



**VOLUME III
SECOND SUPPLEMENTAL PHASE II
INVESTIGATION
FOR THE FORMER GENERAL ELECTRIC FACILITY
50 FORDHAM ROAD, WILMINGTON/NORTH READING,
MASSACHUSETTS**

**Prepared For
GENERAL ELECTRIC - AEROSPACE
Environmental Programs
230 East Goddard Boulevard
King of Prussia, PA 19406**

December 1992

**WEHRAN ENGINEERING CORPORATION
Andover, Massachusetts**

Environmental Engineers • Scientists • Constructors

**VOLUME III
SECOND SUPPLEMENTAL PHASE II
INVESTIGATION
FOR THE FORMER GENERAL ELECTRIC FACILITY
50 FORDHAM ROAD, WILMINGTON/NORTH READING,
MASSACHUSETTS**

**Prepared For
GENERAL ELECTRIC - AEROSPACE
Environmental Programs
230 East Goddard Boulevard
King of Prussia, PA 19406**

December 1992

**WEHRAN ENGINEERING CORPORATION
Andover, Massachusetts**

Environmental Engineers • Scientists • Constructors

TABLE OF CONTENTS

VOLUME III of III

APPENDIX D	Data Validation
APPENDIX E	Laboratory Analytical Data
APPENDIX F	Literature Search References

APPENDIX D
DATA VALIDATION

QUARTERLY GROUNDWATER SAMPLING DATA VALIDATION

This section summarizes groundwater quality data obtained during the supplemental investigations described in this report. Results discussed in Section 3.3 and referenced in Table 6 and Figures 12 and 13 accompanying this report have been evaluated in accordance with the DEP data validation policy #WSC-300-89. Data validation parameters assessed included holding times; method blank, field blank, and trip blank analyses; surrogate recovery analyses; and field duplicate analyses. The data presented in Section 3.3., Table 6, and Figures 12 and 13 reflect data qualification actions taken that were judged to be necessary based upon data validation results. Analytical data are provided in Appendix E. Footnotes in Table 6 provide a list of data qualification action results. Table 7 contains a comprehensive summary of groundwater quality data for on-site wells, wetland area wells and "STM" wells along Concord Street, dating from 1989 to the present.

OUTFALL 001 AREA SEDIMENT SAMPLING DATA VALIDATION

Sediment samples were collected from the wetlands in the vicinity of Outfall 001 from nine locations designated SD-1 through SD-6 and SD-8 through SD-10 (Figure 14). Sample depth was approximately 0 to 1 foot below ground surface. Samples were submitted for laboratory analysis of total petroleum hydrocarbons (TPHs) using USEPA Test Method 418.1.

A review of data validation parameters for sediment samples collected from the wetlands in the vicinity of Outfall 001 indicated that chain of custody data were in order and holding times, method blanks and duplicate control samples were within acceptable limits. A duplicate sample of SD-6 designated SD-11, was also submitted for TPH analysis. Field blank and trip blank samples were not included in this sample group. One laboratory method blank was analyzed for TPH, and resulted in non-detection below a method detection limit of 17 micrograms per gram (ug/g) or parts per million (ppm). A laboratory duplicate control sample (DCS), a duplicate of the method blank, was analyzed for TPH to check the laboratory's day to day performance of routine analytical methods. Average accuracy of the DCS was 73 percent, within an acceptable range of 60-140%. The relative percent difference (RPD) of the DCS, an indicator of laboratory precision, was 0.5, within a limit of 30.

Sample SD-6 and duplicate sample SD-11 were reported with differing results, as shown in Table 7. Sample SD-6 was reported as non-detection with a minimum detection limit of 73 ppm and a moisture content of 77%. Duplicate sample SD-11 contained 460 ppm of total petroleum hydrocarbons and a moisture content of 85%. Possible explanations for the discrepancy in duplicate sample analyses include: 1) heterogeneity of the sampled sediments, 2) interference from naturally occurring organics materials, or 3) interference from high moisture content. The presence of high moisture content in the sediment samples is unavoidable and is a limitation of the media being tested. Therefore, no data qualification actions were taken by Wehran.

APPENDIX E
LABORATORY ANALYTICAL DATA

RECEIVED

SEP 03 1992

Wehran Engineering
Massachusetts

Enseco
A Corning Company

September 2, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington: Collected on 8/24/92). This project was received at Enseco - Erco Laboratory on August 25, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012683 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,



Jay Cudmore
Program Administrator

Encl.



CHAIN-OF-CUSTODY RECORD ENR-1046-C

SHIP TO: ☐ ENSECO EAST
2200 Cottonball Lane
Somerset NJ 08875
(908) 488-6600
☐ ERCO
205 Alameda Brook Parkway
Cambridge MA 02138
(617) 881-3111

PAGE 1 OF 3
ENSECO CONTACT
ENSECO PROJECT #
12683
SPECIAL INSTRUCTIONS/COMMENTS

CLIENT NAME: Welman Engineering Corp. - Dan Folan
COMPANY: Welman
ADDRESS: 61 Riverside Dr. Andover Research Parks Andover MA
PHONE NO: 683-1980
P.O. NUMBER:
PROJECT NAME: GE Wilmington
SAMPLER NAME: Folan/Stone

METHOD OF SHIPMENT: AIR BILL NUMBER: COOLER NUMBER: CUSTODY SEAL NUMBER:
PHONE NUMBER:
ANALYSES

Analytical TAT Rush		Days		Normal		Days	
SAMPLE IDENTIFICATION	DATE	TIME	ANALYST	DATE	TIME	ANALYST	DATE
GEW-GW-0215 100	water	40ml	2	8/14/82	1435	HCR	✓
GEW-GW-0216 101	water	40ml	2	8/14/82	1450	HCR	✓
GEW-GW-0217 102	water	40ml	2	8/14/82	1455	HCR	✓
GEW-GW-0218 103	water	40ml	2	8/14/82	1545	HCR	✓
GEW-GW-0219 104	water	40ml	2	8/14/82	1620	HCR	✓
GEW-GW-0220 105	water	40ml	2	8/14/82	1715	HCR	✓

PLEASE NOTE: detection limits must be mass mcs at lower
Dan Folan
8/16/82 16:20
8/16/82 17:30
RECEIVED AT ENSECO
8/16/82

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
012683-0001-SA	GEW-GW-PZ9S 100	AQUEOUS	24 AUG 92	14:35	26 AUG 92
012683-0002-SA	GEW-GW-PZ9R 101	AQUEOUS	24 AUG 92	14:50	26 AUG 92
012683-0003-SA	GEW-GW-PZ9D 102	AQUEOUS	24 AUG 92	14:55	26 AUG 92
012683-0004-SA	GEW-GW-FMB 103	AQUEOUS	24 AUG 92	15:45	26 AUG 92
012683-0005-SA	GEW-GW-GZA 104	AQUEOUS	24 AUG 92	16:20	26 AUG 92
012683-0006-SA	GEW-GW-WE3 105	AQUEOUS	25 AUG 92	09:15	26 AUG 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012683	Group Code	Analysis Description	Custom Test?
0001 - 0006	A	Volatile Organics Target Compound List (TCL)	N N

September 2, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 8/24/92
Erco Project No.: 012683

1. This project consists of the results for samples received at Enseco - Erco Laboratory on August 25, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agree with chain-of-custody.
VOA vials were properly preserved.
VOA vials did not contain headspace.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
 Target Compound List (TCL)
 Method 8240

Client Name: Wehran Engineering
 Client ID: GEW-GW-PZ9S 100
 Lab ID: 012683-0001-SA
 Matrix: AQUEOUS
 Authorized: 26 AUG 92

Sampled: 24 AUG 92
 Prepared: NA

Received: 26 AUG 92
 Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	1.8	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	2.9	ug/L	5.0	J
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	94	%	--	
Toluene-d8	100	%	--	
4-Bromofluorobenzene	95	%	--	

(continued on following page)

ND = Not detected
 NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240



Client Name: Wehran Engineering
Client ID: GEW-GW-PZ9S 100
Lab ID: 012683-0001-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 24 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240



Client Name: Wehran Engineering
Client ID: GEW-GW-PZ9R 101
Lab ID: 012683-0002-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 24 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	1.7	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	97	%	--	
Toluene-d8	102	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ9R 101
Lab ID: 012683-0002-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 24 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240



Client Name: Wehran Engineering
Client ID: GEW-GW-PZ9D 102
Lab ID: 012683-0003-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 24 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	107	%	--
Toluene-d8	96	%	--
4-Bromofluorobenzene	96	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
 Target Compound List (TCL)
 Method 8240

Client Name: Wehran Engineering
 Client ID: GEW-GW-FMB 103
 Lab ID: 012683-0004-SA
 Matrix: AQUEOUS
 Authorized: 26 AUG 92

Sampled: 24 AUG 92
 Prepared: NA

Received: 26 AUG 92
 Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	97	%	--
Toluene-d8	95	%	--
4-Bromofluorobenzene	97	%	--

ND = Not detected
 NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA13 104
Lab ID: 012683-0005-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 24 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	98	%	--
Toluene-d8	97	%	--
4-Bromofluorobenzene	98	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-WE3 105
Lab ID: 012683-0006-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0
Surrogate	Recovery		
1,2-Dichloroethane-d4	100	%	--
Toluene-d8	98	%	--
4-Bromofluorobenzene	97	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012683-0001-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012683-0002-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012683-0003-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012683-0004-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012683-0005-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012683-0006-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		Measured	AVG	Accuracy		Precision	
		DCS1	DCS2			Average(%)	Limits	(RPD)	DCS Limit
Category: 624-A									
Matrix: AQUEOUS									
QC Lot: 27 AUG 92-V2A									
Concentration Units: ug/L									
1,1-Dichloroethene	50	60.6	56.4	58.5	117	61-145	7.2	14	
Trichloroethene	50	56.2	55.0	55.6	111	71-120	2.2	14	
Chlorobenzene	50	59.8	58.8	59.3	119	75-130	1.7	13	
Toluene	50	59.4	57.3	58.4	117	76-125	3.6	13	
Benzene	50	57.1	54.9	56.0	112	76-127	3.9	11	

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A
Matrix: AQUEOUS
QC Lot: 27 AUG 92-V2A QC Run: 28 AUG 92-V2A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	47.5	95	76-114
Toluene-d8	50.0	49.4	99	88-110
4-Bromofluorobenzene	50.0	47.7	95	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 27 AUG 92-V2A QC Run: 28 AUG 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0



September 8, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington:Collected on 8/25/92). This project was received at Enseco - Erco Laboratory on August 25, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012684 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Cudmore".

Jay Cudmore
Program Administrator

Encl.



CHAIN-OF-CUSTODY RECORD

ENS-1045-C

SHIP TO: ENSECO EAST
2200 Cottondale Lane
Somerset NJ 08876
(908) 466-6000

ENSECO PROJECT #
12684

CLIENT NAME: Dan Folan
COMPANY: Wehner Engineering
ADDRESS: Colmanville Dr Andover, MA
PHONE NO: 682-1980
P.O. NUMBER: 1

SEND RESULTS TO: PROJECT NAME: G.E. Wilmington
SAMPLER NAME: Taken / Spine
METHOD OF SHIPMENT: AIR BILL NUMBER: COOLER NUMBER:

PROJECT NAME		682-1980	
G E Wilmington		P.O. NUMBER	
SAMPLER NAME		PHONE NUMBER	
Toker / Stone		ANALYSES	
METHOD OF SHIPMENT		CUSTODY SEAL NUMBER	
AIR BILL NUMBER		COOLER NUMBER	

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
012684-0001-SA	GEW-GW-WE2 106	AQUEOUS	25 AUG 92	10:35	26 AUG 92
012684-0002-SA	GEW-GW-PZ8M 109	AQUEOUS	25 AUG 92	11:45	26 AUG 92
012684-0003-SA	GEW-GW-PZ8D 108	AQUEOUS	25 AUG 92	11:50	26 AUG 92
012684-0004-SA	GEW-GW-PZ8R 107	AQUEOUS	25 AUG 92	11:55	26 AUG 92
012684-0005-SA	GEW-TRIP BLANK 110	AQUEOUS	25 AUG 92		26 AUG 92
012684-0006-SA	GEW-TB 110	AQUEOUS	25 AUG 92		26 AUG 92
012684-0007-SA	GEW-GW-PZ7R 111	AQUEOUS	25 AUG 92	14:00	26 AUG 92
012684-0008-SA	GEW-GW-PZ7R 112	AQUEOUS	25 AUG 92	14:45	26 AUG 92
012684-0009-SA	GEW-GW-PZ7R 113	AQUEOUS	25 AUG 92	14:50	26 AUG 92
012684-0010-SA	GEW-GW-WE2 114	AQUEOUS	25 AUG 92	16:20	26 AUG 92
012684-0011-SA	GEW-GW-WE2 115	AQUEOUS	25 AUG 92	16:20	26 AUG 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012684	Group Code	Analysis Description	Custom Test?
0001 - 0011	A	Volatile Organics Target Compound List (TCL)	N N

September 8, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 8/25/92
Erco Project No.: 012684

1. This project consists of the results for samples received at Enseco - Erco Laboratory on August 25, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agree with chain-of-custody.
VOA vials were properly preserved.
VOA vials did not contain headspace.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-WE2 106
Lab ID: 012684-0001-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	3.2	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

J

Surrogate	Recovery		
1,2-Dichloroethane-d4	102	%	--
Toluene-d8	96	%	--
4-Bromofluorobenzene	95	%	--

