TRANSPORTATION

PROJECT REPORT

D006922
P.I.N. 9650.02.301
NYSDOT REGION 9
BARLOW ROAD EQUIPMENT MAINTENANCE FACILITY
TOWN OF KIRKWOOD, BROOME COUNTY

FINAL REPORT FOR THE DEEP AQUIFER INVESTIGATION

JULY 22, 1997

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

GEORGE E. PATAKI, Governor

JOHN B. DALY, Commissioner

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1.0 INTRODUCTION

1.1 Current Investigation

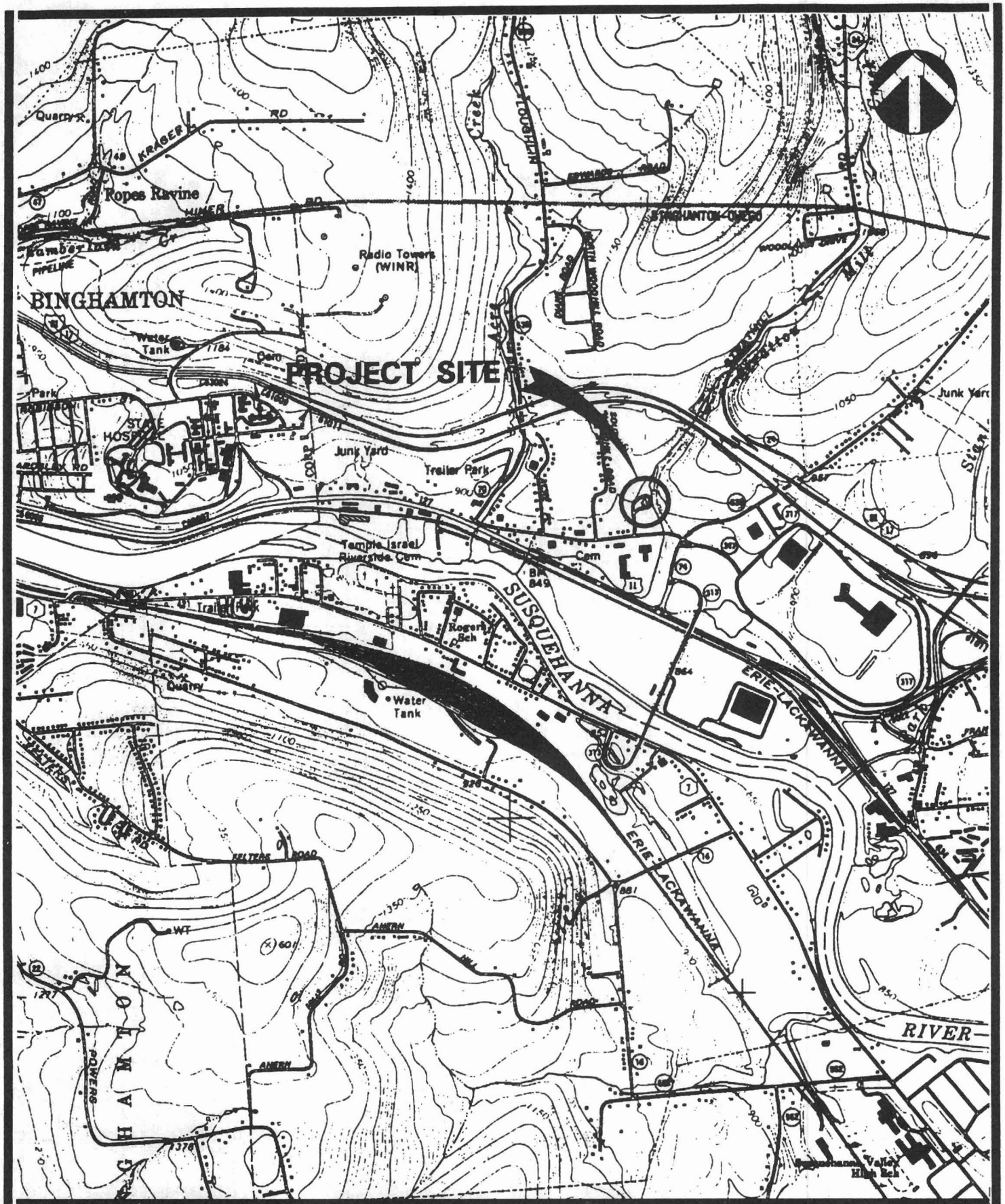
This report summarizes the results of deep aquifer groundwater monitoring well installation and site-wide groundwater sampling conducted in November and December of 1996 at the New York State Department of Transportation (NYSDOT), Region 9 Equipment Maintenance Facility located at 112 Barlow Road in the Town of Kirkwood, Broome County, New York (Figure 1). The site investigations reported herein were conducted in accordance with the "Proposed Work Plan for Deep Aquifer Investigation", dated October 22, 1996.

The purpose of the deep aquifer investigation was to explore deep portions of the aquifer for potential trichloroethene (TCE) impacts along the upgradient property boundary and in the vicinity of existing monitoring well FHX-12. To accomplish this objective, three new groundwater monitoring wells (MW-11S, MW-11D, and MW-12) were installed and sampled. In addition, a round of groundwater sampling was performed on all accessible site wells in order to obtain current groundwater contaminant concentration information. Figure 2 presents a site plan, showing the locations of site monitoring wells and major site features.

1.2 Project Background

A Phase I Hazardous Waste Assessment was conducted by Harza Northeast in October and November of 1993. The Phase I work consisted of a ground penetrating radar survey, a soil vapor survey, soil boring and sampling, and the installation and sampling of three groundwater monitoring wells (FHX-3, FHX-9, and FHX-12). Results of the Phase I Assessment indicated TCE impacts to groundwater beneath the site in excess of the New York State Department of Environmental Conservation (NYSDEC) 5 ppb groundwater standard (FHX-3, 120 ppb; FHX-9, 20.3 ppb; FHX-12, 1120 ppb). Soil samples collected during Phase I did not exhibit TCE concentrations in excess of NYSDEC recommended cleanup levels. Additional information on the Phase I results can be found in the "NYSDOT, Phase I Hazardous Waste Assessment Report," dated January, 1994.

A Phase II Hazardous Waste Assessment was performed by Harza during February and March of 1994. Investigations performed during the Phase II Assessment consisted of an additional soil gas survey, additional soil borings, installation and sampling of seven groundwater monitoring wells, and the collection of surface soil samples. Results of this investigation are presented in the "Phase II Hazardous Waste Assessment Report," dated May 26, 1994. TCE groundwater impacts were confirmed in the three initial groundwater monitoring wells. Of the seven additional shallow monitoring wells installed, volatile organic compounds (VOCs) were detected in the shallow aquifer at the location of MW-2 (tetrachloroethene at 8.6 ppb). Subsequent sampling of this well did not detect VOCs.



HARZA NORTHEAST Architects, Engineers, and Construction Managers	DATE 7/16/97 DRAWN JC NO. 8112	NYSDOT 112 Barlow Road, Kirkwood, N.Y. **LOCATION MAP**	FIGURE 1

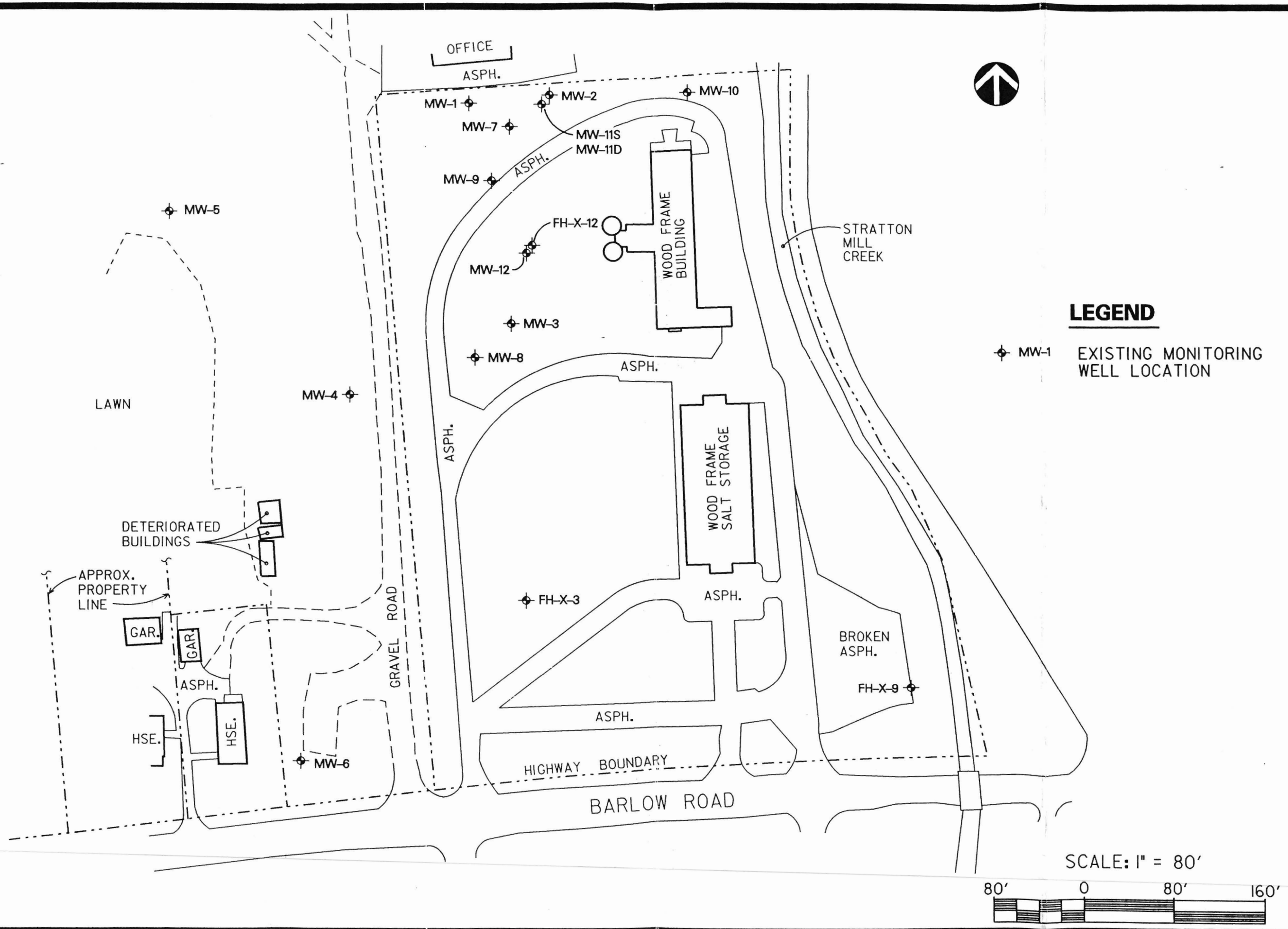


FIGURE 2

NYSDOT
112 Barlow Road, Kirkwood, N.Y.
PIN 9650.02.301

MONITORING WELL LOCATIONS

NYSDOT REGION 9

DATE	DRAWN	NO.
7/16/97	JC	8112

HARZA NORTHEAST
Architects, Engineers, and Construction Managers

Subsequent to the issuance of the Phase II report, additional site investigations were performed in May and June of 1994. Two Geoprobe soil gas and groundwater points were advanced, and three additional monitoring wells (MW-7, MW-8, MW-9) were installed and sampled. Compounds detected in groundwater at the location of MW-9 were indicative of two source materials, gasoline and TCE.

Previous investigations indicated that site subsurface materials generally consist of 10 to greater than 40 feet of poorly sorted sand and gravel with silt interbedded and interfingering with a unit of fine sand and silt. The unconsolidated deposits are dense, with blow counts per foot generally ranging in the 30s and 40s. Groundwater flow is to the south-southwest at a gradient of approximately 0.06 feet/foot. Measured depths to groundwater across the site have ranged from approximately 4 to 28 feet below grade. Measured hydraulic conductivity averages in the 10^{-4} cm/s range.

The preexisting monitoring well network penetrates approximately 10 to 15 feet into the top of the water table aquifer beneath the site. Investigation of impacts to the deeper portions of the aquifer have not been performed prior to the current investigation.

Harza Northeast prepared a "Feasibility Study of Remediation Alternatives," dated October 6, 1995 for the NYSDOT Barlow Road project. The Feasibility Study concluded that air sparging with soil vapor extraction ranked as the number one Interim Remedial Measure (IRM) for the TCE and gasoline groundwater plumes. The Feasibility Study concluded that the applicability of air sparging to the site would have to be confirmed by pilot testing. It was also recommended that wells be installed to the base of the aquifer to check for the presence of contaminants and to monitor for potential induced contaminant migration during sparge testing.

2.0 METHODS

2.1 Well Drilling

In order to investigate potential impacts to the deeper portions of the aquifer beneath the NYSDOT, Barlow Road site, two deep groundwater monitoring wells (MW-11D and MW-12) were drilled and sampled. In addition, one shallow monitoring well (MW-11S) was installed in the MW-11D borehole to check for shallow water table aquifer impacts along the upgradient property line. The locations of the additional wells (MW-11S, MW-11D, and MW-12) are shown on Figure 2. Well drilling and installation took place between November 20, 1996 and December 11, 1996.

Due to the dense nature of the unconsolidated deposits beneath the site, the deep monitoring wells were installed using the air rotary and casing driving method of drilling. Air rotary drill rigs are capable of rapidly penetrating dense soils and rock, without the production of drilling fluids for disposal. Conversations with local drillers indicated that the bottom of the water table aquifer in the project area is atop bedrock at depths in the 80 to 120 foot range. For the purpose of the project Work Plan, a depth to bedrock of 100 feet was assumed.

Initially, MW-11 was installed along the upgradient property boundary in the vicinity of MW-2 (Figure 2). The purpose of this well was to investigate possible upgradient, off-site TCE sources migrating onto the NYSDOT site in the deep and shallow aquifers. The MW-11 borehole was drilled two feet into the top of bedrock at a total depth of 95 feet.

In order to investigate deep aquifer impacts beneath the on-site area exhibiting the highest TCE groundwater concentrations, one deep groundwater monitoring well (MW-12) was drilled and installed near the location of existing well FHX-12 (Figure 2). The MW-12 borehole was drilled to the top of bedrock at a depth of 88 feet.

2.2 Subsurface Soil Sampling and Field Screening

Split spoon soil samples were collected during drilling of the monitoring wells at 10 foot intervals. All soil samples were screened for gross evidence of contamination in the field utilizing a photoionization detector (PID) and a flame ionization detector (FID). A field gas chromatogram (GC) was utilized to screen soil vapor headspace samples for the target VOCs; chloroform, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethene, cis-dichloroethene, 1,1,1-trichloroethane, trichloroethene, and tetrachloroethene.

2.3 Groundwater Monitoring Well Installation and Development

Three groundwater monitoring wells (MW-11S, MW-11D, MW-12) were installed at the locations discussed above. On-site sample FID/PID/GC data were utilized to determine the settings of the well screened intervals. The wells were developed upon completion by bailing.

The distances from the new monitoring well locations were measured to building corners and other suitable fixed objects. Riser pipe and ground surface elevations were surveyed to the nearest 0.01 foot. Depth to groundwater measurements were taken by using an electric water level indicator and measuring from a survey mark at the top of the riser pipe to the water table.

2.4 Groundwater Sampling

Following a minimum two week equilibration period after development, groundwater sampling of all accessible site monitoring wells was performed on December 26 and 27, 1996. The wells were sampled using disposable clear bailers after purging the wells of three to five times the well volume. The wells sampled were MW-1 through MW-6, MW-8, MW-9, MW-11S, MW-11D, MW-12, FHX-3, FHX-9, and FHX-12. MW-7 and MW-10 could not be located or accessed for sampling.

2.5 Laboratory Analyses

One soil sample from MW-11 (MW-11/30-32) was analyzed by the NYSDOT contract laboratory for VOCs including benzene, toluene, ethylbenzene, and xylene (BTEX) by United States Environmental Protection Agency (USEPA) Method 8020. Two soil samples collected from MW-12 (MW-12/20-22 and MW-12/50-52) were

analyzed by the laboratory for VOCs by USEPA Method 8021 and Semi-Volatile Organic Compounds (SVOCs) by USEPA Method 8270. All groundwater samples were analyzed by the NYSDOT contract laboratory for VOC plus BTEX by USEPA Method 8010.

3.0 RESULTS

3.1 Geologic Conditions

Subsurface logs and monitoring well construction diagrams for MW-11S, MW-11D, and MW-12 are presented in Appendix 1. Analogous sequences of unconsolidated glacial deposits were encountered at MW-11 and MW-12. At each location, the water table aquifer occupied glaciofluvial (stream) deposits consisting of interbedded and interfingering sand and clayey silt. The depth to groundwater within the water table aquifer was at 11 to 12 feet below grade.

The bottom of the water table aquifer is atop glacial till at depths of approximately 20 feet in MW-11 and 36 feet in MW-12. The till unit forms an aquitard and extends to depths of approximately 60 feet at MW-11 and 56 feet at MW-12. Groundwater monitoring wells MW-11S and MW-12 were screened within the top of the upper glacial till unit in order to investigate whether TCE impacts to groundwater extend beyond the bottom of the water table aquifer.

The upper glacial till is in turn underlain by clayey silt of probable glaciolacustrine (lake) origin. Sand interbeds in this unit were saturated, however, the dominant clayey silt beds were unsaturated, with the overall unit apparently forming a barrier to vertical groundwater flow. The glaciolacustrine(?) unit extended to approximately 80 feet in MW-11 and 69 feet in MW-12.

A second glacial till was encountered beneath the glaciolacustrine(?) unit. The lower till forms an aquitard extending to a depth of approximately 90 feet in MW-11 and 75 feet in MW-12.

The lower till is underlain by a confined sand and gravel (glaciofluvial) aquifer which is bounded at its base by bedrock consisting of gray shale. The lower glaciofluvial aquifer was approximately three feet thick in MW-11 and 13 feet thick in MW-12. The base of the lower confined aquifer is atop bedrock at 93 feet in MW-11 and 88 feet in MW-12.

The lower sand and gravel aquifer is designated by the USEPA as the Clinton Street - Ballpark Sole Source Aquifer. MW-11D was screened in this unit. Following well construction, the water level in MW-11D was measured at 5 feet below grade, indicating that the lower confined aquifer is under approximately 85 feet of head pressure.

The highest measured site TCE groundwater concentrations occur in the water table aquifer at the location of FHX-12 immediately north of MW-12. As observed during the drilling of MW-12, the water table aquifer in this area is divided into upper and lower sand and gravel units separated by a clayey silt layer at 14 and 22 feet below

grade. The clayey silt layer likely forms a leaky (semi-confining) boundary. To the north of the FHX-12 "source" area at MW-11, the semi-confining layer is absent, with the upper 10 feet of the subsurface consisting of a mix of sand, gravel, and clayey silt and the lower 10 feet of the water table aquifer being sand and gravel.

3.2 Soil Analytical Results

The results of field PID and FID soil headspace screening are indicated on the subsurface logs presented in Appendix 1. Table 1 summarizes the results of field GC and laboratory analyses performed on the soil samples collected from MW-11 and MW-12. The field GC and soil sample analytical laboratory reports are presented in Appendix 2.

At MW-11, the highest PID readings (10 to 23 ppm) were encountered in the upper glaciofluvial unit with the highest reading (23 ppm) occurring at the top of the water table at the 10 to 12 foot depth interval. PID readings dropped to zero within the upper till, with low level readings of 2.3 and 4.3 ppm obtained in the glaciolacustrine(?) unit. FID readings were zero in all MW-11 soil samples except MW-11/10-12 where a 1.0 ppm FID reading was taken at the top of the water table.

No target VOC were detected by field GC in any of the soil samples collected from MW-11 (Table 1). No VOCs were detected by laboratory analysis of soil sample MW-11/30-32 collected from approximately 10 feet below the base of the water table aquifer within the upper glacial till unit.

The pattern of PID and FID readings at MW-12 was more variable. Within the water table aquifer, PID readings ranged from 2.2 to 10 ppm, with the highest PID reading of 10 ppm occurring in the 20 to 22 foot sample at the base of the semi-confining clayey silt layer. PID readings above zero were obtained throughout the MW-12 stratigraphic column, with relatively higher readings occurring within the upper glacial till (20 ppm, MW-12/50-52), the glaciolacustrine(?) unit (15 ppm, MW-12/60-62), and the confined sand and gravel aquifer (9.4 ppm, MW-12/80-82). FID readings in MW-12 soils did not exceed 1 ppm.

