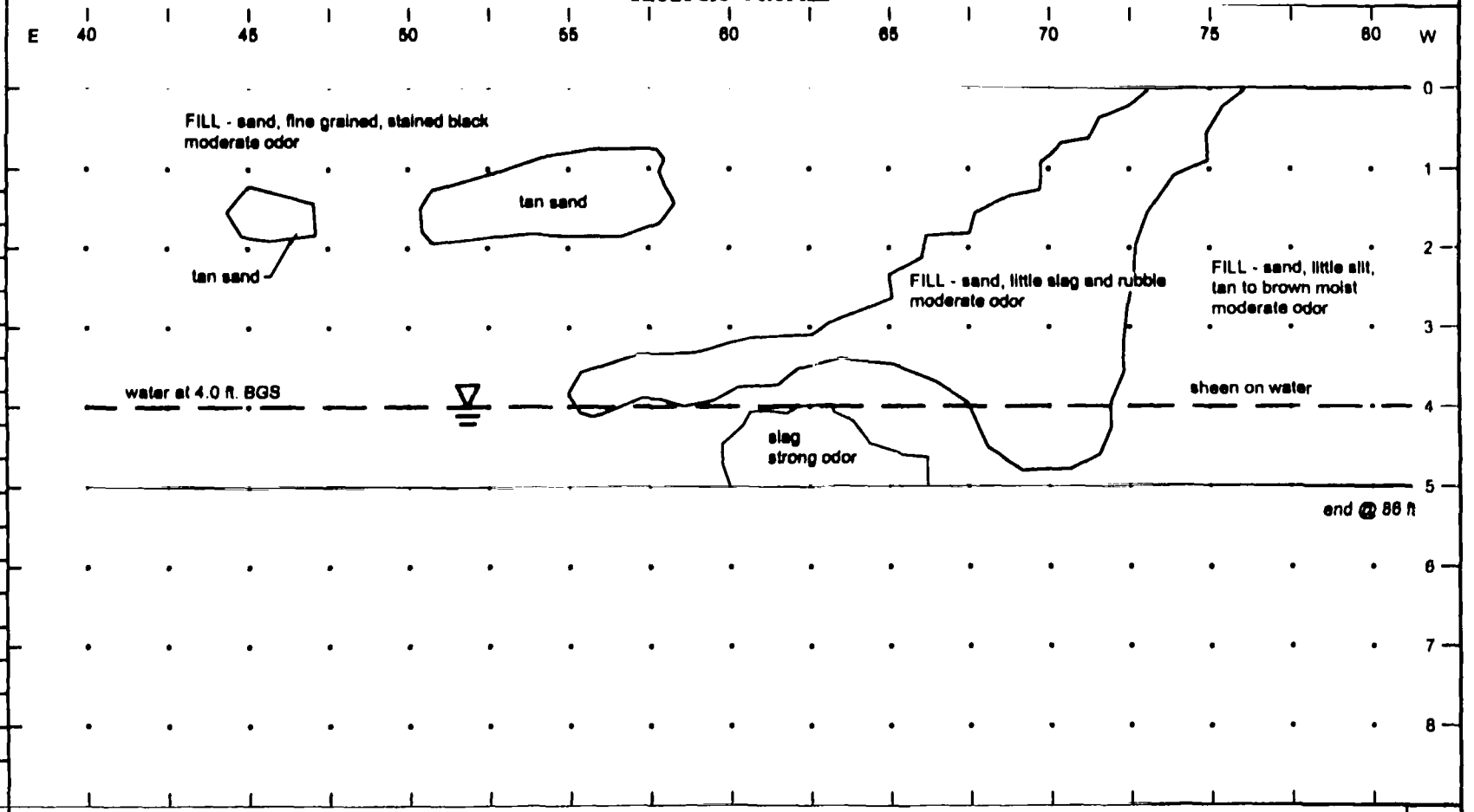
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-102
DATE/TIME STARTED: 6/3/02 14:30
DATE/TIME COMPLETED: 6/3/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060302-WP-012A
S-060302-WP-012B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

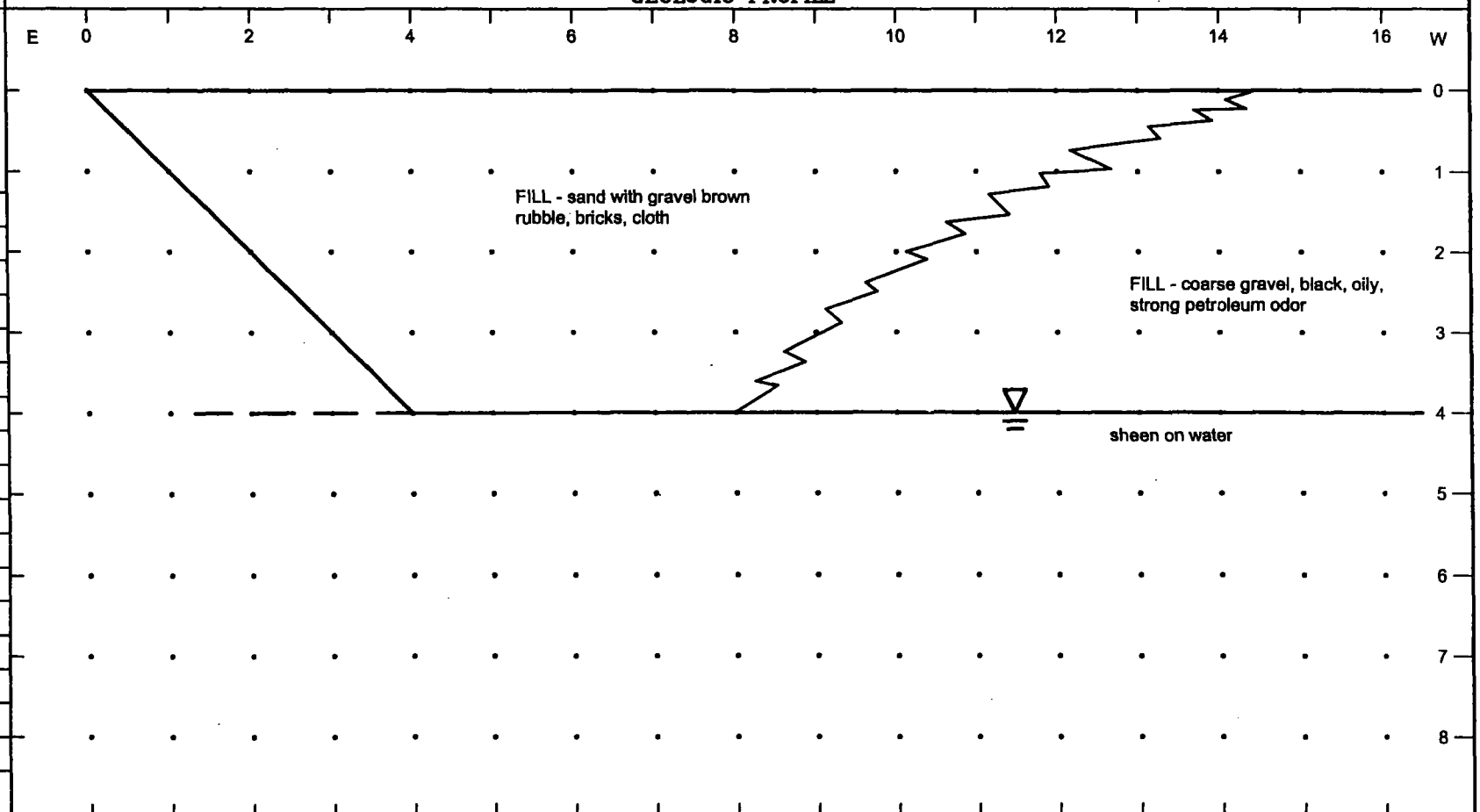
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.): OVERCAST
(P.M.):

TEST PIT DESIGNATION: TP-103
DATE/TIME STARTED: 6/5/02
DATE/TIME COMPLETED: 6/5/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: P. JOHNSON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18028
CLIENT: HCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

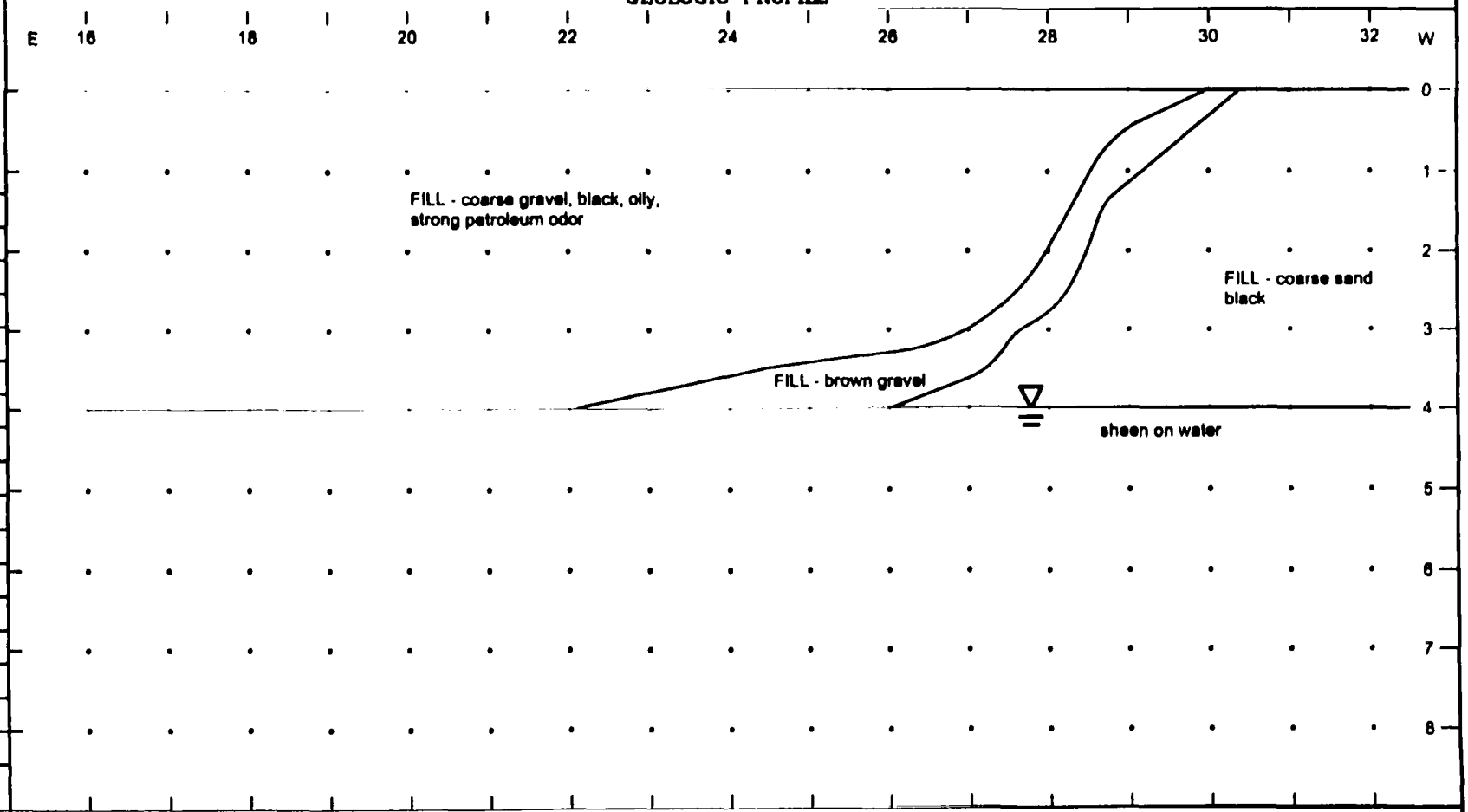
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-108
DATE/TIME STARTED: 8/8/08
DATE/TIME COMPLETED: 8/8/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: P. JOHNSON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

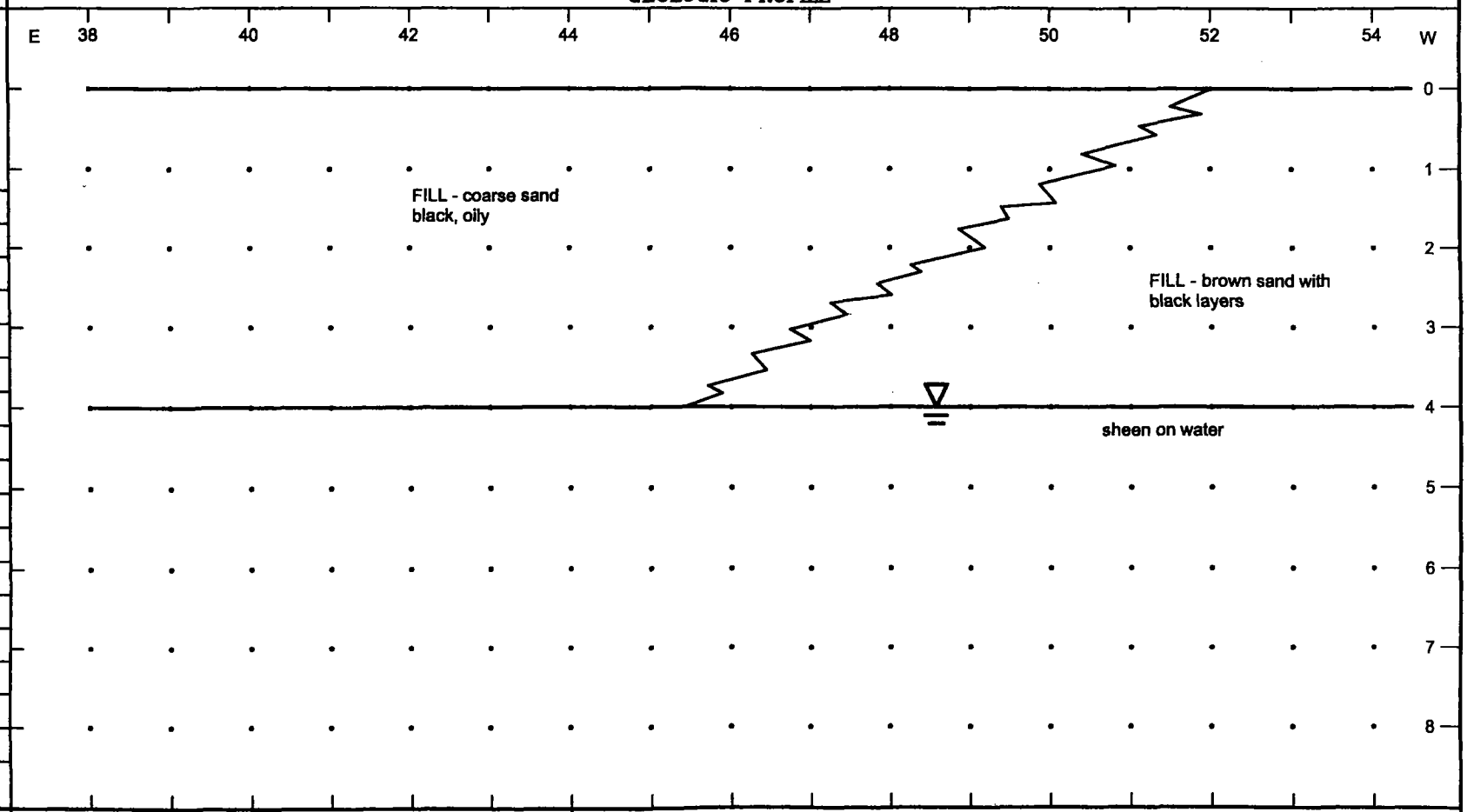
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-103
DATE/TIME STARTED: 6/5/02
DATE/TIME COMPLETED: 6/5/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: P. JOHNSON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060502-WP-013A
S-060502-WP-013B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN CORE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

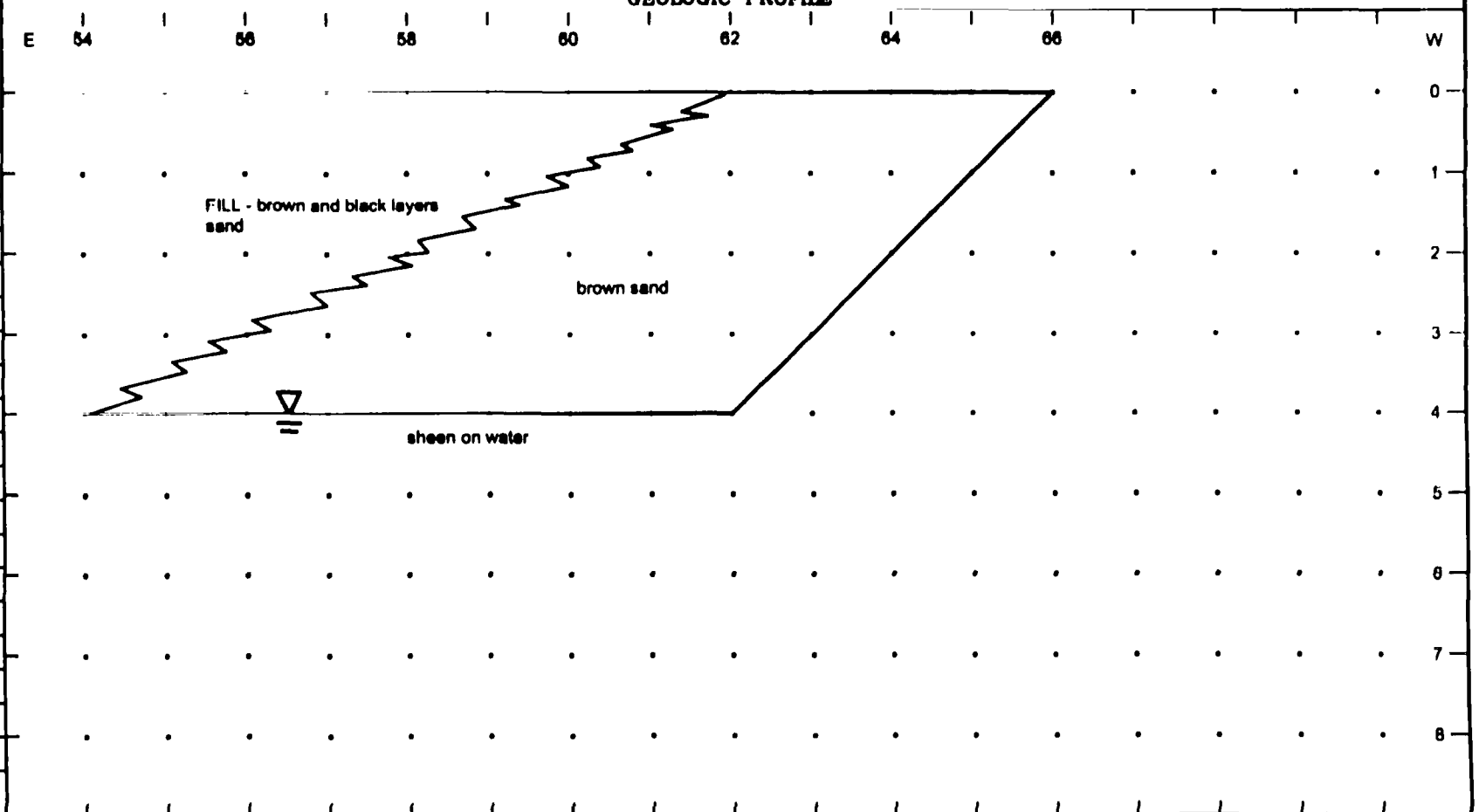
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-108
DATE/TIME STARTED: 6/5/08
DATE/TIME COMPLETED: 6/5/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: P. JOHNSON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060502-WP-014A
S-060502-WP-014B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN , ILLINOIS

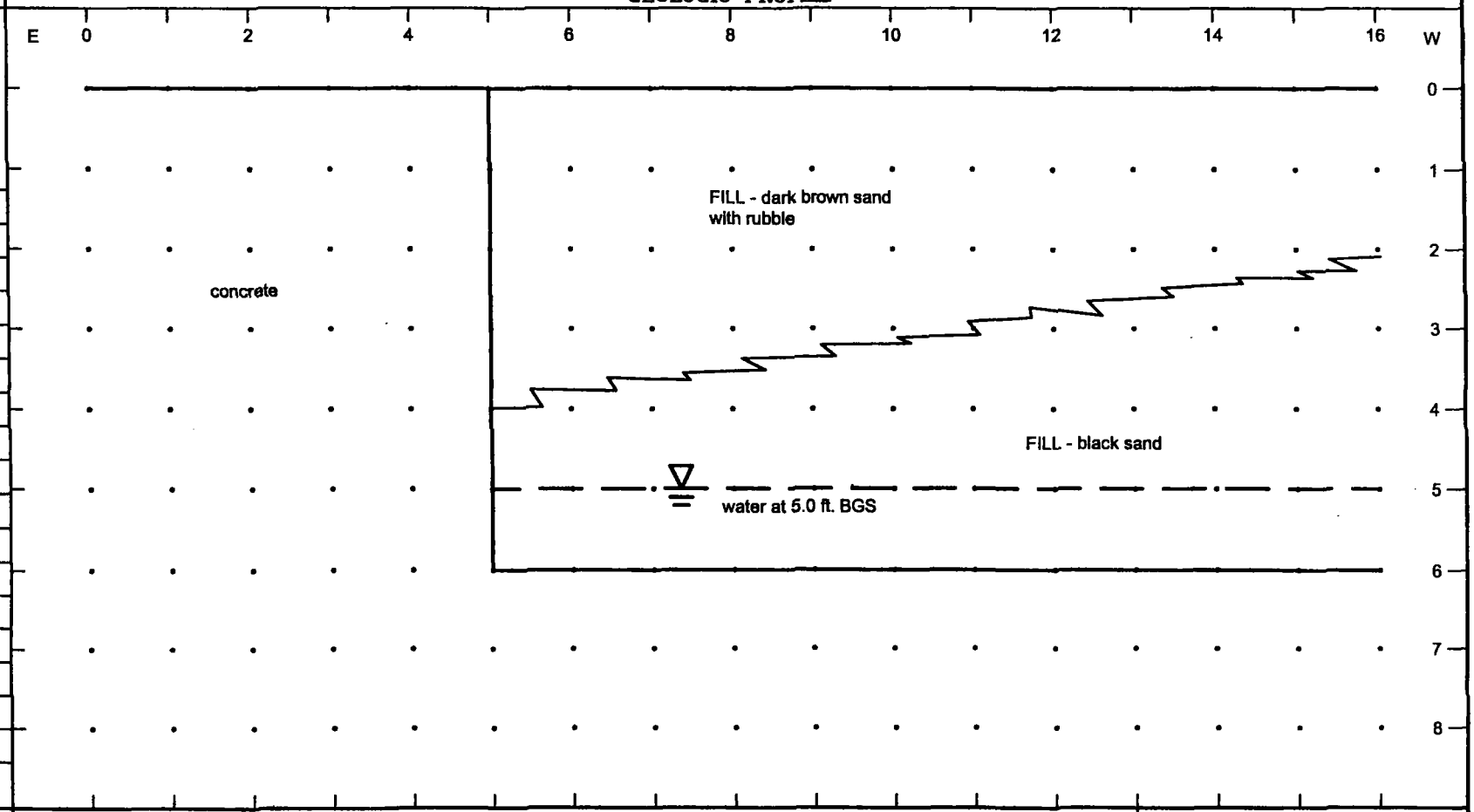
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-104
DATE/TIME STARTED 6/5/02 9:10
DATE/TIME COMPLETED 6/5/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060502-WP-015A
S-060502-WP-015B
S-060502-WP-015C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

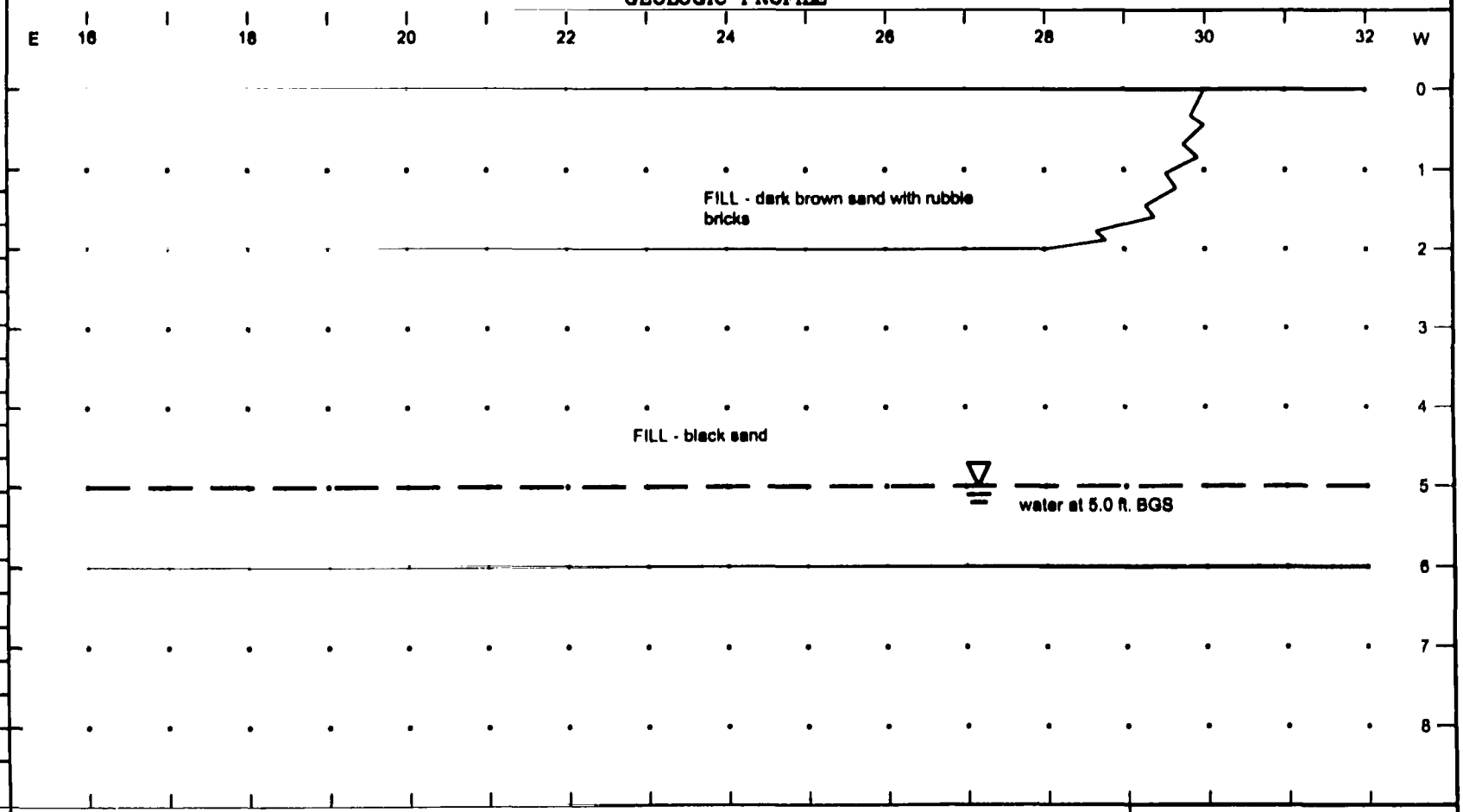
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-104
DATE/TIME STARTED: 6/5/02 9:10
DATE/TIME COMPLETED: 6/5/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060502-WP-016A
S-060502-WP-016B
S-060502-WP-016C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

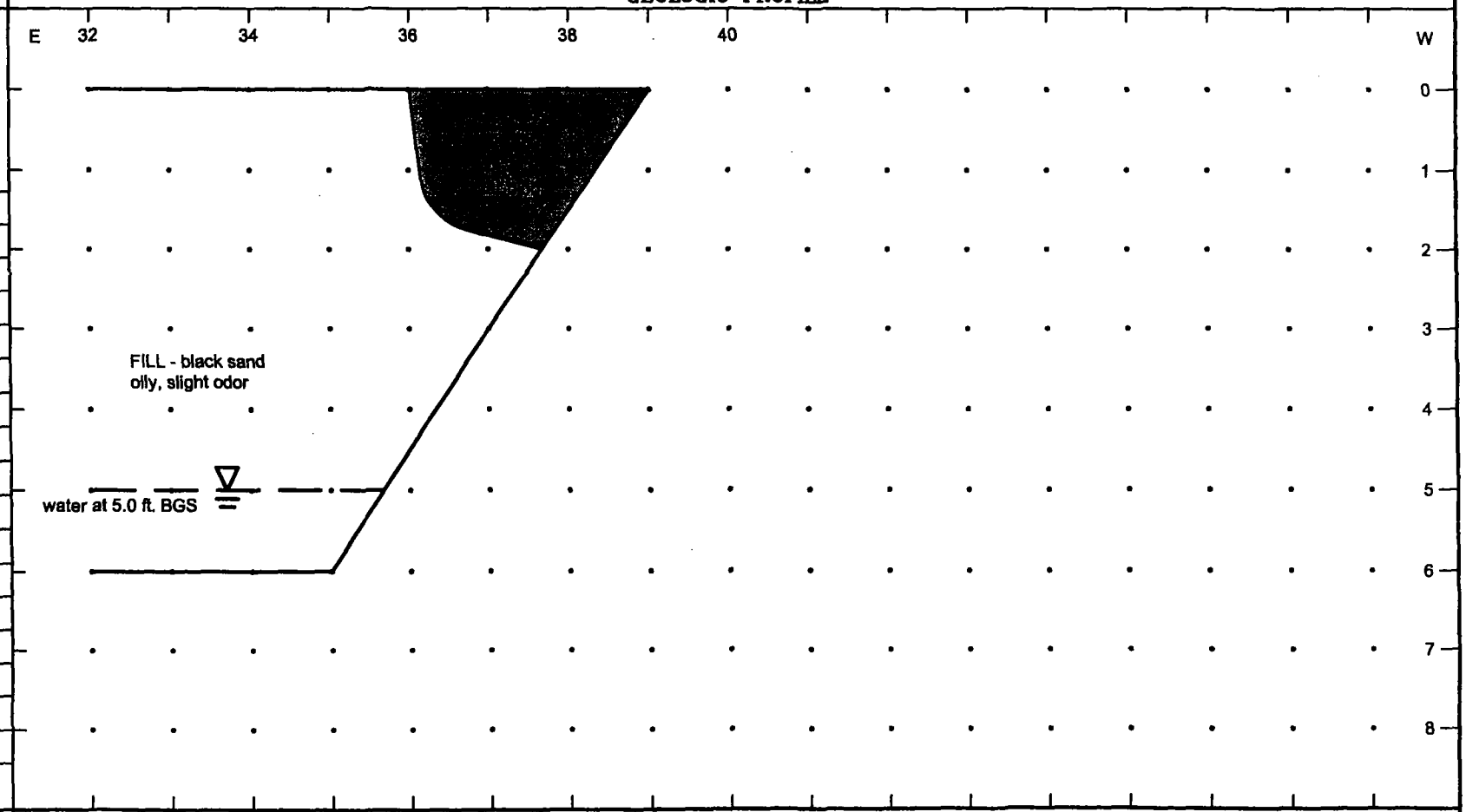
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-104
DATE/TIME STARTED 6/5/02 9:10
DATE/TIME COMPLETED 6/5/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18068
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

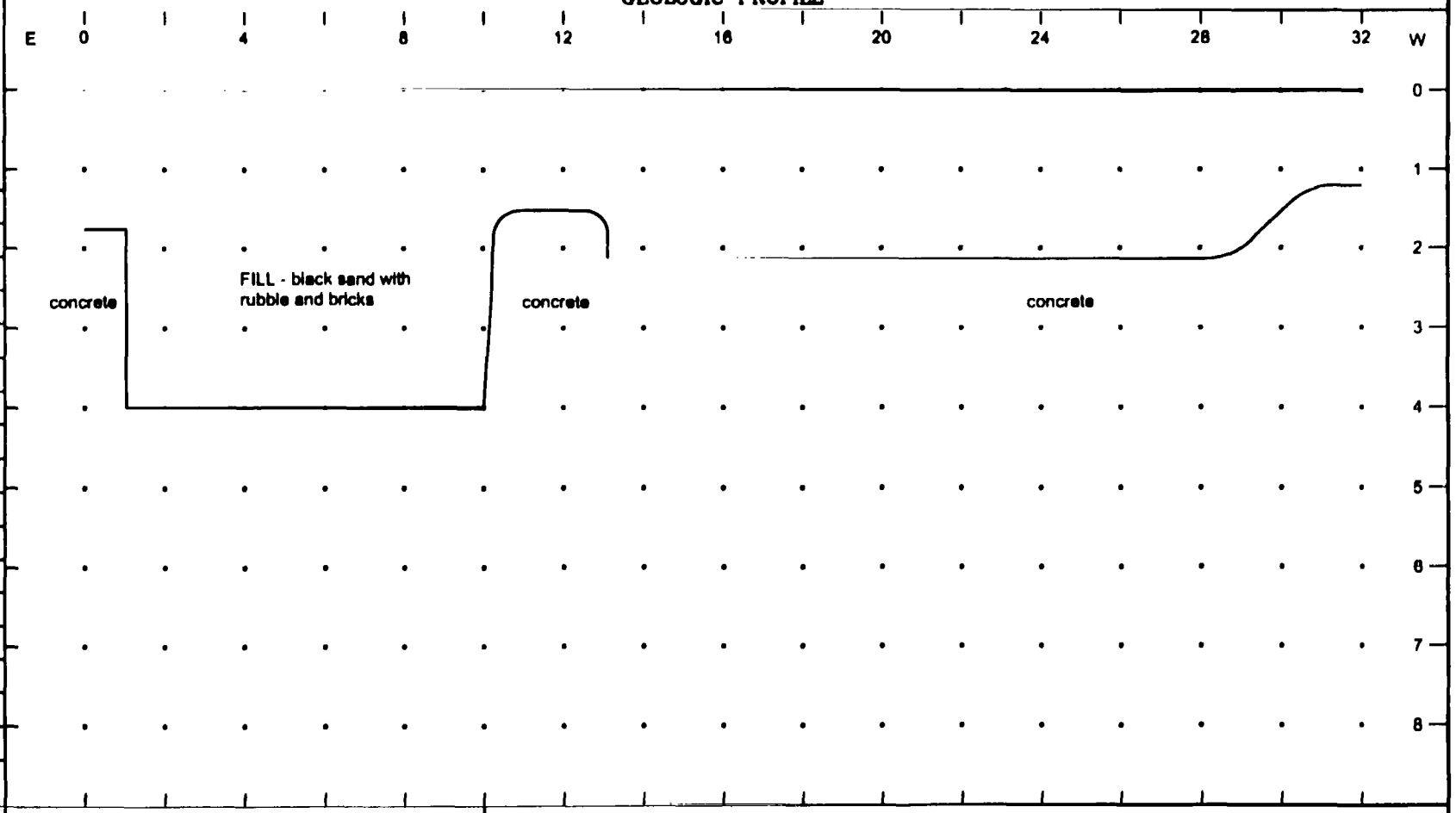
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-106
DATE/TIME STARTED: 6/5/08 10:00
DATE/TIME COMPLETED: 6/5/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060502-WP-017A

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

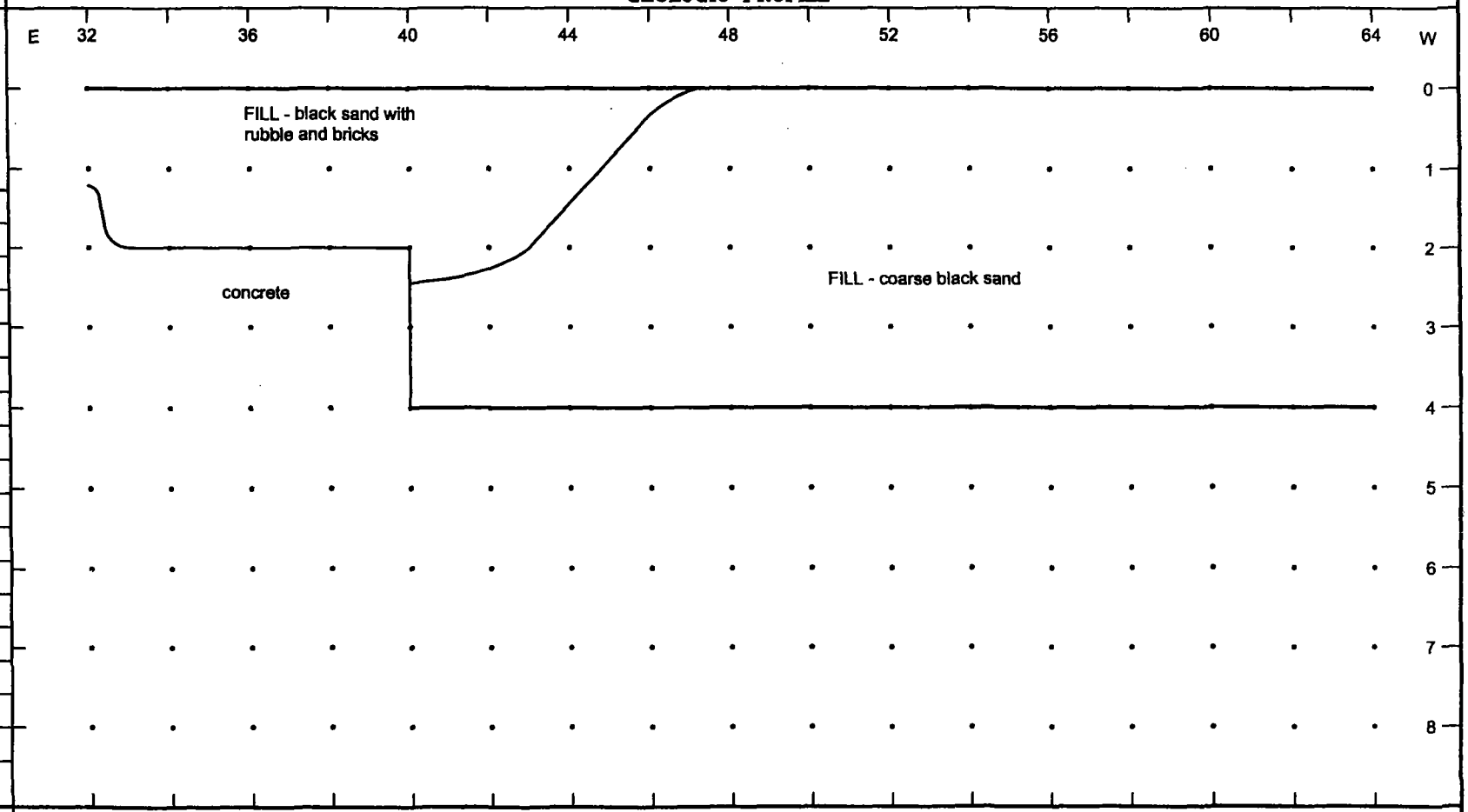
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-105
DATE/TIME STARTED 6/5/02
DATE/TIME COMPLETED 6/5/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

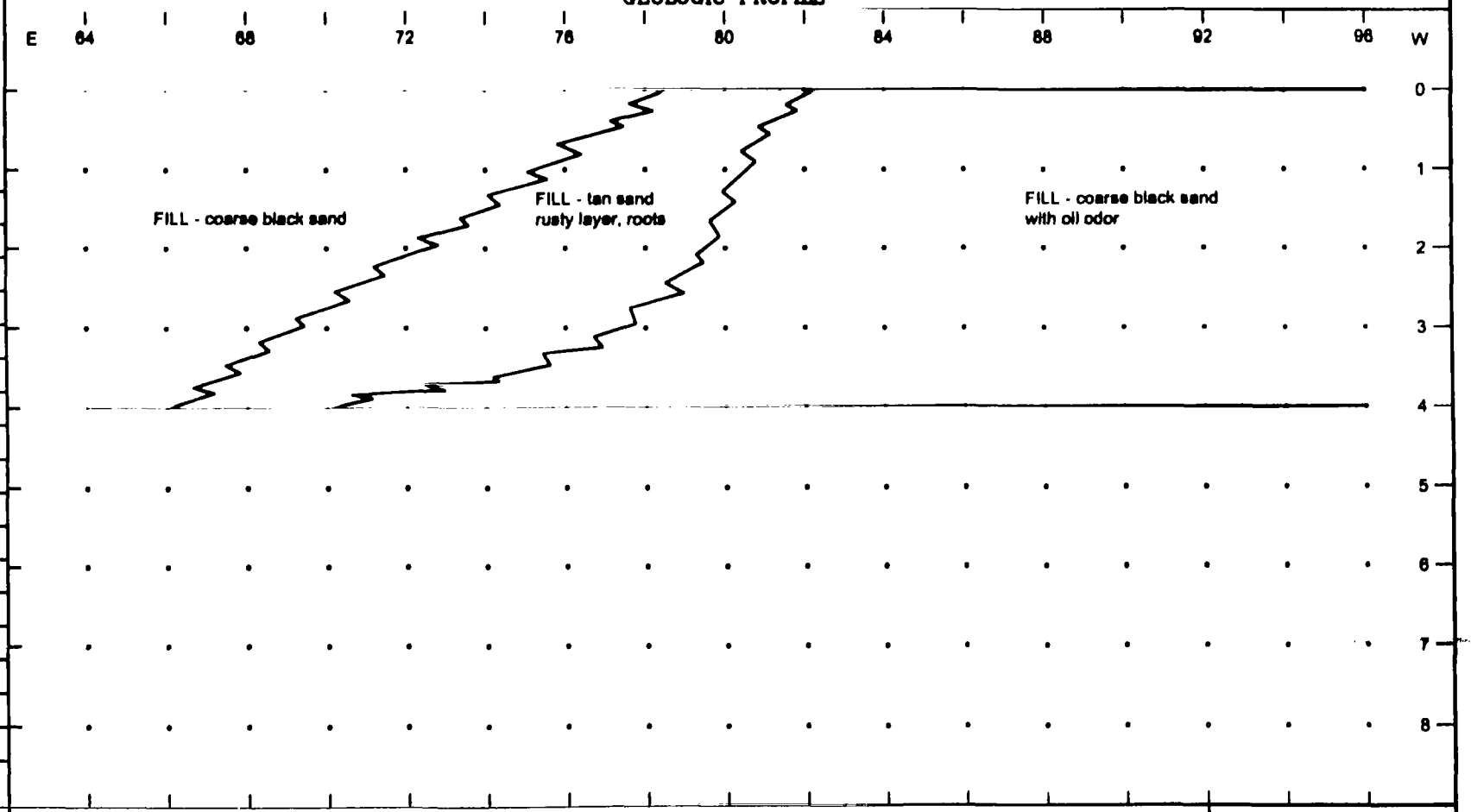
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-106
DATE/TIME STARTED: 6/5/08
DATE/TIME COMPLETED: 6/5/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060502-WP-019A
S-060502-WP-019B