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering

Client ID: GEW-GW-WE2 106

Lab ID: 012684-0001-SA

Matrix: AQUEOUS

Authorized: 26 AUG 92

Sampled: 25 AUG 92

Prepared: NA

Received: 26 AUG 92

Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected

NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ8M 109
Lab ID: 012684-0002-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.3	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	1.2	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	96	%	--	
Toluene-d8	97	%	--	
4-Bromofluorobenzene	95	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ8M 109
Lab ID: 012684-0002-SA
Matrix: AQUEOUS
Authorized: 26 AUG '92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ8D 108
Lab ID: 012684-0003-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	1.4	ug/L	5.0	J
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.7	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	96	%	--	
Toluene-d8	99	%	--	
4-Bromofluorobenzene	96	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ8D 108
Lab ID: 012684-0003-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ8R 107
Lab ID: 012684-0004-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	2.7	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	12	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	7.9	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	96	%	--	
Toluene-d8	104	%	--	
4-Bromofluorobenzene	99	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ8R 107
Lab ID: 012684-0004-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TRIP BLANK 110
Lab ID: 012684-0005-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.7	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	95	%	--	
Toluene-d8	101	%	--	
4-Bromofluorobenzene	96	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TRIP BLANK 110
Lab ID: 012684-0005-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TB 110
Lab ID: 012684-0006-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	2.8	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	4.9	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	

Surrogate	Recovery		
1,2-Dichloroethane-d4	96	%	--
Toluene-d8	102	%	--
4-Bromofluorobenzene	98	%	--

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TB 110
Lab ID: 012684-0006-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7R 111
Lab ID: 012684-0007-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 01 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	250
Bromomethane	ND	ug/L	250
Vinyl chloride	ND	ug/L	250
Chloroethane	ND	ug/L	250
Methylene chloride	ND	ug/L	120
Acetone	ND	ug/L	250
Carbon disulfide	ND	ug/L	120
1,1-Dichloroethene	ND	ug/L	120
1,1-Dichloroethane	ND	ug/L	120
1,2-Dichloroethene	ND	ug/L	120
(total)	ND	ug/L	120
Chloroform	ND	ug/L	120
1,2-Dichloroethane	ND	ug/L	120
2-Butanone	ND	ug/L	250
1,1,1-Trichloroethane	ND	ug/L	120
Carbon tetrachloride	ND	ug/L	120
Vinyl acetate	ND	ug/L	250
Bromodichloromethane	ND	ug/L	120
1,2-Dichloropropane	ND	ug/L	120
trans-1,3-Dichloropropene	ND	ug/L	120
Trichloroethene	ND	ug/L	120
Dibromochloromethane	ND	ug/L	120
1,1,2-Trichloroethane	ND	ug/L	120
Benzene	ND	ug/L	120
cis-1,3-Dichloropropene	ND	ug/L	120
Bromoform	ND	ug/L	120
4-Methyl-2-pentanone	ND	ug/L	250
2-Hexanone	ND	ug/L	250
1,1,2,2-Tetrachloroethane	ND	ug/L	120
Tetrachloroethene	ND	ug/L	120
Toluene	1400	ug/L	120
Chlorobenzene	ND	ug/L	120
Ethylbenzene	420	ug/L	120
Styrene	ND	ug/L	120
Xylenes (total)	2100	ug/L	120

Surrogate	Recovery		
1,2-Dichloroethane-d4	98	%	--
Toluene-d8	102	%	--
4-Bromofluorobenzene	92	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7D 112
Lab ID: 012684-0008-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.6	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	98	%	--	
Toluene-d8	101	%	--	
4-Bromofluorobenzene	94	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7D 112
Lab ID: 012684-0008-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 28 AUG 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7R 113
Lab ID: 012684-0009-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 01 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	250
Bromomethane	ND	ug/L	250
Vinyl chloride	ND	ug/L	250
Chloroethane	ND	ug/L	250
Methylene chloride	ND	ug/L	120
Acetone	ND	ug/L	250
Carbon disulfide	ND	ug/L	120
1,1-Dichloroethene	ND	ug/L	120
1,1-Dichloroethane	ND	ug/L	120
1,2-Dichloroethene			
(total)	ND	ug/L	120
Chloroform	ND	ug/L	120
1,2-Dichloroethane	ND	ug/L	120
2-Butanone	ND	ug/L	250
1,1,1-Trichloroethane	ND	ug/L	120
Carbon tetrachloride	ND	ug/L	120
Vinyl acetate	ND	ug/L	250
Bromodichloromethane	ND	ug/L	120
1,2-Dichloropropane	ND	ug/L	120
trans-1,3-Dichloropropene	ND	ug/L	120
Trichloroethene	ND	ug/L	120
Dibromochloromethane	ND	ug/L	120
1,1,2-Trichloroethane	ND	ug/L	120
Benzene	ND	ug/L	120
cis-1,3-Dichloropropene	ND	ug/L	120
Bromoform	ND	ug/L	120
4-Methyl-2-pentanone	ND	ug/L	250
2-Hexanone	ND	ug/L	250
1,1,2,2-Tetrachloroethane	ND	ug/L	120
Tetrachloroethene	ND	ug/L	120
Toluene	2500	ug/L	120
Chlorobenzene	ND	ug/L	120
Ethylbenzene	540	ug/L	120
Styrene	ND	ug/L	120
Xylenes (total)	4000	ug/L	120

Surrogate	Recovery		
1,2-Dichloroethane-d4	97	%	--
Toluene-d8	99	%	--
4-Bromofluorobenzene	94	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-WE2 114
Lab ID: 012684-0010-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 01 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	2500
Bromomethane	ND	ug/L	2500
Vinyl chloride	ND	ug/L	2500
Chloroethane	ND	ug/L	2500
Methylene chloride	ND	ug/L	1200
Acetone	ND	ug/L	2500
Carbon disulfide	ND	ug/L	1200
1,1-Dichloroethene	ND	ug/L	1200
1,1-Dichloroethane	ND	ug/L	1200
1,2-Dichloroethene	ND	ug/L	1200
(total)	ND	ug/L	1200
Chloroform	ND	ug/L	1200
1,2-Dichloroethane	ND	ug/L	1200
2-Butanone	ND	ug/L	2500
1,1,1-Trichloroethane	ND	ug/L	1200
Carbon tetrachloride	ND	ug/L	1200
Vinyl acetate	ND	ug/L	2500
Bromodichloromethane	ND	ug/L	1200
1,2-Dichloropropane	ND	ug/L	1200
trans-1,3-Dichloropropene	ND	ug/L	1200
Trichloroethene	ND	ug/L	1200
Dibromochloromethane	ND	ug/L	1200
1,1,2-Trichloroethane	ND	ug/L	1200
Benzene	ND	ug/L	1200
cis-1,3-Dichloropropene	ND	ug/L	1200
Bromoform	ND	ug/L	1200
4-Methyl-2-pentanone	ND	ug/L	2500
2-Hexanone	ND	ug/L	2500
1,1,2,2-Tetrachloroethane	ND	ug/L	1200
Tetrachloroethene	ND	ug/L	1200
Toluene	21000	ug/L	1200
Chlorobenzene	ND	ug/L	1200
Ethylbenzene	1600	ug/L	1200
Styrene	ND	ug/L	1200
Xylenes (total)	26000	ug/L	1200
Surrogate	Recovery		
1,2-Dichloroethane-d4	100	%	--
Toluene-d8	101	%	--
4-Bromofluorobenzene	96	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-WE2 115
Lab ID: 012684-0011-SA
Matrix: AQUEOUS
Authorized: 26 AUG 92

Sampled: 25 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 02 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	1200
Bromomethane	ND	ug/L	1200
Vinyl chloride	ND	ug/L	1200
Chloroethane	ND	ug/L	1200
Methylene chloride	ND	ug/L	620
Acetone	ND	ug/L	1200
Carbon disulfide	ND	ug/L	620
1,1-Dichloroethene	ND	ug/L	620
1,1-Dichloroethane	ND	ug/L	620
1,2-Dichloroethene	ND	ug/L	620
(total)	ND	ug/L	620
Chloroform	ND	ug/L	620
1,2-Dichloroethane	ND	ug/L	620
2-Butanone	ND	ug/L	1200
1,1,1-Trichloroethane	ND	ug/L	620
Carbon tetrachloride	ND	ug/L	620
Vinyl acetate	ND	ug/L	1200
Bromodichloromethane	ND	ug/L	620
1,2-Dichloropropane	ND	ug/L	620
trans-1,3-Dichloropropene	ND	ug/L	620
Trichloroethene	ND	ug/L	620
Dibromochloromethane	ND	ug/L	620
1,1,2-Trichloroethane	ND	ug/L	620
Benzene	ND	ug/L	620
cis-1,3-Dichloropropene	ND	ug/L	620
Bromoform	ND	ug/L	620
4-Methyl-2-pentanone	ND	ug/L	1200
2-Hexanone	ND	ug/L	1200
1,1,2,2-Tetrachloroethane	ND	ug/L	620
Tetrachloroethene	ND	ug/L	620
Toluene	13000	ug/L	620
Chlorobenzene	ND	ug/L	620
Ethylbenzene	ND	ug/L	620
Styrene	ND	ug/L	620
Xylenes (total)	14000	ug/L	620

Surrogate	Recovery		
1,2-Dichloroethane-d4	102	%	--
Toluene-d8	106	%	--
4-Bromofluorobenzene	97	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012684-0001-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012684-0002-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012684-0003-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012684-0004-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012684-0005-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012684-0006-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012684-0007-SA	AQUEOUS	624-A	31 AUG 92-V2A	01 SEP 92-V2A
012684-0008-SA	AQUEOUS	624-A	27 AUG 92-V2A	28 AUG 92-V2A
012684-0009-SA	AQUEOUS	624-A	31 AUG 92-V2A	01 SEP 92-V2A
012684-0010-SA	AQUEOUS	624-A	31 AUG 92-V2A	01 SEP 92-V2A
012684-0011-SA	AQUEOUS	624-A	31 AUG 92-V2A	02 SEP 92-V2A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		Measured DCS2	AVG	Accuracy Average(%)		Precision (RPD)	
		DCS1				DCS	Limits	DCS	Limit
Category: 624-A									
Matrix: AQUEOUS									
QC Lot: 27 AUG 92-V2A									
Concentration Units: ug/L									
1,1-Dichloroethene	50	60.6		56.4	58.5	117	61-145	7.2	14
Trichloroethene	50	56.2		55.0	55.6	111	71-120	2.2	14
Chlorobenzene	50	59.8		58.8	59.3	119	75-130	1.7	13
Toluene	50	59.4		57.3	58.4	117	76-125	3.6	13
Benzene	50	57.1		54.9	56.0	112	76-127	3.9	11

Category: 624-A
Matrix: AQUEOUS
QC Lot: 31 AUG 92-V2A
Concentration Units: ug/L

1,1-Dichloroethene	50	50.2	50.0	50.1	100	61-145	0.4	14	
Trichloroethene	50	47.9	49.7	48.8	98	71-120	3.7	14	
Chlorobenzene	50	52.9	52.9	52.9	106	75-130	0.0	13	
Toluene	50	54.5	52.0	53.2	107	76-125	4.7	13	
Benzene	50	52.0	51.8	51.9	104	76-127	0.4	11	

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A
Matrix: AQUEOUS
QC Lot: 27 AUG 92-V2A QC Run: 28 AUG 92-V2A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	47.5	95	76-114
Toluene-d8	50.0	49.4	99	88-110
4-Bromofluorobenzene	50.0	47.7	95	86-115

Category: 624-A
Matrix: AQUEOUS
QC Lot: 31 AUG 92-V2A QC Run: 01 SEP 92-V2A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	47.0	94	76-114
Toluene-d8	50.0	48.3	97	88-110
4-Bromofluorobenzene	50.0	47.4	95	86-115

Category: 624-A
Matrix: AQUEOUS
QC Lot: 31 AUG 92-V2A QC Run: 02 SEP 92-V2A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	51.4	103	76-114
Toluene-d8	50.0	51.0	102	88-110
4-Bromofluorobenzene	50.0	46.8	94	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 27 AUG 92-V2A QC Run: 28 AUG 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 31 AUG 92-V2A QC Run: 01 SEP 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 31 AUG 92-V2A QC Run: 02 SEP 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Enseco
A Corning Company

September 9, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

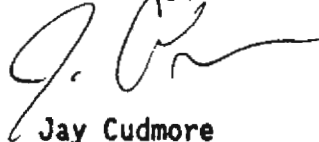
Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington:Collected on 8/26/92). This project was received at Enseco - Erco Laboratory on August 26, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012692 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,



Jay Cudmore
Program Administrator

Encl.



CHAIN-OF-CUSTODY RECORD

ENG-1045-C

PAGE 1

SHIP TO:

ENSECO EAST
2205 Connecticut Lane
Somerset, NJ 08876
(609) 499-4999

SEND RESULTS TO

CLIENT NAME

Dan Folan

COMPANY

Wehran Engineering

ADDRESS

6 Riverside Drive Andover Research Park

Andover MA

PHONE NO

508-682-1980

PROJECT NAME

GE/WILMINGTON

P.O. NUMBER

SAMPLER NAME

Folan/Stm

PHONE NUMBER

METHOD OF SHIPMENT

AIR BILL NUMBER

COOLER NUMBER

CUSTODY SEAL NUMBER

ANALYSES

Analytical TAT Rush

Days

Normal

Days

ENSECO #	SAMPLE IDENTIFICATION	MATRIX	CONTAINER TYPE	DATE/TIME	ANALYSES	ENSECO COMMENTS
GEWGWVWD116	water	40ml	2	9:15	HEI	✓
GEWFM8117	water	↓	↓	9:15	HEI	✓
GEWGWVWE45118	water	↓	↓	9:30	HEI	✓
GEWGW6ZANR119	water	↓	↓	13:45	HEI	✓
GEWGW6ZANR120	water	↓	↓	16:25	HEI	✓
GEWGW6ZANR121	water	↓	↓	17:45	HEI	✓
GEWGW6ZANR122	water	40ml	2	13:30	HEI	✓
GEWGW6ZANR123	water	↓	↓	15:45	HEI	✓
GEWGW6ZANR124	water	↓	↓	16:20	HEI	✓
GFN-TB-125	water	40ml	2	16:40	HEI	✓

SAMPLE RELINQUISHED BY

Daniel Folan

NOT RELINQUISHED IN PROJECT

DATE

8/16/92

SAMPLE RECEIVED BY

Michael J. J. J. J.

