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**U.S. ENVIRONMENTAL PROTECTION AGENCY  
TECHNICAL ENFORCEMENT SUPPORT  
AT  
HAZARDOUS WASTE SITES**

**TES IV  
CONTRACT NO. 68-01-7351  
WORK ASSIGNMENT NO. 398**

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**FIELD ACTIVITIES MONITORING REPORT  
CITY DISPOSAL CORPORATION LANDFILL  
DUNN, WISCONSIN**

**RI/FS OVERSIGHT  
EPA REGION V**

**JACOBS ENGINEERING GROUP INC.  
PROJECT NUMBER: 05-B398-00**

**PREPARED BY:  
METCALF AND EDDY, INC.**

**JANUARY 1989**

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## SECTION 1.0

### INTRODUCTION

#### 1.1 Scope of Work

At the request of the United States Environmental Protection Agency, Region V (U.S. EPA), Jacobs Engineering Group, Inc. (Jacobs) was issued a Work Assignment to provide compliance monitoring of remedial investigation (RI) activities at the City Disposal Corporation Landfill (CDCL) of Dane, Wisconsin. This activity was assigned under the Technical Enforcement Support (TES) Contract Number 68-01-7351. Jacobs subcontracted Metcalf & Eddy, Inc. (M&E) to provide this compliance monitoring. The scope of this work consisted of Work Plan Preparation; Evaluation or Review of All Technical Documents and Reports; Oversight of Field Work; Participation in Community Relations and a Pre-Feasibility Study Meeting. This report was prepared in order to document field work performed to date.

M&E provided oversight of RI activities conducted at CDCL from 14 November 1988 through 30 November 1988. M&E performed this oversight to assure compliance with the procedures specified in the RI/FS Work Plan. The activities performed during this phase included:

- . Installation of Surface Water Monitoring Gages
- . Existing Monitoring Well Inventory
- . Geophysical Survey
- . Cover Survey and Soil Sampling

These activities were performed by P.E. La Moreaux and Associates, Inc. (PELA) of Tuscaloosa, Alabama in accordance with the RI/FS Work Plan for CDCL prepared on behalf of Waste Management of Wisconsin, Inc.

This report provides a summary of this phase of field activities at CDCL. Photographs were taken in order to document field activities and are attached in Appendix A.

## 1.2 Site Background

The CDCL is located on approximately 38 acres in the southern half of Section 30, Township 6 North, Range 10 East in Dane County, Wisconsin (Figure 1). The site was first licensed and utilized in 1966 and closed in January 1977. The site was operated by City Disposal Corporation and later by Acme Services, Inc. in compliance with NR 151 and licensed throughout the operational period in accordance with prevailing regulations. Upon closure of the site both City Disposal and Acme were acquired by Waste Management of Wisconsin, Incorporated (WMWI).

According to engineering plans completed by Soil Testing Services of Wisconsin, Inc., the landfill is comprised of 12 cells. Cells 1,2,3,4,6 and 12 were filled or partially filled. The remaining cells were never utilized for landfilling purposes. Cells 1 and 12 were used from 1966 to 1974. Cells 2,3,4 and 6 were filled or partially filled from 1974 until closure in 1977. Cell 12 accepted industrial wastes from 1966 through March 1975. These wastes included xylene, naphtha, cyclohexanone, tetrahydrofuran, and oil-water mixtures (1).

## 1.3 Project Approach

The TES Contractor was requested to provide compliance monitoring of RI/FS activities at the CDCL. M&E was subcontracted to perform this work assignment.

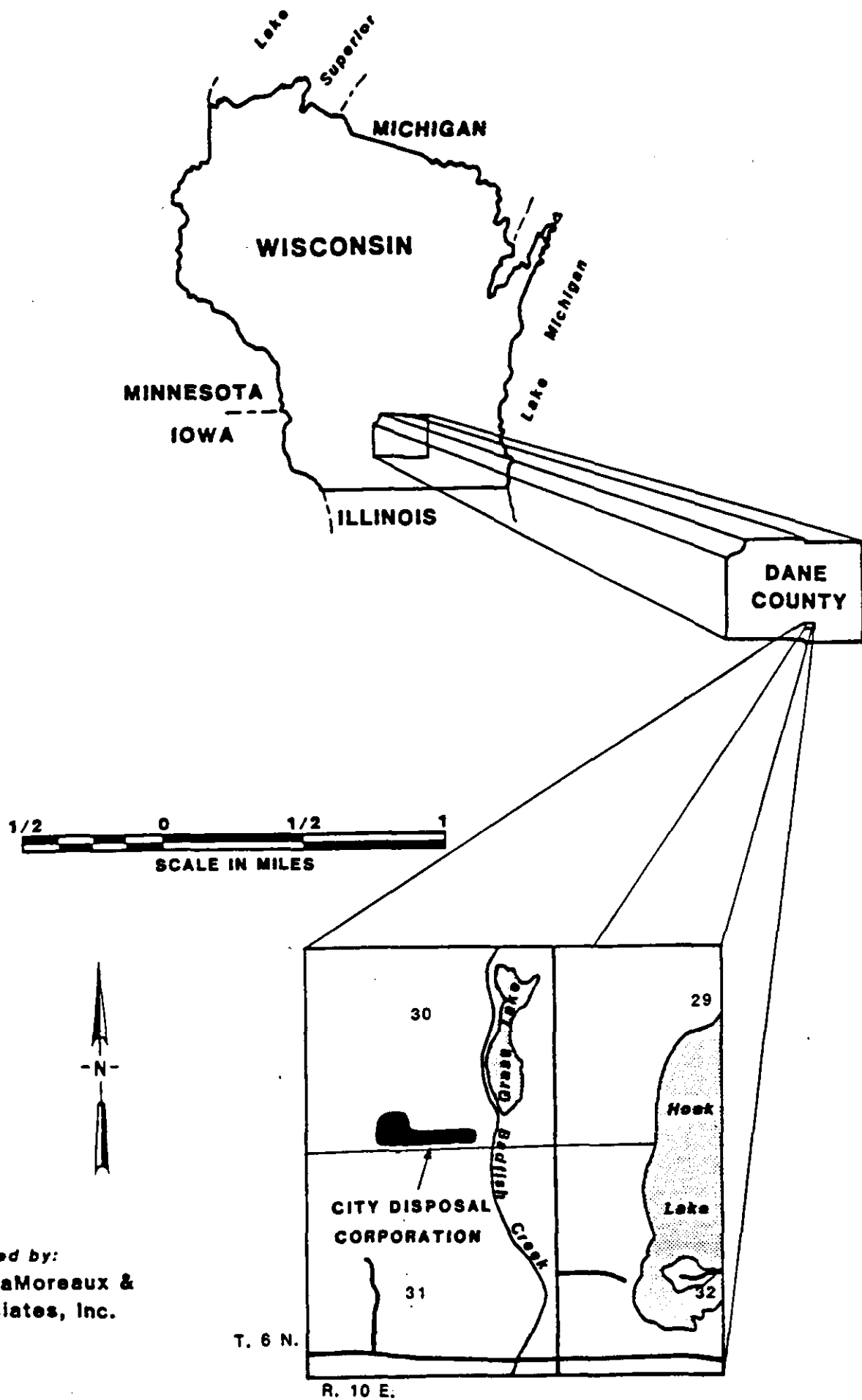
A work plan was prepared which describes the effort required to provide contractor oversight for the CDCL project. This work plan addressed the outline of tasks contained in U.S. EPA's Technical Statement of Work. The work plan consists of the following activities:

- . Preparation of Work Plan
- . Evaluation or Review of All Technical Documents and Reports
- . Remedial Investigation/Feasibility Study Oversight
- . Participation in Community Relations and Pre-Feasibility Meeting

Each of these activities is discussed below:

### Preparation of Work Plan

Upon receipt of the TES Work Assignment, a Work Plan was prepared which outlined the tasks necessary to complete the project.



Prepared by:  
**P.E. LaMoreaux &  
 Associates, Inc.**

**FIGURE 1 SITE LOCATION, CITY DISPOSAL CORPORATION LANDFILL**

## Evaluation or Review of All Technical Documents and Reports

In order to apprise the TES personnel of the Respondent's efforts in development of Work, Quality Assurance, Sampling, Health and Safety Plans, EPA will supply final versions, pertinent addenda and correspondence regarding such Plans. Following the collection of the field data, the TES Contractor will review the Respondent's Draft RI report and provide comment to the EPA. The TES Contractor will also supply technical review and comment of the Draft Feasibility Study submitted by the Respondents.

## Remedial Investigation/Feasibility Study Oversight

M&E provided field oversight of activities at CDCL as directed by the U.S. EPA Primary Contact. The U.S. EPA Primary Contact requested that M&E provide compliance monitoring during the cover survey; sampling events; surface water monitoring; existing monitoring well inventory; installation of leachate wells, piezometers, water-table wells, and nested wells; and downhole geophysics.

This report summarizes the following activities performed to date: Installation of Surface Water Monitoring Gages; Existing Monitoring Well Inventory; Geophysical Survey; Cover Survey and Soil Sample Collection for Physical Analysis. M&E monitored this field work conducted at CDCL for conformance with the sampling protocols and QA/QC procedures contained in the approved project plans.

A daily log was kept during the compliance monitoring period. The log included the following items:

- . Date
- . Activities performed that day
- . Activities scheduled for next day
- . Problems encountered
- . Problem resolutions
- . Departures from the Work Plan
- . Personnel on-site
- . Equipment on Site
- . Other relevant comments

A copy of the field log is provided as Appendix B to this report.

M&E oversight personnel followed the personal protection requirements which were established in the PRP's Health and Safety Plan for the project.

## Participation in Community Relations and Pre-Feasibility Meeting

The TES Contractor participated in a Kick-off meeting on 29 September 1988. This meeting was attended by personnel from the U.S. EPA, Wisconsin DNR, PELA, WMWI as well as concerned citizens from the community. The TES Contractor will participate in any future community relation activities as requested by the U.S. EPA. A Pre-Feasibility Study Meeting will be held with EPA, the TES Contractor, and appropriate State representatives to discuss the direction of the FS, specific areas to be addressed, probable technologies, and possible alternatives.

## SECTION 2.0

### SURFACE WATER MONITORING

#### 2.1 Purpose

In order to assess the hydraulic relationship between the surface water and ground water systems, monitoring of surface water elevations will be conducted throughout the RI.

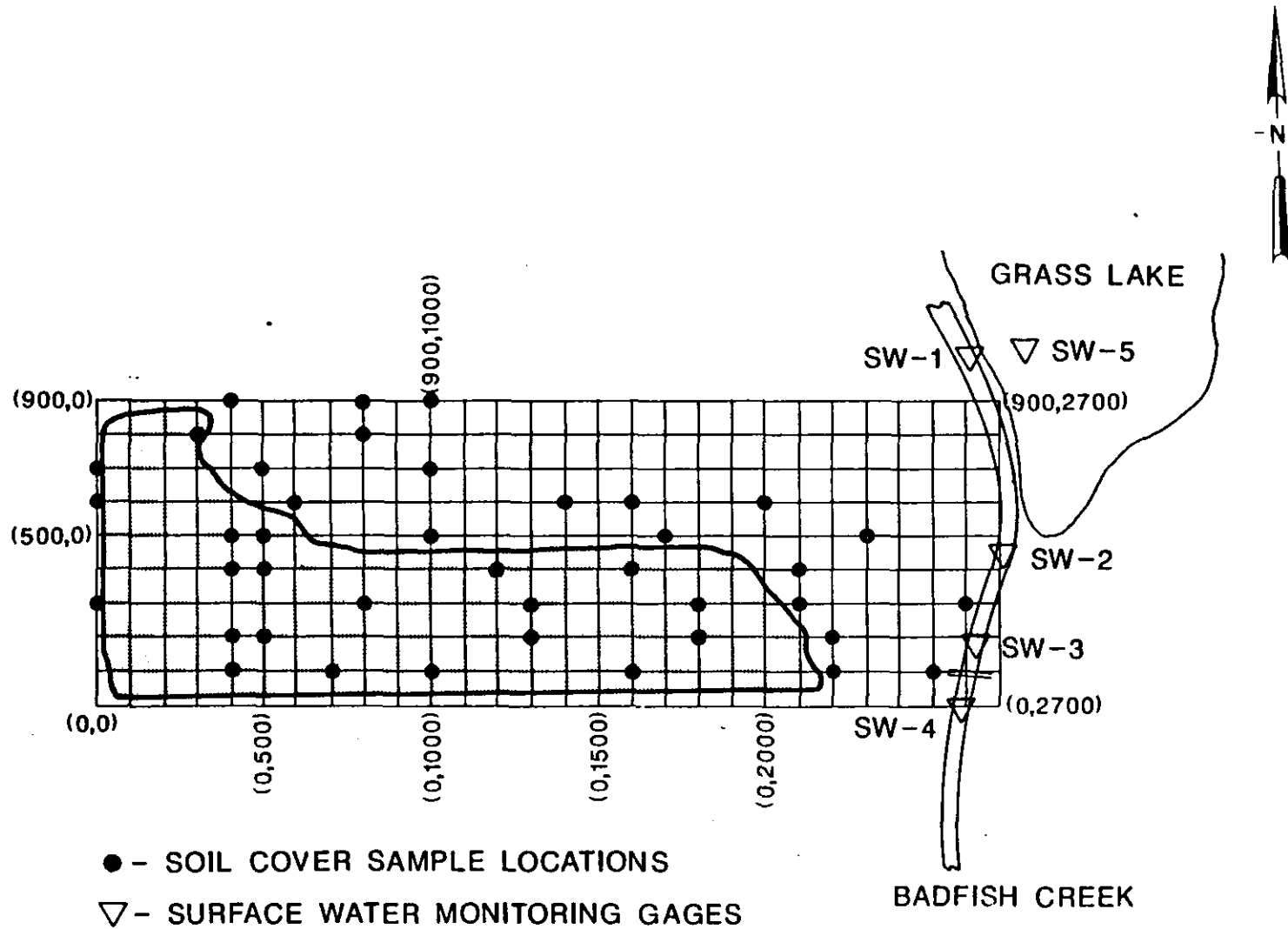
#### 2.2 Monitoring Locations

Permanent monitoring gages were installed in Grass Lake and Badfish Creek on the eastern portion of the site. On 15 November 1988, four staff gages were installed in Badfish Creek and one staff gage was installed in Grass Lake (see Figure 2). Of the gages monitoring Badfish Creek, one was placed immediately south of the bridge and designated as SW-4; a second was placed upstream, approximately 200 ft. north of the bridge and designated as SW-3; a third gage located north of SW-3 was already present from another investigation, and was designated as SW-2; a fourth gage was installed adjacent to Grass Lake and designated as SW-1. A fifth staff gage, SW-5, was installed in Grass Lake adjacent to Badfish Creek.

Readings were taken from the gages periodically and recorded with the date and time. These gages will be surveyed by a licensed surveyor at a future date.



FIGURE 2 CITY DISPOSAL CORPORATION LANDFILL  
SAMPLING AND SURFACE WATER MONITORING LOCATIONS



SCALE:1"=500'

## SECTION 3.0

### EXISTING MONITORING WELL INVENTORY

#### 3.1 Purpose

An inventory of existing monitoring wells was performed in order to assess the condition of each well. The information collected from the field will be compared with the available drilling and installation documentation. These data will serve as a basis for determining locations for sampling, well replacement and possible decommissioning of wells.

#### 3.2 Methods

The existing wells were located and the condition of the protective casing, surface seal, lock and casing were inspected and noted. Total well depth and water level elevation were measured for each existing monitoring well. This inventory was conducted on 20 November 1988.

Some wells however, could not be fully inspected or measured as PELA was not equipped with a key. The monitoring wells which could not be accessed were B-12R, B-14, and B-17. Therefore, only limited information on their condition is available at this time.

## SECTION 4.0

### GEOPHYSICAL SURVEY

#### 4.1 Purpose

An electromagnetic survey was performed at CDCL during this phase of RI field activities. This survey was performed in order to obtain information on subsurface and near surface conditions.

#### 4.2 Methods

A grid system was established across the site for orientation and spacing of profiles. This grid was surveyed by Landmark Surveyors of Madison, Wisconsin. It was oriented with the X-axis trending approximately north-south and the Y-axis trending approximately east-west. The origin of the grid was established in the south-west corner of the site. Each node on the grid was characterized by 100-foot spacings. The grid extended from 0N,0E to 900N,2700E.

A Geonics Model EM34-3XL electromagnetometer (Serial No. 8506019) was used. Electromagnetivity was measured in the vertical and horizontal dipole mode (Serial Nos. of Poles: RX 8506019, TX 8506019). The poles to the EM were used at 40 meter spacings at each grid node. A base line was established for quality assurance at 800N,500E to 800N,900E. This line was chosen as the base line due to its distance from the landfilled area. The base line was visited periodically to assure consistency of readings. The geophysical survey was conducted over the grid and extended further out beyond the grid. The survey was extended further than the grid in order to obtain background data of natural subsurface conditions for the area.

## SECTION 5.0

### COVER SURVEY AND SOIL SAMPLING

#### 5.1 Purpose

A soil cover survey was performed in order to assess the composition, integrity, and thickness of the existing soil cover. Information obtained from the soil cover survey will also be used in developing a water budget for the site.

#### 5.2 Methods

This survey was conducted at the nodes of the 100-foot grid system established by Landmark Surveyors. PELA used a hand auger to bore into the soil cover. The borings were examined and documented in a field logbook by PELA. Each boring was extended until either one of the following occurred: garbage was encountered, extent of auger was reached (4 ft. length), or the auger was refused (due to solid subsurface materials).

Headspace of the borings was measured with an HNU or a TIP photoionization detector. Soil samples were collected for analysis of physical parameters in order to evaluate the permeability of the soil cover material. The samples will be submitted for analysis of grain size distribution, compaction, and moisture content.

TABLE 1  
SOIL COVER SAMPLE LOCATIONS

100N, 400E	500N, 400E
100N, 700E	500N, 500E
100N, 1000E	500N, 1000E
100N, 1600E	500N, 1700E
100N, 2200E	500N, 2400E
100N, 2500E	600N, 0E
200N, 400E	600N, 600E
200N, 500E (1)	600N, 1400E
200N, 1300E (1)	600N, 1600E
200N, 1800E (1)	600N, 2000E
200N, 2200E	700N, 0E
300N, 0E (1)	700N, 500E
300N, 800E	700N, 1000E
300N, 1300E	800N, 300E
300N, 1800E	800N, 800E
300N, 2100E	900N, 400E
300N, 2600E (2)	900N, 800E
400N, 400E (1)	900N, 1000E
400N, 500E	
400N, 1200E	
400N, 1600E	
400N, 2100E (2)	

Note: All samples listed above were submitted for analysis of grain size distribution and moisture content.

- (1) Samples analyzed to develop compaction test curves in addition to parameters listed above.
- (2) Samples not collected due to location in cow/bull enclosure.

### 5.3 Cover Survey

The following is an independent summary by M&E of the borings examined at each grid node. For a more complete description of each boring, please refer to the field logbook in Appendix B.

#### 100N, 0E

0-3 FT

Dark brown clayey soil grading into silty clay. HNU in borehole = 0 ppm above background.

<u>100N, 100E</u>	
0-1.2 FT	Dark brown clayey soil grading into brown silty sand and gravel. Auger refusal. HNU in borehole = 0 ppm above background.
<u>100N, 200E</u>	
0-1.5 FT	Dark brown clayey soil grading into brown silty sand and gravel grading into light gray clay.
1.5-1.6 FT	Garbage encountered (plastic, paper) HNU in borehole = 0 ppm above background.
<u>100N, 300E</u>	
0-1.25 FT	Dark brown clayey soil grading into brown silty sand and gravel grading into light gray clay.
1.25-1.55 FT	Garbage encountered (green glass) HNU in borehole = 0 ppm above background.
<u>100N, 400E</u>	
0-1.2 FT	Dark brown clayey soil grading into brown silty sand and gravel.
1.2-1.25 FT	Garbage encountered (glass) HNU in borehole = 0 ppm above background.
<u>100N, 500E</u>	
0-0.65 FT	Light brown silty sandy clay.
0.65-0.7 FT	Garbage encountered, water in borehole. HNU in borehole = 0 ppm above background.
<u>100N, 600E</u>	
0-1.2 FT	Light brown silty sandy clay grading into sand and gravel.
1.2-1.25 FT	Garbage encountered.
<u>100N, 700E</u>	
0-2.5 FT	Dark brown clayey soil grading into sandy silty clay grading into gray clay.
2.5-2.65 FT	Garbage encountered.

100N, 800E

0-2.0 FT

Dark brown clayey soil with sand seams grading into gray silty clay with sand and gravel. Auger refusal.

2nd Borehole:

0-0.9 FT

Dark brown clayey soil grading into brown silty sandy clay. Auger refusal.

3rd Borehole:

0-3.1 FT

Dark brown clayey soil grading into silty gray clay grading into dark gray clay. Auger refusal.

100N, 900E

0-2.70 FT

Dark brown clayey soil grading into dark brown clay with rock fragments grading into light gray silty clay. Auger refusal.

100N, 1000E

0-1.95 FT

Dark brown clayey soil, water saturated, grading into brownish gray silty clay with rock fragments. Auger refusal.

2nd Borehole:

0-2.0 FT

Description same as above.

2.0 FT

Garbage encountered.

100N, 1100E

0-2.05 FT

Dark brown clayey soil with organic material, very saturated, grading into light gray clay.

2.05-2.15 FT

Garbage encountered.  
HNU in borehole = 0 ppm above background.

100N, 1200E

0-0.65 FT

Dark brown clayey soil with organic material.

0.65-0.75 FT

Garbage encountered.  
HNU in borehole = 0 ppm above background.

100N, 1300E  
0-1.8 FT Dark brown clayey soil grading into brownish gray silty clay with rock fragments.

1.8-2.0 FT Garbage encountered.  
HNU in borehole = 0 ppm above background.

100N, 1400E  
0-1.05 FT Dark brown clayey soil with organic material grading into dark gray silty clay with rock fragments.

1.05 FT Garbage encountered.  
HNU in borehole = 0 ppm above background.

100N, 1500E  
0-1.1 FT Dark brown sandy soil grading into light brown silty clay with weathered rock fragments grading into light gray silty clay. Auger refusal.

2nd Borehole:  
0-0.8 FT Description same as above. Auger refusal.

3rd Borehole:  
0-0.95 FT Description same as above.

0.95 FT Garbage encountered.  
HNU in borehole = 0 ppm above background.

100N, 1600E  
0-1.25 FT Light brown sandy clay grading into gray clay grading into grayish brown silty clay with rock fragments. Auger refusal.

2nd Borehole:  
0-2.6 FT Description same as above.

2.6-2.8 FT Garbage encountered (plastic wrap).  
HNU in borehole = 0 ppm above background.

100N, 1700E  
0-1.6 FT Light brown silty clay grading into sandy clay with rock fragments.



1.6-1.65 FT	Garbage encountered (plastic wrap). HNU in borehole = 0 ppm above background.
<u>100N, 1800E</u> 0-2.15 FT	Dark brown clayey soil with organic matter grading into light brown silty clay.
2.15 FT	Garbage encountered. HNU in borehole = 0 ppm above background.
<u>100N, 1900E</u> 0-0.7 FT	Dark brown clayey soil grading into light brown silty clay. Auger refusal.
2nd Borehole: 0-1.5 FT	Dark brown clayey soil grading into brown sandy silty clay with gravel grading into gray clay. Auger refusal.
<u>100N, 2000E</u> 0-1.45 FT	Dark brown clayey soil with organic matter grading into light brown clay with gravel. Auger refusal.
2nd Borehole: 0-0.6 FT	Same description as above. Auger refusal.
3rd Borehole: 0-0.6 FT	Same description as above. Auger refusal.
<u>100N, 2100E</u> 0-1.35 FT	Dark brown clayey soil grading into light brown clay with rock fragments. Auger refusal.
<u>100N, 2200E</u> 0-4.5 FT	Dark brown clayey soil grading into light brown and gray clay grading into water saturated brown clay with sand and gravel. HNU in borehole = 0.4 ppm above background.