Analysis of soil samples collected from MW-12 by field GC identified TCE and related VOCs in all samples collected below the water table to a depth of 30 to 32 feet. None of the TCE concentrations detected by field GC exceeded the NYSDEC recommended soil cleanup guidance level of 700 ppb for TCE. The highest TCE concentration detected by field GC was 132 ppb in the saturated soil sample MW-12/20-22 collected from the semi-confining clayey silt layer. Laboratory analysis of the same 20 to 22 foot interval soil sample detected TCE at a concentration of 14 ppb.

No VOCs attributable to site contamination were detected by field GC or laboratory analysis in any samples collected from below the 30 to 32 foot interval in MW-12. No SVOCs were detected in soil samples MW-12/20-22 or MW-12/50-52.

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLES
DEEP AQUIFER INVESTIGATION
NYSDOT BARLOW ROAD MAINTENANCE FACILITY
TOWN OF KIRKWOOD, BROOME COUNTY
(Samples collected from 11-20-96 to 12-5-96)

SAMPLE NUMBER	ANALYTICAL METHOD ANALYTE DETECTED	ANALYTE TOTAL CONCENTRATION (ppb)	NYSDEC TAGM 4046 LIMIT (ppb)
MW-11/0-2	Field GC	ND	
MW-11/10-12	Field GC	ND	
MW-11/20-22	Field GC	ND	
MW-11/30-32	Field GC	ND	
	VOC (EPA 8010)	ND	
MW-11/40-42	Field GC	ND	
MW-11/50-52	Field GC	ND	
MW-11/60-62	Field GC	ND	
MW-11/70-72	Field GC	ND	
MW-11/80-82	Field GC	ND	
MW-11/90-92	Field GC	ND	
MW-12/10-12	Field GC		
	1,1-Dichloroethane	54.2	200
	Trichloroethene	11.8	700
MW-12/20-22	Field GC		
	cis-Dichloroethene	8	400
	Trichloroethene	132	700
	VOC (8021)		
	Trichloroethene	14	700
	SVOC (8270)	ND	
MW-12/30-32	Field GC		
	Trichloroethene	17	700
MW-12/40-42	Field GC	ND	
MW-12/50-52	Field GC	ND	
	VOC (8021)		
	Methylene Chloride	1 (*)	100
	SVOC (8270)	ND	
MW-12/60-62	Field GC	ND	
MW-12/70-72	Field GC	ND	
MW-12/80-82	Field GC	ND	

NOTES:

Bold type and shading denotes analyte concentrations at or above NYSDEC limits.

VOC: Volatile Organic Compounds.

SVOC: Semi-Volatile Organic Compounds.

ND = Not Detected at Practical Quantitation Limit.

NYSDEC TAGM 4046: New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Technical and Administrative Guidance Memorandum #4046.

(*) = Suspected laboratory artifact.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
GROUNDWATER SAMPLES
DEEP AQUIFER INVESTIGATION
NYSDOT BARLOW ROAD MAINTENANCE FACILITY
TOWN OF KIRKWOOD, BROOME COUNTY
(Samples collected on 12-26/27-96)

SAMPLE NUMBER	ANALYTICAL METHOD ANALYTE DETECTED	ANALYTE TOTAL CONCENTRATION (ppb)	NYSDEC TOGS 1.1.1 LIMIT (ppb)
MW-1	VOC	ND	
MW-2	VOC	ND	
MW-3	VOC	ND	
MW-4	VOC	ND	
MW-5	VOC	ND	
MW-6	VOC		
	Methylene Chloride	1 (*)	5 std
MW-8	VOC	ND	
MW-9	VOC		
	1,1-Dichloroethane	1	5 std
	1,1,1-Trichloroethane	10	5 std
	1,2-Dichloroethane	2	0.8 std
	Trichloroethene	46	3 gv
	Tetrachloroethene	2	0.7 gv
	Benzene	0.9	0.7 std
	Toluene	260	5 std
	Ethylbenzene	1100	5 std
	Total Xylenes	6200	5 std
MW-11S	VOC		
	Total Xylenes	3	5 std
MW-11D	VOC	ND	
MW-12	VOC		
	Trichloroethene	1	3 gv
FHX-3	VOC		
	Chloroform	1	0.2 std
	1,1,1-Trichloroethane	1	5 std
	Trichloroethene	100	3 gv
FHX-9	VOC		
	Trans-1,2-Dichloroethene	1	5 std
	Trichloroethene	7	3 gv
FHX-12	VOC		
	1,1,1-Trichloroethane	1	5 std
	Trichloroethene	570	3 gv

NOTES:

Bold type and shading denotes analyte concentrations at or above NYSDEC limits.

VOC: Volatile Organic Compounds plus BTEX by USEPA Method 8010.

ND = Not Detected at Practical Quantitation Limit.

TOGS 1.1.1: New York State Department of Environmental Conservation, Division of Water, Technical and Operational Guidance Series 1.1.1.

(*) = Suspected laboratory artifact.

std = groundwater standard, gv = groundwater guidance value.

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
NOVEMBER 1993 THROUGH DECEMBER 1996
NYSDOT BARLOW ROAD MAINTENANCE FACILITY

	FHX-3			FHX-9			FHX-12			MW-1		MW-2		MW-3	
PARAMETER	11-93	2-94	12-96	11-93	2-94	12-96	11-93	2-94	12-96	2-94	12-96	2-94	12-96	2-94	12-96
Trichloroethene	120	99.2	100	20.3	7.8	7	1120	1610	570	ND	ND	ND	ND	ND	ND
Chloroform	1.1	ND	1	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	1.1	2.2	ND	ND	ND	ND	ND	ND	ND
1,2,-Dichloroethane	ND	ND	ND	ND	ND	ND	7.9	ND	ND	ND	ND	ND	ND	ND	ND
t-1,2-Dichloroethene	ND	ND	ND	1.4	1.5	1	1.6	2.4	ND	ND	ND	ND	ND	ND	ND
c-1,2,-Dichloroethene	13.4	4.6	NR	1.9	NR	NR	215	188	NR	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	4.2	2.5	ND	ND	ND	8.6	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	1	ND	ND	ND	7.9	2.9	1	ND	ND	ND	ND	ND	ND
Xylene	NA	ND	ND	NA	ND	ND	NA	ND	ND	1.6	ND	ND	ND	ND	ND

	MW-4		MW-5		MW-6		MW-7		MW-8		MW-9		MW-10	
PARAMETER	2-94	12-96	2-94	12-96	2-94	12-96	2-94	12-96	6-94	12-96	6-94	12-96	6-94	12-96
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	39.0	46	ND	NS
Chloroform	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	NS
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	1	ND	NS
1,2,-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	2	ND	NS
t-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	NS
c-1,2,-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	31.7	ND	ND	NS
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	1.3	2	ND	NS
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	10	ND	NS
Benzene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	0.9	ND	NS
Toluene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	260	ND	NS
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	186	1100	ND	NS
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	2.1	ND	ND	NS
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	18.7	ND	ND	NS
Xylenes	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	699	6200	ND	NS

PARAMETER	MW-11S 12-96	MW-11D 12-96	MW-12 12-96
Trichloroethene	ND	ND	1
Chloroform	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
1,2,-Dichloroethane	ND	ND	ND
t-1,2-Dichloroethene	ND	ND	ND
c-1,2,-Dichloroethene	ND	ND	ND
Tetrachloroethene	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Benzene	ND	ND	ND
Toluene	ND	ND	ND
Ethylbenzene	ND	ND	ND
Xylenes	3	ND	ND

NOTES:
ND = Not Detected.
NR = Not Reported.
NS = Not Sampled.
Bold and shaded concentrations exceed NYSDEC groundwater standards.

3.3 Groundwater Analytical Results

The results of laboratory VOC analysis performed on project groundwater samples collected on December 26 and 27, 1996 are summarized on Table 2. The laboratory report is presented in Appendix 3.

No VOCs attributable to site contamination were detected in the groundwater samples collected from MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-8, and MW-11D. MW-7 was buried under debris and could not be accessed for sampling. The area around MW-10 had been regraded and the MW-10 wellhead could not be located for groundwater sample collection.

TCE (and related VOC) impacts to groundwater in excess of NYSDEC groundwater standards were detected in the groundwater samples collected from MW-9, FHX-3, FHX-9, and FHX-12. TCE was detected in the new monitoring well MW-12 at 1 ppb, below the 5 ppb NYSDEC groundwater standard. The petroleum related BTEX compounds were detected above NYSDEC groundwater standards in MW-9. Petroleum-related total xylenes were detected at 3 ppb in MW- 11S, below the 5 ppb NYSDEC groundwater standard.

The highest site TCE concentrations were detected in FHX-12 (570 ppb), FHX-3 (100 ppb), and MW-9 (46 ppb). Low level TCE concentrations were detected in site groundwater at the former drum storage area (7 ppb, FHX-9) and within the glacial till beneath the water table aquifer in the FHX-12 "source" area (1 ppb MW-12).

Table 3 summarizes the historical results of all groundwater samples collected from the project monitoring wells since installation of the original three FHX series wells in November of 1993. The past site data indicate a pattern of contaminant impacts to groundwater similar to those observed during the current round of sampling. TCE and related VOC impacts to groundwater above NYSDEC standards have historically been detected at FHX-3, FHX-9, FHX-12, and MW-9. A one time 8.6 ppb tetrachloroethene detection exceeded the 5 ppb NYSDEC groundwater standard at MW-2 in February of 1994.

Petroleum-related VOCs have historically been detected in MW-9 at concentrations above NYSDEC standards. Xylenes have been detected below groundwater standards at MW-1 and MW-11S.

4.0 CONCLUSIONS

The results of the installation and sampling of MW-11 and MW-12 indicate that the Clinton Street - Ballpark Sole Source Aquifer beneath the Barlow Road site is not impacted by either TCE or petroleum-related VOCs. The Clinton Street - Ballpark Aquifer exists under confined aquifer conditions and is separated from the shallow water table aquifer beneath the Barlow Road site by approximately 40 to 70 feet of glacial till and glaciolacustrine deposits of low hydraulic conductivity.

TCE and related VOC impacts to shallow groundwater above NYSDEC groundwater standards were detected in MW-9, FHX-3, FHX-9, and FHX-12 consistent with site

historical groundwater sampling results. Petroleum-related VOC impacts to shallow groundwater above NYSDEC standards were detected in MW-9 as has been the case in previous site investigations. The results of the current investigation indicate that groundwater impacts above NYSDEC standards do not extend vertically into the upper glacial till unit which forms the base of the water table aquifer. The horizontal extent of both the TCE and petroleum-related VOC plumes in the water table aquifer have not been delineated.

Previous site assessments have noted that the low level TCE impacts to groundwater measured at FHX-9 may be due to a separate source (drum storage) from those observed at FHX-3, FHX-12, and MW-9. Drums and impacted soils were removed from the FHX-9 area in April of 1995.

The highest measured TCE concentrations in the water table aquifer have historically been at FHX-12. Results of the current investigation indicate that the base of the water table aquifer in this area is at approximately 36 feet below grade atop glacial till.

The water table aquifer in the FHX-12 area (as observed at MW-12) is divided into upper and lower sand units by a clayey silt layer which is located between 14 and 22 feet below grade. This clayey silt layer apparently forms a semi-confining layer. The highest TCE soil concentrations detected by field screening were encountered within the clayey silt layer indicating that it may form a partial barrier to vertical contaminant migration. However, FHX-12 and FHX-3 are screened within the lower sand unit of the water table aquifer. The presence of TCE in these wells above groundwater standards indicates that the clayey silt unit does not prevent TCE migration to the lower sand unit.

As previously noted, the October 6, 1995 project Feasibility Study concluded that air sparging coupled with soil vapor extraction would be the most effective method for implementation of an IRM in the FHX-12 area. The presence of a the semi-confining clayey silt between the upper and lower sand units of the water table aquifer complicates the air sparging scenario. Implementation of air sparging to address TCE impacts to the entire water table aquifer would require sparging within two zones; 1) the clayey silt and upper sand; and 2) the lower sand unit. Venting of sparge vapors from the upper zone could be accomplished through soil vapor extraction applied to the unsaturated zone. Sparging of the lower zone could result in the trapping of air at the clayey silt/lower sand contact. This air could be vented by the use of vent points screened only at the clayey silt/lower sand contact.

5.0 PROJECT ACTIVITIES SINCE DEEP AQUIFER INVESTIGATION

Based on a preliminary review of the data presented in this report and subsequent meetings, the NYSDOT has proceeded with the design of the air sparging IRM based on the sparging of two zones within the water table aquifer. Vertical and horizontal delineation of TCE impacts within the upper and lower portions of the water table aquifer are to be performed concurrent with the installation of the IRM sparge and vent points by use of on-site field GC analysis. A contract for installation of the IRM system has been let by the NYSDOT and site construction activities are currently scheduled for August of 1997. The following wells have been eliminated from the site groundwater monitoring program: MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-10, MW-11S, and MW-11D. These wells are to be sealed and abandoned during site IRM construction in August 1997.

APPENDIX 1

SUBSURFACE LOGS
AND
WELL CONSTRUCTION DIAGRAMS

SUBSURFACE LOG

HARZA NORTHEAST

Boring No. MW-11 S&D Sheet 1 of 2

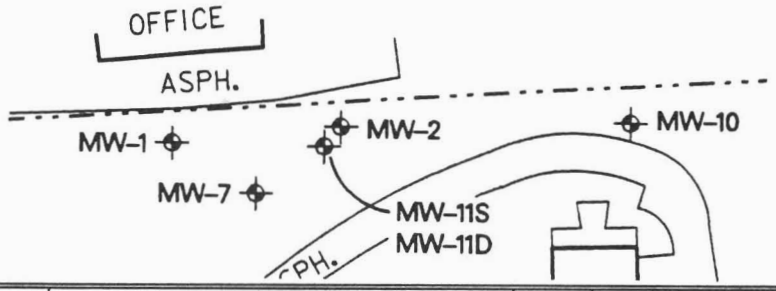
Project

NYSDOT 8112
112 BARLOW ROAD
KIRKWOOD, NY

Method of Investigation

Driller: TULLY DRILLING Co.
Drill Method: AIR ROTARY - 6 INCH ROLLER BIT
Date Started: 11-20-96 Completed: 12-11-97
Soil Sampler: 3" X 2' SPLIT SPOON
Sample Hammer: Wt: NA lb. Fall: NA in.

Comments/Figures:



Depth (ft)	Sample #	Sample Depth From (ft)	Sample Depth To (ft)	Blows on Sampler per 6 inches	N	Rec	Material Description	PID/FID (ppm)	Remarks
	1	0	2			1.7	0.0 to +/- 20 feet: Glaciofluvial Sand.	10.5/0	GC = 0 ppb Moist.
5							0.0 to +/- 10 feet: Medium Brown coarse to fine (+) SAND, some Clayey Silt, little (-) coarse to fine Gravel.		No staining, no odor.
10	2	10	12			0.7	10 to +/- 20 feet: Medium Brown coarse to fine (+) SAND, some coarse to fine Gravel, little Clayey Silt.	22.7/0	GC= 0 ppb Saturated at 12 feet. No sheen, no odor.
15									
20	3	20	22			0.8		10.3/1.0	GC = 0 ppb
25							20 to +/- 60 feet: Glacial Till. Medium Brown and Gray mottled CLAYEY (-) SILT, little (-) coarse to fine Sand, some (-) coarse to fine (+) Gravel.		Dense, moist. Unstratified. No staining, no odor.
30	4	30	32			1.6	Gravel = subangular gray limestone and black shale.	8.5/5.0	GC = 0 ppb
35									Sample MW-11/30-32 submitted to lab for 8010 + BTEX analysis.
40	5	40	42			1.0		3.1/0	GC = 0 ppb
45									
50	6	50	52			1.7		0/0	GC = 0 ppb

SUBSURFACE LOG

HARZA NORTHEAST

Boring No. MW-11 S&D Sheet 2 of 2

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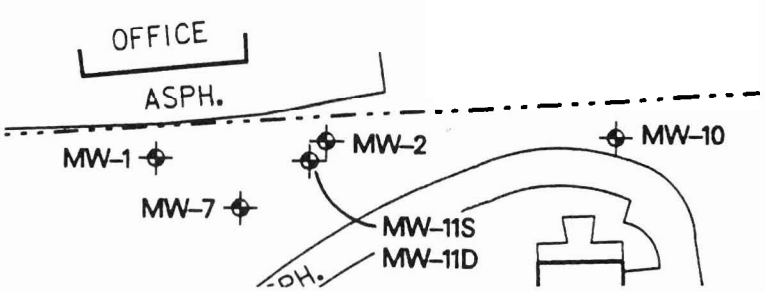
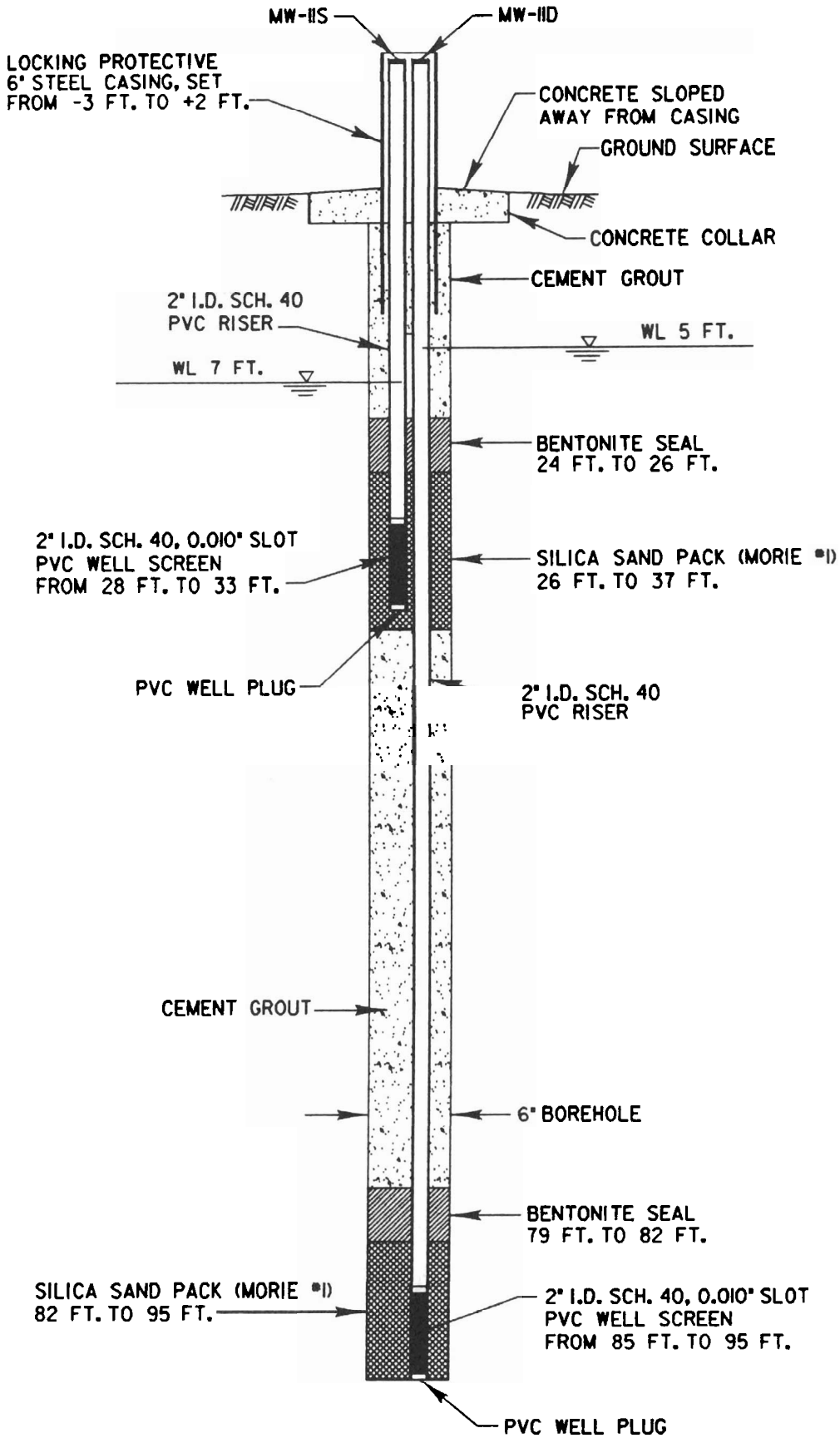
Comments/Figures:



Depth (ft)	Sample #	Sample Depth From (ft)	Sample Depth To (ft)	Blows on Sampler per 6 inches	N	Rec	Material Description	PID/FID (ppm)	Remarks
55									
60	7	60	62			1.5		0/0	GC = 0 ppb
65							60 to +/- 80 feet: Glaciolacustrine (?) Silt. Medium Gray CLAYEY (-) SILT, trace coarse to fine (+) Sand, trace (+) fine Gravel. Poorly developed varve-like stratification.		Dense, moist.
70	8	70	72			1.5		4.3/0	GC = 0 ppb
75									
80	9	80	82			0.5		2.3/0	GC = 0 ppb
85							80 to +/- 90 feet: Glacial Till. Medium Gray SILT, some (+) fine Sand, some coarse to fine Gravel.		Hard, dry to moist. No staining, no odor. Unstratified.
90	10	90	92			0.5	Few Cobbles. Gravel and Cobbles = rounded limestone.	0/0	GC = 0 ppb
95							90 to 93 feet: Glaciofluvial Sand. Medium Gray coarse to fine SAND, some coarse to fine Gravel, little Clayey (-) Silt. 93 feet: Bedrock Medium Gray Shale.		Saturated. Yields 3 to 5 gpm. No staining, no odor.
100							Bottom of borehole at 95 feet. MW-11S and MW-11D constructed in borehole. See well construction diagram.		