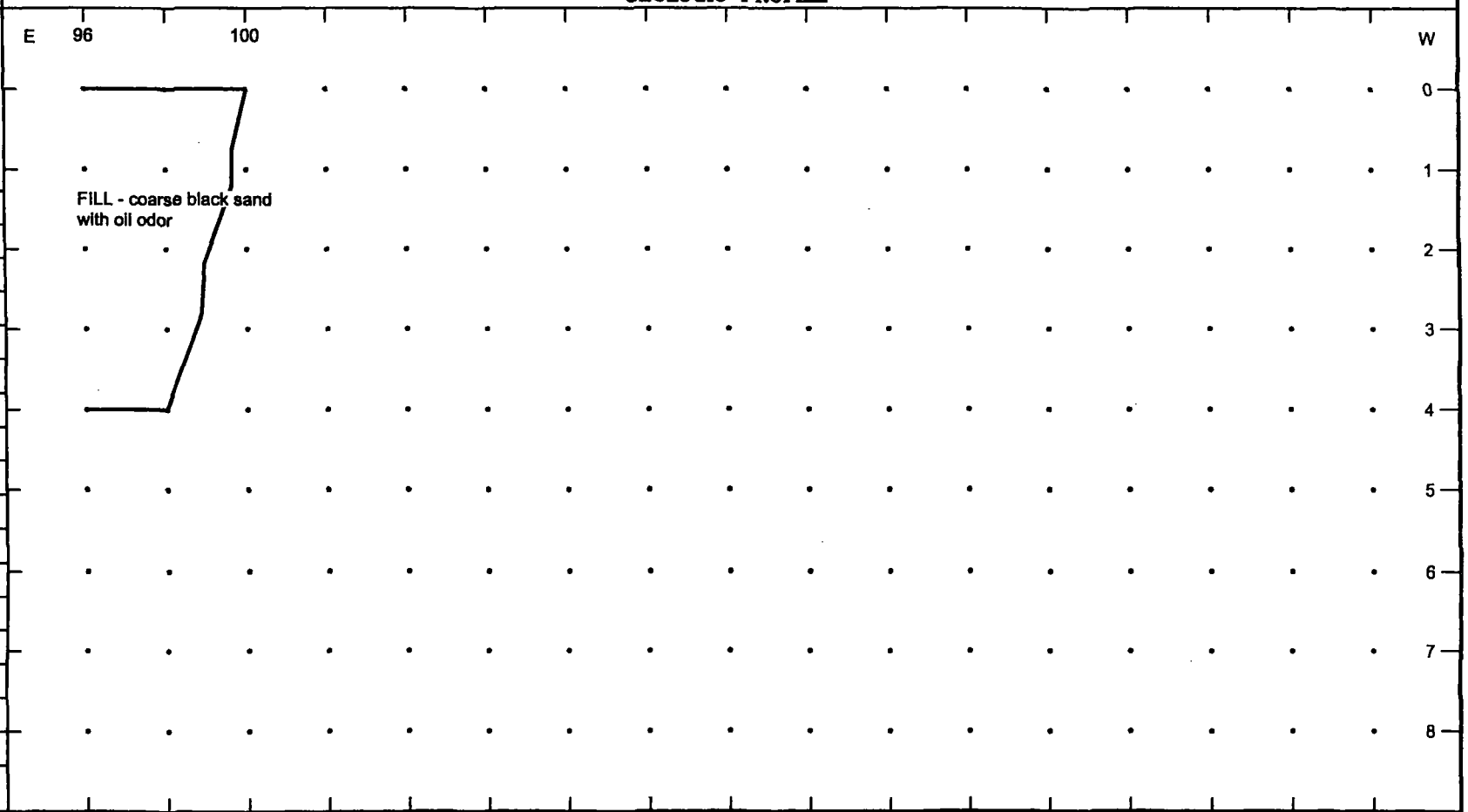
TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-105
DATE/TIME STARTED 6/5/02
DATE/TIME COMPLETED 6/5/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS				GEOLOGIC PROFILE
SAMPLE #	SAMPLE	INTERVA	PID/FI	



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

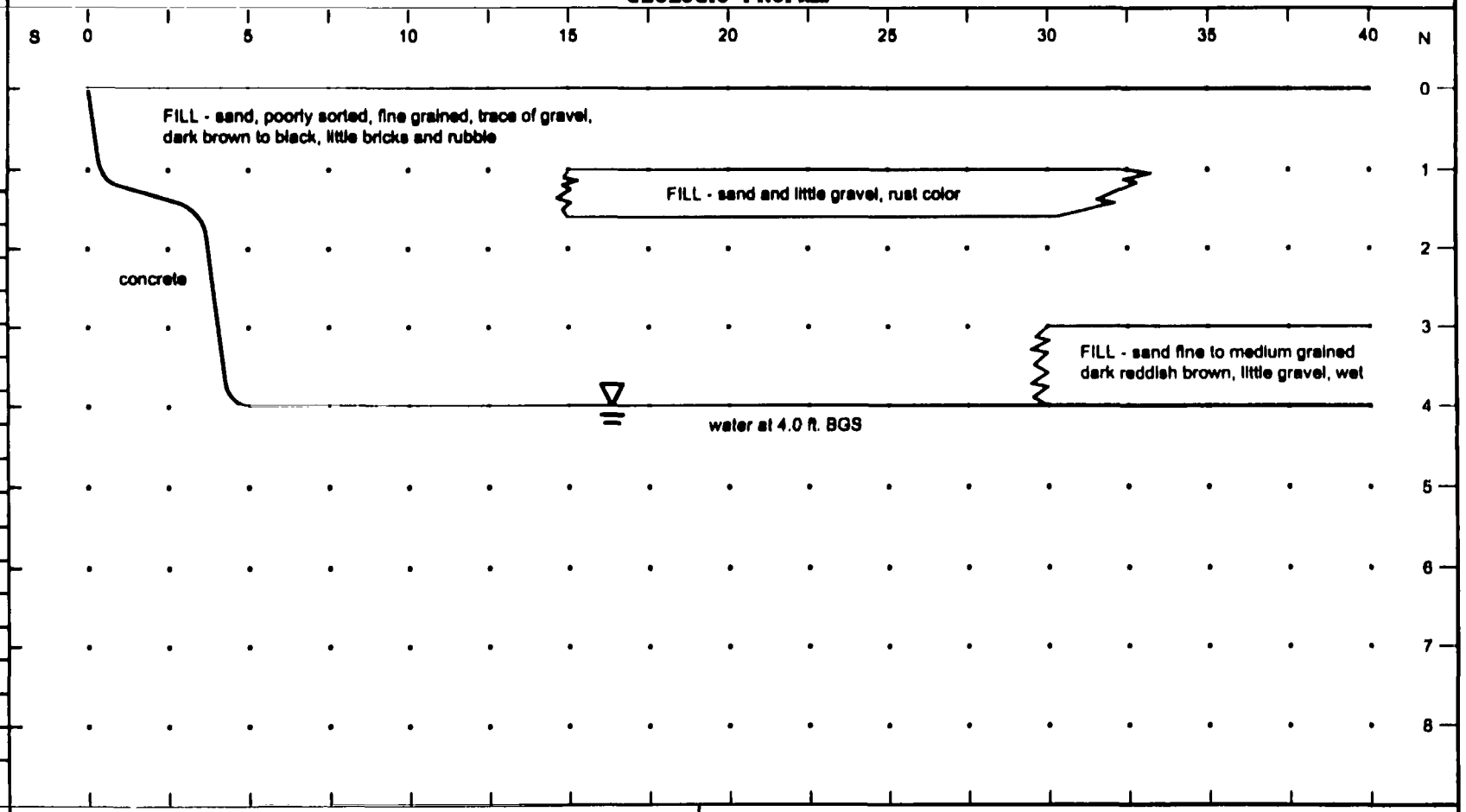
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-108
DATE/TIME STARTED: 8/8/08 08:15
DATE/TIME COMPLETED: 8/8/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-021A
S-060602-WP-021B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

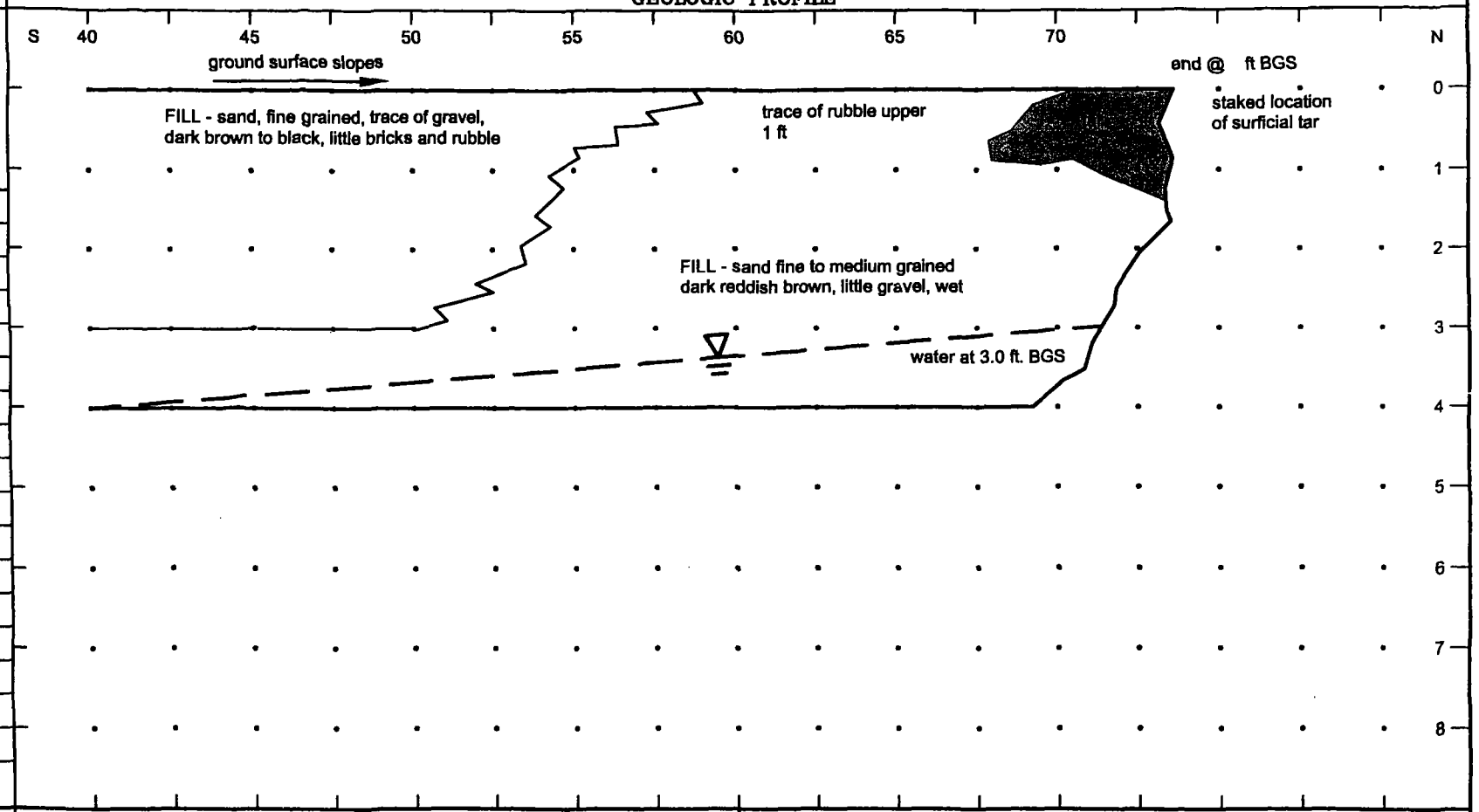
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-106
DATE/TIME STARTED: 6/6/02 08:15
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-022A 0 - 2
S-060602-WP-022B 2 - 4

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18068
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

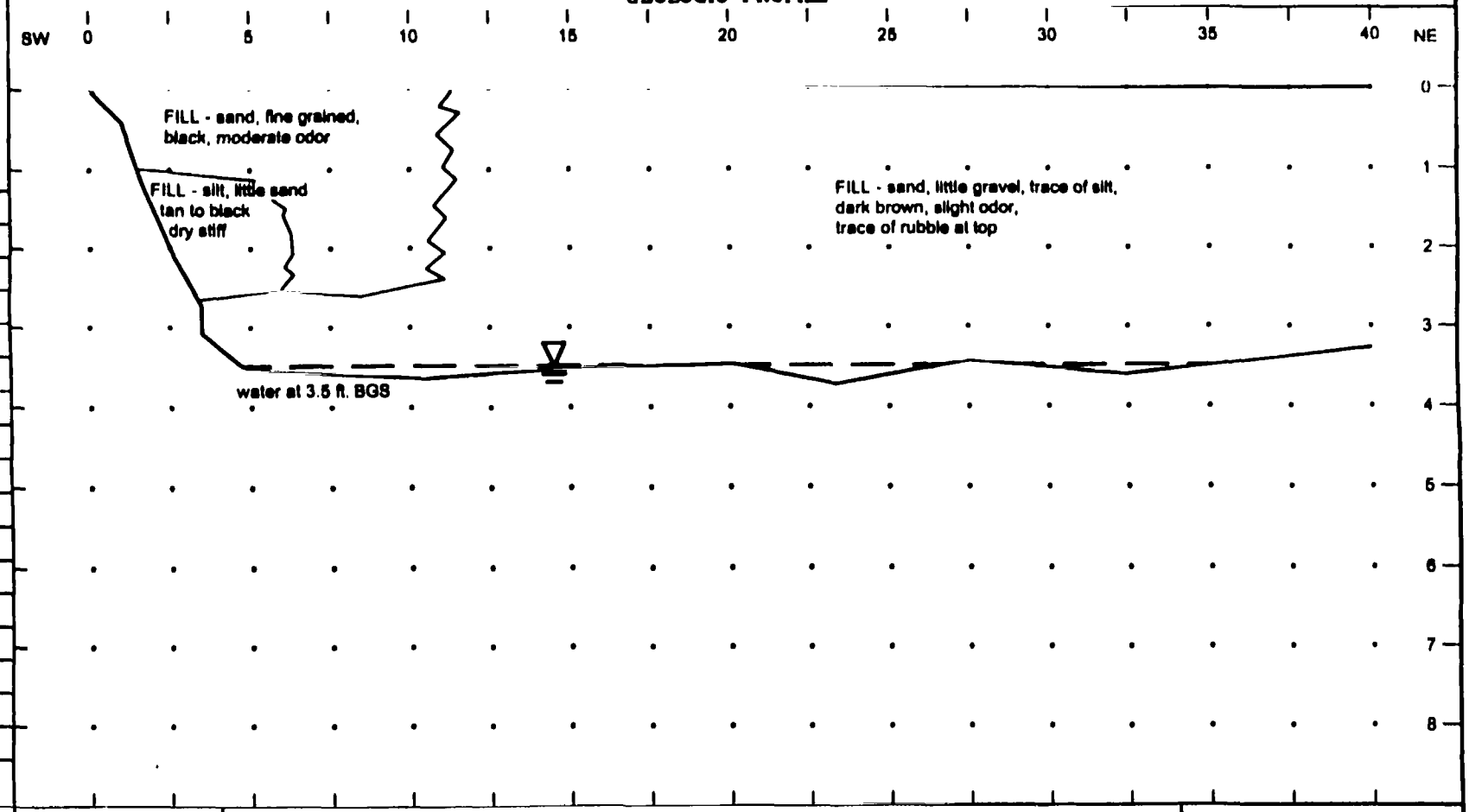
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-107
DATE/TIME STARTED: 6/6/02
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-023A
S-060602-WP-023B

S-060602-WP-024A
S-060602-WP-024B DUP

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

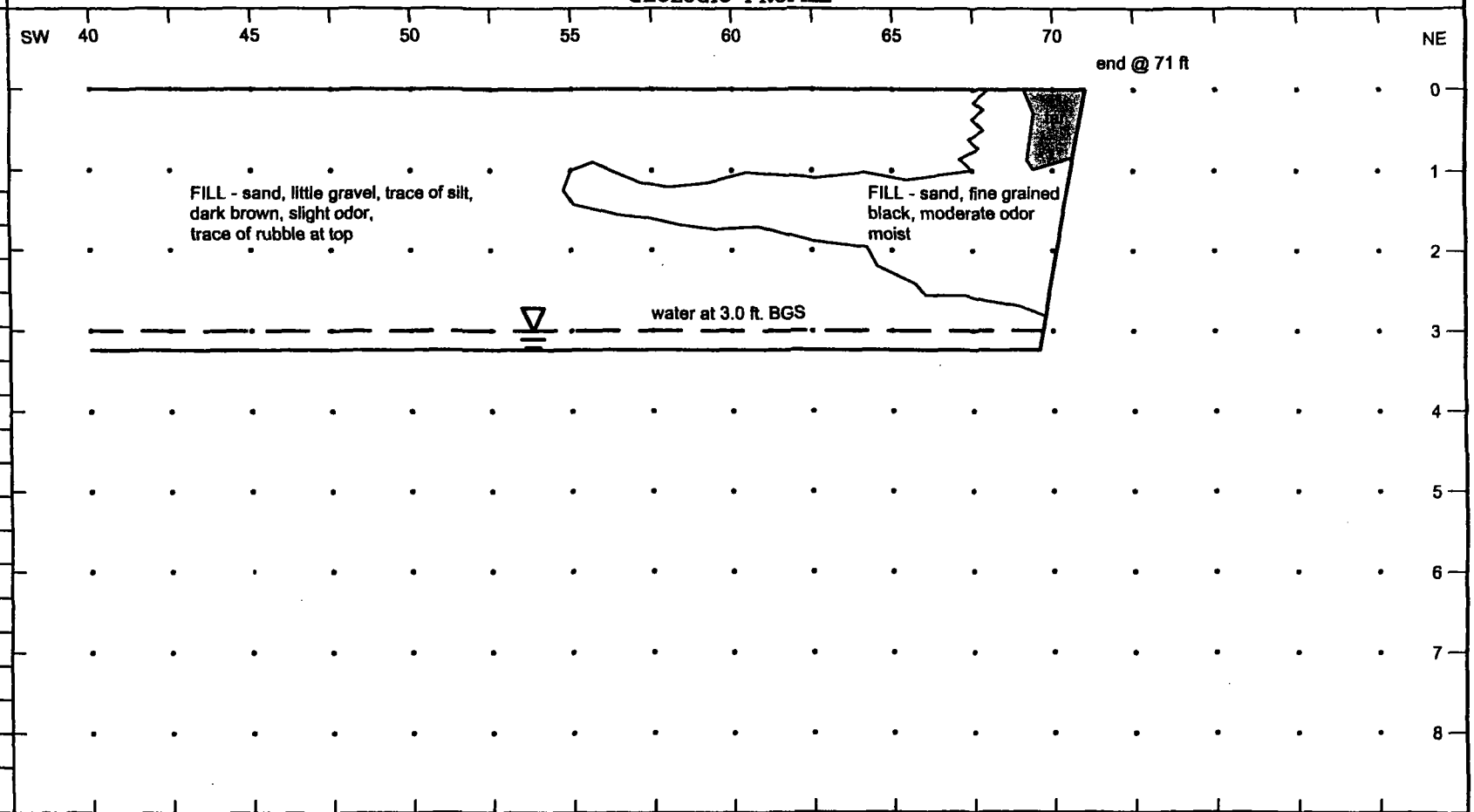
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-107
DATE/TIME STARTED: 6/6/02
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-026A
S-060602-WP-026B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

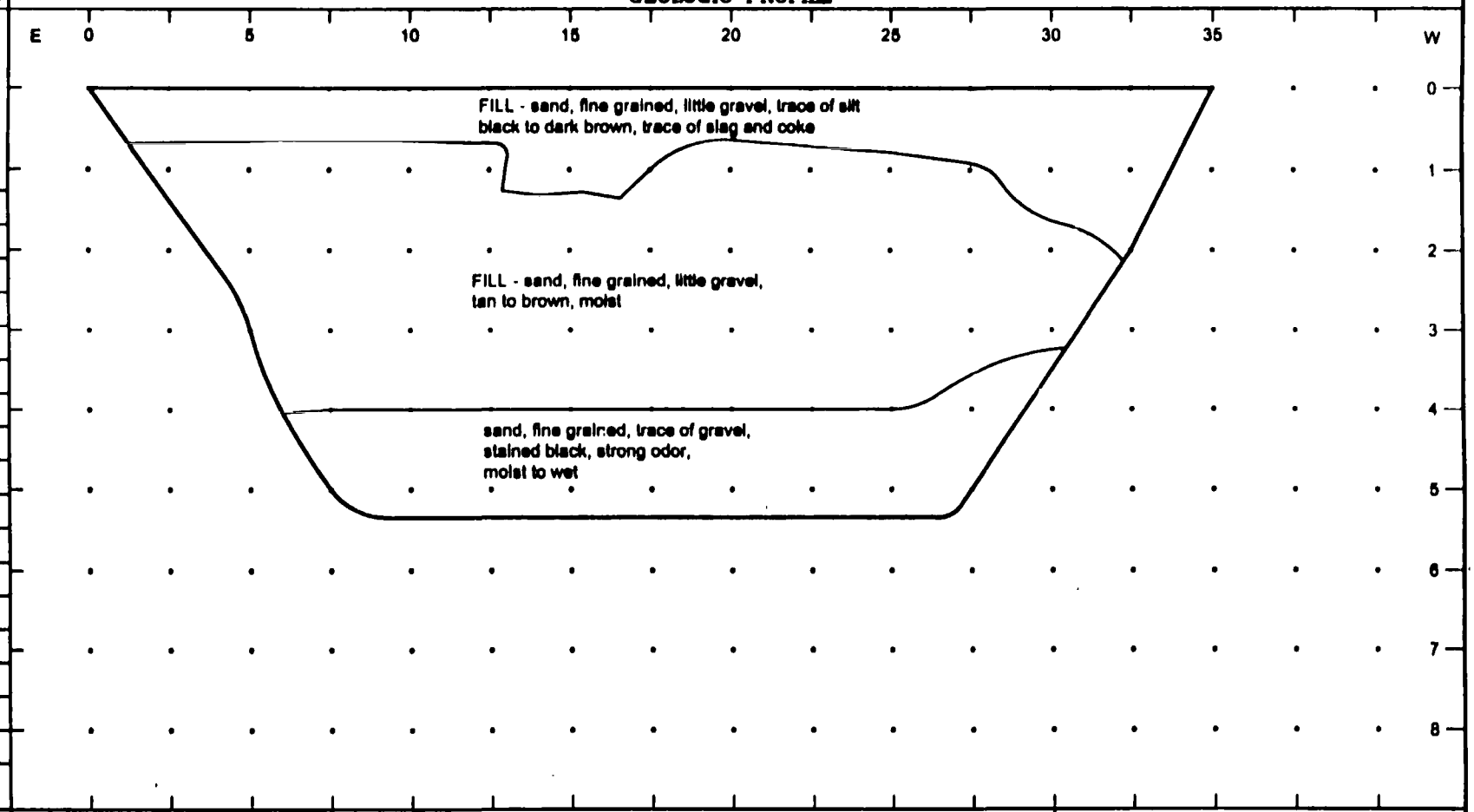
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-108
DATE/TIME STARTED: 8/8/02
DATE/TIME COMPLETED: 8/8/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-027A
S-060602-WP-027B
S-060602-WP-027C

S-060602-WP-028A
S-060602-WP-028B
S-060602-WP-028C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

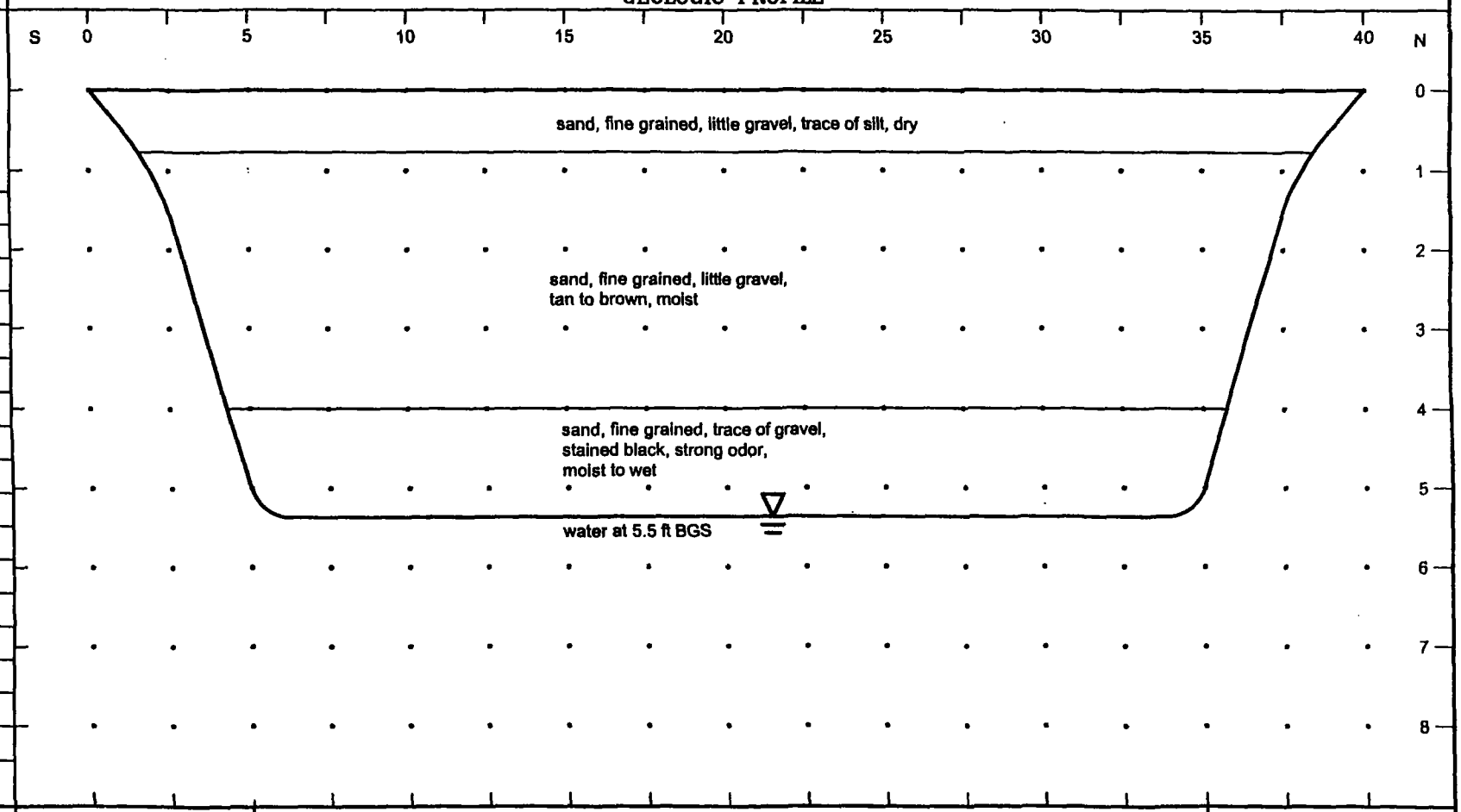
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-109
DATE/TIME STARTED: 6/6/02
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-030A
S-060602-WP-030B
S-060602-WP-030C

S-060602-WP-031A
S-060602-WP-031B
S-060602-WP-031C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19083
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

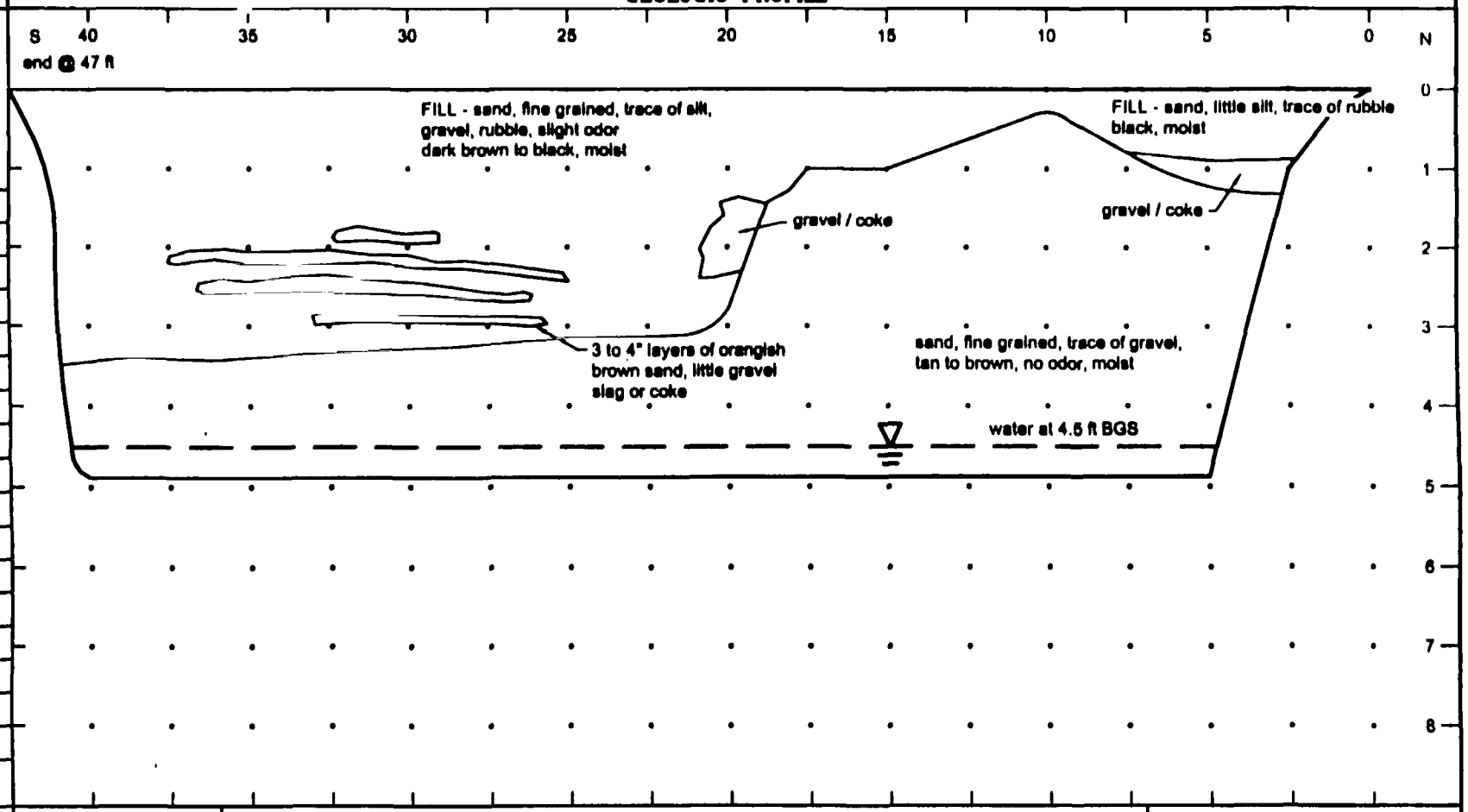
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-110
DATE/TIME STARTED: 6/6/06
DATE/TIME COMPLETED: 6/6/06
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-033A
S-060602-WP-033B
S-060602-WP-033C

S-060602-WP-032A
S-060602-WP-032B
S-060602-WP-032C

TEST PIT STRATIGRAPHY LOG

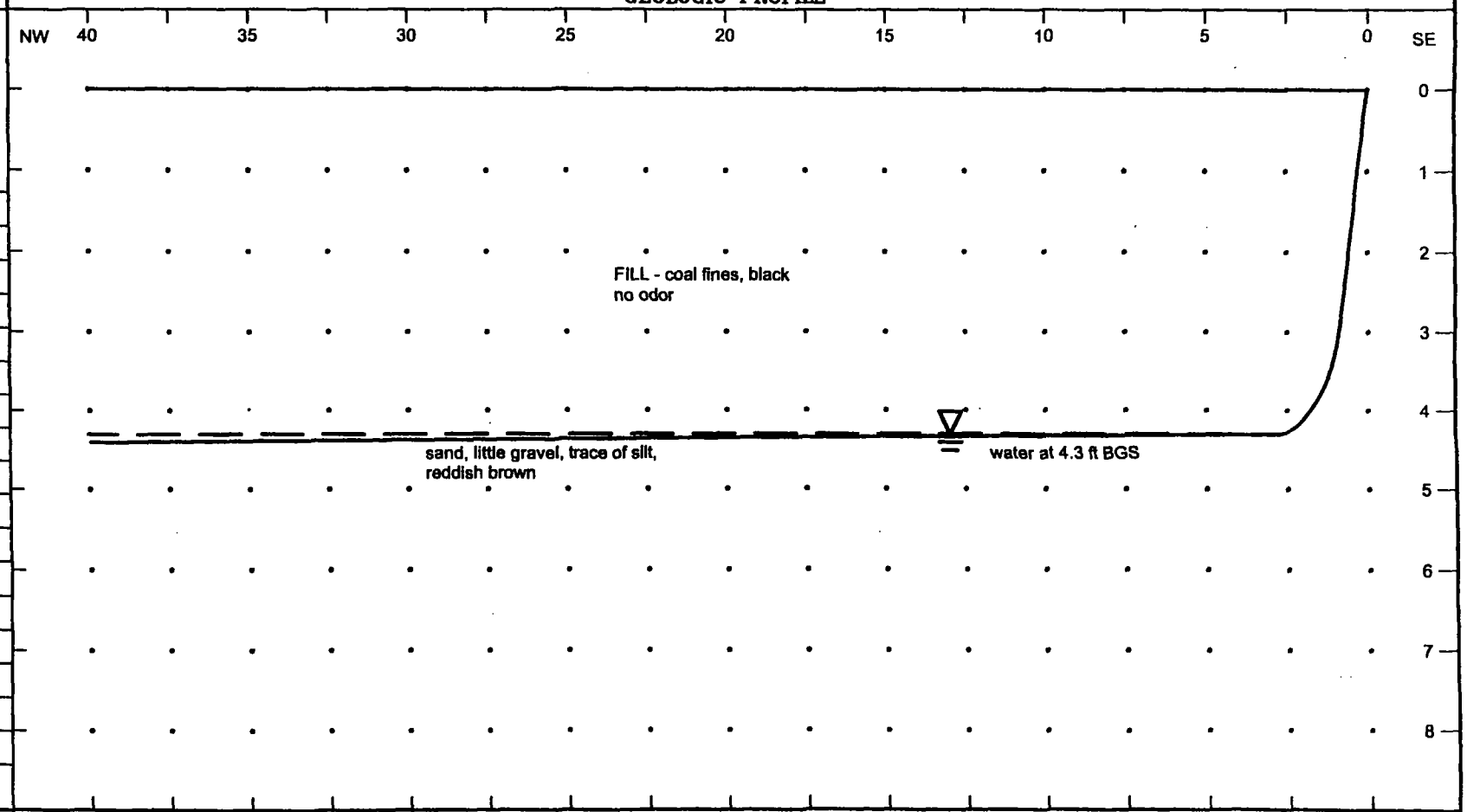
PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-111
DATE/TIME STARTED 6/6/02 12:30
DATE/TIME COMPLETED 6/6/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE #	SAMPLE INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

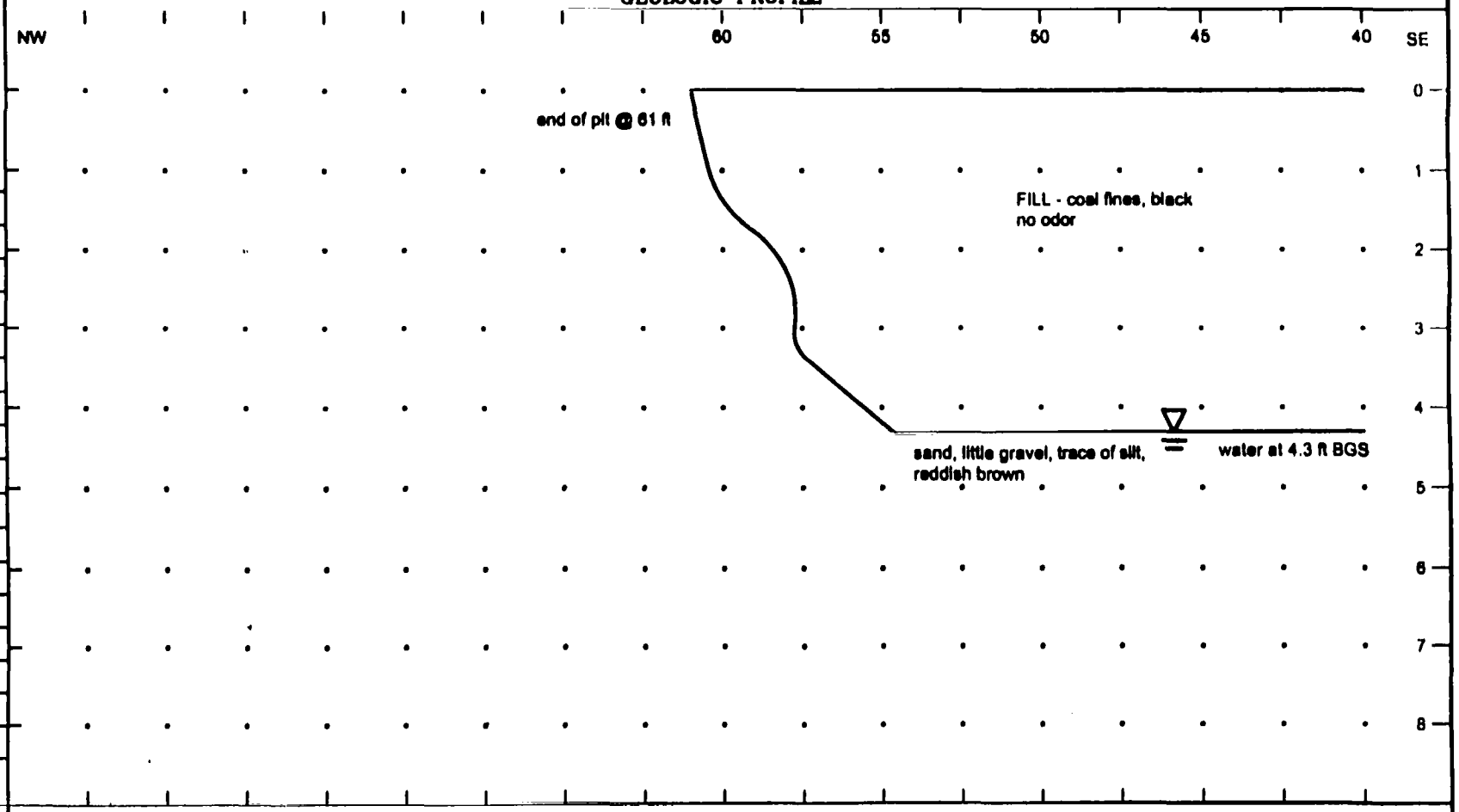
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-111
DATE/TIME STARTED: 6/6/02
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

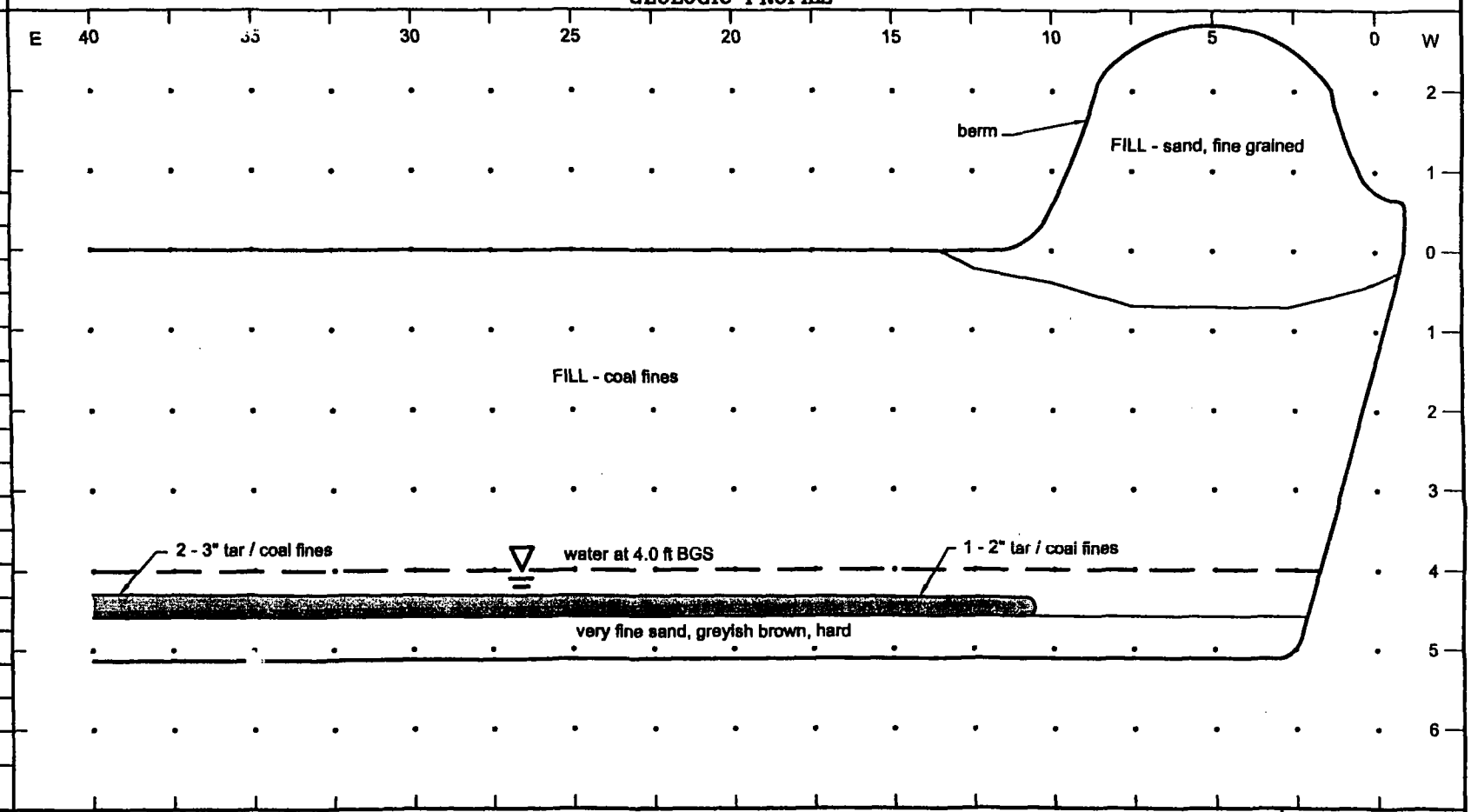
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-112
DATE/TIME STARTED 6/6/02
DATE/TIME COMPLETED 6/6/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-036

