

# AMERADA HESS CORPORATION

732-750-6000  
732-750-6105 (FAX)

1 HESS PLAZA  
WOODBIDGE, NJ 07095-0961

August 4, 1998

Mr. Keith Goertz, P.E.  
New York State DEC  
1150 North Westcott Road  
Schenectady, NY 12306

**VIA: OVERNIGHT DELIVERY**

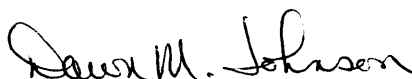
Re: **Former Hess Station #32404**  
**48 Freemans Bridge Road**  
**Scotia, New York**  
**NYSDEC Spill #98-03831**

Dear Mr. Goertz:

Enclosed is a copy of the UST Closure Report for the above referenced site. Please call me to discuss the July 28, 1998 Investigation Work Plan, following your review of the UST Closure Report.

Do not hesitate to contact me at the letterhead address or directly at (732) 750-7068 if you have any questions.

Sincerely,



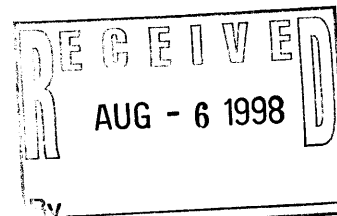
Dawn M. Johnson  
Senior Hydrogeologist

DMJ:mak

Enclosure

cc: A. C. Sagebien  
K. A. McGuinness  
R. L. Tukiendorf  
J. Carpentier (w/ Enc.)

s:\mk\dj\letter98.3\ny#32404.102





3522 James Street, Suite 205  
Syracuse, New York 13206  
Tel 315-437-3484  
Fax 315-437-3161

1-800-347-HETI  
Massachusetts  
California  
Maryland

**UST CLOSURE REPORT**

**AMERADA HESS CORPORATION**

**STATION NUMBER 32404**  
**48 FREEMANS BRIDGE**  
**SCOTIA, NEW YORK**

**Provided By**

**HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.**  
**3522 JAMES STREET, SUITE 205**  
**SYRACUSE, NEW YORK**  
**(315) 437-3484**

**July 17, 1998**

## **TABLE OF CONTENTS**

- 1.0 INTRODUCTION**
- 2.0 SITE DESCRIPTION**
- 3.0 SITE OBSERVATION**
  - 3.1 Kerosene UST Removal**
  - 3.2 Gasoline USTs Removal**
  - 3.3 Remediation Efforts**
  - 3.4 Soil Sampling Procedures**
- 4.0 LABORATORY ANALYSIS OF SOIL SAMPLES**
- 5.0 SOIL UTILIZATION**
- 6.0 SUMMARY**
- 7.0 LIMITATIONS**

### **List of Tables**

- Table 1 - Underground Storage Tank (UST) Information**
- Table 2 - Photo Ionization Detector (PID) Readings**
- Table 3 - Soil Sampling Results EPA Method 8021 TCLP and 8270 TCLP**

### **List of Figures**

- Figure 1 - Site Location**
- Figure 2 - Site Plan**

### **List of Appendices**

- Appendix A - Laboratory Reports**
- Appendix B - Site Photographs**

## **1.0 INTRODUCTION**

Hydro-Environmental Technologies, Inc. (HETI) observed closure activities associated with the removal of four underground storage tanks (USTs) at the Amerada Hess Corporation (AHC) Station #32404 in Scotia, New York (Figure 1). This report documents the results of the soil screening and laboratory analysis associated with the removal of the USTs.

## **2.0 SITE DESCRIPTION**

The site, a gasoline station, is located at 48 Freemans Bridge in Scotia, New York as shown in Figure 2 and Photograph 1. The station is located in a commercial area.

AHC initiated closure of the station on June 25, 1998. The closure included the removal of the dispensers, three gasoline USTs, and one kerosene UST by Northeast Petroleum Technologies.

## **3.0 SITE OBSERVATION**

### **3.1 Kerosene UST Removal**

A 10,000-gallon fiberglass UST used for the storage of diesel fuel was removed from the north side of the station on June 25, 1998. The tank was vented, cleaned and crushed prior to HETI's arrival on-site. Information regarding this tank is presented in Table 1.

A pit approximately 35 feet by 25 feet by 10 feet deep was excavated in order to remove the tank as illustrated in Figure 2. Green and black stained soils were observed on the north, south, and west walls of the excavation at depths of approximately four to eight feet as shown in Photograph 2. At a depth of approximately six-and-a-half feet, a black fine-gravel lens, approximately six to eight inches thick, was encountered in the southwest corner of the excavation as pictured in Photographs 3 & 4. The lens exhibited a heavy gasoline odor and emitted a black oily substance of unknown composition. Attempts to find a continuation of this layer along the northwestern corner of the excavation were unsuccessful. No staining was observed on the eastern wall due to pea gravel still covering soils. PID readings in this excavation ranged from 0.6 ppm to 132 ppm as summarized in Table 2.

Soils in the excavation consisted of fill material containing sand, gravel, clay, as well as bricks, glass, corroded metals, etc. An old block foundation was exposed in the upper three feet of the eastern portion of the south wall (Photographs 2 & 3). Water was encountered at a depth of approximately eight feet in the excavation. Globules of separate phase liquid were observed on the water surface. The excavation was subsequently backfilled with pea gravel removed from the tank pit and fill material brought from off-site.

### **3.2 Gasoline USTs Removal**

Three 10,000-gallon steel USTs used for the storage of unleaded gasoline, oriented in an east-west direction, were removed from the south end of the site as shown in Photograph 5. Historical information regarding these tanks is presented in Table 1. Each tank was vented with compressed air in-place prior to its removal. The northern tank was removed and cleaned on site. The remaining two tanks were cleaned in-place prior to their removal from the tank pit. Wash water was drummed on site for later removal. Tank venting and cleaning activities were carried out by Precision Industrial Maintenance, Inc. of Schenectady, NY. The northern and central tanks appeared intact upon removal (Photographs 6 & 7). No pinholes were observed from inside the northern and central tanks. Sands emitting a strong gasoline odor were observed at the central manway area on top of the southern tank. HETI was not on-site for the tank's removal and could not observe the tank's condition upon removal.