HARZA NORTHEAST

DATE	7/16/97
DRAWN	JC
NO.	8112

NYSDOT
112 Barlow Road, Kirkwood, N.Y.
GROUNDWATER MONITORING WELL CONSTRUCTION DIAGRAM

FIGURE
MW-11

SUBSURFACE LOG

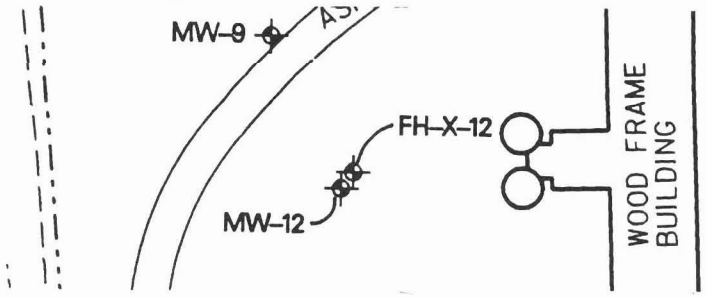
HARZA NORTHEAST

Boring No. MW-12 Sheet 1 of 2

Project

NYSDOT 8112
112 BARLOW ROAD
KIRKWOOD, NY

Comments/Figures:



Method of Investigation

Driller: TULLY DRILLING Co.
Drill Method: AIR ROTARY - 6 INCH ROLLER BIT
Date Started: 12-4-96 Completed: 12-10-96
Soil Sampler: 3" X 2' SPLIT SPOON
Sample Hammer: Wt: NA lb. Fall: NA in.

Depth (ft)	Sample #	Sample Depth From (ft)	Sample Depth To (ft)	Blows on Sampler per 6 inches	N	Rec	Material Description	PID/FID (ppm)	Remarks
							0.0 to 14 feet: Glaciofluvial Sand. Medium Brown coarse to fine (+) SAND, some coarse to fine Gravel, little Clayey (-) Silt.		Moist. No staining, no odor.
5									
10	1	10	12			1.7		5.1/0	GC = 12 ppb TCE, 54 ppb 1,1-DCA. Groundwater at 11 feet. No staining, no odor.
15							14 to 22 feet: Glaciofluvial Silt and Clay. Medium Brown CLAYEY (-) SILT, little very fine Sand, trace fine Gravel underlain at 18 feet by Gray-Brown SILTY CLAY, trace coarse to fine Sand, trace fine Gravel underlain at 20 feet by Medium Brown		Moist to saturated No staining, no odor.
20	2	20	22			2.0	and Medium Gray laminated CLAYEY SILT with 0.25 to 0.5 inch layers of Medium Brown very fine Sand.	10/0	GC = 132 ppb TCE, 8 ppb cis-DCE.
25							22 to 36 feet: Glaciofluvial Sand. Medium and Dark Brown coarse to fine SAND, some coarse to fine Gravel, little (-) Clayey (-) Silt.		Saturated. No staining, no odor.
30	3	30	32			2.0		2.2/0	GC = 17 ppb TCE.
35									
40	4	40	42			0.2	36 to 56 feet: Glacial Till. Medium Gray CLAYEY (-) SILT, some coarse to fine Gravel, trace (+) coarse to fine (+) Sand. Few Cobbles. Gravel and Cobbles = subangular limestone.	2.9/1.0	Dense, moist. No staining, no odor. Unstratified. GC = 0 ppb
45									
50	5	50	52			0.4		20/0.5	GC = 0 ppb

SUBSURFACE LOG

HARZA NORTHEAST

Boring No. MW-12 Sheet 2 of 2

Project

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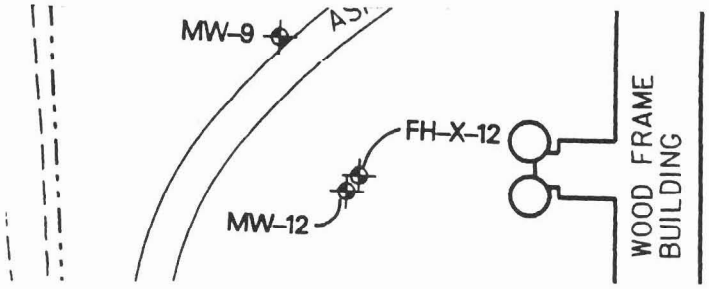
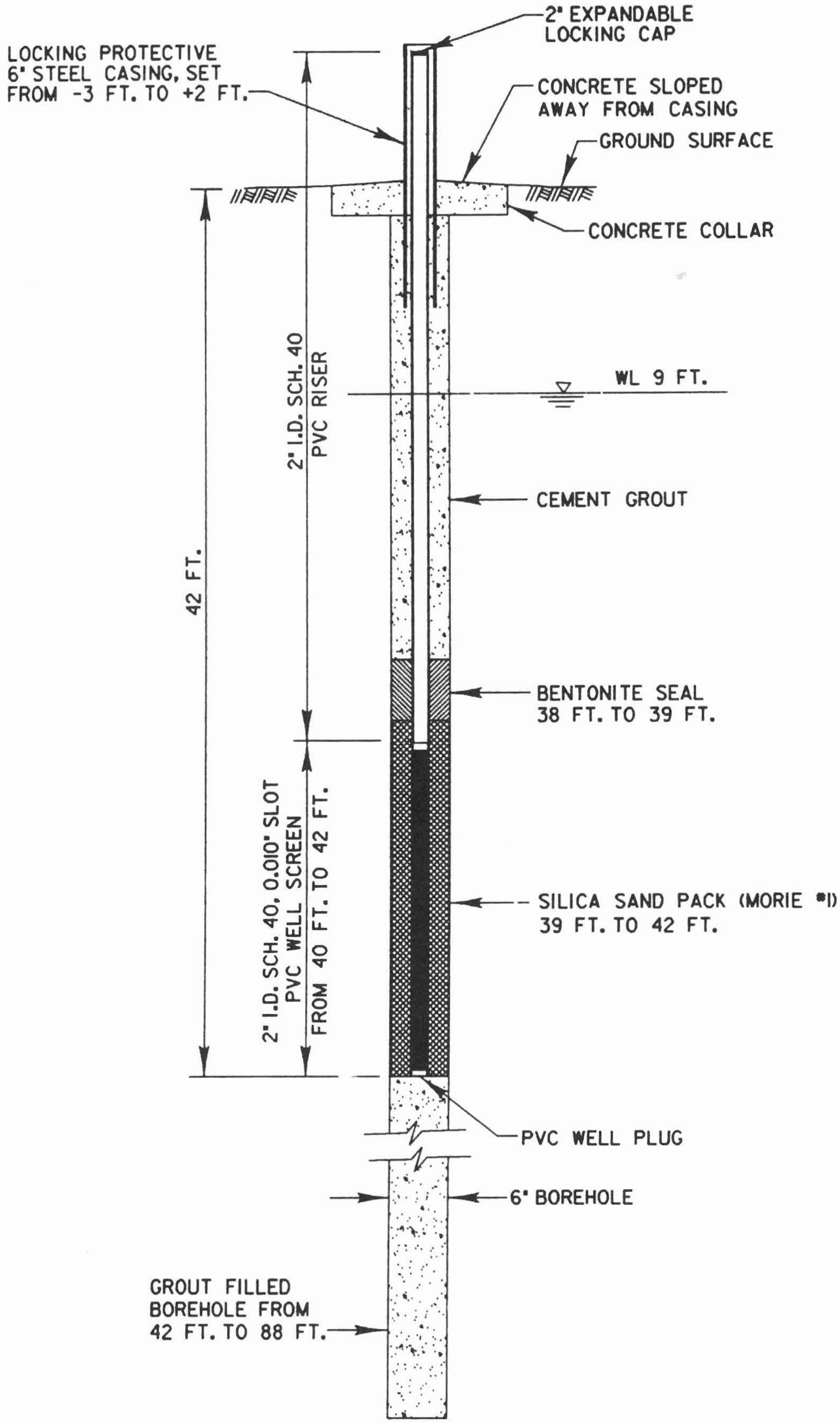
Sample Hammer: Wt: NA lb. Fall: NA in.

Comments/Figures:



Depth (ft)	Sample #	Sample Depth From (ft)	Sample Depth To (ft)	Blows on Sampler per 6 inches	N	Rec	Material Description	PID/FID (ppm)	Remarks
55									
60	6	60	62			0.7	56 to 69 feet: Glaciolacustrine (?) Silt and Sand. Medium Brown CLAYEY (-) SILT, some (+) coarse (-) to very fine (+) Sand, little medium to fine (+) Gravel. Unstratified at one foot scale.	15/0.5	Moist to saturated. No staining, no odor. GC = 0 ppb
65									
70	7	70	72			1.0	69 to 75 feet: Glacial Till. Medium Gray CLAYEY (-) SILT, some coarse to fine Sand, little (+) coarse to fine Gravel. Few Cobbles of rounded limestone.	1.8/1.0	GC = 0 ppb Slightly moist, dense. No staining, no odor.
75									
80	8	80	82			0.4	75 to 88 feet: Glaciofluvial Sand and Gravel. Medium Gray coarse to fine SAND, some (+) coarse to fine Gravel, little (-) Clayey (-) Silt.	9.4/0.5	Water yield increases. No staining, no odor. GC = 0 ppb
85									
90							Bottom of borehole at 88 feet atop bedrock. Bedrock = Medium Gray Shale.		
95							MW-12 constructed in borehole. See well construction diagram.		
100									



HARZA NORTHEAST Architects, Engineers, and Construction Managers 101 Genesee St, Utica, NY 13501	DATE 7/16/97	NYSDOT 112 Barlow Road, Kirkwood, N.Y. GROUNDWATER MONITORING WELL CONSTRUCTION DIAGRAM	FIGURE
	DRAWN JC		MW–12
	NO. 8112		

APPENDIX 2

SOIL ANALYTICAL REPORTS

FIELD GAS CHROMATOGRAPH REPORT

SPECIALIZED ENVIRONMENTAL MONITORING, INC.

Table 1
Headspace over Soil Analyses [1]
NYS-DOT Facility
Binghamton, New York
November 20, 1996

Compound [2]	S-1 0-2 ft. MW-11	S-2 10-12 ft. MW-11	S-3 20-22 ft MW-11	S-4 30-32 ft. MW-11	S-5 40-42 ft MW-11	S-6 50-52 ft. MW-11
Chloroform (100 ug/L)	ND	ND	ND	ND	ND	ND
1,1-DCA (50 ug/L)	ND	ND	ND	ND	ND	ND
1,2-DCA (50 ug/L)	ND	ND	ND	ND	ND	ND
trans-DCE (10 ug/L)	ND	ND	ND	ND	ND	ND
cis-DCE (10 ug/L)	ND	ND	ND	ND	ND	ND
1,1,1-TCA (100 ug/L)	ND	ND	ND	ND	ND	ND
TCE (5 ug/L)	ND	ND	ND	ND	ND	ND
Perc (5 ug/L)	ND	ND	ND	ND	ND	ND

Approximate MDL's listed after each compound in ug/L (ppb).

[1] By portable gas chromatograph-PID
[2] All units are ug/L (ppb).
ND = Non-detect- Below the Method Detection Limits

Table 2
Headspace over Soil Analyses [1]
NYS-DOT Facility
Binghamton, New York
November 21, 1996

Compound [2]	S-7 60-62 ft. MW-11	S-8 70-72 ft MW-11	S-9 80-82 ft. MW-11	S-10 MW-11	Cuttings MW-11
Chloroform (100 ug/L)	ND	ND	ND	ND	ND
1,1-DCA (50 ug/L)	ND	ND	ND	ND	ND
1,2-DCA (50 ug/L)	ND	ND	ND	ND	ND
trans-DCE (10 ug/L)	ND	ND	ND	ND	ND
cis-DCE (10 ug/L)	ND	ND	ND	ND	ND
1,1,1-TCA (100 ug/L)	ND	ND	ND	ND	ND
TCE (5 ug/L)	ND	ND	ND	ND	ND
Perc (5 ug/L)	ND	ND	ND	ND	ND

Approximate MDL's listed after each compound in ug/L (ppb).

[1] By portable gas chromatograph-PID
[2] All units are ug/L (ppb).
ND = Non-detect- Below the Method Detection Limits

Table 3
Headspace over Soil Analyses [1]
NYS-DOT Facility
Binghamton, New York
December 4, 1996

Compound [2]	S-1 MW-12	S-2 MW-12	S-3 MW-12	S-4 MW-12
Chloroform (100 ug/L)	ND	ND	ND	ND
1,1-DCA (50 ug/L)	**54.2**	ND	ND	ND
1,2-DCA (50 ug/L)	ND	ND	ND	ND
trans-DCE (10 ug/L)	ND	ND	ND	ND
cis-DCE (10 ug/L)	ND	**8**	ND	ND
1,1,1-TCA (100 ug/L)	ND	ND	ND	ND
TCE (5 ug/L)	**11.8**	**132**	**17**	ND
Perc (5 ug/L)	ND	ND	ND	ND

Note: Each sample above revealed a very early eluting peak not identified by the GC

Approximate MDL's listed after each compound in ug/L (ppb).

[1] By portable gas chromatograph-PID
[2] All units are ug/L (ppb).
ND = Non-detect- Below the Method Detection Limits

Table 4
Headspace over Soil Analyses [1]
NYS-DOT Facility
Binghamton, New York
December 5, 1996

Compound [2]	S-5 MW-12	S-6 MW-12	S-7 MW-12	S-8 MW-12	Cuttings MW-12
Chloroform (100 ug/L)	ND	ND	ND	ND	ND
1,1-DCA (50 ug/L)	ND	ND	ND	ND	ND
1,2-DCA (50 ug/L)	ND	ND	ND	ND	ND
trans-DCE (10 ug/L)	ND	ND	ND	ND	ND
cis-DCE (10 ug/L)	ND	ND	ND	ND	ND
1,1,1-TCA (100 ug/L)	ND	ND	ND	ND	ND
TCE (5 ug/L)	ND	ND	ND	ND	**15**
Perc (5 ug/L)	ND	ND	ND	ND	ND

Note: Each sample above revealed a very early eluting peak not identified by the GC

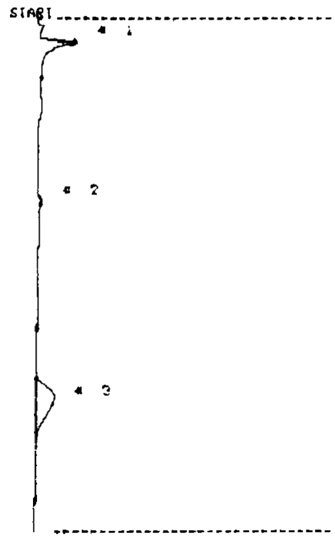
Approximate MDL's listed after each compound in ug/L (ppb).

[1] By portable gas chromatograph-PID
[2] All units are ug/L (ppb).
ND = Non-detect- Below the Method Detection Limits

RAW DATA

Project *Harza-DOT*
Page # *1*

PHOTOVAC



STOP @ 800.0 *7 C*

SAMPLE LIBRARY 2 NOV [illegible]
ANALYSIS # [illegible]
INTERNAL TEMP [illegible]
GAIN [illegible]

COMPOUND NAME	PEAK	R.T.	AREA/PPM
VINYL CHLORIDE	1	35.9	0.440 PPB
PERC	2	284.3	0.163 PPB
O-XYLENE	3	592.1	46.62 PPB

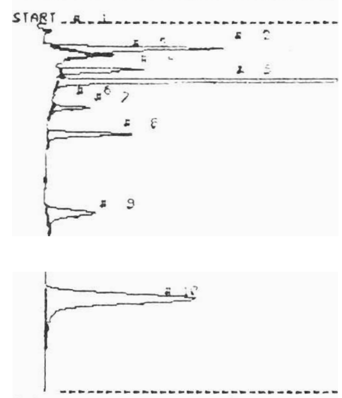
PHOTOVAC

STOP @ 401.7 *2 C*

SAMPLE LIBRARY 2 NOV [illegible] 1995
ANALYSIS # [illegible] HARZA-N-SOOT
INTERNAL TEMP [illegible]
GAIN [illegible]

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.6	26.1 mVS
UNKNOWN	2	39.5	2.1 VS
UNKNOWN	3	73.3	136.1 mVS
CHLOROFORM	4	90.7	12.71 PPB
TCE	5	134.0	0.470 PPB
UNKNOWN	6	175.4	1.6 VS
PERC	7	299.3	0.935 PPB

PHOTOVAC



STOP @ 576.9 *2 D*

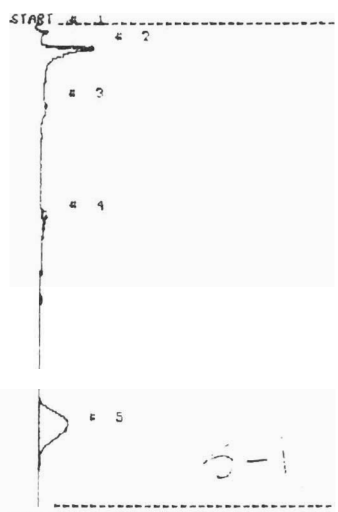
SAMPLE LIBRARY 2 NOV [illegible] 1995
ANALYSIS # [illegible] HARZA-N-SOOT
INTERNAL TEMP [illegible]
GAIN [illegible]

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.7	31.4 mVS
UNKNOWN	2	40.0	2.9 VS
MTBE	3	50.4	6.311 PPB
UNKNOWN	4	73.9	1.6 VS
CHLOROFORM	5	90.8	112.7 PPB
TCE	7	134.9	1.916 PPB
TCE	8	176.9	33.98 PPB
PERC	9	302.3	3.731 PPB
ETHYLBENZENE	10	438.8	26.44 PPB

PHOTOVAC

3 COMPOUND	ID #	R.T.	LIMIT
MTBE	1	46.3	0.000 PPB
CARBON TETRA CHL	2	120.2	0.000 PPB
TCE	3	125.6	0.000 PPB
ETHYLBENZENE	4	451.7	0.000 PPB
TOLUENE	5	205.7	0.000 PPB
M-P XYLENE	6	489.9	0.000 PPB
O-XYLENE	7	585.4	0.000 PPB
CHLOROFORM	8	91.1	0.000 PPB
VINYL CHLORIDE	9	33.4	0.000 PPB
PERC	10	296.3	0.000 PPB
CIS-1,2-DCE	11	62.6	0.000 PPB
1,1,1-TCA	12	86.2	0.000 PPB

PHOTOVAC



5-1

STOP @ 757.0 *2 C*

SAMPLE LIBRARY 2 NOV [illegible] 1995
ANALYSIS # [illegible] HARZA-N-SOOT
INTERNAL TEMP [illegible]
GAIN [illegible]

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.6	28.7 mVS
UNKNOWN	2	38.1	207.1 mVS
TCE	3	126.8	0.015 PPB
PERC	4	298.9	0.474 PPB
O-XYLENE	5	634.3	[illegible] PPB