<u>100N, 2300E</u> 0-2.8 FT	Dark brown clayey soil with organic matter grading into light brown silty sandy clay with rock fragments. Auger refusal. HNU in borehole = 0 ppm above background.
<u>100N, 2400E</u> 0-3.0 FT	Dark brown clayey soil with organic matter grading into gray silty clay. Auger refusal.
<u>100N, 2500E</u> 0-4.0 FT	Dark brown clayey soil grading into light brown clay with gravel grading into gray silty clay with gravel. HNU in borehole = 0 ppm above background.
<u>200N, 0E</u> 0-4.0 FT	Dark brown clayey soil with organic matter grading into light brown silty sandy clay grading into gray silty sandy clay. HNU in borehole = 0 ppm above background.
<u>200N, 100E</u> 0-2.2 FT	Dark brown clayey soil grading into light brown clay.
2.2 FT	Garbage encountered (plastic). HNU in borehole = 0 ppm above background.
<u>200N, 200E</u> 0-2.75 FT	Dark brown clayey soil with organic matter grading into dark brown clay with rock fragments, grading into light brown silty clay with rock fragments. Auger refusal. HNU in borehole = 0 ppm above background.
<u>200N, 300E</u> 0-1.2 FT	Dark brown clayey soil with organic matter grading into light brown and gray silty clay.

1.2 FT	Garbage encountered (fibrous insulation). HNU in borehole = 0 ppm above background.
<u>200N, 400E</u> 0-1.5 FT	Same general material.
1.5 FT	Garbage encountered (plastic). HNU in borehole = 0.5 ppm above background.
<u>200N, 500E</u> 0-2.85 FT	Same general material. Auger refusal.
<u>200N, 600E</u> 0-0.95 FT	Black soil with organic matter grading into light brown clay. Auger refusal.
2nd Borehole: 0-0.85 FT	Same description as above. Auger refusal.
3rd Borehole: 0-2.1 FT	Same description as above grading into gray clay with gravel. Auger refusal. HNU in borehole = 0 ppm above background.
<u>200N, 700E</u> 0-0.6 FT	Dark brown organic soil. Auger refusal.
2nd Borehole: 0-2.45 FT	Dark brown organic soil grading into light brown clay with rock fragments grading into gray sandy clay.
2.45 FT	Garbage encountered. HNU in borehole = 3 ppm above background.
<u>200N, 800E</u> 0-1.0 FT	Dark brown clayey soil grading into light brown sandy clay. Auger refusal.
2nd Borehole: 0-0.55 FT	Same description as above. Auger refusal.

3rd Borehole:

0-0.65 FT Same description as above. Auger refusal.

4th Borehole:

0-0.75 FT Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

200N, 900E

0-2.65 FT Dark brown clay grading into light brown silty clay with sand grading into gray sandy clay.

2.65 FT Garbage encountered (plastic).  
HNU in borehole = 2 ppm above background.

200N, 1000E

0-0.95 FT Dark brown clayey soil grading into light brown clay.

0.95-1.3 FT Garbage encountered (metal).

200N, 1100E

0-1.2 FT Dark brown clayey soil grading into light brown sandy clay grading into light gray silty clay.

1.2 FT Garbage encountered (plastic).

200N, 1200E

0-1.0 FT Dark brown organic soil grading into light brown sandy clay.

1.0-1.25 FT Garbage encountered (plastic).  
HNU in borehole = 0 ppm above background.

200N, 1300E

0-2.4 FT Dark brown organic soil grading into light brown sandy clay grading into gray silty clay with increasing clay content.

2.4-2.5 FT Garbage encountered.  
HNU in borehole = 0 ppm above background.

200N, 1400E

0-0.8 FT Light brown clay grading into light brown silty clay with pebbles grading into clay. Auger refusal.

2nd Borehole:

0-0.95 FT Same description as above.

0.95 FT Garbage encountered.

200N, 1500E

0-0.7 FT Dark brown organic soil grading into light brown silty sandy clay.

0.7 FT Garbage encountered (paper).  
HNU in borehole = 0 ppm above background.

200N, 1600E

0-1.05 FT Dark brown clayey soil grading into light brown sandy clay with rock fragments. Auger refusal.

2nd Borehole:

0-1.7 FT Same description as above grading into gray silty clay with red brown clay.

1.7 FT Garbage encountered (glass).  
HNU in borehole = 0 ppm above background.

200N, 1700E

0-2.0 FT Same general material.

2.0 FT Garbage encountered (plastic sheeting).

200N, 1800E

0-3.15 FT Dark brown organic clayey soil grading into light brown sandy clay grading into reddish brown silty clay with pebbles grading into light gray silty clay.

3.15-3.45 FT Garbage encountered (green paper).  
HNU in borehole = 0 ppm above background.

200N, 1900E

0-2.6 FT Dark brown organic clayey soil grading into brown clay with sandstone fragments grading into gray silty clay with pebbles.

2.6 FT Garbage encountered (plastic wrap).  
HNU in borehole = 0 ppm above  
background.

200N, 2000E  
0-1.55 FT Dark brown organic clayey soil  
grading into brown sandy clay with  
pebbles. Auger refusal. HNU in  
borehole = 1 ppm above background.

2nd Borehole:  
0-1.0 FT Same description as above. Auger  
refusal.  
HNU in borehole = 0.5 ppm above  
background.

200N, 2100E  
0-1.4 FT Dark clayey soil grading into brown  
clay with sandstone fragments.  
Auger refusal.

2nd Borehole:  
0-1.4 FT Same description as above. Auger  
refusal.

200N, 2200E  
0-4.1 FT Dark clayey soil (water saturated)  
grading into light brown with red  
clay grading into dark brown clay  
with pebbles grading into gray clay  
with pebbles.

200N, 2300E  
0-0.95 FT Dark organic soil. Auger refusal.

2nd Borehole:  
0-0.9 FT Dark organic soil. Auger refusal.

3rd Borehole:  
0-0.9 FT Dark organic soil. Auger refusal.  
HNU in borehole = 0 ppm above  
background.

300N, 0E  
0-2.25 FT Dark brown clayey soil grading into  
light brown clay with pebbles.  
Auger refusal.  
HNU in borehole = 0 ppm above  
background.

300N, 100E

0-2.6 FT

Dark brown clayey organic soil grading into light brown clay becoming increasingly silty with rock fragments.

2.6 FT

Garbage encountered (fibrous insulation).  
HNU in borehole = 0 ppm above background.

300N, 200E

0-1.25 FT

Dark brown organic clayey soil grading into light brown and red sandy clay. Auger refusal.  
HNU in borehole = 0 ppm above background.

2nd Borehole:

0-1.55 FT

Same descriptions as above. Auger refusal.

300N, 300E

0-0.8 FT

Dark brown organic clayey soil grading into light brown clay with rock fragments. Auger refusal.

2nd Borehole:

0-1.0 FT

Same description as above. Auger refusal.

3rd Borehole:

0-0.4 FT

Same description as above. Auger refusal.

4th Borehole:

0-1.2 FT

Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

300N, 400E

0-2.6 FT

Dark brown organic clayey soil grading into light brown clay with pebbles grading into silty clay with pebbles. Auger refusal.  
HNU in borehole = 0 ppm above background.

2nd Borehole:

0-0.6 FT

Same description as above. Auger refusal.

3rd Borehole:  
0-1.0 FT Same description as above. Auger refusal.

4th Borehole:  
0-0.9 FT Same description as above. Auger refusal.

5th Borehole:  
0-1.4 FT Same description as above. Auger refusal.

300N, 500E  
0-0.6 FT Dark brown organic clayey soil. Auger refusal.

2nd Borehole:  
0-0.95 FT Dark brown organic clayey soil. Auger refusal.

300N, 600E  
0-0.6 FT Dark brown organic clayey soil grading into light brown clay with rock fragments. Auger refusal.

2nd Borehole:  
0-0.8 FT Same description as above grading into light gray sandy clay with pebbles. Auger refusal.

3rd Borehole:  
0-0.85 FT Same description as above.

0.85 FT Garbage encountered (plastic). HNU in borehole = 0.5 ppm above background.

300N, 700E  
0-1.3 FT Dark brown organic clayey soil grading into light brown silty clay with pebbles grading to gray silty clay. Auger refusal. HNU in borehole = 0 ppm above background.

2nd Borehole:  
0-0.9 FT Same description as above. Auger refusal.

300N, 800E  
0-0.9 FT Dark brown organic clayey soil grading into light brown clay. Auger refusal.



2nd Borehole:  
0-0.75 FT Same description as above. Auger refusal.

3rd Borehole:  
0-0.6 FT Same description as above. Auger refusal.  
TIP in borehole = 0 ppm above background.

300N, 900E  
0-1.0 FT Dark brown organic clayey soil grading into light brown clay grading into light brown silty sandy clay. Auger refusal.

2nd Borehole:  
0-2.2 FT Same description as above, more saturated, with rock fragments grading into reddish brown silty clay. Auger refusal.

3rd Borehole:  
0-0.9 FT Same description as above. Auger refusal.  
TIP in borehole = 0.7 ppm above background.

300N, 1000E  
0-1.35 FT Dark brown organic clayey soil grading into light brown clay.

1.35 FT Garbage encountered (plastic and fibrous).  
TIP in borehole = 0 ppm above background.

300N, 1100E  
0-1.2 FT Dark brown organic soil grading into light brown clay with pebbles increasing silt content. Auger refusal.

2nd Borehole:  
0-1.3 FT Same description as above. Grading into gray silty clay.

1.3 FT Garbage encountered.  
TIP in borehole = 0 ppm above background.

300N, 1200E  
0-1.7 FT

Dark brown organic clayey soil grading into light brown silty clay with gray clay grading into light brown mottled with gray sandy silty clay with pebbles.

1.7 FT

Garbage encountered.  
TIP in borehole = 1.5-2.0 ppm above background.

300N, 1300E  
0-4.3 FT

Dark brown organic clayey soil grading into light brown sandy clay with pebbles grading into light gray silty clay becoming increasingly clayey.

4.3 FT

Garbage encountered (newspaper).  
TIP in borehole = 0 ppm above background.

300N, 1400E  
0-2.05 FT

Light brown clay becoming gray sandy silty clay.

2.05 FT

Garbage encountered.  
TIP in borehole = 2.5-3.0 ppm above background.

300N, 1500E  
0-1.5 FT

Dark brown organic clayey soil grading into light brown sandy clay.

1.5-2.0 FT

Garbage encountered (plastic paper).  
TIP in borehole = 0.6-0.9 ppm above background.

300N, 1600E  
0-2.2 FT

Dark brown organic clayey soil grading into light brown sandy clay grading into dark gray sandy clay.

2.2 FT

Waste Mulch encountered.  
TIP in borehole = 1 ppm above background.

300N, 1700E  
0-1.8 FT

Dark brown organic clayey soil grading into light brown clay with pebbles. Auger refusal.  
TIP in borehole = 0 ppm above background.

2nd Borehole:  
0-1.4 FT Same description as above. Auger refusal.

3rd Borehole:  
0-2.0 FT Same description as above grading into gray silty clay with pebbles.

2.0 FT Garbage encountered (PVC).  
TIP in borehole = 1.8-2.3 ppm above background.

300N, 1800E

0-1.05 FT Dark brown organic clayey soil grading into light brown clay. Auger refusal.

2nd Borehole:  
0-1.15 FT

Same description as above.

1.15 FT Garbage encountered (plastic).  
TIP in borehole = 0 ppm above background.

300N, 1900E

0-1.35 FT Light brown organic clay grading into gray sandy clay with gravel.

1.35 FT Garbage encountered (paper).  
TIP in borehole = 7-8 ppm above background.

300N, 2000E

0-1.2 FT Dark brown organic clay grading into light brown clay with pebbles.

1.2 FT Garbage encountered (styrofoam).  
TIP in borehole = 4-4.5 ppm above background.

300N, 2100E

0-0.9 FT Light brown organic clayey soil grading into light brown sandy clay. Auger refusal.

2nd Borehole:  
0-0.8 FT

Same description as above. Auger refusal.  
TIP in borehole = 1 ppm above background.

400N, 0E

0-0.65 FT Brown silty clay. Auger refusal.

2nd Borehole:

0-1.0 FT Brown silty clay grading into sandy silty clay. Auger refusal.

3rd Borehole:

0-1.7 FT Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

400N, 100E

0-1.05 FT Brown clayey sand. Auger refusal.  
Three additional boreholes attempted, auger refused.  
HNU in borehole = 0 ppm above background.

400N, 200E

0-1.3 FT Same general material. Auger refusal. Two additional boreholes attempted, auger refusal.  
HNU in borehole = 0 ppm above background.

400N, 300E

0-0.95 FT Dark brown organic silty clay grading into brown silty clay grading into sandy, silty clay. Auger refusal.

2nd Borehole:

0-2.4 FT Same description as above grading into gray and brown moist silty clay. Auger refusal.  
HNU in borehole = 0 ppm above background.

400N, 400E

0-1.05 FT Brown silty clay grading into brown silty sand. Auger refusal.

2nd Borehole:

0-0.5 FT Brown silty clay. Auger refusal.

3rd Borehole:

0-1.0 FT Same description as above grading into gray and brown sand and gravel. Auger refusal.  
HNU in borehole = 0 ppm above background.

400N, 500E

0-1.25 FT

Brown silty clay grading into orange-brown silty clay grading into light brown and gray silty clay grading into gray sandy silty clay. Auger refusal.

2nd Borehole:

0-1.1 FT

Same description as above. Auger refusal.

3rd Borehole:

0-0.9 FT

Same description as above. Auger refusal.

HNU in borehole = 0 ppm above background.

400N, 600E

0-2.2 FT

Brown silty clay grading into gray sandy silty clay with gravel.

2.2 FT

Garbage encountered (burned refuse).

HNU in borehole = 2.0 ppm above background.

400N, 700E

0-1.1 FT

Brown silty clay grading into brown sand and gravel grading into black woody material grading into brown sand and gravel.

1.1 FT

Garbage encountered (plastic).

HNU in borehole = 0 ppm above background.

400N, 800E

0-1.3 FT

Brown silty clay.

1.3 FT

Garbage encountered (plastic).

HNU in borehole = 0 ppm above background.

400N, 900E

0-1.0 FT

Brown silty clay grading into gray silty clay.

1.0 FT

Garbage encountered (tire).

400N, 1000E

0-1.0 FT

Brown silty clay with brownish orange silty clay grading into gray silty clay.

1.0 FT

Garbage encountered (Tin can)  
HNU in borehole = 0.6 ppm above background.

400N, 1100E

0-0.8 FT

Brown silty clay. Auger refusal.

2nd Borehole:

0-0.75 FT

Brown silty clay. Auger refusal.

3rd Borehole:

0-0.8 FT

Brown silty clay grading into brown sandy silty clay. Auger refusal.

4th Borehole:

0-0.9 FT

Brown silty clay.

0.9 FT

Small glass fragments - possibly garbage. Auger refusal.  
TIP in borehole = 0.7 ppm above background.

400N, 1200E

0-0.6 FT

Dark brown clayey soil grading into light brown silty clay grading into sandy gray clay. Auger refusal.

2nd Borehole:

0-0.55 FT

Same description as above.

0.55-0.8 FT

Garbage encountered (plastic).  
TIP in borehole = 0 ppm above background.

400N, 1300E

0-2.5 FT

Dark brown organic clayey soil grading into light brown sandy clay grading into dark gray silty clay with gravel.

2.5-2.6 FT

Garbage encountered (plastic).  
TIP in borehole = 10.5 - 11.0 ppm above background.

400N, 1400E

0-1.25 FT

Dark brown organic clayey soil grading into reddish brown silty clay with gravel grading into gray clay.

1.25 FT

Garbage encountered (plastic).  
TIP in borehole = 0 ppm above background.

400N, 1500E

0-0.65 FT

Dark brown clayey soil with gravel.  
Auger refusal.

2nd Borehole:

0-0.5 FT

Dark brown clayey soil with gravel.

0.5-0.8 FT

Garbage encountered (plastic).  
TIP in borehole = 0.6 ppm above background.

400N, 1600E

0-0.35 FT

Dark brown organic clay with gravel. Auger refusal.

2nd Borehole:

0-0.45 FT

Same description as above. Auger refusal.

3rd Borehole:

0-0.45 FT

Same description as above. Auger refusal.  
TIP in borehole = 0 ppm above background.

400N, 1700E

Node could not be augered due to large amount of rocks and gravel in this area.

400N, 1800E

Node could not be augered due to large amount rocks and gravel in this area.

400N, 1900E

Node could not be augered due to large amount of rocks and gravel in this area.

500N, 05E

Rock pile at 500N, 0E prohibited augering on the node.

0-4.1 FT Black organic soil grading into sandy silty clay with tree roots grading into reddish brown sandy silty clay.

500N, 100E

0-0.9 FT Black organic soil grading into brown silty clay with sand and gravel. Auger refusal.

2nd Borehole:

0-0.8 FT Same description as above. Auger refusal.

3rd Borehole:

0-0.8 FT Same description as above. Auger refusal.



4th Borehole:  
0-0.65 FT Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

500N, 200E  
0-1.45 FT Black organic silty clay grading into brown silty clay with sand and gravel. Auger refusal.

2nd Borehole:  
0-1.2 FT Same description as above. Auger refusal.

3rd Borehole:  
0-1.25 FT Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

500N, 300E  
0-1.1 FT Brown silty clay with sand and gravel.

1.1 FT Garbage encountered (plastic).  
HNU in borehole = 0 ppm above background.

500N, 400E  
0-1.3 FT Black organic soil grading into brown silty clay with rootlets and rock fragments. Auger refusal.

2nd Borehole:  
0-1.5 FT Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

500N, 500E  
0-0.5 FT Dark brown clayey soil. Auger refusal.

2nd Borehole:  
0-1.2 FT Dark brown clayey soil grading into brown silty clay.

1.2-1.35 FT Garbage encountered (burnt material).  
HNU in borehole = 0 ppm above background.

500N, 600E  
0-0.75 FT      Brown silty clay.    Auger refusal.

2nd Borehole:  
0-0.65 FT      Brown silty clay.    Auger refusal.

3rd Borehole:  
0-0.8 FT      Brown silty clay.    Auger refusal.

4th Borehole:  
0-0.85 FT      Brown silty clay.    Auger refusal.  
HNU in borehole = 0 ppm above  
background.

500N, 700E  
0-1.1 FT      Brown silty clay grading into black  
silty clay.

1.1 FT      Garbage encountered (plastic).

500N, 800E  
0-0.6 FT      Black clayey organic soil.    Auger  
refused.

2nd Borehole:  
0-1.65 FT      Silty brown organic clay.  
1.65 FT      Garbage encountered (white fibrous  
material).

500N, 900E  
0-2.25 FT      Brown silty clay.  
2.25 FT      Garbage encountered (plastic).    TIP  
in borehole = 0.5 ppm above  
background.

500N, 1000E  
0-0.4 FT      Brown silty clay with gray silty  
clay.  
0.4-0.5 FT      Garbage encountered (string,  
plastic, glass).    TIP in borehole =  
0 ppm above background.

500N, 1100E  
0-4.2 FT      Brown silty clay becoming  
increasingly moist with depth.    TIP  
in borehole = 0 ppm above  
background.

500N, 1200E  
0-4.2 FT

Brown silty clay grading into dark brown silty clay grading into gray clay. TIP in borehole = 0.4 ppm above background.

500N, 1300E  
0-4.0 FT

Dark brown silty clay grading into brown clayey silt grading into gray silty clay. TIP in borehole = 0.4 ppm above background.

500N, 1400E  
0-4.05 FT

Brown silty clay grading into gray silty clay grading into black silty clay becoming gray silty clay. TIP in borehole = 0.5 ppm above background.

500N, 1500E  
0-4.0 FT

Same general material. TIP in borehole = 0 ppm above background.

500N, 1600E  
0-1.3 FT

Brown silty clay grading into sand and gravel. Auger refusal. TIP in borehole = 0 ppm above background.

500, 1700E  
0-1.5 FT

Brown clayey silt. Auger refusal.

2nd Borehole:  
0-4.05 FT

Brown clayey silt with gravel. TIP in borehole = 0.5 ppm above background.

500N, 1800E  
0-1.05 FT

Dark brown silty clay. Auger refusal.

2nd Borehole:  
0-1.3 FT

Dark brown silty clay. Auger refusal.

3rd Borehole:  
0-4.0 FT

Dark brown silty clay grading into brown silty clay. HNU in borehole = 2 ppm above background.

<u>500N, 1900E</u> 0-4.15 FT	Plowed soil grading into dark brown silty clayey soil grading into gray weathered clay. HNU in borehole = 0 ppm above background.
<u>500N, 200E</u> 0-4.15 FT	Plowed soil grading into gray clay. HNU in borehole = 0 ppm above background.
<u>500N, 2100E</u> 0-2.9 FT	Plowed soil grading into gray clay. Auger refusal. HNU in borehole = 0 ppm above background.
<u>500N, 2200E</u> 0-4.0 FT	Plowed soil grading into gray clay and tan clay. HNU in borehole = 0 ppm above background.
<u>500N, 2300E</u> 0-4.0 FT	Plowed soil grading into gray clay and tan clay. HNU in borehole = 0 ppm above background.
<u>500N, 2400E</u> 0-4.25 FT	Plowed soil grading into gray clay and tan clay. HNU in borehole = 0 ppm above background.
<u>600N, 0E</u> 0-2.4 FT	Brown silty clay.
2.4 FT	Garbage encountered. HNU in borehole = 0 ppm above background.
<u>600N, 100E</u> 0-1.0 FT	Brown silty clay. Auger refusal. Two more boreholes attempted, auger was refused, HNU in borehole = 0 ppm above background.

600N, 200E

0-1.05 FT Brown silty clay. Auger refusal.

2nd Borehole:

0-1.7 FT Dark brown soil grading into brown silty clay grading into brown with gray silty clay. Auger refusal.

3rd Borehole:

0-0.7 FT Same description as above. Auger refusal.

4th Borehole:

0-0.7 FT Same description as above. Auger refusal.

600N, 300E

0-1.3 FT Brown silty clay.

1.3-1.5 FT

Garbage encountered.  
HNU in borehole = 0 ppm above background.

600N, 400E

0-1.2 FT Dark brown soil grading into brown silty clay. Auger refusal.

2nd Borehole:

0-1.4 FT Dark brown soil grading into brown sandy clay.

1.4-1.7 FT

Garbage encountered (paper and plastic).  
HNU in borehole = 0 ppm above background.

600N, 500E

0-1.3 FT Dark brown soil grading into brown sandy clay. Auger refusal.

2nd Borehole:

0-2.7 FT Dark brown soil grading into brown sandy clay grading into gray silty clay. Auger refusal.

3rd Borehole:

0-1.85 FT Same description as above. Auger refusal.

4th Borehole:

0-1.8 FT Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

600N, 600E

0-1.65 FT

Brown clay trace silt. Auger refusal.

2nd Borehole:

0-2.95 FT

Brown silty clay with sand and gravel. Auger refusal.  
HNU in borehole = 0 ppm above background.

600N, 700E

0-3.85 FT

Gray and brown silty clay grading into brown silty sand and gravel grading into brown silty clay with sand and gravel.  
HNU in borehole = 2 ppm (at 3.2 FT depth) and 0.5 ppm above background.

600N, 800E

0-0.95 FT

Reddish brown silty clay. Auger refusal.

2nd Borehole:

0-3.1 FT

Reddish brown silty clay with sandy pebbles. Auger refusal.  
HNU in borehole = 0 ppm above background.

600N, 900E

0-0.8 FT

Brown silty clay. Auger refusal. Seven additional boreholes attempted, auger refusal.  
HNU in borehole = 0 ppm above background.

600N, 1000E

0-4 FT

Brown silty clay.  
HNU in borehole = 0 ppm above background.

600N, 1100E

0-4 FT

Brown silty clay.  
HNU in borehole = 0 ppm above background.

600N, 1200E

0-4 FT

Brown silty clay.  
HNU in borehole = 0 ppm above background.