TEST PIT STRATIGRAPHY LOG

PAGE 2 OF 2

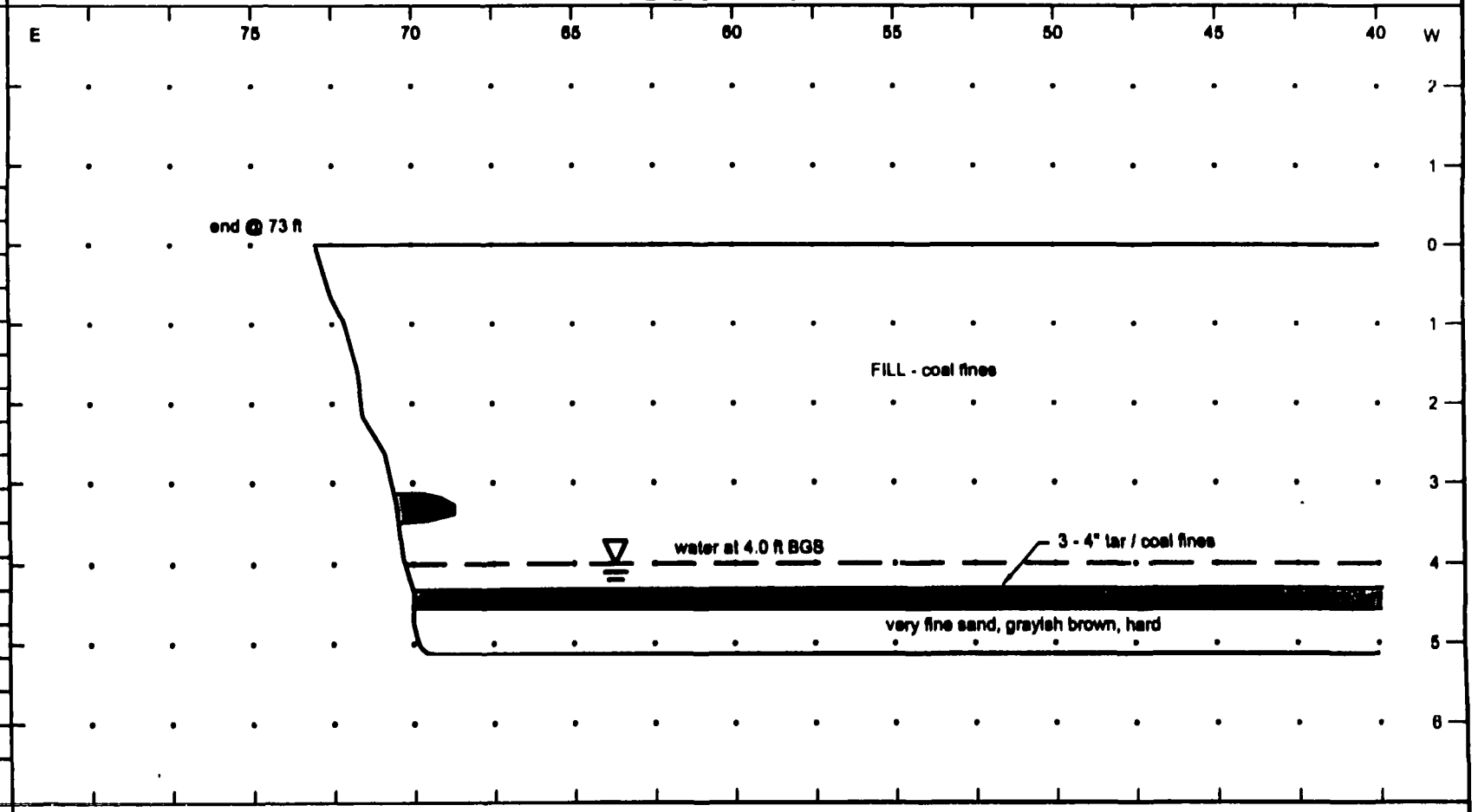
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19083
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-118
DATE/TIME STARTED: 6/6/02
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE INTERVAL	PID/FI	

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

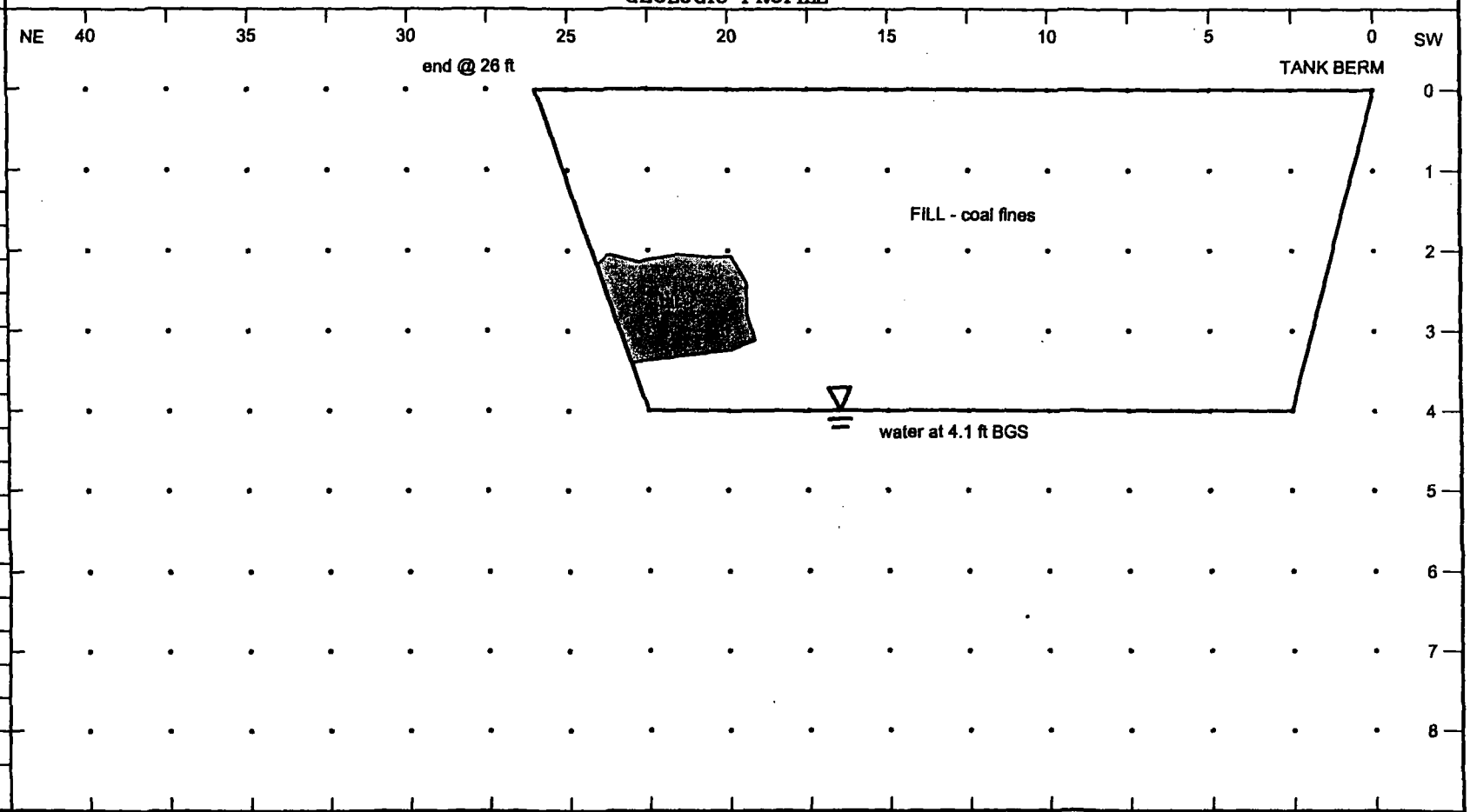
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-113
DATE/TIME STARTED: 6/6/02 14:27
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

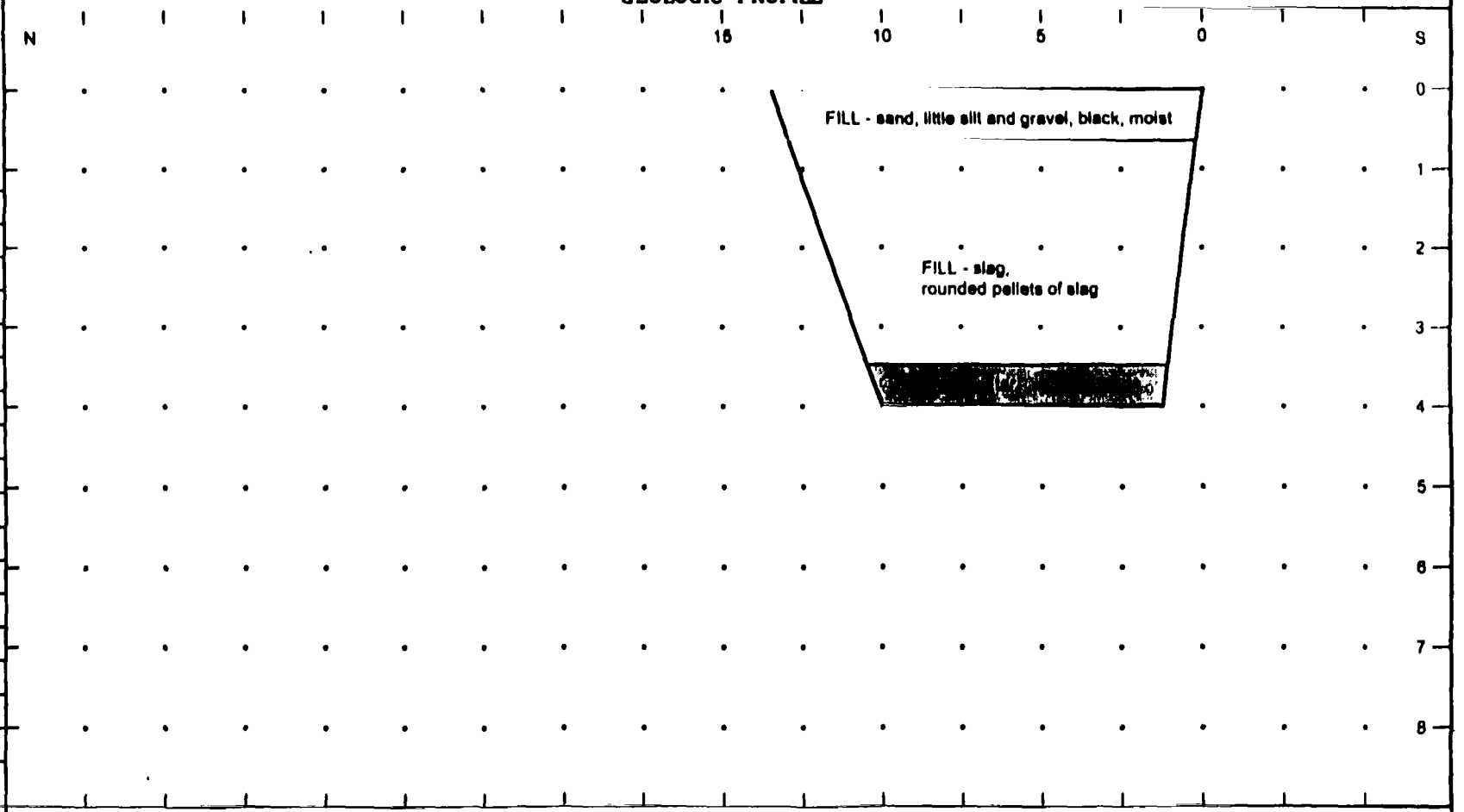
CONTRACTOR: RCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-114
DATE/TIME STARTED: 6/6/02
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

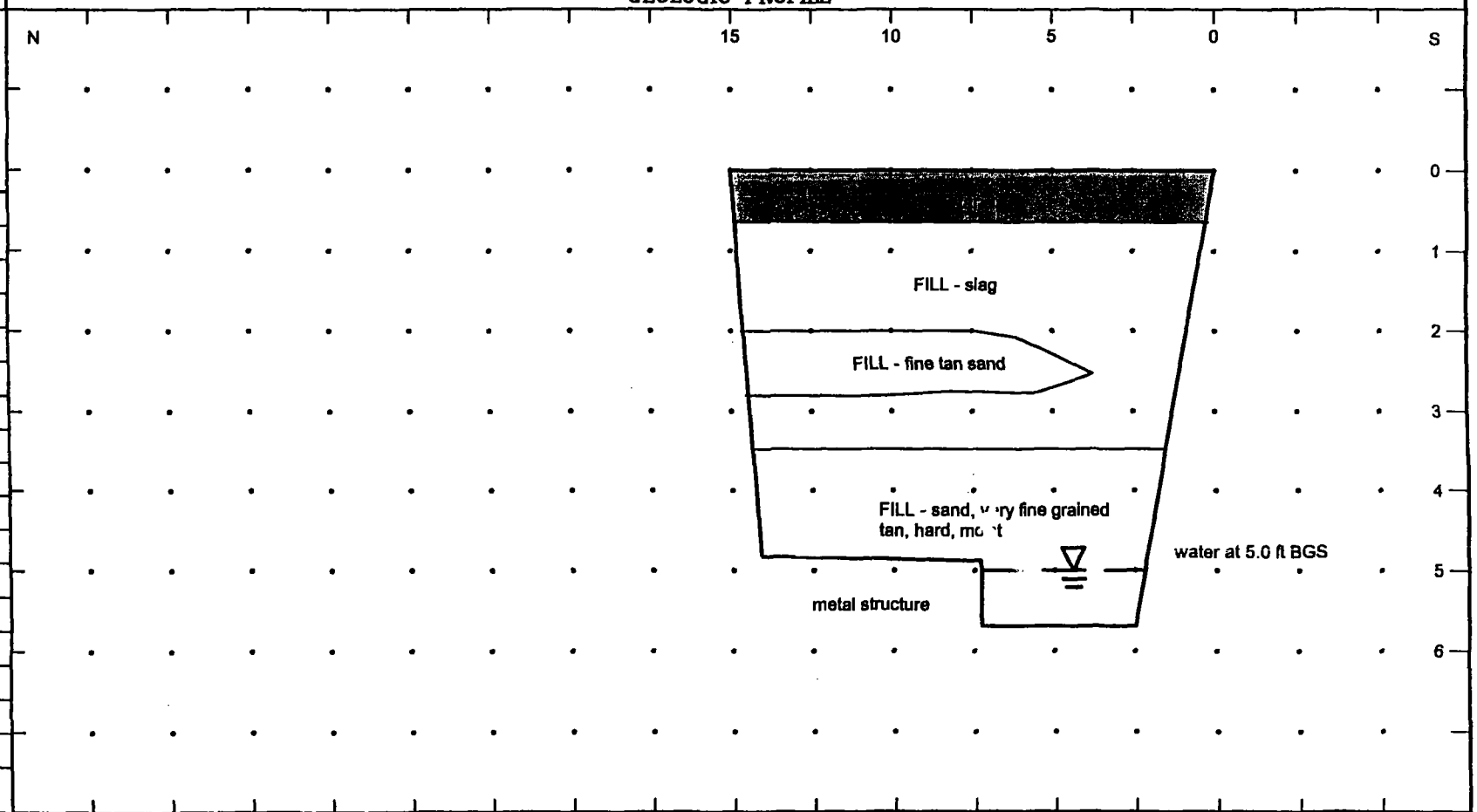
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-115
DATE/TIME STARTED: 6/6/02
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-044A 1 - 3
S-060602-WP-044B 3 - 5

TEST PIT STRATIGRAPHY LOG

PAGE 1 OF 1

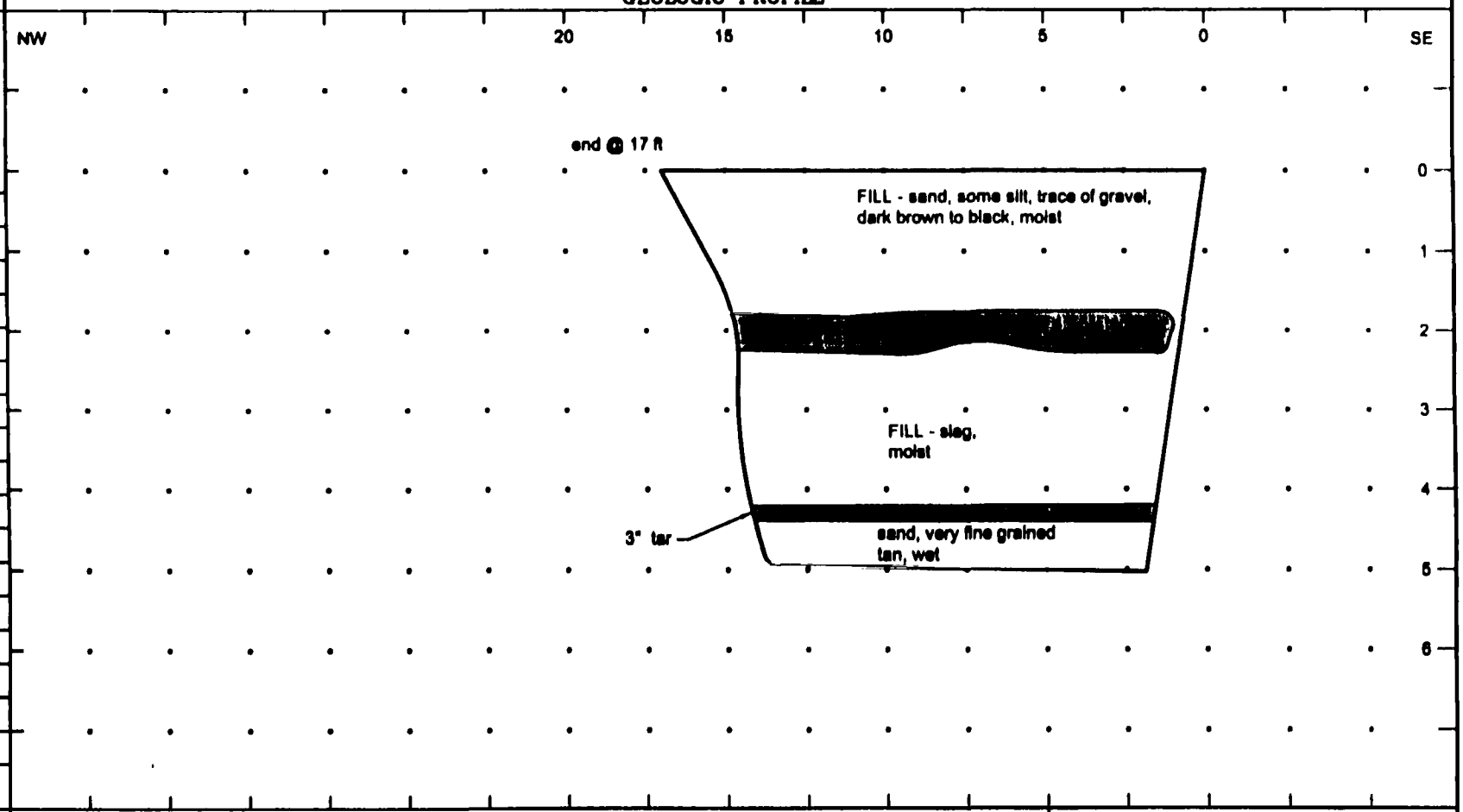
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18069
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-118
DATE/TIME STARTED: 6/6/02 16:30
DATE/TIME COMPLETED: 6/6/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS: ADJACENT TO TANK FOUNDATION

S-060602-WP-045 5

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

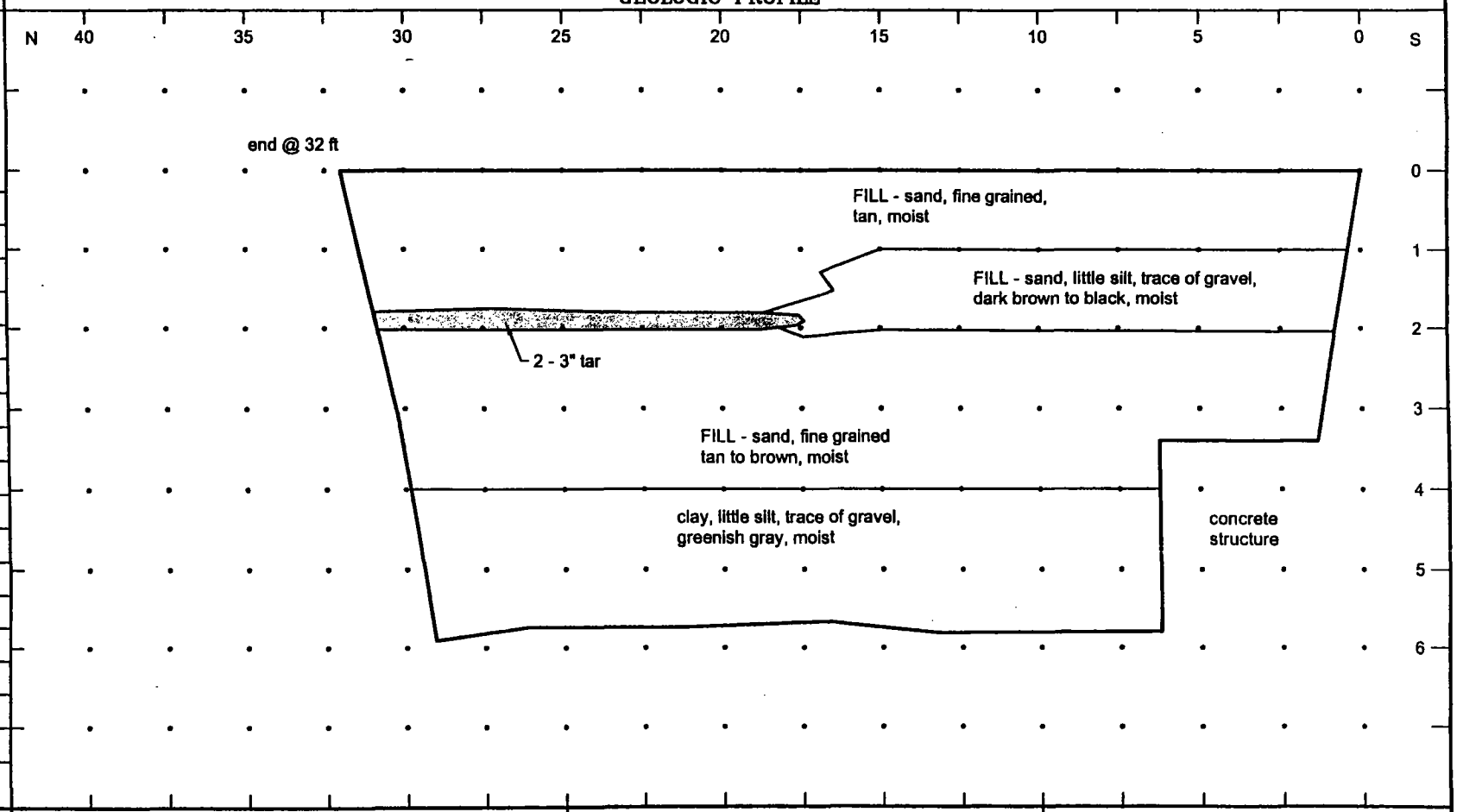
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-117
DATE/TIME STARTED 6/6/02
DATE/TIME COMPLETED 6/6/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060602-WP-047B
S-060602-WP-047C

S-060602-WP-046A
S-060602-WP-046B
S-060602-WP-046C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18083
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

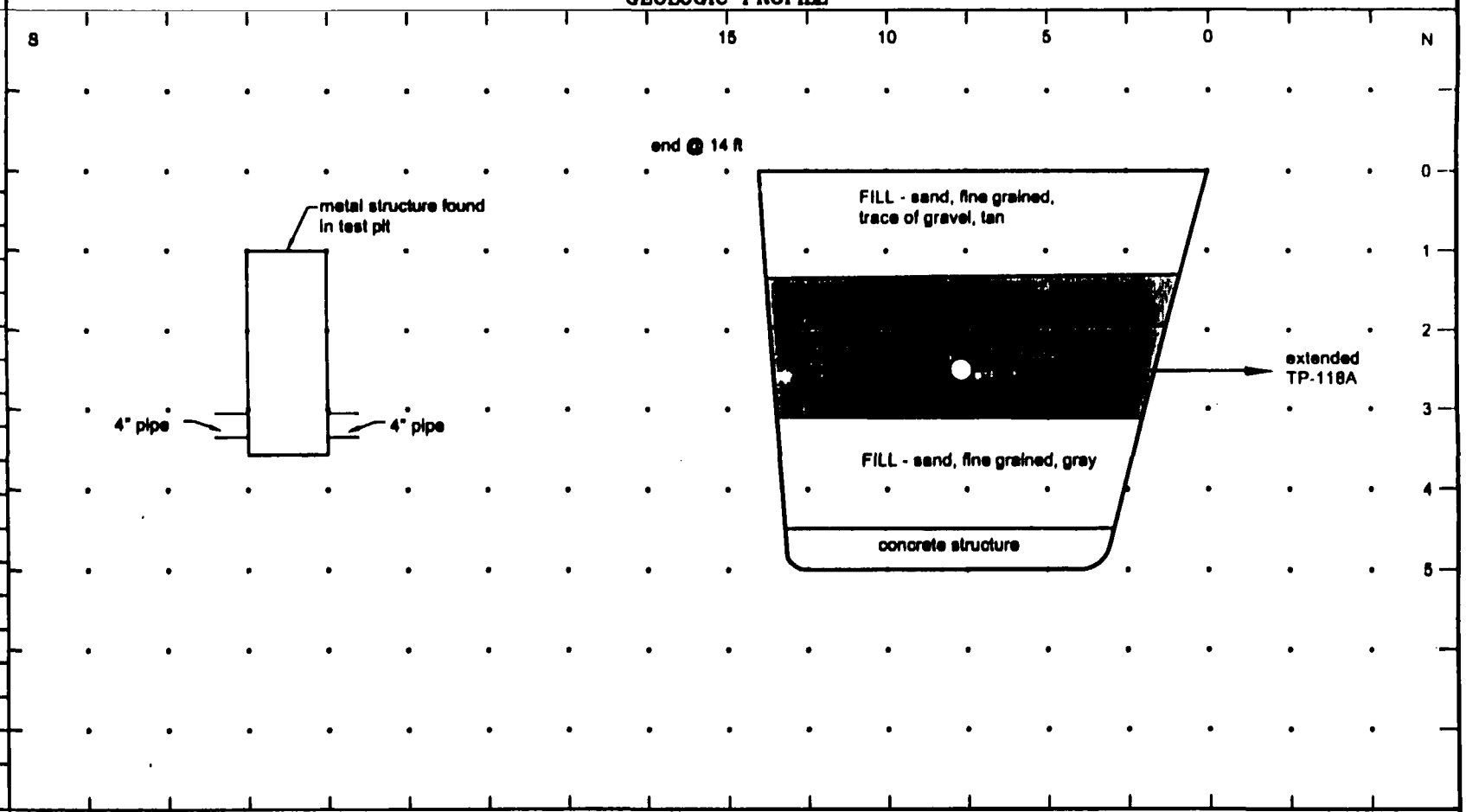
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-118
DATE/TIME STARTED: 8/7/08 08:10
DATE/TIME COMPLETED: 8/7/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

4" PIPELINE RAN E-W IN CENTER OF EXCAVATION WE FOUND METAL STRUTURE.

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

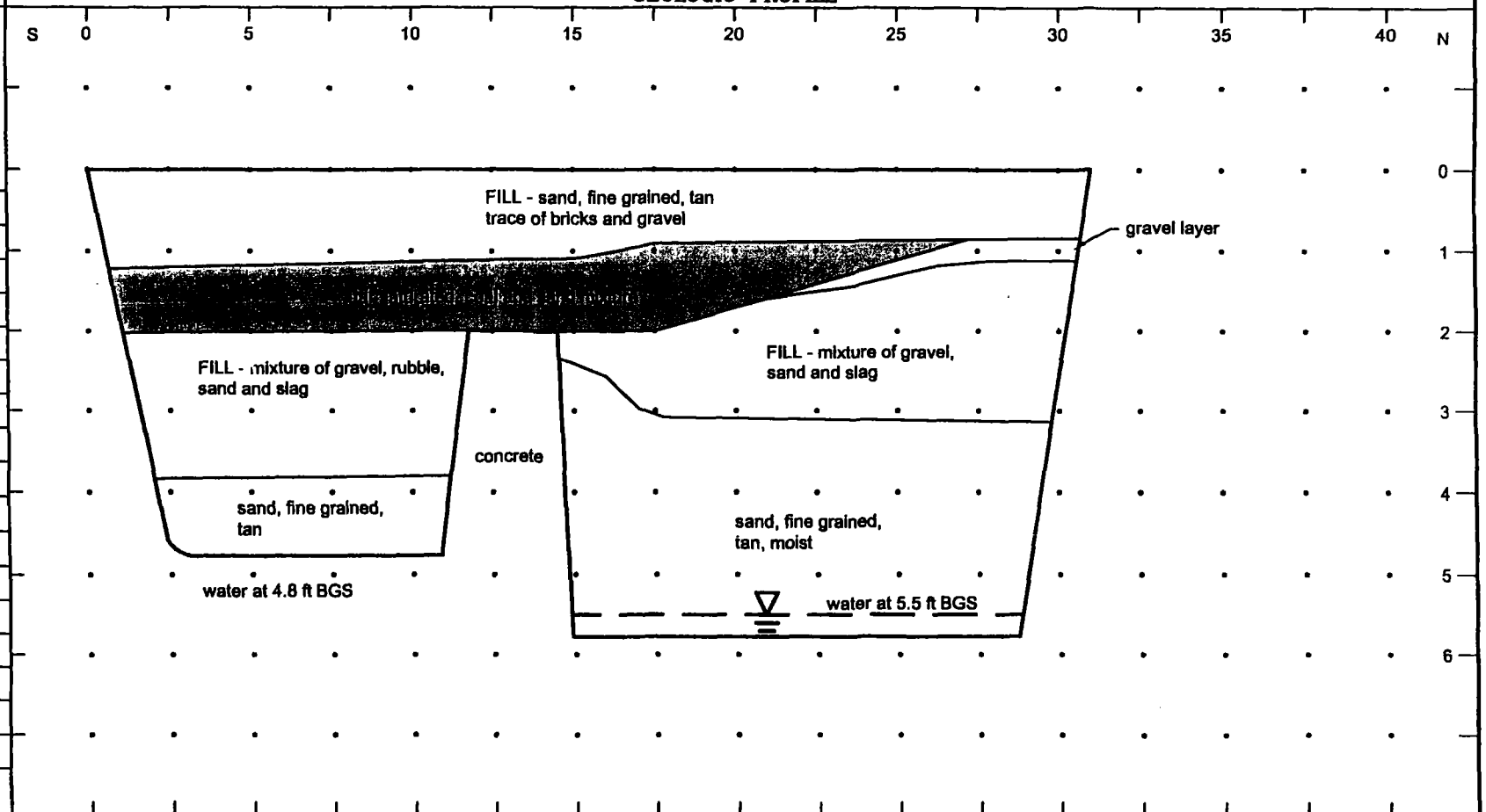
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-118A
DATE/TIME STARTED: 6/7/02
DATE/TIME COMPLETED: 6/7/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-049A
S-060702-WP-049B
S-060702-WP-049C ms/msd
S-060702-WP-052 Geotech

S-060702-WP-050A
S-060702-WP-050B
S-060702-WP-050C
S-060702-WP-051 DUP

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

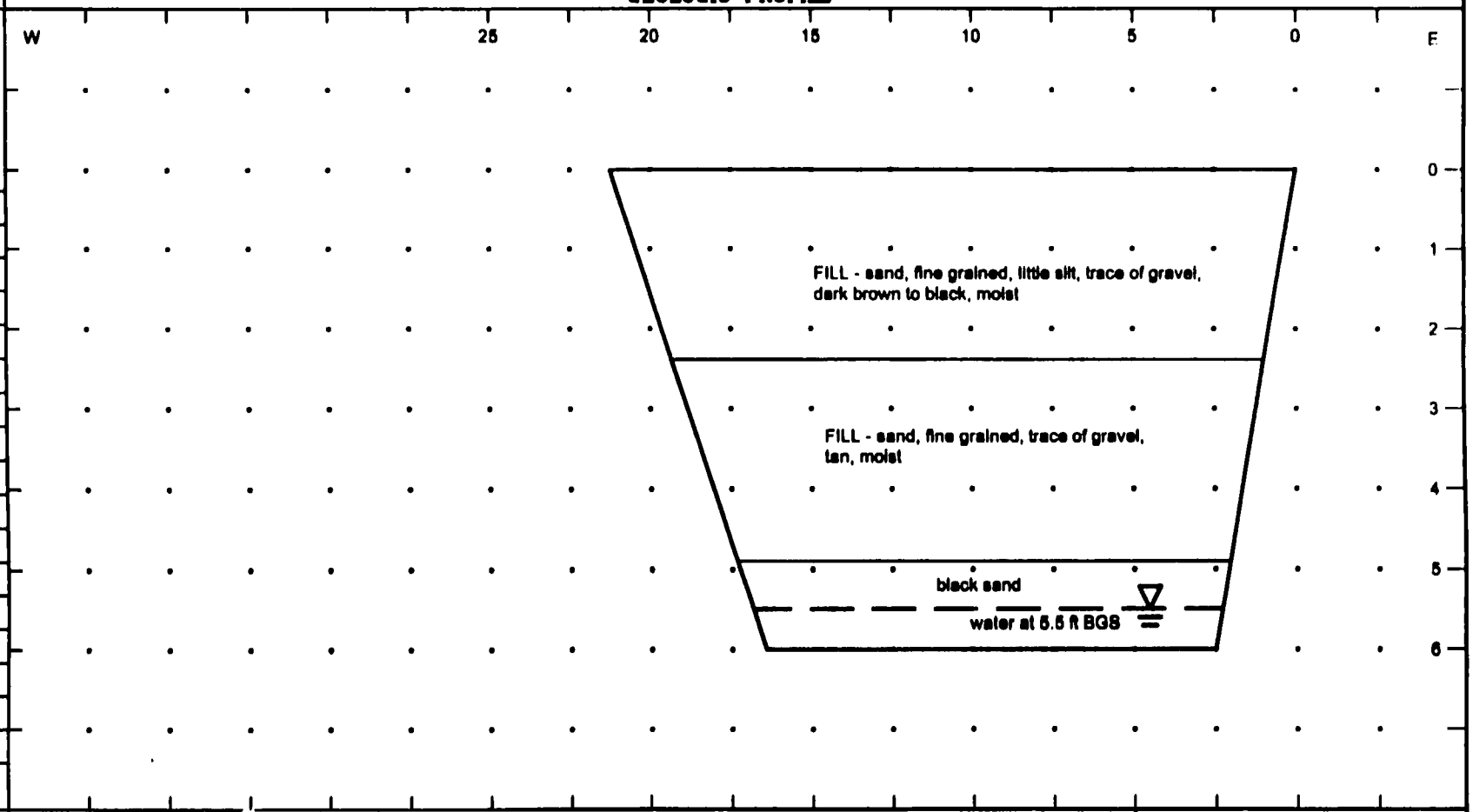
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-119
DATE/TIME STARTED: 6/7/08
DATE/TIME COMPLETED: 6/7/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

NO ODORS

S-060702-WP-048A
S-060702-WP-048B
S-060702-WP-048C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

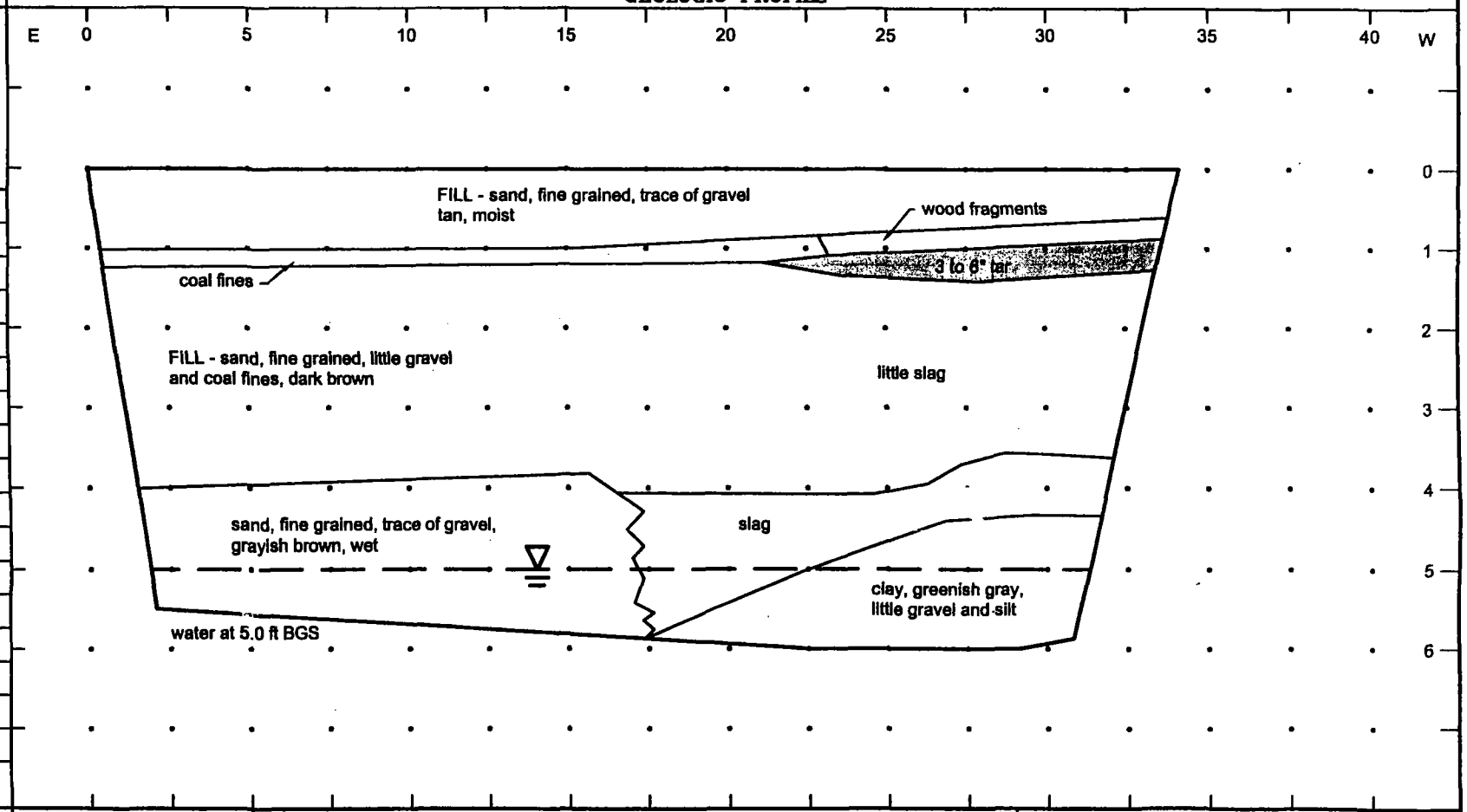
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-120
DATE/TIME STARTED: 6/7/02
DATE/TIME COMPLETED: 6/7/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-054A
S-060702-WP-054B
S-060702-WP-054C
S-060702-WP-056

Geotechnical composite of 2' to 4' interval

S-060702-WP-055A
S-060702-WP-055B
S-060702-WP-055C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