A pit approximately thirty feet by thirty feet by eight to ten feet deep was excavated in order to remove the tanks as illustrated in Figure 2. Black stained sands emitting a gasoline odor were observed in the northern (Photograph 8), western, and eastern walls as well as the floor. The southern wall of the tank pit was not well exposed due to the tank still being in place (the tank was shifted slightly for sampling purposes). A similar lens of black, fine gravel found in the southwestern corner of the kerosene tank pit was also found in the northwestern corner of the southern tank pit as well as black product running into the excavation as shown in Photograph 9. This lens exhibited an asphalt like consistency due to its cohesiveness and emitted a fuel oil odor as well as a moderate gasoline odor. PID readings of samples taken in the southern tank pit area ranged from 1.4 ppm to 155 ppm as summarized in Table 2.

Material removed from the southern tank pit consisted of brown, homogeneous sand. Ground water was observed running into the excavation at a depth of approximately six

to seven feet (from around the black layer in the northwest corner). Ground water was also observed at depths of approximately eight to ten feet deep in various floor areas of the excavation.

### **3.3 Remediation Efforts**

Due to the extent of the contamination and the lack of space on site, it was decided that it was not feasible to make attempts to dig "clean" in either of the tank pit excavations. Five disposal trucks from Mangiardi Trucking were filled with soils removed from the southern tank pit and transported to Clean Waters of America, Inc. for disposal. The remaining soils in the southern tank pit area were shifted in the pit area as each tank was removed. No soils were removed from the kerosene tank pit excavation.

### **3.4 Soil Sampling Procedures**

Composite soil samples were collected on June 25, 1998 from the four walls of the northern kerosene tank pit and the four walls and floor of the southern gasoline tank pit. Laboratory analytical results are discussed in Section 4.0.

## **4.0 LABORATORY ANALYSIS OF SOIL SAMPLES**

Laboratory results are summarized in Table 3 and the laboratory reports are provided as Appendix A. All soil samples were analyzed for semi-volatile organic compounds (SVOCs) and VOCs using USEPA Methods 8270 TCLP and 8021 TCLP respectively.

- Six of the nine samples analyzed by EPA Method 8021 TCLP were reported to have levels of VOCs above the Method Detection Limits (MDLs).
- Most levels of VOCs above the MDLs in the six of the nine samples were above the NYSDEC STARS Memo #1 (STARS) TCLP Extraction Guidance Values.
- The highest level of total VOCs was reported in the west wall of the kerosene tank pit - 1,024.2 parts per billion (ppb).
- Four of the nine samples analyzed by EPA Method 8270 TCLP were reported to have levels of SVOCs above the MDLs.

- The levels of SVOCs above the MDLs in the three of the four samples were above the NYSDEC STARS Memo #1 (STARS) TCLP Extraction Guidance Values for Naphthalene.
- The highest level of total SVOCs was reported in the south tank pit, northern tank floor - 112 parts per billion (ppb).

## **5.0 SOIL UTILIZATION**

Contaminated soil (204.26 tons) from the excavations was transported to Clean Waters of America, Inc. in Athens, New York for disposal.

## **6.0 SUMMARY**

1. A total of four USTs, including three gasoline tanks and one kerosene tank, were removed from the site. The two northernmost gasoline USTs were observed to be intact upon removal. HETI was not on site to observe the removal of the kerosene UST and the southern-most gasoline UST.
2. Soils encountered in the kerosene tank pit were primarily fill material consisting of sand, gravel, as well as building debris, corroded metals, glass, etc. Sand was the only material encountered in the gasoline tank pit.
3. A black, fine gravel lens, six to eight inches thick, emitting a black oily substance as well as gasoline and fuel-oil odors, was encountered in the southwest corner of the kerosene tank pit as well as the northwest corner of the gasoline tank pit at a depth of approximately six-and-a-half feet.
4. Ground water was encountered in the kerosene tank pit at a depth of approximately eight feet. Globules of separate phase liquid were observed on the water surface. Ground water was observed running into the excavation at the location of the black, fine gravel layer in the northwest corner of the gasoline tank pit.
5. Due to the lateral extent of the contamination, no attempts were made to remove all contaminated soils from either of the tank pit excavations.

6. Detectable levels of VOCs were reported in six of the nine soil samples analyzed by EPA Method 8021 TCLP. The levels of VOCs above the MDLs were above the STARS TCLP Extraction Guidance Values for most of the analytes; the highest level of VOCs was found in the west wall of the kerosene tank pit - 1,024.2.
7. Detectable levels of SVOCs were reported in four of the nine soil samples analyzed by EPA Method 8270 TCLP. The levels of SVOCs above the MDLs were above the STARS TCLP Extraction Guidance Values in three of the four samples for naphthalene; the highest level of SVOCs reported was found in the floor of the southern tank pit - 112 ppb.
8. A total of 204.26 tons of contaminated soils were removed from the southern tank pit area and disposed of at Clean Waters of America, Inc. in Athens, New York.

## **7.0 LIMITATIONS**

This report was prepared for the exclusive use of Amerada Hess Corporation. The conclusions provided by Hydro-Environmental Technologies, Inc. in this report are based solely on the information reported in this document. Future investigative site information which was not available to Hydro-Environmental Technologies, Inc. at the time of this assessment may result in a modification of the conclusions stated above. This report has been prepared in accordance with generally accepted hydrogeologic practices. No other warranty, expressed or implied, is made.

AMERADA HESS CORPORATION  
 STATION #32404  
 48 FREEMANS BRIDGE  
 SCOTIA, NEW YORK

TABLE I  
 UNDERGROUND STORAGE TANK (UST) INFORMATION  
 PBS NUMBER 4-163694

| TANK # | PRODUCT           | CAPACITY<br>(Gallons) | CONSTRUCTION                     | INSTALLATION<br>DATE | REMOVAL<br>DATE | REMOVAL<br>CONDITION |
|--------|-------------------|-----------------------|----------------------------------|----------------------|-----------------|----------------------|
| 001    | Kerosene*         | 10,000                | Fiberglass Reinforced<br>Plastic | September, 1983      | June 25, 1998   | Unknown              |
| 002    | Unleaded Gasoline | 10,000                | Steel/Carbon Steel               | May, 1991            | June 25, 1998   | Intact               |
| 003    | Unleaded Gasoline | 10,000                | Steel/Carbon Steel               | May, 1991            | June 25, 1998   | Intact               |
| 004    | Unleaded Gasoline | 10,000                | Steel/Carbon Steel               | May, 1991            | June 25, 1998   | Unknown              |

\* = Tank is registered as an unleaded gasoline UST with the New York State Department of Conservation.