600N, 1300E

0-4 FT

Brown silty clay.  
HNU in borehole = 0 ppm above  
background.

600N, 1400E

0-4.1 FT

Dark brown soil grading into red  
brown sandy silty clay grading into  
gray sandy silty clay.  
HNU in borehole = 0 ppm above  
background.

600N, 1500E

0-4.2 FT

Dark brown silty clay grading into  
brown and gray silty clay.  
HNU in borehole = 0 ppm above  
background.

600N, 1600E

0-4.05 FT

Dark brown silty soil grading into  
tan and gray silty clay grading  
into light brown silty sand.  
HNU in borehole = 0 ppm above  
background.

600N, 1700E

0-4.05 FT

Dark brown soil grading into  
reddish brown sand grading into  
reddish brown sand with clay and  
silt.  
HNU in borehole = 0 ppm above  
background.

600N, 1800E

0-1.05 FT

Dark brown soil grading into red  
brown sand and silty clay. Auger  
refusal.

2nd Borehole:

0-1.5 FT

Same description as above. Auger  
refusal.

3rd Borehole:

0-0.85 FT

Same description as above. Auger  
refusal.  
HNU in borehole = 0 ppm above  
background.

600N, 1900E

0-4.05 FT

Dark brown silty clay grading into  
brown sandy silty clay grading into  
brown clay.  
HNU in borehole = 0 ppm above  
background.

600N, 2000E

0-1.25 FT Dark clayey soil grading into brown silty clay grading into light brown sandy silty clay. Auger refusal.

2nd Borehole:  
0-0.9 FT Same description as above. Auger refusal.

3rd Borehole:  
0-2.85 FT Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

700N, 0E

0-2.5 FT Brown silty clay grading into moist brown silty clay. Auger refusal.

2nd Borehole:  
0-1 FT Same description as above. Auger refusal.

3rd Borehole:  
0-4.0 FT Same description as above. Auger refusal.  
HNU in borehole = 0 ppm above background.

700N, 100E

0-1.7 FT Dark brown silty soil grading into brown silty clay.

1.7 FT Garbage encountered (paper).  
HNU in borehole = 4 ppm above background (peak).

700N, 200E

0-2 FT Brown silty clay grading into brown sandy silt. Auger refusal.

2nd Borehole:  
0-2 FT Same description as above. Auger refusal.

3rd Borehole:  
0-2.6 FT Same description as above. Auger refusal.

2.6-2.8 FT Garbage encountered.  
HNU in borehole = 8 ppm above background.



700N, 300E

0-1.45 FT Brown silty clay. Auger refusal.

2nd Borehole:

0-3.2 FT Brown silty clay. Auger refusal.

3rd Borehole:

0-1.0 FT Brown silty clay. Auger refusal.

4th Borehole:

0-1.2 FT Brown silty clay. Auger refusal.  
HNU in borehole = 0 ppm above  
background.

700N, 400E

0-1.45 FT Brown silty clay. Auger refusal.

2nd Borehole:

0-1.65 FT Brown silty sandy clay with  
increasing gravel content with  
depth grading into gray and brown  
silty clay. Auger refusal.

3rd Borehole:

0-1.95 FT Brown silty clay grading into gray  
silty clay.

1.95-2.0 FT

Garbage encountered.  
HNU in borehole = 1.4 ppm above  
background.

700N, 500E

0-1.65 FT Brown sandy clayey silt grading  
into brown silty sand. Auger  
refusal.

2nd Borehole:

0-1.7 FT Brown silty clay grading into brown  
sandy silt. Auger refusal.

3rd Borehole:

0-2.0 FT Same description as above. Auger  
refusal.  
HNU in borehole = 0 ppm above  
background.

700N, 600E

0-1.0 FT Brown silty clay. Auger refusal.

2nd Borehole:

0-0.8 FT Brown silty clay. Auger refusal.

3rd Borehole:

0-0.85 FT Brown silty clay. Auger refusal.  
HNU in borehole = 0 ppm above  
background.

700N, 700E

0-3.25 FT Brown silty clay grading into brown  
and gray silty clay. Auger  
refusal.  
HNU in borehole = 0 ppm above  
background.

700N, 800E

0-3.65 FT Brown clayey sand grading into  
brown and gray sandy clay grading  
into yellow brown clayey sand.  
HNU in borehole = 0 ppm above  
background.

700N, 900E

0-4.0 FT Brown silty clay.  
HNU in borehole = 0 ppm above  
background.

700N, 1000E

0-3.4 FT Brown silty clay.  
HNU in borehole = 0 ppm above  
background.

700N, 1100E

0-3.8 FT Brown silty clay.  
HNU in borehole = 0 ppm above  
background.

700N, 1200E

0-3.2 FT Brown silty clay.  
HNU in borehole = 0 ppm above  
background.

800N, 0E

0-1.1 FT Dark brown soil grading into brown  
silty clay. Auger refusal.

2nd Borehole:

0-1.7 FT Dark brown soil grading into brown  
sandy clay with gravel grading into  
gray and brown sandy clay.

1.7 FT Garbage encountered (paper).  
TIP in borehole = 1.0-1.3 ppm above  
background.

<u>800N, 100E</u>		
0-2.2 FT		Dark brown soil grading into brown clayey sand.
2.2 FT		Garbage encountered. TIP in borehole = 0 ppm above background.
<u>800N, 200E</u>		
0-1.3 FT		Brown clayey silt. Auger refusal. Two additional borehole attempts, auger refusal. TIP in borehole = 0 ppm above background.
<u>800N, 300E</u>		
0-2.0 FT		Brown clayey silt.
2.0 FT		Garbage encountered (paper). TIP in borehole = 280-425 ppm above background.
<u>800N, 400E</u>		
0-3.4 FT		Brown silty clay. TIP in borehole = 0 ppm above background.
<u>800N, 500E</u>		
0-2.1 FT		Brown silty clay grading into gray and brown silty clay with pebbles. Auger refusal.
2nd Borehole:		
0-2.1 FT		Brown silty clay with pebbles. Auger refusal.
3rd Borehole:		
0-2.1 FT		Brown silty clay with pebbles. Auger refusal. TIP in borehole = 0 ppm above background.
<u>800N, 600E</u>		
0-1.1 FT		Brown silty clay with pebbles. Auger refusal.
2nd Borehole:		
0-1.5 FT		Brown silty clay with pebbles. Auger refusal. TIP in borehole = 0 ppm above background.

800N, 700E  
0-0.25 FT      Dark brown soil. Auger refusal.

2nd Borehole:  
0-0.8 FT      Brown clayey silt. Auger refusal.

3rd Borehole:  
0-1.8 FT      Brown silty clay. Auger refusal.  
TIP in borehole = 0 ppm above  
background.

800N, 800E  
0-4.0 FT      Yellow brown clayey silt.  
TIP in borehole = 0 ppm above  
background.

800N, 900E  
0-4.0 FT      Light brown silty clay.  
TIP in borehole = 0 ppm above  
background.

800N, 1000E  
0-4.0 FT      Brown silty clay.  
TIP in borehole = 0 ppm above  
background.

800N, 1100E  
0-0.65 FT      Brown silty clay. Auger refusal.

2nd Borehole:  
0-1.05 FT      Brown silty clay with reddish  
staining. Auger refusal.

3rd Borehole:  
0-1.6 FT      Dark brown silty clay grading into  
light brown silty sand. Auger  
refusal.  
TIP in borehole = 0 ppm above  
background.

800N, 1200E  
0-2.8 FT      Dark brown soil grading into brown  
silty clayey sand grading into  
light brown silty sand and gravel.  
TIP in borehole = 0 ppm above  
background.

900N, 0E  
0-1.05 FT      Dark brown clayey silty sand.  
Auger refusal.

2nd Borehole:  
0-3.2 FT

Brown sand.  
TIP in borehole = 0 ppm above  
background.

900N, 100E  
0-1.0 FT

Brown silty clay. Auger refusal.  
One additional borehole attempted,  
auger was refused.  
TIP in borehole = 0 ppm above  
background.

900N, 200E  
0-1.1 FT

Brown silty clay. Auger refusal.  
Two additional boreholes attempted,  
auger was refused.  
TIP in borehole = 0 ppm above  
background.

900N, 300E  
0-4.1 FT

Brown silty clay.  
TIP in borehole = 0 ppm above  
background.

900N, 400E  
0-4.0 FT

Brown silty clay grading into gray  
and brown silty clay with red  
mottling.  
TIP in borehole = 0 ppm above  
background.

900N, 500E  
0-4.1 FT

Dark brown soil grading into brown  
silty clay grading into brown and  
gray silty clay with red staining.  
TIP in borehole = 0 ppm above  
background.

900N, 600E  
0-0.85 FT

Dark brown silty soil. Auger  
refusal.

2nd Borehole:  
0-0.5 FT

Dark brown silty soil. Auger  
refusal.

3rd Borehole:  
0-0.75 FT

Dark brown silty soil. Auger  
refusal.  
TIP in borehole = 0 ppm above  
background.

900N, 700E  
0-1.5 FT Gray and brown silty clay grading into dark brown silty clay with decayed organic material. Auger refusal.

2nd Borehole:  
0-1.2 FT Dark brown silty clay. Auger refusal.

3rd Borehole:  
0-3.8 FT Brown and gray silty clay. TIP in borehole = 0 ppm above background.

900N, 800E  
0-4.0 FT Grayish brown silty clay grading into dark brown silty clay with wood chips grading into gray and brown silty clay. TIP in borehole = 0 ppm above background.

900N, 900E  
0-3.95 FT Brown silty clay. TIP in borehole = 0 ppm above background.

900N, 1000E  
0-4.0 FT Dark brown soil grading into light brown silty clay. TIP in borehole = 0.5 ppm above background.

900N, 1100E  
0-3.85 FT Dark brown soil grading into brown/dark brown silty clay with pebbles. Auger refusal. TIP in borehole = 0.5 ppm above background.

900N, 1200E  
0-2.6 FT Brown/dark brown sandy silty clay. Auger refusal.

2nd Borehole:  
0-3.0 FT Brown/dark brown sandy silty clay. Auger refusal. TIP in borehole = 1 ppm above background.

#### 5.4 Soil Sampling

Soil samples were collected for analysis of physical parameters in order to evaluate the permeability of the soil cover material. These parameters to be measured are grain size distribution, compaction, and moisture content. The node locations for soil sample collection were selected using a random sorting function on a personal computer. Forty sampling points were selected for collection of samples and are listed in Table 1. Two samples were not collected since they were located in a cow/bull enclosure. Thus, thirty-eight samples were collected for analysis of grain size distribution and moisture content. Additional sample volume was collected from five sampling locations for analysis to develop compaction test curves.

Each sample collected was placed in a one-gallon size Ziploc baggie. The baggie was labeled with permanent marker with the sampling location, date and time of collection, depth of collection, and sampler's initials. Each sample was a representative composite of the boring from the ground surface to the end of the boring. The sample bags were sealed and stored in the locked trailer. The samples will be transported back to Alabama and hand delivered to the laboratory for analysis. For transportation, each sample will be accompanied by a chain-of-custody form developed by PELA. The chain of custody form includes the sample locations, the dates and times of collection, the signature of the relinquisher plus date and time which the samples were relinquished. The original chain-of-custody record will accompany the samples to the laboratory, and a copy will be retained by the field project coordinator.

#### 5.5 Decontamination

The hand auger was decontaminated in between each node on the grid. Decontamination procedures consisted of washing the auger with a bristle brush in a soap solution of brand "Tide" and distilled water. The auger was then allowed to air dry. The water used for decontamination was poured into a collection tank installed underground beneath the decontamination pad. The decontamination water collected in this tank will be emptied when full or at the completion of the project. This water will be disposed of at a treatment plant.

## REFERENCES

- (1) Remedial Investigation/Feasibility Study Work Plan for City Disposal Corporation Landfill, Volume 1, Technical Scope of Work, P.E. La Moreaux & Associates, Inc., Tuscaloosa, Alabama, August 9, 1988.



**APPENDIX A**

**PHOTO LOG**



Photo No.: 5  
Facility: City Disposal  
Location: Dunn, WI  
Direction: North  
Photographer: K. Marks *KDM*  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/18/88  
Time: 0940 hrs

Geophysical Survey.

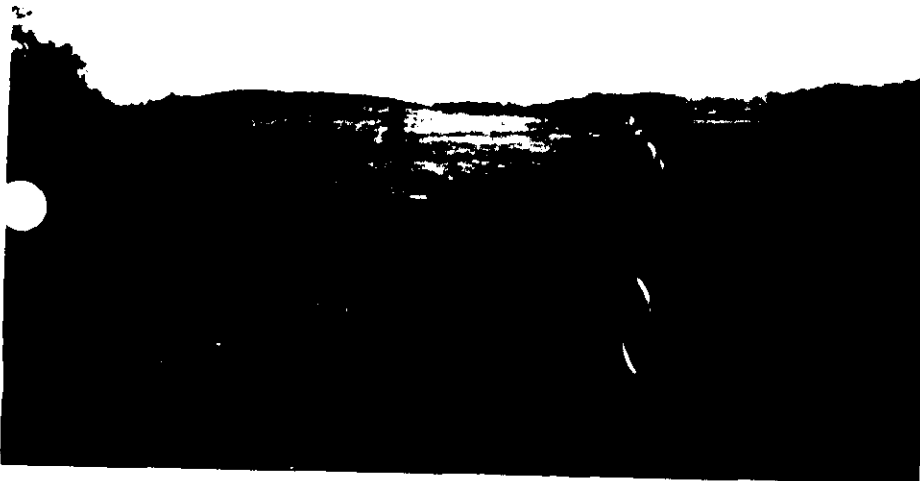


Photo No.: 6  
Facility: City Disposal  
Location: Dunn, WI  
Direction: East  
Photographer: K. Marks *KDM*  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/18/88  
Time: 0945 hrs

Geophysical Survey.

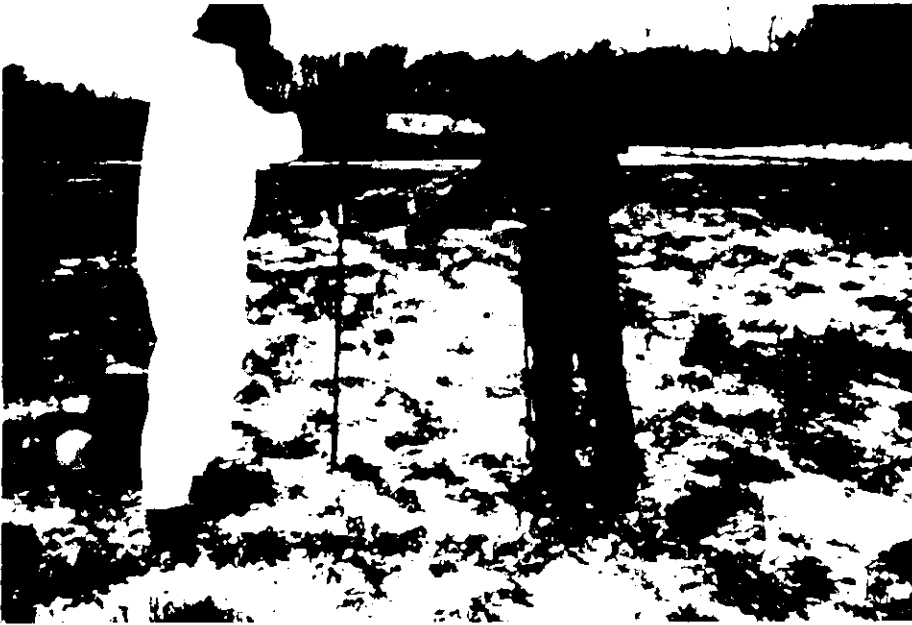


Photo No.: 7  
Facility: City Disposal  
Location: Dunn, WI  
Direction: West  
Photographer: C. Meyer  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/29/88  
Time: 1140 hrs

Augering Borehole at Location 800N,700E.



Photo No.: 8  
Facility: City Disposal  
Location: Dunn, WI  
Direction: West  
Photographer: C. Meyer  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/29/88  
Time: 1150 hrs

Decontamination of Clay Auger.



Photo No.: 3  
Facility: City Disposal  
Location: Dunn, WI  
Direction: North  
Photographer: K. Marks *KDM*  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/17/88  
Time: 0845 hrs

Collection of Soil Sample at Location 200N,1800E for Physical Analysis.



Photo No.: 4  
Facility: City Disposal  
Location: Dunn, WI  
Direction: North  
Photographer: K. Marks *KDM*  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/17/88  
Time: 0855 hrs

Garbage (green paper) at Tip of Auger, Encountered at Location 200N,1800E.



Photo No.: 1  
Facility: City Disposal  
Location: Dunn, WI  
Direction: North  
Photographer: K. Marks *KDM*  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/17/88  
Time: 0840 hrs

Boring of Landfill Cover at Location 200N,1800E.



Photo No.: 2  
Facility: City Disposal  
Location: Dunn, WI  
Direction: Northwest  
Photographer: K. Marks *KDM*  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/17/88  
Time: 0845 hrs

Air Monitoring in Borehole at Location 200N,1800E.



Photo No.: 9  
Facility: City Disposal  
Location: Dunn, WI  
Direction: West  
Photographer: C. Meyer  
Camera: FUJI DL-145  
Film: Kodak 200 ASA  
Date: 11/29/88  
Time: 1155 hrs

Sample Collection for Physical Analysis at Location 800N,800E.

Development of photographs not complete at this time.

**APPENDIX B**

**FIELD LOG**



CITY DISPOSAL  
CORPORATION LANDFILL

WISCONSIN

U.S. EPA PRIMARY CONTACT:  
BONNIE ELEDER (312) 856-4885

SITE CONTACT =

JACK DOWDEN-WESTON (414) 251-4000

M+E WORK ASSIGNMENT MANAGER =

CAROL MEYER (312) 228-0900

PELA PROJECT MANAGER =

ABNER PATTON (205) 752-5543

TES IV CONTRACT = 68-01-7351

WORK ASSIGNMENT NO = 398

M+E JOB No. = J-1261-2831

HOLIDAY INN (PELA), 222-9121

ROAD STAR (METRALF'EDD) 241-4171



Memo Book • 9 IN. x 5 1/2 IN.

Number	Sheets	Ruling
6569	48	Faint
6570	96	\$&c
6571	96	Faint
6571 1/2	96	Faint-Indexed

BOORUM & PEASE CO., ELIZABETH, N.J. 07208

9/29/88

COMMUNITY MEETING 1900 HRS

DUNN TOWN HALL IN MAXFARLAND, WI.

PRESENTATIONS BY:

SUE PATTON - U.S. EPA

BONNIE ELEDER - U.S. EPA

TOM KARWOSKI - WI DNR

APPROXIMATELY 70 PEOPLE IN ATTENDANCE  
FROM COMMUNITY; MADISON, WI;  
HEALTH DEPT.; DNR; 2 PELA REPS; 1 WASTE  
MANAGEMENT REP

COMMUNITY'S POINTS OF CONCERN:

- RESIDENTIAL WELLS NOT SAMPLED SINCE 1983!
- PROBLEM DISCOVERED IN 1981, WHY DOES  
IT TAKE 7+ YEARS TO SOLVE IT?
- IS THEIR WATER SAFE?

REPORTERS WERE PRESENT, CAMERAS WERE  
USED. THE MEETING WAS PRESENTED IN  
THE 11 O'CLOCK NEWS ON CHANNEL 3.

PURPOSE OF MEETING WAS TO EXPLAIN TO  
THE PUBLIC THE SUPERFUND PROCESS  
AND WHAT ACTIONS ARE PROPOSED TO  
TAKE PLACE DURING THE REMEDIAL  
INVESTIGATION.

9/30/88

0845 HRS ARRIVED ON  
SITE

PERSONNEL PRESENT

ABNER PATTON - PELA PROJECT MANAGER

LOIS GEORGE - PELA ADMINISTRATOR

JACK DOWDEN - WASTE MANAGEMENT

BONNIE ELEDER - U.S. EPA

SUE PATTON - U.S. EPA

BARBARA BARNETT - JACOBS

CAROL MEYER - M&E

PELA BROUGHT ALONG AN AERIAL PHOTOGRAPH.  
LANDFILLED AREAS WERE EXAMINED BY PELA.

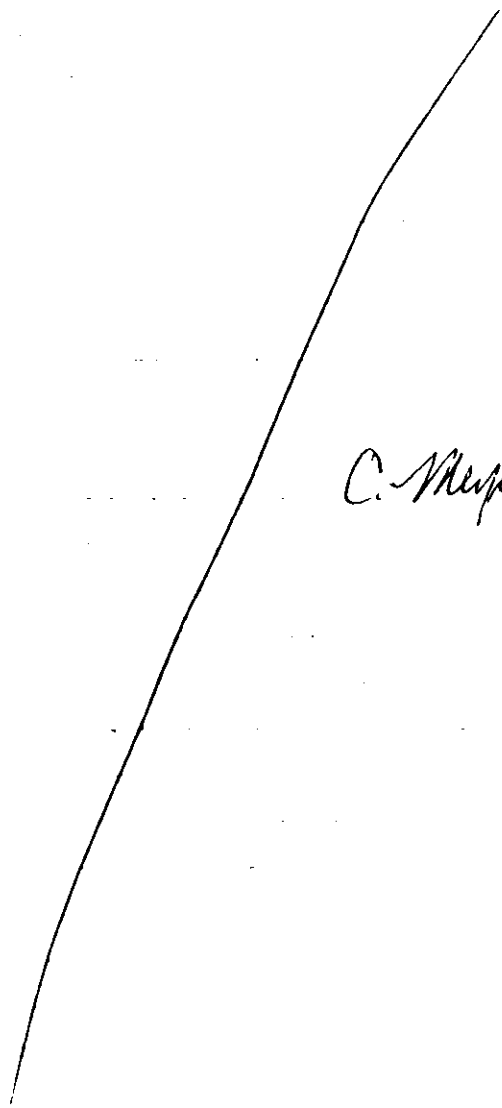
CELL 1, SOUTH ~~WEST~~ WEST EDGE → STRESSED VEGETATION,  
LEACHATE SEEPS OUT OF EDGE OF  
SLOPE. GROUND SURFACE STAINS

LANDFILLED AREA FOLLOWS SLOPE'S EDGE ON  
NORTH SIDE, TREE LINE ON SOUTH, EAST AND  
WEST.

SITE IS LOCATED: FROM SIN, HWY B W,  
SOUTH ON SAND HILL ROAD. DOWN  
1.5 MILES FROM INTERSECTION OF B W  
SANDHILL. DRIVEWAY TO ENTER SITE IS ON  
SOUTH SIDE OF HOUSE WITH ADDRESS: 1851  
SAND HILL RD

9/30/88

1030 HRS LEFT SITE TO RETURN TO  
ARLINGTON HEIGHTS AT 1200 HRS



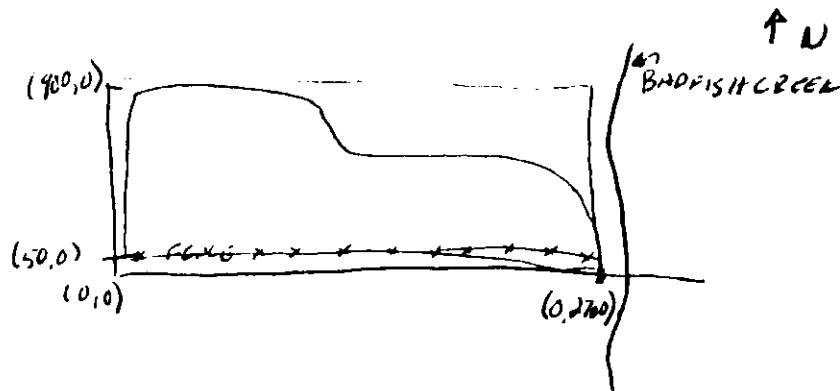
C. Meyer 9/30/88

11/14/88

1330 HRS C. MEYER AND K. MARKS,  
METCALF MEDDY, ARRIVED  
ON-SITE

1420 HRS PELA REPRESENTATIVES ARRIVED ON-SITE  
CLAYTON LINDSEY  
DAN GREEN\*  
NEIL MOSS  
HONOR PATTON  
LOIS GEORGE

SITE WAS SURVEYED LAST WEEK BY  
LANDMARK SURVEYORS OF MADISON, WI.  
THE GRID WAS PLOTTED WITH NODES  
AT A 100 FT DISTANCE. THE  
X-AXIS TRENDS N-S, THE Y-AXIS E-W.  
THE ORIGIN (0,0) WAS PLOTTED  
AT THE SOUTH WESTERN MOST CORNER.