PHOTOVAC

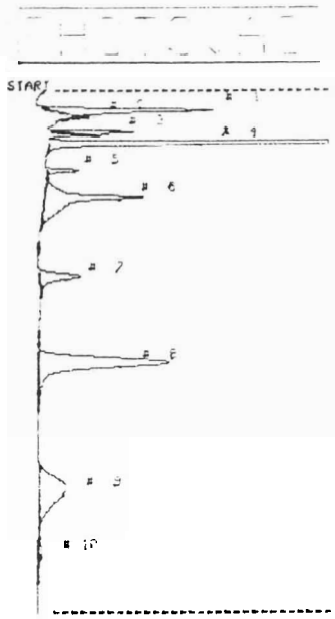
3 COMPOUND	ID #	R.T.	LIMIT
MTBE	1	46.3	0.000 PPB
CARBON TETRA CHL	2	122.2	0.000 PPB
TCE	3	125.6	0.000 PPB
ETHYLBENZENE	4	451.7	0.000 PPB
TOLUENE	5	205.7	0.000 PPB
M-P XYLENE	6	489.9	0.000 PPB
O-XYLENE	7	585.4	0.000 PPB
CHLOROFORM	8	91.1	0.000 PPB
VINYL CHLORIDE	9	33.4	0.000 PPB
PERC	10	296.3	0.000 PPB
CIS-1,2-DCE	11	62.6	0.000 PPB
1,1,1-TCA	12	86.2	0.000 PPB
TCE	13	125.4	0.000 PPB
PERC	14	430.6	0.000 PPB
CIS-DCE	15	50.9	0.000 PPB

PHOTOVAC

4 COMPOUND	ID #	R.T.	LIMIT
MTBE	1	46.0	0.000 PPB
CHLOROBENZENE	2	381.9	0.000 PPB
ETHYLBENZENE	3	462.7	0.000 PPB
M-P XYLENE	4	488.6	0.000 PPB
O-XYLENE	5	592.1	0.000 PPB
TOLUENE	6	226.5	0.000 PPB
BENZENE	7	129.9	0.000 PPB

RAW DATA

Project Harza DOT
. Page # 2



STOP @ 814.9 2 C
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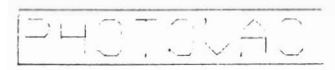
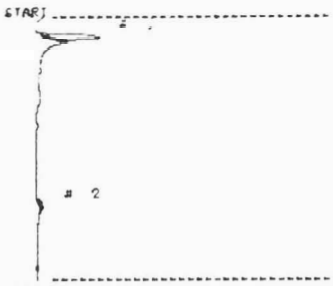
ANALYSIS # [illegible] HARZA-NYSDOT
INTERNAL TEMP 24 [illegible]
GAIN [illegible] [illegible]

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.1	3.0 uS
UNKNOWN	2	48.5	28.3 mUS
UNKNOWN	3	64.3	585.6 mUS
UNKNOWN	4	81.2	8.0 uS
BENZENE	5	125.6	5,836 PPB
TCE	6	162.6	115.0 PPB
UNKNOWN	7	292.3	1.6 uS
UNKNOWN	8	438.8	8.0 uS
UNKNOWN	9	628.8	4.4 uS
UNKNOWN	10	728.9	303.3 mUS

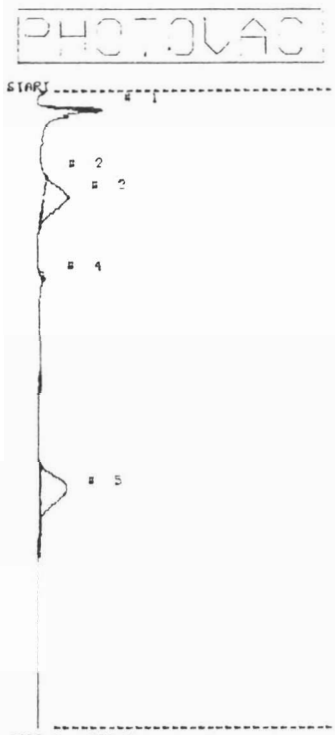


#	COMPOUND	ID #	R.T.	LIMIT
	ETBE	1	48.0	0.000 PPB
	CHLOROBENZENE	2	092.9	0.000 PPB
	ETHYLBENZENE	3	96[illegible].2	0.000 PPB
	M-P XYLENE	4	502.6	0.000 PPB
	O-XYLENE	5	503.1	0.000 PPB
	TOLUENE	6	2[illegible].5	0.000 PPB
	BENZENE	7	124.9	0.000 PPB
	TCE	9	162.6	0.000 PPB
	CIS-DCE	8	8[illegible].2	0.000 PPB
	PERC	10	452.8	0.000 PPB



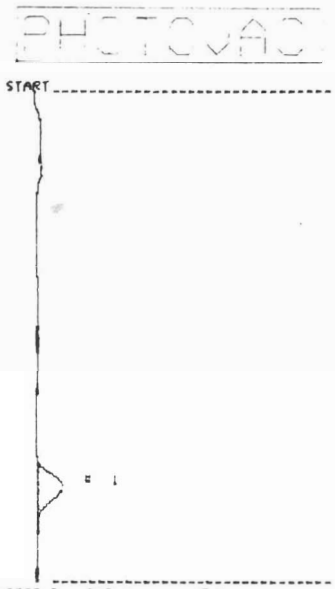
STOP @ 406.2 2 C
SAMPLE LIBRARY 4 NOV 28 1336 18:20
ANALYSIS # 11 HARZA-NYSDOT
INTERNAL TEMP 25 5-2
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.5	1.0 uS
UNKNOWN	2	291.3	81.3 mUS



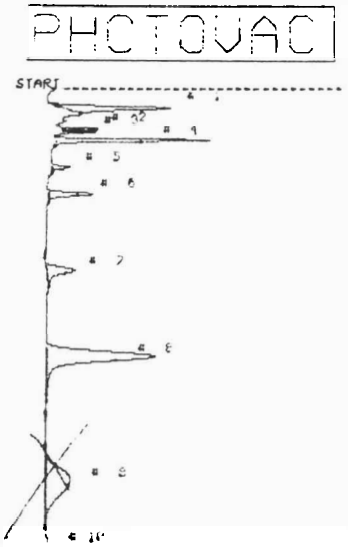
STOP @ 1000.0 2 C
SAMPLE LIBRARY 4 NOV 28 1336 18:40
ANALYSIS # 12 HARZA-NYSDOT
INTERNAL TEMP 24 5-3
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	28.8	367.2 mUS
TCE	3	162.8	62.12 PPB
UNKNOWN	4	290.8	29.5 mUS
UNKNOWN	5	622.2	4.1 uS



STOP @ 262.4 2 D
SAMPLE LIBRARY 4 NOV 28 1336 29:5
ANALYSIS # 13 HARZA-NYSDOT
INTERNAL TEMP 24 DRY RUN
GAIN 20

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	626.6	3.7 uS



STOP @ 722.6 2 D
SAMPLE LIBRARY 4 NOV 28 1336 29:18
ANALYSIS # 14 HARZA-NYSDOT
INTERNAL TEMP 24 PERC STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.1	2.1 uS
UNKNOWN	2	63.8	432.1 mUS
UNKNOWN	3	82.2	438.3 mUS
CIS-DCE	4	81.3	7.639 PPB
BENZENE	5	124.2	2.[illegible].8 PPB
TCE	6	166.2	[illegible].08 PPB
UNKNOWN	7	291.8	1.1 uS
UNKNOWN	8	428.4	6.5 uS
UNKNOWN	9	625.5	3.9 uS

RAW DATA

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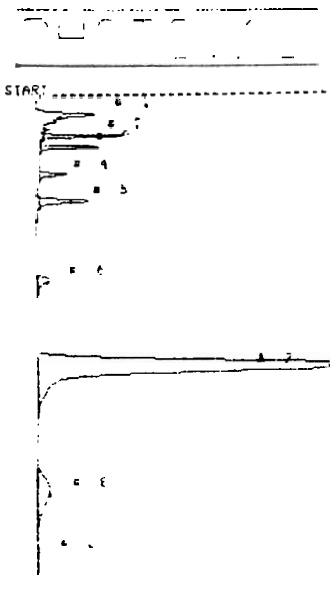
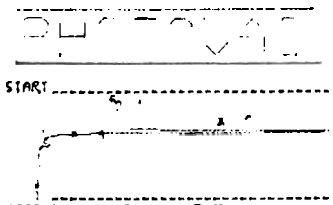


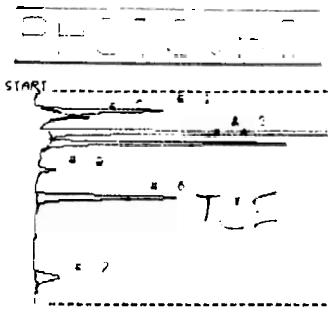
STOP @ 298.2 7 C
SAMPLE LIBRARY 4 NOV 08 1996 20:52
ANALYSIS # 15 HARZA-NYSDOT
INTERNAL TEMP 24 CIS TRANS-DCE
GAIN 10 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	29.2	243.1 mVS
UNKNOWN	2	63.2	386.4 mVS
CIS-DCE	3	81.1	5.878 PPM
BENZENE	4	124.2	6.110 PPB
TCE	5	166.4	54.59 PPB
UNKNOWN	6	290.8	481.1 mVS
PERC	7	424.0	325.2 PPB
UNKNOWN	8	624.4	2.0 VS
UNKNOWN	9	721.1	42.2 mVS



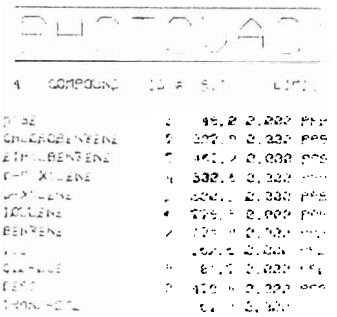
STOP @ 171.0 7 C
SAMPLE LIBRARY 4 NOV 08 1996 20:53
ANALYSIS # 16 HARZA-NYSDOT
INTERNAL TEMP 25 TRANS-DCE
GAIN 10 30 PPB

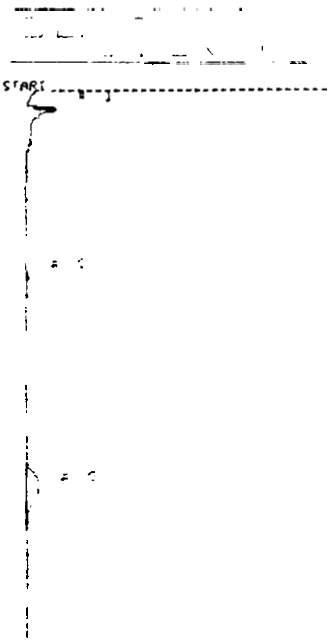
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	29.6	563.0 mVS
UNKNOWN	2	48.2	116.2 mVS
UNKNOWN	3	62.8	2.9 VS
UNKNOWN	4	86.1	38.6 mVS



STOP @ 328.8 7 C
SAMPLE LIBRARY 4 NOV 08 1996 21:13
ANALYSIS # 17 HARZA-NYSDOT
INTERNAL TEMP 25 TRANS-DCE
GAIN 10 30 PPB

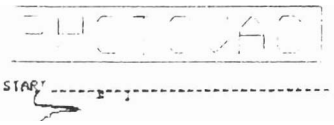
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.0	1.9 VS
UNKNOWN	2	48.4	245.4 mVS
TRANS-DCE	3	63.4	39.48 PPB
CIS-DCE	4	81.1	23.17 PPB
BENZENE	5	124.2	4.84. PPB
TCE	6	166.4	151.0 PPB
UNKNOWN	7	290.8	373.3 mVS





STOP @ 382.3 7 C
SAMPLE LIBRARY 4 NOV 08 1996 21:33
ANALYSIS # 18 HARZA-NYSDOT
INTERNAL TEMP 25
GAIN 10 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	22.8	52.0 mVS
UNKNOWN	2	288.2	32.9 mVS
UNKNOWN	3	623.2	1.8 VS



STOP @ 418.2 7 C
SAMPLE LIBRARY 4 NOV 08 1996 21:42
ANALYSIS # 19 HARZA-NYSDOT
INTERNAL TEMP 25
GAIN 10 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	22.2	115.1 mVS
UNKNOWN	2	282.2	39.6 mVS

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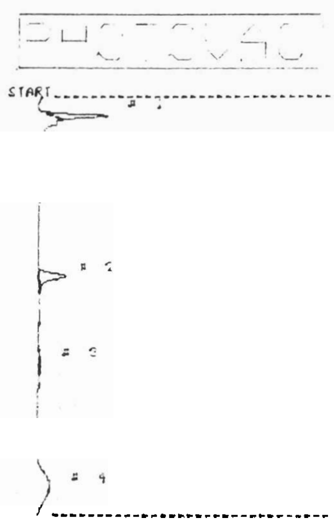
STOP @ 1000.0 2C
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 22:10
ANALYSIS # 20 HARZA-NYSDOT
INTERNAL TEMP 25 S-5
GAIN 10 250 MICROLITERS

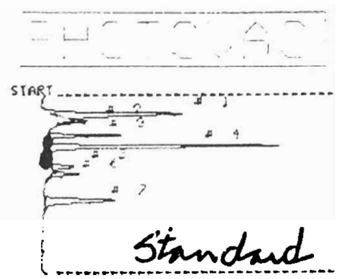
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	27.9	96.2 mVS
UNKNOWN	2	287.8	38.1 mVS
UNKNOWN	3	623.3	1.8 VS



STOP @ 662.6 20
SAMPLE LIBRARY 4 NOV 10 1996 22:13
ANALYSIS # 21 HARZA-NYSDOT
INTERNAL TEMP 25 S-6 6
GAIN 10 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	29.7	967.6 mVS
UNKNOWN	2	290.8	1.0 VS
PERC	3	427.6	0.046 PPB

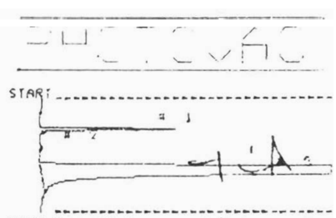
#	COMPOUND	ID #	R.T.	LIMIT
	MTBE	1	49.2	2.302 PPB
	CHLOROBENZENE	2	391.0	2.002 PPB
	ETHYLBENZENE	3	461.7	0.002 PPB
	M-P XYLENE	4	502.5	0.002 PPB
	O-XYLENE	5	593.1	3.334 PPB
	TOLUENE	6	229.5	0.000 PPB
	BENZENE	7	124.0	0.022 PPB
	TCE	8	166.4	0.302 PPB
	CIS-DCE	9	81.1	0.030 PPB
	PERC	10	429.4	0.022 PPB
	TRANS-DCE	11	61.9	0.022 PPB



Standard

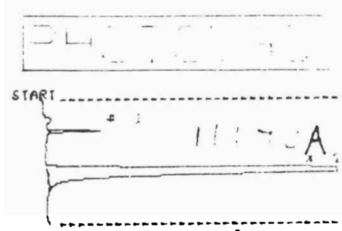
STOP @ 277.0 2C
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 22:21
ANALYSIS # 22 HARZA-NYSDOT
INTERNAL TEMP 25 ~~S-5~~
GAIN 10 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	29.8	2.1 VS
UNKNOWN	2	40.2	158.7 mVS
TRANS-DCE	3	63.5	3,155 PPB
CIS-DCE	4	80.9	28.30 PPB
UNKNOWN	5	111.9	447.6 mVS
BENZENE	6	129.4	7.53 PPB
TCE	7	166.1	14.87 PPB



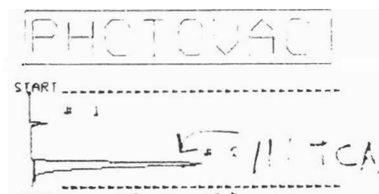
STOP @ 180.6 2D
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 22:31
ANALYSIS # 23 HARZA-NYSDOT
INTERNAL TEMP 26 ~~S-6~~
GAIN 10 ~~250 MICROLITERS~~

COMPOUND NAME	PEAK	R.T.	AREA/PPM
MTBE	1	48.9	[illegible] PPB
UNKNOWN	2	76.9	18.3 mVS
UNKNOWN	3	114.2	43.6 VS



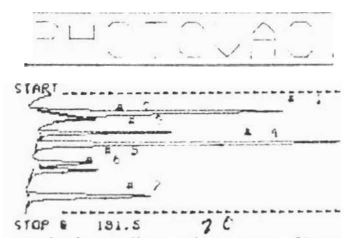
STOP @ 196.2 2C
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 22:38
ANALYSIS # 24 HARZA-NYSDOT
INTERNAL TEMP 26 ~~S-6~~
GAIN 5 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
MTBE	1	48.8	73.2 PPB
UNKNOWN	2	112.4	20.1 VS



STOP @ 148.2 2D
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 22:43
ANALYSIS # 25 HARZA-NYSDOT
INTERNAL TEMP 27 ~~S-6~~
GAIN 2 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
MTBE	1	48.0	75.80 PPB
UNKNOWN	2	112.9	5.0 VS



STOP @ 191.5 2C
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 22:49
ANALYSIS # 26 HARZA-NYSDOT
INTERNAL TEMP 27 TCA STANDARD
GAIN 20 100 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	29.9	4.0 VS
UNKNOWN	2	40.2	126.2 mVS
TRANS-DCE	3	63.7	2,940 PPB
CIS-DCE	4	80.7	[illegible]
UNKNOWN	5	111.9	1.1 VS
BENZENE	6	129.4	[illegible]
TCE	7	166.1	[illegible]

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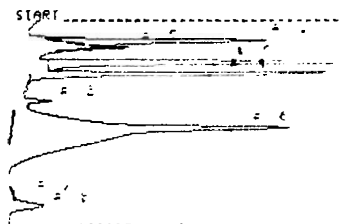
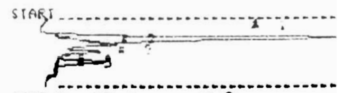


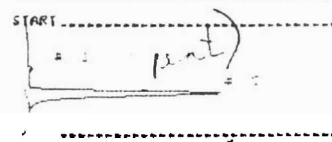
STOP @ 317.4 2 C
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 22:58
ANALYSIS # 27 HARZA-NYSDOT
INTERNAL TEMP 26 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.0	3.7 US
UNKNOWN	2	40.3	394.9 mUS
TRANS-DCE	3	63.2	[illegible] PPB
CIS-DCE	4	80.3	[illegible] PPB
BENZENE	5	124.4	[illegible] PPB
TCE	6	166.1	[illegible] PPB
UNKNOWN	7	22?.3	96.3 mUS



STOP @ 104.1 20
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 23:13
ANALYSIS # 30 HARZA-NYSDOT
INTERNAL TEMP 27 1,1-DCA
GAIN 20 100 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	29.7	5.2 US
UNKNOWN	2	51.0	381.1 mUS
UNKNOWN	3	67.3	892.0 mUS
CIS-DCE	4	80.7	0.000 PPB
UNKNOWN	5	85.9	25.7 mUS



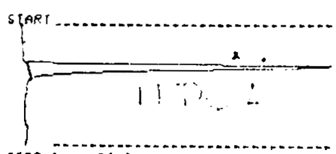
STOP @ 171.7 2 C
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 23:28
ANALYSIS # 31 HARZA-NYSDOT
INTERNAL TEMP 27 1,2-DCA
GAIN 2

COMPOUND NAME	PEAK	R.T.	AREA/PPM
1,1-DCA	1	67.2	[illegible]
UNKNOWN	2	106.1	6.0 US

[illegible]

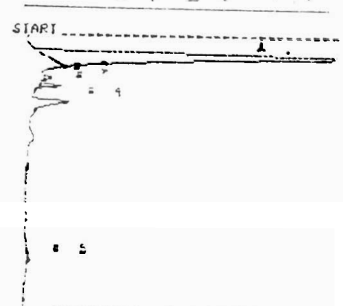
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 23:?0 2 C
ANALYSIS # 27 HARZA-NYSDOT
INTERNAL TEMP 26 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.0	3.7 US
UNKNOWN	2	40.3	394.9 mUS
TRANS-DCE	3	63.2	[illegible]
CIS-DCE	4	80.3	[illegible] PPB
BENZENE	5	124.4	[illegible]
TCE	6	166.?	[illegible]
UNKNOWN	7	22?.?	96.3 mUS



STOP @ 195.7 2 C
SAMPLE LIBRARY 4 NOV ~~10~~ 1996 23:15
ANALYSIS # 29 HARZA-NYSDOT
INTERNAL TEMP 27 ~~TCE STANDARD~~
GAIN 2 ~~30 PPB~~