**AMERADA HESS CORPORATION  
STATION #32404, 48 FREEMANS BRIDGE  
SCOTIA, NEW YORK**

**TABLE 2**

**PHOTO-IONIZATION DETECTOR (PID) READINGS FROM KEROSENE UST PIT  
JUNE 25, 1998**

| READING LOCATION               | SAMPLE TYPE | APPROXIMATE DEPTH (Ft) | PID READING (ppm*) |
|--------------------------------|-------------|------------------------|--------------------|
| North Wall (West Half)         | Composite   | 0-8                    | 42                 |
| North Wall (East Half)         | Composite   | 0-8                    | 1.4                |
| East Wall (North Half)         | Composite   | 0-8                    | 0.6                |
| East Wall (South Half)         | Composite   | 0-8                    | 4.6                |
| South Wall (East Half)         | Composite   | 0-8                    | 20                 |
| West Wall (North Half)         | Composite   | 0-8                    | 64                 |
| West Wall ( South Half)        | Composite   | 0-8                    | 100                |
| Northwest Corner               | Grab        | ~8                     | 130                |
| North Wall (Center)            | Grab        | ~8                     | 3.0                |
| Southwest Corner (Black Layer) | Grab        | 6-7                    | 120                |
| West Wall - Lab Sample         | Composite   | 0-8                    | 152                |
| North Wall - Lab Sample        | Composite   | 0-8                    | 42                 |
| East Wall - Lab Sample         | Composite   | 0-4                    | 1.4                |
| South Wall - Lab Sample        | Composite   | 0-8                    | 128                |

**PHOTO-IONIZATION DETECTOR (PID) READINGS FROM GASOLINE UST PIT  
JUNE 25, 1998**

| READING LOCATION                 | SAMPLE TYPE | APPROXIMATE DEPTH (Ft) | PID READING (ppm*) |
|----------------------------------|-------------|------------------------|--------------------|
| Northeast Corner                 | Composite   | 1-3                    | 26                 |
| Northeast Corner                 | Composite   | 3-5                    | 44                 |
| Northeast Corner                 | Composite   | 5-7                    | 155                |
| Northeast Corner                 | Grab        | ~3                     | 26                 |
| Northeast Corner                 | Grab        | ~6                     | 148                |
| Southeast Corner                 | Grab        | ~3                     | 24                 |
| West Wall                        | Composite   | 1-3                    | 28                 |
| West Wall                        | Composite   | 3-5                    | 110                |
| West Wall                        | Composite   | 5-8                    | 102                |
| West Wall - Lab Sample           | Composite   | 0-8                    | 132                |
| East Wall - Lab Sample           | Composite   | 0-8                    | 40                 |
| South Wall - Lab Sample          | Composite   | 0-8                    | 9.0                |
| Central Tank Bottom - Lab Sample | Composite   | ~10                    | 100                |

\* PID readings recorded in parts per million (ppm) of volatile organic compounds (VOC's)

**AMERADA HESS CORPORATION  
STATION #32404, 48 FREEMANS BRIDGE  
SCOTIA, NEW YORK**

**TABLE 3  
SOIL SAMPLING RESULTS EPA METHODS 8021 AND 8270**

| <b>SAMPLING DATE</b> | <b>SAMPLE NUMBER</b> | <b>LAB SAMPLE NUMBER</b> | <b>SAMPLE LOCATION</b>                      | <b>[VOCs]<br/>EPA<br/>METHOD<br/>8021 (ppb)</b> | <b>[SVOCs]<br/>EPA<br/>METHOD<br/>8270 (ppb)</b> |
|----------------------|----------------------|--------------------------|---|---|--|
| 6/25/98              | 1                    | E36278-1                 | Kerosene Tank Pit - North Wall              | 872.3   | ND   |
|                      | 2                    | E36278-2                 | Kerosene Tank Pit - South Wall, Eastern End | 10.1  | ND   |
|                      | 3                    | E36278-3                 | Kerosene Tank Pit - East Wall               | ND  | ND   |
|                      | 4                    | E36278-4                 | Kerosene Tank Pit - West Wall               | 1,024.2   | 67.8   |
|                      | 5                    | E36278-5                 | South Tank Pit - North Wall                 | 478.4   | 93.84  |
|                      | 6                    | E36278-6                 | South Tank Pit - South Wall                 | ND  | ND   |
|                      | 7                    | E36278-7                 | South Tank Pit - East Wall                  | ND  | ND   |
|                      | 8                    | E36278-8                 | South Tank Pit - West Wall                  | 27.7  | 10.9   |
|                      | 9                    | E36278-9                 | South Tank Pit - Northern Tank Floor        | 295.3   | 112.0  |

EPA Method 8021 for Volatile Organic Compounds (VOCs)

EPA Method 8270 for Semi Volatile Organic Compounds (SVOCs)

Concentrations measured in  $\mu\text{g}/\text{kg} = \text{ppb}$

ND = None Detected, detection limits noted in laboratory reports.