C. Meyer 11/14/88

11/14/88

006

RANDOM POINTS WERE CHOSEN FROM  
THE GRID FOR THE COVER SURVEY.  
40 SAMPLING POINTS WERE INDICATED  
ON THE MAP.

THE POINTS MARKED ARE:

300 N, 0E	100 N, 100 E
600 N, 0E	500 N, 1000 E
700 N, 0E	700 N, 1000 E
800 N, 300 E	900 N, 1000 E
100 N, 400 E	400 N, 1200 E
200 N, 400 E	200 N, 1300 E
400 N, 400 E	300 N, 1300 E
500 N, 400 E	600 N, 1400 E
900 N, 400 E	100 N, 1600 E
200 N, 500 E	400 N, 1600 E
400 N, 500 E	600 N, 1600 E
500 N, 500 E	500 N, 1700 E
700 N, 500 E	200 N, 1800 E
600 N, 600 E	300 N, 1800 E
100 N, 700 E	600 N, 2000 E (Kenie)
300 N, 800 E	300 N, 2100 E
800 N, 800 E	400 N, 2100 E
900 N, 800 E	100 N, 2200 E
	200 N, 2200 E
	500 N, 2400 E
	100 N, 2500 E
	300 N, 2600 E

THESE SAMPLING POINTS WERE  
C. Meyer 11/14/88

007

11/14/88

CHOSEN BY A RANDOM SORTING FUNCTION  
USING A COMPUTER. THESE POINTS  
ARE THE PLANNED SAMPLING LOCATIONS  
AND ARE SUBJECT TO IN-FIELD  
MODIFICATIONS.

C. MEYER AND L. MARKS

TRAVERSED THE SITE WITH LOIS GEORGE AND  
ARJUN PATTON OF PELCA. POTENTIAL LOCATIONS  
FOR SURFACE <sup>WATER</sup> MONITORING GAGGS WERE SCOUTED.  
THE EXISTING WELLS WERE LOCATED. THE  
SITE BOUNDARIES AND EXTENT OF  
LANDFILL WERE ALSO DETERMINED.

I EXPECTED THE LEACHATE SEEP THAT WAS  
VIEWED ON 9/30/88. THE STAINING WAS  
NO LONGER VISIBLE.

1730 HRS - LEFT SITE

C. Meyer 11/14/88

11/15/88

0730 HRS - ARRIVED ON SITE  
0735 HRS - PECA REPRESENTATIVES  
ARRIVED ON SITE

0745 HRS SAFETY BRIEFING BY  
LOIS GEORGE -  
POINTS COVERED:

CHEMICAL HAZARDS  
PHYSICAL HAZARDS  
UPGRADING

SAFETY SHEET WAS PASSED AROUND  
AND ALL SIGNED.

EM 34 BASELINE ESTABLISHED AT  
800 N, 500 E TO 800 N, 900 E  
EM 34-3 BY GEONICS

SERIAL NO. = POLES = RX8506 019, TX 8506 019

MORELAND: EM 34-3XL 8506019 - SERIAL NO.

EM 34 MEASURED CONDUCTIVITY IN  
MMHOS/M.

MEASURED IN VERTICAL AND  
HORIZONTAL DIPOLE MODE.  
AT 40 m SPACINGS AROUND EACH NODE.

K. Mank 11/15/88

060

11/11

50

11/15/88

0900 HRS

### COVER SURVEY

100N, 100E

SAMPLE DEPTH 0-0.8 FT.  
H<sub>2</sub>O = 0 ppm ABOVE BACKGROUND  
SAMPLE DESCRIPTION: 0-0.6 FT  
SOIL WITH ORGANIC MATERIAL  
DARK CLAY GRADING TO SILTY  
BROWN WITH PEBBLES, BECOMING  
GREY-LIGHT GREY AT 1.2 FT DEPTH.

100N, 0E

SAMPLE DEPTH 0-3 FT  
H<sub>2</sub>O = 0 ppm ABOVE BACKGROUND  
SAMPLE DESCRIPTION: DARK CLAY  
SOIL WITH ORGANIC MATERIAL  
BECOMING INCREASINGLY CLAYEY  
WITH DEPTH.

### RECALIBRATION OF THE H<sub>2</sub>O

0930 HOURS

100 N, 200 E

H<sub>2</sub>O = 0 ppm above Bkgd.  
SAMPLE DEPTH 0-0.6 ft  
Dark clayey soil with ORGANIC MAT.  
GRADING TO SILTY BROWN w/ PEBBLES  
0.6-1.0 ft  
SANDY CLAY; VERT COARSE  
1.0-1.1 ft.  
LIGHT GRAY CLAY -

K. Mank 11/15/88

11/15/88

01

100 N, 300 E (CONTINUED)

1.10 - 1.15 ft  
LIGHT GRAY CLAY  
1.5 - 1.6 GARBAGE, REFUSE  
(PLASTIC, TAPER)

FINISH @ 1015 HOURS

1020 HOURS

100 N, 300 E

HNU = 0 ppm above bkgnd.

0 - 0.6 DARK CLAYEY SOIL w/ ORGANIC MAT.  
.6 - 0.95 " " " LIGHT BROWN SILT FILL  
.95 - 1.15 LIGHT BROWN SILT w/ PEBBLES; TRACE LIGHT GRAY CLAY  
1.15 - 1.25 LIGHT GRAY CLAY  
1.25 - 1.55 SILTY FILL w/ GARBAGE (GREEN BITS)

100 N, 400 E

- SAMPLING NODE

0 - 0.6 HNU = 0 ppm above bkgnd.  
0.6 - 0.7 DARK CLAYEY SOIL w/ ORG. MAT.  
0.7 - 0.9 " " " / TRACE LIGHT BROWN SILT FILL  
0.9 - 1.0 " " " "  
1.0 - 1.12 " " " "  
1.25 GLASS (GARBAGE)

SAMPLE PLACED IN PLASTIC BAGGIE, ONLY TOP SOIL WILL BE ANALYZED, DO NOT FULL ANALYZE FOR MOISTURE, ORGANICS

K. Mohr 11/15/88

11/15/88

1055 HRS  
100 N, 500 E

0 - 0.6 HNU Open above bkgnd.  
0.6 - 0.7 LIGHT BROWN CLAYEY WITH TRACE SAND  
at .65, very wet  
water in hole, garbage encountered

100 N, 600 E

0 - 0.6 LIGHT BROWN CLAYEY w/ TRACE SAND  
.6 - .7 " " " SAND & PEBBLES

WORK AT 1130 HOURS

BEGIN WORK AGAIN @ 1300 HOURS, RAINING -  
COULD NOT USE HNU OR CANTON DUE TO E.M.

.7 - .8 LIGHT BROWN SILTY w/ SAND / PEBBLES  
.8 - 1.15 CLAYEY SAND, LITTLE PEBBLES / GRAY CLAY  
1.15 - 1.25 GARBAGE SHOWS AT 1.2

\* IT SHOULD BE NOTED THAT DECONTAMINATION WAS DONE AT THE END OF AUGERING AT EACH NODE (DECON PROCEDURES CONSIST OF "TYPE" (PHOSPHOROUS PEG) AND RESISTE ACETAL w/ DISTILLED WATER.

\* ALSO: EACH HOLE IS BACKFILLED WITH THE REMOVED SOIL AFTER DOCUMENTATION OF DENSIFICATION.

K. Mohr 11/15/88

11/11/84

- 012

100 N, 700 E

## SAMPLE NOTE

- 0 - 0.6' DARK CLAYEY SOIL w/ TRACE ORG. MAT  
PEBBLES SHOWN AT 0.4
- 0.6 - 0.75' SANDY, SILTY CLAY, SMALL GRAVEL BITS
- 0.75 - 1.0' " " " " " "
- 1.0 - 1.3' " " " " " "
- 1.3 - 1.5' SILTY CLAY WITH LIGHT GRAY CLAY
- 1.5 - 1.75' DARK GRAY CLAY
- 1.75 - 2.25' DARK GRAY CLAY WITH TRACE RED SAND (UN)
- 2.25 - 2.65' DARK GRAY CLAY
- 2.5 - 2.65' GARBAGE

SAMPLE INTERVAL = 0 - 2.5'

FILLED ONE GALLON-SIZED ZIPLOC  
BAGGIE WITH SAMPLE FOR ANALYSIS  
OF GRAIN SIZE AND MOISTURE CONTENT.  
BAGGIE LABELED WITH DATE, TIME  
INTERVAL OF COLLECTION 1306 - 1330 HRS,  
AND LOCATION - SL 100 700.

13:35 HRS LOCATION

100 N, 800 E

- 0 - 0.55' DARK CLAYEY SOIL
- 0.55 - 0.70' DARK GREY CLAYEY SOIL WITH  
CLEAR LIGHT TAN SAND SEAM ~ 0.05'  
IN THICKNESS

K. Mah 11/11/84

01.

11/15/85

100 N, 800 E CONTINUED

- 0.7 - 1.0' GRAY SILTY CLAY WITH SAND
- 1.0 - 1.2' GREENISH-GRAY CLAY TRACE SILT
- 1.2 - 1.65' GREENISH-GRAY CLAY, FINE SILT, WITH  
SMALL WHITE SAND SEAM - WEATHERING  
PRODUCT OF PEBBLES.
- 1.65 - 1.85' GREENISH-GRAY SILTY CLAY
- 1.85 - 2.00' " " " " / PEBBLES
- 2.00' - OBSTRUCTION (ROCK) PREVENTS  
FURTHER AUGERING
- ATTEMPT TO AUGER ANOTHER ~ 3 ft WEST OF  
FIRST
- 0 - 0.6' DARK CLAYEY SOIL
- 0.6 - 0.9' SILTY, SANDY CLAY. COULD NOT  
AUGER ANY FURTHER THAN 0.9 ft
- ATTEMPT TO AUGER ANOTHER ~ 2 ft NORTH OF  
FIRST.
- 0 - 0.6' DARK CLAYEY SOIL
- 0.6 - 0.95' LIGHT GRAY CLAY, VERY SILTY  
w/ PEBBLES.
- 0.95 - 1.35' " " "
- 1.35 - 1.65' " " "
- 1.65 - 1.9' VERY DARK GRAY CLAY w/ PEBBLES
- 1.9 - 2.3' " " " "
- 2.3 - 2.6' " " " "
- 2.6 - 3.0' DARKER GREY (ALMOST BLACK) CLAY
- 3.1' OBSTRUCTION PREVENTS FURTHER  
AUGERING  
(All holes)

K. Mah 11/15/84

100 N, 900 E

TIME 1730 HOURS

- 0 - .6' DARK CLAYEY SOIL
- .6 - .85 " " " "
- .85 - 1.0' DARK BROWN CLAYEY W/ROCK FRAGMENTS
- 1.0 - 1.25 " " " "
- 1.25 - 1.60 " " " "
- 1.6 - 1.85 VERY DARK BROWN, NO FRAGMENTS
- 1.85 - 1.90 LIGHT GRAY SILTY CLAY
- 1.90 - 2.20 " " " "
- 2.20 - 2.70 " " " "

- OBSTRUCTION - STOP AUG.  
 ATTEMPT ANOTHER ~ 2 FT WEST OF FIRST.  
 THE RESULTS OF THE AUGERING OF THIS SECOND  
 WELL TURNED OUT EXACTLY AS THE FIRST. AUGERING  
 CEASED AT 2.4'

AT 1515 TWO MEMBERS OF THE CITIZENS BOARD  
 VISITED THE TRAILER. LOIS & ABNER BELIEVED  
 THEM ON THE PHASES OF THE PROJECT AND WHAT  
 WE WERE DOING NOW.

ADONIS/1000/151

K. Marker 11/15/88

0015

100 N, 1000 E

Sampling Note

TIME 1530 HOURS

- 0' - 1.0' DARK BROWN CLAYEY SOIL
- 1.0 - 1.3 " " VERY SATURATED SAMPLE
- 1.3 - 1.55' CLAYEY SOIL - BEGINNING TO LOOK  
GREYISH IN COLOR
- 1.55 - 1.8' BROWNISH GRAY, MANY ROCK  
FRAGMENTS, VERY SATURATED  
HOLE FILLED WITH WATER

AT 1.95' DAN SEEMED TO HIT ROCK BUT  
 PULLED HARD, HIT SOMERLING, AND  
 ALL WATER DRAINED DOWNWARD  
 COMPLETELY DISAPPEARING.  
 OBSTRUCTION THEN PREVENTED ANY FURTHER  
 AUGERING

ANOTHER HOLE WAS AUGURED APPROX. 2 FT.  
 NORTH OF FIRST — THE RESULTS WERE  
 THE SAME ONLY THERE WAS NO OBSTRUCTION  
 AND GARBAGE WAS FOUND AT APPROX. 2 FT.

THE SAMPLE TAKEN WAS FROM THE REMINAL  
 AT THE FIRST BEARING. THE SAMPLE CONTAINER  
 (BAG) WAS LABELED -

1330 HOURS  
 SL 100, 1000  
 11/15/88 AND SAMPLERS

INITIALS

K. Marker 11/15/88



A DOWNPOUR AT 1550 PREVENTED ANY FURTHER SAMPLING TODAY.

AT 1620 HOURS ABNER, LOIS, & CLAYTON DECIDED TO PLACE THE LAST 3 STAFF GAGES IN BADFISH CREEK AND GRASS LAKE - ABNER HAD PLACED A STAFF GAGE (#1) IMMEDIATELY SOUTH (~300 FT) OF THE BRIDGE.

ONE STAFF GAGE (#2) WAS PLACED UPSTREAM APPROX. 200 FT. ~~UP~~ OF THE BRIDGE, FURTHER UPSTREAM ANOTHER STAFF GAGE WAS FOUND FROM A PREVIOUS MEASURING. IT LOOKED TO BE IN GOOD SHAPE AND LEGIBLE SO IT WAS DECIDED TO USE IT INSTEAD OF PLACING A NEW ONE.

A FOURTH GAGE WAS PLACED APPROX. 5 YDS OUT <sup>IN GRASS LAKE</sup> AND 10 YDS OUT FROM THE BURN. THESE WILL BE READ TWICE A WEEK FOR FLUCTUATIONS.

LEFT SITE AT 1720 HOURS

Keith Maher 11/15/84

## SUMMARY OF ACTIVITIES

1. DESCRIPTIONS AND AUGERING WAS DONE ON THE SOIL AT THE NODES 100 N, 0 E TO 100 N 1000 E

SAMPLES FOR MOISTURE CONTENT AND GRAIN SIZE WERE TAKEN AT  
100 N, 400 E  
100 N, 700 E  
100 N, 1000 E

STAFF GAGES WERE PLACED AT THE DESIGNATED AREAS OF BADFISH CREEK AND GRASS LAKE.

THE GEOPHYSICAL SURVEY WAS BEGUN BUT CEASED AT NOON BECAUSE ADVERSE WEATHER CONDITIONS

## PROBLEMS ENCOUNTERED

ADVERSE WEATHER CONDITIONS (RAIN)

## DEPARTURES FROM THE WORK PLAN

THE 3RD STAFF GAGE ON BADFISH CREEK WAS ALREADY IN PLACE FROM A PREVIOUS JOB - IT WAS USED INSTEAD OF PLACING A NEW GAGE. K.M. L. LICKY.

1118

118

ACTIVITIES SCHEDULED FOR NEXT DAY

1. CONTINUE SAMPLING AT 100 N, 1100 E
2. CONTINUE GEOPHYSICAL SURVEY
3. TAKE WATER (STAMP GARD) READINGS

*Keith Molt*  
 11/13/88

Wind from NW @ 5k mph

11-14-88

0730 arrived on site  
0735 PELA arrived

0745 Safety meeting given by ABNER  
ELEMENTS OF CONCERN:

1. HYPOTHEMIA - Frequent breaks
2. ORGANIC VAPORS - H<sub>2</sub>O

ABNER & CLAYTON will do GEOPHYSICAL FOR APPROX. 1 HR AND THEN ABNER WILL MEET MR. BLADDERMAN - LOIS WILL LEAVE TODAY.

DAN NEIL AND I ARRIVED AT 100 N. 1100 E  
 AT 0817 AM AUGERING BEGAN AT 0820

0 - .6' soil / clay, VERY DARK w/ fine MAT.  
 .6' - 1.5' DARK BRN CLAY w/ TRACE SAND  
 VERY SOLICATED

1.5 - 2.0' LIGHT GRAY CLAY, SANDY  
 CATHARTIC, PLW MHC ITEMS

H<sub>2</sub>O - 0 ppm above bkrd.  
 complete @ 0825

*RM*  
 11-16-88

020

Begin 100 N, 1200 E @ 0830

- 0 - .55' DARK, CLAYEY w/ ORG. MAT  
WATER IN HOLE
- .55 - .75 DARK CLAYEY SOIL  
GARBAGE HIT .65 ft.
- H<sub>2</sub>O = 0 ppm above liquid

Complete at 0835 hours

Begin augering 100 N, 1300 E @ 0839 hours

- 0 - .45' BROWN CLAYEY SOIL WITH  
LOCALIZED AREA OF DARK BROWN ORG/CL
- .45' - 1.2' DARK BROWN CLAYEY SOIL
- 1.2 - 1.35' " " " w/ ROCK FRAGMENTS
- 1.35 - 1.6' BROWNISH GRAY CLAY, ROCK FRAG
- 1.6 - 1.75 " " " " " " " " " " " "
- 1.75 - 2.0' GARBAGE HIT AT 1.8'

H<sub>2</sub>O = 0 ppm above liquid

\*WEATHER - SNOW FLURRIES BEGIN @ 0900 hours

K. M. 11-16-88

031

Begin 100 N 1400 E @ 0900 hours

- 0 - .75' DARK BROWN CLAYEY SOIL WITH  
ORG. MAT
- .75 - .95' " " " " " " " " " " " "
- .95 - 1.0' DARK GRAY SILTY WITH ROCK FRAG
- 1.05' - HIT GARBAGE

0 ppm above liquid - H<sub>2</sub>O  
Finish 0904 hours

Begin 100 N 1500 @ 0907 hours  
Garbage showing above cover in areas

- 0' - .55' - dark brown soil with sandy  
consistency beginning at .4'
  - .55' - .8' - light brown clayey with localized  
light brown weathered sandstone
  - .8 - 1.0' light brown clayey w/ rock fragments
  - 1.0 - 1.05' clayey sand mixture
  - 1.05 - 1.1' light gray silty
- CONSTRUCTION CEASES AUGERING

NEW HOLE ATTEMPTED ~1' NW OF STAKE  
2' NW OF 1ST BERING

LARGE PEBBLES FORCE CEASE AT .8'  
NEW HOLE ATTEMPT ~2' NE OF FIRST BERING  
GARBAGE HIT AT .75'  
H<sub>2</sub>O = 0 ppm

K. M. 11-16-88

SAMPLING NODE  
100 N, 1600 E Begin at 0925 hours

0 - .6' - light brown sandy clay  
" " " " " with

BAG LABELED  
100N, 1600E  
11-16-88  
0927 hours  
DSG/NEM  
0-1.5'

.6 - .75' - BEGINNING OF DARK GRAY CLAY AT .85'  
.75 - 1.05' - LARGE PEBBLES AT 1.05 IN  
GREENISH GRAY BROWN SILTY CLAY  
OBSTRUCTION CERISES AHEAD AT 1.25'

ANOTHER BURNIN BELOW ~ 2 FT EAST  
OF FIRST  
SAMPLE WILL BE ADDED TO BAG WITH  
FIRST SAMPLE

WET SANDY CLAY HIT AT 1.5  
1.6 WET, SANDY - MINIMAL CLAY

ANOTHER BAG OF SAMPLE WILL BE STARTED  
BECAUSE THE FIRST IS FULL

LABELLED  
100 N, 1600 E  
11-16-88  
0950 hours  
1.5' - 2.6'

1.40 SANDWICH GRAY SANDY CLAY  
2.05 " " " "  
WITH LARGE PEBBLES  
2.2' " " " "  
2.6' " " " "  
2.6 HIT GRABAGE (PLASTIC WRAP)  
2.8' TOTAL DEPTH

0 ppm above bkgd H<sub>2</sub>O

KMander 11-16-88

100 N, 1700 E begin @ 1010 hours

0' - .8' - LIGHT BROWN SILTY CLAY  
.8 - 1.0 " " " "  
WITH TRACE GREENISH GRAY CLAY  
1.0 - 1.35' LIGHT BROWN SANDY CLAY WITH  
LARGE PEBBLES  
" " " "  
1.35 - 1.6 " " " "  
1.65 GRABAGE HIT (PLASTIC WRAP)  
0 ppm above bkgd. H<sub>2</sub>O

100 N, 1800 E BEGIN @ 1020 hours

0 - .6' DARK BROWN SOIL W LUM MAT.  
.6 - 1.0 LIGHT BROWN SILTY CLAY  
2.15 - GRABAGE HIT (PLASTIC WRAP)

0 ppm H<sub>2</sub>O  
Finish 1035 hours

100 N, 1900 E BEGIN @ 1037 hours

0 - .6' DARK CLAYEY SOIL CHANGE TO  
LIGHT BROWN AT .25'  
OBSTRUCTION CERISES AHEAD AT 0.7'  
NEW HOLE ~ 2 FT E OF 1<sup>ST</sup>  
0 - 1.35' SANDY, SILTY CLAY WITH GRAVEL  
1.35 - 1.5 - GREENISH GRAY CLAY (LOCALIZED) W. GR  
SANDY CLAY OBSTRUCTION

KMander 11-16-88  
0 ppm H<sub>2</sub>O

100 N, 2000E

Begin @ 1140 hrs.

0-.6' - Dark brown clay w/ occ. pm.  
6-.85' - CLAY CHANGE TO LIGHT BROWN CLAY  
w/ occ. pm.

.85-1.0 " " "  
1.6-1.25 " " "

OBSTRUCTION AT 1.45'

NEW HOLE ~ 2 FT @ 1ST  
OBSTRUCT @ 1.6"

NEW HOLE ~ 1 FT @ 1ST  
OBSTRUCT @ 1.6"

ABANDON HOLE @ 1151 hrs

100 N, 2100 E

1155 hrs.

0-.0.85' - Dark brown clay, CLAY  
TO LIGHTEN AT 7'

.85-1.25 " " " LIGHTER BROWN CLAY  
w/ rock frags.  
OBSTRUCT @ 1.35'

NEW HOLE ~ 2 FT SW of FIRST

ABANDON BECAUSE OBSTRUCT @ 1.35'

NEW HOLE ~ 3 FT W of 1ST  
ABANDONED.

K. P. 11-16-88

100 N, 2300 E

Begin @ 1212

SAMPLE NEEDED

LABELED

11-16-88

SLICE @ 2200

MURKIN @

0 2.5'

0-.6' - Dark brown clay red  
TO LIGHT BROWN CLAY AT 4'

.6'-1.45' - LIGHT BROWN CLAY, TINY  
FRAGS, CURVED FRAGS

UP VERY DARK BROWN CLAY

- AREAS OF GRAY SANDY SILTY  
CLAY w/ LITTLE PM

1.45'-1.7' " " "  
1.7'-2.5' " " "

ANOTHER SAMPLE  
BEGUN

LABELED

11-16-88

1 1/2 #

SLICE @ 2200

3.5'

2.5'-3.55' - Brown clay, TIGHT  
CONTACT

3.85-4.5' - Brown clay, VERY  
SATURATED, LARGE FRAGS

.4 ppm ABOVE GRADE HAV

100 N, 2300 E

Begin @ 1212

0-.0.7' - DARK SOIL WITH OCC. MAT.