TIME

4:35

DATE

8/26/92

RECEIVED AT ENSECO

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled		Received
			Date	Time	
012692-0001-SA	GEWGWE4D116	AQUEOUS	26 AUG 92	09:15	26 AUG 92
012692-0002-SA	GEWFMB117	AQUEOUS	26 AUG 92	09:15	26 AUG 92
012692-0003-SA	GEWGWE4S118	AQUEOUS	26 AUG 92	09:30	26 AUG 92
012692-0004-SA	GEWGWZA106R119	AQUEOUS	26 AUG 92	13:45	26 AUG 92
012692-0005-SA	GEWGWZA106D120	AQUEOUS	26 AUG 92	16:25	26 AUG 92
012692-0006-SA	GEWGWZA106M121	AQUEOUS	26 AUG 92	14:45	26 AUG 92
012692-0007-SA	GEWGWZA106S122	AQUEOUS	26 AUG 92	13:30	26 AUG 92
012692-0008-SA	GEWGWZA6123	AQUEOUS	26 AUG 92	15:45	26 AUG 92
012692-0009-SA	GEWGWZA106D124	AQUEOUS	26 AUG 92	16:20	26 AUG 92
012692-0010-SA	GEW-TB-125	AQUEOUS	26 AUG 92		26 AUG 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012692	Group Code	Analysis Description	Custom Test?
0001 - 0010	A	Volatile Organics Target Compound List (TCL)	N N

September 9, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 8/26/92
Erco Project No.: 012692

1. This project consists of the results for samples received at Enseco - Erco Laboratory on August 26, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agree with C-O-C.
Samples were properly preserved.
VOA vials were properly preserved.
VOA vials did not contain air bubbles.
Only two VOA vials were provided for each sample.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWE4D116
Lab ID: 012692-0001-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 01 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	1.7	ug/L	5.0	J
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	44	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.8	ug/L	5.0	J
Toluene	2.6	ug/L	5.0	J
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	8.3	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	13	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	98	%	--	
Toluene-d8	102	%	--	
4-Bromofluorobenzene	95	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWE4D116
Lab ID: 012692-0001-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 01 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWFMB117
Lab ID: 012692-0002-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 01 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	105	%	--
Toluene-d8	101	%	--
4-Bromofluorobenzene	93	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWWE4S118
Lab ID: 012692-0003-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 01 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	1000
Bromomethane	ND	ug/L	1000
Vinyl chloride	ND	ug/L	1000
Chloroethane	ND	ug/L	1000
Methylene chloride	ND	ug/L	500
Acetone	ND	ug/L	1000
Carbon disulfide	ND	ug/L	500
1,1-Dichloroethene	ND	ug/L	500
1,1-Dichloroethane	ND	ug/L	500
1,2-Dichloroethene			
(total)	ND	ug/L	500
Chloroform	ND	ug/L	500
1,2-Dichloroethane	ND	ug/L	500
2-Butanone	ND	ug/L	1000
1,1,1-Trichloroethane	ND	ug/L	500
Carbon tetrachloride	ND	ug/L	500
Vinyl acetate	ND	ug/L	1000
Bromodichloromethane	ND	ug/L	500
1,2-Dichloropropane	ND	ug/L	500
trans-1,3-Dichloropropene	ND	ug/L	500
Trichloroethene	ND	ug/L	500
Dibromochloromethane	ND	ug/L	500
1,1,2-Trichloroethane	ND	ug/L	500
Benzene	3500	ug/L	500
cis-1,3-Dichloropropene	ND	ug/L	500
Bromoform	ND	ug/L	500
4-Methyl-2-pentanone	ND	ug/L	1000
2-Hexanone	ND	ug/L	1000
1,1,2,2-Tetrachloroethane	ND	ug/L	500
Tetrachloroethene	ND	ug/L	500
Toluene	4900	ug/L	500
Chlorobenzene	ND	ug/L	500
Ethylbenzene	1700	ug/L	500
Styrene	ND	ug/L	500
Xylenes (total)	13000	ug/L	500
Surrogate	Recovery		
1,2-Dichloroethane-d4	101	%	--
Toluene-d8	103	%	--
4-Bromofluorobenzene	95	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106R119
Lab ID: 012692-0004-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 02 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	1.4	ug/L	5.0	J
1,2-Dichloroethene (total)	7.9	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	90	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	52	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	107	%	--	
Toluene-d8	102	%	--	
4-Bromofluorobenzene	96	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106R119
Lab ID: 012692-0004-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 02 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106D120
Lab ID: 012692-0005-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 02 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	3.0	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	38	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	45	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	96	%	--	
Toluene-d8	101	%	--	
4-Bromofluorobenzene	93	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106D120
Lab ID: 012692-0005-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 02 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106M121
Lab ID: 012692-0006-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 02 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	1.3	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	19	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	28	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	99	%	--	
Toluene-d8	98	%	--	
4-Bromofluorobenzene	92	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106M121
Lab ID: 012692-0006-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 02 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106S122
Lab ID: 012692-0007-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 02 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	100	%	--
Toluene-d8	102	%	--
4-Bromofluorobenzene	94	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA6123
Lab ID: 012692-0008-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 03 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	98	%	--
Toluene-d8	102	%	--
4-Bromofluorobenzene	107	%	--

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106D124
Lab ID: 012692-0009-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 03 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	2.1	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	38	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	43	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	102	%	--	
Toluene-d8	103	%	--	
4-Bromofluorobenzene	108	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEWGWGZA106D124
Lab ID: 012692-0009-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 03 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TB-125
Lab ID: 012692-0010-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 03 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	5.0	ug/L	5.0	JB
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene	ND	ug/L	5.0	
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	103	%	--	
Toluene-d8	104	%	--	
4-Bromofluorobenzene	111	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TB-125
Lab ID: 012692-0010-SA
Matrix: AQUEOUS
Authorized: 27 AUG 92

Sampled: 26 AUG 92
Prepared: NA

Received: 26 AUG 92
Analyzed: 03 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Elizabeth Ellis

Approved By: Kerylynn Krahforst

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012692-0001-SA	AQUEOUS	624-A	31 AUG 92-V2A	01 SEP 92-V2A
012692-0002-SA	AQUEOUS	624-A	31 AUG 92-V2A	01 SEP 92-V2A
012692-0003-SA	AQUEOUS	624-A	31 AUG 92-V2A	01 SEP 92-V2A
012692-0004-SA	AQUEOUS	624-A	31 AUG 92-V2A	02 SEP 92-V2A
012692-0005-SA	AQUEOUS	624-A	31 AUG 92-V2A	02 SEP 92-V2A
012692-0006-SA	AQUEOUS	624-A	31 AUG 92-V2A	02 SEP 92-V2A
012692-0007-SA	AQUEOUS	624-A	31 AUG 92-V2A	02 SEP 92-V2A
012692-0008-SA	AQUEOUS	624-A	21 AUG 92-V5A	03 SEP 92-V5A
012692-0009-SA	AQUEOUS	624-A	21 AUG 92-V5A	03 SEP 92-V5A
012692-0010-SA	AQUEOUS	624-A	21 AUG 92-V5A	03 SEP 92-V5A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		Measured	AVG	Accuracy		Precision	
		DCS1	DCS2			Average(%)	(RPD)	DCS	Limits
Category: 624-A									
Matrix: AQUEOUS									
QC Lot: 31 AUG 92-V2A									
Concentration Units: ug/L									
1,1-Dichloroethene	50	50.2	50.0	50.1	100	61-145	0.4	14	
Trichloroethene	50	47.9	49.7	48.8	98	71-120	3.7	14	
Chlorobenzene	50	52.9	52.9	52.9	106	75-130	0.0	13	
Toluene	50	54.5	52.0	53.2	107	76-125	4.7	13	
Benzene	50	52.0	51.8	51.9	104	76-127	0.4	11	

Category: 624-A
Matrix: AQUEOUS
QC Lot: 21 AUG 92-V5A
Concentration Units: ug/L

1,1-Dichloroethene	50	66.1	65.8	66.0	132	61-145	0.4	14	
Trichloroethene	50	44.8	47.3	46.1	92	71-120	5.4	14	
Chlorobenzene	50	44.7	44.8	44.8	90	75-130	0.4	13	
Toluene	50	44.1	44.1	44.1	88	76-125	0.0	13	
Benzene	50	45.0	43.1	44.0	88	76-127	4.3	11	

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits
Category: 624-A				
Matrix: AQUEOUS				
QC Lot: 31 AUG 92-V2A QC Run: 01 SEP 92-V2A				
Concentration Units: ug/L				
1,2-Dichloroethane-d4	50.0	47.0	94	76-114
Toluene-d8	50.0	48.3	97	88-110
4-Bromofluorobenzene	50.0	47.4	95	86-115

Category: 624-A				
Matrix: AQUEOUS				
QC Lot: 31 AUG 92-V2A QC Run: 02 SEP 92-V2A				
Concentration Units: ug/L				
1,2-Dichloroethane-d4	50.0	51.4	103	76-114
Toluene-d8	50.0	51.0	102	88-110
4-Bromofluorobenzene	50.0	46.8	94	86-115

Category: 624-A				
Matrix: AQUEOUS				
QC Lot: 21 AUG 92-V5A QC Run: 03 SEP 92-V5A				
Concentration Units: ug/L				
1,2-Dichloroethane-d4	50.0	48.5	97	76-114
Toluene-d8	50.0	52.1	104	88-110
4-Bromofluorobenzene	50.0	52.3	105	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 31 AUG 92-V2A QC Run: 01 SEP 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 31 AUG 92-V2A QC Run: 02 SEP 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)			
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 21 AUG 92-V5A QC Run: 03 SEP 92-V5A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	1.5	ug/L	5.0 J
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

J = Result is detected below the reporting limit or is an estimated concentration.



RECEIVED

SEP 21 1992

Wehran Engineering
Massachusetts

September 17, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington:Collected on 8/27/92). This project was received at Enseco - Erco Laboratory on August 28, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012723 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,

Jay Cudmore
Program Administrator

Encl.

2200 Co-Borrell Lane
Somerset NJ 08875
(908) 488-5900
ERCO
205 Alveston Brook Park
Cambridge MA 02138
(617) 661-5111

☐ ERGO
205 Avenue Brook Park
Cambridge MA 02138
(617) 661-5111

☐ EPOC
 205 Alewife Brook Park
 Cambridge MA 02138
 (617) 661-9111

☐ ENCO
206 Abenaki Street Park
Cambridge MA 02138
(617) 661-0111

ENSECO PROJECT	12723
ENSECO CONTACT	

an Folan
an Engineering

CLIENT NAME	Do
COMPANY	Webma

6 Riverside Drive Andover Research Park	PHONE NO	682-1980
Andover MA		

PROJECT NAME	GE wilmington	P.O. NUMBER	
SAMPLER NAME	Folan Stone	PHONE NUMBER	
		ANALYSES	

METHOD OF SHIPMENT	AIR BILL NUMBER	COOLER NUMBER	CUSTOMER SEAL NUMBER
Analytical TAT Rush		Days	
		Normal	
		Days	

[illegible][illegible][illegible][illegible]

PLEASE NOTE - ALL COM FIELDS MUST BE COMPLETED FOR POWER RANK 1 AND 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

RECEIVED AT ENRSO	5:00pm 8/2
Ejale Ellis	

[illegible]

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
012723-0001-SA	GEW-GW-GZA104S-126	AQUEOUS	27 AUG 92	10:00	28 AUG 92
012723-0002-SA	GEW-GW-GZA104D-127	AQUEOUS	27 AUG 92	10:30	28 AUG 92
012723-0003-SA	GEW-TB-128	AQUEOUS	27 AUG 92		28 AUG 92
012723-0004-SA	GEW-FMB-129	AQUEOUS	27 AUG 92	11:00	28 AUG 92
012723-0005-SA	GEW-GW-GZA105R-133	AQUEOUS	27 AUG 92	15:00	28 AUG 92
012723-0006-SA	GEW-GW-WE105R2-132	AQUEOUS	27 AUG 92	15:30	28 AUG 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012723	Group Code	Analysis Description	Custom Test?
0001 - 0006	A	Volatile Organics Target Compound List (TCL)	N N

September 17, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 8/27/92
Erco Project No.: 012723

1. This project consists of the results for samples received at Enseco - Erco Laboratory on August 28, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
One sample was not labeled, but was determined to be GEW-FMB-129.
Samples agree with the chain of custody.
Samples were properly preserved.
One VOA vial of two for sample GEW-TB-128 contained air bubbles.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA104S-126
Lab ID: 012723-0001-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	5.9	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	23	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	29	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0
Surrogate	Recovery		
1,2-Dichloroethane-d4	110	%	--
Toluene-d8	102	%	--
4-Bromofluorobenzene	99	%	--

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA104D-127
Lab ID: 012723-0002-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 09 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene	ND	ug/L	5.0	
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	2.8	ug/L	5.0	J
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.7	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	108	%	--	
Toluene-d8	96	%	--	
4-Bromofluorobenzene	95	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA104D-127
Lab ID: 012723-0002-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 09 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-TB-128
Lab ID: 012723-0003-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 09 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	4.8	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	109	%	--	
Toluene-d8	96	%	--	
4-Bromofluorobenzene	97	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering

Client ID: GEW-TB-128

Lab ID: 012723-0003-SA

Matrix: AQUEOUS

Authorized: 28 AUG 92

Sampled: 27 AUG 92

Prepared: NA

Received: 28 AUG 92

Analyzed: 09 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected

NA - Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tuller

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A CURTIS COMPANY

Client Name: Wehran Engineering
Client ID: GEW-FMB-129
Lab ID: 012723-0004-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 09 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	105	%	--
Toluene-d8	99	%	--
4-Bromofluorobenzene	93	%	--

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA105R-133
Lab ID: 012723-0005-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	250	
Bromomethane	ND	ug/L	250	
Vinyl chloride	ND	ug/L	250	
Chloroethane	ND	ug/L	250	
Methylene chloride	ND	ug/L	120	
Acetone	ND	ug/L	250	
Carbon disulfide	ND	ug/L	120	
1,1-Dichloroethene	57	ug/L	120	J
1,1-Dichloroethane	250	ug/L	120	
1,2-Dichloroethene				
(total)	59	ug/L	120	J
Chloroform	ND	ug/L	120	
1,2-Dichloroethane	ND	ug/L	120	
2-Butanone	ND	ug/L	250	
1,1,1-Trichloroethane	ND	ug/L	120	
Carbon tetrachloride	ND	ug/L	120	
Vinyl acetate	ND	ug/L	250	
Bromodichloromethane	ND	ug/L	120	
1,2-Dichloropropane	ND	ug/L	120	
trans-1,3-Dichloropropene	ND	ug/L	120	
Trichloroethene	9600	ug/L	500	ml
Dibromochloromethane	ND	ug/L	120	
1,1,2-Trichloroethane	ND	ug/L	120	
Benzene	ND	ug/L	120	
cis-1,3-Dichloropropene	ND	ug/L	120	
Bromoform	ND	ug/L	120	
4-Methyl-2-pentanone	ND	ug/L	250	
2-Hexanone	ND	ug/L	250	
1,1,2,2-Tetrachloroethane	ND	ug/L	120	
Tetrachloroethene	7200	ug/L	500	ml
Toluene	ND	ug/L	120	
Chlorobenzene	ND	ug/L	120	
Ethylbenzene	ND	ug/L	120	
Styrene	ND	ug/L	120	
Xylenes (total)	ND	ug/L	120	
Surrogate	Recovery			
1,2-Dichloroethane-d4	102	%	--	
Toluene-d8	100	%	--	
4-Bromofluorobenzene	97	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA105R-133
Lab ID: 012723-0005-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note m : Compound exceeded standard calibration range in the original analysis and was rerun with a dilution.