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	67.8	10.2 US

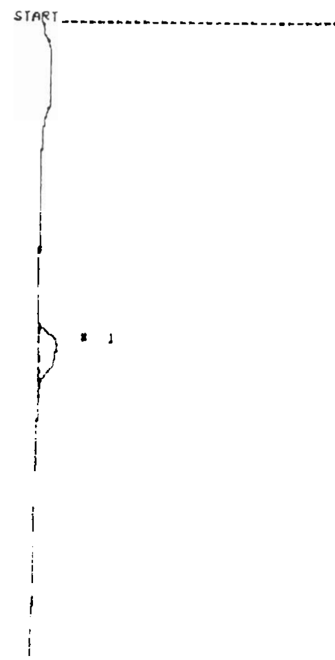


STOP @ 436.0 20
SAMPLE LIBRARY 4 NOV ~~15~~ 1996 23:46
ANALYSIS # 34 HARZA-NYSDOT
INTERNAL TEMP 26 CHLOROFORM
GAIN 2

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.6	11.7 US
1,1-DCA	2	68.1	157.? PPB
CIS-DCE	3	81.5	17.9? PPB
1,2-DCA	4	106.1	147.4 PPB
UNKNOWN	5	355.7	55.7 mUS

COMPOUND [illegible]

[illegible]



STOP @ 1000.0
SAMPLE LIBRARY 4 NOV 21 1996 10:28
ANALYSIS # 2 HARZA-NYSDOT
INTERNAL TEMP 21 DRY RUN
GAIN 20

COMPOUND NAME	PEAK	R.T.	AREA/PPM
M-P XYLENE	1	508.5	0.000 PPB

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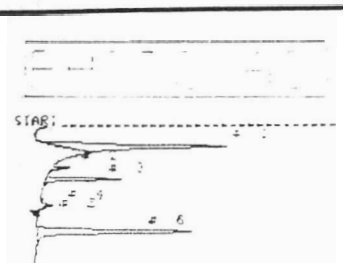


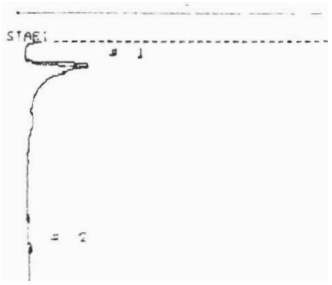
STOP @ 422.9
SAMPLE LIBRARY 4 NOV 21 1996 10:38
ANALYSIS # 3 MARZA-NYSDOT
INTERNAL TEMP 21 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	32.2	3.2 uS
1,1-DCA	2	66.1	19.05 PPB
CIS-DCE	3	80.2	4.202 PPB
BENZENE	4	126.5	0.760 PPB
UNKNOWN	5	138.1	45.2 mVS
TCE	6	166.4	4.722 PPB
UNKNOWN	7	284.3	620.5 mVS
PERC	8	410.4	1.833 PPB

CALIBRATED PEAK 6,TCE

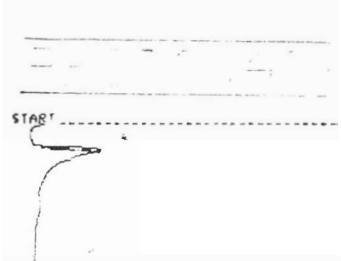
SAMPLE LIBRARY 4 NOV 21 1996 10:48
ANALYSIS # 3 MARZA-NYSDOT
INTERNAL TEMP 22 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	32.2	3.2 uS
1,1-DCA	2	66.1	122.6 PPB
CIS-DCE	3	80.2	27.00 PPB
BENZENE	4	126.5	4.840 PPB
UNKNOWN	5	138.1	45.2 mVS
TCE	6	166.4	30.00 PPB
UNKNOWN	7	284.3	620.5 mVS
CHLOROBENZENE	8	410.4	164.8 PPB



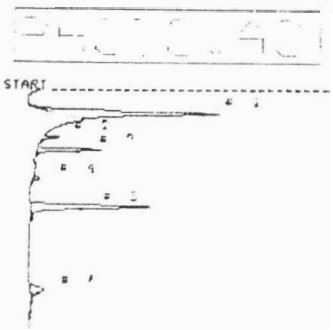
STOP @ 1002.0
SAMPLE LIBRARY 4 NOV 21 1996 11:0
ANALYSIS # 4 MARZA-NYSDOT
INTERNAL TEMP 22 S-6
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	32.2	344.1 mVS
UNKNOWN	2	326.3	38.2 mVS
UNKNOWN	3	649.2	353.6 mVS



STOP @ 1003.2
SAMPLE LIBRARY 4 NOV 21 1996 11:52
ANALYSIS # 5 MARZA-NYSDOT
INTERNAL TEMP 23 S-7
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	32.2	304.4 mVS
UNKNOWN	2	348.1	36.3 mVS
UNKNOWN	3	686.9	253.4 mVS



STOP @ 402.2
SAMPLE LIBRARY 4 NOV 21 1996 12:52
ANALYSIS # 6 MARZA-NYSDOT
INTERNAL TEMP 24 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	32.1	2.5 uS
UNKNOWN	2	75.5	145.2 mVS
UNKNOWN	3	95.5	284.3 mVS
UNKNOWN	4	141.2	32.6 mVS
UNKNOWN	5	185.1	2.6 uS
UNKNOWN	6	328.3	532.2 mVS

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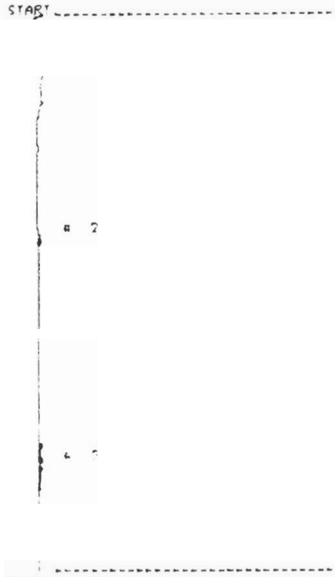
CALIBRATED PEAK 5, TCE

SAMPLE LIBRARY 4 NOV 21 1996 12:53
ANALYSIS # 6 HARZA-NYSDOT
INTERNAL TEMP 23 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	32.1	3.5 VS
1.1-DCA	2	75.5	126.6 PPB
CIS-DCE	3	95.5	27.56 PPB
BENZENE	4	142.2	[illegible] PPB
TCE	5	188.1	[illegible] PPB
UNKNOWN	6	328.3	532.7 mVS

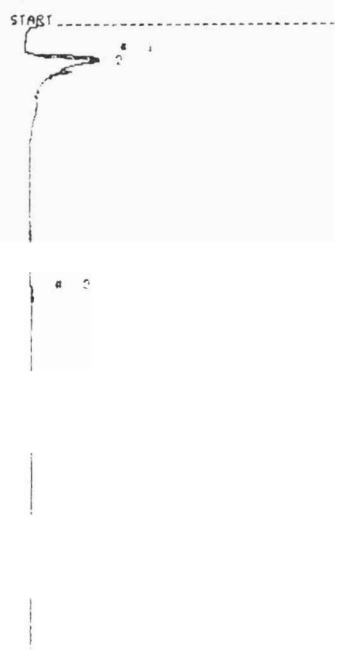
STOP 6 1000.2
SAMPLE LIBRARY 4 NOV 21 1996 13:12
ANALYSIS # 7 HARZA-NYSDOT
INTERNAL TEMP 23 S-8
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	41.1	264.8 mVS
UNKNOWN	2	366.3	22.6 mVS
UNKNOWN	3	776.3	197.7 mVS



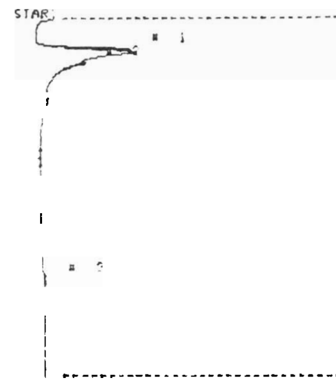
STOP 6 866.7
SAMPLE LIBRARY 4 NOV 21 1996 13:33
ANALYSIS # 8 HARZA-NYSDOT
INTERNAL TEMP 23 CUTTINGS
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	41.7	978.2 mVS
UNKNOWN	2	349.7	21.1 mVS
UNKNOWN	3	706.5	153.8 mVS



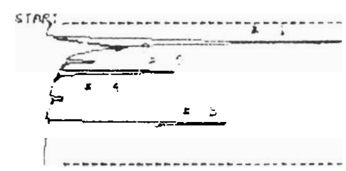
STOP 6 1000.0
SAMPLE LIBRARY 4 NOV 21 1996 15: 3
ANALYSIS # 9 HARZA-NYSDOT
INTERNAL TEMP 23 S-9
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPB
MTBE	1	52.7	75.76 PPB
1.1-DCA	2	74.3	171.9 PPB
CHLOROBENZENE	3	426.9	[illegible] PPB



STOP 6 561.1
SAMPLE LIBRARY 4 NOV 21 1996 15:55
ANALYSIS # 10 HARZA-NYSDOT
INTERNAL TEMP 23 S-10
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	[illegible]	[illegible]	[illegible] mVS
TRANS-DCE	2	[illegible]	[illegible] PPB
UNKNOWN	3	429.2	[illegible] mVS



STOP 6 218.6
SAMPLE LIBRARY 4 NOV 21 1996 16:16
ANALYSIS # 12 HARZA-NYSDOT
INTERNAL TEMP 25 TCE STANDARD
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	28.6	5.8 VS
MTBE	2	53.7	79.19 PPB
UNKNOWN	3	76.1	1.4 VS
UNKNOWN	4	117.1	233.1 mVS
BENZENE	5	152.7	198.6 PPB

CALIBRATED PEAK 5, TCE

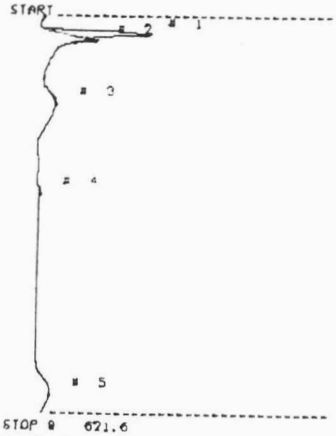
SAMPLE LIBRARY 4 NOV 21 1996 16:18
ANALYSIS # 12 HARZA-NYSDOT
INTERNAL TEMP 24 TCE STANDARD
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	28.6	5.0 VS
TRANS-DCE	2	[illegible]	[illegible] PPB
CIS-DCE	3	76.5	[illegible] PPB
BENZENE	4	[illegible]	[illegible] PPB
TCE	5	[illegible]	[illegible] PPB

RAW DATA

Project Harza DOT
Page # 8

PHOTOVAC

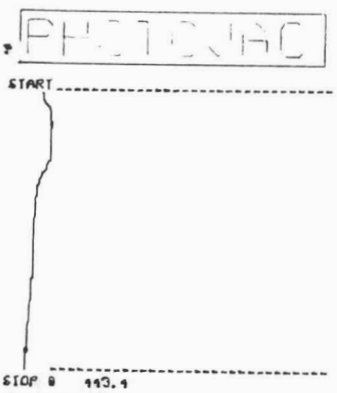


STOP @ 621.6
SAMPLE LIBRARY 4 NOV 21 1996 16:31
ANALYSIS # 13 HARZA-NYSDOT
INTERNAL TEMP 24 5-10
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM	
UNKNOWN	1	28.6	2.0	US
UNKNOWN	2	32.9	126.4	mUS
UNKNOWN	3	136.4	28.1	mUS
UNKNOWN	4	222.8	43.3	mUS

End of day
11-21-96

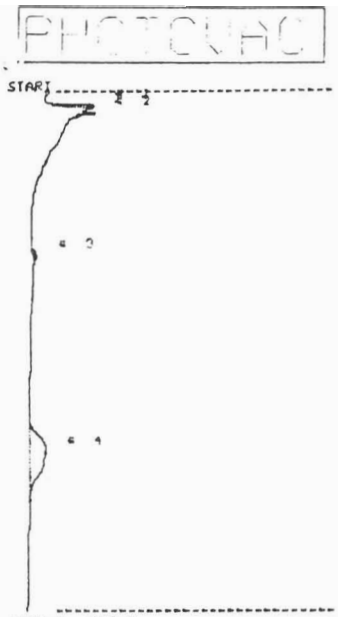
PHOTOVAC



STOP @ 443.4
SAMPLE LIBRARY 4 DEC 4 1996 14:54
ANALYSIS # 1 HARZA NE-NYSDOT
INTERNAL TEMP 22 DRY RUN
GAIN 20

COMPOUND NAME	PEAK	R.T.	AREA/PPM	

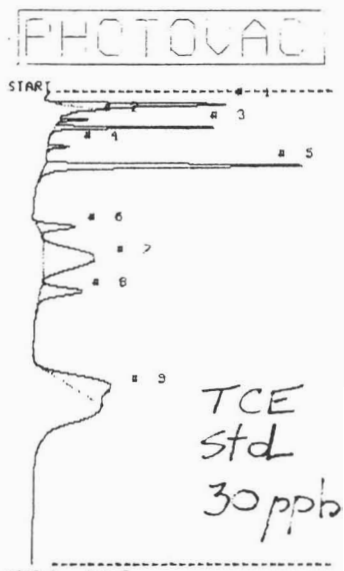
PHOTOVAC



STOP @ 813.0
SAMPLE LIBRARY 4 DEC 4 1996 15:0
ANALYSIS # 2 HARZA NE-NYSDOT
INTERNAL TEMP 23 SYRINGE-AIR BLK
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM	
UNKNOWN	1	23.3	156.2	mUS
UNKNOWN	2	33.2	183.6	mUS
UNKNOWN	3	258.3	58.2	mUS
ETHYLBENZENE	4	565.1	2.962	PPB

PHOTOVAC



TCE
std
30 ppb

STOP @ 744.3
SAMPLE LIBRARY 4 DEC 4 1996 15:27
ANALYSIS # 3 HARZA NE-NYSDOT
INTERNAL TEMP 24 ~~SYRINGE-AIR BLK~~
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM	
UNKNOWN	1	28.4	2.5	US
UNKNOWN	2	43.4	213.1	mUS
UNKNOWN	3	55.5	1.2	US
CIS-DCE	4	86.5	6.696	PPB
1,1,1-TCA	5	116.5	241.8	PPB
UNKNOWN	6	213.2	1.3	US
UNKNOWN	7	265.8	6.8	US
UNKNOWN	8	313.2	1.3	US
PERC	9	472.4	23.81	PPB

PHOTOVAC

CALIBRATED PEAK 5,TCE

SAMPLE LIBRARY 4 DEC 4 1996 15:31
ANALYSIS # 3 HARZA NE-NYSDOT
INTERNAL TEMP 23 SYRINGE-AIR BLK
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM	
UNKNOWN	1	28.4	2.5	US
TRANS-DCE	2	43.4	1.972	PPB
CIS-DCE	3	55.5	29.71	PPB
UNKNOWN	4	86.5	293.2	mUS
TCE	5	116.5	30.00	PPB
UNKNOWN	6	213.2	1.3	US
CHLOROBENZENE	7	265.8	450.8	PPB
UNKNOWN	8	313.2	1.3	US
O-XYLENE	9	472.4	27.20	PPB

PHOTOVAC

#	COMPOUND	ID #	R.T.	LIMIT
	O-XYLENE	1	494.5	0.000 PPB
	CHLOROBENZENE	2	235.1	0.000 PPB
	ETHYLBENZENE	3	224.0	0.000 PPB
	O-P XYLENE	4	439.6	0.000 PPB
	TOLUENE	5	168.8	0.000 PPB
	BENZENE	7	84.1	0.000 PPB
	TCE	9	116.5	0.000 PPB
	CIS-DCE	2	54.2	0.000 PPB
	PERC	10	283.2	0.000 PPB
	TRANS-DCE	11	44.4	0.000 PPB
	1,1,1-TCA	12	28.3	0.000 PPB
	1,2-DCA	13	42.1	0.000 PPB
	1,2-DCA	1	28.3	0.000 PPB

RAW DATA

Project Harza DOT
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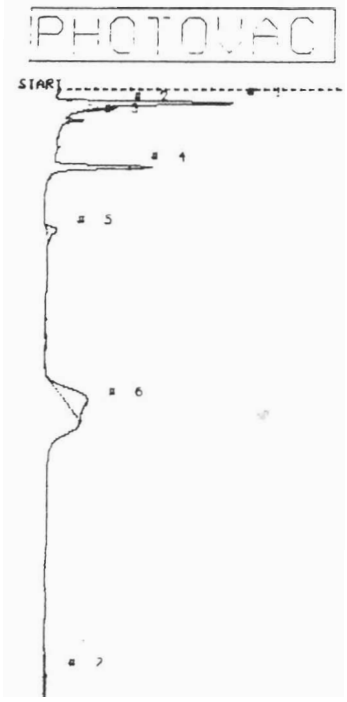
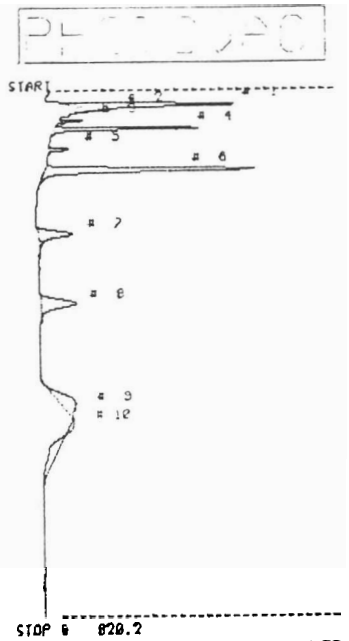


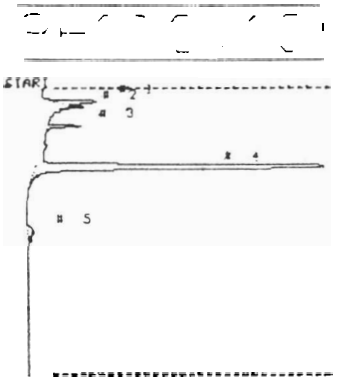
STOP @ 1100.0
SAMPLE LIBRARY 4 DEC 4 1996 15:55
ANALYSIS # 4 HARZA NE-NYSDOT
INTERNAL TEMP 24 MW-12 S-1
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	21.3	2.6 uS
UNKNOWN	2	28.5	62.3 mVS
1,1-DCA	3	42.5	54.21 PPB
TCE	4	120.2	11.83 PPB
UNKNOWN	5	218.9	432.8 mVS
O-XYLENE	6	485.1	19.11 PPB
UNKNOWN	7	511.3	85.0 mVS



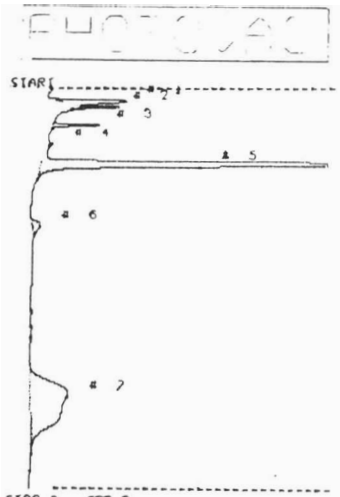
STOP @ 820.2
SAMPLE LIBRARY 4 DEC 4 1996 16:33
ANALYSIS # 6 HARZA NE-NYSDOT
INTERNAL TEMP 25 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	21.6	2.2 uS
UNKNOWN	2	29.0	33.5 mVS
TRANS-DCE	3	45.6	1.597 PPB
CIS-DCE	4	58.3	27.95 PPB
UNKNOWN	5	90.5	275.1 mVS
UNKNOWN	6	120.5	4.5 uS
UNKNOWN	7	223.7	1.2 uS
UNKNOWN	8	334.1	1.2 uS
O-XYLENE	9	494.1	11.14 PPB



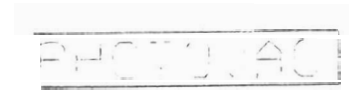
STOP @ 447.1
SAMPLE LIBRARY 4 DEC 4 1996 16:44
ANALYSIS # 2 HARZA NE-NYSDOT
INTERNAL TEMP 25 MW-12 S-2
GAIN 20 1-2 DILUTION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.4	425.3 mVS
UNKNOWN	2	29.3	113.4 mVS
CIS-DCE	3	58.5	6.444 PPB
TCE	4	120.0	66.83 PPB
UNKNOWN	5	224.3	153.2 mVS