.7-1.0 - BROWN CLAYED SOIL

1.0-1.75' - LIGHT BROWN SILTY CLAY,  
WELL COMPACTED

1.75-1.95' - SANDY, SILTY, LT. BROWN CLAY

11-16-88

1.45 - 2.35 VERY LT. BROWN SANDY  
CLAY W / PEBBLES  
2.35 - 2.8 - " " "  
OBSTRUCTION PREVENTS FURTHER ADVANCEMENT.

C pipe above Borehole - H2O  
FINISH AT 1418

Begin 100 N, 2400 W @ 1422 HRS

0' - 1.0' DARK CLAYEY SOIL  
1.0 - 1.3' DARK SOIL W / ORG. MAT.  
1.3 - 1.7' GRAY SILTY CLAY  
1.7 - 2.3' " " " MUD STIFF

AND COMPACTED

2.3 - 3.0' " " " "  
OBSTRUCTION PREVENTS ADVANCEMENT

Complete @ 1434 HRS

*K. Mark*  
11-16-88

ARRIVE 100 N 2500 E @ 1439 HRS  
SAMPLE NODE

DIG LABELED  
PRJ #  
SL 100-2500  
11-16-88  
14 45  
Includes  
0-2.1'

0 - .7' - DARK, COMPACTED SOIL  
.7 - 1.0' - " " "  
LIGHT BROWN CLAY @ .9'  
w / PEBBLES  
1.0 - 1.35' " " " ORG. MAT  
(TREE ROOTS)  
1.35 - 1.7' - LT. BROWN CLAYEY WITH  
LOCALIZED GREENISH -  
GRAY CLAY

NEW SAMPLE B46  
MARKED  
PRJ #  
SL 100-2500  
11-16-88  
14 49  
Includes  
2.1' - 4.0'

1.7 - 2.1' " " "  

---

2.1 - 2.7' " " "  
2.7 - 2.9' BRAYISH BROWN SILTY  
CLAY  
" " "  
2.9 - 2.7' " " "  
w / LOCALIZED TIGHTLY COMPACT  
AREAS  
2.7 - 2.95' " " "  
CEASE AUGER - CLAY TOO  
STIFF TO AUGER.  
2.95 - 3.45 GREENISH - GRAY CLAYEY  
LOCAL COMPACTED  
3.75 - 4.0 PEBBLES WITHIN CLAY -  
REDDISH BROWN

*100 N - 2500 E  
C1400  
C1400*

*K. Mark* 11-16-88 Complete @ 1502 HRS

Began auger at 200 N 2300 E @ 1509 HRS

0 - 0.8' - DARK, ORG SOIL  
 0.8' - .95' - " " "  
 CEASE AUGER - OBS F. (WALK)

NEW HOLE ~ 2 FT W OF FIRST  
 - SAME RESULT @ .9'

NEW HOLE ~ 3 FT SW OF 1ST  
 - SAME RESULT @ .9'

ABANDON HOLE  
 HAU - 0 ppm above bkgrnd.

200 N, 2200 E

1555 HRS

### SAMPLE NODE

Sample point is under ~ 1 in WATER

SAMPLE BAN LABS

11-16-88

1555

SL 200-2200

Bay 1

0 - 2.4'

0 - .55' - DARK CLAYEY SOIL  
 VER. SATURATED  
 .55' - .85' - LIGHT BROWN -  
 REDDISH CLAY  
 " " "  
 .85' - 1.35' " " "  
 1.35' - 1.6' - LIGHT BKN CLAYEY  
 1.6' - 2.0' - DK. BRN CLAY  
 STILL VERY SATURATED  
 2.0 - 2.6' - VERY DK. BROWN CLAY  
 w/ pebbles

K. Mark  
 11-16-88

2nd Sample Ban

LABS

11-16-88

1610 HRS

SL 200-2200

BAN 2

2.4' - 4.1'

2.6' - 2.7' - DK. BRN CLAY  
 w/ PEBBLES  
 2.9' - 3.8' - DK. GRAY CLAY  
 NO PEBBLES.  
 3.8' - 4.1' - " "

FINISH HOLE 1615 HRS.

200 N, 2100 E

1620 HRS

0.0' - .6' - DK CLAYEY SOIL CHANGE  
 TO BRN CLAY AT .3'  
 .6' - .8' - BRN CLAY w/ WEATHERED SANDSTONE  
 FRAGMENTS  
 .8' - 1.05' - " " " w/ SANDY  
 CONSISTENCY  
 1.05 - 1.15 - SANDY (FILL MATERIAL); LT.  
 BROWN CLAYEY  
 1.15 - 1.4 - " " w/ LARGE PEBBLES  
 ROCKS FORCE TO CEASE AUGER

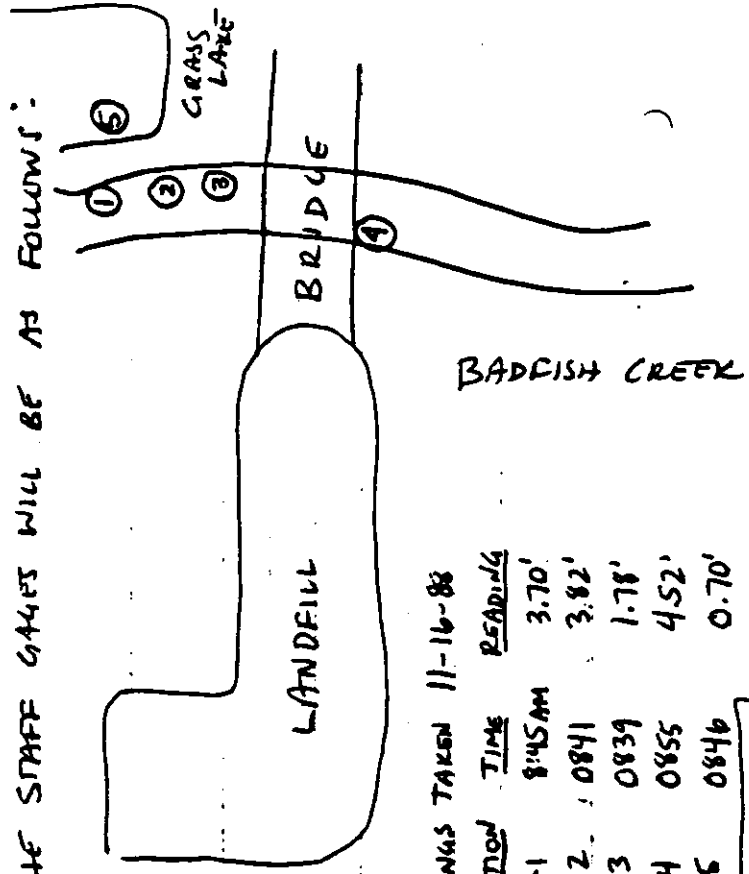
ANOTHER HOLE ATTEMPT ~ 3 FT SW OF 1ST  
 AUGERED DOWN TO 1.4' AND COULD GO  
 NO FURTHER.

K. Mark  
 11-16-88

2 ROWS WERE COMPLETED FOR THE GEOPHYSICAL SURVEY TODAY -  
 ROWS 300 N, 400 N (ABNER & CLAYTON)

STAFF GAUGE READINGS

IT WAS DECIDED THAT THE NUMBERING OF THE STAFF GAUGES WILL BE AS FOLLOWS:



READINGS TAKEN 11-16-88

LOCATION	TIME	READING
SW-1	8:45 AM	3.70'
SW-2	0841	3.82'
SW-3	0839	1.78'
SW-4	0855	4.52'
SW-5	0846	0.70'

DESCRIPTION

- SW-1 - IN CURVE OF BADFISH CREEK; READ FROM EAST BANK
- SW-2 - NEAR PROPOSED WELL P-7A; READ FROM EAST BANK
- SW-3 - UPSTREAM OF SITE; READ FROM EAST BANK
- SW-4 - DOWNSTREAM OF BRIDGE ACROSS BADFISH CREEK.
- SW-5 - GRASS LAKE

RM/mb 11-16-88

SUMMARY OF ACTIVITIES

1. DESCRIPTIONS AND AUGERING WAS DONE ON THE SOIL AT THE NODES 100 N, 1000 E THROUGH 200 N, 2100 E
- SAMPLES FOR MOISTURE AND GRAIN SIZE WERE TAKEN AT:
  - 100 N, 1600 E
  - 100 N, 2200 E
  - 100 N, 2500 E
  - 200 N, 2200 E
2. READINGS WERE TAKEN AT THE SURFACE WATER STAFF GAUGES.
3. THE GEOPHYSICAL SURVEY COMPLETED 2 ROWS (300 N, 400 N)

PROBLEMS ENCOUNTERED

ADVERSE WEATHER CONDITIONS (WIND; OAD)

DEPARTURES FROM THE WORKPLAN

NONE

ACTIVITIES SCHEDULED FOR NEXT DAY

1. CONTINUE SAMPLING AT 200 N, 2200 E
2. CONTINUE GEOPHYSICAL SURVEY

Kevin D. M... 11/16/88



032

033  
11-17-88 ARRIVED SITE 0735 HRS  
PELA ARRIVED 0735 HRS

SAFETY MEETING 0750 HOURS

CONCERNS:

ACTION TAKEN

1. HYPOTHERMIA; FREQUENT BREAKS
2. INDUSTRIAL WASTE; HNU readings, be prepared for respiratory action

\*WEATHER 0750 HOURS

34° W/ WINDS FROM THE NW AT  
25-30 MPH.

BEGIN 200 N, 2000 E @ 0810 HRS

0 - 0.4' - DARK CLAYEY w/ LG. MAT.

0.4' - 1.3' - BROWN CLAYEY WITH LOCALIZED  
AREAS OF TAN, SANDY CLAY; MANY  
MEDIUM SIZE PEBBLES

1.3' - 1.55'

OBSTRUCTION (ROCK) - ABANDON HOLE  
1 ppm above bkgd.

ANOTHER HOLE BEGUN ~ 2 FT S. OF FIRST  
HOLE ABANDONED DUE TO LARGER PEBBLES  
FOUND AT 1.0'

0.5 ppm in hole

FINISH 0825 HRS

KMah 11-17-88

*Handwritten signature*



K/Mark 11-17-88  
 ROCK ABSTRACT HANDED IN

0 - 45' - LT BRN CLAY  
 - 45-6' - PERLES FOUND IN LT. BRN  
 SILTY CLAY  
 6' - 8' - CLAY MORE STIFF, SOME  
 LENTIL

Begin 200 N. 1400 E @ 0946

0 - 16' - GRAY DK CLAY w/ ORG.  
 MAT TO 4' CLAY CHANGE  
 TO LT. BRN @ 4' (SILTY,  
 SANDY CLAY)  
 GARAGE FOUND AT 7' (DRAIN)

200 N. 1500 E Begin @ 0940

FINISH @ 0938 hrs

18' @ 17' - SMALL CROSS BITS FOUND  
 RD BRN CLAY  
 14-15' - GRAY, SILTY CLAY w/ LENTILS  
 SAME GROUND AS FIRST TO 14'

NEW HOLE AT 3 FT EAST OF FIRST

036

K/Mark 11-17-88

0 - 6' - OK CLAY w/ ORG. MAT  
 LT BRN SANDY CLAY @ 6'  
 6' - 10' - " " " " " "  
 10' - 12.5' - LENTILS (PLANT) AT 1.0'  
 0 - 12.5' - HANDED

Begin 200 N. 1200 E @ 1011 hrs

0 - 2.4' - GARAGE (STANDARD) @  
 2.2' - 2.5' - VERY THINLY COMPACT

1.8' - 2.2' - GREENISH - CLAY @ LB

1.8' - 1.8' - GRAYISH SILTY CLAY @ 85'

1.8' - 1.8' - LT BRN SANDY CLAY

0' - 5' - DK CLAY w/ ORG. MAT

Begin 200 N. 1300 E @ 0935  
 SAMPLE NODE

NEW HOLE AT 3 FT NE OF FIRST  
 GARAGE HIT AT 9.5'

037

M/11/78  
5 pm HNU  
@ 2.0'

0 - 4 DK ORGANIC SOIL TO .35  
OBSTRUCTION SDP ASIN @ .6'  
INSTRUMENT ~ 3 FT S OF 1ST  
CLAY FOUND 4' BELOW SURFACE  
WEATHERED SANDSTONE WINDLIF RECORD  
CLAY

Begin 200 N 700 E @ 1055 hrs

ANOTHER ATTEMPT ~ 2 FT E OF FIRST  
CORNER AT .55 (OBSTRUCTION)  
ANOTHER ATTEMPT ~ 3 FT N OF FIRST  
CORNER AT .65 (OBSTRUCTION)  
ANOTHER ATTEMPT ~ 3 1/2 FT NE OF FIRST  
CORNER AT .75 (OBSTRUCTION)

0 pm HNU

0 - 4.5 DK CLAY TO 4' THICK COVER  
CHANGE TO LT BAN SANDY CLAY AT 4.5'  
RECORD @ 1.0' OBSTRUCTION

Begin 200 N 800 E @ 1044 hrs

1.45 - 1.6 GREENISH CLAY - VERY SANDY  
CLAY  
1.6 - 2.25 " " "  
2.25 - 2.65 LAMINATE (PROSE) AT 2.6'  
2 pm HNU

0 - 6 DK CLAY TO .25 THICK LT  
BAND WELL COMPACT TO .6'  
" " "  
BEDDISH - BAND AT .75  
" " "  
SANDY BEDS  
Begin to see GREENISH - CLAY  
LIGHT CONTACT

Begin 200 N 900 E @ 1035 hrs

0 - 6 DK CLAY TO .25 THICK  
LIGHT BAND COMPACT TO .6'  
" " "  
" " "  
SOME GIBBERITE (METAL) FOUND  
MORE COMPACT IN WELL CONTACT  
LT BAN CLAY

0 pm HNU

Begin 200 N 1000 E @ 1025 hrs

0 - 4.5 DK CLAY TO 2'  
LT BROWN SANDY CLAY TO 5.8'  
" " "  
" " "  
LT BROWN CHANNE TO LT  
GRAY SILTY AT 1.05  
GIBBERITE (PUSSTIC) FOUND  
AT 1.2

Begin 200 N 1100 E @ 1017 hrs

KML 11-17-88

CHURCH ENCLOSED @ 2.45'

3 PPM ON 14U

BEGIN 200 N, 600 E @ 1110 hours

0 - 0.6' - RICH BITTER SOIL w/ORG. MAT.  
0.6 - 1.9' CLAY (LT. BAN) WITH COMPACT  
OBSTRUCTION @ .95

ANOTHER ATTEMPT ~ 3 FT NE OF 1ST  
LENS @ 1.85' (OBSTRUCTION)  
ANOTHER ATTEMPT ~ 2 FT E OF 1ST  
~~LENS @~~

LT BN. STONY CLAY TO 1.6  
GREENING GLAY WELL CONTACT  
FOUND AT 1.605  
1.05 - 1.95

MANY REBAR'S FOUND AT 2.0'  
0 ppm H<sub>2</sub>O  
LENS @ 2.1' - OBSTRUCTION

*[Signature]*

BEGIN 200 N, 400 E  
SAMPLING NODE

AT 2.55' - WOOD CHIPS GAVE NOTION  
THAT A BUSHY PILE WAS BELOW.  
ANALYZE REFUSAL AFTER 2.85

LABELED  
SL 200.500  
11-17-88  
600 LOC 1  
0 - 2,85'  
PPOS \*

200 N, 400 E

1321 HRS.

0.5 ppm

SAMPLE NODE

1.35 - 1.5' CHARACTIC (PLASTIC)  
STRAW "GARAGE" ODOUR

LABELED

SL 200.400

11-17-88

13 13

0 - 1.5'

BAN 1 OF 1

*[Signature]* 11-17-88

180

042

\* RESAMPLE OF 100N, 400E

DAN FELT THAT MAYBE HE DIDN'T GET ENOUGH SAMPLE LAST TIME - WHILE WE WERE IN VIEWING - HE WANTS ANOTHER SAMPLE

CARBONATE WAS COLLECTED AT APPROX 1.2' WHICH WAS THE SAME AS LAST TIME AT THIS LOCATION

BEIGN 200 N, 300 E @ 1330

0-.6 - DK CLAY w/ ORG. MAT  
0.6-.8 - DK CLAY w/ LOCALIZED LT. BEN CLAY

.8-1.2 GRAYISH BROWN SILTY CLAY  
1.2 CARBONATE - (FIBRONS INSULATION)  
O ppm H<sub>2</sub>O

BEIGN 200 N, 200 E @ 1348

0-.45 DK GRN CLAY w/ ORG. MAT  
MANY BUBBLES  
.45-.95 " " "  
.95-1.2 DK GRN WELL COMPACTED CLAY  
STILL ORG. MAT.

1.2-1.55 DK GRN CLAY - STIFF  
1.55-1.65 " " w/ REBBLES

KMark 11-17-88

119

043

1.65-2.15 VERY STIFF, DK. BEN CLAY  
2.15-2.55 " " " " "  
2.55-2.7 " " " w/ ROCK FRAGMENTS  
2.7-2.75 LT. BEN SILTY CLAY w/ ROCK FRAG.  
2.75 - CEASE AUGURING DUE TO OBSTRUCTION (ROCK)

O ppm H<sub>2</sub>O

ANOTHER ATTEMPT ~ 2 FT N OF FIRST  
CEASE @ 2.3 FT

BEIGN 200 N, 100 E @ 1407

0-.35 DK CLAY SOIL TO .35 THEN  
0.35-1.0 COLOR CHANGE TO LT. BEN. WELL  
COMPACTED CLAY

1.0-1.55 " " "  
1.55-1.70 LESS COMPACTED, THICK ORG. MAT.  
1.7-2.2 " " "  
2.2 CARBONATE (PASTIC) FOUND  
O ppm H<sub>2</sub>O

BEIGN 200 N, 0 E  
C - 1.4  
1.4' - 2.2

@ 1419  
DK BROWN CLAY w/ ORG. MAT  
LT. BEN, MORE SILTY  
w/ REBBLES, SANDY CONSISTENCY  
STILL ORGANIC MAT.

KMark 11-17-88

CAD

044

2.25' - 2.65' - CLAY MORE SILTY, COLOR CHANGE TO GRAY, STILL ORG. MAT.

2.65' - 2.85' - SILTY, SANDY GRAY CLAY

2.85' - 3.7' - " " " " " " " "

3.7' - 4.0' - " " " " " " " "

FINISH @ 1431

0 ppm H<sub>2</sub>O

BEGIN 300 N, 0 E @ 1444  
SAMPLE NODE

SAMPLE BOX LABEL
ST-300-0
11-17-88
1445
Box 1 of 1
0-2.25'

0' - .4' - DK BRN CLAYEY SOIL

.4' - 2.0' - LT BRN TIGHTLY COMPACTED CLAY

2.0' - 2.25' - " " " " " " " "

CEASE AUGER @ 2.25' w/ PEBBLES

ROCK OBSTRUCTION

0 ppm H<sub>2</sub>O

KMash

045

BEGIN 300 N, 100 E @ 1453

0' - .4' - DK BRN CLAYEY w/ ORG. MAT.

.4' - 1.0' - LIGHT BRN WELL COMPACTED CLAY

1.0' - 2.0' - LIGHT BRN. SILTY CLAY

2.0' - 2.4' - " " " " " " " "

w/ SANDSTONE

0 ppm H<sub>2</sub>O

2.4' - 2.6' - CARBONATE (FIBROUS INSULATION)

BEGIN 300 N, 200 E @ 1505

0' - .7' - DK BROWN CLAY w/ ORG. MAT.

CHANGE TO LT. BROWN @ .5'

.7' - 1.0' - REDDISH - SANDY CLAY, LOOSELY COMPACTED

1.0' - 1.25' - " " " " " " " "

1.25' - CEASE AUGER DUE TO OBSTRUCTION

0 ppm

ATTEMPT NEW HOLE ~ 2 1/2' NE OF 1<sup>ST</sup>

SAME WEIGHT AS 1<sup>ST</sup>

1.35' - REDDISH SANDY CLAY w/ PEBBLES

CEASE AUGER @ 1.55' DUE TO OBSTRUCTION

Complete @ 1518

KMash  
11-17-88

BEGIN 300 N, 300 E @ 1520

0 - .6 DRK BRN CLAY w/ org. MAT

TO .4

LT SANDY STIFF CLAY w/

PEBBLES TO .8

CEASE AUGER @ .8 DUE TO

ROCK OBSTRUCTION

ATTEMPT NEW HOLE ~ 3 FT E OF 1ST

CEASE @ 1.0' DUE TO OBSTRUCTION

(LOCK)

0 pm HUU

ATTEMPT NEW HOLE ~ 2 FT SE OF 1ST

CEASE @ .4 DUE TO ROCK OBSTRUCTION

ATTEMPT NEW HOLE ~ 4 FT SE OF 1ST

AT 1.2 HITS OF CEMENT SANDSTONE FOUND

0 pm HUU CEASE @ 1.2 DUE TO ROCK OBSTRUCTION

R. Mark  
11/17/88

BEGIN 300 N, 400 E @ 1535

0 - .55' - DRK BRN CLAY w/ ORGANIC MAT.

.55' - .75' - LTR BRN, TIGHT COMPACT,

.75' - .95' - " " "

.95' - 1.3' PEBBLES SHOW AT 1.1'

w/ SANDY CP SANDSTONE

IN LT BRN SANDY CLAY

1.3' - 2.0'

SOME GRANITE FRAGS @ 1.9'

2.0' - 2.6' LT BRN SANDY CLAY, PEBBLES

CEASE AUGER @ 2.6

ROCK OBSTRUCTION

0 pm HUU

ANOTHER HOLE ATTEMPT AT ~ 3 1/2 FT

N E OF 1ST

CEASE AUGER @ .6' ROCK OBSTRUCTION

ANOTHER HOLE ATTEMPT ~ 2 FT N OF 1ST

CEASE AUGER @ 1 FT.

ANOTHER HOLE ATTEMPT ~ 2 FT E OF 1ST

CEASE AUGER @ .9 FT

ANOTHER HOLE ATTEMPT @ ~ 2 FT NW OF 1ST

CEASE AUGER @ 1.25 1.4

ANOTHER

R. Mark  
11-17-88



049

SUMMARY OF ACTIVITIES

1. DESCRIPTIONS AND AUGERING WAS DONE ON THE SOIL AT THE NODES 200N, 2200E THROUGH 300N, 500E.

SAMPLES FOR MOISTURE CONTENT AND GRAIN SIZE WERE TAKEN AT:

- 200 N, 1800 E
- 200 N, 1300 E
- 200 N, 500 E
- 200 N, 400 E
- 300 N, 0 E

2. THE GEOPHYSICAL SURVEY COMPLETE 3 ROWS (500 E, 600 E, 700 E)

PROBLEMS ENCOUNTERED  
NONE

DEPARTURES FROM THE WORKPLAN  
NONE

- ACTIVITIES SCHEDULED FOR NEXT DAY
1. CONTINUE SAMPLING AT 300N, 600E
  2. CONTINUE GEOPHYSICAL SURVEY
  3. TAKE STAFF GRAVE REMAINS

K. M. Mal 11/17/88

048

Beam 500 N, 500 E @ 1625

0.4 - BK BEAM STAY " / GRA  
CENTRE / 1/4" @ 16' DUE TO  
ROCK OBSTRUCTION

ANOTHER ATTEMPT AT APPROX 2 FT. EQUAL ST  
CENTRE AUGER @ 95'  
STEP @ 1640

\* NOTE,

THROUGHOUT THE DAYS ACTIVITIES

DECONTAMINATION PROCEDURES CONSISTING OF

1.) WASHING AUGER WITH TIDE & WATER

2) DISTILLED RINSE

WERE CARRIED OUT BETWEEN EACH AUGERING NODE.