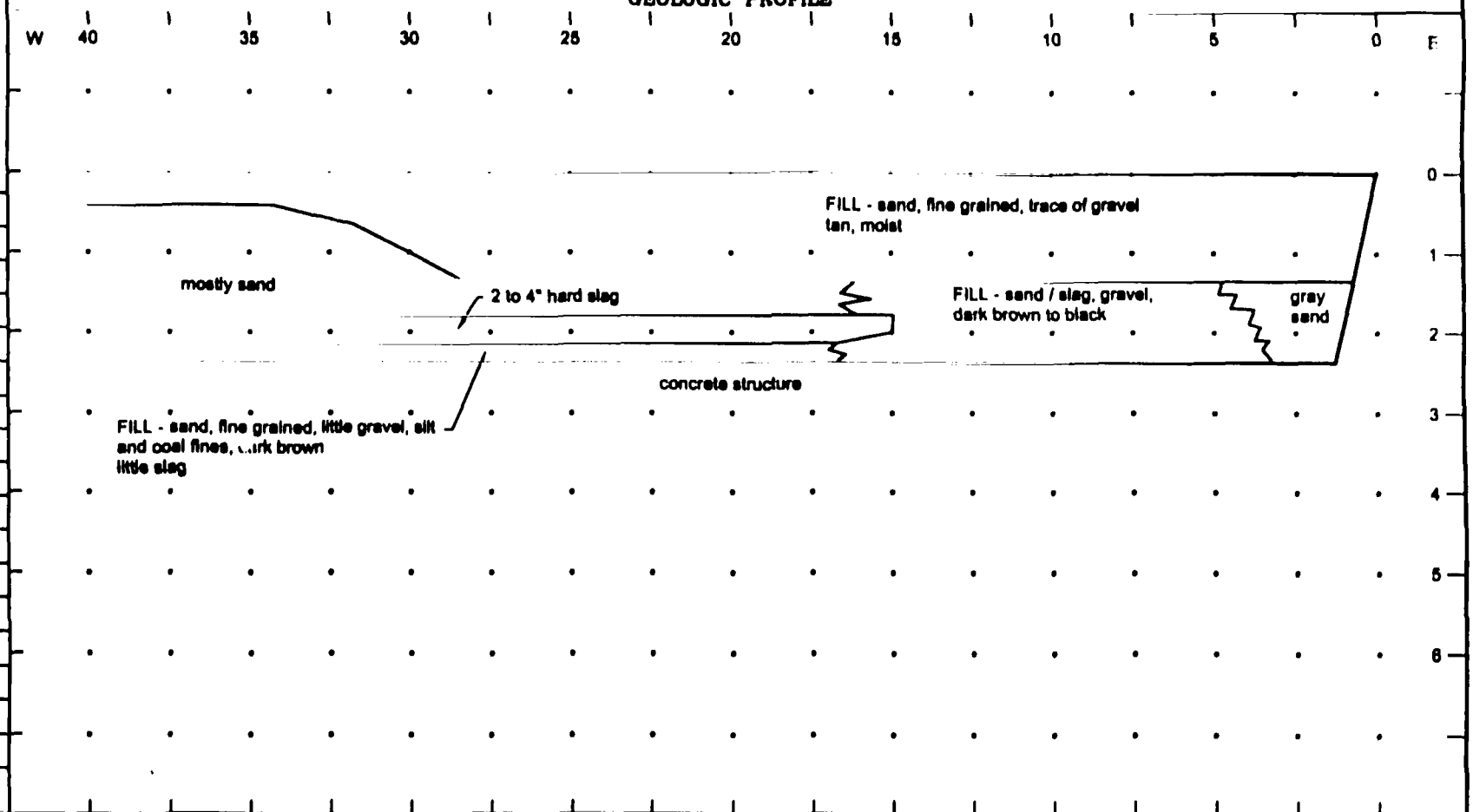
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-181
DATE/TIME STARTED: 8/7/02
DATE/TIME COMPLETED: 8/7/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-057A

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

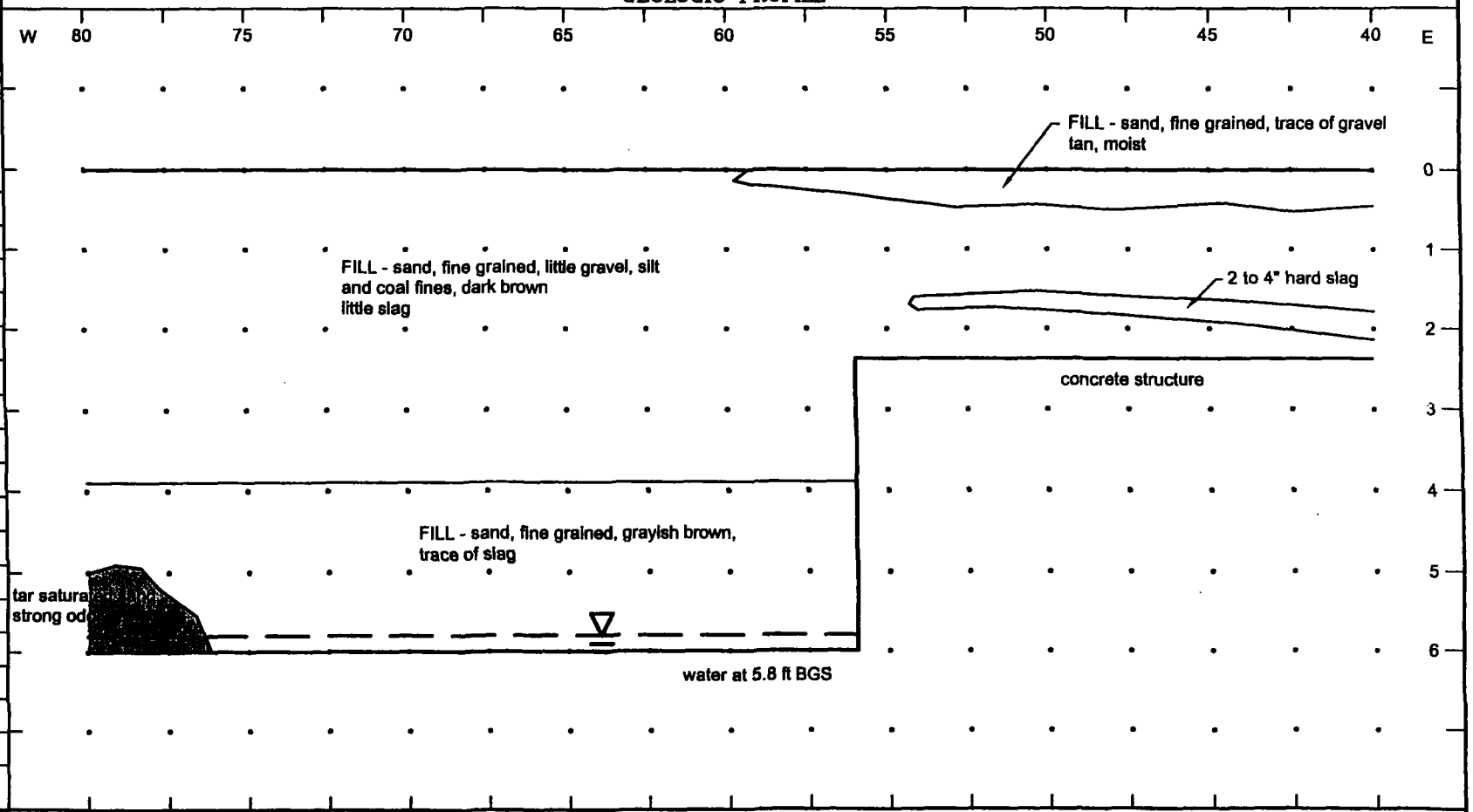
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-121
DATE/TIME STARTED: 6/7/02
DATE/TIME COMPLETED: 6/7/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-058A
S-060702-WP-058B
S-060702-WP-058C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: NCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

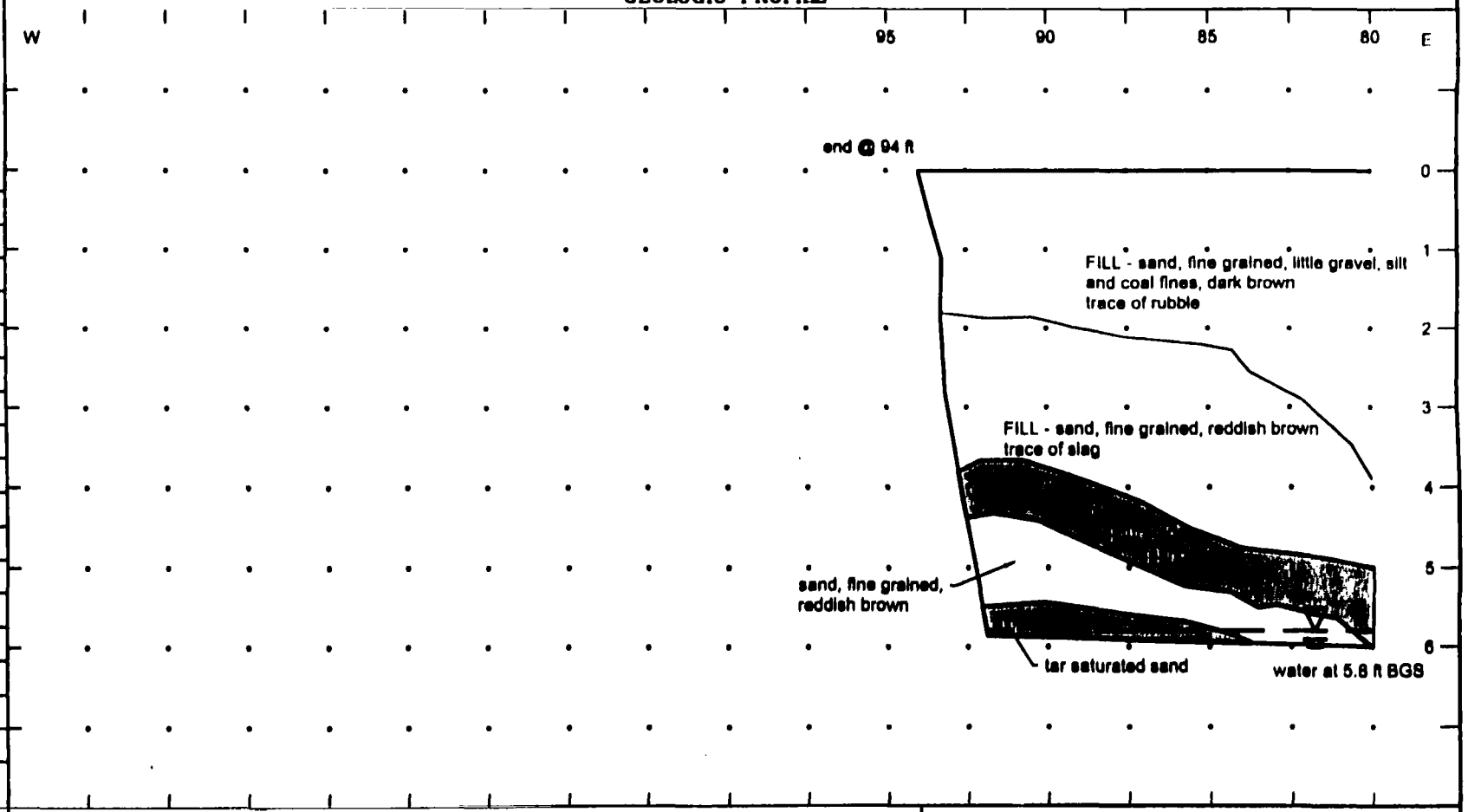
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-181
DATE/TIME STARTED: 6/7/02
DATE/TIME COMPLETED: 6/7/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-059A
S-060702-WP-059B
S-060702-WP-059C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN , ILLINOIS

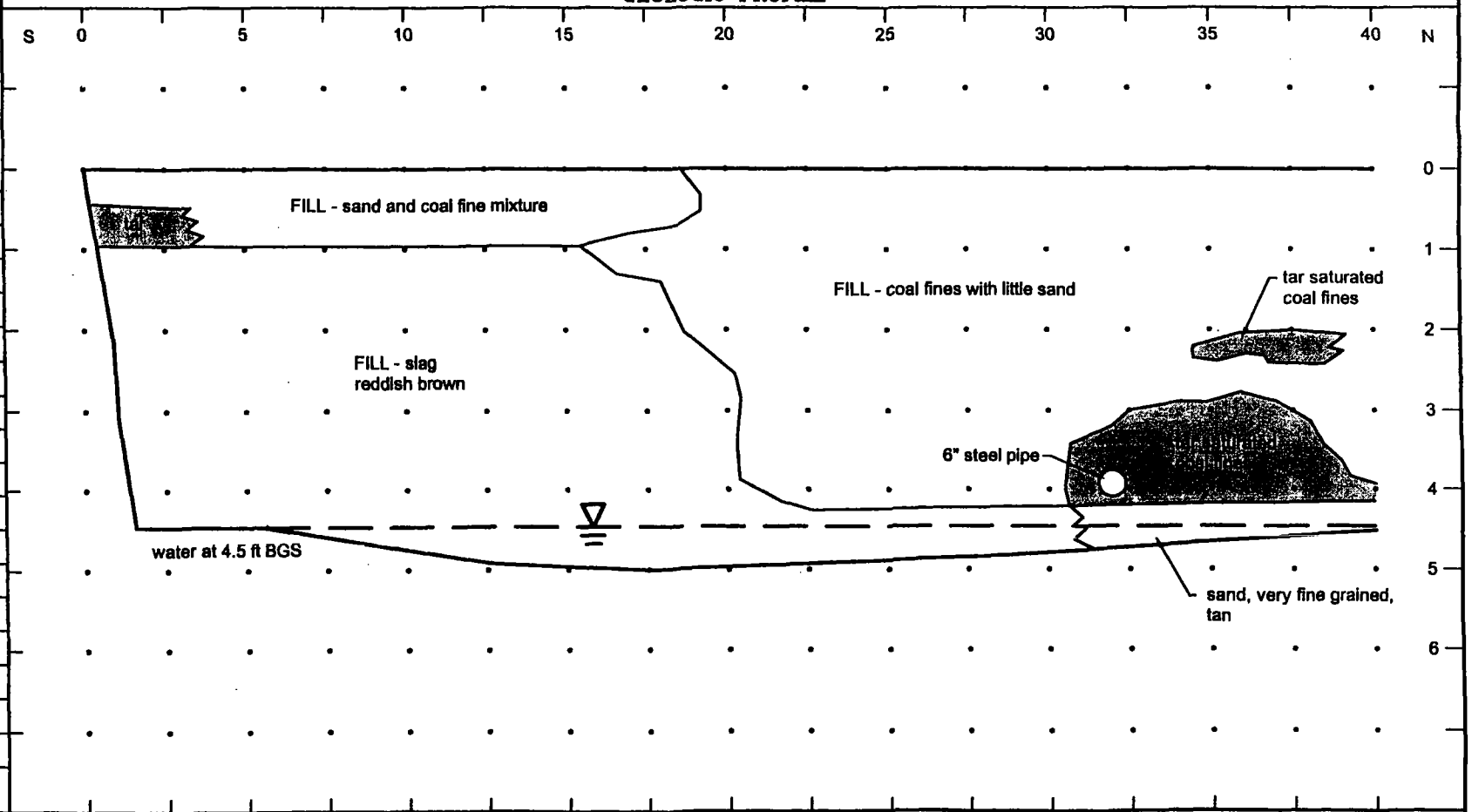
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-122
DATE/TIME STARTED 6/7/02
DATE/TIME COMPLETED 6/7/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-062A
S-060702-WP-062B

S-060702-WP-063

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18068
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

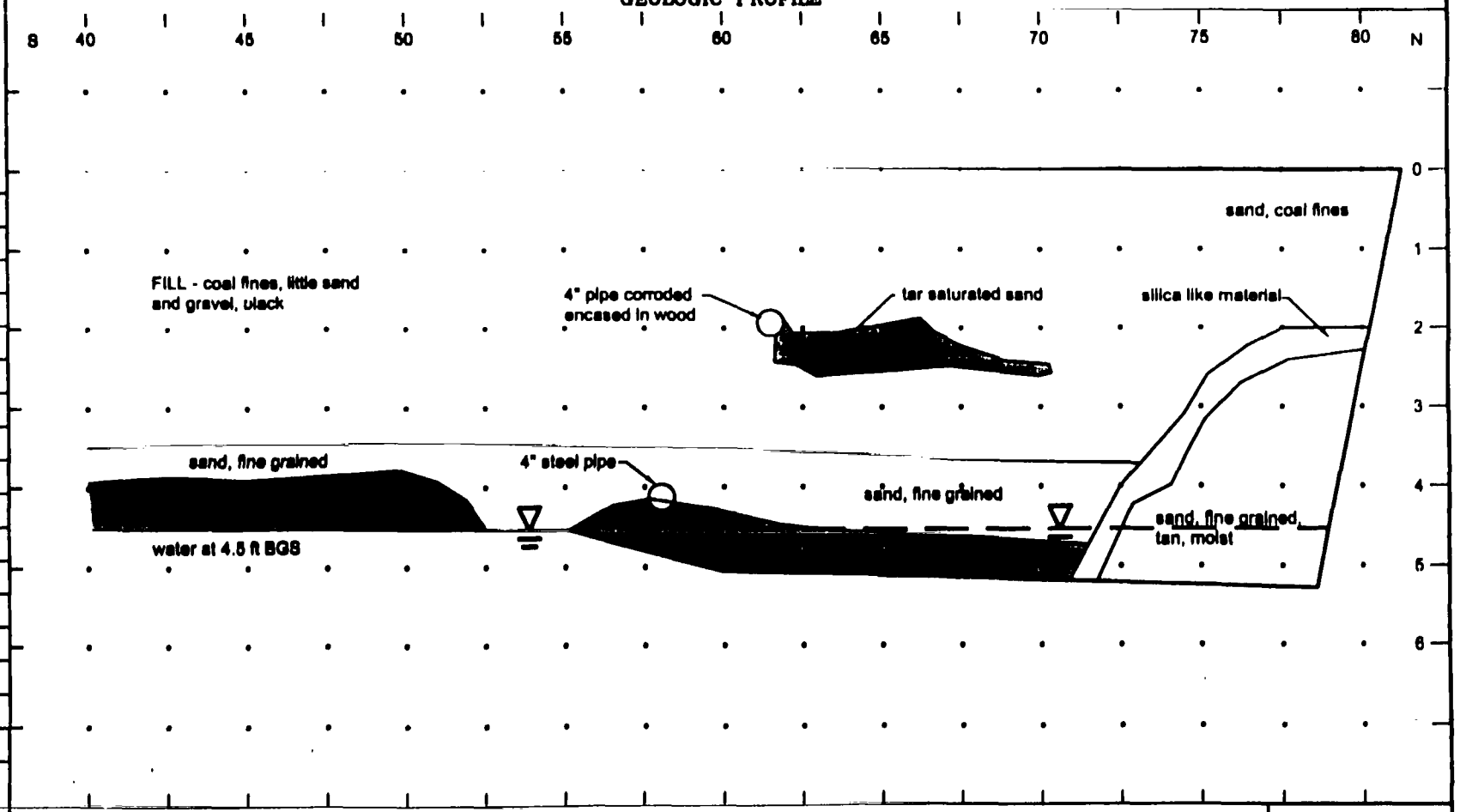
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-128
DATE/TIME STARTED: 8/7/02
DATE/TIME COMPLETED: 8/7/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-064A
S-060702-WP-064B
S-060702-WP-064C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

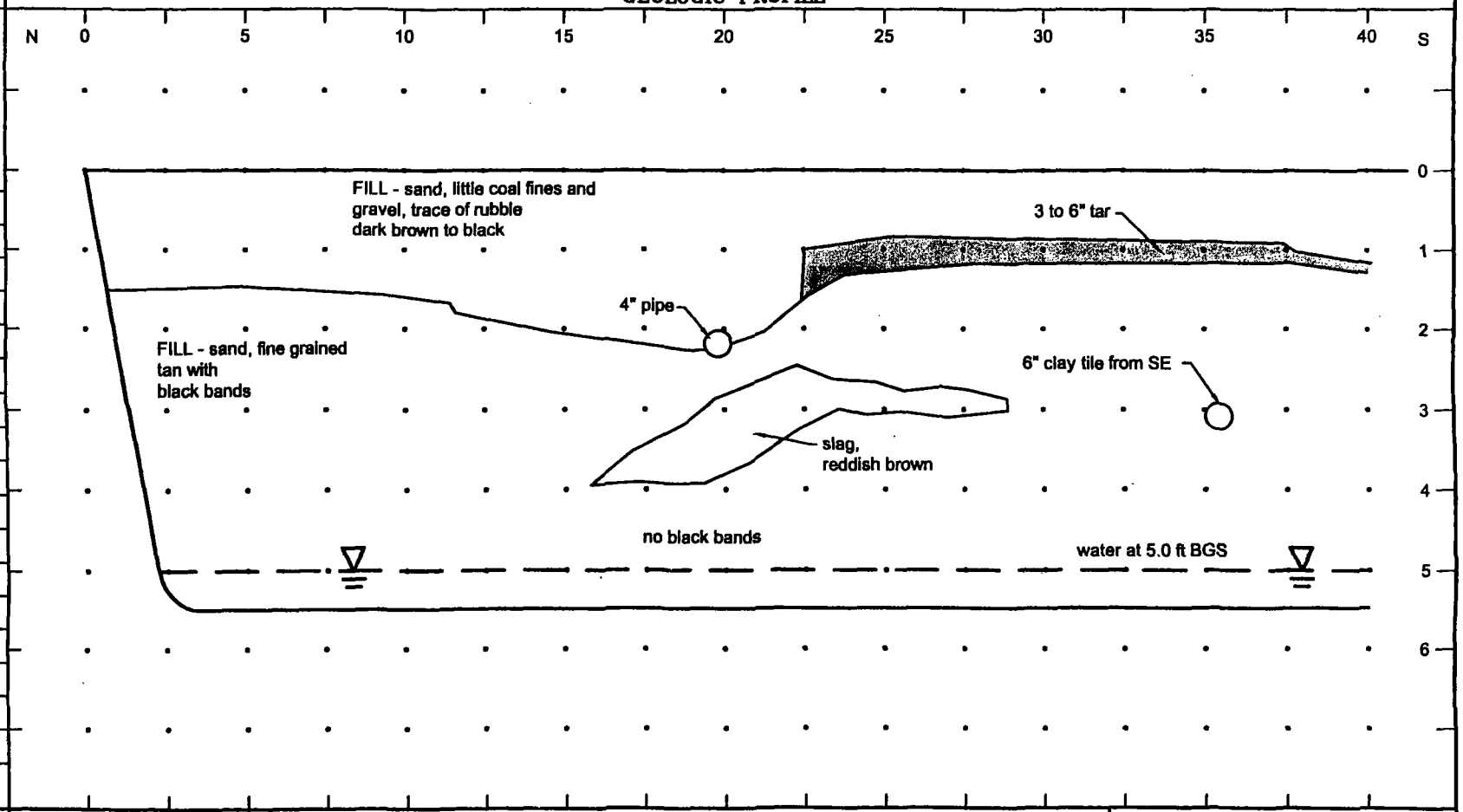
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-123
DATE/TIME STARTED: 6/7/02
DATE/TIME COMPLETED: 6/7/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-068A
S-060702-WP-068B

S-060702-WP-069A
S-060702-WP-069B

TEST PIT STRATIGRAPHY LOG

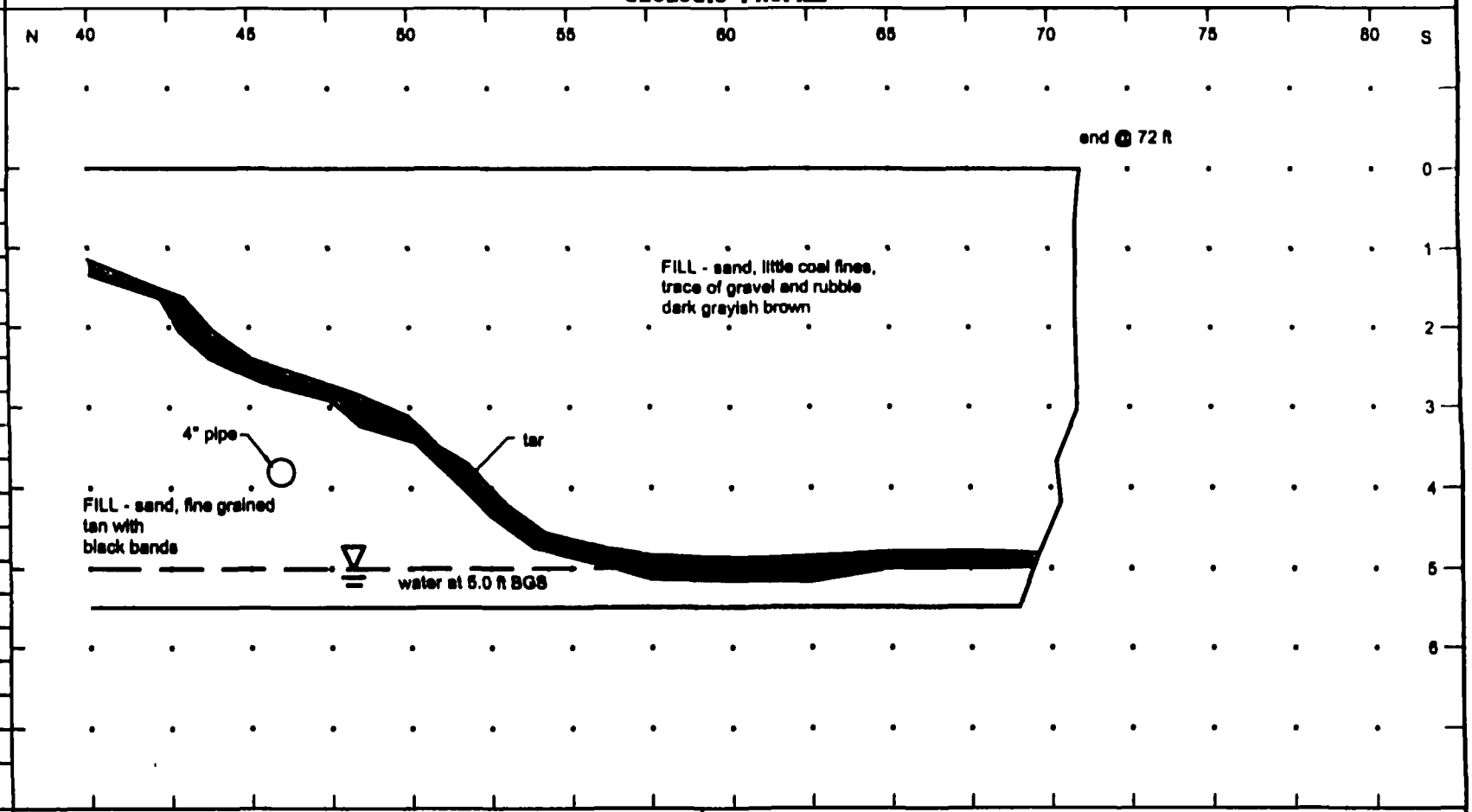
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19082
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-122
DATE/TIME STARTED: 8/7/02
DATE/TIME COMPLETED: 8/7/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-060702-WP-070A
S-060702-WP-070B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

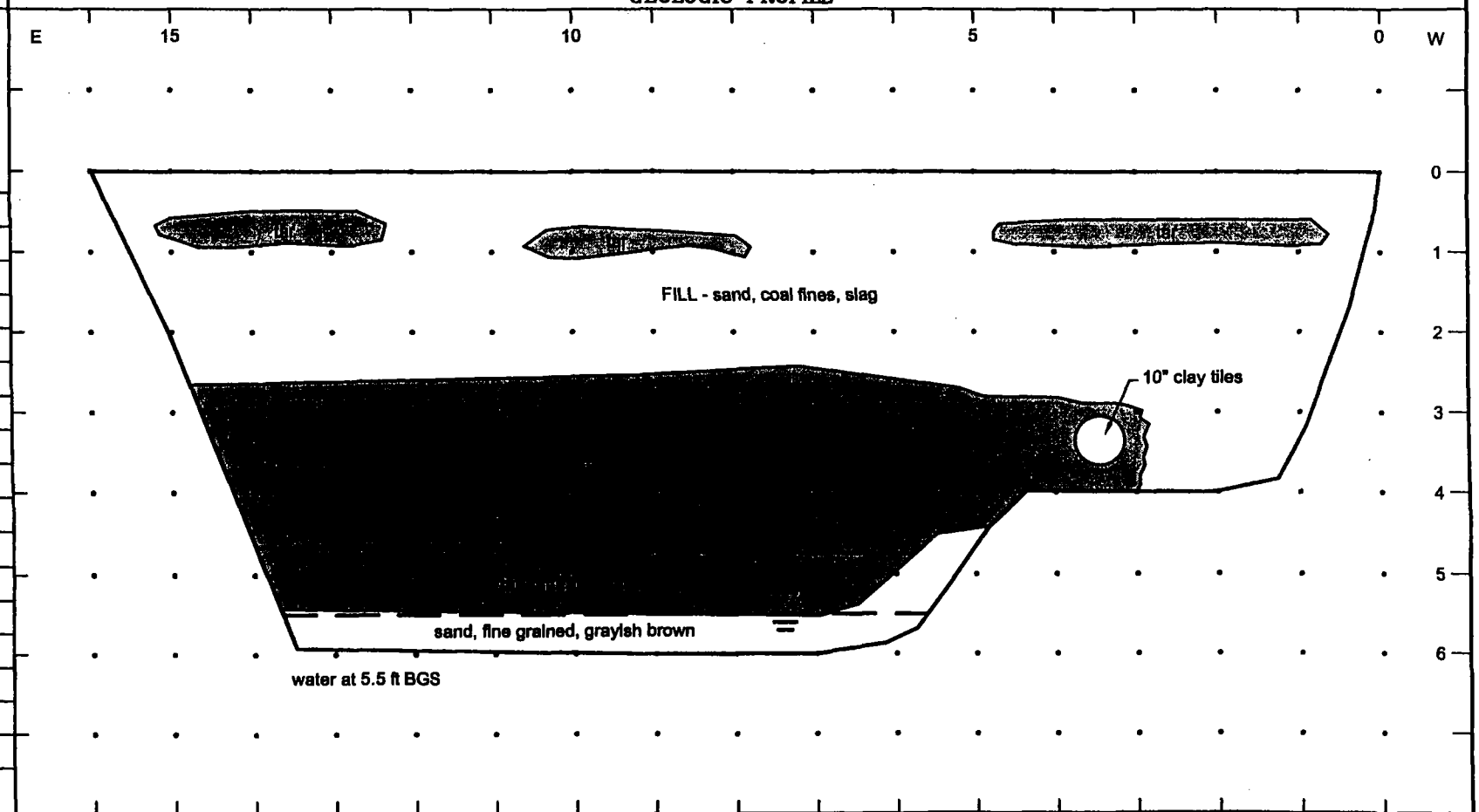
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-124
DATE/TIME STARTED: 6/10/02
DATE/TIME COMPLETED: 6/10/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

Collected Waste Characterization sample of tar
S-061002-WP-071

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18083
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

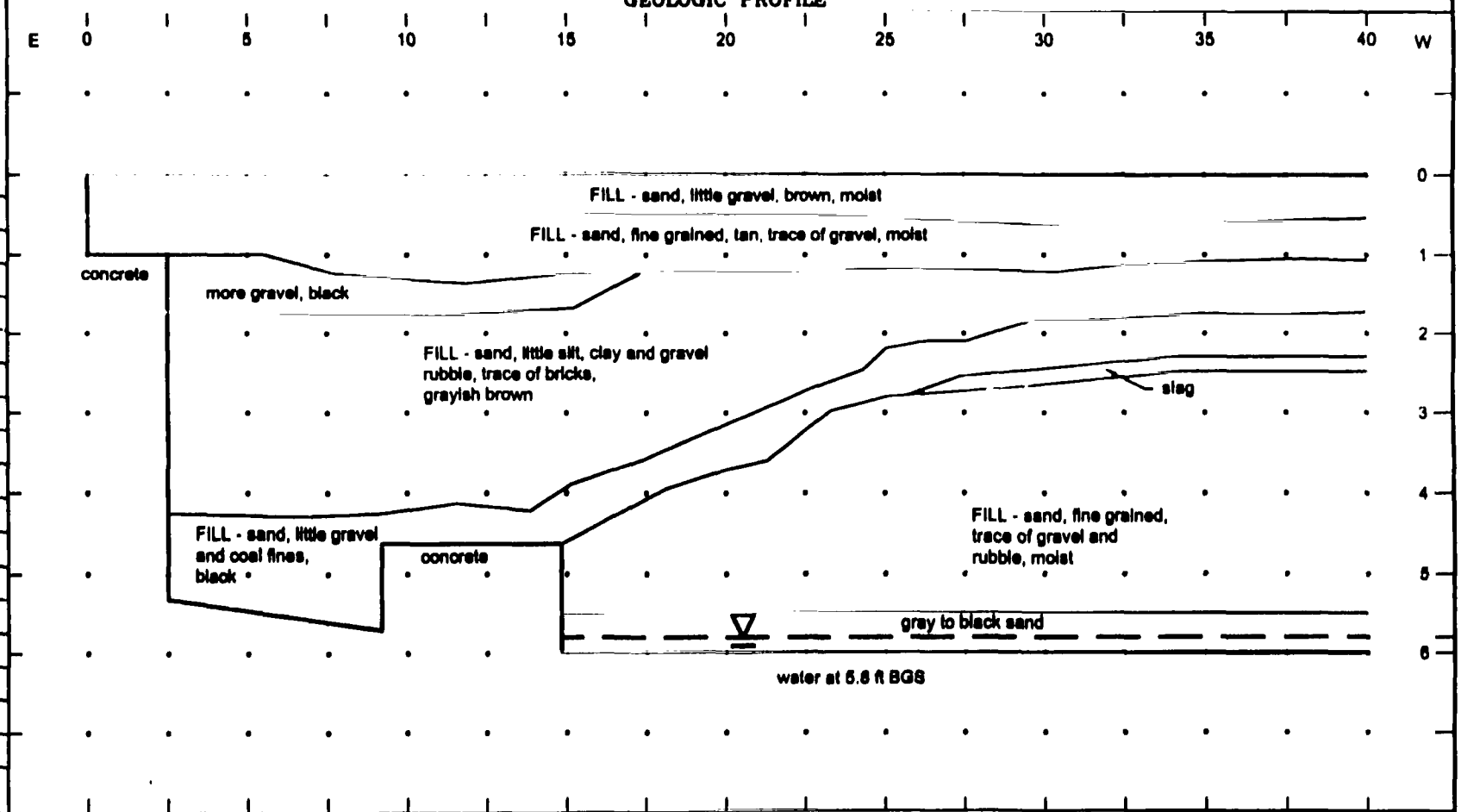
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-185
DATE/TIME STARTED: 6/10/02
DATE/TIME COMPLETED: 6/10/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-072A 0 - 2
S-061002-WP-072B 2 - 4
S-061002-WP-072C 4 - 6

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

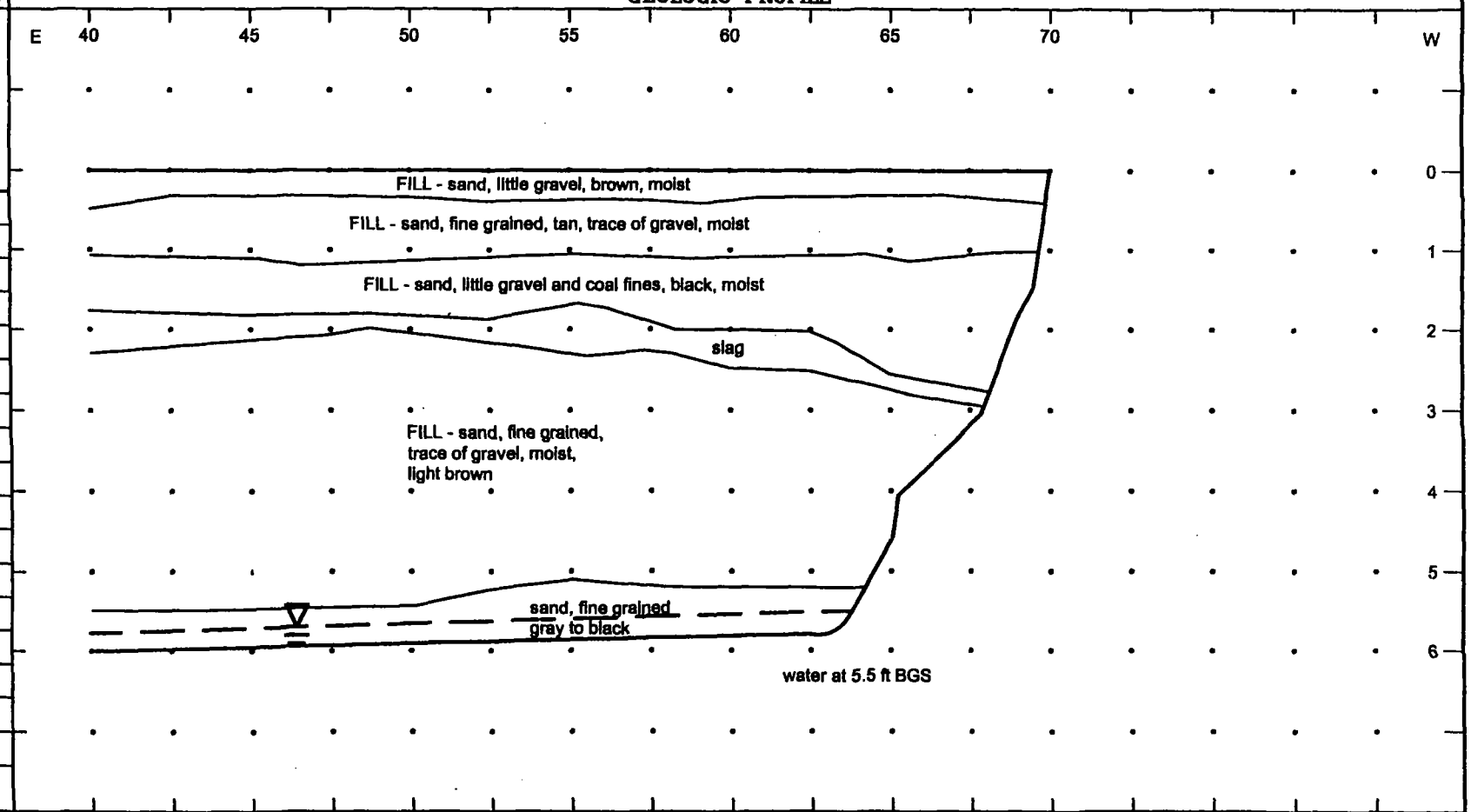
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-125
DATE/TIME STARTED 6/10/02
DATE/TIME COMPLETED 6/10/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-073A
S-061002-WP-073B
S-061002-WP-073C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

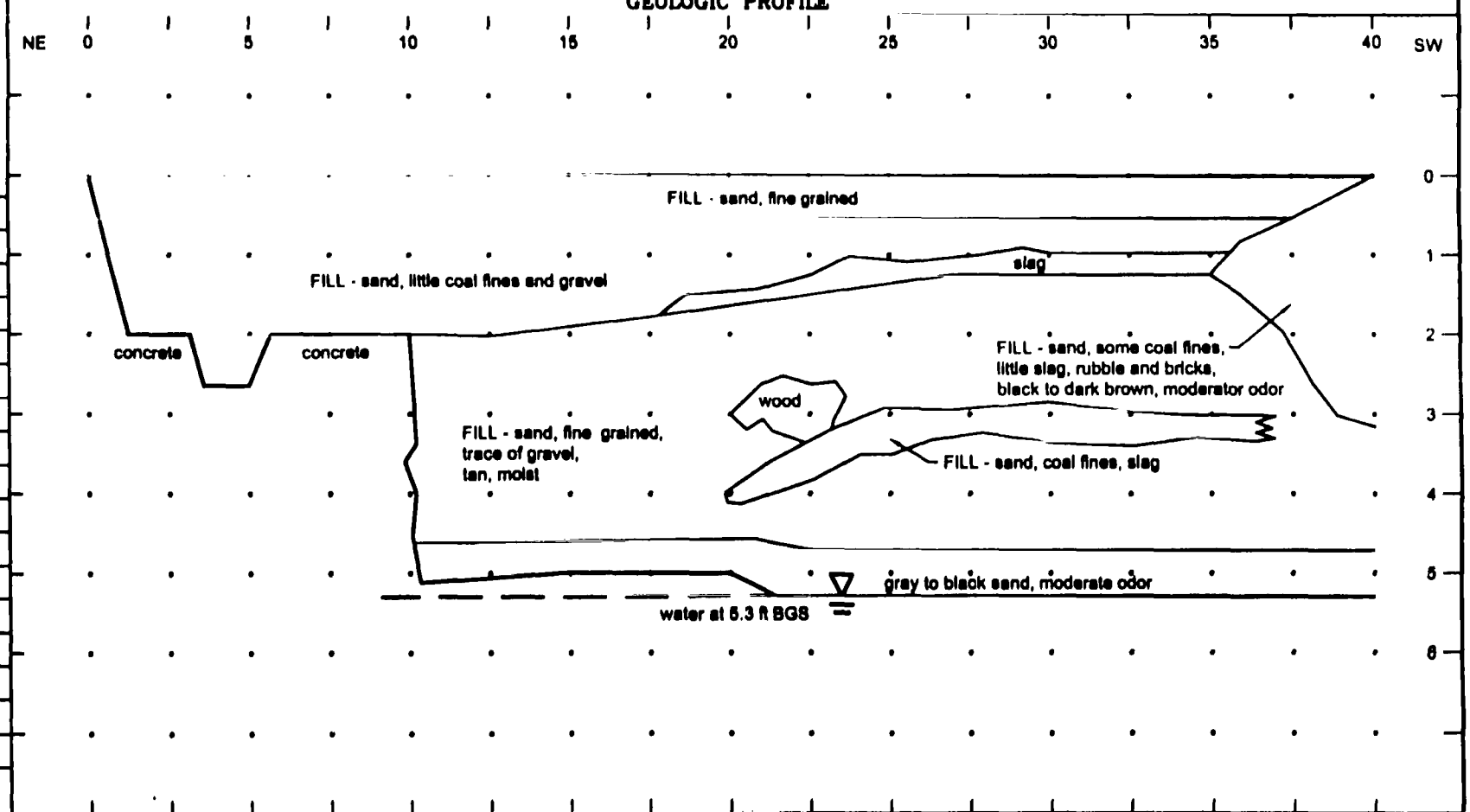
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-126
DATE/TIME STARTED: 8/10/02
DATE/TIME COMPLETED: 8/10/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-075A
S-061002-WP-075B
S-061002-WP-075C
S-061002-WP-077 DUP