STOP @ 633.2
SAMPLE LIBRARY 4 DEC 4 1996 16:12
ANALYSIS # 5 HARZA NE-NYSDOT
INTERNAL TEMP 24 MW-12 S-2
GAIN 20 250 MICROLITERS

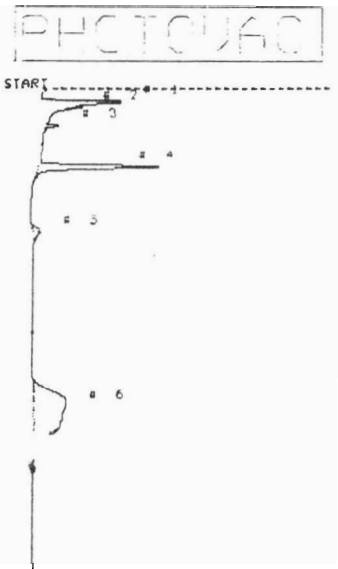
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.1	1.0 uS
UNKNOWN	2	29.1	328.1 mVS
CIS-DCE	3	57.8	8.369 PPB
UNKNOWN	4	89.9	45.8 mVS
TCE	5	121.5	29.99 PPB
UNKNOWN	6	220.5	310.9 mVS
O-XYLENE	7	498.5	20.13 PPB



CALIBRATED PEAK 6,TCE

SAMPLE LIBRARY 4 DEC 4 1996 16:35
ANALYSIS # 6 HARZA NE-NYSDOT
INTERNAL TEMP 24 TCE STANDARD
GAIN 20 30 PPB

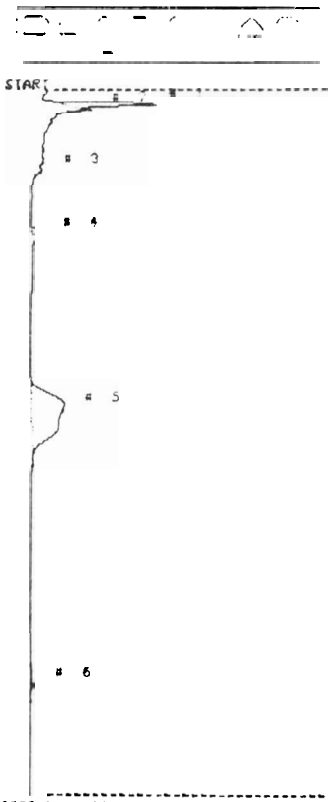
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	21.6	2.2 uS
UNKNOWN	2	29.0	33.5 mVS
TRANS-DCE	3	45.6	1.923 PPB
CIS-DCE	4	58.3	33.67 PPB
UNKNOWN	5	90.5	275.1 mVS
TCE	6	120.5	30.00 PPB
UNKNOWN	7	223.7	1.2 uS
PERC	8	334.1	11.45 PPB
UNKNOWN	9	494.1	1.2 uS



STOP @ 782.9
SAMPLE LIBRARY 4 DEC 4 1996 16:53
ANALYSIS # 8 HARZA NE-NYSDOT
INTERNAL TEMP 25 MW-12 S-3
GAIN 20 250 MICROLITERS

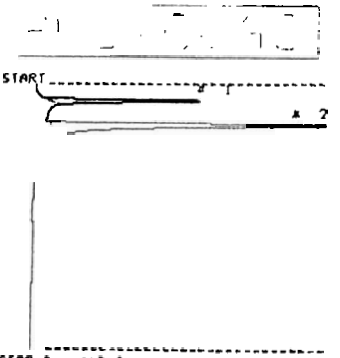
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	19.8	125.7 mVS
UNKNOWN	2	29.3	51.8 mVS
CIS-DCE	3	58.6	[illegible] PPB
TCE	4	124.1	16.81 PPB
UNKNOWN	5	223.7	242.2 mVS
UNKNOWN	6	496.8	2.2 uS

RAW DATA



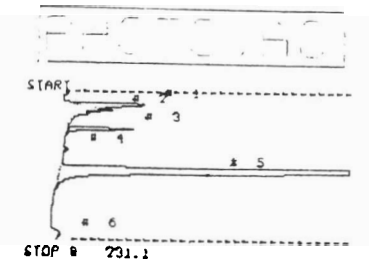
STOP @ 1100.0
SAMPLE LIBRARY 4 DEC 4 1996 17:24
ANALYSIS # 3 HARZA NE-NYSDOT
INTERNAL TEMP 25 DB-12 S-4
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	22.2	1.6 US
UNKNOWN	2	29.6	35.2 mVS
TCE	3	125.3	0.107 PPB
UNKNOWN	4	222.2	344.5 mVS
UNKNOWN	5	432.2	6.9 US
UNKNOWN	6	822.3	85.5 mVS



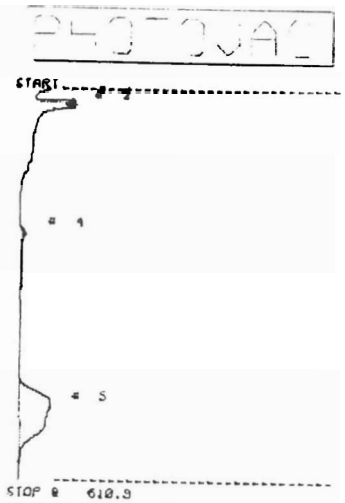
STOP @ 412.8
SAMPLE LIBRARY 4 DEC 4 1996 17:44
ANALYSIS # 10 HARZA NE-NYSDOT
INTERNAL TEMP 25 CHLOROFORM
GAIN 20

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	26.9	1.8 US
BENZENE	2	65.8	12: .8 PPB



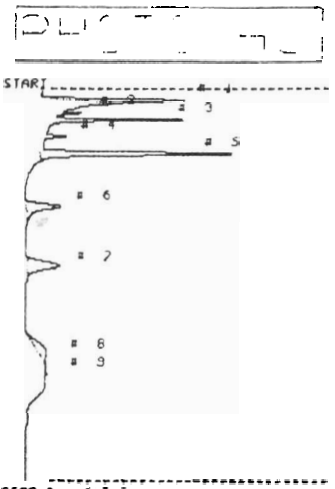
STOP @ 731.1
SAMPLE LIBRARY 4 DEC 4 1996 17:51
ANALYSIS # 11 HARZA NE-NYSDOT
INTERNAL TEMP 26 DB-12 S-2
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.8	1.1 US
UNKNOWN	2	29.2	115.6 mVS
CIS-DCE	3	59.0	14.50 PPB
UNKNOWN	4	91.2	45.4 mVS
TCE	5	124.8	121.2 PPB



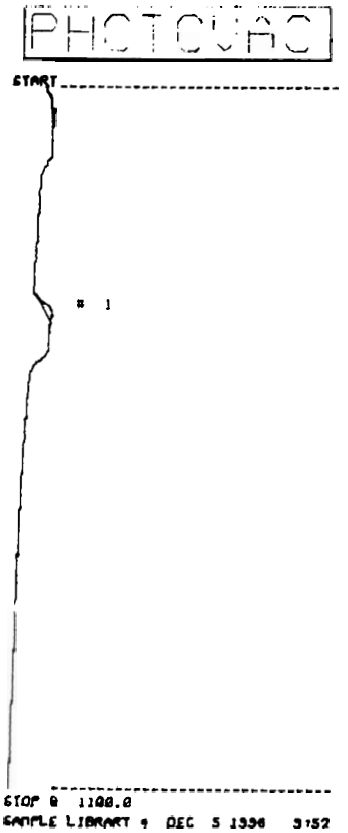
STOP @ 610.9
SAMPLE LIBRARY 4 DEC 4 1996 18: 2
ANALYSIS # 12 HARZA NE-NYSDOT
INTERNAL TEMP 25 ROOM AIR-SYRINGE
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.6	134.2 mVS
UNKNOWN	2	26.2	44.6 mVS
UNKNOWN	3	29.5	20.3 mVS
UNKNOWN	4	226.2	63.2 mVS
UNKNOWN	5	432.2	6.6 US



STOP @ 610.8
SAMPLE LIBRARY 4 DEC 5 1996 11: 0
ANALYSIS # 3 HARZA NE-NYSDOT
INTERNAL TEMP 22 TCE STANDARD
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.8	1.5 US
UNKNOWN	2	32.2	133.3 mVS
TRANS-DCE	3	48.4	14.34 PPB
1,2-DCA	4	75.3	12.93 PPM
UNKNOWN	5	101.2	3.5 US
UNKNOWN	6	186.5	1.1 US
CHLOROBENZENE	7	229.3	148.2 PPB
ETHYLBENZENE	8	414.6	318 PPB
M-P XYLENE	9	443.6	1.504 PPB



STOP @ 1100.0
SAMPLE LIBRARY 4 DEC 5 1996 9:52
ANALYSIS # 1 HARZA NE-NYSDOT
INTERNAL TEMP 20 DRY RUN
GAIN 20

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	357.5	619.2 mVS

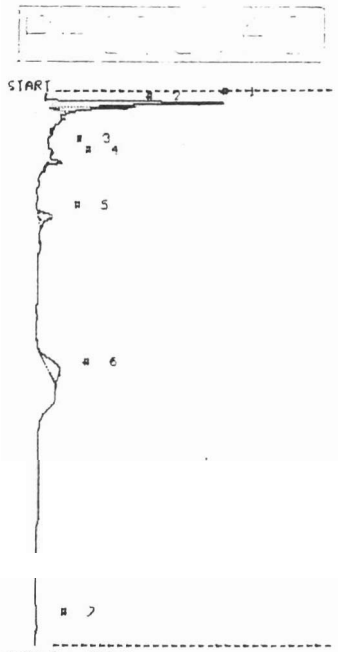
RAW DATA

Project Harza DOT
Page # 11

CALIBRATED PEAK 5,TCE

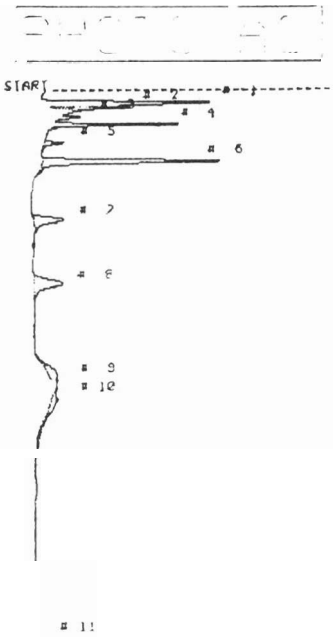
SAMPLE LIBRARY 4 DEC 5 1996 11: 2
ANALYSIS # 3 HARZA NE-NYSDOT
INTERNAL TEMP 22 TCE STANDARD
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM	
UNKNOWN	1	18.8	1.5	VS
TRANS-DCE	2	32.7	1.929	PPB
CIS-DCE	3	48.4	33.39	PPB
UNKNOWN	4	75.3	244.3	mVS
TCE	5	101.7	30.00	PPB
UNKNOWN	6	186.5	1.1	VS
UNKNOWN	7	229.3	1.5	VS
O-XYLENE	8	414.6	7.922	PPB
O-XYLENE	9	443.6	1.189	PPB



STOP @ 865.8
SAMPLE LIBRARY 4 DEC 5 1996 11:38
ANALYSIS # 4 HARZA NE-NYSDOT
INTERNAL TEMP 23 NW-12 6-5
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM	
UNKNOWN	1	19.4	3.8	VS
UNKNOWN	2	25.9	925.2	mVS
UNKNOWN	3	34.3	24.2	mVS
UNKNOWN	4	110.9	258.8	mVS
UNKNOWN	5	198.5	553.2	mVS
O-XYLENE	6	441.2	14.44	PPB



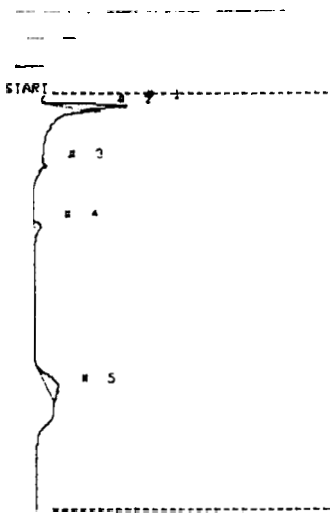
STOP @ 1016.9
SAMPLE LIBRARY 4 DEC 5 1996 11:52
ANALYSIS # 5 HARZA NE-NYSDOT
INTERNAL TEMP 24 STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM	
UNKNOWN	1	19.5	2.9	VS
UNKNOWN	2	26.4	731.8	mVS
1,1-DCA	3	41.3	30.07	PPB
UNKNOWN	4	52.8	1.2	VS
UNKNOWN	5	82.3	240.4	mVS
UNKNOWN	6	111.1	3.4	VS
UNKNOWN	7	203.7	1.8	VS
UNKNOWN	8	304.7	1.4	VS
O-XYLENE	9	450.8	9.316	PPB
UNKNOWN	10	480.6	134.4	mVS
UNKNOWN	11	855.0	163.6	mVS

CALIBRATED PEAK 6,TCE

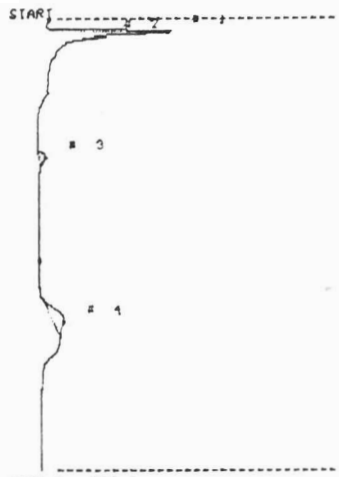
SAMPLE LIBRARY 4 DEC 5 1996 11:50
ANALYSIS # 5 HARZA NE-NYSDOT
INTERNAL TEMP 23 STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM	
UNKNOWN	1	19.5	2.9	VS
UNKNOWN	2	26.4	731.8	mVS
TRANS-DCE	3	41.3	1.630	PPB
CIS-DCE	4	52.8	34.17	PPB
UNKNOWN	5	82.3	240.4	mVS
TCE	6	111.1	30.00	PPB
UNKNOWN	7	203.7	1.8	VS
UNKNOWN	8	304.7	1.4	VS
O-XYLENE	9	450.8	9.660	PPB
O-XYLENE	10	480.6	2.245	PPB
UNKNOWN	11	855.0	163.6	mVS



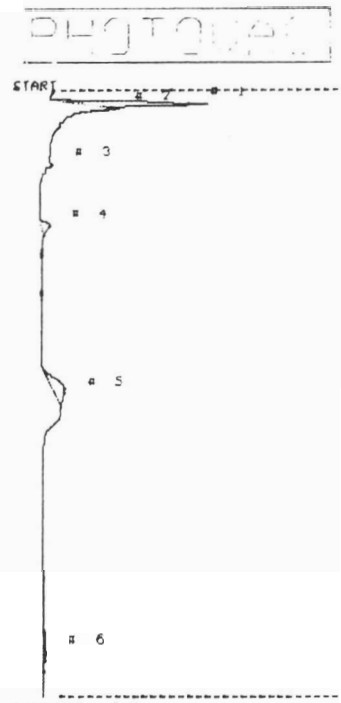
STOP @ 646.5
SAMPLE LIBRARY 4 DEC 5 1996 12:14
ANALYSIS # 6 HARSA NE-NYSDOT
INTERNAL TEMP 24 CW-12 5-6
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.9	1.0 US
UNKNOWN	2	27.0	121.6 mVS
TCE	3	113.1	0.224 PPB
UNKNOWN	4	208.1	223.3 mVS
O-XYLENE	5	460.4	15.13 PPB



STOP @ 700.1
SAMPLE LIBRARY 4 DEC 5 1996 12:32
ANALYSIS # 7 HARSA NE-NYSDOT
INTERNAL TEMP 25 CW-12 5-7
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.6	209.6 mVS
UNKNOWN	2	27.7	96.5 mVS
UNKNOWN	3	211.7	224.6 mVS
O-XYLENE	4	466.8	16.98 PPB

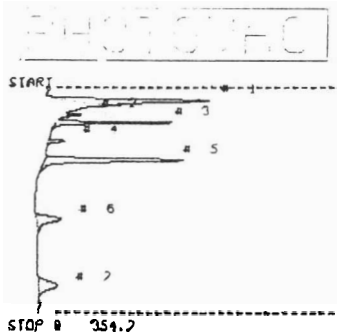


STOP @ 852.0
SAMPLE LIBRARY 4 DEC 5 1996 12:55
ANALYSIS # 8 HARSA NE-NYSDOT
INTERNAL TEMP 25 CW-12 5-8
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.3	2.2 US
UNKNOWN	2	27.6	108.3 mVS
TCE	3	113.9	0.272 PPB
UNKNOWN	4	210.5	352.4 mVS
O-XYLENE	5	470.0	15.38 PPB
UNKNOWN	6	880.5	113.0 mVS

STOP @ 1100.0
SAMPLE LIBRARY 4 DEC 5 1996 13:17
ANALYSIS # 9 HARSA NE-NYSDOT
INTERNAL TEMP 24 CUTTINGS
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.0	1.0 US
UNKNOWN	2	20.8	3.5 US
UNKNOWN	3	101.5	18.5 mVS
UNKNOWN	4	112.3	1.7 US
TOLUENE	5	152.1	0.408 PPB
UNKNOWN	6	214.1	484.2 mVS
O-XYLENE	7	473.2	15.12 PPB
UNKNOWN	8	891.0	46.0 mVS
UNKNOWN	9	1054.8	131.2 mVS



STOP @ 354.2
SAMPLE LIBRARY 4 DEC 5 1996 13:26
ANALYSIS # 10 HARSA NE-NYSDOT
INTERNAL TEMP 25 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.6	2.0 US
TRANS-DCE	2	43.2	1.333 PPB
CIS-DCE	3	55.1	22.04 PPB
UNKNOWN	4	85.7	215.4 mVS
TCE	5	115.3	24.86 PPB
UNKNOWN	6	211.7	868.7 mVS
UNKNOWN	7	316.7	981.5 mVS

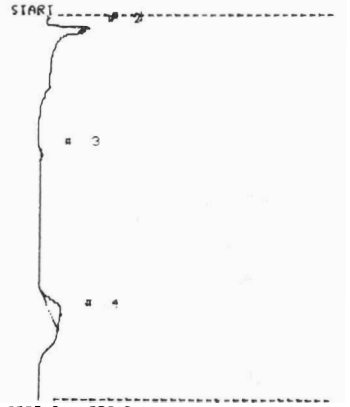
RAW DATA

Project _____
Page # 13

CALIBRATED PEAK 5,TCE

SAMPLE LIBRARY 4 DEC 5 1996 15:28
ANALYSIS # 10 MARZA NE-NYSDOT
INTERNAL TEMP 25 TCE STANDARD
GAIN 20 30 PPB

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	28.6	2.0 US
TRANS-DCE	2	43.2	1.616 PPB
CIS-DCE	3	55.1	39.82 PPB
UNKNOWN	4	85.2	215.4 mVS
TCE	5	115.3	30.83 PPB
UNKNOWN	6	211.2	868.2 mVS
UNKNOWN	7	316.2	981.5 mVS



STOP @ 608.2
SAMPLE LIBRARY 4 DEC 5 1996 17:43
ANALYSIS # 11 MARZA NE-NYSDOT
INTERNAL TEMP 25 SYRINGE-AIR
GAIN 20 250 MICROLITERS

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	28.1	142.4 mVS
UNKNOWN	2	24.8	15.5 mVS
UNKNOWN	3	219.2	22.3 mVS
O-XYLENE	4	425.6	18.79 PPB

SOIL SAMPLE ANALYTICAL REPORT
CTM ANALYTICAL LABORATORIES, LTD.

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

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Laboratory Analysis Report
Prepared for: NYS DOT CONSULTANT MGMT.BUREAU
CTM Project Number: 9913030
CTM Task Number: 961125D
18 DEC 1996

IMPORTANT - PLEASE NOTE

1. All results are calculated on a dry weight basis unless otherwise specified.
2. PQL = Practical Quantitation Limit.
3. A result with a "D" means that the result was "Detected" below the Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
4. ND = Not Detected at or above the PQL.
5. NTP = Non-target peaks (1-5 peaks).
   MNTP = Many non-target peaks (5+ peaks).
6. pH results not performed in the field should be considered estimated since the holding time is 15 minutes from the sampling time.
7. If the samples are collected independently of our laboratory, CTM is not responsible for the possible contamination during the sampling procedure.
8. Methylene chloride and acetone are common laboratory artifacts for volatile organic analysis. Bis-(2-ethyl-hexyl) phthalate and di-n-butylphthalate are common laboratory artifacts for GC/MS semivolatile analysis. Other compounds may also appear as laboratory artifacts for the organic analyses. The above compounds will be flagged as suspected laboratory artifacts if the detected value is less than five (5) times of the PQL in the sample. Acetone will be flagged as a suspected laboratory artifact only up to two and a half (2.5) times of the PQL.
9. If air samples are collected independently of our laboratory, CTM is not responsible for inadequate sample volume for air analysis.