Note l : Analyte present at a concentration above the calibration range, therefore a dilution of the sample was required and reporting limits were increased.

ND - Not detected
NA - Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-WE105R2-132
Lab ID: 012723-0006-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 09 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	18	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	2.7	ug/L	5.0	J
1,1-Dichloroethane	24	ug/L	5.0	
1,2-Dichloroethene				
(total)	25	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	290	ug/L	12	ml
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	270	ug/L	12	ml
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	104	%	--	
Toluene-d8	125	%	--	&
4-Bromofluorobenzene	117	%	--	&

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-WE105R2-132
Lab ID: 012723-0006-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 27 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 09 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note m : Compound exceeded standard calibration range in the original analysis and was rerun with a dilution.

Note l : Analyte present at a concentration above the calibration range, therefore a dilution of the sample was required and reporting limits were increased.

Note & : Surrogate recovery is outside of control limits.

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012723-0001-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012723-0002-SA	AQUEOUS	624-A	04 SEP 92-V2A	10 SEP 92-V2A
012723-0003-SA	AQUEOUS	624-A	04 SEP 92-V2A	10 SEP 92-V2A
012723-0004-SA	AQUEOUS	624-A	04 SEP 92-V2A	10 SEP 92-V2A
012723-0005-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012723-0006-SA	AQUEOUS	624-A	04 SEP 92-V2A	10 SEP 92-V2A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		Measured	AVG	Accuracy		Precision	
		DCS1	DCS2			DCS	Average(%) Limits	(RPD) DCS Limit	
Category: 624-A									
Matrix: AQUEOUS									
QC Lot: 10 SEP 92-V2A									
Concentration Units: ug/L									
1,1-Dichloroethene	50	61.3	56.4	58.8	118	61-145	8.3	14	
Trichloroethene	50	57.4	54.2	55.8	112	71-120	5.7	14	
Chlorobenzene	50	58.5	54.5	56.5	113	75-130	7.1	13	
Toluene	50	57.5	54.4	56.0	112	76-125	5.5	13	
Benzene	50	57.3	52.4	54.8	110	76-127	8.9	11	

Category: 624-A
Matrix: AQUEOUS
QC Lot: 04 SEP 92-V2A
Concentration Units: ug/L

1,1-Dichloroethene	50	58.3	56.7	57.5	115	61-145	2.8	14	
Trichloroethene	50	53.8	52.8	53.3	107	71-120	1.9	14	
Chlorobenzene	50	57.2	56.6	56.9	114	75-130	1.1	13	
Toluene	50	57.2	56.9	57.0	114	76-125	0.5	13	
Benzene	50	54.5	57.8	56.2	112	76-127	5.9	11	

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 10 SEP 92-V2A QC Run: 10 SEP 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 04 SEP 92-V2A QC Run: 10 SEP 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Enseco
A Corning Company

RECEIVED
SEP 21 1992

Wehran Engineering
Massachusetts

September 17, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

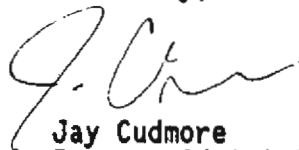
Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington:Collected on 8/28/92). This project was received at Enseco - Erco Laboratory on August 28, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012724 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,



Jay Cudmore
Program Administrator

Encl.

CLIENT COPY

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled		Received
			Date	Time	Date
012724-0001-SA	GEW-GW-GZA104R2-130	AQUEOUS	28 AUG 92	08:15	28 AUG 92
012724-0002-SA	GEW-GW-GZA104R1-131	AQUEOUS	28 AUG 92	08:15	28 AUG 92
012724-0003-SA	GEW-GW-GZA105D-134	AQUEOUS	28 AUG 92	09:15	28 AUG 92
012724-0004-SA	GEW-FMB-135	AQUEOUS	28 AUG 92	10:30	28 AUG 92
012724-0005-SA	GEW-GW-GZA103S-136	AQUEOUS	28 AUG 92	11:30	28 AUG 92
012724-0006-SA	GEW-GW-GZA15-137	AQUEOUS	28 AUG 92	12:00	28 AUG 92
012724-0007-SA	GEW-GW-GZA15D-138	AQUEOUS	28 AUG 92	12:00	28 AUG 92
012724-0008-SA	GEW-GW-GZA7-139	AQUEOUS	28 AUG 92	15:00	28 AUG 92
012724-0009-SA	GEW-GW-WE5R1-142	AQUEOUS	28 AUG 92	15:00	28 AUG 92
012724-0010-SA	GEW-GW-GZA103R1-140	AQUEOUS	28 AUG 92	15:00	28 AUG 92
012724-0011-SA	GEW-GW-GZA103R2-141	AQUEOUS	28 AUG 92	15:00	28 AUG 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012724	Group Code	Analysis Description	Custom Test?
0001 - 0011	A	Volatile Organics Target Compound List (TCL)	N N

September 17, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 8/28/92
Erco Project No.: 012724

1. This project consists of the results for samples received at Enseco - Erco Laboratory on August 28, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agree with the chain of custody.
Samples were properly preserved.
3. In the volatile fraction, note that sample -01 (GEW-GW-GZA104R2-130) was run out of holding time. Due to instrument failures, the sample could not be scheduled earlier. The laboratory released the analytical data.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Caring Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA104R2-130
Lab ID: 012724-0001-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 14 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	110	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	11	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	88	%	--
Toluene-d8	106	%	--
4-Bromofluorobenzene	100	%	--

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
 Target Compound List (TCL)
 Method 8240

Client Name: Wehran Engineering
 Client ID: GEW-GW-GZA104R1-131
 Lab ID: 012724-0002-SA
 Matrix: AQUEOUS
 Authorized: 28 AUG 92

Sampled: 28 AUG 92
 Prepared: NA

Received: 28 AUG 92
 Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	11	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	85	%	--
Toluene-d8	107	%	--
4-Bromofluorobenzene	97	%	--

ND = Not detected
 NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA105D-134
Lab ID: 012724-0003-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	180	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.2	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	5.9	ug/L	5.0	
1,1-Dichloroethane	27	ug/L	5.0	
1,2-Dichloroethene (total)	470	ug/L	25	ml
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	750	ug/L	25	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	510	ug/L	25	ml
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	

Surrogate	Recovery		
1,2-Dichloroethane-d4	85	%	--
Toluene-d8	106	%	--
4-Bromofluorobenzene	102	%	--

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA105D-134
Lab ID: 012724-0003-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note m : Compound exceeded standard calibration range in the original analysis and was rerun with a dilution.

Note l : Analyte present at a concentration above the calibration range, therefore a dilution of the sample was required and reporting limits were increased.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A GEACOM COMPANY

Client Name: Wehran Engineering
Client ID: GEW-FMB-135
Lab ID: 012724-0004-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.1	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	1.2	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	2.4	ug/L	5.0	J
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.4	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	82	%	--	
Toluene-d8	97	%	--	
4-Bromofluorobenzene	100	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-FMB-135
Lab ID: 012724-0004-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Chemco Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA103S-136
Lab ID: 012724-0005-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	200	
Bromomethane	ND	ug/L	200	
Vinyl chloride	ND	ug/L	200	
Chloroethane	ND	ug/L	200	
Methylene chloride	70	ug/L	100	J
Acetone	ND	ug/L	200	
Carbon disulfide	ND	ug/L	100	
1,1-Dichloroethene	ND	ug/L	100	
1,1-Dichloroethane	ND	ug/L	100	
1,2-Dichloroethene (total)	ND	ug/L	100	
Chloroform	ND	ug/L	100	
1,2-Dichloroethane	ND	ug/L	100	
2-Butanone	ND	ug/L	200	
1,1,1-Trichloroethane	ND	ug/L	100	
Carbon tetrachloride	ND	ug/L	100	
Vinyl acetate	ND	ug/L	200	
Bromodichloromethane	ND	ug/L	100	
1,2-Dichloropropane	ND	ug/L	100	
trans-1,3-Dichloropropene	ND	ug/L	100	
Trichloroethene	ND	ug/L	100	
Dibromochloromethane	ND	ug/L	100	
1,1,2-Trichloroethane	ND	ug/L	100	
Benzene	ND	ug/L	100	
cis-1,3-Dichloropropene	ND	ug/L	100	
Bromoform	ND	ug/L	100	
4-Methyl-2-pentanone	ND	ug/L	200	
2-Hexanone	ND	ug/L	200	
1,1,2,2-Tetrachloroethane	ND	ug/L	100	
Tetrachloroethene	25	ug/L	100	J
Toluene	1600	ug/L	100	
Chlorobenzene	ND	ug/L	100	
Ethylbenzene	ND	ug/L	100	
Styrene	ND	ug/L	100	
Xylenes (total)	ND	ug/L	100	
Surrogate	Recovery			
1,2-Dichloroethane-d4	84	%	--	
Toluene-d8	108	%	--	
4-Bromofluorobenzene	103	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA103S-136
Lab ID: 012724-0005-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
Accounting System

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA15-137
Lab ID: 012724-0006-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	15	ug/L	5.0	
1,2-Dichloroethene				
(total)	23	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	5.5	ug/L	10	J
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	1.2	ug/L	5.0	J
Toluene	22	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	14	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	10	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	87	%	--	
Toluene-d8	108	%	--	
4-Bromofluorobenzene	102	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA15-137
Lab ID: 012724-0006-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA15D-138
Lab ID: 012724-0007-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	13	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	15	ug/L	5.0	
1,2-Dichloroethene				
(total)	24	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	4.9	ug/L	10	J
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	1.9	ug/L	5.0	J
Toluene	21	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	16	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	9.7	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	89	%	--	
Toluene-d8	104	%	--	
4-Bromofluorobenzene	104	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA15D-138
Lab ID: 012724-0007-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA7-139
Lab ID: 012724-0008-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	7.7	ug/L	5.0	
1,2-Dichloroethene				
(total)	110	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	28	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	40	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	150	ug/L	5.0	
Toluene	50	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	4.3	ug/L	5.0	J
Surrogate	Recovery			
1,2-Dichloroethane-d4	84	%	--	
Toluene-d8	108	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240



Client Name: Wehran Engineering
Client ID: GEW-GW-GZA7-139
Lab ID: 012724-0008-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Caring Company

Client Name: Wehran Engineering
Client ID: GEW-GW-WE5R1-142
Lab ID: 012724-0009-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	50	
Bromomethane	ND	ug/L	50	
Vinyl chloride	1800	ug/L	250	ml
Chloroethane	ND	ug/L	50	
Methylene chloride	15	ug/L	25	J
Acetone	ND	ug/L	50	
Carbon disulfide	ND	ug/L	25	
1,1-Dichloroethene	ND	ug/L	25	
1,1-Dichloroethane	78	ug/L	25	
1,2-Dichloroethene				
(total)	1700	ug/L	120	ml
Chloroform	ND	ug/L	25	
1,2-Dichloroethane	ND	ug/L	25	
2-Butanone	ND	ug/L	50	
1,1,1-Trichloroethane	ND	ug/L	25	
Carbon tetrachloride	ND	ug/L	25	
Vinyl acetate	ND	ug/L	50	
Bromodichloromethane	ND	ug/L	25	
1,2-Dichloropropane	ND	ug/L	25	
trans-1,3-Dichloropropene	ND	ug/L	25	
Trichloroethene	960	ug/L	120	ml
Dibromochloromethane	ND	ug/L	25	
1,1,2-Trichloroethane	ND	ug/L	25	
Benzene	ND	ug/L	25	
cis-1,3-Dichloropropene	ND	ug/L	25	
Bromoform	ND	ug/L	25	
4-Methyl-2-pentanone	ND	ug/L	50	
2-Hexanone	ND	ug/L	50	
1,1,2,2-Tetrachloroethane	ND	ug/L	25	
Tetrachloroethene	680	ug/L	25	
Toluene	29	ug/L	25	
Chlorobenzene	ND	ug/L	25	
Ethylbenzene	ND	ug/L	25	
Styrene	ND	ug/L	25	
Xylenes (total)	18	ug/L	25	J
Surrogate	Recovery			
1,2-Dichloroethane-d4	85	%	--	
Toluene-d8	106	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-WE5R1-142
Lab ID: 012724-0009-SA
Matrix: AQUEOUS
Authorized: 28 AUG 92

Sampled: 28 AUG 92
Prepared: NA

Received: 28 AUG 92
Analyzed: 10 SEP 92

Note m : Compound exceeded standard calibration range in the original analysis and was rerun with a dilution.