GEOPHYSICAL SURVEY

ROWS 500 E, 600 E, 700 E WERE COMPLETED BY 11:30 AM TODAY

LEFT SITE 1715 HRS

K. M. Mal 11-17-88

370  
 050  
 11-18-88  
 Arrived on site 7:35  
 PEA already on site  
 Area of Concern:  
 1. With the wind - there is a low order  
 threshold for organisms - Watch for symptoms  
 2. Hypothermia - frequent breaks  
 3. Overexertion - frequent breaks

0755 Safety Meeting

The part for their TIP came today so  
 Clayton reassembled and calibrated -  
 Left trailer and headed for 300 N 600 E @ 0830 hrs

Began 300 N 600 E @ 0838 hrs

0 - .35  
 DRILLED CLAY W/OOL MAT .35 - .6  
 LT. BAN CLAY W/PBBBBS  
 CEASE @ .6' DUE TO ROCK OBSTRUCTION  
 ANOTHER ATTEMPT ~ 3 FT W OF FIRST  
 AT .5 LT. GRAY SANDY W/PBBBBS  
 .6' METAL LANTERN FOUND IN GRAY  
 SANDY  
 .75  
 LT GRAY / PBBBBS, SUE  
 VERY SANDY! SOME OOL MAT  
 CEASE AT .8' DUE TO OBSTRUCTION

051  
 2 PICS TAKEN  
 OF HOLE AFTER  
 SURVEY @ 0740

ANOTHER HOLE ATTEMPT ~ 3 FT S OF 1ST  
 AT .75 A PIECE OF GRASS WAS FOUND  
 AT .85 GRASS (PLASTIC) AND WHAT LOOKED  
 TO BE BURNED REMNANTS OF GARBIK WAS  
 FOUND  
 .5' PPM READ ON THE TIP  
 BEGAIN 300 N, 700 E @ 0905

0 - .45 DR. BLD CLAY W/OOL / ROCK INT AT .45  
 LT. BLD SILEY GRAY W/PBBBBS  
 TRACES OF GRAY SILTY COMED AT  
 1.0'  
 CEASE AFTERING AT 1.3' (ROCK OBSTRUCTION)  
 ANOTHER HOLE ATTEMPT ~ 2' SE OF 1ST  
 CEASE AFTER @ .9' DUE TO ROCK OBST.

Began 300 N 800 E @ 0934  
 SAMPLE NODE

SAMPLE FROM  
 11-18-88  
 5130-800  
 PRT #  
 0945  
 0 - .6  
 DR BLD CLAY W/OOL MAT  
 COLOR CHANGE TO LT. BROWN  
 SUFF CLAY @ .5  
 .6 - .75  
 .75 - .9  
 CEASE @ .9  
 ANOTHER HOLE ATTEMPT ~ 3 FT NE OF 1ST  
 CEASE @ .75 (ROCK OBSTAC)

120

12

AT 0948, A DECISION WAS MADE THAT BECAUSE OF THE AMOUNT OF ROCK ENCOUNTERED, A NEW, LARGER AUGER BIT WOULD BE USED.

AFTER ATTEMPTING TO USE NEW AUGER BIT, IT WAS FOUND THAT IT WAS TOO LARGE TO HOLD THE SILTY CLAY, IT WOULD FALL OUT THE HOLES -

THE OLD CLAY COVER BIT WAS PUT BACK ON -

ANOTHER HOLE ATTEMPT 3 FT. S OF FIRST WENT DOWN TO .6' AND COULD GO NO FURTHER -

ENOUGH SAMPLE WAS TAKEN FOR THE PROPER ANALYSIS -

0 ppm reading on the TIP

BEGIN 300 N, 900 E @ 1035 HRS

0' - .6' DK CLAYEY w/ ORG. MAT.; COLOR CHANGE TO LT. BRN @ .4'  
 .6' - .9' LT. BRN CLAY CHANGING TO SILTY/SANDY LT. BRN.  
 CEASE @ 1.0' (ROCK)

KMark 11-18-88

120

12

NEW HOLE ATTEMPT ~ 1 FT NE OF 1ST

SAME GEOLOGY (LT BRN. SANDY, SILTY) CLAY TO 1.5

AT 1.5, SAME GEOLOGY, MORE SATURATED, MANY ROCK FRAGMENTS

AT 1.9 THE CLAY CHANGES TO REDDISH-BROWN SILTY.

1.9 - 2.15 " " " " " "  
 CEASE @ 2.2'

ANOTHER HOLE ATTEMPT ~ 3 FT SW OF 1ST CEASE @ .9'

TIP READING .7 PPM WHICH DIMINISHED AFTER ~ 1 MINUTE

BEGIN 300 N, 1000 E @ 1054 HRS

0 - .3 DK BRN CLAYEY w/ ORG. MAT.  
 .3 - 1.3 LT. BRN. WELL COMPACTED CLAY  
 1.35 GARBAGE (PLASTIC AND FIBROUS MATERIAL)

0 ppm on TIP

KMark 11-18-88

Begin 300 N, 1300 E @ 1130 hrs

300 N, 1300 E

SAMPLE NODE

BH  
 11/18/88  
 0.1-0.1  
 0.1-0.3  
 0.2-0.8  
 0.8-1.2  
 1.2-1.45  
 1.45-1.55  
 1.55-1.55  
 1.55-2.1  
 1.55-2.1  
 2.1-2.6

DR BLD CLAY w/ ORG MAT  
 PHE BEAD SANDY CLAY  
 w/ PEBBLES  
 VOLT SANDY PHE BLD CLAY  
 w/ LIGHT GREENISH CLAY  
 SILTY CLAY  
 SAME AS ABOVE BUT  
 MORE SANDY  
 GREENISH / LIGHT STRIP CLAY  
 THINERS @ 2.4'

PALE RED "FERRUGINOUS" CLAY  
 APPEARS AT 3.1'  
 LARGE PEBBLES APPEAR  
 GREENISH / LIGHT STRIP  
 CLAY THINERS @ 3.3'  
 3.15 - 3.25  
 3.25 - 3.35  
 3.35 - 3.5  
 3.5 - 4.05  
 4.3'

GREENISH / LIGHT STRIP CLAY  
 THINERS @ 2.4'

0 pm Tip reading

R/M/ack 11-15-88

FINISH @ 1200 HRS  
LUNCH BREAK

Begin 300 N, 1100 E @ 1100 HRS

DR BROWN SOIL w/ ORG  
 PALE BRN CLAY w/ PEBBLES  
 " " SILTY  
 GERSE MUDRE @ 1.2 (LOCAL)

ATTEMPT ANOTHER HOLE @ ~ 2 FT NE of 15

SAME GEO TO 1.15  
 @ 1.15 SILTY, LT CLAY (L.M.)  
 GARBAGE HIT @ 1.3

0 pm Tip

DR BLD CLAY w/ ORG MAT  
 PALE RED SILTY LOOSELY COMPACT CLAY  
 w/ TRACE  
 GREENISH / LIGHT STRIP CLAY  
 w/ TRACE  
 DR. BLD CLAY w/ ORG MAT  
 0.2 - 0.2

Begin 300 N, 1200 E @ 1110 HRS

DR. BLD CLAY w/ ORG MAT  
 0.2 - 0.2

DR. BLD CLAY w/ ORG MAT  
 0.2 - 0.2

DR. BLD CLAY w/ ORG MAT  
 0.2 - 0.2

DR. BLD CLAY w/ ORG MAT  
 0.2 - 0.2

R/M/ack 11-15-88

Tip pm to 1.5 - 2.0

GARBAGE HIT @ 1.7

Very little pebbles

1.4 - 1.7

1.5 - 1.4

TRACE GRAY SILTY CLAY

1.1 - 1.15

w/ TRACE DR. SILTY CLAY

0.85 - 1.1

GREENISH / LIGHT STRIP CLAY

0.6 - 0.85

DR. BLD SILTY LOOSELY COMPACT CLAY

0.2 - 0.2

DR BLD CLAY w/ ORG MAT

Resume augering @ 1258 hrs

300 N, 1400 E

0' - 1.4' - PALE BRN STIFF CLAY  
1.4' - 2.05' - GRAY, SANDY SILTY CLAY BECOMING SATURATED AT 1.95'  
2.05' - GARBAGE HIT

TIP READING 2.5 - 3.0 PPM

300 N, 1500 E @ 1305 HRS

0' - .05' - DK. CLAYEY BRN W/Org. MAT  
.5' - 1.5' - PALE BRN. SANDY CLAY TO 1.5'  
1.5' - GARBAGE (PLASTIC) HIT

1.5' - 1.9' - DK. GREEN-LGY CLAY, STIFF  
1.9' - 2.0' - GARBAGE HIT @ 2.0' (PAPER)

.6 - .9 PPM TIP READING VERY SATURATED

300 N, 1600 E @ 1314 HRS

0' - .45' - DK CLAYEY BRN W/Org. MAT. @'s to  
.45' - .7' - .45 AT .45 COLOR CHANGE TO  
.7' - 1.3' - PALE BRN. SANDY. AT .7 COLOR CHANGE TO DARK GREY SANDY.  
1.3' - 2.0' - GREENISH GRAY - VERY ORGANIC (RUBS)

(1 PPM TIP) 2.0' - 2.2' WASTE MULCH HIT @ 2.2'

7.5 ppm TIP

ML 11-18-88

300 N, 1700 E @ 1323 HRS

0' - .4' - DK CLAYEY BRN W/Org. MAT  
.4' - .95' - PALE BRN STIFF CLAY  
.95' - 1.75' - PEBBLES ENCOUNTERED @ 1.4'  
1.75' - 1.8' - PALE AROUND STIFF CLAY W/ PEBBLES  
OPPM TIP CEASE AUGER @ 1.8' (ROCK)

ATTEMPT ANOTHER ~ 2 FT. W OF 1ST  
CEASE @ 1.4' (ROCK)

ATTEMPT ANOTHER ~ 3 FT NW OF 1ST  
SAME GEO AS FIRST TO 1.8'  
1.8' - 2.0' - GRAY SILTY W/ PEBBLES  
2.0' - GARBAGE (PVC) HIT @ 2.0'  
1.8 - 2.3 PPM TIP

300 N, 1800 E @ 1344 HRS  
SAMPLE NODE

0' - .35' - DK. BROWN CLAYEY W/ CRG. MAT.  
.35' - 1.05' - PALE BROWN STIFF CLAY.  
1.05' - 1.05' - CEASE @ 1.05' (ROCK)

ATTEMPT NEW AUGER ~ 3' W OF FIRST  
GEO. SAME TO 1.0'  
(GARBAGE) PLASTIC ENCOUNTERED @ 1.15'

0 PPM TIP

BAG LABELED

300-1800 0-1.05'  
11-18-88

ML 11-18-88

K/M/11-18-88

Begin 300 N, 2000 E @ 1415  
 0' - .35 DE BROWN CLAY w/ ORG MAT  
 .35 - 1.2 - PALE BROWN STIFF CLAY w/  
 PEBBLES  
 1.2 - GROUTAGE (STYROMORUM) HIT  
 4 - 4.5 ppm IN HOLE ON TOP

Begin 300 N, 2100 E @ 1430  
 0' - .5' PATE BROWN STIFF CLAY w/  
 SOME ORG MAT  
 .5' - .85' PATE BROWN STIFF CLAY  
 .85' - 1.0' GREEN - GRAY SANDY CLAY  
 w/ PEBBLES  
 1.0' - 1.05' STRANGE "GROUNDED"  
 5 - 6 ppm TIP IN HOLE  
 PEBBLES ENCOUNTERED IN STIFF  
 SANDY PATE BROWN CLAY  
 PPM BERTHING ZONE - .5 ppm  
 PPM IN HOLE - 7-8 ppm  
 LAMINATED PAPER HIT AT 1.35'

Begin 300 N, 1900 E @ 1401

058

K/M/11-18-88

Begin 400 N, 1900 E @ 1456 HRS  
 (Middle of gravel road)  
 A SHOVEL DUG TO .45 FT WAS USED AND  
 THEN AN AUGER ATTEMPT MADE. - TO NO AVAIL  
 IF HOLE FROM THE SURFACE IS IMPOSSIBLE

LANDFILL AREA  
 1 ppm IN THE HOLE  
 STOP @ 1443

CEASE AUGER @ .9' (ROCK)  
 ANOTHER ATTEMPT ~ 3 1/2' W OF 1st  
 MUCH GRAVEL FOUND @ .8' (CEASE AUGERING)  
 THIS WOULD NOT BE UNCOMMON AT THIS NODE IS  
 BLIGHT NEXT TO THE ROAD AND OFF OF THE  
 LANDFILL AREA

PALE BROWN CLAY w/ ORG	0 - .25	11-18-88	1300 - 2100
MATERIAL	.25 - .6	11-18-88	1440
VERY SANDY PATE BROWN	.6 - .75	11-18-88	1440
CLAY	.75 - .9	11-18-88	1440

Begin 300 N, 2100 E @ 1430  
 SAMPLE NODE

059

\* IT SHOULD BE NOTED THAT NO STAKES WERE FOUND FOR THE REST OF 300N; THEY WOULD BE PLACED IN MR BLUNDERMAN'S COW PASTURE, BUT WERE NOT FOUND

400  
~~400~~ N 1700 E @ 1513 HRS

THIS AREA IS ~ 4 FT N OF GRAVEL RD NO AUGERING PAST .5 FT COULD BE DONE AS A RESULT OF THE GRAVEL AND ROCK IN THIS AREA

THE GEOPHYSICAL SURVEY HAS BEEN COMPLETED TO ALL AREAS THAT WERE STAKED OFF. THEY WILL NOW DETERMINE WHETHER OR NOT TO RUN PERPENDICULAR LINES.

BEGIN 400 N 1600 E @ 1538 HRS  
SAMPLING NODE

0' - .35 HARD CLAY w/ SOME MATTER AND MANY PEBBLES.

CEASE AUGER @ .35 DUE TO ROCK

ANOTHER HOLE ATTEMPT @ ~ 1/4 SE OF 1ST - AUGER TO .45' (CLAY MORE SILTY THAN 1ST) ~~CEASE~~

LABELED  
11-18-88  
1545 HRS  
Buy 1/6/1  
SL 400-1600

11-18-88

ANOTHER ATTEMPT ~ 3 FT NW OF 1ST AUGER TO .45 AND STOP OBSTRUCTION (ROCK)  
0 ppm IN HOLE TIP

BEGIN 400 N 1500 E @ 1548

0' - .45 DK BRN CLAY, VERY LOOSELY COMPACTED, MANY PEBBLES  
.45 - .65 " " " " "

CEASE @ .65 DUE TO ROCK OBSTRUCTION

ATTEMPT NEW HOLE ~ 2 FT SW OF 1ST

A PIECE OF PLASTIC EMULSIFIED @ .5' MORE FOUND @ .6' LARGER PEBBLES @ .65' CLAY VERY SANDY .65 - .8 = SAME AS ABOVE

CEASE AUGERING @ .95  
0.6 ppm in Hole

11-18-88

062

BEGIN AUGERING 400 N, 1400 E @ 1600 HRS

0' - .65' DK BRN CLAYEY w/ORG. MAT  
 .65' - 1.15' REDDISH BRN SILTY w/PEBBLES  
 1.15' - 1.25' " " " " " "  
 ALSO BEGINNING OF GRAY-GREEN  
 @ 1.15'  
 1.25' GARBAGE (PLASTIC) HIT  
 0 ppm TP

BEGIN AUGERING 400 N, 1300 E @ 1608 HRS

0' - .65' DK. BRN CLAYEY SOIL w/ORG. MAT.  
 .65' - 1.0' PALE BRN CLAY; LOOSE  
 COMPACTION; SANDY  
 1.1' - 1.35' SANDSTONE FOUND @ 1.1' w/  
 SANDY CLAY. (PEBBLES)  
 1.35' - 1.6' " " " " " "  
 @ 1.7' DK. GRAY SILTY CLAY w/MANY  
 PEBBLES  
 1.7' - 2.25' " " " " " "  
 @ 2.25' LT. GRAY SILTY CLAY  
 2.25' - 2.45' " " " " " "  
 @ 2.5' A PIECE OF PLASTIC FOUND  
 2.6' LEASE (CARBON)

TIP READING IN HOLE 10.5 - 11 ppm

K.M. / 11-18-88

067

BEGIN 4100 N, 1200 E @ 1629  
SAMPLE NODE

LIMBED  
 1640  
 11/18/88  
 @ 400-1300  
 15g 1 of  
 01 -  
 PRS: #

0' - .45' - DK CLAYEY BRN SOIL  
 .45' - .6' - PALE BRN SILTY CLAY  
 CHANGING TO SANDY GRAY  
 AT .6'  
 CEASE AUGER @ .6' - (ROCK  
 OBSTRUCTION)

NEW ATTEMPT ~ 2 FT W OF 1ST  
 (LARGE) PLASTIC FOUND @ .55'  
 CEASE @ .8

0 ppm ON TIP

K.M. / 11-18-88



SUMMARY OF DAILY ACTIVITIES

1. DESCRIPTIONS AND AUGERING WAS DONE ON THE SOIL AT THE NODES 300N, 600E THROUGH 300N, 2100E. & ALSO 400N, 1400E, 1700E, 1600E, 1500E, 1400E, 1300E, & 1200E.

SAMPLES FOR MOISTURE & GRAIN SIZE WERE TAKEN AT:

300 N, 800 E  
 300 N, 1300 E  
 300 N, 1800 E  
 300 N, 2100 E  
 400 N, 1600 E  
 400 N, 1200 E

GEOPHYSICAL SURVEY COMPLETE TO ALL STAKED AREAS.

SURFACE GAUGE READINGS WERE TAKEN AS FOLLOWS:

LOCATION	DATE	TIME	READING
SW 1	11-18-88	1331	3.85
SW 2	"	1325	3.96
SW 3	"	1322	1.96
SW 4	"	1312	4.62
SW 5	"	1333	.76

11/19/88

0745 HRS - ARRIVED ON SITE

0805 HRS - PELA REPRESENTATIVES

ABNER PATTON

CLAYTON LINDSEY

DAN GREEN

NEIL MOSS

ARRIVED ON-SITE

WEATHER = LIGHT RAIN, 42°F.

SOME HUNTERS (4-8) WERE SPOTTED ON SITE AND IN PROXIMITY TO THE SITE. IT WAS DECIDED TO WAIT UNTIL THEY CLEARED AWAY.

0830 HRS - REVIEWED HEALTH & SAFETY WITH PELA. POINTS OF CONCERN:

- 1.) ORGANIC VAPORS - WILL MONITOR WITH HNU.
- 2.) HUNTERS - WEAR ORANGE OR WHITE CLOTHING AND STAY OUT OF WOODS UNTIL AFTERNOON.

0940 HRS BEGAN SAMPLING

DAN GREEN - AUGERER

NEIL MOSS - SAMPLE DESCRIPTOR

C. Meyer 11/19/88

11/19/85

DOB

400N, 1100E

0-0.8 FT BROWN SILTY CLAY  
ADULT REFUSAL

2 SWIFTED ADULT REBILS WITHIN  
TO GET ADULT TO TRY A NEW  
HOLE

0-0.75 FT BROWN SILTY CLAY;  
ADULT REFUSAL  
TRIED A 3RD HOLE 2 FT EAST  
OF OTHER HOLES.

0-0.6 FT BROWN SILTY CLAY  
0.6-0.8 FT BROWN SANDY SILTY CLAY

0.8 FT ADULT REFUSAL  
4TH ATTEMPT =

0-0.90 FT BROWN SILTY CLAY  
0.9 FT SMALL GLASS FRAGMENT  
ADULT REFUSAL

PHOTOGRAPHIC TIP BILGEGRANDS: Open  
IN 4TH BEEHIVE = 0.7 ppm

0915 HRS - HUNTERS BEGAN SHOOTING  
AT DEER IN OUR DIRECTION AND  
IN DIRECTION OF TRAILER.

C. Mump 11/19/85

1000

067

11/19/85

AFTER GUNFIRE CEASED, THE SAMPLING  
CONTINUED - BARN BEEHIVE, WILLOW, W. GARDEN  
DECIDED TO TAKE CORE IN TRAILER

1000 HRS - RESUMED SAMPLING

400N, 1000E

0-0.55 FT BROWN SILTY CLAY WITH ORANGE  
SILTY CLAY.

0.55-0.95 FT GRAY SILTY CLAY.  
1-0 FT (GARAGE, ALUMINUM(?) CAN.

HOLE IN BEEHIVE = 0.6 ppm

\* 1010 HRS - HUNTERS LEFT SITE

400N, 900E

0-0.7 FT BROWN SILTY CLAY

0.7-0.9 FT GRAY SILTY CLAY

0.9-0.95 FT GRAY CLAY TRAILER SIFT - DRY

0.95-1.0 FT GARAGE - TIRE

DOB

C. Mump 11/19/85

11/19/85

400 N, 500E

0-1.2 FT BROWN SILTY CLAY  
1.2-1.3 FT GARBAGE - PLASTIC  
1.3 FT = EOB

BATTERIES IN TIP RAN DOWN.

USED HNU. COULD NOT CALIBRATE - OUT OF GAS BUT WAS CHECKED EVERY DAY THIS LAST WEEK AND THE CALIBRATION WAS OKAY.

HNU = 0 ABOVE BACKGROUND IN BOREHOLE

1030 HRS

400 N, 700E

0-0.3 FT BROWN SILTY CLAY  
0.3-0.7 FT BROWN SAND & GRAVEL  
0.7 FT - 0.9 FT BLACK WOODY MATERIAL  
0.9 FT - 1.1 FT BROWN SAND & GRAVEL  
1.1 FT EOB GARBAGE - PLASTIC

HNU = 0 ABOVE BACKGROUND IN BOREHOLE

1040 HRS

400 N, 600E

0-1.2 FT BROWN SILTY CLAY  
1.2-2.2 FT GRAY SANDY SILTY CLAY w/ PEBBLES  
2.2 FT EOB ENCOUNTERED BLACK, MOIST MATERIAL

POSSIBLY BURNED PARAFFINE

HNU = 2.0 ppm IN BOREHOLE

C. Meyer 11/19/85

069

11/19/85

1055 HRS

400 N, 500E

SAMRING NODE

0-0.4 FT BROWN SILTY CLAY  
0.4-0.95 ORANGE BROWN SILTY CLAY  
0.95-1.25 FT BROWN-TAN & GRAY SILTY CLAY  
1.25 - EOB GRAY SANDY SILTY CLAY

2ND HOLE - 2 FT NORTH OF FIRST

0-1.1 FT SAME AS ABOVE

1.1 FT AUGER REFUSAL, EOB

3RD HOLE - 2 FT NW OF FIRST.

0-0.9 FT SAME AS ABOVE

0.9 FT AUGER REFUSAL, EOB

SAMPLE COLLECTED 1055-1115 HRS

SAMPLE PLACED IN 1/2 GALLON ~~ZIP~~ ZIPLOC PLASTIC BAG. LABELED WITH SL 400 500, 11-19-85, INITIALS, DEPTH, TIME, COMPOSITE SAMPLE.

HNU = 0 ppm ABOVE BACKGROUND IN BOREHOLE.

C. Meyer 11/19/85

800  
11/19/88

70

1120 HRS

400N, 400E SAMPLING NODE  
0 - 0.4 FT BROWN SILTY CLAY  
0.4 FT - 1.05 FT BROWN SILTY SAND  
1.05 FT AUGER REFUSAL EOB

2ND HOLE - 3 FT NW OF FIRST  
0 - 0.5 FT SAA  
0.5 FT AUGER REFUSAL EOB

3RD HOLE - 2 FT N OF FIRST  
0 - 0.9 FT SAA  
0.9 - 1.0 FT GRAY BROWN SAND & GRAVEL  
1.0 FT AUGER REFUSAL EOB

HNU = 0 ppm ABOVE BACKGROUND

SAMPLE COLLECTED, '661A' BAGGIE  
LABELED WITH SL 400400, DATE,  
TIME, INITIALS, DEPTH.  
COMPOSITE SAMPLE  
1120 - 1130 HRS

C. Meyer 11/19/88

071  
11/19/88

1130 HRS

400N, 300E  
0 - 0.4 FT BLACK/BROWN ORGANIC SILTY CLAY  
0.4 - 0.55 FT BROWN SILTY CLAY  
0.55 - 0.95 FT BROWN SAND SILTY CLAY  
0.95 FT EOB, AUGER REFUSAL  
STANDING WATER AT 0.55 FT DEPTH

2ND HOLE - 2 FT NW OF FIRST  
0 - 1.05 FT SAA  
1.05 FT - 1.2 FT STANDING WATER IN BOREHOLE  
1.2 - 2.2 FT MOIST SILTY CLAY, GRAY BROWN  
2.4 EOB, AUGER REFUSAL  
STANDING WATER AT 1.7 FT DEPTH  
HNU = 0 ppm ABOVE BOREHOLE.