AUTHORIZED FOR RELEASE:

DATE: 12/18/96

CERTIFICATIONS:

NYS E.L.A.P. ID NO: 10358 MA: NY052 CT: PH-0551 NJ: 73581

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

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NYS DOT CONSULTANT MGMT.BUREAU
1220 WASHINGTON AVE.BLDG.4 G-1
ALBANY NY 12232

CTM PROJECT #: 9913030

CTM Task #: 961125D

Attention: MR. GREG MENARD

Purchase Order Number:
Date Sampled: 11/20/96 Time: 14:35
Sampled By : KOSLOSKY
Sample Id: MW-11/30-32
Location : 8112

CTM Sample No: 961125D 01
Date Received: 11/25/96
Collection Method: GRAB
Matrix: SOIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
% SOLIDS	CLP SOW 4/89	88.7		%	ACM 11/27/96
DICHLORODIFLUOROMETHANE	EPA 8010	ND	6	MCG/KG	GC1F:34 12/4/96
CHLOROMETHANE	EPA 8010	ND	6	MCG/KG	GC1F:34 12/4/96
VINYL CHLORIDE	EPA 8010	ND	6	MCG/KG	GC1F:34 12/4/96
BROMOMETHANE	EPA 8010	ND	6	MCG/KG	GC1F:34 12/4/96
CHLOROETHANE	EPA 8010	ND	6	MCG/KG	GC1F:34 12/4/96
TRICHLOROFLUOROMETHANE	EPA 8010	ND	6	MCG/KG	GC1F:34 12/4/96
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
CHLOROFORM	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	6	MCG/KG	GC1F:34 12/4/96
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
CHLOROBENZENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
BROMOFORM	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/KG	GC1F:34 12/4/96
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:34 12/4/96
BENZENE	EPA 8020	ND	0.6	MCG/KG	GC2D:117 12/4/96

(CONTINUES ON NEXT PAGE)

REMARKS:

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Latham, NY 12110
518-786-7100
FAX 518-786-7139

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NYS DOT CONSULTANT MGMT.BUREAU
1220 WASHINGTON AVE.BLDG.4 G-1
ALBANY NY 12232

CTM PROJECT #: 9913030

CTM Task #: 961125D

Attention: MR. GREG MENARD

Purchase Order Number:
Date Sampled: 11/20/96 Time: 14:35
Sampled By : KOSLOSKY
Sample Id: MW-11/30-32
Location : 8112

CTM Sample No: 961125D 01
Date Received: 11/25/96
Collection Method: GRAB
Matrix: SOIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
TOLUENE	EPA 8020	ND	1	MCG/KG	GC2D:117 12/4/96
ETHYLBENZENE	EPA 8020	ND	1	MCG/KG	GC2D:117 12/4/96
TOTAL XYLENES	EPA 8020	ND	1	MCG/KG	GC2D:117 12/4/96

REMARKS:

END OF REPORT

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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5 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

CHAIN OF CUSTODY RECORD
LABORATORY SERVICES

CTM TASK # 961125D

Client ~~HARZA~~ NORTHEAST * NYS DOT *
Client Contact PAUL ROMANO
Project Location 81/2
Purchase Order ~~HARZA~~ DOT PIN #9203.62.1691

Sampler's Name ROBERT KOSLOSKY (please print)
CTM Contact
Turnaround Time Requested NORMAL

CTM LAB ID	Sample ID/Description	Date Sampled	Time A = a.m. P = p.m.	Sample Type: Matrix	COMP	GRAB	# of Containers	Preservative (list by # from list below)	Analysis Required
01	MW-11/30-32	11-20-96	1435	Soil		X	2	N	8010 + BTEX (EPA)

Sampled by: (signature)	Date/Time	Received by: (signature)	Date/Time
Robert Kosloshy	11-22-96/1700	UPS	
Relinquished by: (signature)		Received by: (signature)	
Relinquished by: (signature)		Received by: (signature)	
Dispatched by: (signature)		Received for Laboratory by:	11/ /96 AM

NOTES/COMMENTS:

Preservatives
1. HCl 6. Ascorbic
2. HNO_3 7. H_2SO_4
3. NaOH 8. F (Filtered)
4. NaS_2O_3 9. N (not preserved)
5. Zn Acet 10. Other

Sample Condition
1. Samples intact? Y N
2. Custody seals intact? Y N
3. Preserved properly? Y N
4. Ambient or chilled?
5. C.O.C. received with samples? Y N

Method of Shipment:

Date: 11/21/96

PLEASE SEE REVERSE SIDE FOR TERMS AND CONDITIONS

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Laboratory Analysis Report
Prepared for: NYS DOT CONSULTANT MGMT.BUREAU
CTM Project Number: 9913030
CTM Task Number: 9612090
27 DEC 1996

IMPORTANT - PLEASE NOTE

1. All results are calculated on a dry weight basis unless otherwise specified.
2. PQL = Practical Quantitation Limit.
3. A result with a "D" means that the result was "Detected" below the Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
4. ND = Not Detected at or above the PQL.
5. NTP = Non-target peaks (1-5 peaks).
   MNTP = Many non-target peaks (5+ peaks).
6. pH results not performed in the field should be considered estimated since the holding time is 15 minutes from the sampling time.
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9. If air samples are collected independently of our laboratory, CTM is not responsible for inadequate sample volume for air analysis.

AUTHORIZED FOR RELEASE: [signature]

DATE: 1/2/97

CERTIFICATIONS:
NYS E.L.A.P. ID NO: 10358 MA: NY052 CT: PH-0551 NJ: 73581

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
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FAX 518-786-7139

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NYS DOT CONSULTANT MGMT.BUREAU
1220 WASHINGTON AVE.BLDG.4 G-1
ALBANY NY 12232

CTM PROJECT #: 9913030

CTM Task #: 9612090

Attention: MR. GREG MENARD

Purchase Order Number: 8112
Date Sampled: 12/04/96 Time: 14:20
Sampled By : RAK/RWM
Sample Id: MW-12/20-22
Location : 8112

CTM Sample No: 9612090 01
Date Received: 12/09/96
Collection Method: GRAB
Matrix: SOIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
% SOLIDS	CLP SOW 4/89	76.9		%	ACM 12/10/96
DICHLORODIFLUOROMETHANE	EPA 8021	ND	6	MCG/KG	C1F:39 12/17/96
CHLOROMETHANE	EPA 8021	ND	6	MCG/KG	C1F:39 12/17/96
VINYL CHLORIDE	EPA 8021	ND	6	MCG/KG	C1F:39 12/17/96
BROMOMETHANE	EPA 8021	ND	6	MCG/KG	C1F:39 12/17/96
CHLOROETHANE	EPA 8021	ND	6	MCG/KG	C1F:39 12/17/96
TRICHLOROFLUOROMETHANE	EPA 8021	ND	6	MCG/KG	C1F:39 12/17/96
1,1-DICHLOROETHENE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
METHYLENE CHLORIDE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
trans-1,2-DICHLOROETHENE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
1,1-DICHLORETHANE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
2,2-DICHLOROPROPANE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
cis -1,2-DICHLOROETHENE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
CHLOROFORM	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
BROMOCHLOROMETHANE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
1,1,1-TRICHLOROETHANE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
1,1-DICHLOROPROPENE	EPA 8021	ND	1	MCG/KG	C1F:39 12/17/96
CARBON TETRACHLORIDE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DICHLOROETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
TRICHLOROETHENE	EPA 8021	14	1	MCG/KG	GC1F:39 12/17/96
1,2-DICHLOROPROPANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
DIBROMOMETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
BROMODICHLOROMETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
CIS-1,3-DICHLOROPROPENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
TRANS-1,3-DICHLOROPROPENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1,2-,TRICHLORETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,3-DICHLOROPROPANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
TETRACHLOROETHENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
DIBROMOCHLOROMETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DIBROMOETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
CHLOROBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1,1,2-TETRACHLOROETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96

(CONTINUES ON NEXT PAGE)

REMARKS:

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FAX 518-786-7139

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NYS DOT CONSULTANT MGMT.BUREAU
1220 WASHINGTON AVE.BLDG.4 G-1
ALBANY NY 12232

CTM PROJECT #: 9913030

CTM Task #: 9612090

Attention: MR. GREG MENARD

Purchase Order Number: 8112
Date Sampled: 12/04/96 Time: 14:20
Sampled By : RAK/RWM
Sample Id: MW-12/20-22
Location : 8112

CTM Sample No: 9612090 01
Date Received: 12/09/96
Collection Method: GRAB
Matrix: SOIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
BROMOFORM	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1,2,2-TETRACHLOROETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2,3-TRICHLOROPROPANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
BROMOBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
2-CHLOROTOLUENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
4-CHLOROTOLUENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,3-DICHLOROBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,4-DICHLOROBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DICHLOROBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DIBROMO-3-CHLOROPROPANE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
1,2,4-TRICHLOROBENZENE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
HEXACHLOROBUTADIENE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
1,2,3-TRICHLOROBENZENE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
BENZENE	EPA 8021	ND	0.6	MCG/KG	GC2F:9 12/18/966
TOLUENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/966
ETHYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/966
P - XYLENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/966
m-XYLENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
o-XYLENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
STYRENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
ISOPROPYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
N-PROPYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
1,3,5-TRIMETHYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
tert-BUTYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
1,2,4-TRIMETHYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
sec-BUTYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
p-ISOPROPYLTOLUENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
n-BUTYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
NAPTHALENE	EPA 8021	ND	6	MCG/KG	GC2F:9 12/18/96
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:9 12/18/96

(CONTINUES ON NEXT PAGE)

REMARKS:

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P.O. Box 727
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FAX 518-786-7139

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1220 WASHINGTON AVE.BLDG.4 G-1
ALBANY NY 12232

Attention: MR. GREG MENARD

CTM PROJECT #: 9913030

CTM Task #: 9612090

Purchase Order Number: 8112
Date Sampled: 12/04/96 Time: 14:20
Sampled By : RAK/RWM
Sample Id: MW-12/20-22
Location : 8112

CTM Sample No: 9612090 01
Date Received: 12/09/96
Collection Method: GRAB
Matrix: SOIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ACENAPHTHENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
ANTHRACENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
BENZO(A) ANTHRACENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
BENZO(A) PYRENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
BENZO(B) FLUORANTHENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
BENZO(K) FLUORANTHENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
CHRYSENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
DIBENZO-(A,H)-ANTHRACENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
FLUORANTHENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
FLUORENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
INDENO -(1,2,3)-(C,D)-PYRENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
NAPHTHALENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
PHENANTHRENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
PYRENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
BENZO-(G,H,I)-PERLYENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	210	MCG/KG	GCMSB:62 12/12/96
B/N EXTRACTION	SW-846 METHOD 3500A	COMPLETED			MC 12/11/96

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

CTM Analytical Laboratories, Ltd.

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NYS DOT CONSULTANT MGMT.BUREAU
1220 WASHINGTON AVE.BLDG.4 G-1
ALBANY NY 12232

CTM PROJECT #: 9913030

CTM Task #: 9612090

Attention: MR. GREG MENARD

Purchase Order Number: 8112
Date Sampled: 12/05/96 Time: 09:40
Sampled By : RAK/RWM
Sample Id: MW-12/50-52
Location : 8112

CTM Sample No: 9612090 02
Date Received: 12/09/96
Collection Method: GRAB
Matrix: SOIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
% SOLIDS	CLP SOW 4/89	89.5		%	ACM 12/10/96
DICHLORODIFLUOROMETHANE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
CHLOROMETHANE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
VINYL CHLORIDE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
BROMOMETHANE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
CHLOROETHANE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
TRICHLOROFLUOROMETHANE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
1,1-DICHLOROETHENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
METHYLENE CHLORIDE	EPA 8021	(4) 1	1	MCG/KG	GC1F:39 12/17/96
trans-1,2-DICHLOROETHENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1-DICHLORETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
2,2-DICHLOROPROPANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
cis -1,2-DICHLOROETHENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
CHLOROFORM	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
BROMOCHLOROMETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1,1-TRICHLOROETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1-DICHLOROPROPENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
CARBON TETRACHLORIDE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DICHLOROETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
TRICHLOROETHENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DICHLOROPROPANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
DIBROMOMETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
BROMODICHLOROMETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
CIS-1,3-DICHLOROPROPENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
TRANS-1,3-DICHLOROPROPENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1,2-,TRICHLORETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,3-DICHLOROPROPANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
TETRACHLOROETHENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
DIBROMOCHLOROMETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DIBROMOETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
CHLOROBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1,1,2-TETRACHLOROETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96

(CONTINUES ON NEXT PAGE)

REMARKS: (4) Suspected laboratory artifact.

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1220 WASHINGTON AVE.BLDG.4 G-1
ALBANY NY 12232

CTM PROJECT #: 9913030

CTM Task #: 9612090

Attention: MR. GREG MENARD

Purchase Order Number: 8112
Date Sampled: 12/05/96 Time: 09:40
Sampled By : RAK/RWM
Sample Id: MW-12/50-52
Location : 8112

CTM Sample No: 9612090 02
Date Received: 12/09/96
Collection Method: GRAB
Matrix: SOIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
BROMOFORM	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,1,2,2-TETRACHLOROETHANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2,3-TRICHLOROPROPANE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
BROMOBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
2-CHLOROTOLUENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
4-CHLOROTOLUENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,3-DICHLOROBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,4-DICHLOROBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DICHLOROBENZENE	EPA 8021	ND	1	MCG/KG	GC1F:39 12/17/96
1,2-DIBROMO-3-CHLOROPROPANE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
1,2,4-TRICHLOROBENZENE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
HEXACHLOROBUTADIENE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
1,2,3-TRICHLOROBENZENE	EPA 8021	ND	6	MCG/KG	GC1F:39 12/17/96
BENZENE	EPA 8021	ND	0.6	MCG/KG	GC2F:9 12/18/96
TOLUENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
ETHYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
P - XYLENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
m-XYLENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
o-XYLENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
STYRENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
ISOPROPYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
N-PROPYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
1,3,5-TRIMETHYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
tert-BUTYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
1,2,4-TRIMETHYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
sec-BUTYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
p-ISOPROPYLTOLUENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
n-BUTYLBENZENE	EPA 8021	ND	1	MCG/KG	GC2F:9 12/18/96
NAPTHALENE	EPA 8021	ND	6	MCG/KG	GC2F:9 12/18/96
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:9 12/18/96

(CONTINUES ON NEXT PAGE)

REMARKS:

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1220 WASHINGTON AVE.BLDG.4 G-1
ALBANY NY 12232

CTM PROJECT #: 9913030

CTM Task #: 9612090

Attention: MR. GREG MENARD

Purchase Order Number: 8112
Date Sampled: 12/05/96 Time: 09:40
Sampled By : RAK/RWM
Sample Id: MW-12/50-52
Location : 8112

CTM Sample No: 9612090 02
Date Received: 12/09/96
Collection Method: GRAB
Matrix: SOIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
	(CONTINUED FROM PREVIOUS PAGE)				
ACENAPHTHENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
ANTHRACENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
BENZO(A) ANTHRACENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
BENZO(A) PYRENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
BENZO(B) FLUORANTHENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
BENZO(K) FLUORANTHENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
CHRYSENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
DIBENZO-(A,H)-ANTHRACENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
FLUORANTHENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
FLUORENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
INDENO -(1,2,3)-(C,D)-PYRENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
NAPHTHALENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
PHENANTHRENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
PYRENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
BENZO-(G,H,I)-PERLYENE	SW-846 METHOD 8270 BASE/NEUTRALS	ND	180	MCG/KG	GCMSB:62 12/12/96
B/N EXTRACTION	SW-846 METHOD 3500A	COMPLETED			MC 12/11/96

REMARKS:

END OF REPORT

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

9612040;

9913707
LABORATORY LOG NO.

HARZA NORTHEAST

CHAIN OF CUSTODY RECORD

CLIENT: HARZA #8112
ADDRESS: 181 GENESEE St.
UTICA, NY 13501
PHONE NO.: (315) 797-5800
REPORT TO ATTN: PAUL ROMANO

NORMAL QA/QC: ✓
PREMIUM QA/QC:
NORMAL TURNAROUND:
EXPEDITE AT PREMIUM:
CLIENT AUTHORIZ. SIGN.: Robert Kosloskey

PROJECT NAME: 8112
PO NO.: 8112
SAMPLED BY: RAK/RWM

ANALYSIS REQUESTED

DATE	TIME	LOCATION	8021 FULL LIST	8270 STARS LIST	MATRIX (AIR, SOLID, WATER)	GRAB OR COMPOSITE	NUMBER OF CONTAINERS	VOLUME OF CONTAINERS	PRESERVATIVE USED
01 12-4-96	1420	MW-12/20-22			Soil	G	2	250ml	NONE
02 12-5-96	0940	MW-12/50-52							

DATE	TIME	RELINQUISHED BY	ACCEPTED BY	ADDITIONAL COMMENTS
12-6-96	1500	1 Robert Kosloskey	1 UPS	Full Analyte List for 8021.
12696	1150	2	2	NYSDEC STARS LIST for 8270.
		3	3	NYSPOT PIN# 9803.62.101

APPENDIX 3

GROUNDWATER SAMPLE ANALYTICAL REPORT
CTM ANALYTICAL LABORATORIES, INC.

RECEIVED 1-17-97

CTM Analytical Laboratories, Ltd.

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Laboratory Analysis Report
Prepared for: HARZA NORTHEAST
CTM Project Number: 9913707
CTM Task Number: 961230Q
15 JAN 1997

IMPORTANT - PLEASE NOTE

1. All results are calculated on a dry weight basis unless otherwise specified.
2. PQL = Practical Quantitation Limit.
3. A result with a "D" means that the result was "Detected" below the Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
4. ND = Not Detected at or above the PQL.
5. NTP = Non-target peaks (1-5 peaks).
   MNTP = Many non-target peaks (5+ peaks).
6. pH results not performed in the field should be considered estimated since the holding time is 15 minutes from the sampling time.
7. If the samples are collected independently of our laboratory, CTM is not responsible for the possible contamination during the sampling procedure.
8. Methylene chloride and acetone are common laboratory artifacts for volatile organic analysis. Bis-(2-ethyl-hexyl) phthalate and di-n-butylphthalate are common laboratory artifacts for GC/MS semivolatile analysis. Other compounds may also appear as laboratory artifacts for the organic analyses. The above compounds will be flagged as suspected laboratory artifacts if the detected value is less than five (5) times of the PQL in the sample. Acetone will be flagged as a suspected laboratory artifact only up to two and a half (2.5) times of the PQL.
9. If air samples are collected independently of our laboratory, CTM is not responsible for inadequate sample volume for air analysis.

AUTHORIZED FOR RELEASE: [signature]

DATE: 1/15/97

CERTIFICATIONS:
NYS E.L.A.P. ID NO: 10358 MA: NY052 CT: PH-0551 NJ: 73581

CTM Analytical Laboratories, Ltd.