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

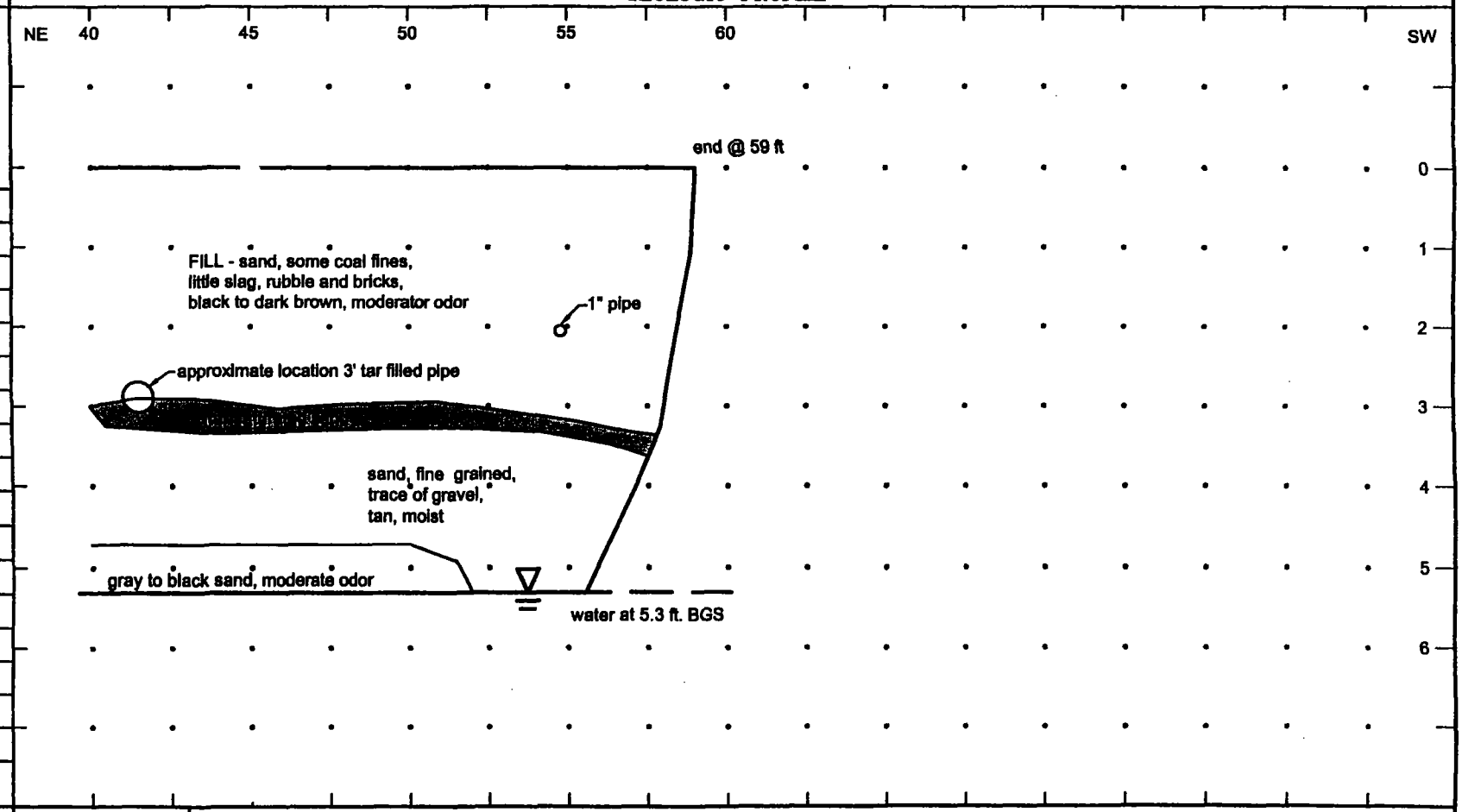
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-126
DATE/TIME STARTED 6/10/02
DATE/TIME COMPLETED 6/10/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-076B tar
S-061002-WP-076C sand

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18028
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

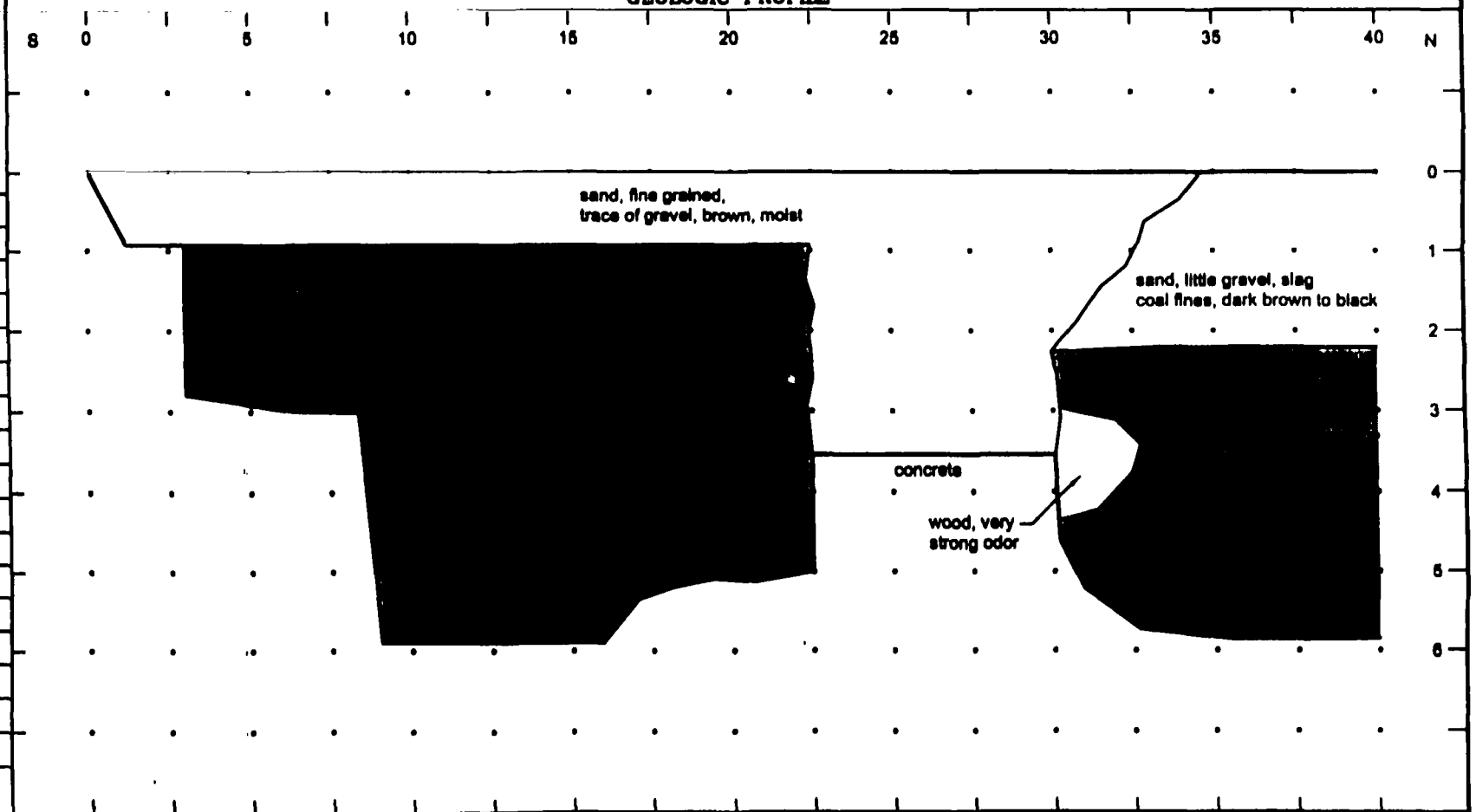
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-187
DATE/TIME STARTED: 8/10/02
DATE/TIME COMPLETED: 8/10/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-079A
S-061002-WP-079B
S-061002-WP-079C

Waste Characterization
S-061002-WP-081

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

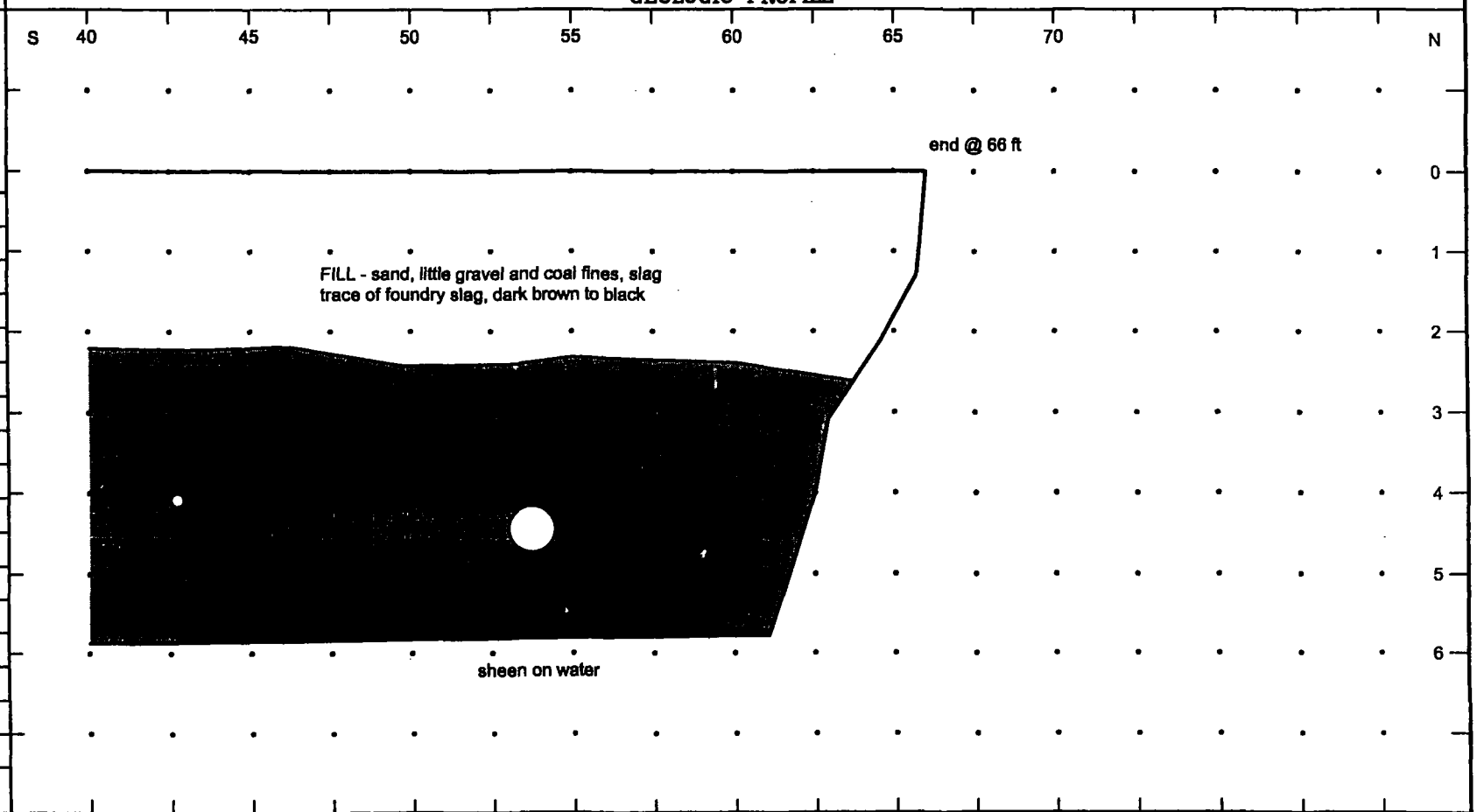
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-127
DATE/TIME STARTED: 6/10/02
DATE/TIME COMPLETED: 6/10/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-080A
S-061002-WP-080B
S-061002-WP-080C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19069
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

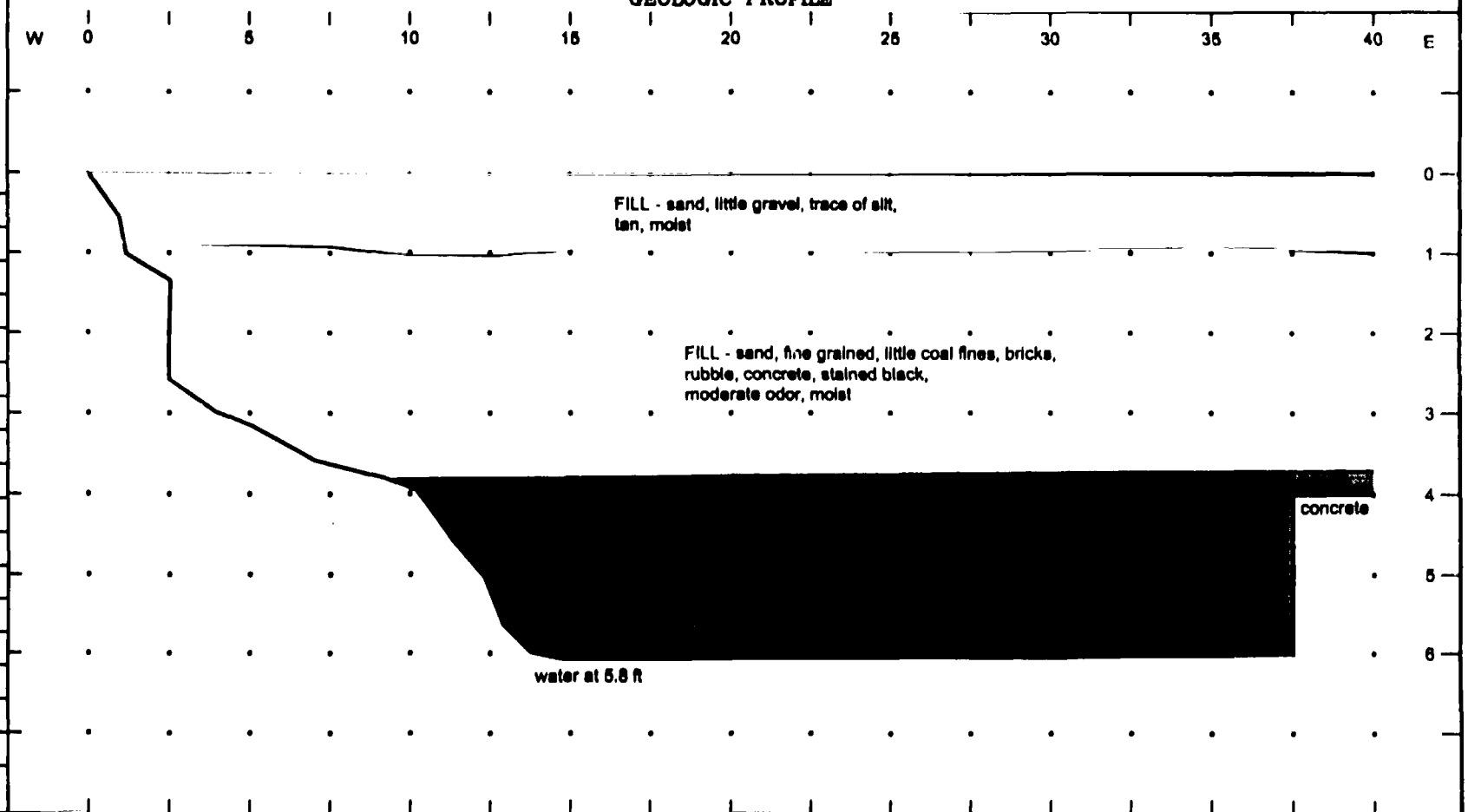
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-128
DATE/TIME STARTED: 6/10/09
DATE/TIME COMPLETED: 6/10/09
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-083A
S-061002-WP-083B
S-061002-WP-083C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

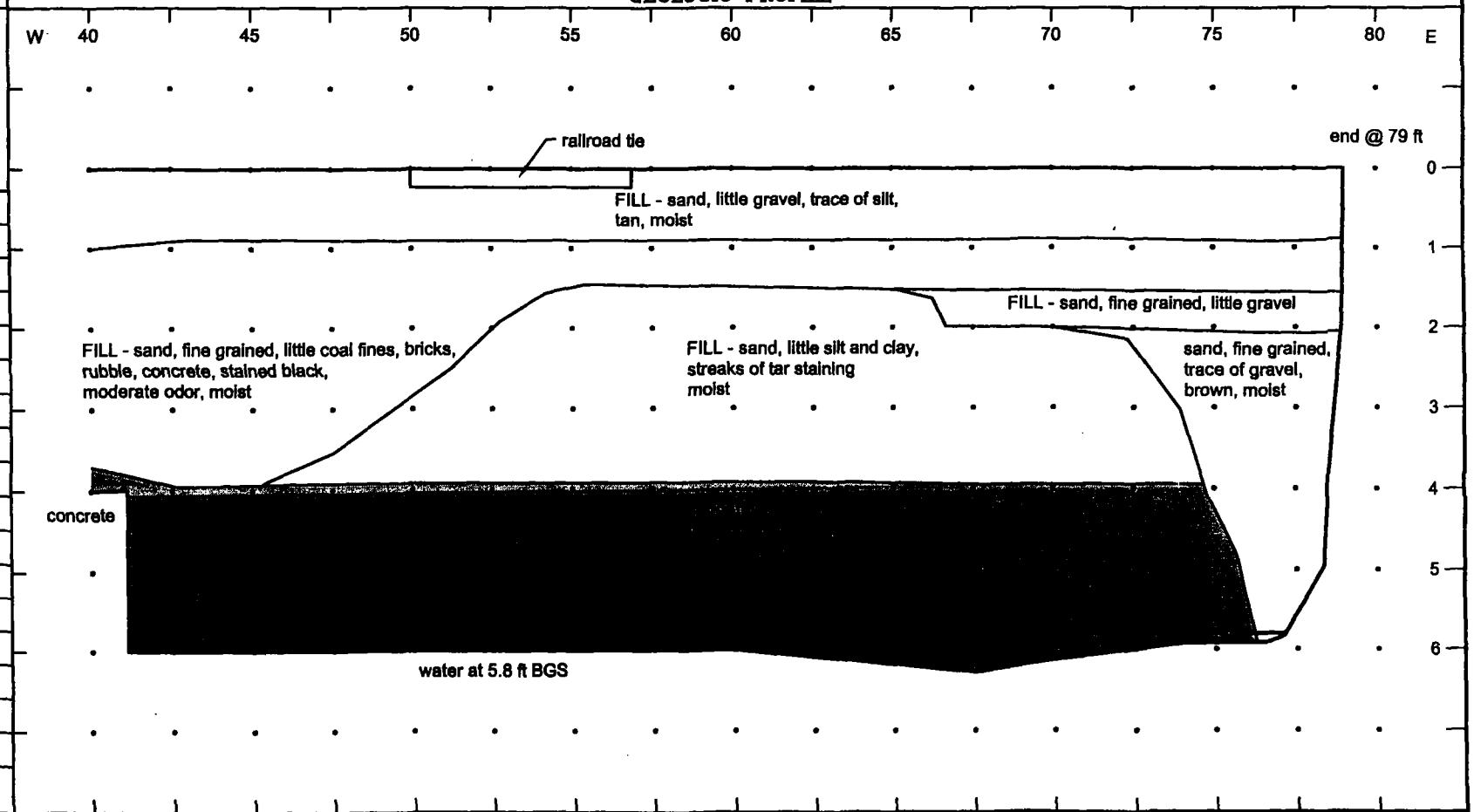
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-128
DATE/TIME STARTED: 6/10/02
DATE/TIME COMPLETED: 6/10/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-084A
S-061002-WP-084B
S-061002-WP-084C

TEST PIT STRATIGRAPHY LOG

PAGE 1 OF 1

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

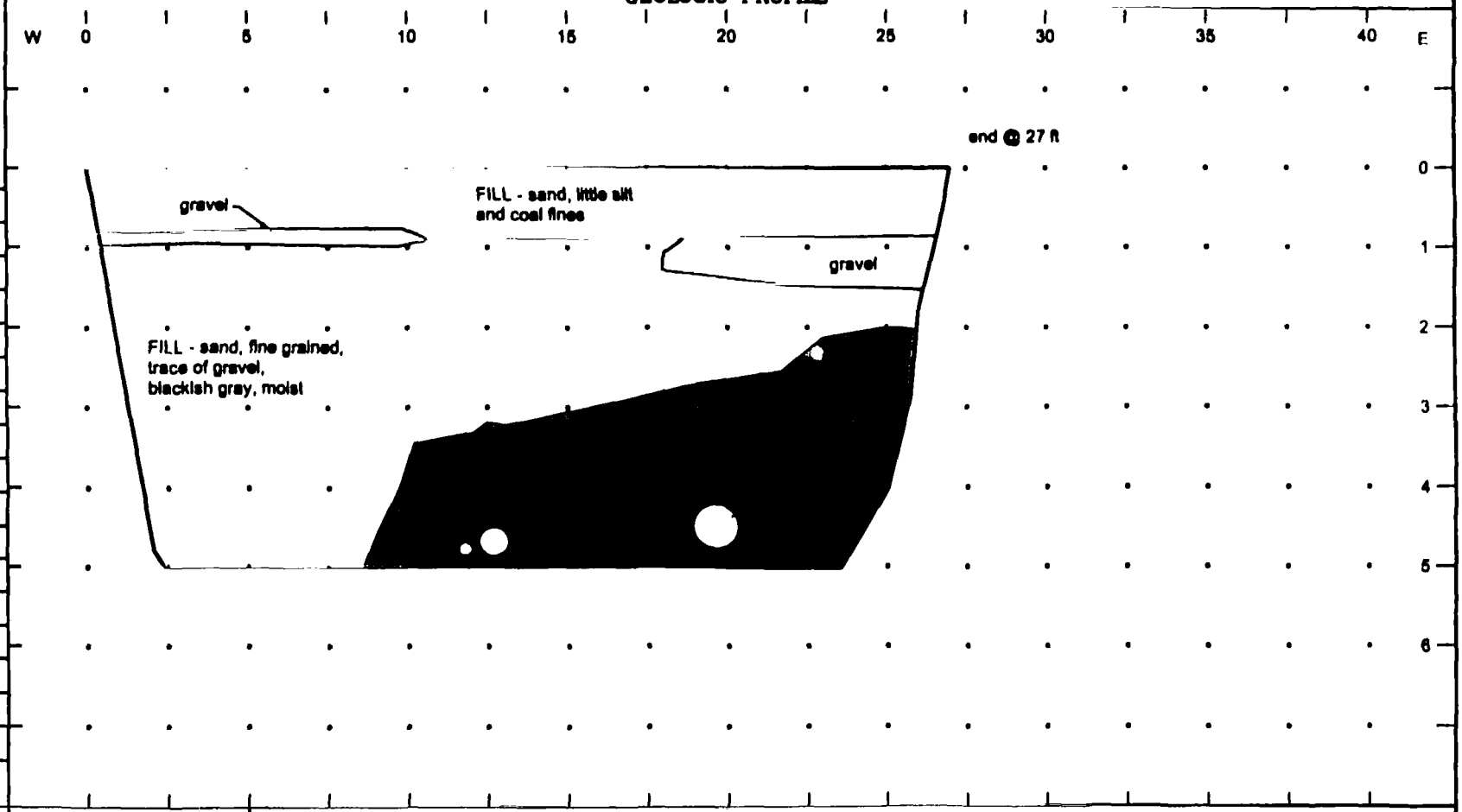
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-188
DATE/TIME STARTED: 8/10/08
DATE/TIME COMPLETED: 8/10/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061002-WP-085A
S-061002-WP-085B
S-061002-WP-085

TEST PIT STRATIGRAPHY LOG

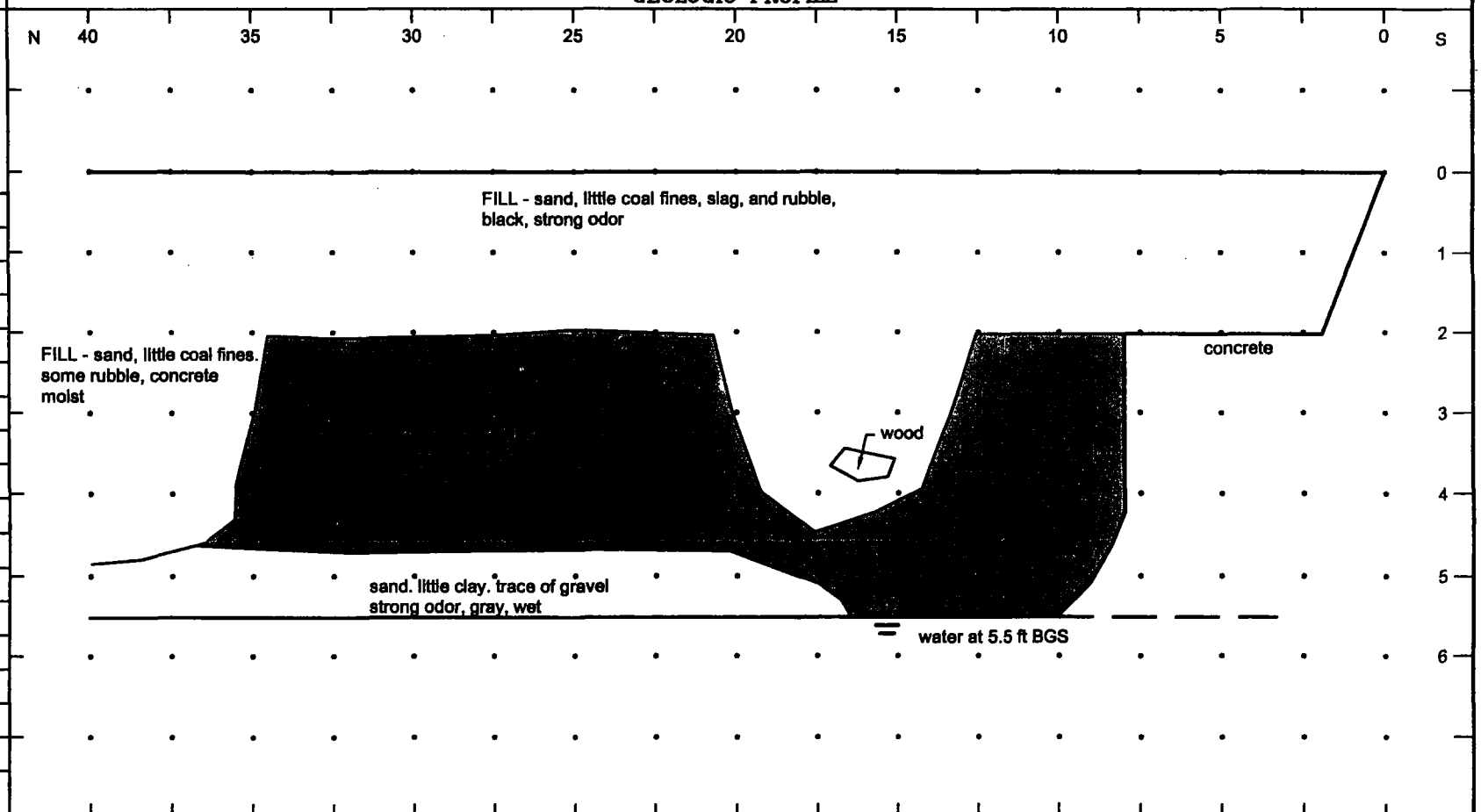
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-130
DATE/TIME STARTED: 6/11/02
DATE/TIME COMPLETED: 6/11/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061102-WP-087A
S-061102-WP-087B
S-061102-WP-087C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

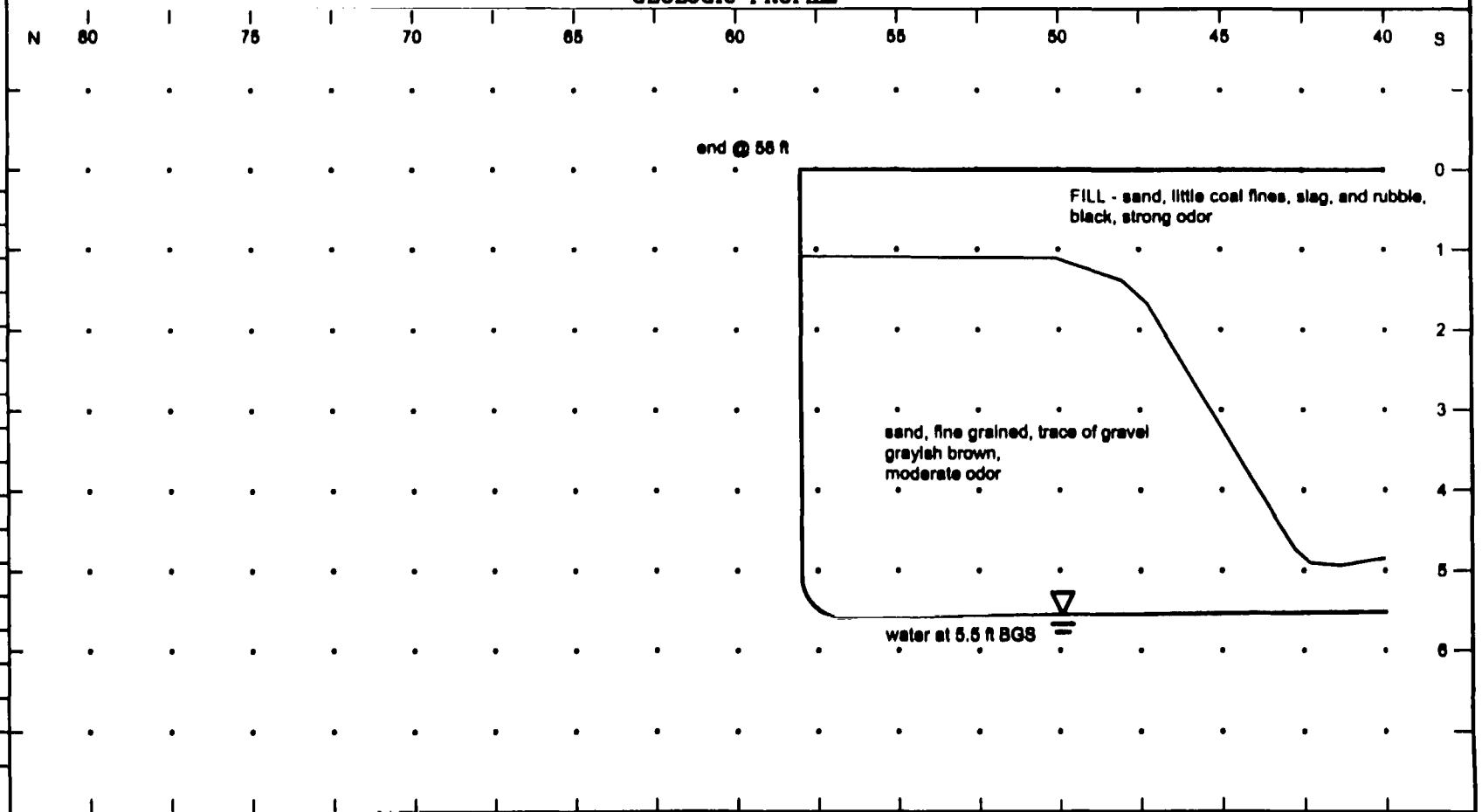
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-180
DATE/TIME STARTED: 6/11/08
DATE/TIME COMPLETED: 6/11/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061102-WP-088A
S-061102-WP-088B
S-061102-WP-088C

TEST PIT STRATIGRAPHY LOG

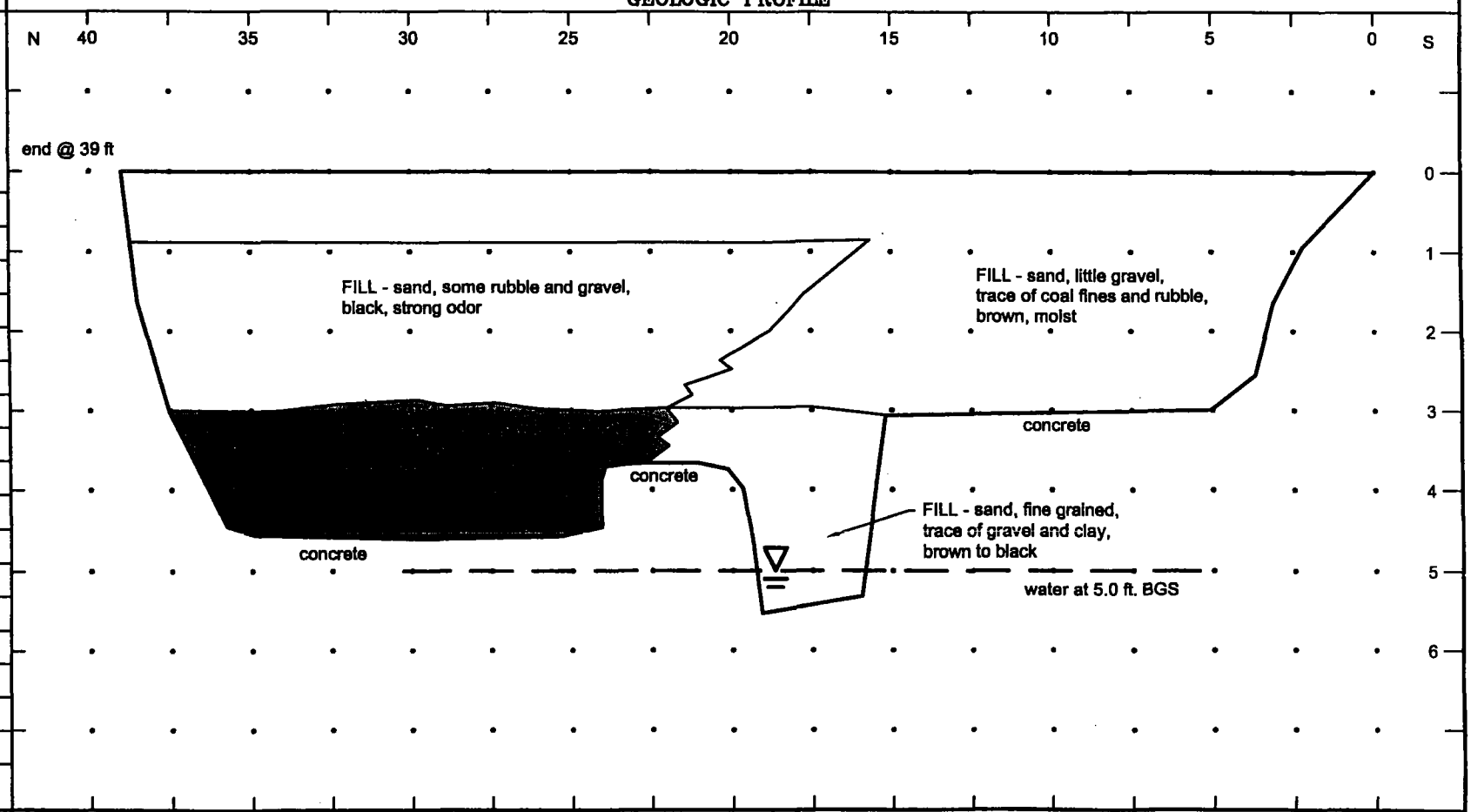
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-131
DATE/TIME STARTED: 6/11/02
DATE/TIME COMPLETED: 6/11/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061102-WP-090A
S-061102-WP-090B
S-061102-WP-090C
S-061102-WP-091B DUP

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18066
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

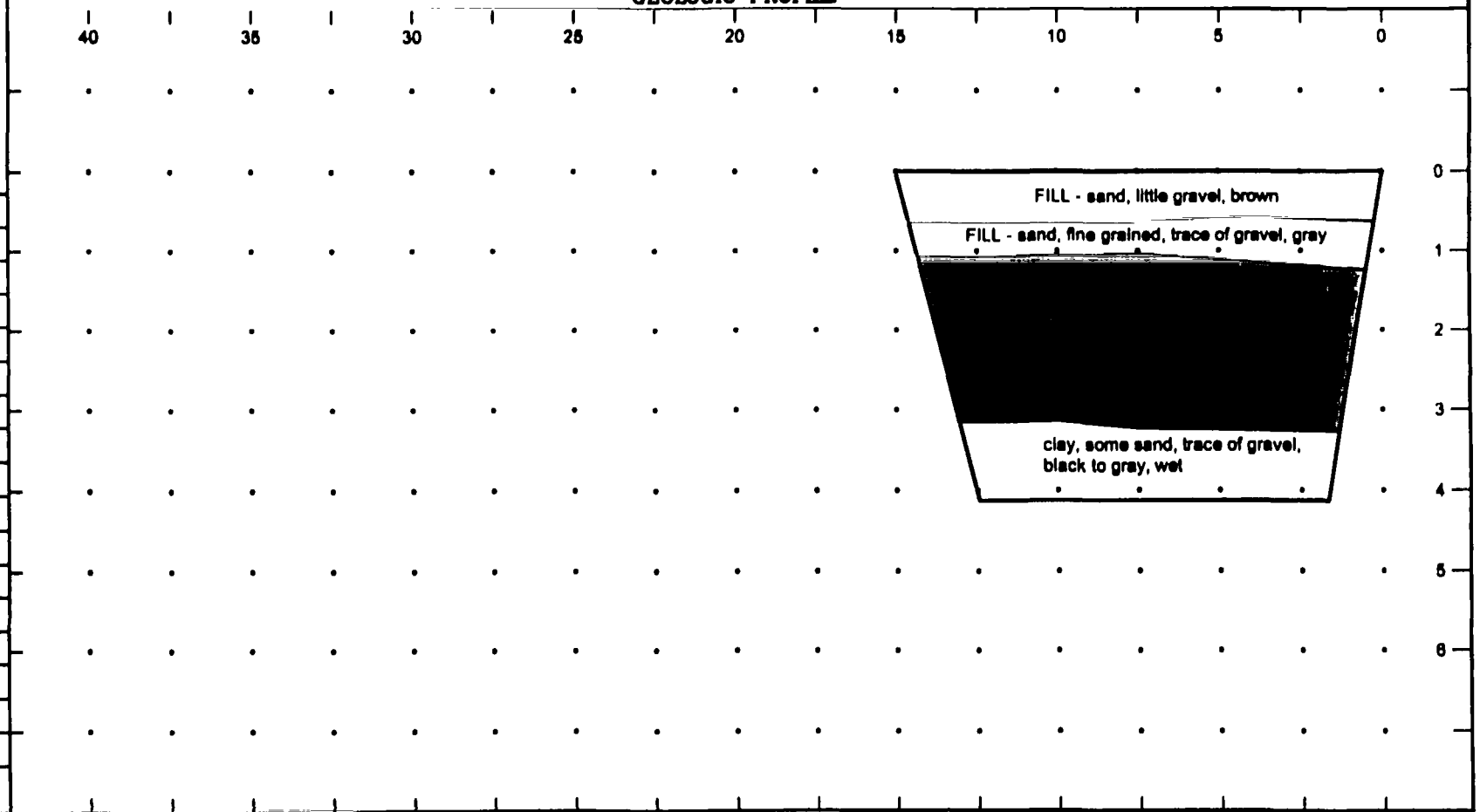
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-18R
DATE/TIME STARTED: 6/11/08
DATE/TIME COMPLETED: 6/11/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHROM/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

NO SAMPLES COLLECTED

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

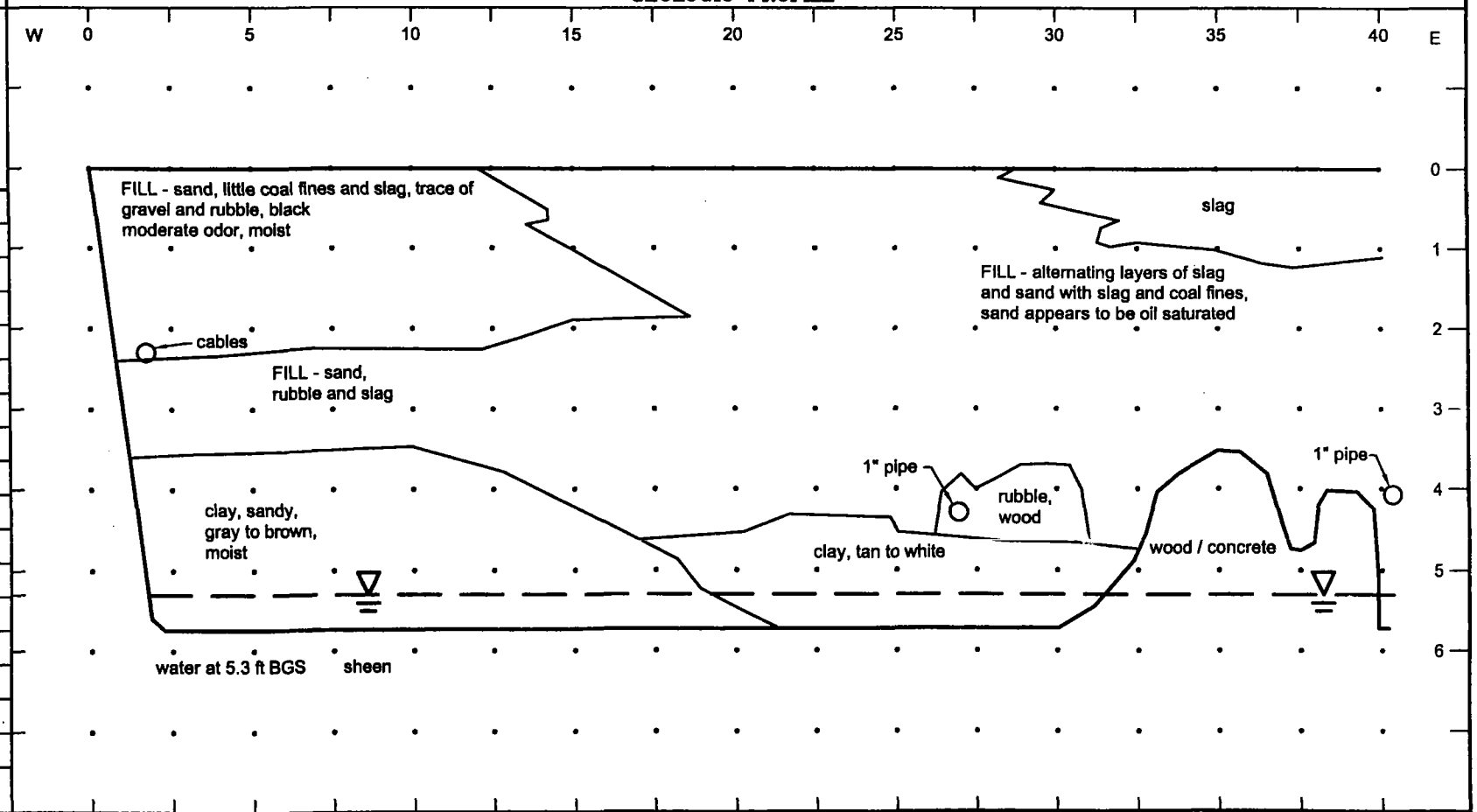
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-133
DATE/TIME STARTED: 6/11/02
DATE/TIME COMPLETED: 6/11/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061102-WP-092A
S-061102-WP-092B
S-061102-WP-092C