Note l : Analyte present at a concentration above the calibration range, therefore a dilution of the sample was required and reporting limits were increased.

Note J : Result is detected below the reporting limit or is an estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Hector Tulier

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior, but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012724-0001-SA	AQUEOUS	624-A	14 SEP 92-V6A	14 SEP 92-V6A
012724-0002-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0003-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0004-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0005-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0006-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0007-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0008-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0009-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0010-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012724-0011-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		AVG	Accuracy		Precision	
		DCS1	Measured DCS2		DCS	Average(%) Limits	(RPD) DCS Limit	
Category: 624-A								
Matrix: AQUEOUS								
QC Lot: 14 SEP 92-V6A								
Concentration Units: ug/L								
1,1-Dichloroethene	50	47.9	48.3	48.1	96	61-145	0.8	14
Trichloroethene	50	47.4	47.6	47.5	95	71-120	0.4	14
Chlorobenzene	50	48.5	49.3	48.9	98	75-130	1.6	13
Toluene	50	48.4	50.5	49.4	99	76-125	4.2	13
Benzene	50	48.7	49.1	48.9	98	76-127	0.8	11

Category: 624-A
Matrix: AQUEOUS
QC Lot: 27 AUG 92-V6A
Concentration Units: ug/L

1,1-Dichloroethene	50	63.4	55.5	59.5	119	61-145	13	14
Trichloroethene	50	53.7	52.4	53.0	106	71-120	2.4	14
Chlorobenzene	50	49.9	47.2	48.6	97	75-130	5.7	13
Toluene	50	48.6	45.5	47.0	94	76-125	6.6	13
Benzene	50	54.3	52.0	53.1	106	76-127	4.4	11

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V6A QC Run: 14 SEP 92-V6A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	43.0	86	76-114
Toluene-d8	50.0	54.5	109	88-110
4-Bromofluorobenzene	50.0	49.2	98	86-115

Category: 624-A
Matrix: AQUEOUS
QC Lot: 27 AUG 92-V6A QC Run: 10 SEP 92-V6A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	41.3	83	76-114
Toluene-d8	50.0	54.3	109	88-110
4-Bromofluorobenzene	50.0	49.0	98	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 14 SEP 92-V6A QC Run: 14 SEP 92-V6A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)			
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 27 AUG 92-V6A QC Run: 10 SEP 92-V6A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)			
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Enseco
A Corning Company

RECEIVED
SEP 21 1992

Wehran Engineering
Massachusetts

September 17, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

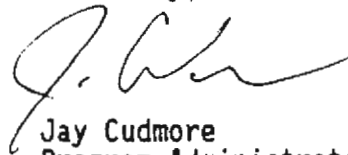
Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington: Collected on 8/28, 8/31, 9/1). This project was received at Enseco - Erco Laboratory on September 1, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012744 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,



Jay Cudmore
Program Administrator

Encl.



CHAIN-OF-CUSTODY RECORD

ENG-1045-C

SHIP TO: ☐ ENSECO EAST
2200 Cottontail Lane
Somerset NJ 08876
(908) 499-5000
☐ ERICO
205 Alewife Brook Parkway
Cambridge MA 02138
(917) 691-3113

PAGE 1 OF 4

CLIENT NAME: Dan Folan
 COMPANY: Wehran Engineering
 ADDRESS: 6 Riverside Dr. Andover Research Park
 Andover, MA
 PROJECT NAME: 6E Wilmington
 PHONE NO: 682-1980
 P.O. NUMBER:
 PHONE NUMBER:
 CUSTODY SEAL NUMBER:
 ANALYSES: 0728

SAMPLER NAME	METHOD OF SHIPMENT	AIR BILL NUMBER	COOLER NUMBER	ANALYSES	ENSECO COMMENTS
GEW-TB-143	water	40ml	2	8/28 PM	✓
GEW-FMB-144	water	40ml	2	8/31 AM	✓
GEW-GW-P24R-145	water	40ml	3	8/31 9:30	✓
GEW-GW-P24D-146	water	40ml	3	8/31 1000	✓
GEW-GW-P25S-147	water	40ml	3	8/31 10:00	✓
GEW-GW-P28R-148	water	40ml	3	8/31 1130	✓
GEW-GW-P29S-149	water	40ml	1	8/31 1130	✓
(Please Note) - detection limits must meet or be less than mass mch					!

RECEIVED BY: CDS
 DATE: 9/1/92
 TIME: 17:00
 RECEIVED AT ENSECO: N. Karty



CHAIN-OF-CUSTODY RECORD EMS-1045-C

PAGE 2 OF 4

SHIP TO: ☐ EMSECO EAST
☐ EMSECO WEST
☐ EMSECO SOUTH

EMSECO CONTACT
EMSECO PROJECT # 12744
SPECIAL INSTRUCTIONS/COMMENTS

CLIENT NAME Dan Folan
COMPANY Wehran Engineering
ADDRESS 6 Riverside Drive, Andover Research Park
Andover, MA
PROJECT NAME GE Wilmington
SAMPLE NAME Folan / Spine
METHOD OF SHIPMENT AIRBILL NUMBER
COOLER NUMBER
PHONE NO 682-1980
P.O. NUMBER
PHONE NUMBER
CUSTOMER MAIL NUMBER

Analytical TAT Rush Days Normal Days

ANALYSES
0428

ANALYSES	ENSECO COMMENTS
GEW-GW-GEA107A-150 w/wh 40ml 3 8/31 PM HEL ✓	
GEW-GW-GEA107M-150 w/wh 40ml 3 8/31 PM HEL ✓	
GEW-GW-GEA107R-150 w/wh 40ml 2 8/31 PM HEL ✓	
GEW-GW-GEA107S-150 w/wh 40ml 3 8/31 PM HEL ✓	
GEW-GW-GEA107D-150 w/wh 40ml 3 8/31 PM HEL ✓	
GEW-GW-GEA108-150 w/wh 40ml 3 9/1 AM HEL ✓	
GEW-GW-WEA-150 w/wh 40ml 3 9/1 AM HEL ✓	
GEW-ENG-150 w/wh 40ml 2 9/1 AM HEL ✓	

Please Note: detection limits noted meet or better than MCLs!

RECEIVED BY
CDS 8/31/92 16:30 9/1/92
RECEIVED AT EMSECO
9/1 17:00

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
012744-0001-SA	GEW-TB-143	AQUEOUS	28 AUG 92		01 SEP 92
012744-0002-SA	GEW-FMB-144	AQUEOUS	31 AUG 92		01 SEP 92
012744-0003-SA	GEW-GW-PZ4R-145	AQUEOUS	31 AUG 92	09:30	01 SEP 92
012744-0004-SA	GEW-GW-PZ4D-146	AQUEOUS	31 AUG 92	10:00	01 SEP 92
012744-0005-SA	GEW-GW-PZ4S-147	AQUEOUS	31 AUG 92	10:00	01 SEP 92
012744-0006-SA	GEW-GW-PZ2R-148	AQUEOUS	31 AUG 92	11:30	01 SEP 92
012744-0007-SA	GEW-GW-GZA107M-150	AQUEOUS	31 AUG 92		01 SEP 92
012744-0008-SA	GEW-GW-GZA107M2-151	AQUEOUS	31 AUG 92		01 SEP 92
012744-0009-SA	GEW-GW-GZA107R-152	AQUEOUS	31 AUG 92		01 SEP 92
012744-0010-SA	GEW-GW-GZA107S-153	AQUEOUS	31 AUG 92		01 SEP 92
012744-0011-SA	GEW-GW-GZA107D-154	AQUEOUS	31 AUG 92		01 SEP 92
012744-0012-SA	GEW-GW-GZA102S-155	AQUEOUS	01 SEP 92		01 SEP 92
012744-0013-SA	GEW-GW-WE6-158	AQUEOUS	01 SEP 92		01 SEP 92
012744-0014-SA	GEW-FMB-156	AQUEOUS	01 SEP 92		01 SEP 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012744	Group Code	Analysis Description	Custom Test?
0001 - 0014	A	Volatile Organics Target Compound List (TCL)	N N

September 17, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 8/28, 8/31, 9/1
Erco Project No.: 012744

1. This project consists of the results for samples received at Enseco - Erco Laboratory on September 1, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
VOA vials were properly preserved.
VOA vials did not contain headspace.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TB-143
Lab ID: 012744-0001-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 28 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	2.3	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	1.9	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	103	%	--	
Toluene-d8	103	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering

Client ID: GEW-TB-143

Lab ID: 012744-0001-SA

Matrix: AQUEOUS

Authorized: 01 SEP 92

Sampled: 28 AUG 92

Prepared: NA

Received: 01 SEP 92

Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected

NA - Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tuller

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-FMB-144
Lab ID: 012744-0002-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	105	%	--
Toluene-d8	98	%	--
4-Bromofluorobenzene	96	%	--

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ4R-145
Lab ID: 012744-0003-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	4.7	ug/L	5.0	J
1,2-Dichloroethene (total)	37	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	3.3	ug/L	5.0	J
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	330	ug/L	12	ml
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	260	ug/L	12	ml
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	176	%	--	&
Toluene-d8	102	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ4R-145
Lab ID: 012744-0003-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note m : Compound exceeded standard calibration range in the original analysis and was rerun with a dilution.

Note l : Analyte present at a concentration above the calibration range, therefore a dilution of the sample was required and reporting limits were increased.

Note & : Surrogate recovery is outside of control limits.

ND - Not detected
NA - Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ4D-146
Lab ID: 012744-0004-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	1.0	ug/L	5.0	J
1,2-Dichloroethene (total)	27	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	85	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	74	ug/L	5.0	
Toluene	1.2	ug/L	5.0	J
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	104	%	--	
Toluene-d8	100	%	--	
4-Bromofluorobenzene	97	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ4D-146
Lab ID: 012744-0004-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ4S-147
Lab ID: 012744-0005-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	150	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	56	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	2.6	ug/L	10	J
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	150	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	115	%	--	&
Toluene-d8	99	%	--	
4-Bromofluorobenzene	97	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ4S-147
Lab ID: 012744-0005-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

Note & : Surrogate recovery is outside of control limits.

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ2R-148
Lab ID: 012744-0006-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	24	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	1.3	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	4.1	ug/L	5.0	J
1,2-Dichloroethene				
(total)	73	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	1.9	ug/L	5.0	J
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	4.8	ug/L	5.0	J
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	3.8	ug/L	5.0	J
Toluene	100	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	6.2	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	41	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	103	%	--	
Toluene-d8	105	%	--	
4-Bromofluorobenzene	91	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ2R-148
Lab ID: 012744-0006-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107M-150
Lab ID: 012744-0007-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	1.9	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	1.7	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	5.7	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.0	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	100	%	--	
Toluene-d8	75	%	--	&
4-Bromofluorobenzene	73	%	--	&

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107M2-151
Lab ID: 012744-0008-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene	ND	ug/L	5.0	
(total)	1.2	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	6.1	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	3.1	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	103	%	--	
Toluene-d8	102	%	--	
4-Bromofluorobenzene	103	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107M2-151
Lab ID: 012744-0008-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107R-152
Lab ID: 012744-0009-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	1.1	ug/L	5.0	J
1,2-Dichloroethene				
(total)	2.0	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	10	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	6.2	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	100	%	--	
Toluene-d8	102	%	--	
4-Bromofluorobenzene	96	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107R-152
Lab ID: 012744-0009-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107S-153
Lab ID: 012744-0010-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	1.2	ug/L	5.0	J
1,2-Dichloroethene (total)	2.1	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	1.0	ug/L	5.0	J
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	10	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	6.1	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	104	%	--	
Toluene-d8	98	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107S-153
Lab ID: 012744-0010-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107D-154
Lab ID: 012744-0011-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	2.7	ug/L	5.0	J
1,1-Dichloroethane	3.7	ug/L	5.0	J
1,2-Dichloroethene (total)	9.7	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	1.6	ug/L	5.0	J
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	49	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	15	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	107	%	--	
Toluene-d8	95	%	--	
4-Bromofluorobenzene	92	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA107D-154
Lab ID: 012744-0011-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 31 AUG 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 10 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA102S-155
Lab ID: 012744-0012-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	50	
Bromomethane	ND	ug/L	50	
Vinyl chloride	ND	ug/L	50	
Chloroethane	ND	ug/L	50	
Methylene chloride	ND	ug/L	25	
Acetone	ND	ug/L	50	
Carbon disulfide	17	ug/L	25	J
1,1-Dichloroethene	ND	ug/L	25	
1,1-Dichloroethane	ND	ug/L	25	
1,2-Dichloroethene (total)	6.8	ug/L	25	J
Chloroform	ND	ug/L	25	
1,2-Dichloroethane	ND	ug/L	25	
2-Butanone	ND	ug/L	50	
1,1,1-Trichloroethane	ND	ug/L	25	
Carbon tetrachloride	ND	ug/L	25	
Vinyl acetate	ND	ug/L	50	
Bromodichloromethane	ND	ug/L	25	
1,2-Dichloropropane	ND	ug/L	25	
trans-1,3-Dichloropropene	ND	ug/L	25	
Trichloroethene	ND	ug/L	25	
Dibromochloromethane	ND	ug/L	25	
1,1,2-Trichloroethane	ND	ug/L	25	
Benzene	ND	ug/L	25	
cis-1,3-Dichloropropene	ND	ug/L	25	
Bromoform	ND	ug/L	25	
4-Methyl-2-pentanone	ND	ug/L	50	
2-Hexanone	ND	ug/L	50	
1,1,2,2-Tetrachloroethane	ND	ug/L	25	
Tetrachloroethene	ND	ug/L	25	
Toluene	ND	ug/L	25	
Chlorobenzene	ND	ug/L	25	
Ethylbenzene	ND	ug/L	25	
Styrene	ND	ug/L	25	
Xylenes (total)	ND	ug/L	25	
Surrogate	Recovery			
1,2-Dichloroethane-d4	88	%	--	
Toluene-d8	103	%	--	
4-Bromofluorobenzene	102	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA102S-155
Lab ID: 012744-0012-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-WE6-158
Lab ID: 012744-0013-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	1.4	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	88	%	--
Toluene-d8	103	%	--
4-Bromofluorobenzene	103	%	--