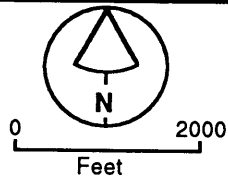
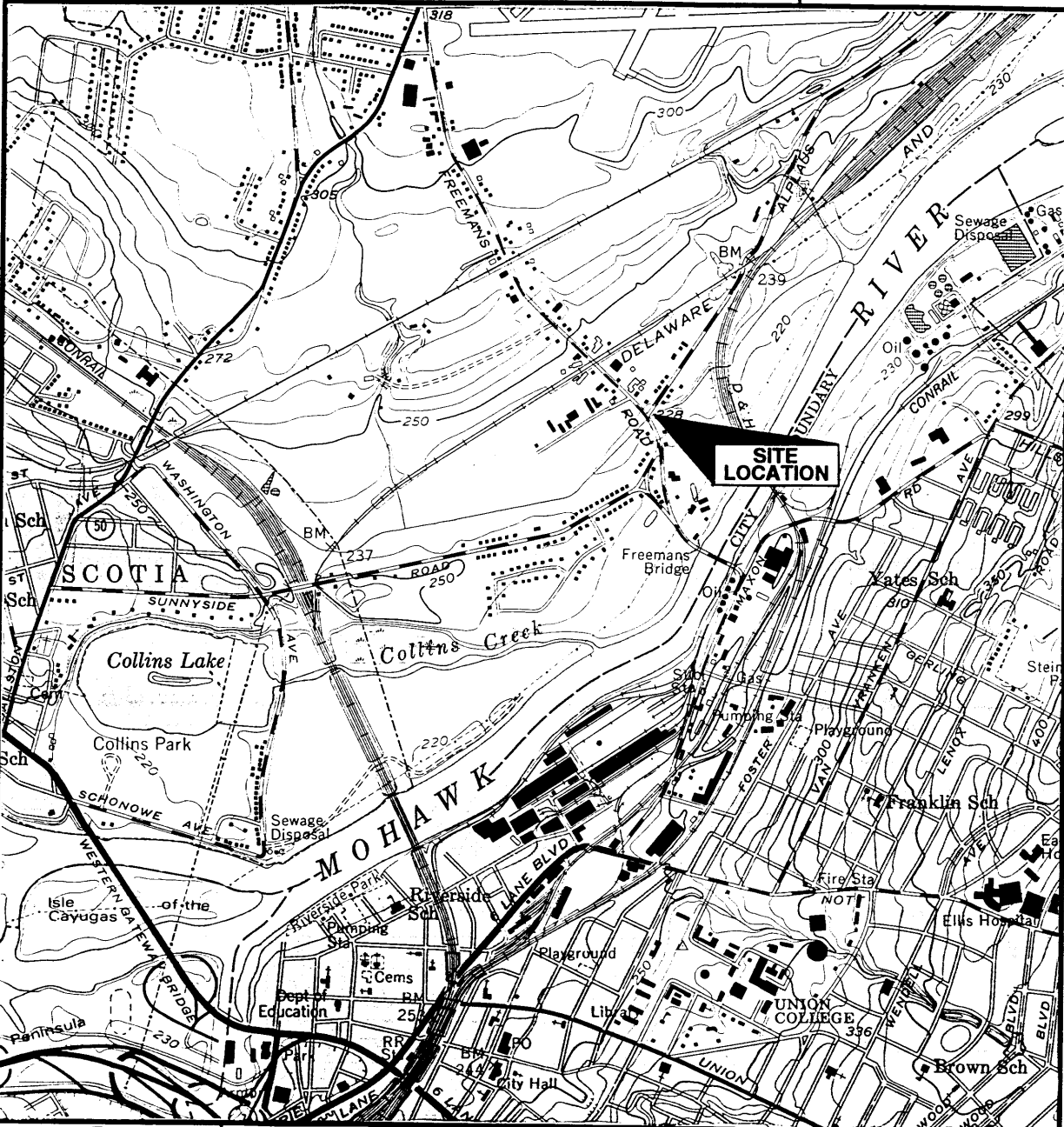
Amerada Hess Corporation  
Station Number 32404  
48 Freemans Bridge  
Scotia, New York

FIGURE 1

HYDRO-  
ENVIRONMENTAL  
TECHNOLOGIES, INC.

3522 James Street  
Syracuse, New York

SITE LOCATION



SOURCE: USGS Topographic Map  
7.5-Minute Series,  
Schenectady, NY.  
1954, Photorevised 1980.

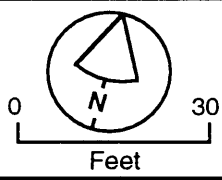
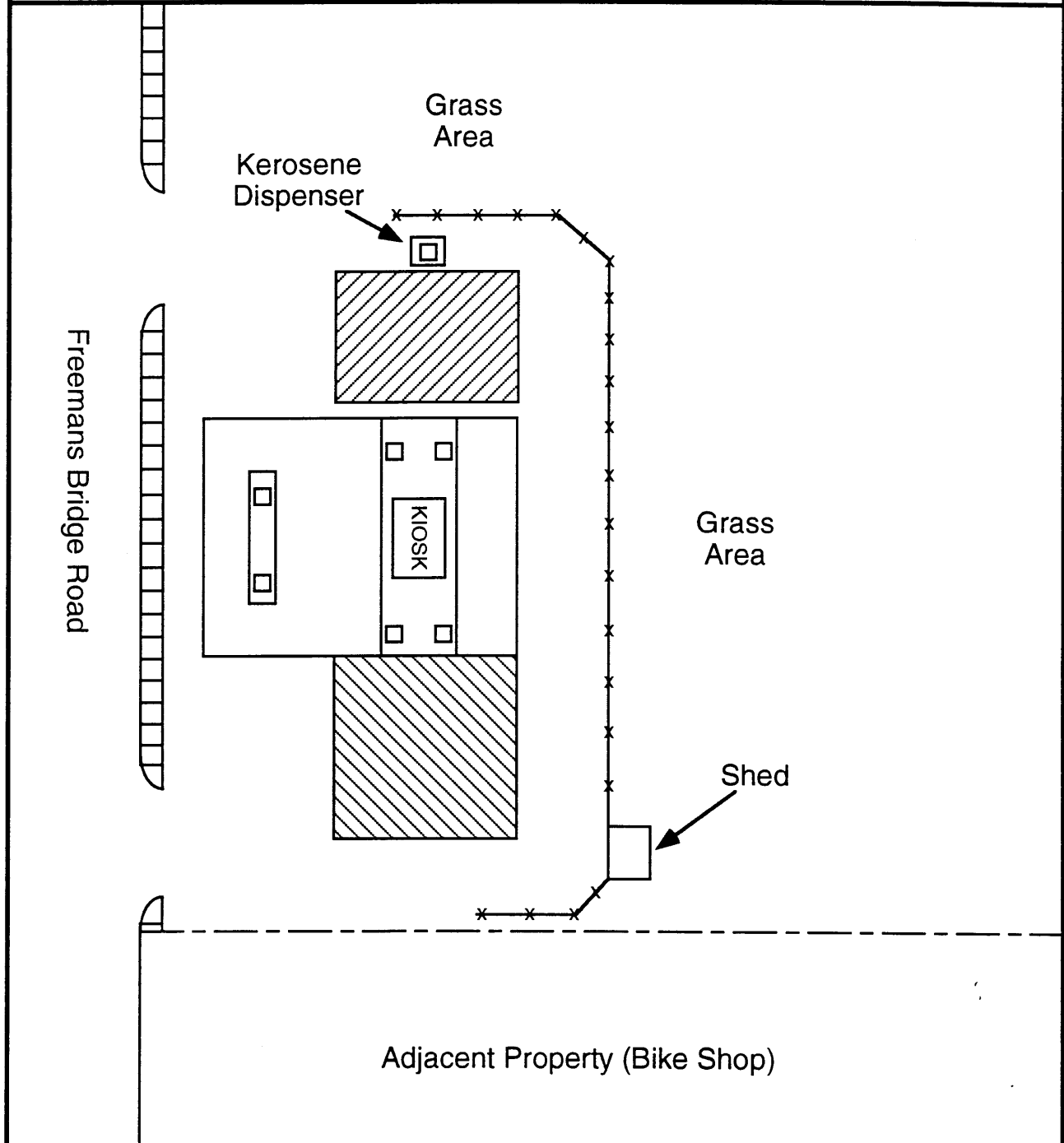
Date: 7/7/98