S-061102-WP-093A
S-061102-WP-093B
S-061102-WP-093C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

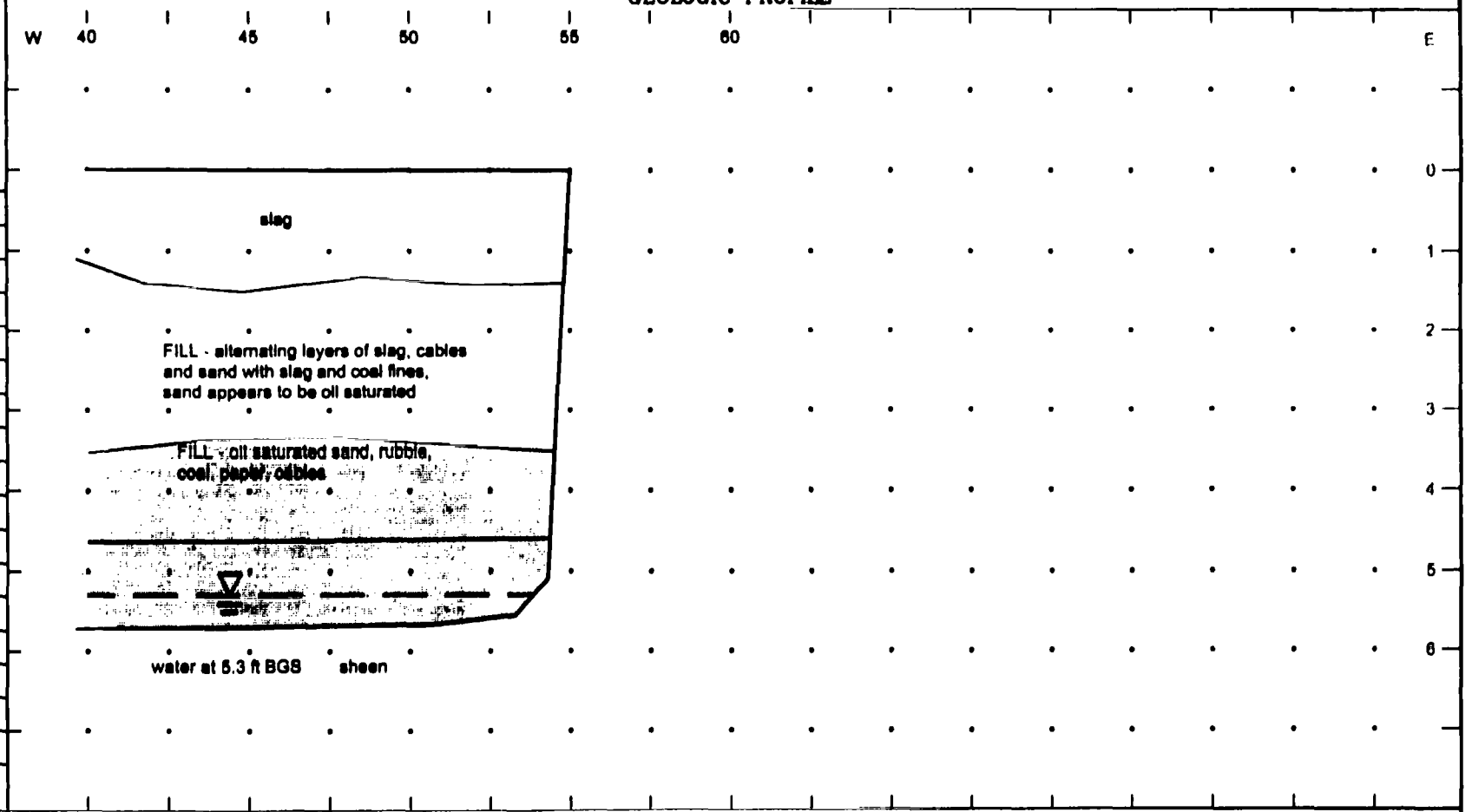
CONTRACTOR: RCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-188
DATE/TIME STARTED: 6/11/08
DATE/TIME COMPLETED: 6/11/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061102-WP-094A
S-061102-WP-094B
S-061102-WP-094C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

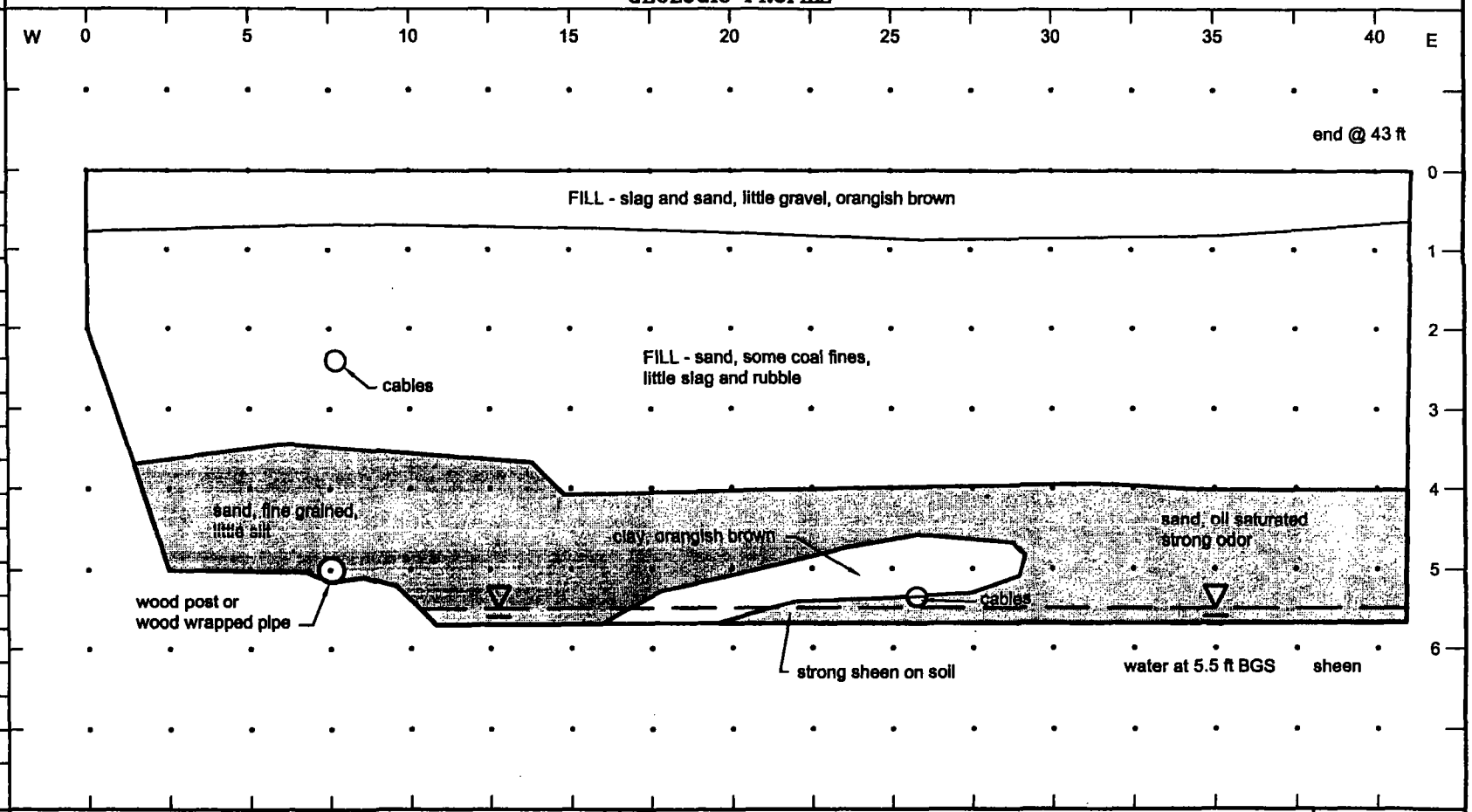
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-134
DATE/TIME STARTED: 6/11/02
DATE/TIME COMPLETED: 6/11/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061102-WP-097A
S-061102-WP-097B
S-061102-WP-097C

S-061102-WP-099C

S-061102-WP-097A
S-061102-WP-097B
S-061102-WP-097C

TEST PIT STRATIGRAPHY LOG

PAGE 1 OF 1

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 18080
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

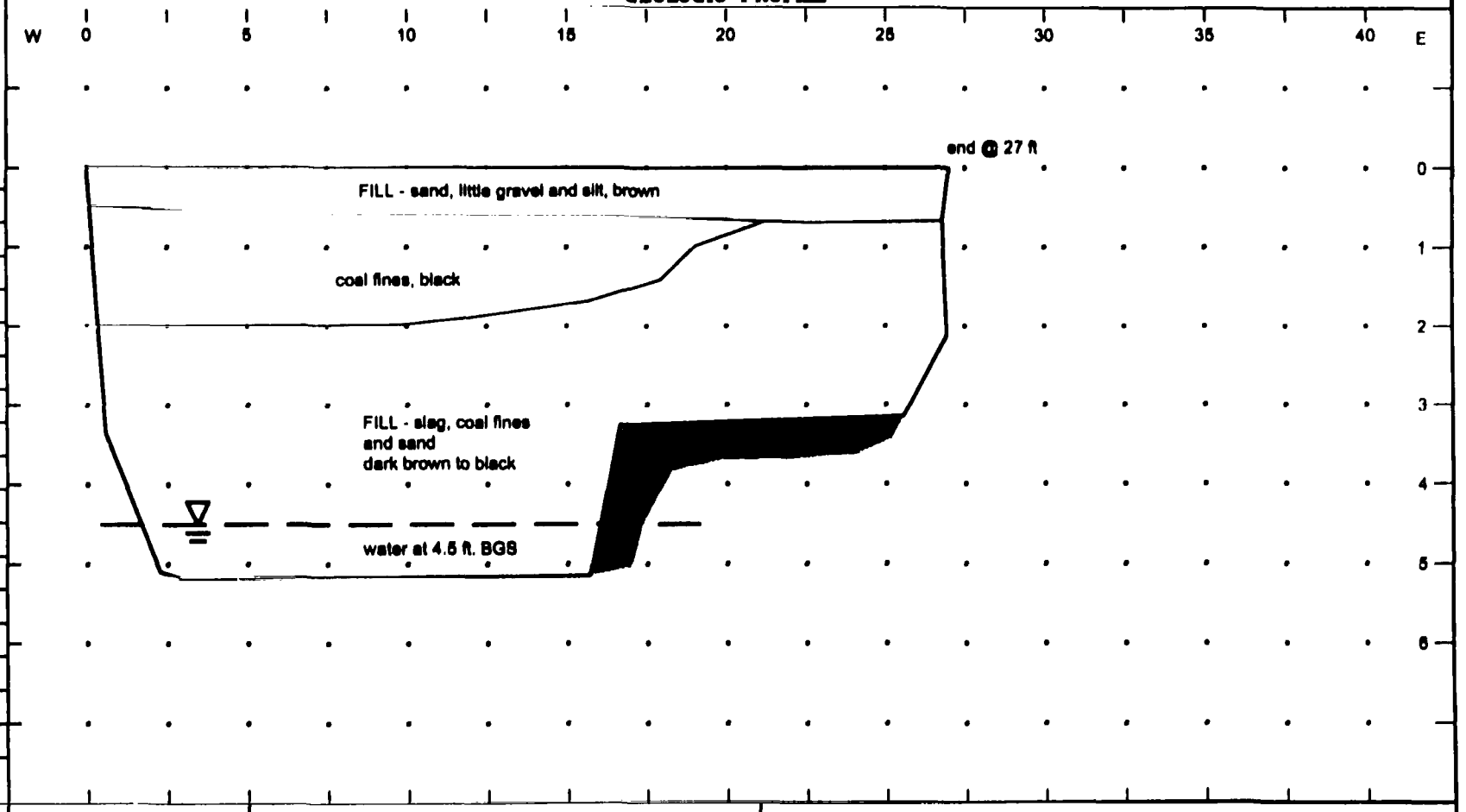
CONTRACTOR BCI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-186
DATE/TIME STARTED 6/11/08
DATE/TIME COMPLETED 6/11/08
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061102-WP-0101A
S-061102-WP-0101B

S-061102-WP-0102A

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

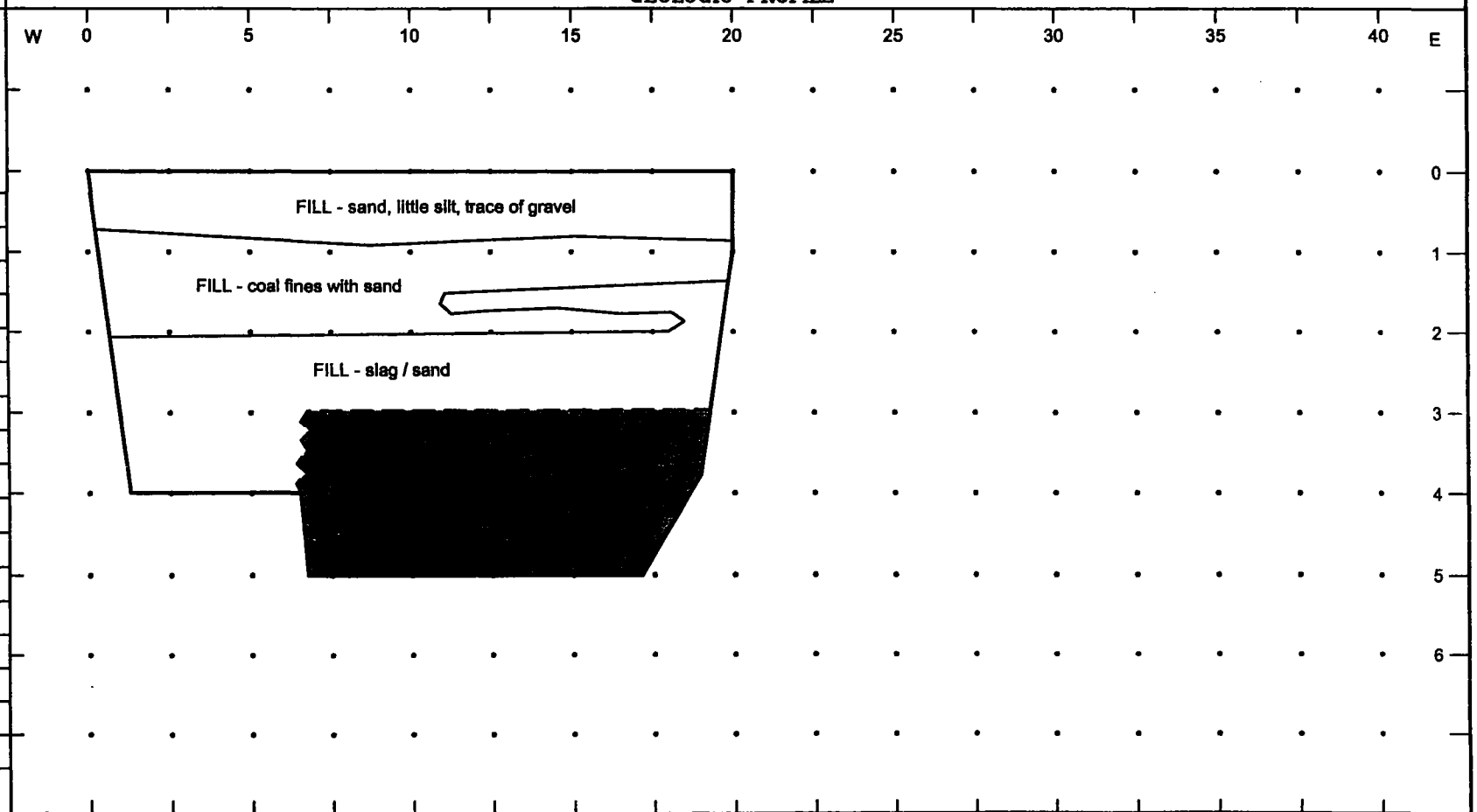
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-136
DATE/TIME STARTED: 6/11/02 14:34
DATE/TIME COMPLETED: 6/11/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061102-WP-0104A
S-061102-WP-0104B

S-061102-WP-0105A
S-061102-WP-0105B

TEST PIT STRATIGRAPHY LOG

PAGE 1 OF 1

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19088
CLIENT: NCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

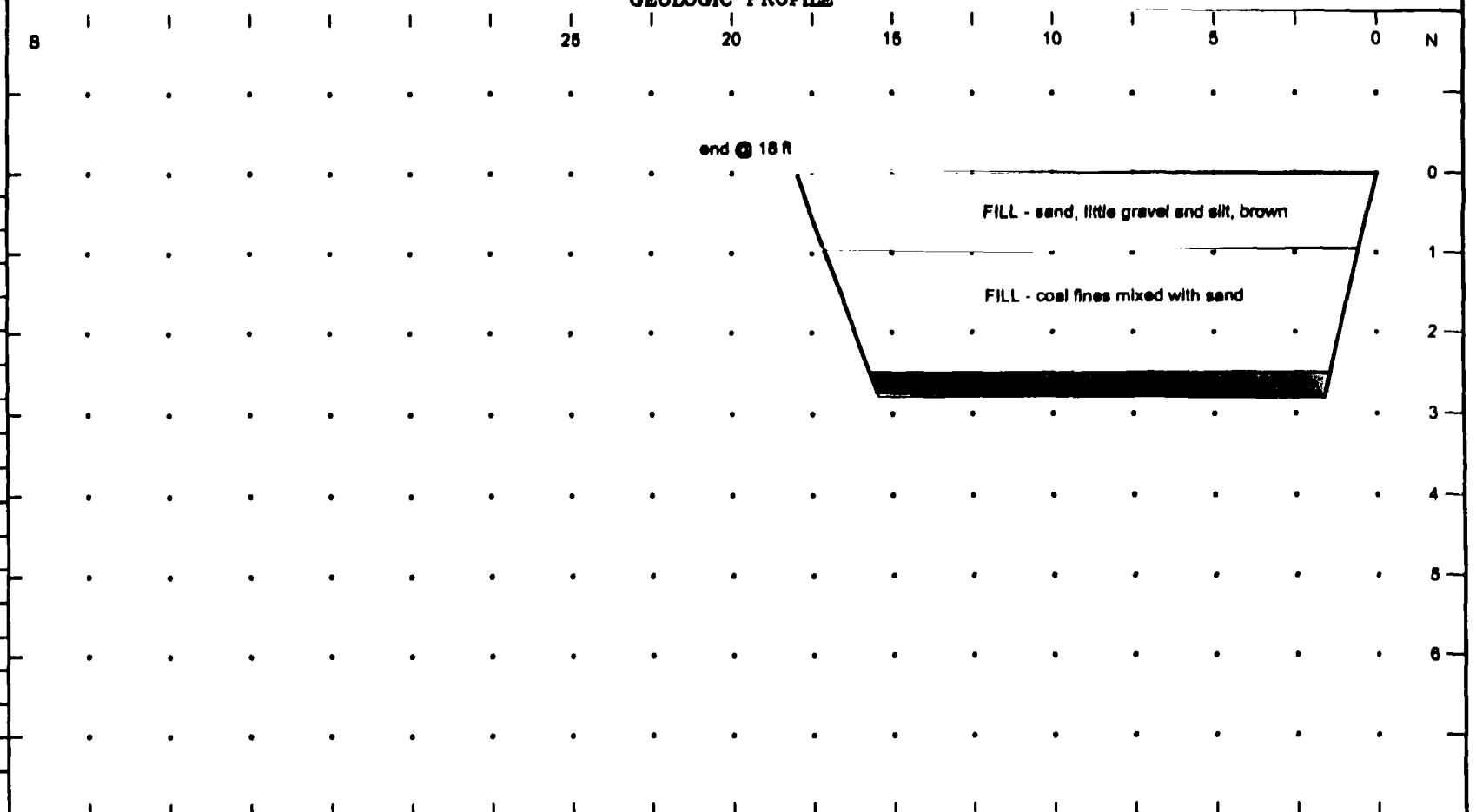
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-187
DATE/TIME STARTED: 8/18/08 08:40
DATE/TIME COMPLETED: 8/18/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061202-WP-0106A 0 - 2
S-061202-WP-0106B 0 - 2 DUP

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

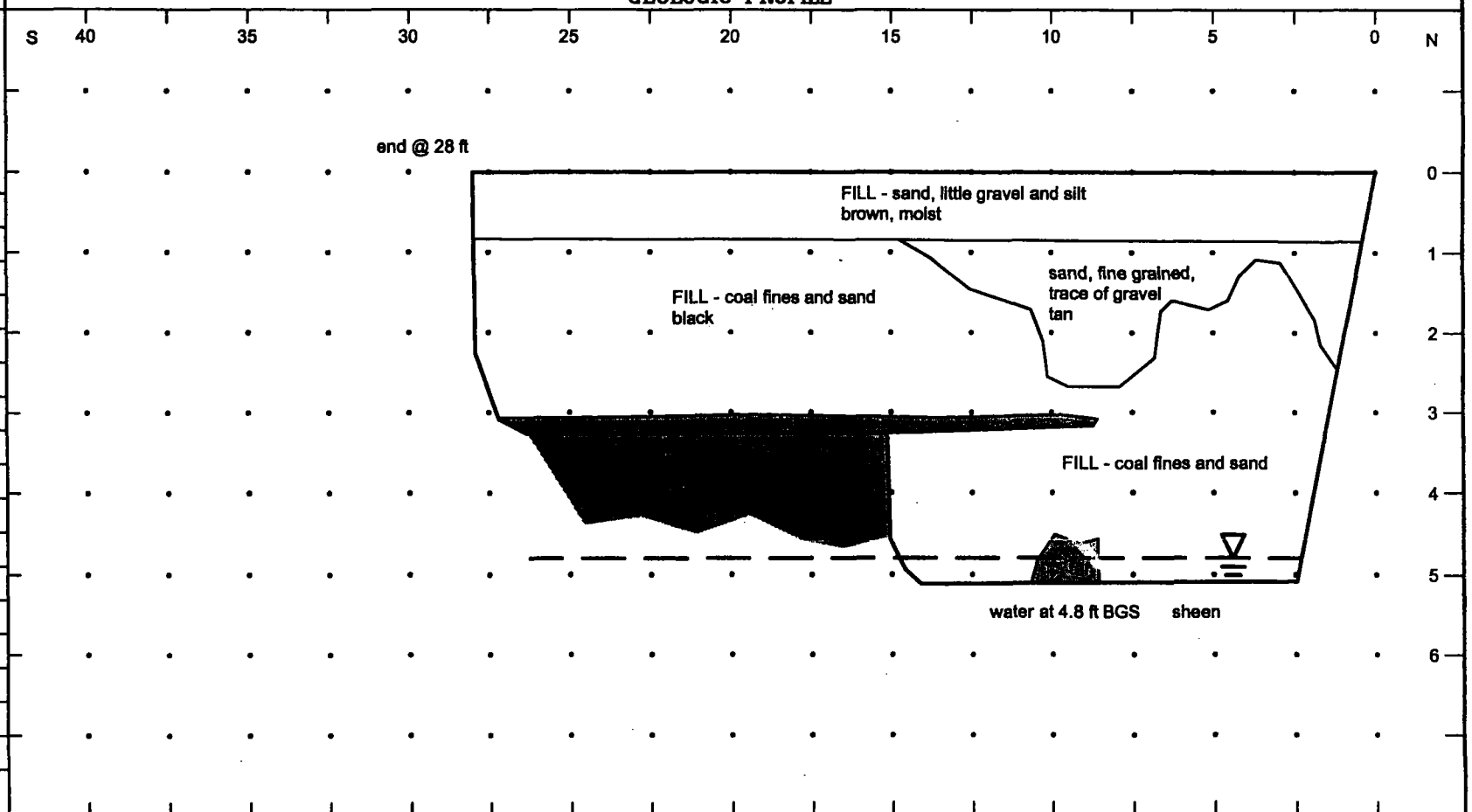
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-138
DATE/TIME STARTED: 6/12/02
DATE/TIME COMPLETED: 6/12/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061202-WP-0108A
S-061202-WP-0108B
S-061202-WP-0108C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: ECP GROUP
LOCATION: WAUKEGAN, ILLINOIS

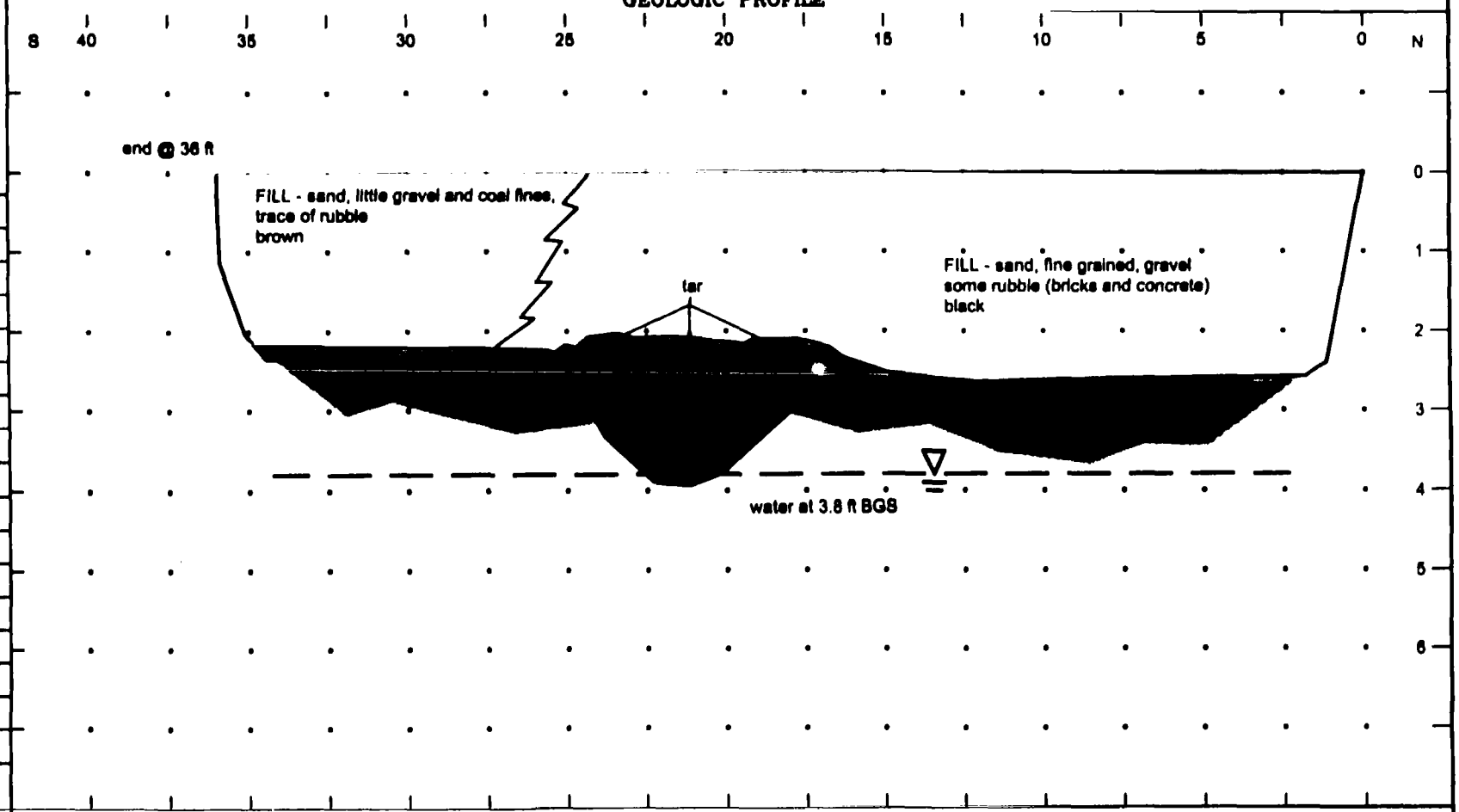
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-188
DATE/TIME STARTED: 8/18/08
DATE/TIME COMPLETED: 8/18/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

NO SAMPLES COLLECTED

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

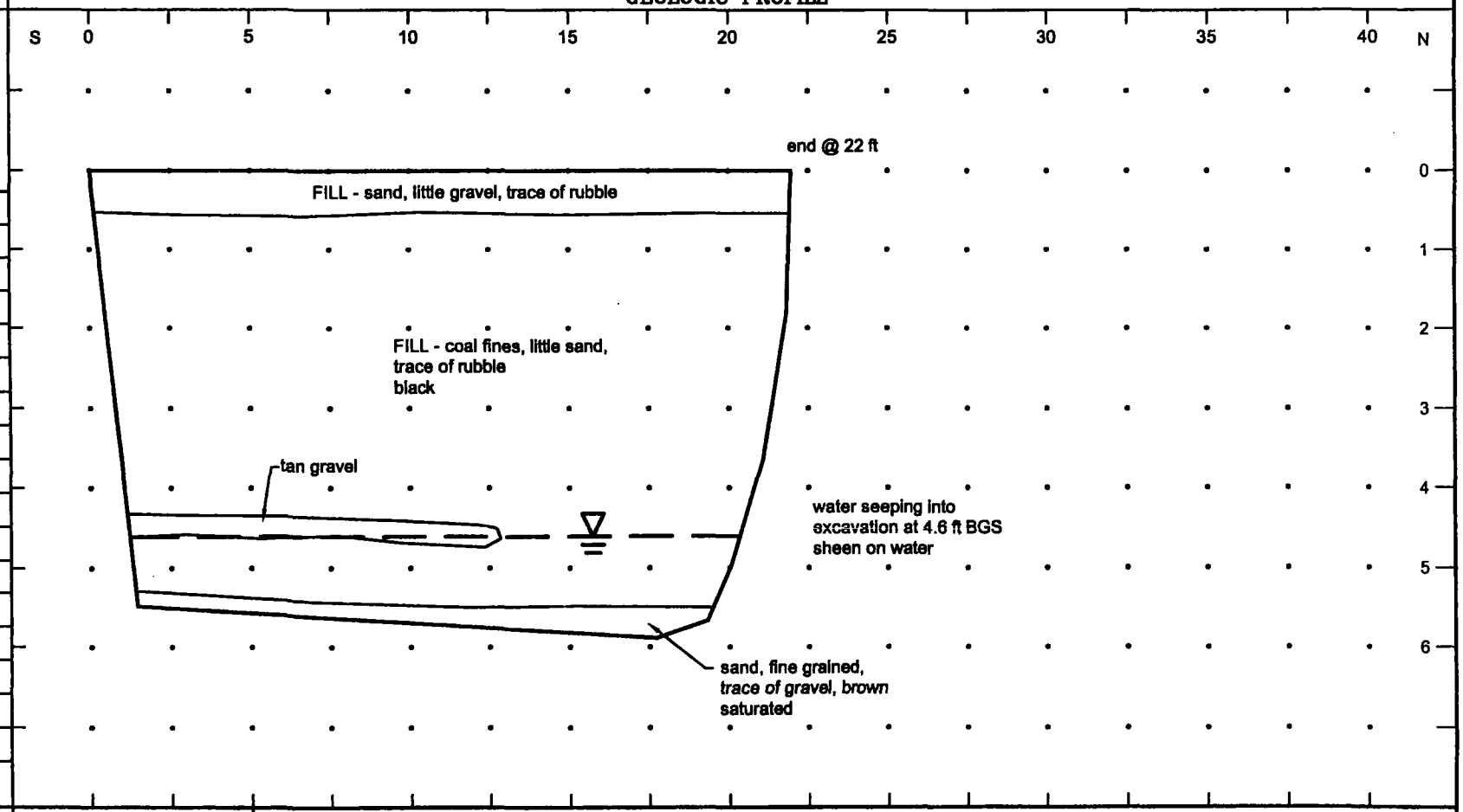
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-140
DATE/TIME STARTED: 6/12/02
DATE/TIME COMPLETED: 6/12/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061202-WP-0110A ms / msd
S-061202-WP-0110B
S-061202-WP-0110C

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

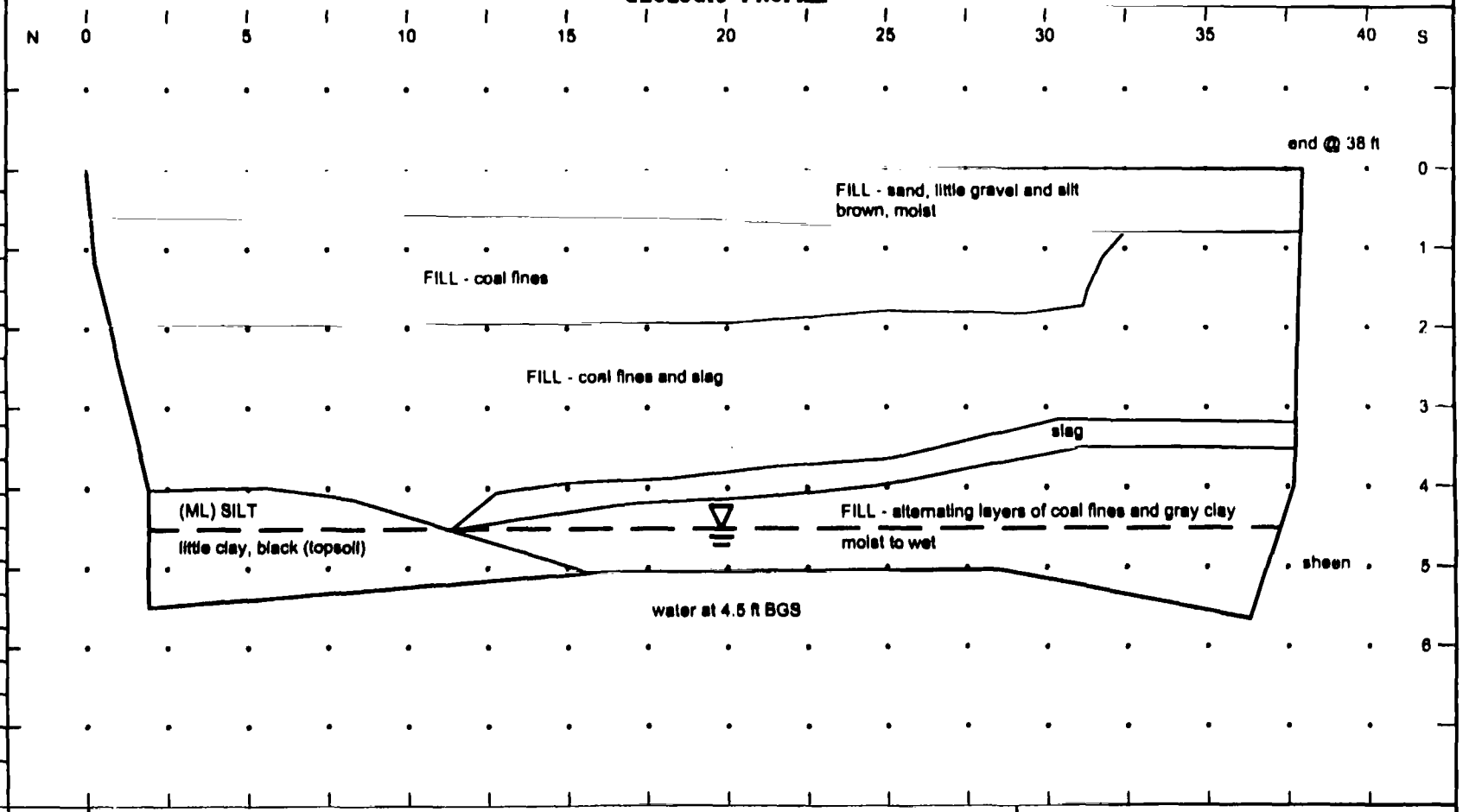
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-141
DATE/TIME STARTED: 6/12/02
DATE/TIME COMPLETED: 6/12/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061202-WP-0113A BVOCs and Arsenic
S-061202-WP-0113B BVOCs and Arsenic

Waste Characterization
S-061202-WP-0114

S-061202-WP-0112A PAH and Arsenic
S-061202-WP-0112B PAH and Arsenic

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN , ILLINOIS

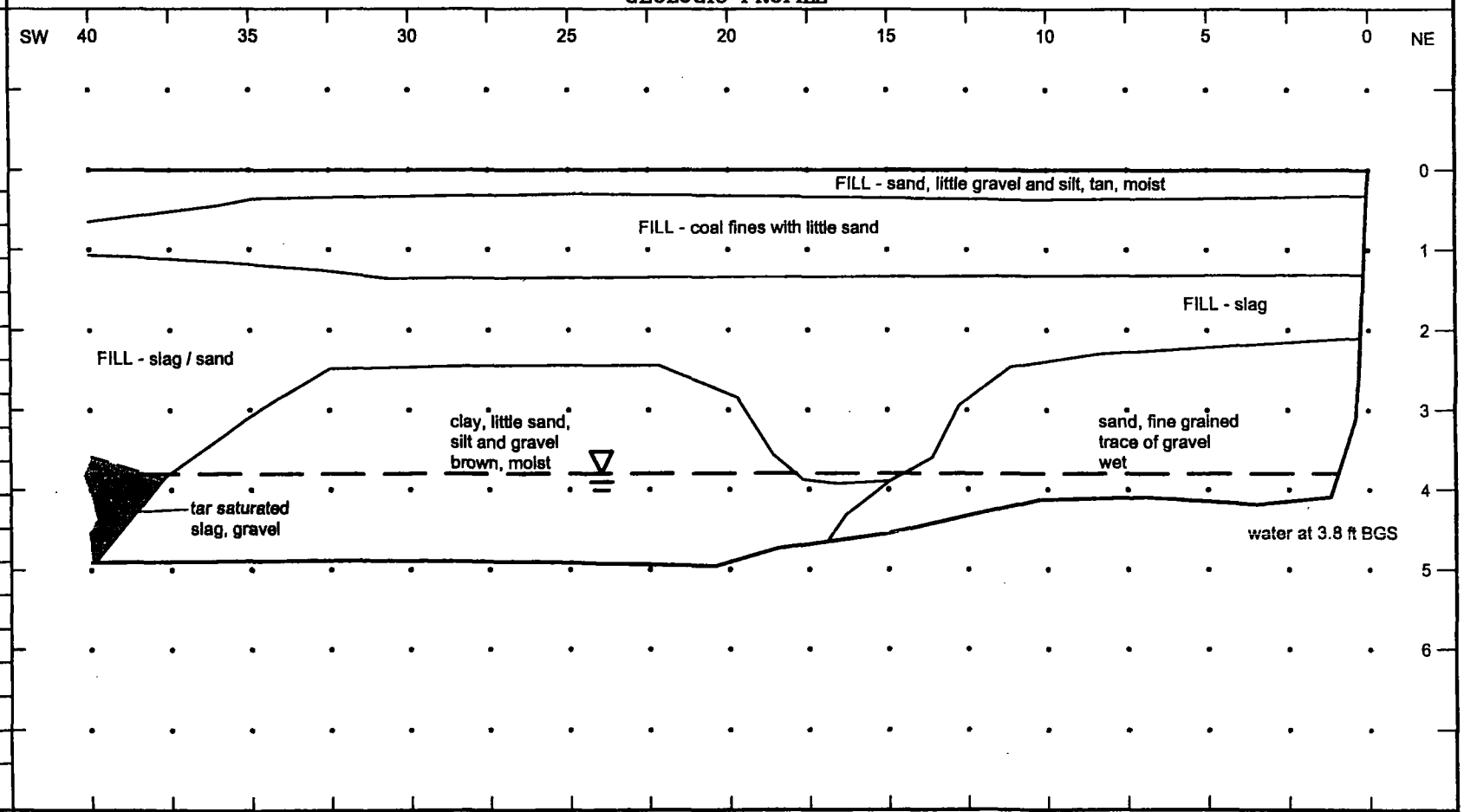
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-142
DATE/TIME STARTED 6/12/02
DATE/TIME COMPLETED 6/12/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061202-WP-0116A
S-061202-WP-0116B

S-061202-WP-0115A
S-061202-WP-0115B ms / msd

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

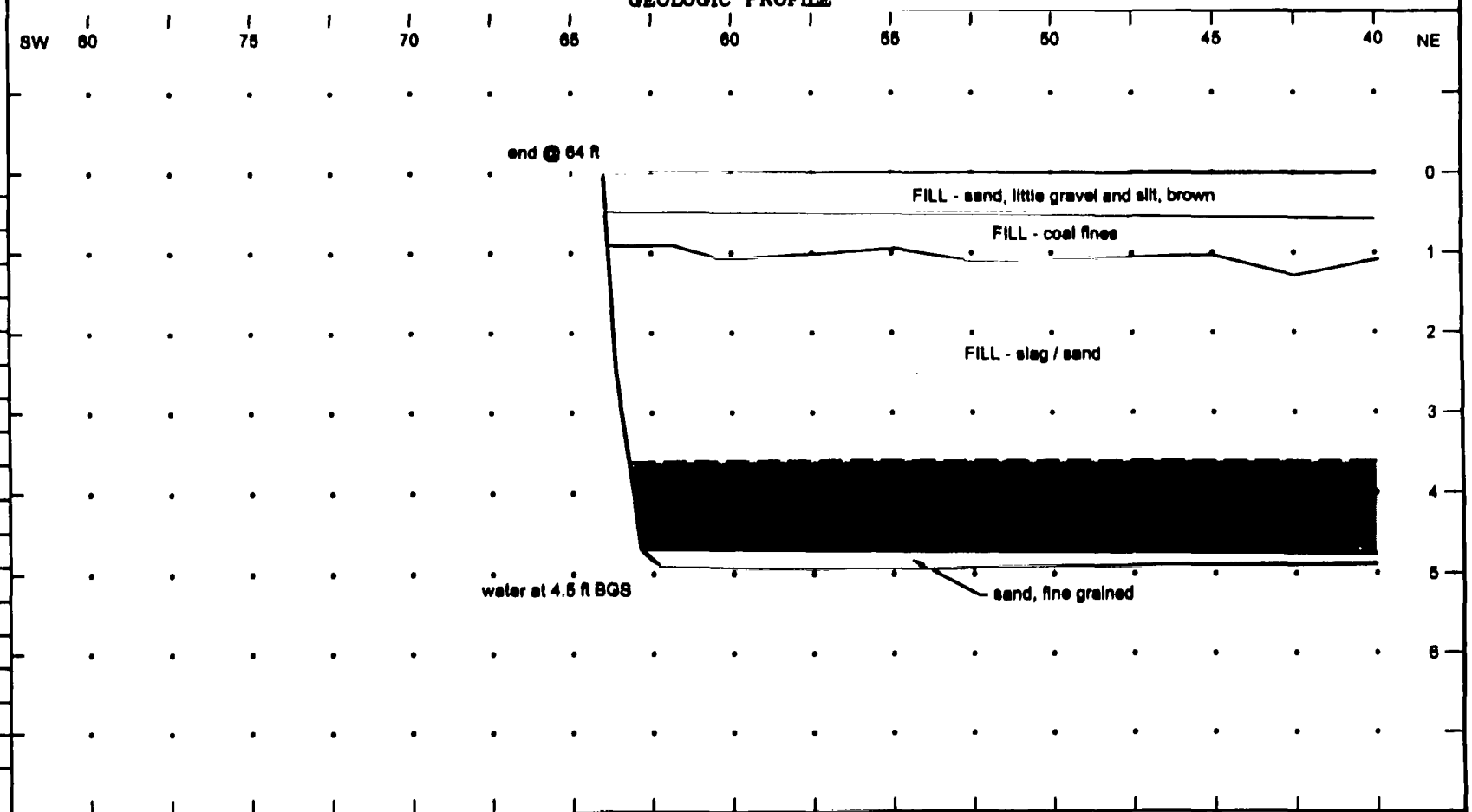
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-14S
DATE/TIME STARTED: 6/18/08
DATE/TIME COMPLETED: 6/18/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061202-WP-0117A
S-061202-WP-0117B