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering

Client ID: GEW-GW-WE6-158

Lab ID: 012744-0013-SA

Matrix: AQUEOUS

Authorized: 01 SEP 92

Sampled: 01 SEP 92

Prepared: NA

Received: 01 SEP 92

Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected

NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-FMB-156
Lab ID: 012744-0014-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	3.9	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	20	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	20	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	87	%	--
Toluene-d8	103	%	--
4-Bromofluorobenzene	100	%	--

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-FMB-156
Lab ID: 012744-0014-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Joyce Lombardo

Approved By: Hector Tulier

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012744-0001-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0002-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0003-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0004-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0005-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0006-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0007-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0008-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0009-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0010-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0011-SA	AQUEOUS	624-A	10 SEP 92-V2A	10 SEP 92-V2A
012744-0012-SA	AQUEOUS	624-A	14 SEP 92-V6A	15 SEP 92-V6A
012744-0013-SA	AQUEOUS	624-A	14 SEP 92-V6A	15 SEP 92-V6A
012744-0014-SA	AQUEOUS	624-A	14 SEP 92-V6A	15 SEP 92-V6A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		Measured	AVG	Accuracy		Precision
		DCS1	DCS2			Average(%)	(RPD)	
						DCS	Limits	DCS Limit
Category: 624-A								
Matrix: AQUEOUS								
QC Lot: 10 SEP 92-V2A								
Concentration Units: ug/L								
1,1-Dichloroethene	50	61.3	56.4	58.8	118	61-145	8.3	14
Trichloroethene	50	57.4	54.2	55.8	112	71-120	5.7	14
Chlorobenzene	50	58.5	54.5	56.5	113	75-130	7.1	13
Toluene	50	57.5	54.4	56.0	112	76-125	5.5	13
Benzene	50	57.3	52.4	54.8	110	76-127	8.9	11

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V6A
Concentration Units: ug/L

1,1-Dichloroethene	50	47.9	48.3	48.1	96	61-145	0.8	14
Trichloroethene	50	47.4	47.6	47.5	95	71-120	0.4	14
Chlorobenzene	50	48.5	49.3	48.9	98	75-130	1.6	13
Toluene	50	48.4	50.5	49.4	99	76-125	4.2	13
Benzene	50	48.7	49.1	48.9	98	76-127	0.8	11

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V6A QC Run: 15 SEP 92-V6A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	44.6	89	76-114
Toluene-d8	50.0	53.3	107	88-110
4-Bromofluorobenzene	50.0	50.4	101	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 10 SEP 92-V2A QC Run: 10 SEP 92-V2A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 14 SEP 92-V6A QC Run: 15 SEP 92-V6A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Enseco
A Corning Company

RECEIVED
SEP 21 1992
Wehran Engineering
Massachusetts

September 17, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

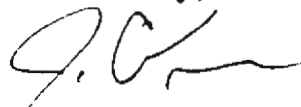
Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington:Collected on 9/1/92). This project was received at Enseco - Erco Laboratory on September 1, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012745 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,



Jay Cudmore
Program Administrator

Encl.

CHAIN-OF-CUSTODY RECORD

ENC-1045-C

CLIENT NAME Dan Folan		ENSECO CONTACT ENSECO PROJECT # 12745		CONTACT NO. (908) 494-8800 ☐ ERCO 205 Alewife Brook Parkway Cambridge MA 02138 (617) 801-9111	
COMPANY wehran Engineering		ADDRESS 16 Riverside Drive Andover Research Park Andover MA 01820-1980		SPECIAL INSTRUCTIONS/COMMENTS	
PROJECT NAME GE Wilmington		PHONE NO. 682-1980		P.O. NUMBER	
SAMPLER NAME Folan / Stone		PHONE NUMBER		ANALYSES	
METHOD OF SHIPMENT		AIR BILL NUMBER		CUSTODY SEAL NUMBER	
Analytical TAT Rush		Days		Days	
SAMPLE IDENTIFICATION		CONTAINER SIZE		DATE	
GEW-GW-WE6R1-157 water		40ml		9/1/92	
GEW-GW-GZA102R115A water		40ml		9/1/92	
GEW-GW-GZA102R2160 water		40ml		9/1/92	
GEW-GW-67A		40ml		9/1/92	
GEW-GW-PZ13-161 water		40ml		9/1/92	
GEW-GW-PZ10-162 water		40ml		9/1/92	
GEW-GW-PZ1M1-163 water		40ml		9/1/92	
GEW-GW-PZ1M2-164 water		40ml		9/1/92	
Please Note - detection limits must meet or be less than mean mchls!		40ml		9/1/92	
SAMPLE RELINQUISHED BY		DATE		TIME	
CHShine		9/1/92		16:30	
SAMPLE RECEIVED BY		DATE		TIME	
JDS b/c Tenth - 02503		9/1		17:00	
ENSECO COMMENTS		RECEIVED AT ENSECO		DATE	
8240		J. Folan		9/1	

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
012745-0001-SA	GEW-GW-WE6R1-157	AQUEOUS	01 SEP 92	11:00	01 SEP 92
012745-0002-SA	GEW-GW-GZA102R1-159	AQUEOUS	01 SEP 92	13:30	01 SEP 92
012745-0003-SA	GEW-GW-GZA102R2-160	AQUEOUS	01 SEP 92	13:30	01 SEP 92
012745-0004-SA	GEW-GW-PZ1S-161	AQUEOUS	01 SEP 92		01 SEP 92
012745-0005-SA	GEW-GW-PZ10-162	AQUEOUS	01 SEP 92		01 SEP 92
012745-0006-SA	GEW-GW-PZ1M1-163	AQUEOUS	01 SEP 92		01 SEP 92
012745-0007-SA	GEW-GW-PZ1M2-164	AQUEOUS	01 SEP 92		01 SEP 92
012745-0008-SA	GEW-GW-PZ1R-165	AQUEOUS	01 SEP 92	15:00	01 SEP 92
012745-0009-SA	GEW-GW-GZA12-166	AQUEOUS	01 SEP 92	16:00	01 SEP 92
012745-0010-SA	TRIP BLANK	AQUEOUS	01 SEP 92		01 SEP 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012745	Group Code	Analysis Description	Custom Test?
0001 - 0010	A	Volatile Organics Target Compound List (TCL)	N N

September 17, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 9/1/92
Erco Project No.: 012745

1. This project consists of the results for samples received at Enseco - Erco Laboratory on September 1, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
VOA vials were properly preserved.
VOA vials did not contain headspace.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-WE6R1-157
Lab ID: 012745-0001-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	3.0	ug/L	10	J
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	2.9	ug/L	5.0	J
Acetone	6.8	ug/L	10	JB
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	1.2	ug/L	5.0	J
1,2-Dichloroethene (total)	1.6	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	5.0	ug/L	5.0	J
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	36	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	44	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	104	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	100	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering

Client ID: GEW-GW-WE6R1-157

Lab ID: 012745-0001-SA

Matrix: AQUEOUS

Authorized: 01 SEP 92

Sampled: 01 SEP 92

Prepared: NA

Received: 01 SEP 92

Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected

NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA102R1-159
Lab ID: 012745-0002-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	12	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.6	ug/L	5.0	JB
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	1.6	ug/L	5.0	J
1,1-Dichloroethane	4.7	ug/L	5.0	J
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	3.7	ug/L	5.0	J
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	220	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	170	ug/L	5.0	
Toluene	1.1	ug/L	5.0	J
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	1.2	ug/L	5.0	J
Surrogate	Recovery			
1,2-Dichloroethane-d4	102	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	101	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA102R1-159
Lab ID: 012745-0002-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA102R2-160
Lab ID: 012745-0003-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	49	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.8	ug/L	5.0	JB
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	18	ug/L	5.0	
1,1-Dichloroethane	48	ug/L	5.0	
1,2-Dichloroethene (total)	330	ug/L	50	ml
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	5.1	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	1800	ug/L	50	ml
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	580	ug/L	50	ml
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	109	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	103	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA102R2-160
Lab ID: 012745-0003-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

Note m : Compound exceeded standard calibration range in the original analysis and was rerun with a dilution.

Note l : Analyte present at a concentration above the calibration range, therefore a dilution of the sample was required and reporting limits were increased.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZIS-161
Lab ID: 012745-0004-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	3.1	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	87	%	--	
Toluene-d8	99	%	--	
4-Bromofluorobenzene	100	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering

Client ID: GEW-GW-PZIS-161

Lab ID: 012745-0004-SA

Matrix: AQUEOUS

Authorized: 01 SEP 92

Sampled: 01 SEP 92

Prepared: NA

Received: 01 SEP 92

Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected

NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ1D-162
Lab ID: 012745-0005-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.9	ug/L	5.0	JB
Acetone	3.5	ug/L	10	JB
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	5.6	ug/L	5.0	
1,1-Dichloroethane	22	ug/L	5.0	
1,2-Dichloroethene (total)	6.1	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	7.6	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	68	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	3.7	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	104	%	--	
Toluene-d8	108	%	--	
4-Bromofluorobenzene	100	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering

Client ID: GEW-GW-PZ1D-162

Lab ID: 012745-0005-SA

Matrix: AQUEOUS

Authorized: 01 SEP 92

Sampled: 01 SEP 92

Prepared: NA

Received: 01 SEP 92

Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected

NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZIM1-163
Lab ID: 012745-0006-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.4	ug/L	5.0	JB
Acetone	5.2	ug/L	10	JB
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	5.1	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	25	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.5	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	103	%	--	
Toluene-d8	108	%	--	
4-Bromofluorobenzene	101	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Cummins Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZIM1-163
Lab ID: 012745-0006-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ1M2-164
Lab ID: 012745-0007-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.7	ug/L	5.0	JB
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene	ND	ug/L	5.0	
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	4.7	ug/L	5.0	J
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	22	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.1	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	104	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZIM2-164
Lab ID: 012745-0007-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZIR-165
Lab ID: 012745-0008-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.7	ug/L	5.0	JB
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	5.3	ug/L	5.0	
1,1-Dichloroethane	5.5	ug/L	5.0	
1,2-Dichloroethene (total)	2.4	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	26	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	120	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	6.4	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	105	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	102	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZIR-165
Lab ID: 012745-0008-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA12-166
Lab ID: 012745-0009-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.1	ug/L	5.0	JB
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	4.7	ug/L	5.0	J
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.0	ug/L	5.0	J
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	105	%	--	
Toluene-d8	105	%	--	
4-Bromofluorobenzene	101	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA12-166
Lab ID: 012745-0009-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: TRIP BLANK
Lab ID: 012745-0010-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	3.7	ug/L	5.0	JB
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	102	%	--	
Toluene-d8	106	%	--	
4-Bromofluorobenzene	100	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: TRIP BLANK
Lab ID: 012745-0010-SA
Matrix: AQUEOUS
Authorized: 01 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 01 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Joanne (Altovino) Sprague

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012745-0001-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012745-0002-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012745-0003-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012745-0004-SA	AQUEOUS	624-A	14 SEP 92-V6A	15 SEP 92-V6A
012745-0005-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012745-0006-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012745-0007-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012745-0008-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012745-0009-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012745-0010-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		AVG	Accuracy		Precision	
		DCS1	Measured DCS2		DCS	Average(%) Limits	(RPD) DCS	Limit
Category: 624-A								
Matrix: AQUEOUS								
QC Lot: 14 SEP 92-V1A								
Concentration Units: ug/L								
1,1-Dichloroethene	50	53.2	53.1	53.2	106	61-145	0.2	14
Trichloroethene	50	54.8	54.6	54.7	109	71-120	0.4	14
Chlorobenzene	50	57.0	57.6	57.3	115	75-130	1.0	13
Toluene	50	55.5	56.4	56.0	112	76-125	1.6	13
Benzene	50	51.5	52.4	52.0	104	76-127	1.7	11

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V6A
Concentration Units: ug/L

1,1-Dichloroethene	50	47.9	48.3	48.1	96	61-145	0.8	14
Trichloroethene	50	47.4	47.6	47.5	95	71-120	0.4	14
Chlorobenzene	50	48.5	49.3	48.9	98	75-130	1.6	13
Toluene	50	48.4	50.5	49.4	99	76-125	4.2	13
Benzene	50	48.7	49.1	48.9	98	76-127	0.8	11

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V1A QC Run: 15 SEP 92-V1A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	51.0	102	76-114
Toluene-d8	50.0	52.7	105	88-110
4-Bromofluorobenzene	50.0	51.9	104	86-115

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V6A QC Run: 15 SEP 92-V6A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	44.6	89	76-114
Toluene-d8	50.0	53.3	107	88-110
4-Bromofluorobenzene	50.0	50.4	101	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 14 SEP 92-VIA QC Run: 15 SEP 92-VIA			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	1.7	ug/L	5.0
Acetone	4.8	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

J
J

J = Result is detected below the reporting limit or is an estimated concentration.

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 14 SEP 92-V6A QC Run: 15 SEP 92-V6A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Enseco
A Corning Company

RECEIVED
SEP 21 1992

Wehran Engineering
Massachusetts

September 17, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

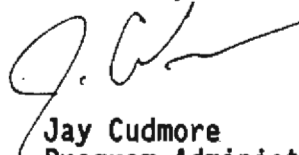
Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington: Collected on 9/1, 9/2, 9/3/92). This project was received at Enseco - Erco Laboratory on September 3, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012762 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,



Jay Cudmore
Program Administrator

Encl.