Drafted By: GAW

Amerada Hess Corporation  
Station #32404  
48 Freemans Bridge  
Scotia, New York

FIGURE 2  
SITE PLAN

HYDRO-  
ENVIRONMENTAL  
TECHNOLOGIES, INC.  
3522 James Street  
Syracuse, New York



- - - - - Fence
  - \* \* \* \* \* Approximate Property Boundary
  - [Hatched Box] Kerosene UST Pit
  - [Hatched Box] Gasoline USTs Pit
- \* Scale is approximate

Date: 7/10/98  
Compiled By: GAW  
Drafted By: GAW

Technical Report for

---

Hydro Environmental Tech.

Hess #32404, 48 Freemans Bridge, Scotia, NY

32404

Accutest Job Number: E36278

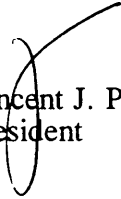
---

Report to:

Hydro Environmental Tech.  
3522 James Street  
Syracuse, NY 13206

ATTN: Mark Graves

Total number of pages in report: 20



Vincent J. Pugliese  
President

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, KS, MA, MD, NC, PA, RI, SC, VA  
Results relate only to the items tested.

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.



## Sample Summary

Hydro Environmental Tech.

Date: 07/14/98

Hess #32404, 48 Freemans Bridge, Scotia, NY  
Project No: 32404

Job No: E36278

| Sample Number | Collected Date | Time By | Received     | Matrix Code | Type | Client Sample ID                      |
|---------------|----------------|---------|--------------|-------------|------|---------------------------------------|
| E36278-1      | 06/25/98       | 15:30   | GAW 06/29/98 | SO          | Soil | KERO TANK PIT - NORTH WALL            |
| E36278-2      | 06/25/98       | 15:50   | GAW 06/29/98 | SO          | Soil | KERO TANK PIT - SOUTH WALL            |
| E36278-3      | 06/25/98       | 15:45   | GAW 06/29/98 | SO          | Soil | KERO TANK PIT - EAST WALL             |
| E36278-4      | 06/25/98       | 15:05   | GAW 06/29/98 | SO          | Soil | KERO TANK PIT - WEST WALL             |
| E36278-5      | 06/25/98       | 14:30   | GAW 06/29/98 | SO          | Soil | SOUTH TANK PIT - NORTH WELL           |
| E36278-6      | 06/25/98       | 19:30   | GAW 06/29/98 | SO          | Soil | SOUTH TANK PIT - SOUTH WELL           |
| E36278-7      | 06/25/98       | 18:59   | GAW 06/29/98 | SO          | Soil | SOUTH TANK PIT - EAST WELL            |
| E36278-8      | 06/25/98       | 16:35   | GAW 06/29/98 | SO          | Soil | SOUTH TANK PIT - WEST WELL            |
| E36278-9      | 06/25/98       | 14:50   | GAW 06/29/98 | SO          | Soil | SOUTH TANK PIT - NORTHERN TANK BOTTOM |



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> KERO TANK PIT - NORTH WALL         | <b>Date Sampled:</b> 06/25/98  |
| <b>Lab Sample ID:</b> E36278-1                              | <b>Date Received:</b> 06/29/98 |
| <b>Matrix:</b> SO - Soil                                    | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8021                                   |                                |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #  | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18505.D | 5  | 07/09/98 | RFY | 07/02/98  | GP4974     | GNP635           |
| Run #2 | NP18533.D | 10 | 07/13/98 | RFY | 07/02/98  | GP4974     | GNP635           |

### VOA STARS List, TCLP Leachate

| CAS No.   | Compound                | Result           | RDL | Units | Q |
|-----------|-------------------------|------------------|-----|-------|---|
| 71-43-2   | Benzene                 | ND               | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | 69.8             | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | 11.5             | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND               | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | 56.6             | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | 14.2             | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | 3.9              | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND               | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | 44.3             | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | 42.4             | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND               | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | 346 <sup>a</sup> | 5.0 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | 73.6             | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | 210              | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | 12.5             | 2.5 | ug/l  |   |
|           | m,p-Xylene              | 198              | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits  |
|-----------|-------------------------|--------|--------|---------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 103%   | 110%   | 75-125% |
| 462-06-6  | Fluorobenzene           | 104%   | 94%    | 75-125% |
| 98-08-8   | aaa-Trifluorotoluene    | 106%   | 96%    | 75-125% |