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P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
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Sampling Services

HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/26/96 Time: 13:45
Sampled By : RAK/RWM
Sample Id: MW-1
Location : BARLOW ROAD

CTM Sample No: 961230Q 01
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:18 1/8/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:18 1/8/97

(CONTINUES ON NEXT PAGE)

REMARKS:

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Sampling Services

HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 13:45
Sampled By : RAK/RWM
Sample Id: MW-1
Location : BARLOW ROAD

CTM PROJECT #: 9913707

CTM Task #: 961230Q

CTM Sample No: 961230Q 01
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:18 1/8/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:18 1/8/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:18 1/8/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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P.O. Box 727
Latham, NY 12110
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FAX 518-786-7139

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 14:00
Sampled By : RAK/RWM
Sample Id: MW-2
Location : BARLOW ROAD

CTM Sample No: 961230Q 02
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:18 1/8/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:18 1/8/97

(CONTINUES ON NEXT PAGE)

REMARKS:

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Sampling Services

HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 14:00
Sampled By : RAK/RWM
Sample Id: MW-2
Location : BARLOW ROAD

CTM Sample No: 961230Q 02
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:18 1/8/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:18 1/8/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:18 1/8/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 12:00
Sampled By : RAK/RWM
Sample Id: MW-3
Location : BARLOW ROAD

CTM Sample No: 961230Q 03
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:18 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:18 1/9/97

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REMARKS:

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Sampling Services

HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 12:00
Sampled By : RAK/RWM
Sample Id: MW-3
Location : BARLOW ROAD

CTM Sample No: 961230Q 03
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:18 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:18 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:18 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 12:30
Sampled By : RAK/RWM
Sample Id: MW-4
Location : BARLOW ROAD

CTM Sample No: 961230Q 04
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

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REMARKS:

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Sampling Services

HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/27/96 Time: 12:30
Sampled By : RAK/RWM
Sample Id: MW-4
Location : BARLOW ROAD

CTM Sample No: 961230Q 04
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 10:20
Sampled By : RAK/RWM
Sample Id: MW-5
Location : BARLOW ROAD

CTM Sample No: 961230Q 05
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

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REMARKS:

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/27/96 Time: 10:20
Sampled By : RAK/RWM
Sample Id: MW-5
Location : BARLOW ROAD

CTM Sample No: 961230Q 05
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 10:40
Sampled By : RAK/RWM
Sample Id: MW-6
Location : BARLOW ROAD

CTM Sample No: 961230Q 06
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	(4) 1	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

(CONTINUES ON NEXT PAGE)

REMARKS: (4) Suspected laboratory artifact.

CTM Analytical Laboratories, Ltd.

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 9612300

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 10:40
Sampled By : RAK/RWM
Sample Id: MW-6
Location : BARLOW ROAD

CTM Sample No: 9612300 06
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/26/96 Time: 16:45
Sampled By : RAK/RWM
Sample Id: MW-8
Location : BARLOW ROAD .

CTM Sample No: 961230Q 07
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

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REMARKS:

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/26/96 Time: 16:45
Sampled By : RAK/RWM
Sample Id: MW-8
Location : BARLOW ROAD

CTM Sample No: 961230Q 07
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 16:15
Sampled By : RAK/RWM
Sample Id: MW-9
Location : BARLOW ROAD

CTM Sample No: 961230Q 08
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	1	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	10	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	2	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	46	10	MCG/L	GC1F:43 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	2	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	0.9	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	280	100	MCG/L	GC2F:19 1/10/97

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REMARKS:

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 16:15
Sampled By : RAK/RWM
Sample Id: MW-9
Location : BARLOW ROAD

CTM Sample No: 961230Q 08
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	1,100	100	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	6,200	100	MCG/L	GC2F:19 1/10/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/10/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 16:30
Sampled By : RAK/RWM
Sample Id: MW-11S
Location : BARLOW ROAD

CTM Sample No: 961230Q 09
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:43 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/26/96 Time: 16:30
Sampled By : RAK/RWM
Sample Id: MW-11S
Location : BARLOW ROAD

CTM Sample No: 961230Q 09
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	3	1	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 13:15
Sampled By : RAK/RWM
Sample Id: MW-11D
Location : BARLOW ROAD

CTM Sample No: 961230Q 10
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRICHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:43 1/10/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/27/96 Time: 13:15
Sampled By : RAK/RWM
Sample Id: MW-11D
Location : BARLOW ROAD

CTM Sample No: 961230Q 10
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 08:30
Sampled By : RAK/RWM
Sample Id: FHX-12
Location : BARLOW ROAD

CTM Sample No: 961230Q 11
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,1-TRICHLOROETHANE	EPA 8010	1	1	MCG/L	GC1F:43 1/10/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRICHLOROETHYLENE	EPA 8010	570	50	MCG/L	GC1F:44 1/10/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:43 1/10/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97

(CONTINUES ON NEXT PAGE)

REMARKS:

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/27/96 Time: 08:30
Sampled By : RAK/RWM
Sample Id: FHX-12
Location : BARLOW ROAD

CTM Sample No: 961230Q 11
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 17:30
Sampled By : RAK/RWM
Sample Id: FHX-3
Location : BARLOW ROAD

CTM Sample No: 961230Q 12
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROFORM	EPA 8010	1	1	MCG/L	GC1F:42 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	1	1	MCG/L	GC1F:42 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRICHLOROETHYLENE	EPA 8010	100	10	MCG/L	GC1F:43 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:42 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:42 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:42 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

(CONTINUES ON NEXT PAGE)

REMARKS:

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

Attention: MR. ROBERT KOSLOSKY

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Purchase Order Number:
Date Sampled: 12/26/96 Time: 17:30
Sampled By : RAK/RWM
Sample Id: FHX-3
Location : BARLOW ROAD

CTM Sample No: 961230Q 12
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 18:00
Sampled By : RAK/RWM
Sample Id: FHX-9
Location : BARLOW ROAD

CTM Sample No: 961230Q 13
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Referenc
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	1	1	MCG/L	GC1F:43 1/9/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
TRICHLOROETHYLENE	EPA 8010	7	1	MCG/L	GC1F:43 1/9/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:43 1/9/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:43 1/9/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

(CONTINUES ON NEXT PAGE)

REMARKS:

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Sampling Services

HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/26/96 Time: 18:00
Sampled By : RAK/RWM
Sample Id: FHX-9
Location : BARLOW ROAD

CTM Sample No: 961230Q 13
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 08:40
Sampled By : RAK/RWM
Sample Id: MW-12
Location : BARLOW ROAD

CTM Sample No: 961230Q 14
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
DICHLORODIFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CHLOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
VINYL CHLORIDE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
BROMOMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CHLOROETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
TRICHLOROFLUOROMETHANE	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
1,1-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
METHYLENE CHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRANS-1,2-DICHLOROETHENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
CHLOROFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,1-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
CARBON TETRACHLORIDE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,2-DICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRICHLOROETHYLENE	EPA 8010	1	1	MCG/L	GC1F:43 1/10/97
1,2-DICHLOROPROPANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
BROMODICHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
2-CHLOROETHYLVINYL ETHER	EPA 8010	ND	5	MCG/L	GC1F:43 1/10/97
CIS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TRANS 1,3-DICHLOROPROPENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,2-TRICHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
TETRACHLOROETHYLENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
DIBROMOCHLOROMETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
CHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
BROMOFORM	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,1,2,2-TETRACHLOROETHANE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,3-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,4-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
1,2-DICHLOROBENZENE	EPA 8010	ND	1	MCG/L	GC1F:43 1/10/97
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC1F:43 1/10/97
BENZENE	EPA 8020	ND	0.5	MCG/L	GC2F:19 1/9/97
TOLUENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97

(CONTINUES ON NEXT PAGE)

REMARKS:

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HARZA NORTHEAST
181 GENESEE ST
UTICA NY 13501

CTM PROJECT #: 9913707

CTM Task #: 961230Q

Attention: MR. ROBERT KOSLOSKY

Purchase Order Number:
Date Sampled: 12/27/96 Time: 08:40
Sampled By : RAK/RWM
Sample Id: MW-12
Location : BARLOW ROAD

CTM Sample No: 961230Q 14
Date Received: 12/30/96
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
	(CONTINUED FROM PREVIOUS PAGE)				
ETHYLBENZENE	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
TOTAL XYLENES	EPA 8020	ND	1	MCG/L	GC2F:19 1/9/97
METHANOL EXTRACTION	SW-846 METHOD 5030	COMPLETED			GC2F:19 1/9/97

REMARKS:

END OF REPORT

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G=PPM

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P.O. Box 727
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FAX 518-786-7139

CHAIN OF CUSTODY RECORD
LABORATORY SERVICES

CTM TASK # 961230 1 of 2 13707

Client: Harza Northeast
Client Contact: Bob Kosloski / Rick Mitchell
Project Location: Barlow Rd.
Purchase Order:

Sampler's Name: RAK / RWM (please print)
CTM Contact:
Turnaround Time Requested: Normal

CTM LAB ID	Sample ID/Description	Date Sampled	Time A = a.m. P = p.m.	Sample Type: Matrix	Sample Type: COMP	Sample Type: GRAB	# of Containers	Preservative (list by # from list below)	Analysis Required
1	mw-1	12/26/96	1:45 P	H_2O		✓	2	1	8010 plus BTEX
2	mw-2	12/26/96	2:00 P			✓	2	1	
3	mw-3	12/27/96	12:05			✓	2	1	
4	mw-4	12/27/96	12:20			✓	2	1	
5	mw-5	12/27/96	10:20 A			✓	2	1	
6	mw-6	12/27/96	10:40 A			✓	2	1	
7	mw-8	12/26/96	16:45 P			✓	2	1	
8	mw-9	12/26/96	16:15 P			✓	2		
9	mw-11S	12/26/96	16:30 P			✓	2	1	
10	mw-11D	12/27/96	1:15 P	↓		✓	2	1	↓

	Date/Time		Date/Time
Sampled by: (signature) Rick Mitchell	12/27/96 4:10	Received by: (signature)	
Relinquished by: (signature) Rick Mitchell	12/27/96 4:15	Received by: (signature) VPS	
Relinquished by: (signature)		Received by: (signature)	
Dispatched by: (signature)		Received for Laboratory by: Daylon	12-30-96 11:00

Preservatives

1. HCl	6. Ascorbic
2. HNO_3	7. H_2SO_4
3. NaOH	8. F (Filtered)
4. NaS_2O_3	9. N (not preserved)
5. Zn Acet	10. Other

Sample Condition

1. Samples intact? (Y) N
2. Custody seals intact? Y N
3. Preserved properly? (Y) N
4. Ambient or chilled?
5. C.O.C. received with samples? (Y) N

NOTES/COMMENTS:

Method of Shipment:

Date:

PLEASE SEE REVERSE SIDE FOR TERMS AND CONDITIONS

STANDARD TERMS AND CONDITIONS OF AGREEMENT

1. **EXTRA WORK:** Extra work shall include, but not be limited to, additional office or field work caused by policy or procedural changes or governmental agencies, changes in the project, and work necessitated by any of the causes described in Paragraph 5 hereof. All extra work to be authorized by CLIENT in writing prior to commencement by CTM.

2. **LIMITATIONS OF COST ESTIMATES:** Any estimate of the cost of the project or any part thereof is not to be construed, nor is it intended, as a guarantee of the total cost.

3. **APPROVAL OF WORK:** The work performed by CTM shall be deemed approved and accepted by CLIENT as and when invoiced unless CLIENT objects within 30 days of the invoice date by written notice specifically stating the details in which CLIENT believes such work is incomplete or defective.

4. **DELAY:** Any delay, default, or termination in or of the performance of any obligation of CTM under this Agreement caused directly or indirectly by strikes, accidents, acts of God, shortage or unavailability of labor, materials, power or transportation through normal commercial channels, failure of CLIENT or CLIENT's agents to furnish information or to approve or disapprove CTM's work promptly, late, slow or faulty performance by CLIENT, other contractors or governmental agencies, the performance of whose work is precedent to or concurrent with the performance of CTM's work, or any other acts of the CLIENT or any other Federal, State, or local government agency, or any other cause beyond CTM's reasonable control, shall not be deemed a breach of this Agreement. The occurrence of any such event shall suspend the obligations of CTM as long as performance is delayed or prevented thereby, and the fees due hereunder shall be equitably adjusted.

5. **TERMINATION:** The obligation to provide further services under this Agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of any termination, CTM shall be paid for all services rendered to the date of termination, as well as for all reimbursable expenses and termination expenses. For purposes of this section, the failure of the CLIENT to pay CTM within thirty (30) days of receipt of an invoice shall be considered such a substantial failure. In the event of a substantial failure on the part of the CLIENT, CTM, in addition to the right to terminate set forth in this paragraph, may also elect to suspend work until the default in question has been cured. No delay or omission on the part of CTM in exercising any right or remedy hereunder shall constitute a waiver of any such right or remedy on any future occasion.

6. **INDEMNIFICATION:** CLIENT shall indemnify, defend and hold CTM harmless for any and all loss, cost, expense, claim, damage, or liability of any nature arising from: (a) soil conditions; (b) changes in plans or specifications made by CLIENT or others; (c) job site conditions and performance of work on the project by others; (d) inaccuracy of data or information supplied by CLIENT; and (e) work performed on material or data supplied by others, unless said loss was solely caused by CTM's own negligence.

7. **LITIGATION:** Should litigation be necessary to collect any portion of the amounts payable hereunder, then all costs and expenses of litigation and collection, including without limitation, fees, court costs, and attorney's fees (including such costs and fees on appeal), shall be the obligation of the CLIENT.

8. **RESTRICTIONS ON USE OF REPORTS:** It should be understood that any reports rendered under this Agreement will be prepared in accordance with the agreed Scope of Services and pertain only to the subject project and are prepared for the exclusive use of the CLIENT. Use of the reports and data contained therein for other purposes is at the CLIENT's sole risk and responsibility.

9. **LIMITATIONS OF CONSULTANT'S LIABILITY:** The CLIENT agrees that CTM's liability for damages to the CLIENT for any cause whatsoever in connection with this project, and regardless of the form of action, whether in contract or in tort, including negligence, shall be limited to the greater of Fifty Thousand Dollars ($50,000.00) or CTM's total fee for services rendered on the project.

10. **CONTROLLING LAWS:** This Agreement is to be governed by the laws of the State of New York.

11. **INSURANCE:** CTM shall procure and maintain throughout the period of this Agreement, at CTM's own cost, insurance for protection from claims under worker's compensation, temporary disability and other similar insurance required by applicable State and Federal laws. Certificates for all such policies of insurance shall be provided to the CLIENT upon written request. CTM shall not be responsible for any loss, damage or liability beyond the amounts, limits and conditions of such insurance.

12. **SUCCESSORS AND ASSIGNS:** Neither CLIENT nor CTM shall assign, sublet, or transfer any rights under or interest in (including, but without limitation, moneys that may become due or moneys that are due) this Agreement without the written consent of the other, except to the extent that any assignment subletting or transfer is mandated by law or the effect of this limitation may be restricted by law.

13. **ARBITRATION:** All claims, counterclaims, disputes and other matters in question between the parties hereto arising out of or relating to this Agreement or breach thereof may, at the option of CTM, be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. Any such arbitration shall take place in the Town of Colonie, Albany County, New York.

14. **NOTICES:** All notices called for by this Contract shall be in writing and shall be deemed to have been sufficiently given or served when presented personally and when deposited in the mail, postage prepaid, certified and return receipt requested, addressed as follows:

CTM ANALYTICAL LABORATORIES, LTD.
15 Century Hill Drive
P. O. Box 727
Latham, NY 12110

CTM Analytical Laboratories, Ltd.
15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

CHAIN OF CUSTODY RECORD
LABORATORY SERVICES

CTM TASK # 9612306

2 of 2

Client: Harza Northeast
Sampler's Name: Rich / KAK (please print)
Client Contact: Bob Kuslas KY / Rick Mitchell
Project Location: Barlow Rd
CTM Contact:
Purchase Order:
Turnaround Time Requested: Normal

CTM LAB ID	Sample ID/Description	Date Sampled	Time A = a.m. P = p.m.	Sample Type: Matrix	Sample Type: COMP	Sample Type: GRAB	# of Containers	Preservative (list by # from list below)	Analysis Required
11	FHX-12	12/27/96	0870 A	H_2O		✓	2	1	8010, plus BTEX
12	FHX-3	12/26/96	1700 P	"		✓	2	1	"
13	FHX-9	12/26/96	1800 P	"		✓	2	1	"
14	MW-12	12/27/96	0840 A	"		✓	2	1	"

Sampled by: (signature)	Date/Time	Received by: (signature)	Date/Time
Rich Mitchell	12/27/96 10		
Relinquished by: (signature) Rich Mitchell	12/27/96 4K	Received by: (signature) UPS	
Relinquished by: (signature)		Received by: (signature)	
Dispatched by: (signature)		Received for Laboratory by:	12-30-96 11:00

NOTES/COMMENTS:

Preservatives

1. HCl	6. Ascorbic
2. HNO_3	7. H_2SO_4
3. NaOH	8. F (Filtered)
4. NaS_2O_3	9. N (not preserved)
5. Zn Acet	10. Other

Method of Shipment:

Sample Condition

1. Samples intact? Y
2. Custody seals intact? Y
3. Preserved properly? Y
4. Ambient or chilled?
5. C.O.C. received with samples? Y

Date:

PLEASE SEE REVERSE SIDE FOR TERMS AND CONDITIONS

STANDARD TERMS AND CONDITIONS OF AGREEMENT

1. **EXTRA WORK:** Extra work shall include, but not be limited to, additional office or field work caused by policy or procedural changes or governmental agencies, changes in the project, and work necessitated by any of the causes described in Paragraph 5 hereof. All extra work to be authorized by CLIENT in writing prior to commencement by CTM.

2. **LIMITATIONS OF COST ESTIMATES:** Any estimate of the cost of the project or any part thereof is not to be construed, nor is it intended, as a guarantee of the total cost.

3. **APPROVAL OF WORK:** The work performed by CTM shall be deemed approved and accepted by CLIENT as and when invoiced unless CLIENT objects within 30 days of the invoice date by written notice specifically stating the details in which CLIENT believes such work is incomplete or defective.

4. **DELAY:** Any delay, default, or termination in or of the performance of any obligation of CTM under this Agreement caused directly or indirectly by strikes, accidents, acts of God, shortage or unavailability of labor, materials, power or transportation through normal commercial channels, failure of CLIENT or CLIENT's agents to furnish information or to approve or disapprove CTM's work promptly, late, slow or faulty performance by CLIENT, other contractors or governmental agencies, the performance of whose work is precedent to or concurrent with the performance of CTM's work, or any other acts of the CLIENT or any other Federal, State, or local government agency, or any other cause beyond CTM's reasonable control, shall not be deemed a breach of this Agreement. The occurrence of any such event shall suspend the obligations of CTM as long as performance is delayed or prevented thereby, and the fees due hereunder shall be equitably adjusted.

5. **TERMINATION:** The obligation to provide further services under this Agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of any termination, CTM shall be paid for all services rendered to the date of termination, as well as for all reimbursable expenses and termination expenses. For purposes of this section, the failure of the CLIENT to pay CTM within thirty (30) days of receipt of an invoice shall be considered such a substantial failure. In the event of a substantial failure on the part of the CLIENT, CTM, in addition to the right to terminate set forth in this paragraph, may also elect to suspend work until the default in question has been cured. No delay or omission on the part of CTM in exercising any right or remedy hereunder shall constitute a waiver of any such right or remedy on any future occasion.

6. **INDEMNIFICATION:** CLIENT shall indemnify, defend and hold CTM harmless for any and all loss, cost, expense, claim, damage, or liability of any nature arising from: (a) soil conditions; (b) changes in plans or specifications made by CLIENT or others; (c) job site conditions and performance of work on the project by others; (d) inaccuracy of data or information supplied by CLIENT; and (e) work performed on material or data supplied by others, unless said loss was solely caused by CTM's own negligence.

7. **LITIGATION:** Should litigation be necessary to collect any portion of the amounts payable hereunder, then all costs and expenses of litigation and collection, including without limitation, fees [illegible] and attorney's fees (including such costs and fees on appeal), shall be the obligation of the CLIENT.

8. **RESTRICTIONS ON USE OF REPORTS:** It should be understood that any reports rendered under this Agreement will be prepared in accordance with the agreed Scope of Services and pertain only to the subject project and are prepared for the exclusive use of the CLIENT. Use of the reports and data contained therein for other purposes is at the CLIENT's sole risk and responsibility.

9. **LIMITATIONS OF CONSULTANT'S LIABILITY:** The CLIENT agrees that CTM's liability for damages to the CLIENT for any cause whatsoever in connection with this project, and regardless of the form of action, whether in contract or in tort, including negligence, shall be limited to the greater of Fifty Thousand ($ or $50,000.00), or CTM's total fee for services rendered on the project.

10. **CONTROLLING LAWS:** This Agreement is to be governed by the laws of the [illegible]

11. **INSURANCE:** CTM shall procure and maintain throughout the period [illegible], at CTM's own cost, insurance for protection from claims under worker's compensation, temporary disability and other similar insurance required by applicable state and Federal laws. Certificates for all such policies of insurance shall be provided to the CLIENT upon written request. CTM shall not be responsible for any loss [illegible] beyond the amounts, limits and conditions of such insurance.

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