1200 HRS - 1300 HRS - LUNCH BREAK.

1305 HRS

400N, 200E  
3 HOLES ATTEMPTED, DEEPEST  
ONE REACHED 1.3 FT DEPTH.  
AUGER REFUSED.  
HNU = 0 ppm ABOVE BACKGROUND

1325 HRS

400N, 100E  
2ND HOLE  
0 - 1.05 FT BROWN CLAYEY SAND  
HNU IN BOREHOLE = 0 ppm ABOVE BACKGROUND

C. Meyer 11/19/88

11/19/88

1425 HRS

500N, 100E

0 - 0.2 FT BLACK ORGANIC SOIL  
 0.2 - 0.9 FT BROWN SILTY SOIL / SANDY PEBBLES  
 0.9 FT EOB, LOTS OF PEBBLES VERY  
 DIFFICULT TO AUGER

2ND BOREHOLE

0 - 0.8 FT SAA  
 0.8 FT EOB; SANDY PEBBLES

3RD BOREHOLE

0 - 0.8 FT SAA; 0.8 FT EOB, SANDY PEBBLES

4TH BOREHOLE

0 - 0.65 FT SAA; 0.65 EOB, SANDY PEBBLES

HVV IN BOREHOLE = 0 ppm ABOVE BACKGROUND

1445 HRS

500N, 200E

0 - 0.45 FT BLACK ORGANIC SOIL SILTY CLAY  
 0.45 - 1.45 FT BROWN SILTY CLAY W/ SAND PEBBLES  
 1.45 FT EOB, AUGER REFUSAL

2ND BOREHOLE

0 - 1.2 FT SAA EOB AT 1.2 AUGER REFUSAL

3RD BOREHOLE

0 - 1.25 FT SAA, EOB AUGER REFUSAL  
 HVV IN BOREHOLE = 0 ppm ABOVE BACKGROUND

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11/19/88

1340 HRS

400N, 0E

0 - 0.65 BROWN CLAY W/ SILT  
 0.65 AUGER REFUSAL, EOB

2ND BOREHOLE

0 - 0.45 BROWN SILTY CLAY  
 0.45 - 0.85 SILTY CLAY, BROWN  
 0.85 - 1.0 SANDY SILTY CLAY, BROWN  
 1.0 AUGER REFUSAL, EOB

3RD BOREHOLE

0 - 1.35 SAA W BLACK SILTY CLAY AT 1.35 FT  
 1.7 FT AUGER REFUSAL, EOB

HVV IN BOREHOLE = 0 ppm ABOVE BACKGROUND

1405 HRS

500N, 05E

- ROCK PILE AT 500N, 0E.  
 LOCATION SURROUNDED BY BIG, OLD  
 TREES. IS PROBABLY UNDISTURBED.

0 - 0.2 FT BLACK ORGANIC SOIL  
 0.25 - 0.65 SANDY SILTY CLAY WITH TREE ROOTS  
 0.65 - 4.1 FT ~~EBB~~ SANDY SILTY CLAY,  
 RED BROWN

4.1 FT EOB DID NOT ENCOUNTER  
 ANY GARBAGE OR RESISTANCE

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11/19/88

1500 HRS

500 N, 300 E (3 FT N OF NODE DUE TO EOAD)

0 - 1.1 FT BROWN SILTY CLAY WITH SAND PEBBLES  
1.1 FT GARBAGE (PLASTIC) EOB  
HNU IN BOREHOLE = 0ppm ABOVE BACKGROUND

1505 HRS

SAMPLING NODE

500 N, 400 E (3 FT N OF NODE DUE TO PRESENCE OF ROAD)

0 - 0.3 FT ORGANIC, BLACK SOIL  
0.3 - 1.3 FT BROWN SILTY CLAY WITH  
SMALL ROOTLETS, ROCK FRAGMENTS  
1.3 FT EOB; AUGER REFUSAL

2ND BOREHOLE

0 - 1.5 FT SAA  
1.5 FT EOB; AUGER REFUSAL

1/2 GALLON OF SAMPLE COLLECTED  
IN ZIPLOC BAGGIE LABELED  
SL 500 400, DATE, TIME,  
INITIALS, DEPTH. (COMPOSITE)

HNU IN BOREHOLE = 0ppm ABOVE BACKGROUND

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075

11/19/88

1520 HRS

500 N, 500 E

SAMPLING NODE (3 FT SOUTH OF NODE DUE TO ROAD)

0 - 0.5 FT BROWNISH BLACK CLAYEY SOIL  
0.5 FT EOB, AUGER REFUSAL

2ND BOREHOLE

0 - 0.35 FT BROWN/BLACK CLAYEY SOIL  
0.35 - 1.2 FT BROWN SILTY CLAY  
1.2 - 1.35 FT BLACK MOIST MATERIAL - APPEARS  
TO BE BURNT MATTER  
1.3 FT EOB - GARBAGE (BURNT MATTER)  
HNU IN BOREHOLE = 0ppm ABOVE BACKGROUND

1/2 GALLON OF SAMPLE COLLECTED -  
COMPOSITE IN A ZIPLOC BAGGIE  
LABELED WITH SL 500 500,  
DATE, TIME, DEPTH, INITIALS.

1540 HRS - 1555 HRS TOOK A BREAK

1555 HRS

500 N, 600 E

0 - 0.75 FT BROWN SILTY CLAY  
0.75 FT EOB, AUGER REFUSAL

2ND BOREHOLE

0 - 0.65 SAA  
0.65 EOB, AUGER REFUSAL

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11/19/88

3RD BOREHOLE (500N, 600E)

0-0.8 FT SAA

0.8 FT EOB; AUGER REFUSAL

4TH BOREHOLE

0-0.85 SAA

0.85 EOB; AUGER REFUSAL

ANU IN BOREHOLE = Oppm ABOVE BACKGROUND  
 HOWEVER, BATTERIES ARE VERY LOW

1610 HRS

500N, 700E

0-0.4 FT BROWN SILTY CLAY

0.4 FT - 1.0 FT BLACK SILTY CLAY

1.0 - 1.1 FT GARBAGE (PLASTIC)

1.1 FT EOB

DID NOT MONITOR WITH ANU  
 AS BATTERIES ARE VERY LOW

1615 HRS

500N, 800E0-0.4 FT BLACK CLAYEY SOIL WITH  
ORGANIC MATERIAL

0.4 FT EOB; AUGER REFUSAL

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2ND BOREHOLE (500N, 800E)

0-1.65 FT SILTY BROWN CLAY WITH ORG MAT

1.65 FT WHITE FIBROUS MATERIAL

1.65 FT - EOB GARBAGE (WHITE <sup>FIBROUS</sup> MATERIAL)

DID NOT MONITOR WITH ANU AS  
 BATTERIES ARE VERY LOW.

AUGER WAS DECONNED WITH "TIDE" AND A BRUSH IN BETWEEN  
 EACH BOREHOLE  
 1700 HRS - LEFT SITE

SUMMARY OF ACTIVITIES:

- 1.) CONTINUED COVER SURVEY AND COLLECTION  
 OF SAMPLES FROM 400N, 1100E TO  
 400N, 0E AND 500N, 0SE TO  
 500N, 800E.

PROBLEMS ENCOUNTERED

- 1.) DEER HUNTERS SHOOTING AT DEER  
 ON SITE

PROBLEMS RESOLVED

- 1.) TOOK COVER FROM HUNTERS IN THE  
 TRAILER

DEPARTURES FROM THE WORK PLAN

- 1.) NONE

C. Meyer 11/19/88

11/19/88

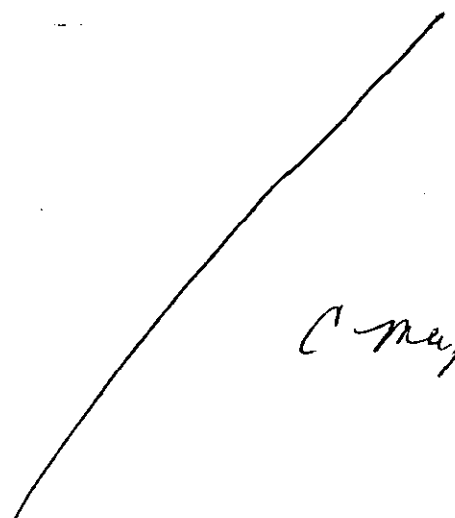
078

PERSONNEL ON SITE

- PELA
- ABNER PATTON
- CLAYTON LINDSEY
- DAN GREEN
- NEIL MOSS
- MME
- CAROL MEYER

ACTIVITIES SCHEDULED FOR NEXT DAY

- 1-) SUNDAY 11/20/88 WILL NOT COLLECT SAMPLES OR CONTINUE WITH COVER SURVEY. WILL CONDUCT EXISTING WELL SURVEY.
- 2-) MONDAY 11/21/88 CONTINUE WITH COVER SURVEY



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020

019

11/21/88

0745 HRS - ARRIVED ON SITE  
 WEATHER = 38°F, CLOUDY  
 HUNTERS WERE PRESENT ON SITE

0755 HRS - SAFETY MEETING CONDUCTED BY PELA. POINTS OF CONCERN =

- 1-) HYPOTHERMIA - TAKE BREAKS IN TRAILER
- 2-) VOCs - MONITOR WITH TIP
- 3-) HUNTERS - WEAR BRIGHT ORANGE, BEGIN WORK LATER IN DAY.

PER ABNER PATTON, PELA, EXISTING WELL SURVEY WAS CONDUCTED ON 11/20/88 ALL WELLS WERE LOCATED. COULD NOT UNLOCK WELLS B-17, B-14, B-12 AS THEY HAD NO KEY OR BOLT CUTTERS. MEASURED TOTAL WELL DEPTH AND WATER LEVEL, AND CONDITIONS WERE NOTED. AT PVC WELL 12' S OF 500 N LINE, SOME TRASH CAME UP ON THE MEASURING TAPE.

- WILL CONDUCT COVER SURVEY ALONG
- 100 N → OE → 2700E
  - 200 N, OE → 2700E
  - 300 N, OE → 2700E
  - 400 N, OE → 2700E
  - 500 N, OE → 2700E

C. Meyer 11/20/88



11/21/88

080

COVER SURVEY

- 600 N, 0E → 1200E
- 700 N, 0E → 1200E
- 800 N, 0E → 1200E
- 900 N, 0E → 1200E

GEOPHYSICAL SURVEY WAS CONDUCTED ACROSS A LARGER EXTENT OF THE GRID PLUS ALONG EXTENDING TO A-100E LINE AND THE ONORTH LINE.

NOTE: ALL WATER USED FOR DECON IS DUMPED DOWN DRAIN ON ~~DECON~~ CONCRETE DECON PAD. THIS WATER COLLECTS IN A TANK WHICH WILL BE HAULED AWAY WHEN FULL (OR THE END OF THE PROJECT).

0930 HRS BEGAN SAMPLING, HUNTERS ARE NORTH OF SITE. A. BRITTON & C. LUDSEY RESUMED GEOPHYSICAL SURVEY

500 N, 900 E

- 0 - 2.25 FT BROWN SILTY CLAY
- 2.25 FT GARBAGE (PLASTIC)
- EOB

TIP IN BOREHOLE = 0.5 ppm

(1 - 712 hrs 11/21/88

081  
11/21/88

500 N, 1000 E

SAMPLING NODE

- 0 - 0.4 FT BROWN SILTY CLAY W/ GRAY SILTY CLAY

- 0.4 FT GARBAGE (STAIN, PLASTIC, GLASS)
- 0.5 FT EOB

# TIP = 0.?? M ABOVE BACKGROUND IS DETECTABLE

2ND BOREHOLE FOR SAMPLE COLLECTION

- 0 - 0.7 FT BROWN SILTY CLAY
- 0.5 FT GARBAGE (GLASS)
- 0.9 FT EOB

COMPOSITE<sup>2</sup> SAMPLE PLACED IN 1 GAL. SIZED <sup>2</sup> ZIPLOC BAGGIE, FILLED 1/2 HALF FULL. BAGGIE LABELED SL 500, 1000 DATE, TIME, DEPTH, INITIALS.

1010 HRS

500 N, 1100 E

(NEAR AN OLD TREE)

- 0 - 3.75 FT BROWN SILTY CLAY
- 3.75 FT - MOIST
- 4.2 FT - EOB PROBABLY IN NATURAL SOIL MATERIAL

TIP IN BOREHOLE = 0 ppm ABOVE BACKGROUND

(1 - 712 hrs 11/21/88

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11/21/88

082

500N, 1200E

- 0-1.1 FT BROWN SILTY CLAY
- 1.1-2.0 FT BROWN BULKY SILTY CLAY
- 2.0-4.2 FT CLAY CLAY.
- 4.2 EOB (BEYOND FILL POSSIBLY)

TIP IN BOREHOLE = 0.4 ppm ABOVE BACKGROUND

1035 HRS

500N, 1300E

- 0-1.0 FT BLACK/BROWN SILTY CLAY
- 1.0-1.8 FT BROWN CLAYEY SILT
- 1.8-4.0 FT GRAY SILTY CLAY
- 4.0 FT EOB

TIP IN BOREHOLE = 0.4 ppm A.B.

1050 HRS

500N, 1400E

- 0-1.0 FT BROWN SILTY CLAY
- 1.0-1.35 FT GREY SILTY CLAY
- 1.35-2.0 FT BLACK SILTY CLAY
- 2.0-4.05 FT GREY SILTY CLAY
- 4.05 FT EOB

TIP IN BOREHOLE = 0.5 ppm A.B.

1105 HRS

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083

11/21/88

500N, 1500E

- 0-4 FT EOB - CLAY
- TIP IN BOREHOLE = 0 ppm A.B.

500N, 1600E

- 0-1.3 FT - EOB <sup>AUGER REFUSAL</sup> SANDY PEBBLES
- TIP IN BOREHOLE = 0 ppm A.B.

1135 HRS

500N, 1700E

SAMPLING NODE

- 0-1.5 FT BROWN CLAYEY SILT
- 1.5 FT EOB, AUGER REFUSAL

2ND BOREHOLE

- 0-4.05 BROWN CLAYEY SILT, PEBBLES
- 4.05 EOB

1/2 OF A GILSON ZIPLOC BAGGIE FILLED WITH COMPOSITE SAMPLE. BAGGIE LABELED WITH SL 500, 1700, DATE, TIME, INITIALED, DEPTH.

TIP IN BOREHOLE = 0.5 ppm A.B.

1200 HRS - 1300 HRS

LUNCH BREAK

500N, 1800E

- 1-1.05 FT DARK BROWN SILTY CLAY
- 1.05 FT EOB AUGER REFUSAL

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500N, 1800E CONTINUED  
 2ND BOREHOLE  
 0-1.3 FT DARK BROWN SILTY CLAY  
 1.3 FT EOB, AUBER REEF, AK

3RD BOREHOLE  
 0-1.75 FT DARK BROWN SILTY CLAY  
 1.75-4.0 FT BROWN SILTY CLAY  
 4.0 FT EOB

HNU IN BOREHOLE = 2 ppm A. B.  
 USING HNU NON INSTEAD OF TIP  
 BECAUSE TIP READINGS FLUCTUATE  
 A LOT.

1325 HRS

500N, 1900E

0-0.85 FT PLOWED SOIL  
 0.85-1.05 DARK BROWN SILTY CLAYEY SOIL  
 1.05-4.15 GRAY WEATHERED SILTY CLAY  
 4.15 EOB

HNU IN BOREHOLE = 0 ppm A. B.

1345 HRS

500N, 2000E

0-0.8 FT PLOWED SOIL  
 0.8 FT-4.15 FT GRAY CLAY  
 4.15 FT EOB

HNU IN BOREHOLE = 0 ppm A. B.  
 C. T. 11/21/88

11/21/88

1355 HRS

500N, 2100E

0-1.3 FT PLOWED SOIL  
 1.3-2.9 FT GRAY CLAY  
 2.9 FT EOB, SANDSTONE, AUBER REEF, AK  
 HNU IN BOREHOLE = 0 ppm A. B.

500N, 2200E

0-4.0 FT PLOWED SOIL, GRAY CLAY, TAN CLAY  
 HNU IN BOREHOLE = 0 ppm A. B.

500N, 2300E

0-4.0 FT PLOWED SOIL, GRAY CLAY, TAN CLAY  
 HNU IN BOREHOLE = 0 ppm A. B.

1450 HRS

500N, 2400E

SAMPLING NODE

0-4.0 FT PLOWED SOIL, GRAY CLAY, TAN CLAY  
 HNU IN BOREHOLE = 0 ppm A. B.  
 4.35 FT - EOB

1/2 GAL OF COMPOSITE SOIL SAMPLE COLLECTED  
 IN 1 GAL SIZED ZIPLOC BAGGIE, LABELED  
 WITH DATE, TIME, INITIALS, DEPTH,  
 SL 500 2400

600N, 2000E

SAMPLING NODE

THIS SAMPLING NODE WAS COLLECTED  
 FROM THE DITCH AT APPROXIMATELY  
 575N, 2000E

(L. T. 11/21/88

086  
11/21/88

086

600N, 2000E CONT  
0-0.6 FT DARK CLAYEY SOIL  
0.6-1.2 BROWN SILTY CLAY  
1.2-1.25 LT. BROWN SANDY SILTY CLAY  
1.25 FT EOB AUGER REFUSAL

2ND BOREHOLE  
0-0.9 FT SAA  
0.9 FT EOB AUGER REFUSAL

3RD BOREHOLE  
0-2.85 SAA, SILTY, SAND, CLAY LAYERS  
2.85 EOB AUGER REFUSAL

H2O IN BOREHOLE = 0 ppm A-B

1530-1550 HRS - TOOK A BREAK TO WARM UP.

600N, 1900 E IN DITCH  
0-0.4 FT DARK BROWN SILTY CLAY  
0.4-1.3 BROWN SANDY SILTY CLAY  
1.3-4.05 STIFF BROWN CLAY  
4.05 FT EOB

H2O IN BOREHOLE = 0 ppm A-B AND

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11/21/88

1615 HRS

600N, 1800E IN DITCH  
0-0.6 FT DARK BROWN SOIL  
0.6-1.05 RED BROWN SANDY SILTY CLAY  
1.05 EOB, AUGER REFUSAL

2ND BOREHOLE  
0-1.5 FT SAA  
1.5 FT AUGER REFUSAL, EOB

3RD BOREHOLE  
0-0.85 FT SAA  
0.85 AUGER REFUSAL, EOB  
H2O IN BOREHOLE = 0 ppm A-B

1625 HRS

600N, 1700E IN DITCH  
0-0.3 FT DARK BROWN SOIL  
0.3-3.05 RED BROWN SANDY SILTY CLAY  
3.05-4.05 RED BROWN SANDY CLAY, SILT  
4.05 FT EOB

H2O IN BOREHOLE = 0 ppm A-B

1640 HRS - SAMPLING FOR THE DAY  
COMPLETED, TOO DARK

1700 HRS - LEFT SITE

C. Meyer 11/21/88

11/21/88

SUMMARY OF ACTIVITIES

- 1.) CONTINUED COVER SURVEY AND SURFACE  
SOIL SAMPLE COLLECTION  
500N, 900E → 500N, 2400E  
600N, 2000E → 600N, 1700E

PROBLEMS ENCOUNTERED

- 1.) DEER HUNTERS ON-SITE

PROBLEMS RESOLVED

- 1.) WAITED IN THE TRAILER UNTIL THEY  
CLEARED AWAY.

DEPARTURES FROM WORK PLAN

- NONE

PERSONNEL ON-SITE

PELA

ABNER PATTON

CLAYTON LINDSEY

DAN GREEN

NEIL MOSS

M. HE

CAROL MEYER

ACTIVITIES SCHEDULED NEXT DAY

- 1.) CONTINUE COVER SURVEY

C. Meyer 11/21/88

11/22/88

0730 HRS - ARRIVED ON SITE  
35°F, CLOUDY

0800 HRS - SAFETY MEETING

POINTS OF CONCERN:

- 1.) VOCS
- 2.) COLD WEATHER
- 3.) NO HUNTERS SPOTTED ON SITE

0810 HRS RESUMED COVER SURVEY +  
EM SURVEY

600N, 1600E SAMPLING NODE IN DITCH

0 - 0.4 FT DARK BROWN SILTY SOIL  
0.4 - 2.3 THIN GRAY SILTY CLAY  
2.3 - 4.05 LT BROWN SILTY SAND  
4.05 FT EOB

HNU IN DITCH = ○ PPT ABOVE BEHOLD

~1/2 GAL OF COMPOSITE SAMPLE  
COLLECTED IN A 1-GAL SIZED  
ZIPLOC BAGGIE LABELED  
SL 600 1600, DATE, TIME, DEPTH,  
INITIALS

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11/22/88

0830 HRS

600N, 1500E

0 - 0.3 FT DARK BROWN SILTY CLAY  
 0.3 - 4.2 FT BROWN & GRAY SILTY CLAY  
 4.2 FT EOB  
 HNU IN BOREHOLE = 0 ppm A.B.

0840 HRS

600N, 1400E

SAMPLING NODE IN DRILL  
 0 - 0.5 FT DARK BROWN SILT  
 0.5 - 0.95 RED BROWN SANDY SILTY CLAY  
 0.95 - 4.1 GRAY SANDY SILTY CLAY  
 4.1 FT EOB  
 HNU IN BOREHOLE = 0 ppm A.B.

1/2 GAL OF COMPOSITE SAMPLE  
 COLLECTED IN 1 GAL - SIZE D  
 2 1/2 PLAC BAGGIE

0855 HRS

600N, 1300E

0 - 4 FT BROWN, SILTY CLAY  
 HNU IN BOREHOLE = 0 ppm A.B.

600N, 1200E

0 - 4 FT BROWN SILTY CLAY  
 HNU IN BOREHOLE = 0 ppm A.B.

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600N, 1100E

0 - 4 FT BROWN SILTY CLAY  
 HNU IN BOREHOLE = 0 ppm ABOVE BOREHOLE

600N, 1000E

0 - 4 FT BROWN SILTY CLAY  
 HNU IN BOREHOLE = 0 ppm A.B.

600N, 900E

0 - 0.8 FT BROWN SILTY CLAY  
 0.8 FT EOB, AUGER REFUSAL  
 7 ATTEMPTS, AUGER REFUSED  
 HNU IN BOREHOLE = 0 ppm A.B.

1100 HRS

600N, 800E

0 - 0.95 FT RED BROWN SILTY CLAY  
 0.95 FT EOB, AUGER REFUSAL

2ND BOREHOLE

0 - 3.1 FT SAND WITH SOME SANDY PEBBLES  
 3.1 FT EOB, AUGER REFUSAL

HNU = 0 ppm A.B. IN BOREHOLE

1120 HRS

600N, 700E

0 - 2.05 FT GRAY-BROWN SILTY CLAY  
 2.05 - 2.55 BROWN SILTY SANDY PEBBLES, MUD  
 2.55 - 2.9 BROWN SILTY CLAY  
 2.9 - 3.85 BROWN SILTY CLAY, SANDY PEBBLES  
 C. Meyer 11/22/88

11/22/88

11/22/88

600N, 700E CONT.

3.85 FT EOB

HNU IN BOREHOLE = 3.2 F (ODOR DET.) =

2 ppm A.B.

AT 3.85 FT = 0.5 ppm A.B.