TEST PIT STRATIGRAPHY LOG

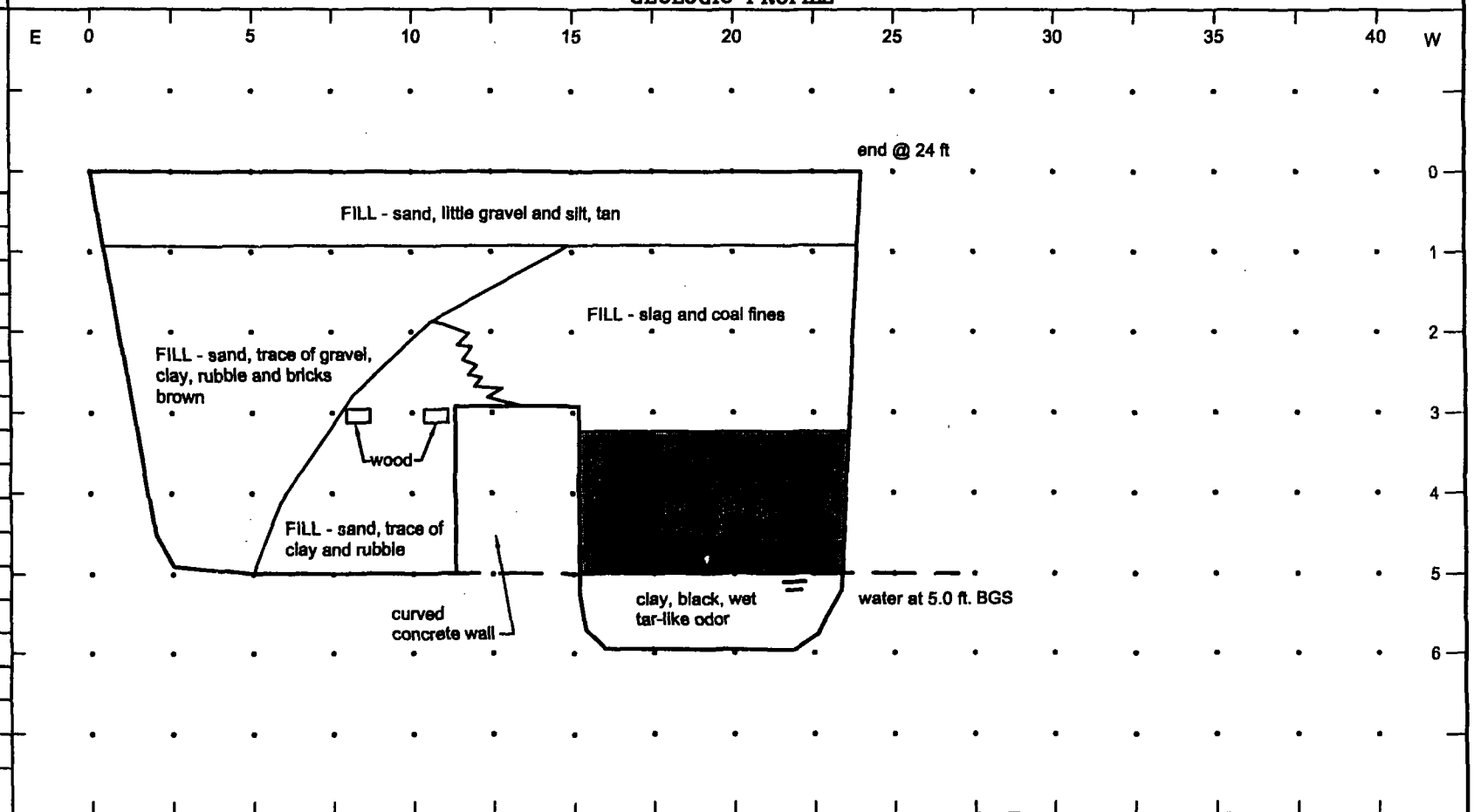
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-143
DATE/TIME STARTED: 6/12/02
DATE/TIME COMPLETED: 6/12/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061202-WP-0119A
S-061202-WP-0119B
S-061202-WP-0119C

S-061202-WP-0120A
S-061202-WP-0120B
S-061202-WP-0120C

TEST PIT STRATIGRAPHY LOG

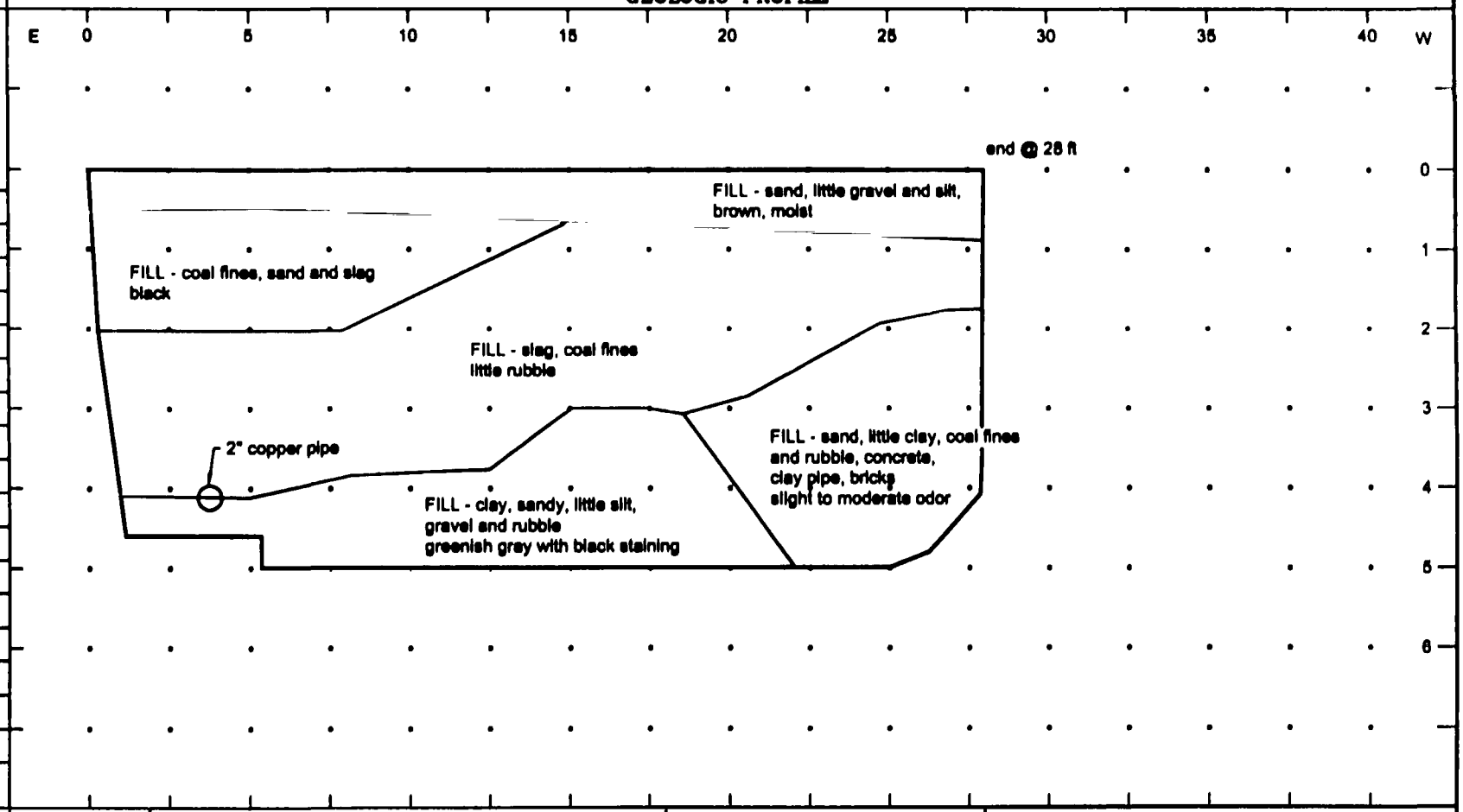
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18069
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-144
DATE/TIME STARTED: 8/18/08
DATE/TIME COMPLETED: 8/18/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061302-WP-022A SVOCs and Arsenic
S-061302-WP-022B SVOCs and Arsenic
S-061302-WP-023A DUP SVOCs and Arsenic

S-061302-WP-024A Arsenic only
S-061302-WP-024B Arsenic only
S-061302-WP-024C Arsenic only

S-061302-WP-025C SVOCs only

TEST PIT STRATIGRAPHY LOG

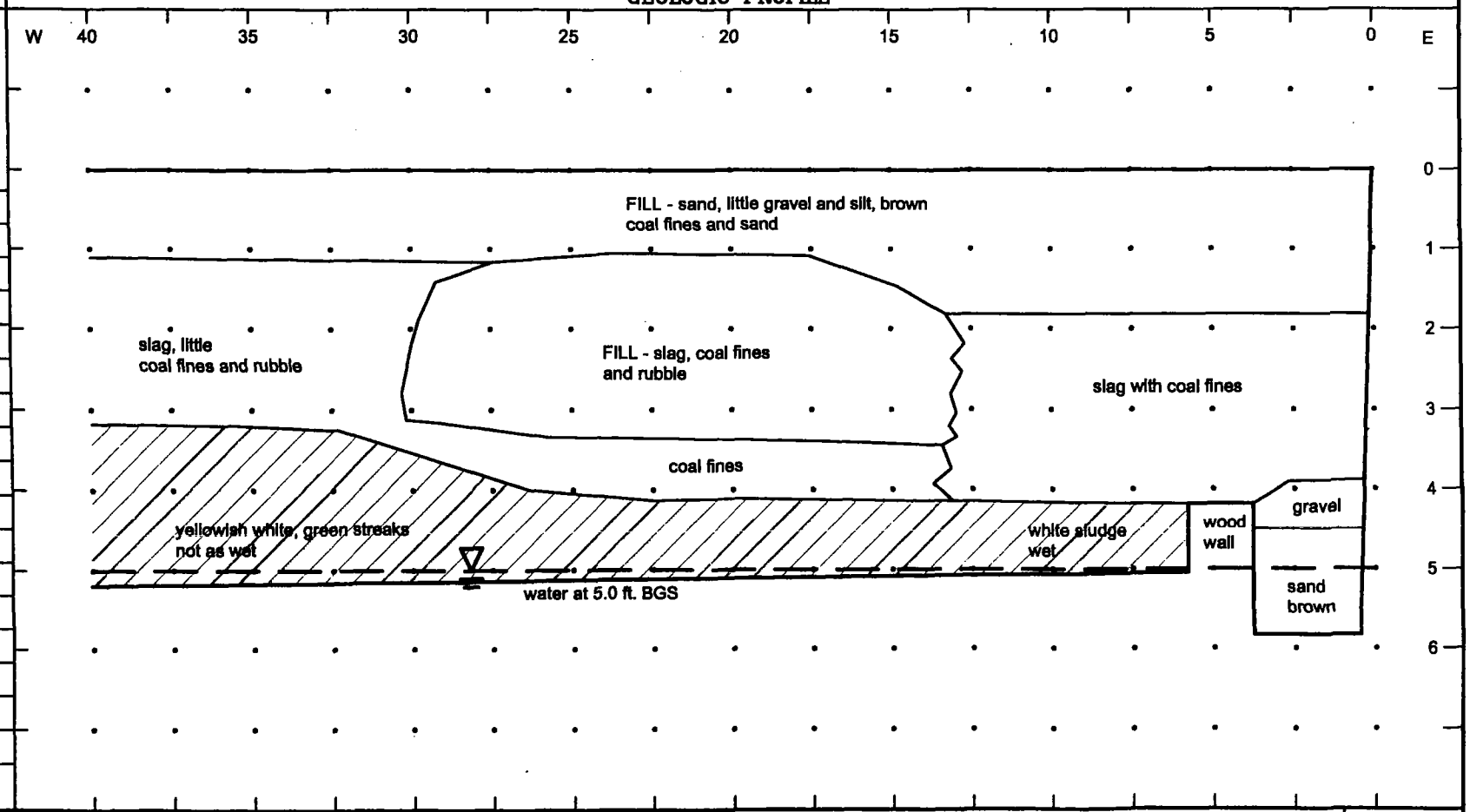
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-145
DATE/TIME STARTED: 6/13/02
DATE/TIME COMPLETED: 6/13/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061302-WP-0128A SVOCs and Arsenic
S-061302-WP-0128B SVOCs and Arsenic
S-061302-WP-0128C SVOCs and Arsenic

S-061302-WP-0127A Arsenic only
S-061302-WP-0127B Arsenic only
S-061302-WP-0127C Arsenic only

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

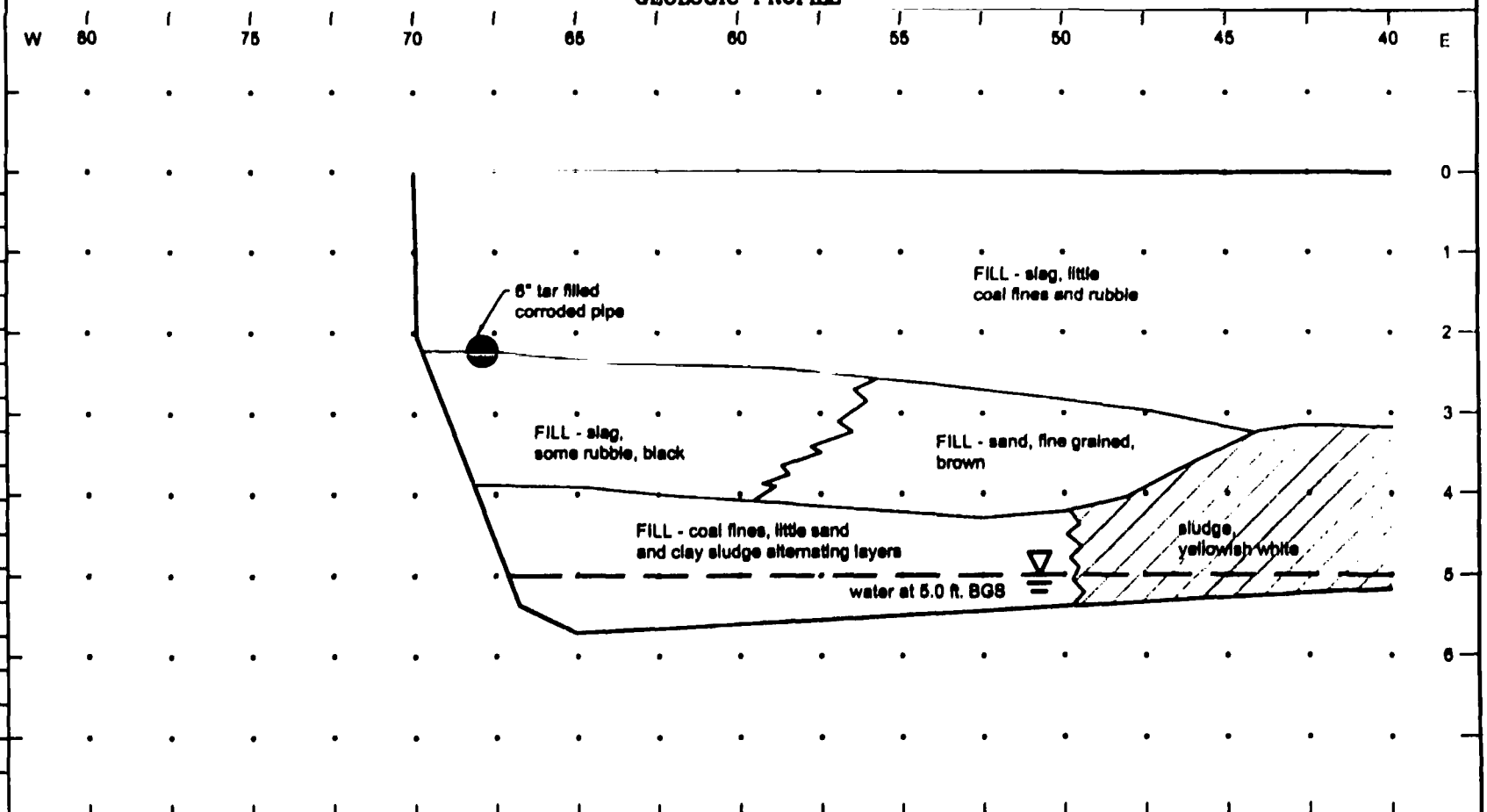
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-146
DATE/TIME STARTED: 8/18/08
DATE/TIME COMPLETED: 8/18/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061302-WP-0129A Arsenic and PAHs
S-061302-WP-0129B Arsenic and PAHs
S-061302-WP-0129C Arsenic and PAHs

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN , ILLINOIS

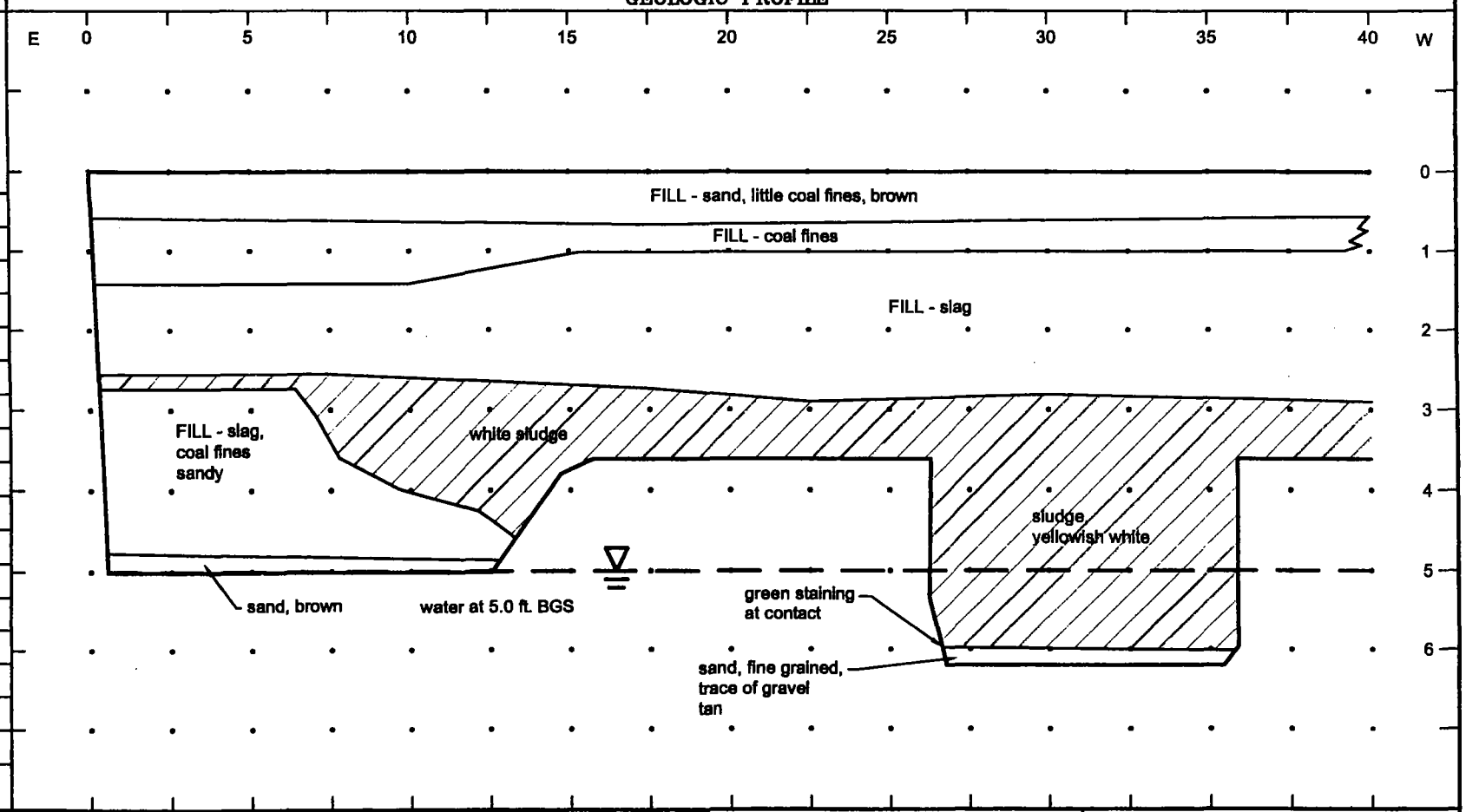
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-146
DATE/TIME STARTED 6/13/02
DATE/TIME COMPLETED 6/13/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061302-WP-0131A Arsenic only
S-061302-WP-0131B Arsenic only
S-061302-WP-0131C Arsenic only

Waste Characterization
S-061302-WP-0133

S-061302-WP-0131B Arsenic

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18083
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

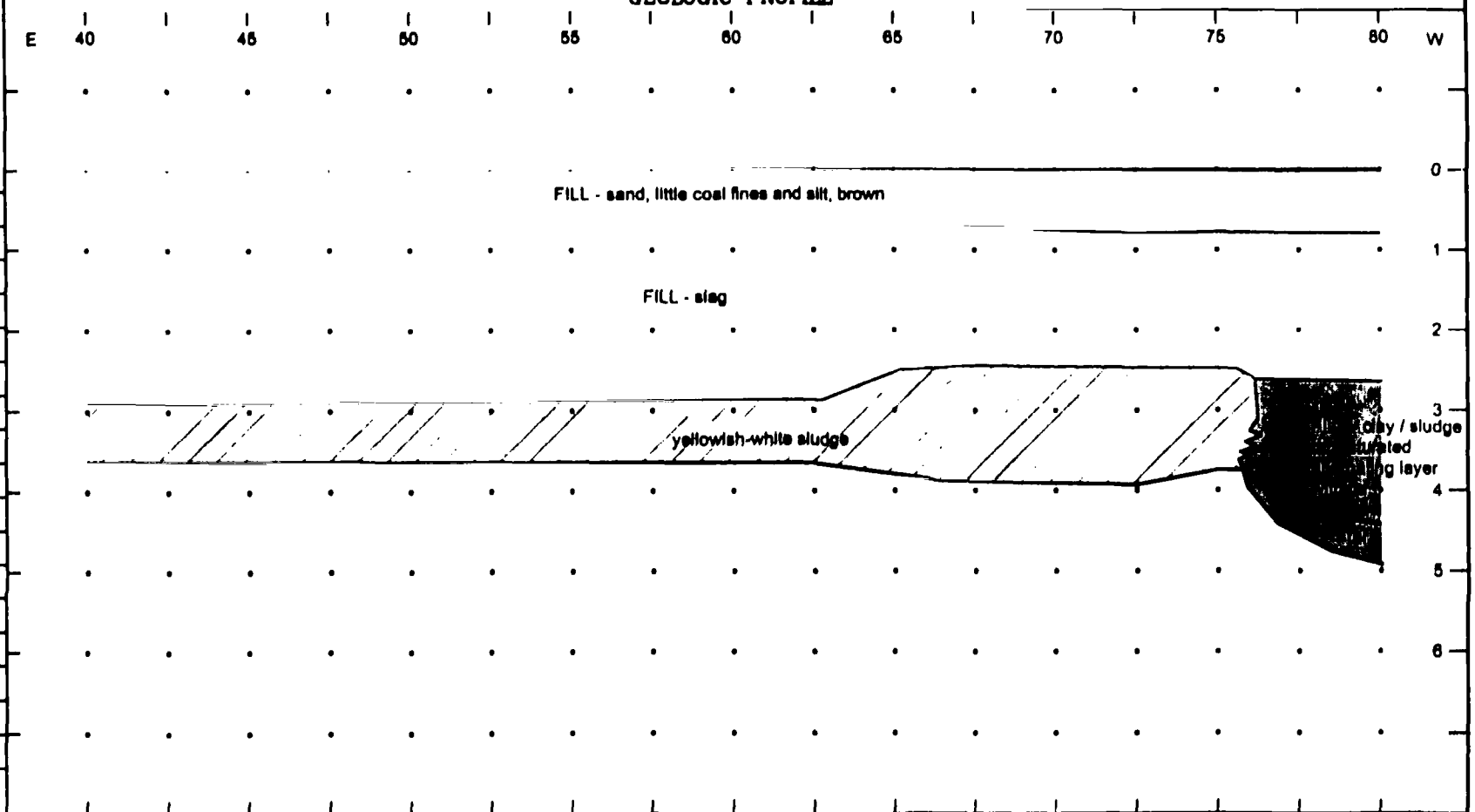
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-146
DATE/TIME STARTED: 6/13/08
DATE/TIME COMPLETED: 6/13/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

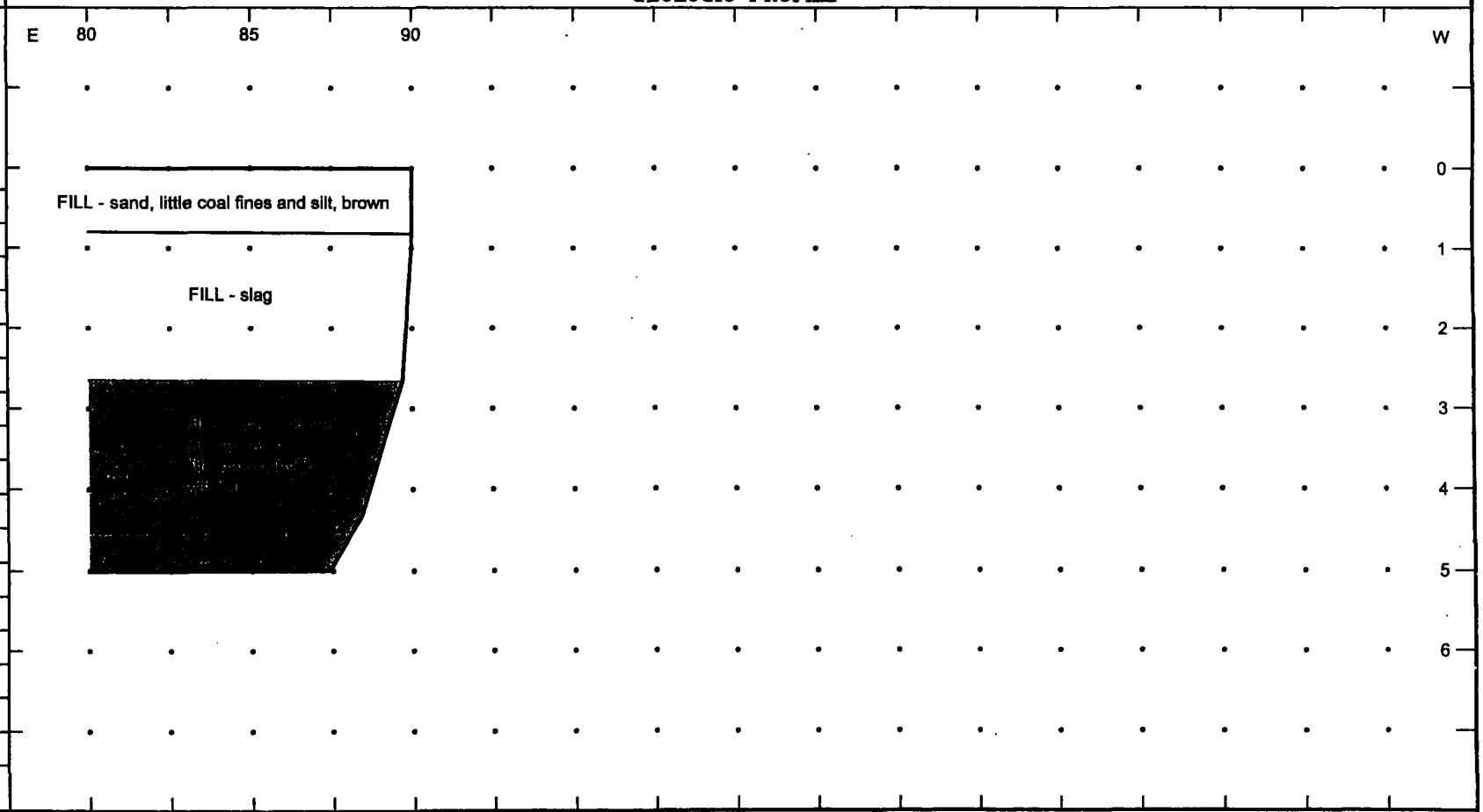
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-146
DATE/TIME STARTED 6/13/02
DATE/TIME COMPLETED 6/13/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061302-WP-0132A Arsenic and SVOCs
S-061302-WP-0132B Arsenic and SVOCs
S-061302-WP-0132C Arsenic and SVOCs

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18082
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

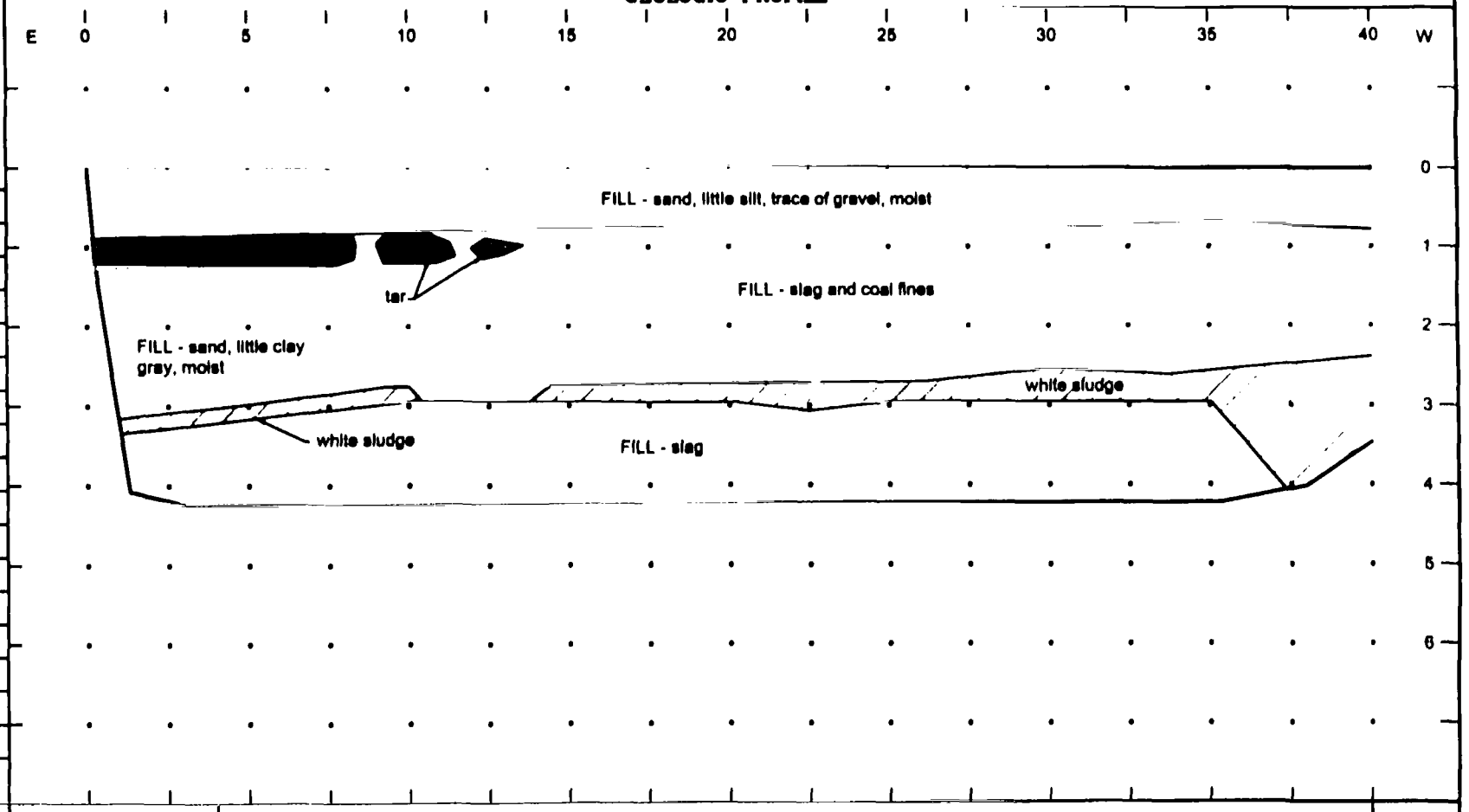
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-147
DATE/TIME STARTED: 8/18/08
DATE/TIME COMPLETED: 8/18/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061302-WP-0136B Arsenic and SVOCs

S-061302-WP-0137A
S-061302-WP-0137B
S-061302-WP-0138A DUP

TEST PIT STRATIGRAPHY LOG

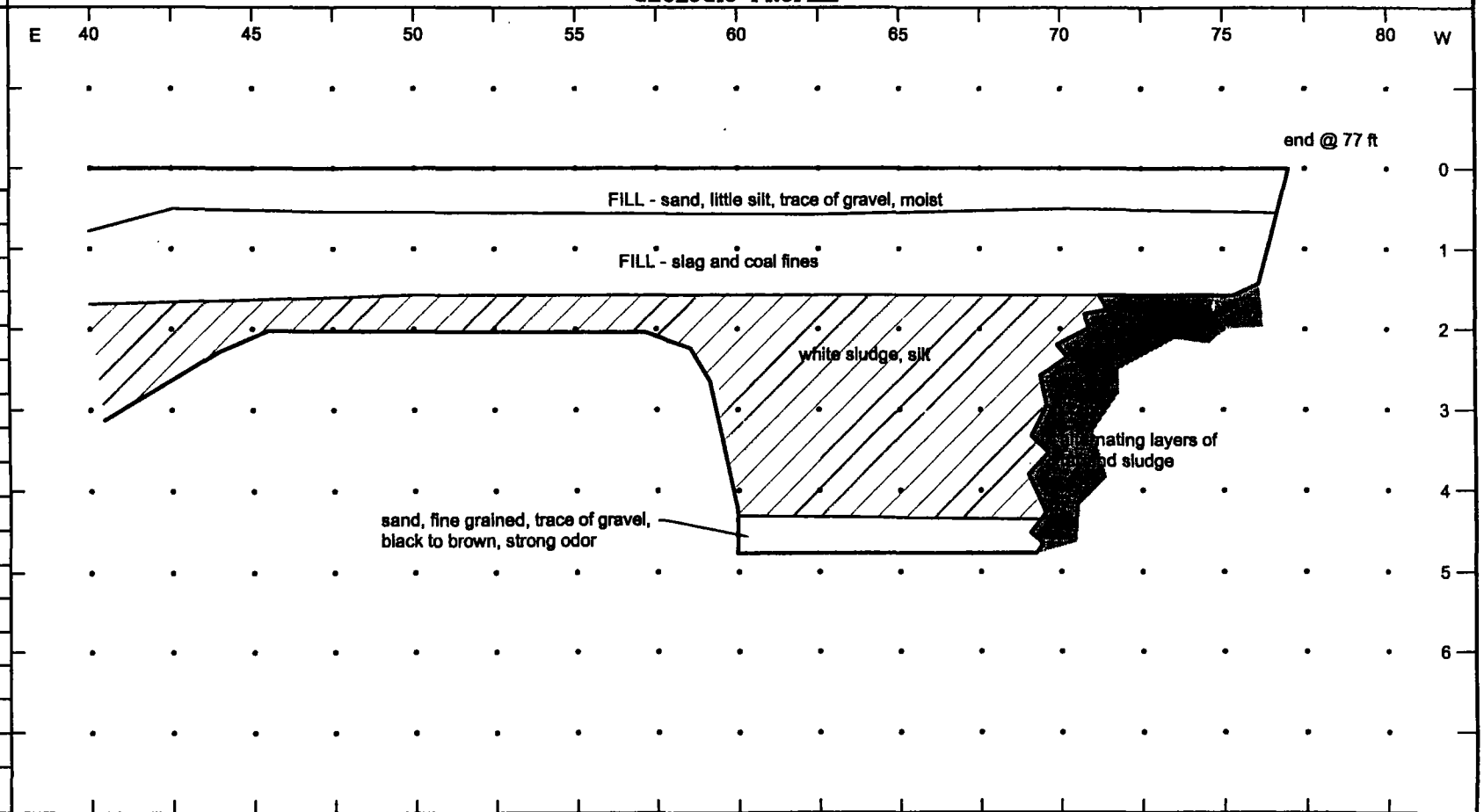
PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN , ILLINOIS

CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-147
DATE/TIME STARTED 6/13/02
DATE/TIME COMPLETED 6/13/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

Waste Characterization
S-061302-WP-0139

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

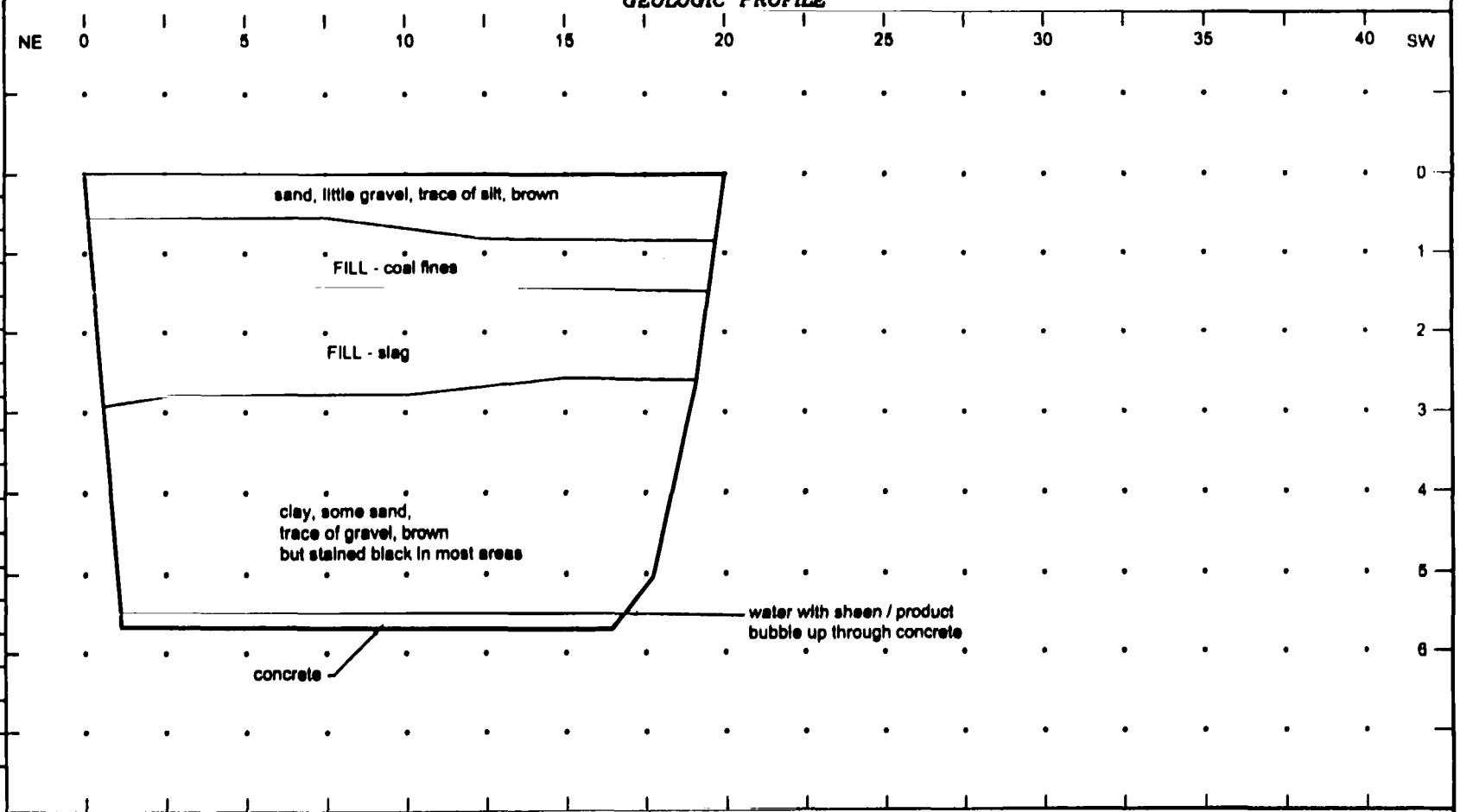
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-148
DATE/TIME STARTED: 6/13/08
DATE/TIME COMPLETED: 6/13/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061302-WP-0142A Arsenic and SVOCs
S-061302-WP-0142B Arsenic and SVOCs
S-061302-WP-0142C Arsenic and SVOCs