(a) Result is from Run# 2

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> KERO TANK PIT - NORTH WALL         | <b>Date Sampled:</b> 06/25/98  |
| <b>Lab Sample ID:</b> E36278-1                              | <b>Date Received:</b> 06/29/98 |
| <b>Matrix:</b> SO - Soil                                    | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8270                                   |                                |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #1 | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14388.D | 1  | 07/06/98 | WHS | 07/01/98  | OP3866     | EC1431           |
| Run #2 |          |    |          |     |           |            |                  |

**BN STARS List, TCLP Leachate**

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 1.3 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 73%    |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 74%    |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 85%    |        | 33-141% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> KERO TANK PIT - SOUTH WALL         | <b>Date Sampled:</b> 06/25/98  |
| <b>Lab Sample ID:</b> E36278-2                              | <b>Date Received:</b> 06/29/98 |
| <b>Matrix:</b> SO - Soil                                    | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8021                                   |                                |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #1 | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18506.D | 5  | 07/10/98 | RFY | 07/02/98  | GP4974     | GNP635           |
| Run #2 |           |    |          |     |           |            |                  |

**VOA STARS List, TCLP Leachate**

| CAS No.   | Compound                | Result | RDL | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | ND     | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | ND     | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND     | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | ND     | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | ND     | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | ND     | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | ND     | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | 2.6    | 2.5 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | 7.5    | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | ND     | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | ND     | 2.5 | ug/l  |   |
|           | m,p-Xylene              | ND     | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits  |
|-----------|-------------------------|--------|--------|---------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 107%   |        | 75-125% |
| 462-06-6  | Fluorobenzene           | 105%   |        | 75-125% |
| 98-08-8   | aaa-Trifluorotoluene    | 104%   |        | 75-125% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> KERO TANK PIT - SOUTH WALL         | <b>Date Sampled:</b> 06/25/98  |
| <b>Lab Sample ID:</b> E36278-2                              | <b>Date Received:</b> 06/29/98 |
| <b>Matrix:</b> SO - Soil                                    | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8270                                   |                                |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #  | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14365.D | 1  | 07/02/98 | WHS | 07/01/98  | OP3866     | EC1430           |
| Run #2 |          |    |          |     |           |            |                  |

**BN STARS List, TCLP Leachate**

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 1.3 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 77 %   |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 80 %   |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 103 %  |        | 33-141% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> KERO TANK PIT - EAST WALL          |                                |
| <b>Lab Sample ID:</b> E36278-3                              | <b>Date Sampled:</b> 06/25/98  |
| <b>Matrix:</b> SO - Soil                                    | <b>Date Received:</b> 06/29/98 |
| <b>Method:</b> SW846 8021                                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #1 | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18507.D | 5  | 07/10/98 | RFY | 07/02/98  | GP4974     | GNP635           |
| Run #2 |           |    |          |     |           |            |                  |

### VOA STARS List, TCLP Leachate

| CAS No.   | Compound                | Result | RDL | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | ND     | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | ND     | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND     | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | ND     | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | ND     | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | ND     | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | ND     | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | ND     | 2.5 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | ND     | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | ND     | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | ND     | 2.5 | ug/l  |   |
|           | m,p-Xylene              | ND     | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits  |
|-----------|-------------------------|--------|--------|---------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 104%   |        | 75-125% |
| 462-06-6  | Fluorobenzene           | 105%   |        | 75-125% |
| 98-08-8   | aaa-Trifluorotoluene    | 104%   |        | 75-125% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> KERO TANK PIT - EAST WALL          |                                |
| <b>Lab Sample ID:</b> E36278-3                              | <b>Date Sampled:</b> 06/25/98  |
| <b>Matrix:</b> SO - Soil                                    | <b>Date Received:</b> 06/29/98 |
| <b>Method:</b> SW846 8270                                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #1 | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14366.D | 1  | 07/02/98 | WHS | 07/01/98  | OP3866     | EC1430           |
| Run #2 |          |    |          |     |           |            |                  |

**BN STARS List, TCLP Leachate**

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 1.3 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 83%    |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 85%    |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 107%   |        | 33-141% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> KERO TANK PIT - WEST WALL          | <b>Date Sampled:</b> 06/25/98  |
| <b>Lab Sample ID:</b> E36278-4                              | <b>Date Received:</b> 06/29/98 |
| <b>Matrix:</b> SO - Soil                                    | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8021                                   |                                |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #  | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18508.D | 5  | 07/10/98 | RFY | 07/03/98  | GP4974     | GNP635           |
| Run #2 | NP18534.D | 10 | 07/13/98 | RFY | 07/03/98  | GP4974     | GNP635           |

### VOA STARS List, TCLP Leachate

| CAS No.   | Compound                | Result           | RDL | Units | Q |
|-----------|-------------------------|------------------|-----|-------|---|
| 71-43-2   | Benzene                 | ND               | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | 110              | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | ND               | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND               | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | 9.0              | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | 4.0              | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | 5.4              | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND               | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | 38.8             | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | 8.0              | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND               | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | 210 <sup>a</sup> | 5.0 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | 151              | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | 488              | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | 194              | 2.5 | ug/l  |   |
|           | m,p-Xylene              | 295              | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits  |
|-----------|-------------------------|--------|--------|---------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 101%   | 111%   | 75-125% |
| 462-06-6  | Fluorobenzene           | 104%   | 95%    | 75-125% |
| 98-08-8   | aaa-Trifluorotoluene    | 104%   | 96%    | 75-125% |

(a) Result is from Run# 2

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> KERO TANK PIT - WEST WALL          | <b>Date Sampled:</b> 06/25/98  |
| <b>Lab Sample ID:</b> E36278-4                              | <b>Date Received:</b> 06/29/98 |
| <b>Matrix:</b> SO - Soil                                    | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8270                                   |                                |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #  | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14367.D | 1  | 07/02/98 | WHS | 07/01/98  | OP3866     | EC1430           |
| Run #2 |          |    |          |     |           |            |                  |