1140 HRS

600N, 600E

SAMPLING NODE

0-1.65 FT BROWN CLAY TRACE SILT

1.65 FT EOB, AUGER REFUSAL

2ND BOREHOLE

0-2.95 FT BROWN SILTY CLAY WITH  
SAND & PEBBLES

2.95 FT - EOB, AUGER REFUSAL

HNU IN BOREHOLE = 0 ppm A.B.

1/2 gAL SAMPLE COMPOSITE  
COLLECTED IN 3100C BAGGIE  
LABELED WITH DATE, TIME,  
DEPTH, INITIALS, SL 600 & 600.

1200 HRS - 1300 HRS LUNCH BREAK

600N, 500E

0-1.85 FT BROWN SILTY CLAY

1.85 FT EOB, AUGER REFUSAL

C. Murphy 11/22/88

11/22/88

2ND BOREHOLE

0-1.8 FT SAA

1.8 FT AUGER BROKE

HNU IN BOREHOLE = 0 ppm A.B.

PELA DOES NOT HAVE ANOTHER  
AUGERF405, PELTA HAS COMPLETED SAMPLING FOR  
TODAY AND WILL CONTINUE WITH  
GEOPHYSICAL SURVEY.

1415 HRS - LEFT SITE

SUMMARY OF ACTIVITIES

- 1.) CONTINUED COVER SURVEY AND SOIL SAMPLE  
COLLECTION ALONG 600N, 1600E →  
600N, 500E.
- 2.) CONTINUED EM SURVEY

PROBLEMS ENCOUNTERED

- 1.) AUGER BROKE

PROBLEMS RESOLVED

- 1.) STOPPED COVER SURVEY. PELTA WILL BRING  
A NEW AUGER NEXT WEEK.

DEPARTURES FROM WORK PLAN

NONE

C. Murphy 11/22/88

EPA  
11/22/88

094

PERSONNEL ON SITE

PELA

ABNER PATTON

CLAYTON LINDSEY

DAN GREEN

NEIL MOSS

M+E

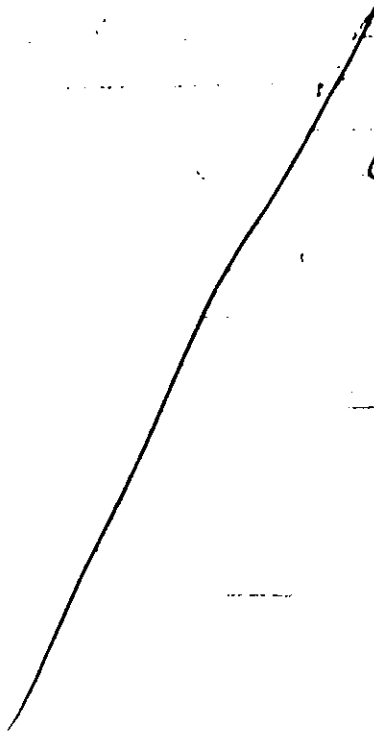
CAROL MEYER

ACTIVITIES PLANNED FOR NEXT DAY

FOR 11/23/88 - PELA TRAVELS BACK TO AL.

FOR 11/28/88 - RESUME COVER SURVEY

C. Meyer 11/22/88



095

11/28/88

0800 HRS ARRIVED ON-SITE

32°F, WIND CHILL ~10°F, 1/4" SNOW ON GROUND

PELA REPRESENTATIVES: NEIL MOSS,

CLAYTON LINDSEY WERE ALREADY  
ON-SITE

0830 HRS - BEGAN SAMPLING

LOG # 500E

0-0.3 FT DARK BROWN SILT

0.3-1.3 FT BROWN SANDY CLAY

1.3 FT EOB AUGER REFUSAL

2ND BOREHOLE

0-2.05 FT SA

2.05-2.7 FT GRAY SILTY CLAY

EOB AUGER REFUSAL

LOG # 400E

0-0.7 FT DARK BROWN SILT

0.7-1.2 FT BROWN SILT & CLAY

1-2 FT EOB AUGER REFUSAL

2ND BOREHOLE

0-~~0.7~~<sup>0.9</sup> FT DARK BROWN SILT

0.9-1.50 FT BROWN SANDY CLAY

1.4 FT GARDEN (PAPER)

1.7 FT GARDEN (PLASTIC)

1.7 FT EOB

IND = OPEN IN BOREHOLE ABOVE BACKGROUND

C. Meyer 11/28/88



200

096

11/28/86

600N, 300E

0-1.3 FT BROWN SILTY CLAY  
 1.3 FT GARBAGE  
 1.5 FT EOB

HUV IN BOREHOLE = Oppm A.B

600N, 200E

0-1.05 FT BROWN SILTY CLAY  
 1.05 FT EOB, AUGER REFUSAL

2ND BORE HOLE

0-0.5 FT DARK BROWN SOIL  
 0.5-1.5 FT BROWN SILTY CLAY  
 1.5-1.7 FT BROWN GRAY SILTY CLAY  
 1.7 FT EOB AUGER REFUSAL

3RD ATTEMPT

0-0.7 SNA, EOB AUGER REFUSAL

4TH ATTEMPT

0-0.7 SNA, EOB AUGER REFUSAL

200

097

11/28/85

600N, 100C

0-1.0 FT BROWN SILTY CLAY  
 1.0 FT AUGER REFUSAL, EOB  
 2 MORE ATTEMPTS, AUGER REFUSAL  
 HUV IN BOREHOLE = Oppm A.B

600N, 0E

SAMPLING NODE  
 0-2.4 FT GARBAGE AT 2.4 FT  
 BROWN SILTY CLAY ABOVE IT  
 HUV IN BOREHOLE = Oppm A.B

COMPOSITE SOIL SAMPLES COLLECTED  
 IN ZIPLOC BAGGIE & 3/4 GAL COLLECTED.

1015-425

700N, 0E

SAMPLING NODE  
 0-2.2 FT BROWN SILTY CLAY  
 2.2 FT-2.5 MOST BROWN SILTY CLAY  
 2.5 FT EOB, AUGER REFUSAL

2ND-

0-1 FT SNA, AUGER REFUSAL - EOB

3RD:

0-4.0 FT SNA - BROWN SILTY CLAY  
 4.0 FT EOB

COMPOSITE SAMPLE COLLECTED IN BAGGIE  
 HUV IN BOREHOLE = Oppm A.B

C. Map. 11/28/85

700  
11/28/88

098

700 N, 100E

0-0.2 FT DARK BROWN SILTY SOIL  
0.2-1.7 FT BROWN SILTY CLAY  
1.7 FT GARAGE (PAVE) EOB

HNU IN BOREHOLE RECORDED AT 4 ppm A.B.

700 N, 300E

0-1.0 FT BROWN SILTY CLAY  
1.0-2 BROWN SANDY SILT  
EOB AUGER REFUSAL

2ND:

0-2 SAA EOB, AUGER REFUSAL

3RD

0-2.6 FT SAA  
2.6 FT GARAGE  
2.8 FT EOB

HNU IN BOREHOLE = 8 ppm A.B.

700 N, 300E

0-1.45 FT BROWN SILTY CLAY  
1.45 FT AUGER REFUSAL EOB

2ND:

0-3.2 FT BROWN SILTY CLAY  
3.2 FT AUGER REFUSAL LUB

3RD:

0-1.0 FT SAA, AUGER REFUSAL

C. Meyer 11/28/88

099  
11/28/88

700 N, 300E CONT.

4TH BOREHOLE =

0-1.2 FT SAA AUGER REFUSAL, EOB

HNU IN BOREHOLE = 0 ppm A.B.

700 N, 400E

0-1.45 FT BROWN SILTY CLAY  
1.45 FT AUGER REFUSAL, EOB

2ND:

0-1.2 FT BROWN SILTY CLAY, SANDY  
1.2-1.45 FT SAA WITH PEBBLES

1.45-1.65 FT CLAY SILTY CLAY w/ BROWN SC  
1.65 FT AUGER REFUSAL, EOB

3RD:

0-1.35 BROWN SILTY CLAY  
1.35-1.95 FT GREY SILTY CLAY  
1.95 FT - GARAGE  
2-0 FT - EOB

HNU IN BOREHOLE = 1.4 ppm A.B.

1200-1300 HRS - LUNCH BREAK

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11/28/88

100

**700N, 500E** SAMPLING NODE

0-1.3 FT BROWN SANDY SILT (w/CLAY)  
1.3-1.65 FT BROWN SILTY SAND  
1.65 FT EOB AUGER REFUSAL

2ND:

0-1.1 FT BROWN SILTY CLAY  
1.1-1.7 FT BROWN SANDY SILT  
1.7 FT AUGER REFUSAL, EOB

3RD:

0-2.0 FT SAA  
2.0 FT AUGER REFUSAL EOB

HNU IN BOREHOLE = 0 ppm A.B.

COMPOSITE SAMPLE COLLECTED IN ZIPLOC BAGS

1330 HRS

**700N, 600E**

NODE UNDER 2 3/4 FEET  
OF WATER. BORED 10 FT NORTH  
OF ACTUAL NODE

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100

11/28/88

0-1.0 FT BROWN SILTY CLAY  
1.0 FT AUGER REFUSAL EOB

2ND:

0-0.85 FT SAA, AUGER REFUSAL, EOB

3RD:

0-0.85 FT SAA, AUGER REFUSAL, EOB  
HNU IN BOREHOLE = 0 ppm A.B.

**700N, 700E**

0-2.6 FT BROWN SILTY CLAY  
2.6-3.25 FT BROWN AND GRAY SILTY CLAY  
3.25 FT EOB, AUGER REFUSAL  
HNU IN BOREHOLE = 0 ppm A.B.

**700N, 800E**

0-2.1 FT BROWNISH CLAYEY SAND  
2.1-2.6 FT BROWN AND GRAY SANDY CLAY  
2.6-3.65 FT YELLOWISH CLAYEY SAND  
3.65 FT EOB, DIFFICULT TO AUGER

HNU IN BOREHOLE = 0 ppm A.B.

**700N, 900E**

0-4.0 FT BROWN SILTY CLAY  
HNU IN BOREHOLE = 0 ppm ABOVE BACKGROUND

**700N, 1000E**

SAMPLING NODE  
0-3.4 FT BROWN SILTY CLAY  
HNU IN BOREHOLE = 0 ppm A.B.

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11/28/88

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700N, 1000E CONT.

~ 3/4 GAL. COMPOSITE SAMPLE COLLECTED  
IN A ZIPLOC BAGGIE -

700N, 1100E

0-3.8 FT BROWN SILTY CLAY  
HNU IN BOREHOLE = 0 ppm A.B.

700N, 1200E

0-3.2 FT BROWN SILTY CLAY  
HNU IN BOREHOLE = 0 ppm A.B.

1600 HRS - LEFT SITE

PELA REPRESENTATIVES HAD TO GO  
TO POST OFFICE.

#### SUMMARY OF ACTIVITIES

- 1.) CONTINUED AUGERING AND  
COLLECTING SAMPLES AT NODES  
600N, 500E → 600N, 0E  
700N, 0E → 700N, 1200E

#### PROBLEMS ENCOUNTERED

- 1.) TEMPERATURE WAS VERY COOL WITH WINDCHILL

#### PROBLEMS RESOLVED

- 1.) TOOK BREAKS TO WARM UP

C. Meyer 11/28/88

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11/28/88

#### DEPARTURES FROM WORK PLAN

- 1.) NONE

#### PERSONNEL ON-SITE

PELA

NEIL MOSS

CLAYTON LINDSEY

MHE

CAROL MEYER

#### ACTIVITIES SCHEDULED FOR NEXT DAY

- 1.) CONTINUE COVER SURVEY AND  
SAMPLE COLLECTION

C. Meyer 11/28/88

11/29/58

800 N. 700E

0-0.25 ft Dark Brown Soil  
0.25 ft Huber Refusal, EOB

2nd Borehole =

0-0.8 ft Brown Clay/Silt  
0.8 ft Huber Refusal, EOB

Photo #8: TIME: 1140 HRS; DIRECTION: WEST;  
SUBJECT: Adverts as Borehole #1

800 N. 700E

3rd Borehole =

0-1 ft Brown Silty Clay

TIP in Borehole = 0 ppm A.B.

Photo #9: TIME: 1151 HRS; DIR: WEST; SUBJECT: DECOMB  
CLAY HUBER

800 N. 800E

SHARP INcline

Photo #10: TIME: 1155 HRS; DIRECTION: WEST  
SUBJECT: SAMPLE COLLECTED FOR ANALYSIS  
OF PHYSICAL PROPERTIES.

0-4.0 ft Yellow/Brown CLAY/SILT

4.0 ft EOB

TIP in Borehole = 0 ppm A.B.

COMPOSITE SAMPLE COLLECTED IN

2.1 HOC Borehole

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800 N. 400E

0-3.4 ft Brown Silty Clay, EOB  
TIP in Borehole = 0 ppm A.B.

800 N. 500E

0-1.9 ft Brown Silty Clay

1.9-2.1 ft Gray Brown Silty Clay, NOISES  
2.1 ft EOB, Huber Refusal

2nd Borehole =

0-2.1 ft Brown Silty Clay with Pebbles

2.1 ft Huber Refusal, EOB

TIP in Borehole = 0 ppm A.B.

3rd =

0-2.1 ft SHIT

2.1 ft Huber Refusal, EOB

TIP in Borehole = 0 ppm A.B.

800 N. 600E

0-1.1 ft Brown Silty Clay with Pebbles  
1.1 ft Huber Refusal, EOB

2nd =

0-1.5 ft SPA, Huber Refusal, EOB

3rd =

0-1.25 ft SPA, Huber Refusal, EOB

TIP in Borehole - 0 ppm in Borehole

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800N, 900E

0-4.0 FT LIGHT BROWN SILTY CLAY, DRY

4.0 FT EOB

TIP IN BOREHOLE = 0 ppm A.B.

1230 HRS - 1330 BROKE FOR LUNCH

800N, 1000E

0-4.0 FT BROWN SILTY CLAY, DRY

4.0 FT EOB

TIP IN BOREHOLE = 0 ppm A.B.

900N, 1100E

0-0.65 FT BROWN/DARK BROWN SILTY CLAY

0.65 FT AUGER REFUSAL

2ND BOREHOLE:

0-1.05 FT BROWN SILTY CLAY W/ RED STAINING

1.05 FT AUGER REFUSAL

3RD BOREHOLE

0-1.3 FT DARK BROWN SILTY CLAY

1.3-1.6 FT LT BROWN SILTY SAND

1.6 FT AUGER REFUSAL EOB

TIP IN BOREHOLE = 0 ppm A.B.

800N, 1200E

0-0.7 FT DARK BROWN SOIL

0.7-2.5 FT BROWN SILTY CLAY &amp; SAND

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800N, 1200E CONT.

2.5-2.8 FT LT BROWN SILTY SAND W/ PEBBLES

TIP IN BOREHOLE = 0 ppm A.B.

2.8 FT EOB, AUGER REFUSAL

SITE LOCATED ON WOODED HILL, DID NOT  
ATTEMPT ADDITIONAL BOREHOLES900N, 1200E

0-2.1 FT BROWN/DARK BROWN SANDY SILTY CLAY

2.1 FT AUGER REFUSAL EOB

2ND:

0-3.0 FT BROWN/DARK BROWN SANDY SILTY CLAY

3.0 FT AUGER REFUSAL EOB

LOCATED IN WOODED AREA WEST OF COW  
FIELD, EAST OF HILL. DID NOT  
ATTEMPT A 3RD BOREHOLE.

TIP IN BOREHOLE = 1 ppm A.B.

(MAY BE ATTRIBUTED TO DAMPNESS IN THE AIR)

900N, 1100E

0-0.8 FT DARK BROWN SOIL

0.8-3.85 FT BROWN/DARK BROWN SILTY CLAY W/ PEBBLES

3.85 FT AUGER REFUSAL, EOB

TIP IN BOREHOLE = 0.5 ppm A.B.  
LOCATION IS ON WOODED SLOPE TO  
HILL

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1510 HRS

900N, 1000E SAMPLING NODE

0-0.7 FT DARK BROWN SOIL  
 0.7-2.4 LT BROWN SILTY CLAY  
 2.4-4.0 FT " " " " , DRY  
 4.0 FT EOB  
 TIP IN BOREHOLE = 0.5 ppm A.B.

COMPOSITE SAMPLE COLLECTED IN ZIPLOC  
 BAGGIE.

1535 HRS

STARTED TO SNOW/SLEET

900N, 900E

0-3.95 FT BROWN SILTY CLAY  
 TIP IN BOREHOLE = 0 ppm A.B.  
 3.95 FT EOB

900N, 800E SAMPLING NODE

0-1.5 FT GRAYISH/BROWN SILTY CLAY  
 1.5-2.0 DARK BROWN SILTY CLAY w/ WOOD CHIPS  
 2.0-4.0 GRAY & BROWN SILTY CLAY  
 4.0 FT EOB

TIP IN BOREHOLE = 0 ppm H. 13  
 COMPOSITE SAMPLE COLLECTED IN  
 ZIPLOC BAGGIE.

1600 HRS

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900N, 700E

0-1.3 FT GRAY & BROWN SILTY CLAY  
 1.3-1.5 FT DARK BROWN SILTY CLAY  
 WITH DEGRADED ORGANIC MATTER.

1.5 FT EOB, AUGER REFUSAL  
 2ND

0-1.3 FT DARK BROWN SILTY CLAY  
 1.2 FT AUGER REFUSAL EOB

3RD

0-3.8 FT BROWN & GRAY SILTY CLAY  
 3.8 FT EOB

TIP IN BOREHOLE = 0 ppm A.B.

1630 HRS - LEFT SITE

SUMMARY OF ACTIVITIES

- 1.) CONTINUED COVER SURVEY AND SAMPLE  
 COLLECTION FOR PHYSICAL PARAMETERS  
 FROM THE NODES:  
 800N, 0E → 800N, 1200E  
 900N, 1200E → 900N, 700E

PROBLEMS ENCOUNTERED

- 1.) COLD TEMPERATURES

PROBLEMS RESOLVED

- 1.) TOOL BREAKS

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11/29/88DEPARTURES FROM THE WORK PLAN

1.) NONE

PERSONNEL ON-SITE

PELA

NEIL MOSS

CLAYTON LINDSEY

MHE

CAROL MEYER

ACTIVITIES PLANNED FOR NEXT DAY

- 1.) CONTINUE COVER SURVEY AND SAMPLE COLLECTION FROM 900N, 600E → 900N, 0E
- 2.) COLLECT ADDITIONAL SAMPLE VOLUME FOR COMPACTION DETERMINATIONS FROM 5 LOCATIONS
- 3.) WARZYŃ REPRESENTATIVE TO ARRIVE ON SITE TO CONDUCT FIELD DENSITY MEASUREMENTS AT EACH NODE THAT WAS EXAMINED

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11/30/880745 HRS - ARRIVED ON-SITE  
30°F, WINDCHILL, SNOWING0900 HRS - WARZYŃ REPRESENTATIVE  
HAD NOT ARRIVED; BEGAN  
COVER SURVEY  
SNOWING HEAVILY900N, 600E0 - 0.85 DARK BROWN SILTY SOIL  
0.85 AUGER REFUSAL

0 - 0.5 SAM AUGER REFUSAL

0 - 0.75 SAM AUGER REFUSAL

TIP IN BOREHOLE = 0 ppm A.B

900N, 500E0 - 0.6 FT DARK BROWN SOIL  
0.6 - 1.8 BROWN SILTY CLAY  
1.8 - 4.1 FT BROWN + GRAY SILTY CLAY  
W/ RED STREAKS  
4.1 EOB

TIP IN BOREHOLE = 0 ppm A.B

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900N, 400E SWAMPING NODE  
 0-4.0 FT BROWN SILTY CLAY →  
 GRAY + BROWN SILTY CLAY WITH  
 RED MOTTLING.  
 4.0 FT EOB

COMPOSITE SAMPLES COLLECTED  
 TIP IN BOREHOLE = 0 ppm A.B.

900N, 300E IN CORN FIELD  
 0-4.1 FT

TIP IN BOREHOLE = 0 ppm A.B.

900N, 200E IN CORN FIELD

0-1.1 FT  
 1-1 FT EOB  
 2 MORE UNSUCCESSFUL ATTEMPTS  
 TIP IN BOREHOLE = 0 ppm A.B.

900N, 100E IN CORN FIELD  
 0-1.0 FT SILTY CLAY  
 1.0 FT EOB  
 ATTEMPTED ONE MORE BOREHOLE  
 NO SUCCESS  
 TIP IN BOREHOLE = 0 ppm A.B.

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900N, 0E IN CORN FIELD  
 0-1.05 FT DARK BROWN CLAY SILTY  
 1.05 FT CLAY REFUSAL, EOB <sup>SAD</sup>

0-3.2 FT BLIND SAND  
 3.2 FT EOB, AUGERING DIFFICULT

TIP IN BOREHOLE = 0 ppm ABOVE BACKGROUND

600N, -20E SINGLE GALIABE WAS ENCOUNTERED  
 AT 600N, 0E; IT WAS DECIDED TO EXAMINE 600N, -20E.  
 0-2.2 FT BROWN SILTY CLAY  
 NO GALIABE ENCOUNTERED  
 2.2 FT EOB. DIFFICULT TO AUGER

1045 HRS

WARZYŃ REPRESENTATIVE DID NOT YET  
 ARRIVE ON SITE TO CONDUCT FIELD  
 DENSITY MEASUREMENTS.

DR. HUGHES FROM PECA - A SENIOR  
 SCIENTIST - IS ARRIVING TONIGHT  
 AT 6:30 PM TO CONDUCT EM 34  
 SURVEY. HE IS INTERESTED IN  
 VIEWING SOME DATA POINTS AND  
 PROVIDE HIS EXPERTISE.

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ACTIVITIES FOR THE REMAINDER  
OF THE DAY WILL CONSIST OF:

- TRACKING DOWN WARZYN  
REPRESENTATIVE FOR FIELD  
DENSITY MEASUREMENTS
- COLLECTION OF ADDITIONAL  
SAMPLE VOLUME FOR  
COMPACTION TEST CURVES  
FROM 5 BORINGS.

1100 HRS - LEFT SITE

ATTEMPTED TO CONTACT  
B. ELEDER, PRIMARY CONTACT  
TO DESCRIBE REMAINING ACTIVITIES,  
NO SUCCESS

### SUMMARY OF ACTIVITIES

- 1.) CONTINUED COVER SURVEY AND  
SOIL SAMPLE COLLECTION AT  
NODES 900N, 600E THROUGH  
900N, 00E. COVER SURVEY COMPLETE
- 2.) EXAMINED SOIL COVER AT LOCATION  
OF APPROXIMATELY 600N, -20E  
DUE TO PRESENCE OF GARBAGE  
AT NODE 600N, 00E.

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### PROBLEMS ENCOUNTERED

- 1.) WARZYN REPRESENTATIVE DID NOT  
ARRIVE ON-SITE AS SCHEDULED  
TO CONDUCT FIELD DENSITY  
MEASUREMENTS.
- 2.) NOT ENOUGH SAMPLE VOLUME  
HAD BEEN COLLECTED AT FIVE  
LOCATIONS FOR COMPACTION  
DETERMINATIONS.

### PROBLEMS RESOLVED

- 1.) PELA WOULD CONTACT WARZYN  
AND WAIT ON-SITE FOR REPRESENTATIVE.
- 2.) PELA WILL GO BACK TO THE  
FIVE LOCATIONS AND COLLECT  
ADDITIONAL SAMPLE VOLUME.

### DEVIATIONS FROM THE WORK PLAN

- 1.) NONE

### PERSONNEL ON-SITE

PELA

CLAYTON LINDSEY

NEIL MOSS

MHE

CAROL MEYER

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ACTIVITIES SCHEDULED FOR NEXT DAY

- 1.) CONDUCT EM34 SURVEY WITH DR. HUGHES OF PELA
- 2.) COMPLETION OF FIELD ACTIVITIES FOR THIS PHASE OF PROJECT

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THE FEDERAL RESERVE SYSTEM

MAY 1 1968

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