CHAIN-OF-CUSTODY RECORD ENS-1048-C

SHIP TO: **ENSECO EAST**
2270 Colburn Lane
Somerset, NJ 08876
(908) 488-5800
FAX: (908) 488-5800

PAGE **1** OF **3**

ENSECO PROJECT # **12762**

SPECIAL INSTRUCTIONS/COMMENTS

CLIENT NAME: **Don Folan**

COMPANY: **Wehran Engineering**

ADDRESS: **6 Riverside Drive, Andover Research Park**

CITY: **Andover MA**

STATE: **MA**

COUNTRY: **USA**

PHONE NO: **683-1980**

P.O. NUMBER

PROJECT NAME: **GE Wilmington**

SAMPLER NAME: **Folan/Stone**

METHOD OF SUBMIT: **ARTILL NUMBER**

COOLER NUMBER

CUSTODY SEAL NUMBER

Analytical TAT Rush		Days		Normal		Days	
1	6EW-16-167	water	40ml	2	9/1/92	10:30	HLL
2	6EW-GW-GTA-1678	water	40ml	3	9/1/92	10:30	HLL
3	6EW-GW-GTA-1679	water	40ml	3	9/1/92	10:00	HLL
4	6EW-GW-SM-172	water	40ml	3	9/1/92	10:00	HLL
5	6EW-GW-SM-173	water	40ml	3	9/1/92	12:00	HLL
6	6EW-GW-SM-174	water	40ml	3	9/1/92	12:00	HLL
7	6EW-FM-171	water	40ml	2	9/1/92	12:00	HLL

Please Note - detection limits must meet or be lower than Mass MCLs

Signature: *[Signature]*

Date: 9/3/92

Time: 17:00

Page: 1/3

CHAIN-OF-CUSTODY RECORD SUB-1048-C

DATE: 2/4 PAGE: 2 OF 2

ENRECO CONTACT: 12762

ENRECO PROJECT: 12762

SPECIAL INSTRUCTIONS/COMMENTS:

CLIENT NAME: Dan Folan

COMPANY: Wehman Engineering

ADDRESS: 6 Riverside Drive, Andover Research Park

PROJECT NAME: Andover MAT

PHONE NO: 682-1480

P.O. NUMBER:

SAMPLE NAME: Folan / Stone

METHOD OF SAMPLING: ARTILL NUMBER

COOLANT NUMBER:

QUANTITY SERIAL NUMBER:

ANALYSES:

8240

Analytical TAT Rush	Days	Normal	Days	ENRECO COMMENTS
8	BEW-GW-SMTR-174-H ₂ O	40ml	3	9/10/92 1200 HCL ✓
9	GEW-GW-SMTR-175-H ₂ O	40ml	3	9/10/92 1200 HCL ✓
10	GEW-GW-SMTR-176-H ₂ O	40ml	2	9/10/92 1200 HCL ✓
11	BEW-GW-SMTR-177-H ₂ O	40ml	2	9/10/92 1200 HCL ✓
12	GEW-GW-SMTR-178-H ₂ O	40ml	2	9/10/92 1200 HCL ✓
13	GEW-GW-SMTR-179-H ₂ O	40ml	2	9/10/92 1200 HCL ✓
14	GEW-GW-SMTR-180-H ₂ O	40ml	2	9/10/92 1200 HCL ✓
15	GEW-GW-SMTR-181-H ₂ O	40ml	2	9/10/92 1200 HCL ✓
(Please Note) - detection limits must be less than MCLs!				
Added By David Johnson 9/14/92				

DATE: 9/15/92 TIME: 17:00 9/13

SIGNED BY: OSG

RECEIVED AT ENRECO:

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
012762-0001-SA	GEW-TB-167	AQUEOUS	01 SEP 92	16:30	03 SEP 92
012762-0002-SA	GEW-GW-GZA9-168	AQUEOUS	01 SEP 92	16:30	03 SEP 92
012762-0003-SA	GEW-GW-STM4-169	AQUEOUS	02 SEP 92	10:00	03 SEP 92
012762-0004-SA	GEW-GW-STM4R-170	AQUEOUS	02 SEP 92	10:00	03 SEP 92
012762-0005-SA	GEW-GW-STM8S-172	AQUEOUS	02 SEP 92	12:00	03 SEP 92
012762-0006-SA	GEW-GW-STM8M-173	AQUEOUS	02 SEP 92	12:00	03 SEP 92
012762-0007-SA	GEW-FMB-171	AQUEOUS	02 SEP 92	12:00	03 SEP 92
012762-0008-SA	GEW-GW-STM8D-174	AQUEOUS	02 SEP 92	12:00	03 SEP 92
012762-0009-SA	GEW-GW-STM8R-175	AQUEOUS	02 SEP 92	12:00	03 SEP 92
012762-0010-SA	GEW-GW-STM5S-176	AQUEOUS	02 SEP 92	15:00	03 SEP 92
012762-0011-SA	GEW-GW-STM5R-177	AQUEOUS	02 SEP 92	15:00	03 SEP 92
012762-0012-SA	GEW-GW-STM5D-178	AQUEOUS	02 SEP 92	15:00	03 SEP 92
012762-0013-SA	GEW-GW-GZA101R-179	AQUEOUS	02 SEP 92		03 SEP 92
012762-0014-SA	GEW-GW-STM10S-180	AQUEOUS	03 SEP 92	12:00	03 SEP 92
012762-0015-SA	GEW-FMB-183	AQUEOUS	03 SEP 92	12:00	03 SEP 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012762	Group Code	Analysis Description	Custom Test?
0001 - 0015	A	Volatile Organics Target Compound List (TCL)	N N

September 18, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 9/1, 9/2, 9/3/92
Erco Project No.: 012762

1. This project consists of the results for samples received at Enseco - Erco Laboratory on September 3, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agreed with the chain of custody.
VOA vials were properly preserved.
VOA vials did not contain air bubbles.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TB-167
Lab ID: 012762-0001-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	3.9	ug/L	5.0	JB
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	105	%	--	
Toluene-d8	102	%	--	
4-Bromofluorobenzene	100	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-TB-167
Lab ID: 012762-0001-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA9-168
Lab ID: 012762-0002-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	2.0	ug/L	10	J
Chloroethane	ND	ug/L	10	
Methylene chloride	1.7	ug/L	5.0	JB
Acetone	4.9	ug/L	10	JB
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	1.2	ug/L	5.0	J
1,2-Dichloroethene				
(total)	35	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	2.6	ug/L	10	J
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	61	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	1.7	ug/L	10	J
2-Hexanone	2.3	ug/L	10	J
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	43	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	104	%	--	
Toluene-d8	108	%	--	
4-Bromofluorobenzene	100	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA9-168
Lab ID: 012762-0002-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 01 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 15 SEP 92

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM4-169
Lab ID: 012762-0003-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate

Recovery

1,2-Dichloroethane-d4	89	%	--
Toluene-d8	102	%	--
4-Bromofluorobenzene	106	%	--

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM4R-170
Lab ID: 012762-0004-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 15 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	88	%	--
Toluene-d8	96	%	--
4-Bromofluorobenzene	101	%	--

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM8S-172
Lab ID: 012762-0005-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	3.2	ug/L	5.0	J
Styrene	ND	ug/L	5.0	
Xylenes (total)	3.1	ug/L	5.0	J
Surrogate	Recovery			
1,2-Dichloroethane-d4	95	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	112	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM8S-172
Lab ID: 012762-0005-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM8M-173
Lab ID: 012762-0006-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.0	ug/L	5.0	J
Acetone	5.4	ug/L	10	J
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	11	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	22	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	4.3	ug/L	5.0	J
Toluene	1.1	ug/L	5.0	J
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	1.3	ug/L	5.0	J
Styrene	ND	ug/L	5.0	
Xylenes (total)	7.7	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	102	%	--	
Toluene-d8	108	%	--	
4-Bromofluorobenzene	115	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM8M-173
Lab ID: 012762-0006-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-FMB-171
Lab ID: 012762-0007-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	7.6	ug/L	10	J
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	6.1	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	103	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	113	%	--	

(continued on following page)

ND - Not detected
NA - Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-FMB-171
Lab ID: 012762-0007-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM8D-174
Lab ID: 012762-0008-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	6.2	ug/L	10	J
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	2.0	ug/L	5.0	J
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	1.6	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	97	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	1.3	ug/L	5.0	J
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	16	ug/L	5.0	
Toluene	1.5	ug/L	5.0	J
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	102	%	--	
Toluene-d8	107	%	--	
4-Bromofluorobenzene	113	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM8D-174
Lab ID: 012762-0008-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM8R-175
Lab ID: 012762-0009-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	1.3	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	17	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	2.4	ug/L	5.0	J
Toluene	3.7	ug/L	5.0	J
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	102	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	115	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering

Client ID: GEW-GW-STM8R-175

Lab ID: 012762-0009-SA

Matrix: AQUEOUS

Authorized: 03 SEP 92

Sampled: 02 SEP 92

Prepared: NA

Received: 03 SEP 92

Analyzed: 16 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected

NA - Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM5S-176
Lab ID: 012762-0010-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	6.4	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	101	%	--
Toluene-d8	108	%	--
4-Bromofluorobenzene	114	%	--

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Cuming Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM5R-177
Lab ID: 012762-0011-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	5.1	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	11	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	5.9	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	98	%	--
Toluene-d8	110	%	--
4-Bromofluorobenzene	114	%	--

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM5D-178
Lab ID: 012762-0012-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	9.5	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	1.8	ug/L	5.0	J
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	101	%	--	
Toluene-d8	110	%	--	
4-Bromofluorobenzene	114	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-STM5D-178
Lab ID: 012762-0012-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA101R-179
Lab ID: 012762-0013-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	25	
Bromomethane	ND	ug/L	25	
Vinyl chloride	ND	ug/L	25	
Chloroethane	ND	ug/L	25	
Methylene chloride	ND	ug/L	12	
Acetone	68	ug/L	25	
Carbon disulfide	ND	ug/L	12	
1,1-Dichloroethene	ND	ug/L	12	
1,1-Dichloroethane	ND	ug/L	12	
1,2-Dichloroethene				
(total)	3.4	ug/L	12	J
Chloroform	ND	ug/L	12	
1,2-Dichloroethane	ND	ug/L	12	
2-Butanone	ND	ug/L	25	
1,1,1-Trichloroethane	ND	ug/L	12	
Carbon tetrachloride	ND	ug/L	12	
Vinyl acetate	ND	ug/L	25	
Bromodichloromethane	ND	ug/L	12	
1,2-Dichloropropane	ND	ug/L	12	
trans-1,3-Dichloropropene	ND	ug/L	12	
Trichloroethene	400	ug/L	12	
Dibromochloromethane	ND	ug/L	12	
1,1,2-Trichloroethane	ND	ug/L	12	
Benzene	ND	ug/L	12	
cis-1,3-Dichloropropene	ND	ug/L	12	
Bromoform	ND	ug/L	12	
4-Methyl-2-pentanone	ND	ug/L	25	
2-Hexanone	ND	ug/L	25	
1,1,2,2-Tetrachloroethane	ND	ug/L	12	
Tetrachloroethene	150	ug/L	12	
Toluene	21	ug/L	12	
Chlorobenzene	ND	ug/L	12	
Ethylbenzene	ND	ug/L	12	
Styrene	ND	ug/L	12	
Xylenes (total)	ND	ug/L	12	
Surrogate	Recovery			
1,2-Dichloroethane-d4	101	%	--	
Toluene-d8	107	%	--	
4-Bromofluorobenzene	112	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA101R-179
Lab ID: 012762-0013-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 02 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM10S-180
Lab ID: 012762-0014-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 03 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	2.2	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	6.6	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

J

Surrogate	Recovery		
1,2-Dichloroethane-d4	102	%	--
Toluene-d8	110	%	--
4-Bromofluorobenzene	115	%	--

(continued on following page)

ND - Not detected
NA - Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-STM10S-180
Lab ID: 012762-0014-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 03 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Cuming Company

Client Name: Wehran Engineering
Client ID: GEW-FMB-183
Lab ID: 012762-0015-SA
Matrix: AQUEOUS
Authorized: 03 SEP 92

Sampled: 03 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	99	%	--
Toluene-d8	109	%	--
4-Bromofluorobenzene	115	%	--

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012762-0001-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012762-0002-SA	AQUEOUS	624-A	14 SEP 92-V1A	15 SEP 92-V1A
012762-0003-SA	AQUEOUS	624-A	14 SEP 92-V6A	15 SEP 92-V6A
012762-0004-SA	AQUEOUS	624-A	14 SEP 92-V6A	15 SEP 92-V6A
012762-0005-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0006-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0007-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0008-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0009-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0010-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0011-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0012-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0013-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0014-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A
012762-0015-SA	AQUEOUS	624-A	15 SEP 92-V5A	16 SEP 92-V5A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		AVG	Accuracy		Precision	
		DCS1	Measured DCS2		Average(%)	Limits	(RPD)	DCS Limit
Category: 624-A								
Matrix: AQUEOUS								
QC Lot: 14 SEP 92-V1A								
Concentration Units: ug/L								
1,1-Dichloroethene	50	53.2	53.1	53.2	106	61-145	0.2	14
Trichloroethene	50	54.8	54.6	54.7	109	71-120	0.4	14
Chlorobenzene	50	57.0	57.6	57.3	115	75-130	1.0	13
Toluene	50	55.5	56.4	56.0	112	76-125	1.6	13
Benzene	50	51.5	52.4	52.0	104	76-127	1.7	11

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V6A
Concentration Units: ug/L

1,1-Dichloroethene	50	47.9	48.3	48.1	96	61-145	0.8	14
Trichloroethene	50	47.4	47.6	47.5	95	71-120	0.4	14
Chlorobenzene	50	48.5	49.3	48.9	98	75-130	1.6	13
Toluene	50	48.4	50.5	49.4	99	76-125	4.2	13
Benzene	50	48.7	49.1	48.9	98	76-127	0.8	11

Category: 624-A
Matrix: AQUEOUS
QC Lot: 15 SEP 92-V5A
Concentration Units: ug/L

1,1-Dichloroethene	50	56.6	57.6	57.1	114	61-145	1.8	14
Trichloroethene	50	56.5	53.2	54.8	110	71-120	6.0	14
Chlorobenzene	50	56.2	53.2	54.7	109	75-130	5.5	13
Toluene	50	56.5	53.8	55.2	110	76-125	4.9	13
Benzene	50	59.4	56.5	58.0	116	76-127	5.0	11

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V1A QC Run: 15 SEP 92-V1A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	51.0	102	76-114
Toluene-d8	50.0	52.7	105	88-110
4-Bromofluorobenzene	50.0	51.9	104	86-115

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V6A QC Run: 15 SEP 92-V6A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	44.6	89	76-114
Toluene-d8	50.0	53.3	107	88-110
4-Bromofluorobenzene	50.0	50.4	101	86-115

Category: 624-A
Matrix: AQUEOUS
QC Lot: 15 SEP 92-V5A QC Run: 16 SEP 92-V5A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	50.2	100	76-114
Toluene-d8	50.0	54.3	109	88-110
4-Bromofluorobenzene	50.0	56.5	113	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 14 SEP 92-VIA QC Run: 15 SEP 92-VIA			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	1.7	ug/L	5.0
Acetone	4.8	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

J
J

J = Result is detected below the reporting limit or is an estimated concentration.