### BN STARS List, TCLP Leachate

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | 67.8   | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 1.3 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 69%    |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 77%    |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 102%   |        | 33-141% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> SOUTH TANK PIT - NORTH WELL        |  | <b>Date Sampled:</b> 06/25/98  |
| <b>Lab Sample ID:</b> E36278-5                              |  | <b>Date Received:</b> 06/29/98 |
| <b>Matrix:</b> SO - Soil                                    |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8021                                   |  |                                |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |  |                                |

| Run #  | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18509.D | 5  | 07/10/98 | RFY | 07/03/98  | GP4974     | GNP635           |
| Run #2 |           |    |          |     |           |            |                  |

### VOA STARS List, TCLP Leachate

| CAS No.   | Compound                | Result | RDL | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | 142    | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | 6.2    | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND     | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | ND     | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | 3.8    | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | 26.3   | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | 6.9    | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | 83.0   | 2.5 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | 127    | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | 83.2   | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | 61.1   | 2.5 | ug/l  |   |
|           | m,p-Xylene              | 22.1   | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits  |
|-----------|-------------------------|--------|--------|---------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 103%   |        | 75-125% |
| 462-06-6  | Fluorobenzene           | 106%   |        | 75-125% |
| 98-08-8   | aaa-Trifluorotoluene    | 105%   |        | 75-125% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> SOUTH TANK PIT - NORTH WELL        |                                |
| <b>Lab Sample ID:</b> E36278-5                              | <b>Date Sampled:</b> 06/25/98  |
| <b>Matrix:</b> SO - Soil                                    | <b>Date Received:</b> 06/29/98 |
| <b>Method:</b> SW846 8270                                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #  | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14368.D | 1  | 07/02/98 | WHS | 07/01/98  | OP3866     | EC1430           |
| Run #2 |          |    |          |     |           |            |                  |

### BN STARS List, TCLP Leachate

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | 93.0   | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | 0.84   | 1.3 | ug/l  | J |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 74%    |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 84%    |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 109%   |        | 33-141% |

ND = Not detected  
RDL = Reported Detection Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> SOUTH TANK PIT - SOUTH WELL        |                                |
| <b>Lab Sample ID:</b> E36278-6                              | <b>Date Sampled:</b> 06/25/98  |
| <b>Matrix:</b> SO - Soil                                    | <b>Date Received:</b> 06/29/98 |
| <b>Method:</b> SW846 8021                                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #1 | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18510.D | 5  | 07/10/98 | RFY | 07/03/98  | GP4974     | GNP635           |
| Run #2 |           |    |          |     |           |            |                  |

### VOA STARS List, TCLP Leachate

| CAS No.   | Compound                | Result | RDL | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | ND     | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | ND     | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND     | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | ND     | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | ND     | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | ND     | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | ND     | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | ND     | 2.5 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | ND     | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | ND     | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | ND     | 2.5 | ug/l  |   |
|           | m,p-Xylene              | ND     | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits   |
|-----------|-------------------------|--------|--------|----------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 102%   |        | 75-125 % |
| 462-06-6  | Fluorobenzene           | 105%   |        | 75-125 % |
| 98-08-8   | aaa-Trifluorotoluene    | 105%   |        | 75-125 % |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> SOUTH TANK PIT - SOUTH WELL        |                                |
| <b>Lab Sample ID:</b> E36278-6                              | <b>Date Sampled:</b> 06/25/98  |
| <b>Matrix:</b> SO - Soil                                    | <b>Date Received:</b> 06/29/98 |
| <b>Method:</b> SW846 8270                                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #1 | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14391.D | 1  | 07/06/98 | WHS | 07/02/98  | OP3866     | EC1431           |
| Run #2 |          |    |          |     |           |            |                  |

**BN STARS List, TCLP Leachate**

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 1.3 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 79%    |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 79%    |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 90%    |        | 33-141% |

---

|   |   |
|---|---|
| <p>ND = Not detected</p> <p>RDL = Reported Detection Limit</p> <p>E = Indicates value exceeds calibration range</p> | <p>J = Indicates an estimated value</p> <p>B = Indicates analyte found in associated method blank</p> <p>N = Indicates presumptive evidence of a compound</p> |
|---|---|



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> SOUTH TANK PIT - EAST WELL         | <b>Date Sampled:</b> 06/25/98  |
| <b>Lab Sample ID:</b> E36278-7                              | <b>Date Received:</b> 06/29/98 |
| <b>Matrix:</b> SO - Soil                                    | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8021                                   |                                |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #1 | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18511.D | 5  | 07/10/98 | RFY | 07/03/98  | GP4974     | GNP635           |
| Run #2 |           |    |          |     |           |            |                  |

**VOA STARS List, TCLP Leachate**

| CAS No.   | Compound                | Result | RDL | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | ND     | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | ND     | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND     | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | ND     | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | ND     | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | ND     | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | ND     | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | ND     | 2.5 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | ND     | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | ND     | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | ND     | 2.5 | ug/l  |   |
|           | m,p-Xylene              | ND     | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits  |
|-----------|-------------------------|--------|--------|---------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 101%   |        | 75-125% |
| 462-06-6  | Fluorobenzene           | 105%   |        | 75-125% |
| 98-08-8   | aaa-Trifluorotoluene    | 102%   |        | 75-125% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | SOUTH TANK PIT - EAST WELL                  |                        |          |
| <b>Lab Sample ID:</b>    | E36278-7                                    | <b>Date Sampled:</b>   | 06/25/98 |
| <b>Matrix:</b>           | SO - Soil                                   | <b>Date Received:</b>  | 06/29/98 |
| <b>Method:</b>           | SW846 8270                                  | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Hess #32404, 48 Freemans Bridge, Scotia, NY |                        |          |

| Run #1 | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14392.D | 1  | 07/07/98 | WHS | 07/02/98  | OP3866     | EC1431           |
| Run #2 |          |    |          |     |           |            |                  |