TEST PIT STRATIGRAPHY LOG

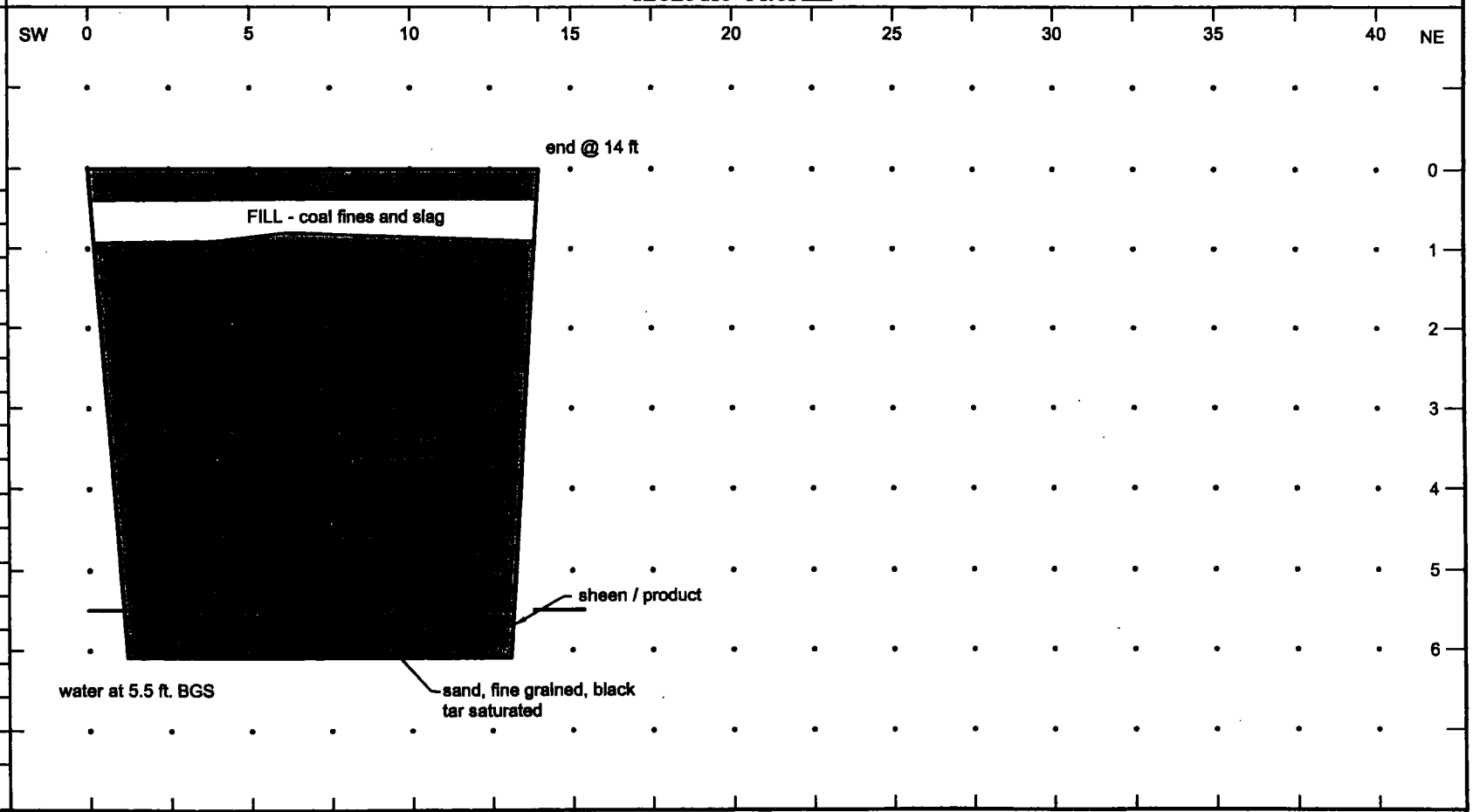
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-149
DATE/TIME STARTED: 6/13/02
DATE/TIME COMPLETED: 6/13/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS			
SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

NO SAMPLES

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COGR SITE
PROJECT NUMBER 18083
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

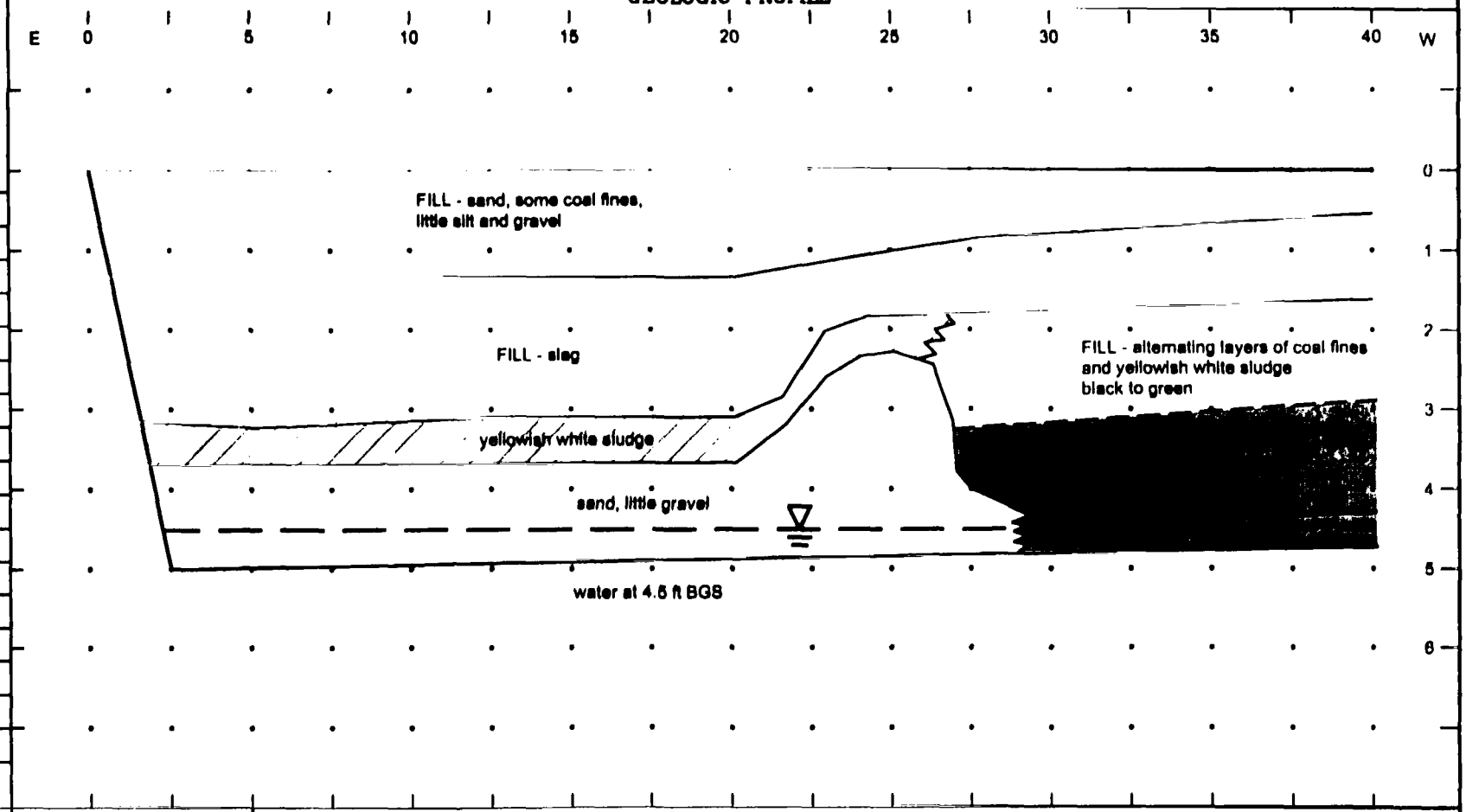
CONTRACTOR BCI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-150
DATE/TIME STARTED 6/14/02
DATE/TIME COMPLETED 6/14/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID / FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061402-WP-0144A
S-061402-WP-0144B

TEST PIT STRATIGRAPHY LOG

PROJECT NAME WAUKEGAN COKE SITE
PROJECT NUMBER 19023
CLIENT WCP GROUP
LOCATION WAUKEGAN, ILLINOIS

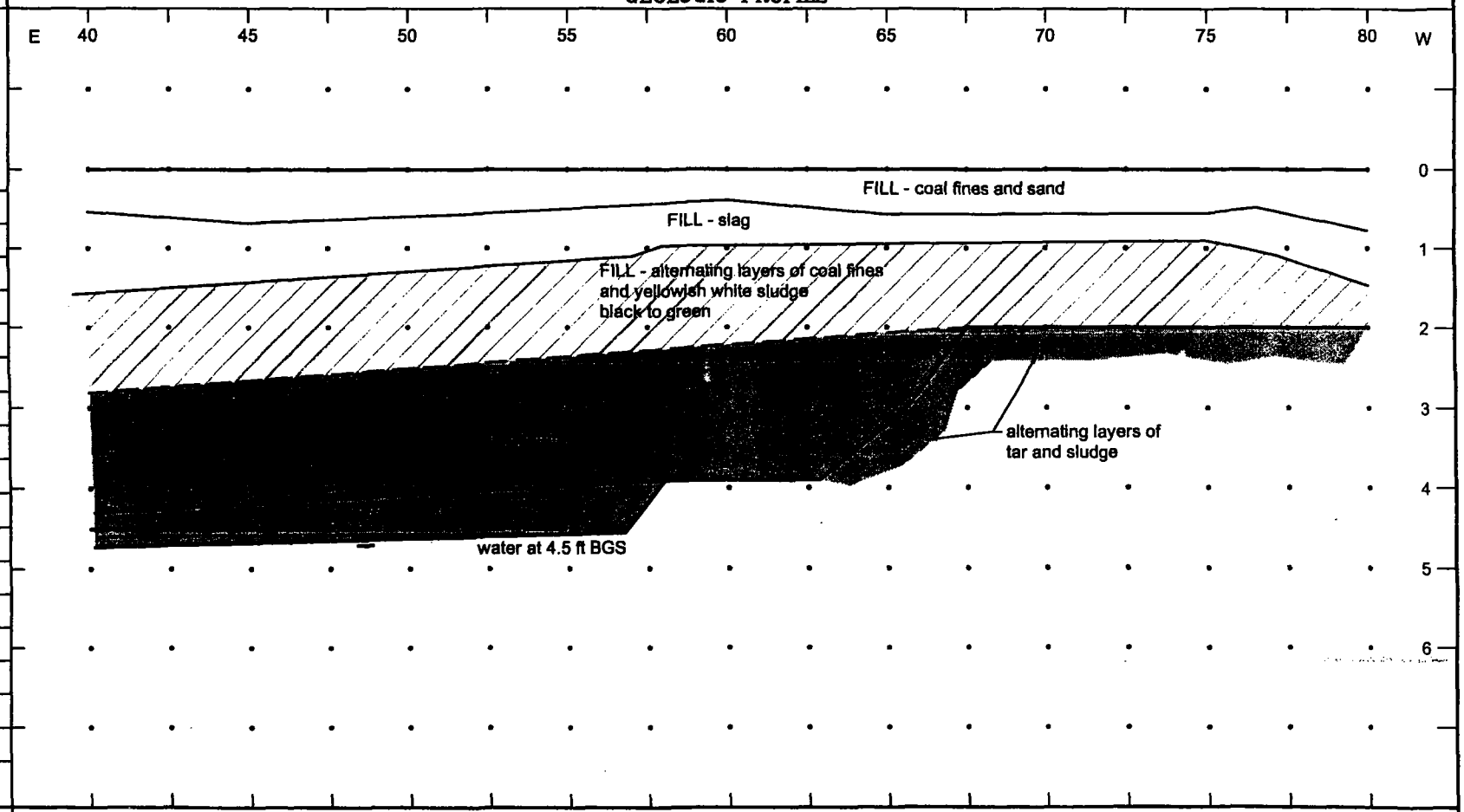
CONTRACTOR ECI
NAME
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

TEST PIT DESIGNATION TP-150
DATE/TIME STARTED 6/14/02
DATE/TIME COMPLETED 6/14/02
TEST PIT METHOD TRACK HOE
CRA SUPERVISOR W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 18088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

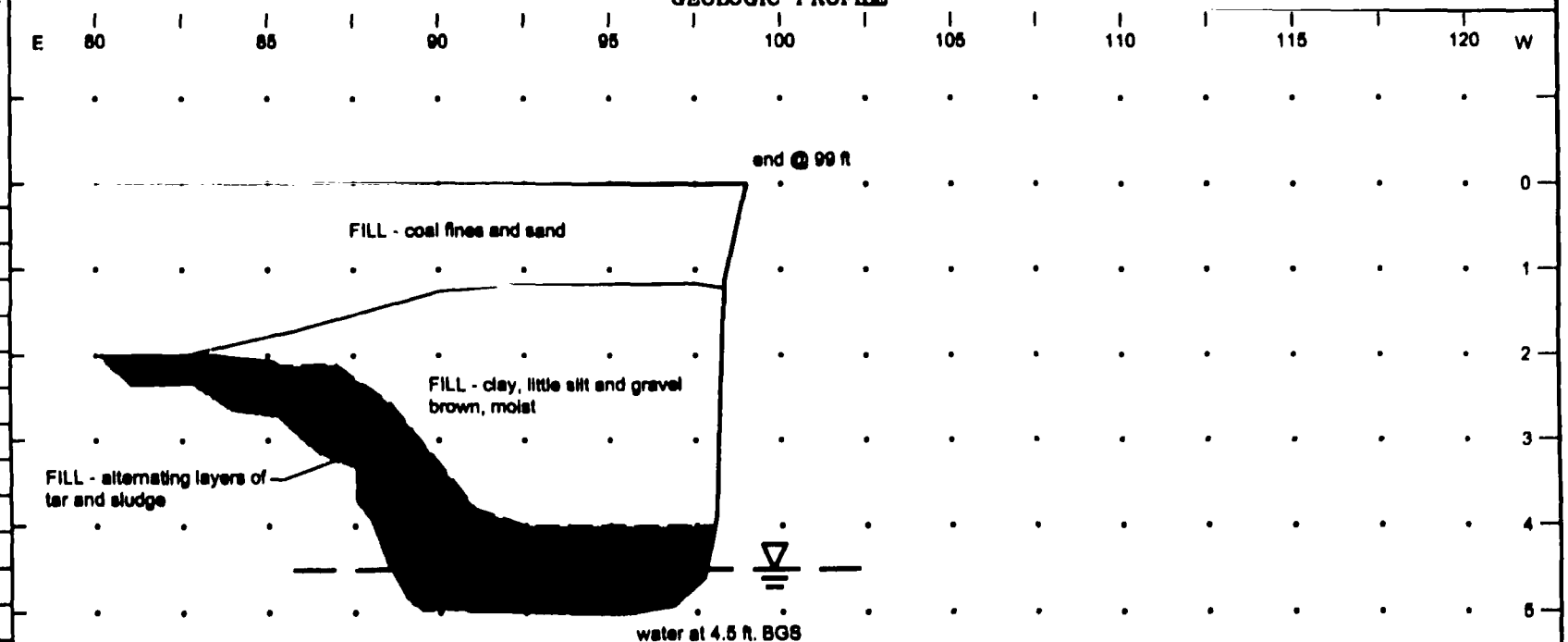
CONTRACTOR: BCI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-150
DATE/TIME STARTED: 8/14/08
DATE/TIME COMPLETED: 8/14/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061402-WP-0145A 0 - 2
S-061402-WP-0145B 2 - 4

TEST PIT STRATIGRAPHY LOG

PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

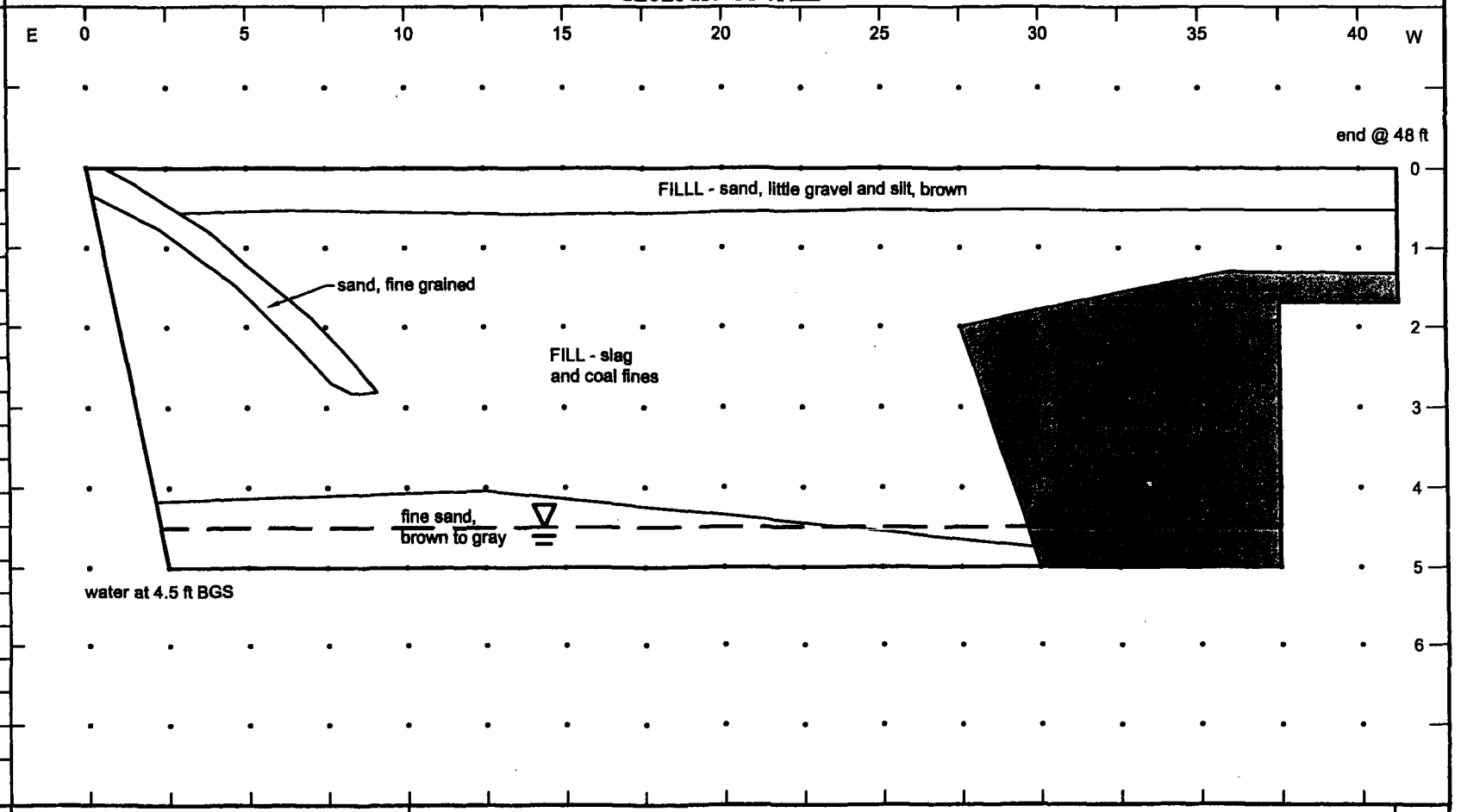
CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-151
DATE/TIME STARTED: 6/14/02
DATE/TIME COMPLETED: 6/14/02
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE DETAILS

SAMPLE #	SAMPLE	INTERVA	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

S-061402-WP-0146A
S-061402-WP-0146B
S-061402-WP-0147A

S-061402-WP-0148A
(located at 41 ft)

TEST PIT STRATIGRAPHY LOG

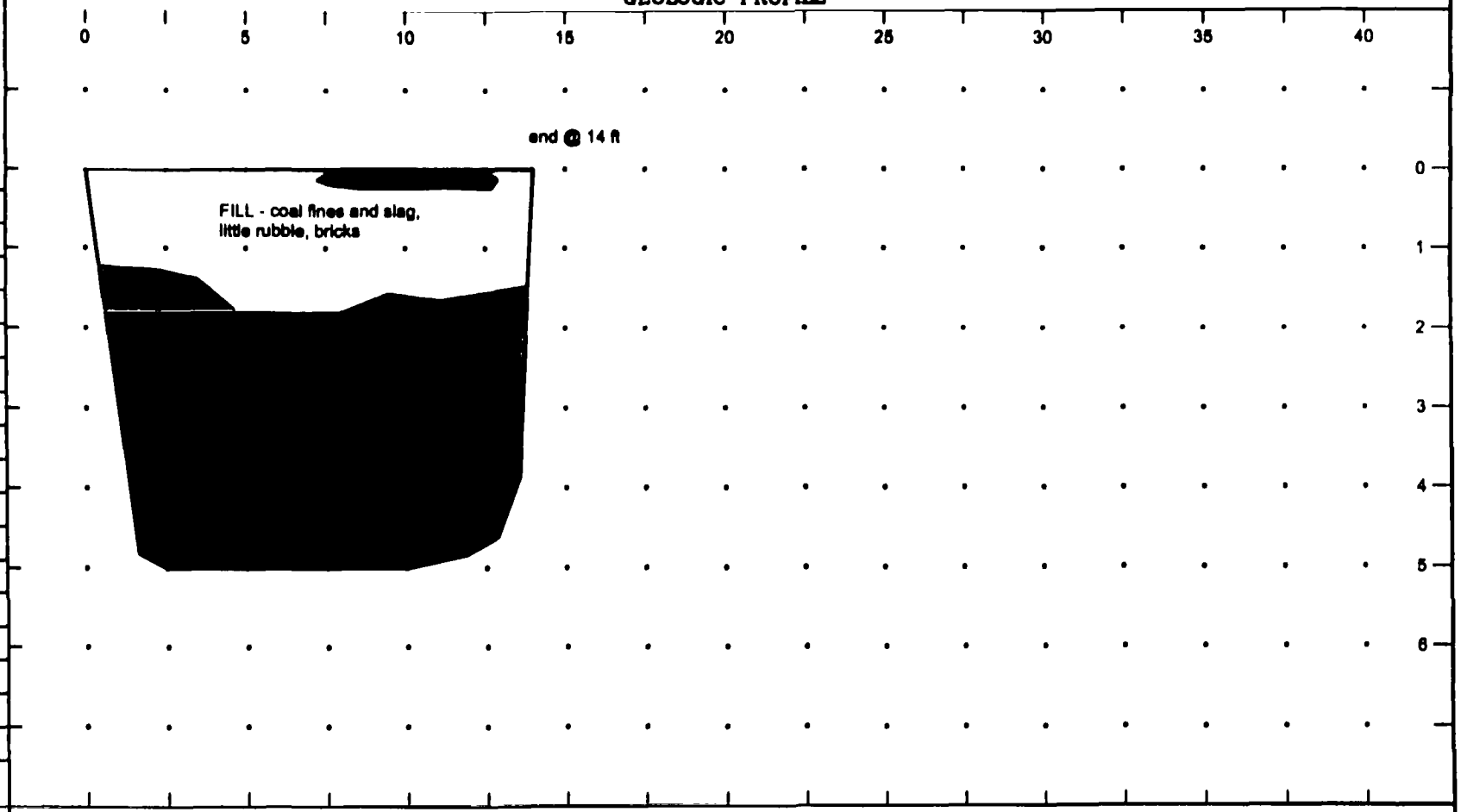
PROJECT NAME: WAUKEGAN COKE SITE
PROJECT NUMBER: 19088
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, ILLINOIS

CONTRACTOR: ECI
NAME:
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

TEST PIT DESIGNATION: TP-188
DATE/TIME STARTED: 6/14/08
DATE/TIME COMPLETED: 6/14/08
TEST PIT METHOD: TRACK HOE
CRA SUPERVISOR: W. POCHRON/T. LEO

SAMPLE #	SAMPLE	INTERVAL	PID/FI

GEOLOGIC PROFILE



NOTES AND COMMENTS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-200
DATE COMPLETED: June 11, 2002
DRILLING METHOD: 3 1/4" HSA
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT, gravel fill		ASPHALT				
	SM-SAND, fine grained, dense, poorly graded, dark brown, moist, slight hydrocarbon odor	0.75	6" ø BOREHOLE	1			
2							
	CI-CLAY, trace silt, soft, medium plasticity, light gray, very moist	2.50	BENTONITE CHIPS	2			
4	- wet at 4.0ft BGS			3			
6	- 4.0ft to 6.0ft - no recovery END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-201
DATE COMPLETED: June 11, 2002
DRILLING METHOD: 3 1/4" HSA
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT		ASPHALT				
	GRAVEL and sand fill	0.30					
	SP-SAND (FILL), trace gravel, poorly graded, dark brown to black, moist, slight hydrocarbon odor	1.00	6" ø BOREHOLE	1			
	- blue specks visable, trace of coal at 1.7ft BGS						
2	- blue specks no longer visable at 2.3ft BGS		BENTONITE CHIPS				
				2			
	- trace of clay at 3.8ft BGS						
4	- black stained, strong hydrocarbon odor at 3.9ft BGS	4.00					
	END OF BOREHOLE @ 4.0ft BGS						
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-202
DATE COMPLETED: June 11, 2002
DRILLING METHOD: 3 1/4" HSA
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT		ASPHALT				
	GRAVEL, sand fill	0.30					
	SP-SAND (FILL) with gravel, compact, brown and black, well graded, traces of slag	1.00	6" ø BOREHOLE	1			
2	- coarse sand with gravel, no trace of slag at 2.0ft BGS		BENTONITE CHIPS	2			
	- wet at 3.5ft BGS						
4	END OF BOREHOLE @ 4.0ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-203
DATE COMPLETED: June 11, 2002
DRILLING METHOD: 3 1/4" HSA
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.50	ASPHALT				
	GRAVEL, sand fill	1.00	6" ø BOREHOLE	1			
2	CL-CLAY (FILL), some silt, hard, low plasticity, light tan, moist - trace of coal at 2.0ft BGS	3.00	BENTONITE CHIPS	2			
4	SP-SAND, fine grained, loose, poorly graded, light brown, moist - wet at 3.5ft BGS	4.00					
	END OF BOREHOLE @ 4.0ft BGS						
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-204
DATE COMPLETED: June 11, 2002
DRILLING METHOD: 3 1/4" HSA
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT		ASPHALT				
	GRAVEL and sand base fill	0.50					
	SP-SAND (FILL), trace gravel, medium grained, compact, well graded, dark brown to black, moist, trace slag	1.00	6" Ø BOREHOLE	1			
2	- coarse sand at 2.5ft BGS		BENTONITE CHIPS				
	- saturated at 3.0ft BGS			2			
	CI-CLAY, trace silt and gravel, soft, light brown and gray	3.50					
4	END OF BOREHOLE @ 4.0ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-205
DATE COMPLETED: June 11, 2002
DRILLING METHOD: 3 1/4" HSA
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT		ASPHALT				
	GRAVEL and sand base fill	0.50					
	SW-SAND (FILL), fine grained, poorly graded, loose, light brown, moist, trace slag - no trace of slag at 1.5ft BGS	1.00	6" ø BOREHOLE	1			
2			BENTONITE				
	- saturated at 3.5ft BGS			2			
4	END OF BOREHOLE @ 4.0ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-206
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel base fill - coal particles at 1.0ft BGS		2" ø BOREHOLE				
	SP-SAND, fine grained, compact, poorly graded, light brown, moist	1.50					
2	CI-CLAY, trace sand, medium plasticity, soft, brown, moist	2.00	BENTONITE CHIPS	1			
4	- saturated at 4.0ft BGS END OF BOREHOLE @ 4.0ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-207
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel base fill	1.00	2" ø BOREHOLE				
	SP-SAND (FILL), trace gravel, dense, brown, moist	2.00	BENTONITE	1			
2	CI-CLAY (FILL), trace silt, soft, medium plasticity, brown, moist - turns black at 2.5ft BGS - coal layer at 3.0ft BGS - saturated at 3.5ft BGS						
4	END OF BOREHOLE @ 4.0ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-208
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ⊗ BOREHOLE				
	SP-SAND (FILL), trace gravel, coarse grained, loose, dark brown, moist, trace of slag		BENTONITE CHIPS	1			
2							
	- saturated at 3.5ft BGS						
4	END OF BOREHOLE @ 4.0ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-209
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	Poor recovery - tar present		2" ø BOREHOLE				
2			BENTONITE CHIPS	1			
4	END OF BOREHOLE @ 4.00ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-210
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT		ASPHALT				
	SAND and gravel fill	0.30	2" ø BOREHOLE				
	- tar layer 1.0ft to 1.4ft BGS						
	- sand, coarse grained, dark brown, moist at 1.5ft BGS						
2				1			
			BENTONITE CHIPS				
4	- tar layer 4.0ft to 4.2ft BGS - sand at 4.2ft BGS						
	- tar layer 4.7ft to 5.3ft BGS			2			
	SP-SAND, fine grained, loose, poorly graded, black, moist	5.30					
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-211
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
2	SAND (FILL), coarse grained, trace gravel and slag, loose, well graded, dark brown, moist			1			
	- tar layer 3.0ft to 3.2ft BGS	3.20	BENTONITE CHIPS				
4	SP-SAND, fine grained, compact, poorly graded, light brown, wet, trace black staining, slight odor - becomes saturated at 3.5ft BGS, no black staining			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-212
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
	SAND (FILL), coarse grained, trace gravel and slag, loose, dark brown, moist						
2				1			
	- tar layer 3.0ft to 3.4ft BGS		BENTONITE CHIPS				
	SP-SAND, fine grained, compact, poorly graded, light brown, wet, trace black staining, slight hydrocarbon odor	3.40					
4	- becoming saturated at 4.0ft BGS, no trace black staining			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-213
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
	SAND (FILL), coarse, with trace gravel, loose, dark brown, moist			1			
2							
	- tar layer 3.5ft to 3.8ft BGS		BENTONITE CHIPS				
4							
	- tar layer 4.7ft to 5.0ft BGS			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-214
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT		ASPHALT				
	SAND and gravel fill	0.30					
	SAND (FILL), coarse, trace slag and gravel, loose, dark brown, moist	1.00	2" ø BOREHOLE				
2				1			
	- tar layer 3.0ft to 3.1ft BGS		BENTONITE CHIPS				
4							
	SP-SAND, compact, fine grained, poorly graded, dark brown, wet, black staining	4.50					
	- saturated at 5.0ft BGS, no black staining			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-215
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
2	SAND (FILL), coarse, trace slag and gravel, loose, poorly graded, dark brown, moist			1			
	- tar layer 3.5ft to 3.8ft BGS		BENTONITE CHIPS				
4	SP-SAND, fine grained, compact, poorly graded, black	3.75					
	- turns grey, saturated at 4.5ft BGS			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-216
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill		2" ø BOREHOLE				
2	- tar layer 2.0ft to 4.5ft BGS			1			
			BENTONITE CHIPS				
4	SP-SAND, fine grained, compact, poorly graded, black to gray in color, wet, black staining	4.00		2			
	- brown, saturated at 5.5ft BGS						
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-217
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill						
	SAND (FILL), coarse, trace gravel and slag, loose, dark brown, moist	1.00	2" ø BOREHOLE				
2	SAND (FILL), fine, compact, poorly graded, black to dark brown, moist, strong hydrocarbon odor	2.00		1			
	- tar layer 3.5ft to 5.0ft BGS		BENTONITE CHIPS				
4							
				2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-218
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT		ASPHALT				
	SAND and gravel fill	0.30	2" ø BOREHOLE				
2	SAND (FILL), coarse, trace gravel and slag - tar layer 2.5ft to 4.5ft BGS	2.00	BENTONITE CHIPS	1			
4	- saturated at 4.0ft BGS						
	SP-SAND, fine grained, poorly graded, compact, brown with black staining, saturated	4.50		2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-219
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill						
	coal fines (FILL) at 1.0ft BGS	1.00	2" ø BOREHOLE				
2				1			
			BENTONITE CHIPS				
4							
	- saturated at 5.0ft BGS			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-220
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
2	Coal fines (FILL), black	3.00		1			
4	SP-SAND, fine grained, poorly graded, compact, light brown, moist		BENTONITE CHIPS				
	- saturated at 5.0ft BGS			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-221
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
	Coal fines (FILL)	1.50					
2	SP-SAND, fine grained, poorly graded, compact, light brown, moist			1			
			BENTONITE CHIPS				
4							
	- saturated at 5.0ft BGS			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-222
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
	SAND (FILL), coarse, trace gravel and slag, loose, poorly graded, dark brown to black, wet						
2				1			
			BENTONITE CHIPS				
4	- saturated at 4.0ft BGS						
	- turns gray, fine grained sand at 5.0ft BGS			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-223
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	ASPHALT	
	SAND and gravel fill	0.30
	SAND, coarse, trace gravel, poorly graded, loose, dark brown, moist	1.00
2	- silt layer, trace sand, soft, dark gray to black, wet, strong hydrocarbon odor at 2.5ft BGS	
4	SP-SAND, fine grained, compact, dark gray, saturated, black staining, strong odor - no black staining at 4.5ft BGS	4.00
6	END OF BOREHOLE @ 6.0ft BGS	6.00
8		
10		
12		
14		

MONITOR INSTALLATION

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE
1			
2			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-224
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill		2" ø BOREHOLE				
	SAND (FILL), coarse, trace gravel, loose, poorly graded, dark brown to black, moist	1.50		1			
2			BENTONITE CHIPS				
4	- silty layer, soft, low plasticity, light gray with trace black staining, moist, slight petroleum odor at 4.0ft BGS						
	SP-SAND, fine grained, compact, poorly graded, dark gray to black, saturated	4.50		2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-225
DATE COMPLETED: June 12, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	ASPHALT	0.30
	SAND and gravel fill	1.00
	SAND (FILL), coarse, trace gravel, compact, dark brown to black, well graded, moist	
2		
	- silt layer, soft, gray, low plasticity, wet at 3.0ft BGS	
4	- coal, saturated at 4.0ft BGS	
	- tar, saturated sand at 5.0ft BGS	
	SP-SAND, poorly graded, fine grained, dark gray to black, saturated	5.50
6	END OF BOREHOLE @ 6.0ft BGS	6.00
8		
10		
12		
14		

MONITOR INSTALLATION

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE
1			
2			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

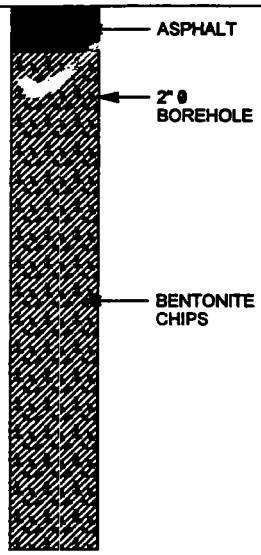
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-226
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	ASPHALT	0.30
	SAND and gravel fill	
2	SAND (FILL), fine grained, trace gravel and slag, loose, dark brown to black, moist	1.75
	CL-CLAY, some silt, soft, low plasticity, dark gray, wet, slight petroleum odor	3.00
4	SP-SAND, fine grained, compact, poorly graded, light brown, wet - becomes saturated at 4.0ft BGS	3.50
6	END OF BOREHOLE @ 6.0ft BGS	6.00
8		
10		
12		
14		

MONITOR INSTALLATION



SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE
1			
2			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-227
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT		ASPHALT				
	SAND and gravel fill	0.30					
	SP-SAND, fine grained, compact, poorly graded, light brown, moist	1.00	2" ø BOREHOLE				
2				1			
			BENTONITE CHIPS				
4	- becomes saturated at 4.0ft BGS						
				2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-228
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill		2" ø BOREHOLE				
	SAND (FILL), medium grained, trace gravel, loose, well graded, dark brown to black, moist	1.50		1			
2	CL-CLAY with some silt, soft, low plasticity, dark gray, moist	2.50	BENTONITE CHIPS				
4	SP-SAND, coarse, trace gravel, loose, well graded, dark gray to black, wet	4.00					
	SP-SAND, fine grained, compact, poorly graded, light brown, saturated	5.00		2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-229
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
	SAND (FILL), medium grained, trace gravel, loose, well graded, dark brown to black, moist	2.00		1			
2	SP-SAND, fine grained, compact, poorly graded, light brown, moist		BENTONITE CHIPS				
4	- becomes saturated at 4.0ft BGS			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-230
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill						
	SAND (FILL), coarse, trace gravel and slag, loose, well graded, dark brown to black, moist	1.00	2" ø BOREHOLE				
2				1			
			BENTONITE CHIPS				
4	SP-SAND, fine grained, compact, poorly graded, dark brown, moist, slight hydrocarbon, odor - light brown, no odor, saturated at 4.5ft BGS	4.00		2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-231
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
2	SAND (FILL), medium grained, trace gravel and slag, loose, well graded, dark brown to black, moist			1			
	- tar layer 3.5ft to 3.8ft BGS		BENTONITE CHIPS				
4	- coarse grained, trace gravel and slag, loose, well graded, dark brown to black, moist, strong hydrocarbon odor						
	SP-SAND, fine grained, compact, poorly graded, light brown, wet	4.50		2			
	- becomes saturated at 5.0ft BGS						
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-232
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30	ASPHALT				
	SAND and gravel fill	1.00	2" ø BOREHOLE				
2	SAND (FILL), coarse, trace gravel and slag, loose, well graded, dark brown to black, moist			1			
	- coal at 3.0ft BGS	3.50	BENTONITE CHIPS				
4	SP-SAND, fine grained, compact, poorly graded, dark brown, wet, slight hydrocarbon odor - turns light brown, saturated at 4.0ft BGS			2			
6	END OF BOREHOLE @ 6.0ft BGS	6.00					
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-233
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	SAND (FILL), fine grained, loose, poorly graded, light brown, dry		2" ø BOREHOLE				
	- dark brown, compact, moist at 1.5ft BGS		NATIVE BACKFILL	1			
2							
4	END OF BOREHOLE @ 4.0ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-234
DATE COMPLETED: June 17, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	SAND (FILL), fine grained, loose, poorly graded, light brown, dry - dark brown, compact, moist at 0.5ft BGS		2" Ø BOREHOLE NATIVE BACKFILL	1			
	END OF BOREHOLE @ 4.5ft BGS	4.50					

2
4
6
8
10
12
14

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-235
DATE COMPLETED: June 17, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	SAND (FILL), fine grained, loose, poorly graded, light brown, dry		2" ø BOREHOLE				
	- dark brown, compact, moist at 1.5ft BGS		NATIVE BACKFILL	1			
	END OF BOREHOLE @ 4.5ft BGS	4.50					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-236
DATE COMPLETED: June 14, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	SAND (FILL), fine grained, loose, poorly graded, light brown, dry - dark brown, compact, moist at 0.5ft BGS		2" ø BOREHOLE NATIVE BACKFILL	1			
2							
4	END OF BOREHOLE @ 4.0ft BGS	4.00					
6							
8							
10							
12							
14							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-237
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, brown, dry		2" ø BOREHOLE					
	- becomes moist, compact							
2				1		3		0
4								
	- turning light brown		NATIVE BACKFILL					
6				2		4		
8								
				3		2		0
10	END OF BOREHOLE @ 10.00 BGS	10.00						
12								
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-238
DATE COMPLETED: July 29, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2				1		3		0
	- becomes moist							
4								
6	- becomes wet, compact		NATIVE BACKFILL	2		3.5		0
8								
10	- turning dark brown			3		4		0
12	END OF BOREHOLE @ 12.0ft BGS	12.00						
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-239
DATE COMPLETED: July 29, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2	- becomes moist			1		3.5		0
	- turns brown							
4								
	- becomes dry, turns light brown							
6			NATIVE BACKFILL	2		4		
	- becomes moist, turns brown							
	- becomes wet, compact							
8								
10				3		3.5		0
12								
	END OF BOREHOLE @ 12.5ft BGS	12.50						
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-240
DATE COMPLETED: July 29, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2	- black staining, moist			1		3		240
4								
	- black staining disappears		NATIVE BACKFILL					
6				2		4		25
8								
				3		2.5		0
10								
	END OF BOREHOLE @ 10.5ft BGS	10.50						
12								
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-241
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
	- becomes moist, black staining present							
2				1		3		2
4								
	- trace of black staining							
6			NATIVE BACKFILL	2		2.5		
	- no trace of black staining							
8								
10				3		3		0
12				4		1.5		0
	END OF BOREHOLE @ 13.50ft BGS	13.50						
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-242
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2	- becomes moist, compact			1		4		0
4	- becomes dry - becomes moist, turns brown							
6				2		4		0
8			NATIVE BACKFILL					
	- black staining present, trace of gravel							
10				3		4		0
12								
14				4		3		0
	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-243
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, brown, dry		2" ø BOREHOLE					
2				1		4		0
	- becomes moist							
4								
	- turns light brown							
6				2		3.5		0
	- turns brown							
8			NATIVE BACKFILL					
10	- black staining present			3		3		5
12								
	- no trace of black staining							
14				4		3.5		0
16	END OF BOREHOLE @ 16.00 BGS	16.00						
18								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-244
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2				1		3.5		0
	- becomes moist, compact							
4	- trace of black staining							
6				2		2.5		0
8			NATIVE BACKFILL					
10				3		3		2
12								
	- no trace of black staining							
14				4		3.5		0
16	END OF BOREHOLE @ 16.0ft BGS	16.00						
18								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-245
DATE COMPLETED: July 30, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
2				1		2		0
	- turns brown, moist, compact							
4								
6	- black staining present		NATIVE BACKFILL	2		3.5		
8								
10				3		4		0
12								
	END OF BOREHOLE @ 12.5ft BGS	12.50						
14								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: WAUKEGAN COKE
PROJECT NUMBER: 19023
CLIENT: WCP GROUP
LOCATION: WAUKEGAN, IL

HOLE DESIGNATION: SB-246
DATE COMPLETED: July 29, 2002
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. GROVES

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND (FILL), fine-grained, poorly graded, loose, light brown, dry		2" ø BOREHOLE					
	- becomes moist							
2				1		3		0
	- turns brown							
4								
	- becomes dry, turns light brown							
6				2		3		0
			NATIVE BACKFILL					
8								
	- black staining present							
10				3		4		1
12								
				4		2		<1
14	END OF BOREHOLE @ 14.0ft BGS	14.00						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE