



+L  
Spill #9411938  
Roch.  
Monroe Co.

6601 Kirkville Road  
E. Syracuse, NY 13057  
Tel: (315) 432-0506  
FAX: (315) 437-0509

November 3, 1995

Mr. Michael Zamiarski  
NYS Dept. of Environmental Conservation  
Region 8  
6274 Avon-Lima Rd.  
Avon, NY 14414

RECEIVED  
NYSDEC

Re: The Gleason Works  
Draft Tank Closure Report  
Tanks 1 & 2  
Galson Project No. 95L3079

JUN - 1 1998

BUREAU OF  
HAZARDOUS WASTE FACILITIES  
DIV. OF SOLID & HAZ. MATERIALS

Dear Mr. Zamiarski:

Enclosed please find a copy of the tank closure report for Tank 1 and Tank 2. If you have any questions or require further information, please call.

Sincerely,

Galson Corporation

*Thomas W. Moran*

Thomas W. Moran, PE  
Project Manager

cc: T. Freeman - Gleason Works (w/report)  
S. Fein - Whiteman, Osterman & Hanna (w/report)

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NOV 26 1995

DIV. OF SPILLS MGMT.



**Tank Closure Report  
Tank 1 & Tank 2  
NYSDEC Spill #9411938  
The Gleason Works  
1000 University Avenue  
Rochester, New York 14692**

The Gleason Works, located at 1000 University Avenue, Rochester, New York, is a manufacturer of gear-cutting machines. The firm has been undergoing a voluntary tank closure and modification program. Included in this program are two underground storage tanks (USTs) (Tank 1 and Tank 2) located on the western end of the property (see Figure 1).

### **Tank System Description**

This system consisted of two 2,000-gallon USTs and associated appurtenances. Tank 1 contained naphtha, and Tank 2 contained lacquer thinner. Both of these tanks were located outside the west building wall, near the assembly shop floor area, and were installed in 1982. Tanks 1 and 2 had their contents extracted for use by a hand pump arrangement, whose spigots are located over a steel basin. This basin drained to the water pump under the adjacent paint spray booth.

Tanks 1 and 2 were to be closed in place due to their proximity to the building foundation wall. The volume of naphtha and paint thinner used at the facility has been dramatically reduced compared with the usage rates from the time that the tanks were originally installed. The replacement for these two tanks therefore consists only of a fire cabinet and small, fire-safe cans.

### **Tank Closure Procedure**

The tanks were closed in accordance with the requirements of 40 CFR 280 Subpart G. The closure was performed in August 1994 by Allwash under contract to Gleason. Remaining product in the tank was removed for use elsewhere in the facility. No sludge was found to be present at the bottom of the tank. The interior of the tanks was sprayed with high-pressure washers and rinsed with citrol degreaser. The wash water was drummed for proper disposal (see Materials Disposition). The tanks were left empty pending successful closure documentation sampling. All tank piping and associated fittings, including supply piping to the sink inside the building, vent piping outside the building, and connecting underground piping to the USTs, were cleaned and removed.

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NOV 7 1994

H.L.  
DIV. OF SPILLS MGMT.



## Materials Disposition

The wash water from cleaning the tanks was containerized in a 55-gallon drum. It was shipped off-site for disposal to Petro-Chem Processing, Inc., Michigan DNR manifest No. MI 3048454 (see attached copy).

The tank piping and associated fittings were cleaned and removed from the site as scrap metal and sent to Frank Metal.

## Closure Documentation

The closure documentation efforts for Tanks 1 and 2 consisted of two investigations.

### Initial Investigation (August 1994)

The initial investigation consisted of soil borings near the tanks. Visual inspection of the tanks could not be performed since they were being closed in place. However, the soil borings that occurred during soil sampling were performed to determine any contamination.

#### *Field Procedure*

Two soil borings were advanced near the tanks (see Figure 2). Soil vapor headspace was evaluated with a HNu from split spoons during drilling. Two soil samples were selected from these borings for analysis of New York State Department of Environmental Conservation (NYSDEC) STARS list volatiles by EPA Method 8021. These two samples were selected based upon elevated HNu readings. The first sample (from boring TB2) was collected northwest of Tank 1 at a depth interval of 8 to 10 feet below grade. At 170 parts per million (ppm), it had the highest HNu reading in that boring. The second sample (from boring TB3) was southwest of Tank 2 at a depth interval of 10 to 10.2 feet below grade. This interval had the highest HNu reading, at 100 ppm. Boring refusal was at 12.2 feet for TB2 and 11.2 feet for TB3 (see Attachment A).

#### *Laboratory Analysis*

Laboratory analysis was performed by EPA Method 8021 (NYSDEC STARS list volatiles). The results of the soil sample analyses yielded values of volatiles summarized below (see Attachment B).

Tank Closure Report, The Gleason Works  
Tanks 1 and 2  
Page 3

*Results*

The following table summarizes the laboratory results for parameters detected in either one of the samples submitted. All data are in micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ).

Compound	TB2	TB3	NYSDEC STARS Alternative Guidance Value
n-Butylbenzene	< 270	230	
Ethylbenzene	5600	2300	100
Isopropylbenzene	< 270	200	
n-Propylbenzene	< 270	600	100
Toluene	< 270	6400	100
Trimethylbenzene	< 270	1400	
m,p-Xylene	6000	1600	100
o-Xylene	2000	680	100

These values indicated one or more compounds were above the Guidance Value for designation as clean soil. The findings of this investigation were reported to NYSDEC Region 8. The Petroleum and Chemical Bulk Storage group assigned the release Spill Number 9411938.

The results of this initial investigation and assigned spill file warranted additional investigation to further determine the nature and extent of the contamination. Due to practical and financial considerations, it was agreed upon by Gleason and NYSDEC Region 8 that this follow-up investigation would be performed in conjunction with other investigative efforts on-site.

**Additional Investigation (September 1995)**

The additional investigation, to determine the lateral and vertical extent of the contamination, consisted of Geoprobe borings, HNu and field gas chromatograph (GC) headspace screening, and laboratory analyses of selected soil samples.

Tank Closure Report, The Gleason Works  
Tanks 1 and 2  
Page 4

*Sampling Procedure*

Test borings were completed by Geoprobe drilling method, which was used because of the minimal amounts of waste it would produce and because it is typically considerably faster than conventional drilling methods (such as hollow stem auger).

Boring locations were sited interactively based upon results of HNu and field GC soil headspace results. Initial boring locations were sited near the USTs and progressively moved outward in a radial pattern until no, or minimal, detection of contamination was observed. The resultant pattern and specific boring locations are presented in Figure 3.

Soil screening sampling with a Geoprobe was accomplished in 4-foot intervals, with 2-foot intervals screened with an HNu. Samples were submitted for field GC analysis based on elevated HNu readings and visual or olfactory evidence of contamination. Selected soil samples were submitted for laboratory analysis. Soil boring logs were completed for each borehole (see Attachment C).

*Field Analysis*

Soil headspace was evaluated by two methods in the field. Hnu (photoionization detector, 10.2 eV lamp) data were collected by placing the probe in the soil sample container reserved for field analyses. Based upon HNu results, soil sample containers were forwarded to the on-site GC for additional analyses. The GC was calibrated against known standard solutions. Soil sample headspace was extracted directly by hollow needle through the sample vial top. This vapor sample was directly injected into the GC.

*Laboratory Analysis*

Laboratory analysis was conducted on selected soil samples based on the results of the field sampling. Five of the samples analyzed were selected from the outer boundary of where there appeared to be little or no contamination. The sixth sample (TB4) was from the area of apparently higher contamination, based on field screening results. A total of six samples were analyzed by Method 8021 for NYSDEC STARS list VOAs with MEK; two of these samples were also analyzed by EPA Method 8270 for NYSDEC STARS semivolatiles. A third analytical method consisted of NYSDEC STARS VOA (with MEK) and semiVOA analyses of a TCLP extract of a sample.

#### *Discussion of Results*

Figure 3 shows the boring locations with corresponding HNu readings and GC results. Table 1 summarizes the analytical results for the samples submitted. The laboratory results, including on-site GC screening, are included in Attachment D.

The laboratory results from the additional investigation yielded values less than the Guidance Value concentrations under NYSDEC STARS for the presumed noncontaminated areas, coinciding with the field screening results. Based upon the results, it can be inferred that the area of potential contamination is less than the extent of this additional investigation.

In addition, the sample taken from the presumed area of contamination (B-4) showed volatile organic compounds (VOCs) to be less than the NYSDEC STARS Guidance Values. The semivolatile organic compound analytical results showed all compounds below detection limits (although some detection limits are greater than the Guidance Values). This indicates that the field screening methods were more conservative in results. The laboratory data also indicate that the area of potential contamination does not extend away from Tanks 1 and 2 as far as boring TB4.

The results from the more conservative field screening analysis indicated that potential contamination from the tanks was located in an area to the north-northwest. The depth of the contamination was located at 8 to 12 feet below grade, with overall thickness of potential contamination approximately 1 foot. At these refusal depths, the highest readings with the HNu were taken at a maximum of 200 ppm.

#### **Conclusions**

The results from the initial investigation concluded that there was contamination found near (within 10 feet) the USTs, based on the results from borings TB2 and TB3. Based on the additional investigation, field screening during the soil borings showed low amounts or nondetectable amounts of contamination to the south, west, and north of the USTs. Field screening indicated some level of potential contamination close to the tanks. Laboratory data confirmed the presence of contaminants, but at low concentrations, less than NYSDEC STARS Guidance Values, even for the sample of the presumed contaminated area. Likewise, the analyses of the TCLP extract show no detectable levels for any of the guidance document potential semiVOA contaminants.

Tank Closure Report, The Gleason Works  
Tanks 1 and 2  
Page 6

Tanks 1 and 2 should be closed out as a clean closure, and the spill file should be closed. This conclusion is based on the findings during the initial and additional investigations of minimal concentration of contaminants localized to the immediate vicinity of the tanks. It is also based on the consideration that the entire area is covered by pavement or building.

Due to the location of the USTs (their proximity to the building foundation), the USTs are to be filled in place with concrete as a mechanical closure.

**Table 1**  
**Tanks 1 & 2 Laboratory Analysis**  
**The Gleason Works**  
**Additional Investigation Program**  
**Galson Project No. 95L3079**  
**September 13 & 14, 1995**

Location	Volatile Organic Compounds (VOCs)			
	Depth (ft)	Compound	Alt. Guidance Value (ppb)	Sample Result ( $\mu\text{g}/\text{kg}$ )
<b>TB-4</b>		Ethylbenzene	100	64.0
10.5-11.0	n-Propylbenzene		100	11.0
	Toluene		100	7.1
	1,2,4-Trimethylbenzene		100	12.0
	1,3,5-Trimethylbenzene		100	6.8
	m,p-Xylene		100	48.0
	o-Xylene		100	7.5
<b>TB-10</b>	Toluene		100	0.9
11.0-11.9				
<b>TB-12</b>	Benzene		14	1.2
10.0-11.3	Toluene		100	1.9
	m,p-Xylene		100	0.8
<b>TB-16</b>	Toluene		100	1.7
9.0-10.0	m,p-Xylene		100	1.2
<b>TB-17</b>	Ethylbenzene		100	58.0
11.5-12.0	m,p-Xylene		100	15.0
<b>TB-18</b>	Toluene		100	1.6
10.0-10.8	m,p-Xylene		100	1.1

THE GLEASON HOUSES & TERRACES

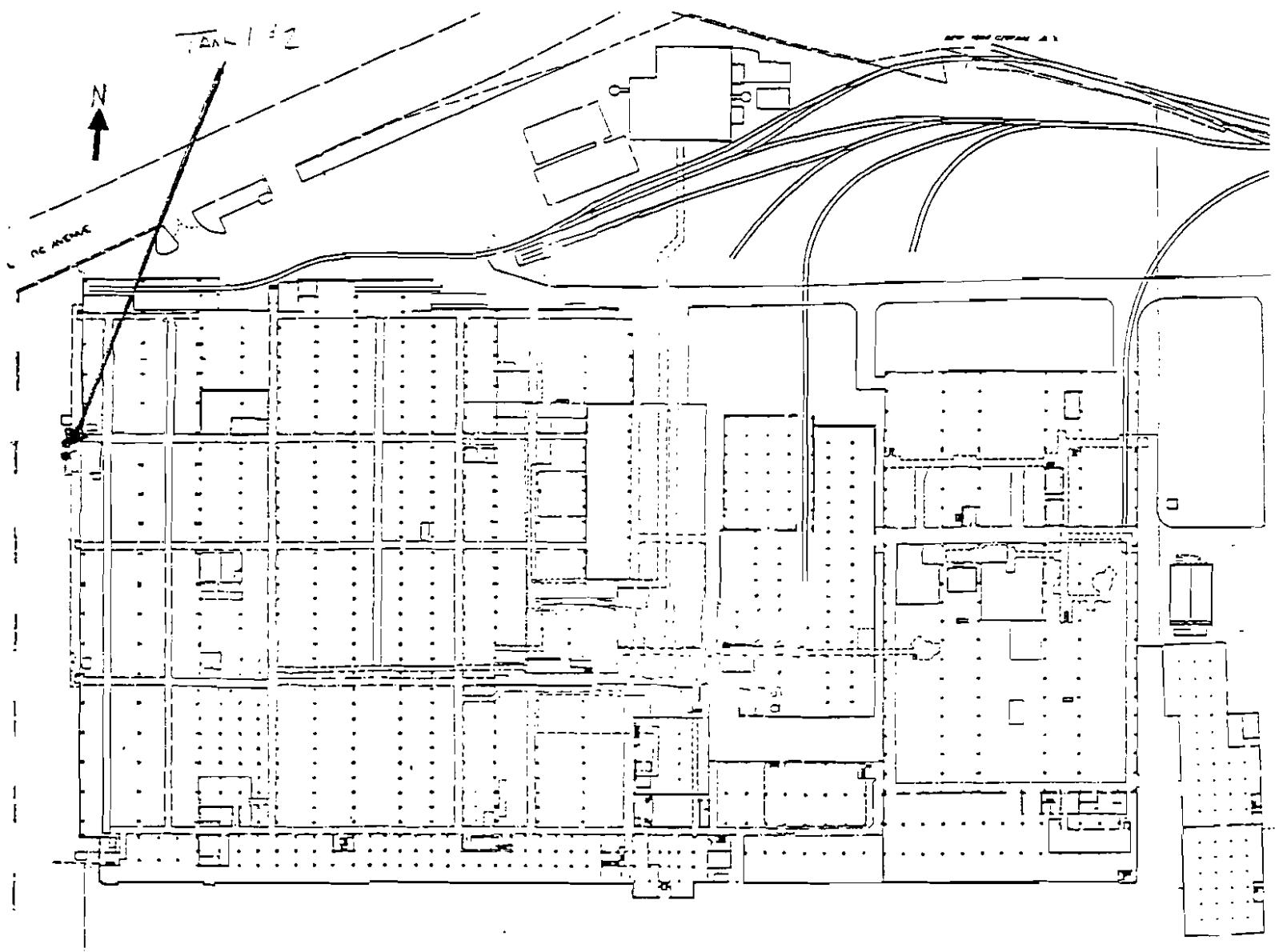
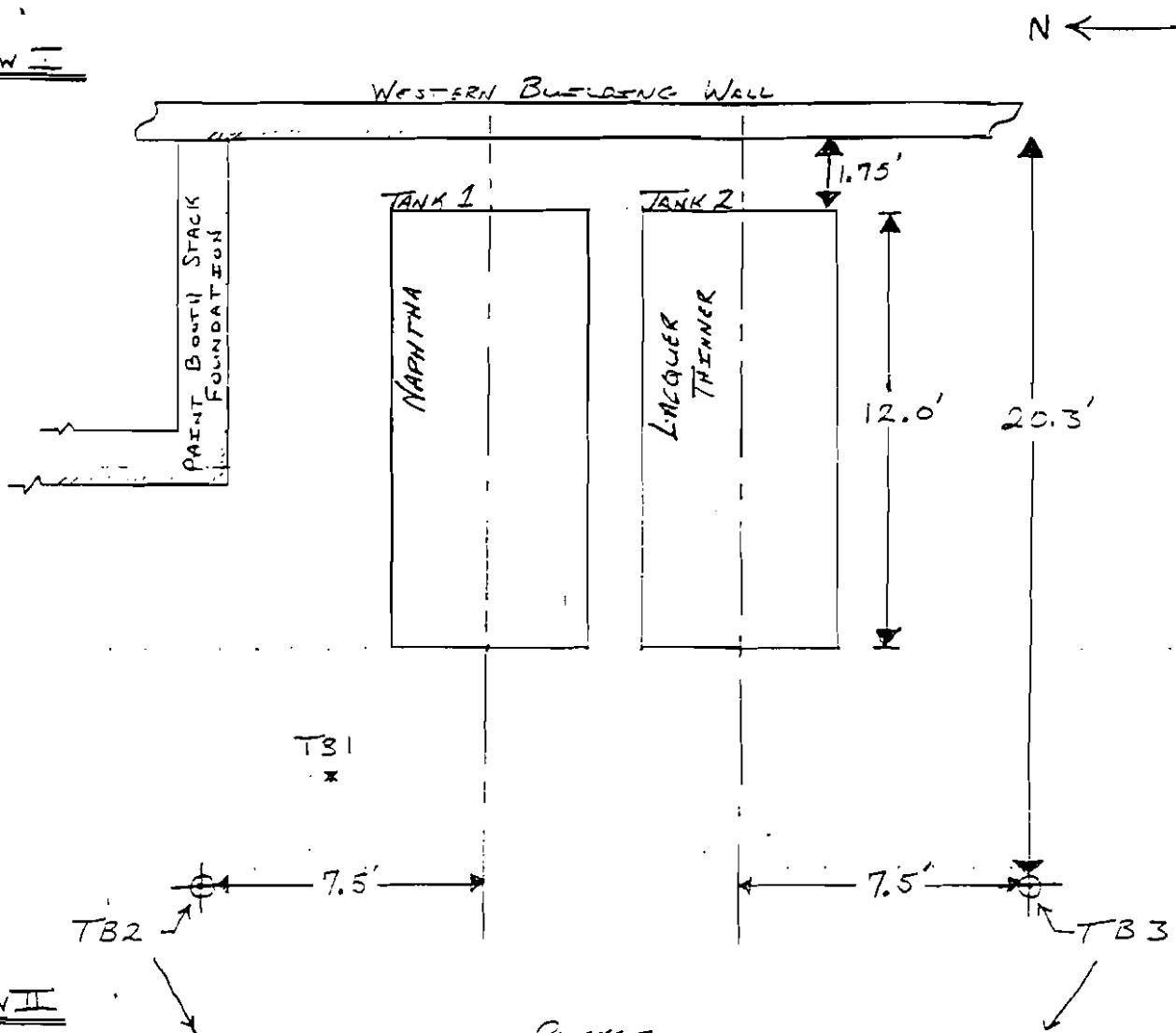
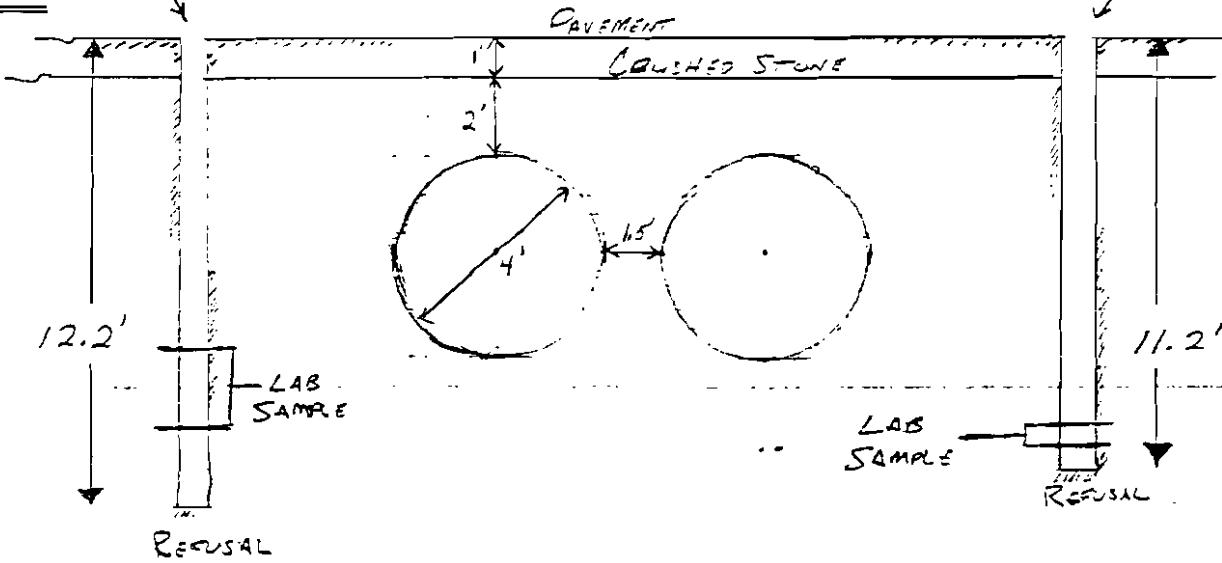


FIGURE #1  
(TENNE LOCATION)

VIEW I



VIEW II



Engineers/Architects  
E. Syracuse, NY   Rochester, NY

JOB NUMBER:

GQ242, TANKS #1 &amp; #2 (USts)

Figure 2

DATE:

September 6, 1994

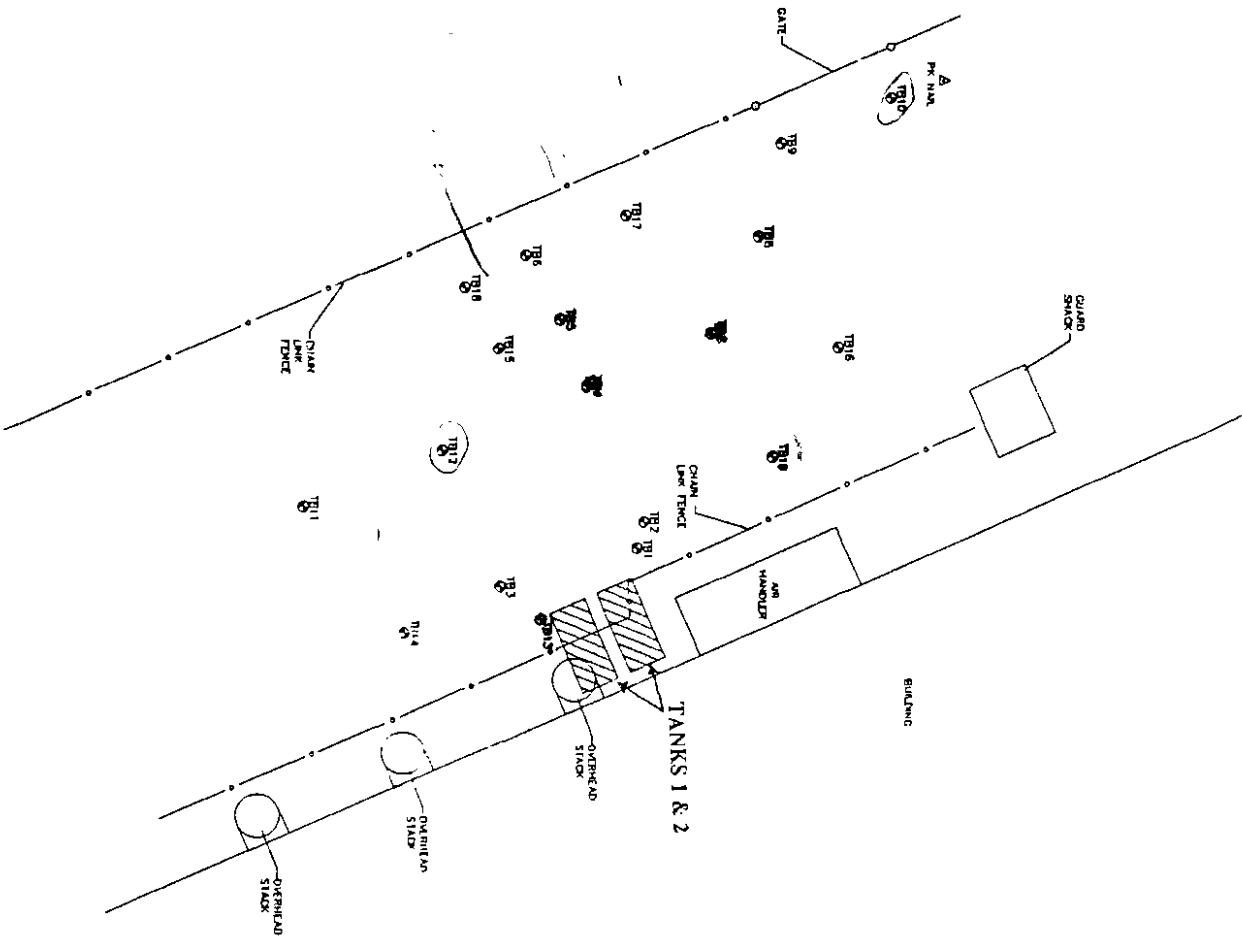
CALC. BY

PROJECT:

The Gleason Works Tank Closure

PAGE

1



ID	DEPTH(ft) (meters)	CC(ppm)
TB1	ABANDONED AT START	NA
TB2	8.0-10.0	170
TB3	8.0-10.0	110
TB4	10.5-11.0	200
TB5	10.0-11.0	200
TB6	11.0-12.0	42
TB7	9.0-10.0	200
TB8	11.0-12.0	200
TB9	11.0-12.0	15
TB10	11.0-12.0	42
TB11	10.0-11.0	42
TB12	10.0-11.0	42
TB13	8.5-9.5	200
TB14	8.5-9.5	ND
TB15	10.5-11.0	42
TB16	9.0-10.0	3
TB17	11.5-12.5	50
TB18	10.0-10.8	3
TB19	11.0-11.5	100
NO. NON DETECT		6.9
NA NOT AVAILABLE		



### BORING LOCATIONS MAP

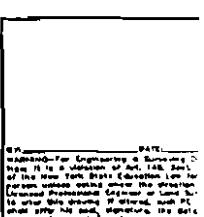
GLEASON WORKS  
1000 UNIVERSITY AVENUE  
ROCHESTER, NEW YORK 14607

BORING LOCATIONS (SUCCESSIONAL STREET)



DRAWN	DESIGNED	CHECKED	RELEASER
L. WATSON			
DATE	SCALE	EMERGENCY	
4/19	1'-10"	1831-016	1831180LDWG

REVISIONS	DESCRIPTION	DATE BY



DNR

MICHIGAN DEPARTMENT  
OF NATURAL RESOURCES

Please print or type.

DO NOT WRITE IN THIS SPACE

ATT.  DIS.  REJ.  PR. Required under authority of Act 64, P.A.  
1979, as amended and Act 138, P.A.  
1969.Failure to file is punishable under  
section 299-548 MCL or Section 10 of  
Act 138, P.A. 1969.

Form Approved, OMB No. 2050-0039. Expires 9-30-94

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>WYD0022015755003333</b>	Manifest Document No. <b>1</b>	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address <b>CLEARSON WORKS (ATTN: R.E. ALLEN) 1000 UNIVERSITY AVENUE, P.O. BOX 22970 ROCHESTER, NY 14692-2970</b>		A. State Manifest Document Number <b>MI 3048454</b>					
4. Generator's Phone (716) 473-1000		B. State Generator's ID <b>3048454</b>					
5. Transporter 1 Company Name <b>THE ENVIRONMENTAL SERVICE GROUP (NY), INC.</b>		C. State Transporter's ID <b>715762X19</b>					
6. US EPA ID Number <b>NYD9819013904</b>		D. Transporter's Phone (716) 695-6720					
7. Transporter 2 Company Name <b>THE ENVIRONMENTAL SERVICE GROUP (MI), INC.</b>		E. State Transporter's ID <b>877992ZNY</b>					
8. US EPA ID Number <b>MIW91861903904</b>		F. Transporter's Phone 716-671-7720					
9. Designated Facility Name and Site Address <b>PETRO-CHEM PROCESSING, INC. 421 LYCASTER STREET DETROIT, MI 48214</b>		G. State Facility's ID <b>11111111111111111111111111111111</b>					
10. US EPA ID Number <b>MIID980615298</b>		H. Facility's Phone <b>(313) 824-5840</b>					
G E N E R A T O R	11. US DOT Description (including Proper Shipping Name, Hazard Class, and HM ID NUMBER).		12. Containers No	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
	<input checked="" type="checkbox"/>	RQ, HAZARDOUS WASTE, SOLID, N.O.S., 9, NA3077, PG III (D018, D035)	0 0 2	D M 0 1 1 2 4 5	P D 0 1 8	H	
	<input checked="" type="checkbox"/>	HAZARDOUS WASTE, LIQUID, N.O.S., 9, HA3082, PG III (OIL, CONTAINS SOME 1,1,1 TRICHLOROETHANE)	0 0 4	D M 0 1 1 7 6 0	P P 0 0 1	H	
	<input checked="" type="checkbox"/>	RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, PG II (D001, D018, NAFTHA, LACQUER THINNER)	0 0 1	D M 0 0 1 1 3 5	P 2 0 0 5	H	
d.		1	1	1	1		
J. Additional Descriptions for Materials Listed Above a) U35773 SOLIDIFIED CATALYZED URETHANE PAINT (D035) b) U43097 USED OIL WITH H.O.C.s c) UP50596 USED CLEANING SOLVENT - FLAMMABLE (D001, D018, D035)				K. Handling Codes for Wastes Listed Above HYS CODES: a) B c) B b) B		a/ / b/ / c/ / d/ /	
15. Special Handling Instructions and Additional Information <b>EMERGENCY RESPONSE: CALL INFOTRAC AT 1-900-535-5053. SEE ATTACHED FORMS.</b>							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.							
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name <b>Herbert R. Allen</b>		Signature <b>Herbert R. Allen</b>		Date Month Day Year <b>07/11/94</b>			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <b>M. L. B. Baier</b>		Signature <b>M. L. B. Baier</b>		Date Month Day Year <b>07/11/94</b>			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name <b>M. L. B. Baier</b>		Signature <b>M. L. B. Baier</b>		Date Month Day Year <b>08/11/94</b>			
19. Discrepancy Indication Space <b>ALL TRANSPORTED SPENT LISTED</b>							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name <b>J. T. Alles</b>		Signature <b>J. T. Alles</b>		Date Month Day Year <b>07/11/94</b>			

**Attachment A**

**GALSON CORPORATION  
SAMPLING LOG**

PROJECT The Gleason Works  
 UST/AST Bulk Storage Closure  
 LOCATION 1000 University Avenue  
Rochester, New York

CLIENT The Gleason Works  
 JOB NUMBER GQ-242  
 TASK T1 - 2

DATE(S) 3/5/81  
 TIME(S)

SAMPLE I.D.: TB2

SAMPLE LOCATION: Wet Sump of Basement  
approx 1/2 NW of Nissen Unit  
20.5' SL 75' D

DEPTH: (12.25 ft.) To top of 2' s.s.

DESCRIPTION: Brown Clay 0-4.5 m. 9-9.5 - Med?  
4.5 Sandy layer w/ gravel 9.5 - Sandy Layer  
Dark Brown clay w/ gravel w/ gravel Dark Brown Clay  
w/ gravel

SAMPLING METHOD USED: Auger / Soil Saw Auger / Split Spoon

LIST OF CONTAINERS AND AMOUNT SAMPLED:

COMMENTS: Hill 170 cm

SAMPLED BY: Nicholas J. Esposito

PAGE 1 OF 1

**GALSON CORPORATION  
TEST BOREHOLE / WELL LOG**

PROJECT Graves Lake (Phase I - II)

LOCATION T-3-2

(N.W. 1/4 N.E. 1/4 Twp.)

JOB NUMBER G-2242-7-2

WELL DIAMETER \_\_\_\_\_

G.W. DEPTH N/A

SHEET 1 OF 2

DATE(S) DRILLED 8/15/90

DRILLING METHOD Auger

TOTAL DEPTH 12.2'

DRILLING CO. Pioneer Well

DEPTH	SAMPLE INTERVAL	SPOON BLOWS	OVA (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
1	0-5'	7	21	Fine Sand/Silt Dark Brown Moderate Sand/Gravel		6' Vane
2	2-0	3		Brown Silt Clay to Gravel Scattered		H.S. 1-5-2 : 41 m
3		4	21			
4		6				
5		7				
6		3		Brown, Clay		
7		3				
8		5				
9		6		Brown, Dark, Clay		
10		15	21			
11		30				
12		50-110				
13		16		Brown clay 8-9.5' med. 9.5' sandy layer w/ gravel		
14		11				170 was at bottom of spoon
15		13				8-10' Sample taken
16		16		Brown clay w/ gravel		
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GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

JOB NUMBER G&L-2  
WELL DIAMETER \_\_\_\_\_  
G W DEPTH \_\_\_\_\_  
SHEET 2 OF 2

PROJECT \_\_\_\_\_

LOCATION \_\_\_\_\_

DATE(S) DRILLED 8/5/84

DRILLING METHOD Kenix

TOTAL DEPTH \_\_\_\_\_

DRILLING CO. Parratt Well

DEPTH	SAMPLE INTERVAL	SPOON BLOWS	OVA (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
10	10 - 10.3	25/3	140	Dark Brown clay matrix w/ med grain sand		Refusal @ 10.3 6" yield
11						
12	12 - 12.2	75	>20	-Rock Fragment at bottom of sample (12.2) Wet/Saturated Clay		OVA Reading 20 on 0-20 scale, surfaces to 0-200 scale & Read ≈ 22
13						Holespace 12-12.2 11.5-14.5 ppm
14						
15						

ppm - parts per million in methane equivalents  
soil sample head space measurements

SAMPLING METHOD ASTM D-1586-67

LOGGED BY Neissin Koenigsmann

BORING NUMBER JB-2

# GALSON CORPORATION SAMPLING LOG

PROJECT The Gleason Works  
UST/AST Bulk Storage Closure  
LOCATION 1000 University Avenue  
Rochester, New York

CLIENT The Gleason Works  
JOB NUMBER GO-242  
TASK TITZ

DATE(S) 8/5/83  
TIME(S) 1-30

SAMPLE I.D.: TB3

SAMPLE LOCATION: Wagon at Plant

Line 1/2 SW of Tonne Tank  
20' N, 75' S

DEPTH: 10'-10.2'

DESCRIPTION: Clay / Sand

Loose soil with debris

SAMPLING METHOD USED: Auger / on site

LIST OF CONTAINERS AND AMOUNT SAMPLED:

COMMENTS: All: long = 90 mm

SAMPLED BY:

Harrison / Schaefer

PAGE OF

**GALSON CORPORATION  
TEST BOREHOLE / WELL LOG**

PROJECT CONTRACT CODE T-1

LOCATION TB #3

(- N. - C T<sub>max</sub> - T<sub>min</sub> )

JOB NUMBER 63242

DATE(S) DRILLED 8/5/44

### WELL DIAMETER

DRILLING METHOD Aug.

GW DEPTH NO.

TOTAL DEPTH 11.2'

SHEET 1 OF 2

DRILLING CO. ~~Pearce~~ Wells

**SAMPLING METHOD**

LOGGED BY  
ALICE M. SCHNEIDER

BORING NUMBER  
73 = 3

**GALSON CORPORATION  
TEST BOREHOLE / WELL LOG**

JOB NUMBER C-243

## WELL DIAMETER

**G W DEPTH** N/A

SHEET 2 OF 2

PROJECT Cancer

LOCATION 1-B-2

DATE(S) DRILLED 8/15/94

## DRILLING METHOD

TOTAL DEPTH \_\_\_\_\_

DRILLING CO. \_\_\_\_\_

ppm - parts per million in methane equivalents  
soil sample head space measurements

**SAMPLING METHOD** **ASTM D-1586-67**

LOGGED BY Necesario R. Hernandez

BORING NUMBER  
T 32

**Attachment B**



## GC VOLATILE ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12021  
Site : Gleason Tank Removal

Date Received : 16-AUG-94 Matrix : Soil  
Date Sampled : 15-AUG-94 Method : SW846/8021  
Units : UG/KG

Galson ID:	L19420-1	L19420-2	QCS081894-1
Client ID:	T33	TB2	METHOD BLANK
Benzene	<140	<270	<25
n-Butylbenzene	230	<270	<25
sec-Butylbenzene	<140	<270	<25
tert-Butylbenzene	<140	<270	<25
Ethylbenzene	2300	5600	<25
Isopropylbenzene	200	<270	<25
p-Isopropyltoluene	<140	<270	<25
Naphthalene	<140	<270	<25
n-Propylbenzene	600	<270	<25
Toluene	6400	<270	<25
1,2,4-Trimethylbenzene	660	<270	<25
1,3,5-Trimethylbenzene	750	<270	<25
m,p-Xylene	1600	6000	<25
o-Xylene	680	2000	<25
Percent Moisture (%)	9	9	NA
Dilution Factor	5	10	1
Analysis Date	08/13/94	08/18/94	08/18/94
Method Blank	QCS081894-1	QCS081894-1	QCS081894-1

ug - microgram      NR - Not Requested      Approved by :JT  
mg - milligram      NS - Not Specified      Date : 30-AUG-94  
kg - kilogram      L - Liter      QC by : EJ  
> - Greater than      < - Less than      Date : 8/20/94

Footnotes:





Inorganic ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12021  
Site : Gleason Tank Removal

Date Received : 16-AUG-94 Matrix : Soil  
Date Sampled : 15-AUG-94

Galson ID: L19420-3  
Client ID: T15

Method	Units
Total Petroleum Hydrocarbo 418.1	mg/kg <70

---

ug - microgram	NR - Not Requested	Approved by : Mary Withrow
mg - milligram	NS - Not Specified	Date : 23-AUG-94
kg - kilogram	L - Liter	QC by : G.V.
> - Greater than	< - Less than	Date : 8/27/94

Footnotes:



## SOIL MOISTURE ANALYSIS

LOGIN: L19420

QC BATCH:

REFERENCE NUMBER: 449

Wet Weight by: CR  
 Date : 22-AUG-94  
 Time : 13:00

Dry Weight by: CR  
 Date : 23-AUG-94  
 Time : 9:30

GALSON ID	SAMPLE DESC	PAN WT (gm)	NET WET WT (gm)	GROSS DRY WT (gm)	NET DRY WT (gm)	% MOIST	% SOLID
L19420-1	TB3	1.52	10.87	11.39	9.87	9.2	90.8
L19420-2	TB2	1.50	10.60	11.15	9.65	9.0	91.0

$$\text{Percent Moisture} = \frac{(\text{net wet weight}) - (\text{net dry weight})}{\text{net wet weight}} \times 100$$

## SOIL GC VOLATILE SURROGATE RECOVERY

Client : Gleason Works

Login # : L19420

Level: (low/med) MED

SMC1 (FBZ) = Fluorobenzene

**QC LIMITS  
(72-126)**

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted cut

**Attachment C**

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Gleason Works

Tanks 1 & 2

LOCATION Gleason Works

Rochester, NY

B NUMBER 956 3079

DATE(S) DRILLED September 13, 1995

WELL DIAMETER 10

DRILLING METHOD Geoprobe 857

TV DEPTH 118

TOTAL DEPTH 11.3 ft

FEET 1 OF

DRILLING CO. N/A

DEPTH	SAMPLE INTERVAL	SPOON BLOWS	MML (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
1'				1' Plow zone		
2'				Brown Sand (Dense)		
3'				Sand (Fine, Coarse)		
4'	3-4	41		Full Recovery	21	3'-4' Interval
5'				Brown Mott Clay (ff) (Sand mix)		
6'	7-8'	21		3' Recovery	21	7'-8' Int.
7'	7-8'	21		Brown Clay (S.S.)	22	8.5-10 1.5/2
8'	7-8'	21		8.5-8.5'	200	10.5-11 0.5/2
9'	7-8'	21		8.5-8.5'		
10'	7-8'	21		8.5-8.5'		
11'	7-8'	21		8.5-8.5'		
11.3'	7-8'	21		Recess @ 11.3'		
com - parts per million in methane equivalents soil sample head space measurements						
AMPLING METHOD	Geoprobe	LOGGED BY	Scot Schaeffer	BORING NUMBER	1B4	

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Cleason Works  
TAXES 1 & 2  
LOCATION Cleason Works  
Rochester, NY

DR NUMBER 95L 3079  
WELL DIAMETER NA  
GW DEPTH NA  
FEET 2 OF

DATE(S) DRILLED September 13, 1995 93:  
DRILLING METHOD Geoprobe  
TOTAL DEPTH 11.1'  
DRILLING CO. Northern

DEPTH	SAMPLE INTERVAL	SPOON BLOWS	MM <sup>b</sup> (ppm)	SOIL/ROCK CLASSIFICATION	PROFILE	NOTES
2	2-4			2-4' Pale		
4	2-4	41		2.5' Brown/Sand mix		BAG ONLY
6	5-6	41		Brown Sand/Clay mix		
8	7-8	41				BAG ONLY
10	9-10	42		Brown Clay type	42	V.S / L
11.1	10-11	240		10' of 5-1 Gray Blk Residual Material	240	V.S / L
	11.1					

<sup>b</sup>ppm - parts per million in methane equivalents  
soil sample head space measurements

SAMPLING METHOD

LOGGED BY

Scott Lengemann

SCORING NUMBER

TBS

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT GLENCON WORKS  
TANKS 1 & 2  
LOCATION GLENCON WORKS  
ROCHESTER, NY

JB NUMBER 952 30 29  
JELL DIAMETER NA  
G.W DEPTH : NA  
HEET 3 OF \_\_\_\_\_

DATE(S) DRILLED September 13, 1995 10'10"  
DRILLING METHOD Geoprobe  
TOTAL DEPTH 12.4'  
DRILLING CO. Northwester

DEPTH	SAMPLE INTERVAL	SPOON BLOWS	MMW (PPM)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
1	-1.0 ft			3.5 ft recover		
2				Brown Dark Sando		
3						
4	3-4	<1		M. S. Brown Sand min clay	<1	3-4 BAG
5	4-6	<1			<1	JAN
6	6-8	<1		Brown Clay Type Sand mix	<1	JAN
7						
8	9-10	<2		2.5-3.0 clay	<2	V-1/600
9	8-12					
10	11-12	<2		In Sando	<2	V-1/600
11	RECOVER			RECOVER		

pmm - parts per million in methane equivalents  
soil sample head space measurements

SAMPLING METHOD G-E PROBE

LOGGED BY Scott Schaefer

**BORING NUMBER**

TB6

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT GLEASON WHEELS

TAXES 162

LOCATION GLEASON WHEELS

ROCHESTER, NY

BORING NUMBER 954 30 79

WELL DIAMETER N/A

G.W. DEPTH N/A

FEET 4 OF

DATE(S) DRILLED SEPTEMBER 13, 1995

DRILLING METHOD GEOPROBE

TOTAL DEPTH 10.7

DRILLING CO. Northeast

DEPTH	SAMPLE INTERVAL	SPOON BLOWS	g/m³ (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
				1.0' Parent		
4	4 - 6	~1		Clean Type Brown		
7	7 - 8	~1			2.2	7-8 Jags
8	7 - 9	~1		Brown Clay Type	5.0	8-9 V.L / <del>L</del> Jags
9	9 - 10.0	~1			7.0	9-10 V.L / L
10	10 - 10.7	~1		R. Clay		
					ppm	
ppm - parts per million in methane equivalents soil sample head space measurements						

AMPLING METHOD

GEOPROBE

LOGGED BY

Scott Schlesinger

BORING NUMBER

TBT

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Green Web

Tones 1 & 2

**LOCATION** Cleary Woods

*Rochester N.Y.*

CB NUMBER 954 3079

WELL DIAMETER    N/A

GW DEPTH NA

HEET 6 OF

DATE(S) DRILLED September 13 1995 1315

DRILLING METHOD GEO PROB 36

TOTAL DEPTH 120'

DEPTH	SAMPLE INTERVAL	SPOON BLOWS (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
1'	0-4	<1	1' <del>One</del> Brown Sand		
4'	5-6	<1	1' <del>One</del> Brown Clay		
7-8	7-8	<1		<1	E-7
8'	9.5-11'	<2	Mottled Clay Brown	<2	V.v. / Ja-
11-12'	11-12'	<5	Sand / Gray Bottom 12' 2" 2" of clay	<5	V.v. / Ld
					Ld / V.v.

ppm - parts per million in methane equivalents  
soil sample head space measurements

## SAMPLING METHOD

## • G E C P E U S E

LOGGED BY

*Exhibit 287*

**BOOKING NUMBER**

159

**GALSON CORPORATION**  
**TEST BOREHOLE / WELL LOG**

PROJECT Cleason Works

TAXES 1 & 2

LOCATION Cleason Works

Rochester, NY

JOB NUMBER 552 30 79

DATE(S) DRILLED September 13, 1995 14:00

ELL DIAMETER NA

DRILLING METHOD Geoprobe

GW DEPTH NA

TOTAL DEPTH 11.9'

FEET 7 OF 11.9'

DRILLING CO. N/A

DEPTH	SAMPLE INTERVAL	SPOON BLOWS (ppm)	SOIL/ROCK CLASSIFICATION	PROFILE	NOTES
0			~1.6' CHG		
1					
2					
3					
4					
5	5-6	<1	Brown Clay M - WET		
6					
7	7-8	<1	"	21	Bag 7-8
8					
9					
10	10-11	<1	Must/Sand	21	
11	11-11.9	21	Sand / Black Recessed cur. Boring	21	V.I. / Lab V.I. / Lab
12	11.9				

ppm - parts per million in methane equivalents  
soil sample head space measurements

SAMPLING METHOD Geoprobe

LOGGED BY Scott Schilder

BORING NUMBER TD10

**GALSON CORPORATION  
TEST BOREHOLE / WELL LOG**

PROJECT Gleson Works

TAKES 1 & 2

LOCATION Gleson Works

ROCHESTER, NY

WB NUMBER 952 30 79

DATE(S) DRILLED September 17, 1985 1+30

WELL DIAMETER NA

DRILLING METHOD Geoprobe

GW DEPTH NA

TOTAL DEPTH 11.3

FEET 8 OF

DRILLING CO. No-Name

DEPTH	SAMPLE INTERVAL	SPOON BLOWS (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
2					
4	5-6	41	Brown Clay		
6	7-8	41	1-2' sand/and s. clay		
8	9-10	41	Mud/s. Clay Silt	41	V.S.
10-11	10-11	41	• 5' sand, fine brown clay Residue	41	V.S./L.H.
11.3					
ppm = parts per million in methane equivalents soil sample head space measurements					
SAMPLING METHOD	Geoprobe	LOGGED BY	Scott Schaeffer	BOREHOLE NUMBER	TB11

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Gleason Works  
TAXES 1 & 2  
LOCATION Gleason Works  
ROCHESTER, NY

B NUMBER 554-30-79  
WELL DIAMETER NA  
G W DEPTH NA  
FEET OF

DATE(S) DRILLED September 13, 1995 (554)  
DRILLING METHOD Geoprobe  
TOTAL DEPTH 11.3  
DRILLING CO. Northern

DEPTH	SAMPLE INTERVAL	SPOON BLOWS	(ppm)	SOIL/ROCK CLASSIFICATION	PROFILE	NOTES
0	0-1			0-1 Fine		
2	1.5-2.5	<1		Sand, Silt Sand Coarse		
4	3-4	<1		Sand, Silt Sand		"
5-6	5-6	<1		"		
6-7-8	6-7-8	-1		M-W Brown / Tan Clay		
8	-			Brown / tan, tan clay	<1	8.5-10 V.L./L.L.
10-11.3	8.5-10	<1		Brown / tan, tan clay	<1	8.5-10 V.L./L.L.
11.3	10-11.3	<1		Sand, Silt Sand mix Brown Clay	<1	10-11.3 V.L./L.L.
				Refined		

ppm - parts per million in methane equivalents  
soil sample head space measurements

AMPLING METHOD Geoprobe

LOGGED BY Scott Schaeffer

BORING NUMBER TB12

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Cleason Works  
TOWER 1 & 2  
LOCATION Cleason Works  
Rochester, NY

B NUMBER ESL 3079  
WELL DIAMETER NA  
V DEPTH NA  
EET 16 OF 16

DATE(S) DRILLED September 14, 1995  
DRILLING METHOD Geoprobe  
TOTAL DEPTH 9.3  
DRILLING CO. Northgate

DEPTH	SAMPLE INTERVAL	SPOON BLOWS (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
1					
2					
3					
4					
5					
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9					
10					
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GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Gleason Works  
TAXES 142  
LOCATION Gleason Works  
Rochester, NY

B NUMBER 9563079  
WELL DIAMETER NA  
TW DEPTH NA  
FEET 11 OF

DATE(S) DRILLED September 14, 1995  
DRILLING METHOD Geoprobe  
TOTAL DEPTH 9.5  
DRILLING CO. Normande

PTH	SAMPLE INTERVAL	SPOON BLOWS (ppm)	SOIL/ROCK CLASSIFICATION	PROFILE	NOTES
1			1.0 Fine		
2			2.5-30' Brown, Mottled Clay		
3	3-4	3-4	4-1.5 Brown Silt Sand		
4					
5	7-8	62	7.5-8.5 Brown Mottled Clay/Sand	7-8	8.5-9.5 V-S/LG
6	5.5-9.5	~2	30' mottled Clay/Sand REASON		
7	9.5				
BOM - parts per million in methane equivalents soil sample head space measurements					
WELLING METHOD	Geoprobe	LOGGED BY	Scott Sennett	BORING NUMBER	7814

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Gleason Works

TAXES 1 & 2

LOCATION Gleason Works

Rochester, NY

B NUMBER 95L 20 79

DATE(S) DRILLED September 14, 1995 10:20

WELL DIAMETER NA

DRILLING METHOD Geoprobe

SV DEPTH NA

TOTAL DEPTH 11.7'

FEET / M OF

DRILLING CO. Northern

DEPTH	SAMPLE INTERVAL	SPCON BLOWS	H <sub>2</sub> O (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
				1' pum		
				2' Grav. Mkt. Clay		
3.4	3-4	41			3-4	41 10:20
				Grav. Mkt. Sand B - Silt		
5.5	4.5-10.5	42		Blk. Stn. + tan gray Calytic Sandy Dark Gray	22	9.5-10.5 10:45
10.5	10.5-11.7	41		Brown Stn. or Clay	21	10.5-11.7 10:45
11.7				Rock		
ppm - parts per million in methane equivalents soil sample head space measurements						
SAMPLING METHOD	Geoprobe	LOGGED BY	Scott Schleicher	BORING NUMBER	TB15	

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Gleeson Wcs

Table 142

LOCATION Clyde Woods

Rochester, N.Y.

NUMBER - 954 3079

DATE(S) DRILLED September 1<sup>st</sup> 1995 10:50

VELL DIAMETER NA

DRILLING METHOD Geoprobe

3' DEPTH 15

TOTAL DEPTH 10.3

3 EET 13 OF \_\_\_\_\_

DRILLING CO. Northern

DEPTH	SAMPLE INTERVAL	SPOON BLOWS	H <sub>2</sub> PPM (ppm)	SOIL/ROCK CLASSIFICATION	PROFILE	NOTES
0 - 1				PANE, 1-5' g-r-e		
1 - 2						
2 - 3						
3 - 4						
4 - 5						
5 - 6						
6 - 7						
7 - 8				wet, Shale type 1'-15' Reclined	c1	
8 - 9					c1	
9 - 10		3		Dark, Crumb Brown Clay Type Brown Silt/Clay Reclined	3 ppm	9-10 vs / 240
10 - 13						

pmm - parts per million in methane equivalents  
soil sample head space measurements

### SAMPLING METHOD

GEOGRAPHES

LOGGED BY

Scott Schaeffer

SCRING NUMBER

T316

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Gleason Wre

Taxes 1 & 2

**LOCATION** Cleary Works

Rochester, N.Y.

3 NUMBER 954 3079

DATE(S) DRILLED September 14 1995 1130

WELL DIAMETER ND

DRILLING METHOD Georgie

MY DEPTH N.A.

TOTAL DEPTH 12.1

SET 14 OF \_\_\_\_\_

DRILLING CO. ✓

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Glossen Works

Tanks 1 & 2

LOCATION Glossen Works

Rochester, NY

B NUMBER SSC 3079

DATE(S) DRILLED September 14, 1995

WELL DIAMETER N/A

DRILLING METHOD Geoprobe 36

FT DEPTH N/A

TOTAL DEPTH 1018

FEET 150

DRILLING CO. Not Applicable

DEPTH	SAMPLE INTERVAL	SPOON BLOWS (HR)	(ppm)	SOIL/ROCK CLASSIFICATION	PROFILE	NOTES
	2-4			1' Peat		
	3-4			Brown Mott Sand		
	4-5	<1				
	5-6	<1		Plant - Wt		
	5-6	<1		Brown Silt		
	6-8	<1				
	7.6-9.0			Brown Wt Sand		
	7.6-9.0			Grey Sand		
	7.6-9.0			3' Rhyth.	2 ppm	V-1
	9.5-10				2 ppm	V-1/L1
	10-10.8				3 ppm	V-1/L1
	10-10.8			Fossils		

ppm - parts per million in methane equivalents  
soil sample head space measurements

AMPLING METHOD

Geoprobe 36

LOGGED BY

Scott Schlesinger

BORING NUMBER

TB18

GALSON CORPORATION  
TEST BOREHOLE / WELL LOG

PROJECT Gleason Works

Tanks 1 & 2

LOCATION Gleason Works

Rochester, NY

HOLE NUMBER 552 3679

DATE(S) DRILLED September 14, 1995

WELL DIAMETER NA

DRILLING METHOD Geoprobe

TRUE DEPTH NA

TOTAL DEPTH 11.8

SHEET 16 OF 16

DRILLING CO. N/A

DEPTH	SAMPLE INTERVAL	SPOON BLOWS (ppm)	SOIL / ROCK CLASSIFICATION	PROFILE	NOTES
2		<1	1.5' Rotted		
4	5.5-6.0	<1	Red Brown Fmt	L	cut
6 - 8		<1	Moist Brown Sme		
8	9.5-10	1	Sand (Crys) Moist Brown Sme / Crys	L	V-11 / 2-4 12-11
10 - 11					
11 - 11.5		100	4.6' Blown & wet Crys	L	V-11 / 2-5 11-11.5
11.8			Frost - 1.0'?		

ppm - parts per million in methane equivalents  
soil sample head space measurements

DRILLING METHOD

Geoprobe

LOGGED BY

Scott Schaeffer

BORING NUMBER

TS19

**Attachment D**

**TABLE 2**  
**SOIL HEADSPACE SCREENING RESULTS**  
**TANKS 1 AND 2 INVESTIGATION PROGRAM**  
**THE GLEASON WORKS**

SAMPLE LOCATION	SAMPLE DEPTH (FT.)	DATE	BENZENE	TOLUENE	METHYL-BENZENE	M-XYLENE	O-XYLENE	UNKNOWN*	TOTAL VOC* (PPM)	
			by G.C.	WHEN						
TB-4	8.5-10	9/13/95	--	--	--	--	--	0.07	0.07	<2
	10.5-11	9/13/95	--	--	6.30	--	7.40	41.50	55.20	200
TB-5	9-10	9/13/95	--	--	--	--	0.01	0.03	0.04	<2
	10-11	9/13/95	--	--	0.22	--	0.09	1.16	1.47	200
TB-6	10-11	9/13/95	--	--	--	--	--	0.02	0.02	<2
	11-12	9/13/95	--	--	0.02	--	0.02	0.06	0.10	<2
TB-7	8-9	9/13/95	--	--	--	--	--	0.02	0.02	50
	9-10	9/13/95	--	--	--	--	1.90	10.00	11.90	200
TB-8	9-10	9/13/95	--	--	--	--	--	0.06	0.06	<2
	10-11	9/13/95	--	--	0.19	--	--	0.09	0.28	<20
TB-9	9.5-11.5	9/13/95	--	--	--	--	--	--	ND	<2
	11-12	9/13/95	--	--	0.10	--	0.11	0.59	0.80	15
TB-10	12-12.2	9/13/95	--	--	--	--	0.02	0.48	0.50	5
	10-11	9/13/95	--	--	0.19	--	0.13	0.63	0.95	<1
TB-11	11-11.9	9/13/95	--	--	--	--	--	--	ND	<1
	10-11.3	9/13/95	--	--	--	--	--	--	ND	NS
TB-12	8.5-10.0	9/13/95	--	--	--	--	--	--	ND	NS
	10-11.3	9/13/95	--	--	--	--	--	--	ND	NS
TB-13	8.5-9	9/14/95	--	--	0.80	--	0.97	4.20	5.97	200
TB-14	8.5-9.5	9/14/95	--	--	--	--	--	--	ND	NS
TB-15	9.5-10.5	9/14/95	--	--	--	--	--	0.01	0.01	NS
	10.5-11	9/14/95	--	--	--	--	--	0.01	0.01	NS
TB-16	9-10	9/14/95	--	--	--	--	--	0.01	0.01	NS
TB-17	8.5-10.5	9/14/95	--	--	--	--	--	--	ND	NS
	11.5-12	9/14/95	--	--	0.83	--	1.00	3.90	5.73	NS
TB-18	8-9	9/14/95	--	--	--	--	0.02	0.11	0.13	NS
	9.5-10	9/14/95	--	--	--	--	--	0.05	0.05	NS
TB-19	10-10.8	9/14/95	--	--	--	--	--	--	ND	NS
	10-11	9/14/95	--	--	--	--	--	0.03	0.03	NS
	11-11.5	9/14/95	--	--	0.51	--	1.20	5.20	6.91	NS

**NOTES:**1. ALL COMPOUNDS REPORTED IN  $\mu\text{g/L}$  OR PARTS-PER-MILLION (PPM).

## 2. ABBREVIATIONS

G.C. - GAS CHROMATOGRAPH

NS - NOT SCREENED.

4. NOT DETECTED IS REPRESENTED BOTH AS "ND" AND "--".

5. \* UNKNOWN'S REFER TO UNIDENTIFIED NON-TARGET PETROLEUM COMPOUNDS.





## GC VOLATILE ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12032  
Site : Tanks 1/2

Date Received : 15-SEP-95 Matrix : Soil  
Date Sampled : 13-SEP-95 - 14-SEP-95 Method : SW846 8021  
Units : UG/KG

Galson ID:	L25705-1 TB 16(9-10)	L25705-2 TB 10(11-11.9)	L25705-3 TB 17(11.5-12)
Benzene	<0.6	<0.6	<2.8
2-Butanone	<6	<5.8	<28
n-Butylbenzene	<0.6	<0.6	<2.8
sec-Butylbenzene	<0.6	<0.6	<2.8
tert-Butylbenzene	<0.6	<0.6	<2.8
Ethylbenzene	<0.6	<0.6	58
Isopropylbenzene	<0.6	<0.6	<2.8
p-Isopropyltoluene	<0.6	<0.6	<2.8
Naphthalene	<0.6	<0.6	<2.8
n-Propylbenzene	<0.6	<0.6	<2.8
Toluene	1.7	0.9	<2.8
1,2,4-Trimethylbenzene	<0.6	<0.6	<2.8
1,3,5-Trimethylbenzene	<0.6	<0.6	<2.8
m,p-Xylene	1.2	<0.6	15
o-Xylene	<0.6	<0.6	<2.8
Percent Moisture (%)	16	14	12
Dilution Factor	1	1	5
Analysis Date	09/23/95	09/23/95	09/26/95
Method Blank	QC80922A95-1	QC80922A95-1	QC8092595-1

ug - microgram  
mg - milligram  
kg - kilogram  
> - Greater than

NR - Not Requested  
NS - Not Specified  
L - Liter  
< - Less than

Approved by : JT  
Date : 04-OCT-95  
QC by : JT  
Date : 10/5/95

Footnotes:





## GC VOLATILE ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12032  
Site : Tanks 1/2

Date Received : 15-SEP-95 Matrix : Soil  
Date Sampled : 13-SEP-95 - 14-SEP-95 Method : SW846 8021  
Units : UG/KG

Galson ID:	L25705-4	L25705-5	L25705-6
Client ID:	TB 18(10-10.8)	TB 12(10-11.3)	TB 4(10.5-11)
Benzene	<0.6	1.2	<5.1
2-Butanone	<5.6	<5.6	<51
n-Butylbenzene	<0.6	<0.6	<5.1
sec-Butylbenzene	<0.6	<0.6	<5.1
tert-Butylbenzene	<0.6	<0.6	<5.1
Ethylbenzene	<0.6	<0.6	64
Isopropylbenzene	<0.6	<0.6	<5.1
p-Isopropyltoluene	<0.6	<0.6	<5.1
Naphthalene	<0.6	<0.6	<5.1
n-Propylbenzene	<0.6	<0.6	11
Toluene	1.6	1.9	7.1
1,2,4-Trimethylbenzene	<0.6	<0.6	12
1,3,5-Trimethylbenzene	<0.6	<0.6	6.8
m,p-Xylene	1.1	0.8	48
o-Xylene	<0.6	<0.6	7.5
Percent Moisture (%)	10	11	51
Dilution Factor	1	1	5
Analysis Date	09/23/95	09/23/95	09/26/95
Method Blank	QC80922A95-1	QC80922A95-1	QC8092595-1

ug - microgram  
mg - milligram  
kg - kilogram  
> - Greater than

NR - Not Requested  
NS - Not Specified  
L - Liter  
< - Less than

Approved by : JT

Date : 04-OCT-95

QC by : *JM*  
Date : 10/15/95

Footnotes:





## GC VOLATILE ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12032  
Site : Tanks 1/2

Date Received : 15-SEP-95 Matrix : Soil  
Date Sampled : 13-SEP-95 - 14-SEP-95 Method : SW846 8021  
Units : UG/KG

Galson ID:	QC8092595-1	QC80922A95-1
Client ID:	METHOD BLANK	METHOD BLANK
Benzene	<0.5	<0.5
2-Butanone	<5	<5
n-Butylbenzene	<0.5	<0.5
sec-Butylbenzene	<0.5	<0.5
tert-Butylbenzene	<0.5	<0.5
Ethylbenzene	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5
p-Isopropyltoluene	<0.5	<0.5
Naphthalene	<0.5	<0.5
n-Propylbenzene	<0.5	<0.5
Toluene	<0.5	<0.5
1,2,4-Trimethylbenzene	<0.5	<0.5
1,3,5-Trimethylbenzene	<0.5	<0.5
m,p-Xylene	<0.5	<0.5
c-Xylene	<0.5	<0.5
Percent Moisture (%)	NA	NA
Dilution Factor	1	1
Analysis Date	09/25/95	09/22/95
Method Blank	QC8092595-1	QC80922A95-1

---

ug - microgram      NR - Not Requested      Approved by :JT  
mg - milligram      NS - Not Specified      Date :04-OCT-95  
kg - kilogram      L - Liter      QC by : *Jmuct*  
> - Greater than      < - Less than      Date : 10/15/95

Footnotes:



**2B**  
**SOIL GC VOLATILE SURROGATE RECOVERY**

Lab Name: GALSON LABORATORIES

**Contract:**

Lab Code: Case No.: 1

SAS No.:

SDG No.: L25705

Level: (low/med) LOW

SMC1 (FBZ) = Fluorobenzene

## QC LIMITS (72-126)

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

## SOIL MOISTURE ANALYSIS

LOGIN: L25705 QC BATCH: [REDACTED] LAB GROUP: INORGANIC REF. #: 989

Wet Weight by: BE  
 Date : 21-SEP-95  
 Time : 14:40

Dry Weight by: PH  
 Date : 22-SEP-95  
 Time : 9:40

GALSON ID	SAMPLE DESC	D C T	PAN WT (gm)	NET WET WT (gm)	GROSS DRY WT (gm)	NET DRY WT (gm)	% MOIST	% SOLID
25705-1		N	1.00	5.14	5.34	4.34	15.6	84.4
L25705-2	TB 10 (11-11.	N	0.99	5.80	5.96	4.97	14.3	85.7
L25705-3		N	0.99	5.35	5.71	4.72	11.8	88.2
25705-4		N	0.98	6.43	6.77	5.79	10.0	90.0
25705-5		N	1.00	5.72	6.08	5.08	11.2	88.8
L25705-6	TB 4 (10.5-11	N	0.98	5.01	3.46	2.48	50.5	49.5

$$\text{Percent Moisture} = \frac{(\text{net wet weight}) - (\text{net dry weight})}{\text{net wet weight}} \times 100$$

: 1/04/95 22:35



## SEMOVOLATILE ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12032  
Site : Tanks 1/2

Date Received : 15-SEP-95  
Date Sampled : 13-SEP-95  
Date Extracted: 20-SEP-95

Matrix : Soil  
Method : SW846/3550/8270  
Units : UG/KG

Galson ID:	L25705-2	L25705-6	Q-2918
Client ID:	TB 10(11-11.9)	TB 4(10.5-11)	METHOD BLANK
Naphthalene	<390	<680	<330
Acenaphthene	<390	<680	<330
Fluorene	<390	<680	<330
Phenanthrene	<390	<680	<330
Anthracene	<390	<680	<330
Fluoranthene	<390	<680	<330
Pyrene	<390	<680	<330
Benzo(a)anthracene	<390	<680	<330
Chrysene	<390	<680	<330
Benzo(b)fluoranthene	<390	<680	<330
Benzo(k)fluoranthene	<390	<680	<330
Benzo(a)pyrene	<390	<680	<330
Indeno(1,2,3-cd)pyrene	<390	<680	<330
Dibenzo(a,h)anthracene	<390	<680	<330
Benzo(g,h,i)perylene	<390	<680	<330
Percent Moisture (%)	14	51	NA
Dilution Factor	1	1	1
Analysis Date	09/26/95	09/26/95	09/26/95

ug - microgram  
mg - milligram  
kg - kilogram  
> - Greater than

NR - Not Requested  
NS - Not Specified  
L - Liter  
< - Less than

Approved by : PK  
Date : 29-SEP-95  
QC by : J. E.  
Date : 10/5/95

Footnotes:





## SEMIVOLATILE ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12032  
Site : Tanks 1/2

Date Received : 15-SEP-95 Matrix : Soil  
Date Sampled : 13-SEP-95 Method : SW846/3550/8270  
Date Extracted: 20-SEP-95 Units : UG/KG

Galson ID: Q-2918GPC  
Client ID: GPC BLANK

Naphthalene	<330
Acenaphthene	<330
Fluorene	<330
Phenanthrene	<330
Anthracene	<330
Fluoranthene	<330
Pyrene	<330
Benzo(a)anthracene	<330
Chrysene	<330
Benzo(b)fluoranthene	<330
Benzo(k)fluoranthene	<330
Benzo(a)pyrene	<330
Indeno(1,2,3-cd)pyrene	<330
Dibenzo(a,h)anthracene	<330
Benzo(g,h,i)perylene	<330

Percent Moisture (%)	NR
Dilution Factor	1
Analysis Date	09/26/95

---

ug - microgram	NR - Not Requested	Approved by :PK
mg - milligram	NS - Not Specified	Date : 29-SEP-95
kg - kilogram	L - Liter	QC by : <i>[Signature]</i>
> - Greater than	< - Less than	Date : 10/15/95

Footnotes:



## SOIL SEMIVOLATILE SURROGATE RECOVERY

Client : Gleason Works

Login # : L25705

Level: (low/med) LOW

S1 (NBZ) = Nitrobenzene-d5  
 S2 (FBP) = 2-Fluorobiphenyl  
 S3 (TPH) = Terphenyl-d14  
 S4 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS  
(23-120)  
(30-115)  
(18-137)  
(20-130)

```
# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
```



## SEMIVOLATILE ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12032  
Site : Tanks 1/2

Date Received : 15-SEP-95  
Date Sampled : 13-SEP-95  
Date Extracted: 20-SEP-95

Matrix : Leachate  
Method : SW846/1311/8270-TCLP  
Units : UG/L

Galson ID:	L25705-6	Q-2933	Q-2933TP
Client ID:	TB 4(10.5-11)	Method Blank	TCLP Blank
Naphthalene	<7	<6	<7
Acenaphthene	<10	<8	<9
Fluorene	<10	<8	<9
Phenanthrene	<12	<10	<11
Anthracene	<10	<8	<9
Fluoranthene	<11	<9	<10
Pyrene	<10	<8	<9
Benzo(a)anthracene	<12	<10	<11
Chrysene	<12	<10	<11
Benzo(b)fluoranthene	<12	<10	<11
Benzo(k)fluoranthene	<12	<10	<11
Benzo(a)pyrene	<12	<10	<11
Indeno(1,2,3-cd)pyrene	<12	<10	<11
Dibenzo(a,h)anthracene	<12	<10	<11
Benzo(g,h,i)perylene	<12	<10	<11
Dilution Factor	1	1	1
Analysis Date	09/26/95	09/26/95	09/26/95

ug - microgram      NR - Not Requested      Approved by :PK (Dk)  
mg - milligram      NS - Not Specified      Date :29-SEP-95  
kg - kilogram      L - Liter      QC by : Jmee  
> - Greater than      < - Less than      Date : 10/15/95

Footnotes:



## LEACHATE SEMIVOLATILE SURROGATE RECOVERY

Client : Gleason Works

Login # : L25705

S1 (NBZ) = Nitrobenzene-d<sub>5</sub>  
 S2 (FBP) = 2-Fluorobiphenyl  
 S3 (TPH) = Terphenyl-d<sub>14</sub>  
 S4 (DCB) = 1,2-Dichlorobenzene-d<sub>4</sub>

QC LIMITS  
(74-122)  
(56-113)  
(46-132)  
(5<sup>4</sup>- 9<sup>4</sup>)

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out



## GC VOLATILE ANALYTICAL REPORT

Client : Gleason Works  
Account # : 12032  
Site : Tanks 1/2

Date Received : 15-SEP-95  
Date Sampled : 13-SEP-95

Matrix : Leachate  
Method : SW846 8021  
Units : UG/L

Galson ID:	L25705-6	QC8092795-1	QC8092795-1TP
Client ID:	TB 4(10.5-11)	Method Blank	TCLP Blank
Benzene	<0.5	<0.5	<0.5
2-Butanone	<5	<5	<5
n-Butylbenzene	<0.5	<0.5	<0.5
sec-Butylbenzene	<0.5	<0.5	<0.5
tert-Butylbenzene	<0.5	<0.5	<0.5
Ethylbenzene	4.2	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5
p-Isopropyltoluene	<0.5	<0.5	<0.5
Naphthalene	0.7 T	<0.5	0.8
n-Propylbenzene	0.5	<0.5	<0.5
Toluene	0.9 T	<0.5	0.9
1,2,4-Trimethylbenzene	0.3	<0.5	<0.5
1,3,5-Trimethylbenzene	<0.5	<0.5	<0.5
m,p-Xylene	3.8 T	<0.5	0.6
o-Xylene	<0.5	<0.5	<0.5
Dilution Factor	1	1	1
Analysis Date	09/27/95	09/27/95	09/27/95
Method Blank	QC8092795-1	QC8092795-1	QC8092795-1

ug - microgram  
mg - milligram  
kg - kilogram  
> - Greater than

NR - Not Requested  
NS - Not Specified  
L - Liter  
< - Less than

Approved by : JT  
Date : 04-OCT-95  
QC by : *J. P. G.*  
Date : 10/15/95

## Footnotes:

T : Compound was also detected in TCLP blank.



2

LEACHATE GC VOLATILE SURROGATE RECOVERY

Lab Name: GALSON LABORATORIES

**Contract:**

Lab Code:

Case No.: 1

SAS No.:

SDG No.: L25705

SMC1 (FBZ) = Fluorobenzene

## QC LIMITS (72-126)

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

**Attachment E**