### BN STARS List, TCLP Leachate

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 1.3 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 90%    |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 89%    |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 103%   |        | 33-141% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> SOUTH TANK PIT - WEST WELL         |                                |
| <b>Lab Sample ID:</b> E36278-8                              | <b>Date Sampled:</b> 06/25/98  |
| <b>Matrix:</b> SO - Soil                                    | <b>Date Received:</b> 06/29/98 |
| <b>Method:</b> SW846 8021                                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #  | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18512.D | 5  | 07/10/98 | RFY | 07/03/98  | GP4974     | GNP635           |
| Run #2 |           |    |          |     |           |            |                  |

### VOA STARS List, TCLP Leachate

| CAS No.   | Compound                | Result | RDL | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | 9.3    | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | ND     | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND     | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | ND     | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | ND     | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | 5.1    | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | ND     | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | 3.7    | 2.5 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | 9.6    | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | ND     | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | ND     | 2.5 | ug/l  |   |
|           | m,p-Xylene              | ND     | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits  |
|-----------|-------------------------|--------|--------|---------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 103%   |        | 75-125% |
| 462-06-6  | Fluorobenzene           | 105%   |        | 75-125% |
| 98-08-8   | aaa-Trifluorotoluene    | 103%   |        | 75-125% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> SOUTH TANK PIT - WEST WELL         |                                |
| <b>Lab Sample ID:</b> E36278-8                              | <b>Date Sampled:</b> 06/25/98  |
| <b>Matrix:</b> SO - Soil                                    | <b>Date Received:</b> 06/29/98 |
| <b>Method:</b> SW846 8270                                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY |                                |

| Run #  | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14393.D | 1  | 07/07/98 | WHS | 07/02/98  | OP3866     | EC1431           |
| Run #2 |          |    |          |     |           |            |                  |

### BN STARS List, TCLP Leachate

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | 10.9   | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 1.3 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 79%    |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 79%    |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 91%    |        | 33-141% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SOUTH TANK PIT - NORTHERN TANK BOTTOM |                                |
| <b>Lab Sample ID:</b> E36278-9                                 | <b>Date Sampled:</b> 06/25/98  |
| <b>Matrix:</b> SO - Soil                                       | <b>Date Received:</b> 06/29/98 |
| <b>Method:</b> SW846 8021                                      | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Hess #32404, 48 Freemans Bridge, Scotia, NY    |                                |

| Run #  | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | NP18513.D | 5  | 07/10/98 | RFY | 07/03/98  | GP4974     | GNP635           |
| Run #2 |           |    |          |     |           |            |                  |

**VOA STARS List, TCLP Leachate**

| CAS No.   | Compound                | Result | RDL | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | 7.1    | 2.5 | ug/l  |   |
| 104-51-8  | n-Butylbenzene          | 18.8   | 2.5 | ug/l  |   |
| 135-98-8  | sec-Butylbenzene        | 3.7    | 2.5 | ug/l  |   |
| 98-06-6   | tert-Butylbenzene       | ND     | 2.5 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | 57.8   | 2.5 | ug/l  |   |
| 98-82-8   | Isopropylbenzene        | 9.6    | 2.5 | ug/l  |   |
| 99-87-6   | p-Isopropyltoluene      | ND     | 2.5 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 2.5 | ug/l  |   |
| 91-20-3   | Naphthalene             | 45.5   | 2.5 | ug/l  |   |
| 103-65-1  | n-Propylbenzene         | 28.1   | 2.5 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 2.5 | ug/l  |   |
| 95-63-6   | 1,2,4-Trimethylbenzene  | 59.2   | 2.5 | ug/l  |   |
| 108-67-8  | 1,3,5-Trimethylbenzene  | 11.4   | 2.5 | ug/l  |   |
| 1330-20-7 | Xylenes (total)         | 54.1   | 2.5 | ug/l  |   |
| 95-47-6   | o-Xylene                | ND     | 2.5 | ug/l  |   |
|           | m,p-Xylene              | 54.1   | 2.5 | ug/l  |   |

| CAS No.   | Surrogate Recoveries    | Run# 1 | Run# 2 | Limits   |
|-----------|-------------------------|--------|--------|----------|
| 3017-95-6 | 2-Bromo-1-chloropropane | 101 %  |        | 75-125 % |
| 462-06-6  | Fluorobenzene           | 104 %  |        | 75-125 % |
| 98-08-8   | aaa-Trifluorotoluene    | 106 %  |        | 75-125 % |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | SOUTH TANK PIT - NORTHERN TANK BOTTOM       |                        |          |
| <b>Lab Sample ID:</b>    | E36278-9                                    | <b>Date Sampled:</b>   | 06/25/98 |
| <b>Matrix:</b>           | SO - Soil                                   | <b>Date Received:</b>  | 06/29/98 |
| <b>Method:</b>           | SW846 8270                                  | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Hess #32404, 48 Freemans Bridge, Scotia, NY |                        |          |

| Run #1 | File ID  | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | C14394.D | 1  | 07/07/98 | WHS | 07/02/98  | OP3866     | EC1431           |
| Run #2 |          |    |          |     |           |            |                  |

### BN STARS List, TCLP Leachate

| CAS No.  | Compound               | Result | RDL | Units | Q |
|----------|------------------------|--------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1.2 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 1.2 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1.2 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1.4 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 1.3 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 1.4 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1.4 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 1.5 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1.6 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 1.2 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 1.4 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1.4 | ug/l  |   |
| 91-20-3  | Naphthalene            | 112    | 1.3 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 1.3 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 1.4 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 74%    |        | 35-114% |
| 321-60-8  | 2-Fluorobiphenyl     | 78%    |        | 43-116% |
| 1718-51-0 | Terphenyl-d14        | 94%    |        | 33-141% |

ND = Not detected  
 RDL = Reported Detection Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound





Photograph 1: View to the north of Hess station #32404, Scotia, New York



Photograph 2: View to the southwest of the kerosene UST pit



Photograph 3: View to the south of the kerosene UST pit



Photograph 4: Black fine gravel layer in southwest corner of kerosene UST pit



Photograph 5: View to the north of the three gasoline USTs from the south end of the site



Photograph 6: View of the northern gasoline UST



Photograph 7: View to the southeast of the central gasoline UST



Photograph 8: View to the west of the north wall of the gasoline UST pit



Photograph 9: View of northwest corner of southern tank pit