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 14 SEP 92-V6A QC Run: 15 SEP 92-V6A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 15 SEP 92-V5A QC Run: 16 SEP 92-V5A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Enseco
A Corning Company

RECEIVED

SEP 21 1992

Wehran Engineering
MASSACHUSETTS

September 17, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

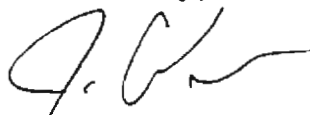
Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington:Collected on 9/3/92). This project was received at Enseco - Erco Laboratory on September 3, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012763 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,



Jay Cudmore
Program Administrator

Encl.



CHAIN-OF-CUSTODY RECORD ENB-1045-C

CLIENT NAME: Don Folan
COMPANY: Wehner Engineering
ADDRESS: 6 Riverside Drive Andover Massachusetts 01810
PROJECT NAME: Andover MFG
P.O. NUMBER: 682-1980
PHONE NUMBER: 682-1980
CUSTODY SEAL NUMBER: 12763
SPECIAL INSTRUCTIONS/COMMENTS: 12763

ANALYSES: 12763
ENSECO PROJECT # 12763
ENSECO CONTACT: 12763

PROJECT NAME: GE Wilmington
SAMPLER NAME: Folan/Schulz
METHOD OF SHIPMENT: AIR BILL NUMBER
COOLER NUMBER: Normal
Days: Normal

ENSECO IDENTIFICATION	SAMPLE IDENTIFICATION	MATRIX	CONTAINER SIZE	DATE	TIME	INITIALS	Days	Comments
GEW-SD6-188	soil		1	9/3/82	PM			
GEW-SD8-191	soil		1	9/3/82	PM			
GEW-SD9-192	soil		1	9/3/82	PM			
GEW-SD10-193	soil		1	9/3/82	PM			
GEW-SD11-189	soil		1	9/3/82	PM			
GEW-TB-194	water		40ml	2	9/3/82	PM		

Please Note: detection limits for water sample 194 must meet or be less than those MCLs

Signature: [Signature]
Date: 16:30 9/3/82
Time: 17:00 9/3
Received at ENSCO: [Signature]

CLIENT NAME: **Don Folan**
 COMPANY: **Wehman Engineering**
 ADDRESS: **6 Riverside Drive, Andover Research Park**
Andover, MA
 PROJECT NAME: **GE Wilmingtn**
 SAMPLER NAME: **Folan/Stone**

ENSECO CONTACT: **12763**
 ENSECO PROJECT #: **12763**
 SPECIAL INSTRUCTIONS/COMMENTS:
 PHONE NO: **682-1980**
 P.O. NUMBER:
 PHONE NUMBER:
 CUSTODY SEAL NUMBER:
 COOLER NUMBER:
 AIR BILL NUMBER:
 METHOD OF SHIPMENT:
 ANALYSES:

ENSECO IDENTIFICATION	MATERIAL	SIZE	QUANTITY	DATE	TIME	ANALYSES	ENSECO COMMENTS
GEW-GW-STMP-181-180	40ml	3	9/13/82	1200	HEL	V	
GEW-GW-STMP-182-182	40ml	3	9/13/82	1200	HEL	V	
GEW-GW-STMP-183-183	oil	1	9/13/82	PM		V	
GEW-GW-STMP-184-184	oil	1	9/13/82	PM		V	
GEW-GW-STMP-185-185	oil	1	9/13/82	PM		V	
GEW-GW-STMP-186-186	oil	1	9/13/82	PM		V	
GEW-GW-STMP-187-187	oil	1	9/13/82	PM		V	

Analytical TAT Rush: _____ Days
 (Normal)
 Please Note: Detection limits must meet or be less than Mass MCL-B1
 1630 9/13/82 CDS by A. Stone
 RECEIVED AT ENSECO: *[Signature]*
 17:00 9/13

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
012763-0001-SA	GEW-SD6-188	SOIL	03 SEP 92		03 SEP 92
012763-0002-SA	GEW-SD8-191	SOIL	03 SEP 92		03 SEP 92
012763-0003-SA	GEW-SD9-192	SOIL	03 SEP 92		03 SEP 92
012763-0004-SA	GEW-SD10-193	SOIL	03 SEP 92		03 SEP 92
012763-0005-SA	GEW-SD11-189	SOIL	03 SEP 92		03 SEP 92
012763-0006-SA	GEW-TB-194	AQUEOUS	03 SEP 92		03 SEP 92
012763-0007-SA	GEW-GW-STM10R1-181	AQUEOUS	03 SEP 92	12:00	03 SEP 92
012763-0008-SA	GEW-GW-STM10R2-182	AQUEOUS	03 SEP 92	12:00	03 SEP 92
012763-0009-SA	GEW-SD1-183	SOIL	03 SEP 92		03 SEP 92
012763-0010-SA	GEW-SD2-184	SOIL	03 SEP 92		03 SEP 92
012763-0011-SA	GEW-SD3-185	SOIL	03 SEP 92		03 SEP 92
012763-0012-SA	GEW-SD4-186	SOIL	03 SEP 92		03 SEP 92
012763-0013-SA	GEW-SD5-187	SOIL	03 SEP 92		03 SEP 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012763	Group Code	Analysis Description	Custom Test?
0006 - 0008	A	Volatile Organics Target Compound List (TCL)	N N
0001 - 0005, 0009 - 0013	B	Total Petroleum Hydrocarbons (TPH) by IR Prep - Oil & Grease/TPH by IR Percent Water	N N N

September 17, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 9/3/92
Erco Project No.: 012763

1. This project consists of the results for samples received at Enseco - Erco Laboratory on September 3, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agreed with the chain-of-custody.
Samples were properly preserved.
VOA vials were properly preserved.
VOA vials did not contain headspace.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering

Client ID: GEW-TB-194

Lab ID: 012763-0006-SA

Matrix: AQUEOUS

Authorized: 04 SEP 92

Sampled: 03 SEP 92

Prepared: NA

Received: 03 SEP 92

Analyzed: 11 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	2.0	ug/L	5.0	J
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	85	%	--	
Toluene-d8	103	%	--	
4-Bromofluorobenzene	101	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TB-194
Lab ID: 012763-0006-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 11 SEP 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM10R1-181
Lab ID: 012763-0007-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	100	
Bromomethane	ND	ug/L	100	
Vinyl chloride	ND	ug/L	100	
Chloroethane	ND	ug/L	100	
Methylene chloride	260	ug/L	50	B
Acetone	ND	ug/L	100	
Carbon disulfide	ND	ug/L	50	
1,1-Dichloroethene	ND	ug/L	50	
1,1-Dichloroethane	ND	ug/L	50	
1,2-Dichloroethene (total)	25	ug/L	50	J
Chloroform	ND	ug/L	50	
1,2-Dichloroethane	ND	ug/L	50	
2-Butanone	ND	ug/L	100	
1,1,1-Trichloroethane	35	ug/L	50	J
Carbon tetrachloride	ND	ug/L	50	
Vinyl acetate	ND	ug/L	100	
Bromodichloromethane	ND	ug/L	50	
1,2-Dichloropropane	ND	ug/L	50	
trans-1,3-Dichloropropene	ND	ug/L	50	
Trichloroethene	31	ug/L	50	J
Dibromochloromethane	ND	ug/L	50	
1,1,2-Trichloroethane	ND	ug/L	50	
Benzene	ND	ug/L	50	
cis-1,3-Dichloropropene	ND	ug/L	50	
Bromoform	ND	ug/L	50	
4-Methyl-2-pentanone	ND	ug/L	100	
2-Hexanone	ND	ug/L	100	
1,1,2,2-Tetrachloroethane	ND	ug/L	50	
Tetrachloroethene	920	ug/L	50	
Toluene	ND	ug/L	50	
Chlorobenzene	130	ug/L	50	
Ethylbenzene	ND	ug/L	50	
Styrene	ND	ug/L	50	
Xylenes (total)	ND	ug/L	50	
Surrogate	Recovery			
1,2-Dichloroethane-d4	106	%	--	
Toluene-d8	108	%	--	
4-Bromofluorobenzene	102	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Caring Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM10R1-181
Lab ID: 012763-0007-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note B : Compound is also detected in the blank.

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-STM10R2-182
Lab ID: 012763-0008-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	500	
Bromomethane	ND	ug/L	500	
Vinyl chloride	ND	ug/L	500	
Chloroethane	ND	ug/L	500	
Methylene chloride	570	ug/L	250	B
Acetone	200	ug/L	500	J
Carbon disulfide	ND	ug/L	250	
1,1-Dichloroethene	ND	ug/L	250	
1,1-Dichloroethane	ND	ug/L	250	
1,2-Dichloroethene (total)	180	ug/L	250	J
Chloroform	52	ug/L	250	J
1,2-Dichloroethane	ND	ug/L	250	
2-Butanone	ND	ug/L	500	
1,1,1-Trichloroethane	230	ug/L	250	J
Carbon tetrachloride	ND	ug/L	250	
Vinyl acetate	ND	ug/L	500	
Bromodichloromethane	ND	ug/L	250	
1,2-Dichloropropane	ND	ug/L	250	
trans-1,3-Dichloropropene	ND	ug/L	250	
Trichloroethene	ND	ug/L	250	
Dibromochloromethane	ND	ug/L	250	
1,1,2-Trichloroethane	ND	ug/L	250	
Benzene	ND	ug/L	250	
cis-1,3-Dichloropropene	ND	ug/L	250	
Bromoform	ND	ug/L	250	
4-Methyl-2-pentanone	ND	ug/L	500	
2-Hexanone	ND	ug/L	500	
1,1,2,2-Tetrachloroethane	ND	ug/L	250	
Tetrachloroethene	6100	ug/L	250	
Toluene	ND	ug/L	250	
Chlorobenzene	1100	ug/L	250	
Ethylbenzene	ND	ug/L	250	
Styrene	ND	ug/L	250	
Xylenes (total)	ND	ug/L	250	
Surrogate	Recovery			
1,2-Dichloroethane-d4	108	%	--	
Toluene-d8	110	%	--	
4-Bromofluorobenzene	103	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Chem Service Company

Client Name: Wehran Engineering
Client ID: GEW-GW-STM10R2-182
Lab ID: 012763-0008-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: NA

Received: 03 SEP 92
Analyzed: 16 SEP 92

Note B : Compound is also detected in the blank.

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Kerylynn Krahforst

Approved By: Linda Mancini

Total Petroleum Hydrocarbons (TPH) by IR

Enseco
A Corning Company

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering
Client ID: GEW-SD6-188
Lab ID: 012763-0001-SA
Matrix: SOIL
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: 07 SEP 92

Received: 03 SEP 92
Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	ND	ug/g	73

Percent Moisture is 77%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Enseco
A Corning Company

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering

Client ID: GEW-SD8-191

Lab ID: 012763-0002-SA

Matrix: SOIL

Authorized: 04 SEP 92

Sampled: 03 SEP 92

Prepared: 07 SEP 92

Received: 03 SEP 92

Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	5000	ug/g	87

Percent Moisture is 81%. All results and limits are reported on a dry weight basis.

ND = Not detected

NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Enseco
A Corning Company

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering

Client ID: GEW-SD9-192

Lab ID: 012763-0003-SA

Matrix: SOIL

Authorized: 04 SEP 92

Sampled: 03 SEP 92

Prepared: 07 SEP 92

Received: 03 SEP 92

Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	1400	ug/g	53

Percent Moisture is 69%. All results and limits are reported on a dry weight basis.

ND = Not detected

NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering
Client ID: GEW-SD10-193
Lab ID: 012763-0004-SA
Matrix: SOIL
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: 07 SEP 92
Received: 03 SEP 92
Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	4100	ug/g	95

Percent Moisture is 82%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering
Client ID: GEW-SD11-189
Lab ID: 012763-0005-SA
Matrix: SOIL
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: 07 SEP 92
Received: 03 SEP 92
Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	460	ug/g	110

Percent Moisture is 85%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering
Client ID: GEW-SD1-183
Lab ID: 012763-0009-SA
Matrix: SOIL
Authorized: 04 SEP 92

Sampled: 03 SEP 92
Prepared: 07 SEP 92
Received: 03 SEP 92
Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	43000	ug/g	1300

Percent Moisture is 87%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Enseco
A Corning Company

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering

Client ID: GEW-SD2-184

Lab ID: 012763-0010-SA

Matrix: SOIL

Authorized: 04 SEP 92

Sampled: 03 SEP 92

Prepared: 05 SEP 92

Received: 03 SEP 92

Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	6500	ug/g	72

Percent Moisture is 77%. All results and limits are reported on a dry weight basis.

ND = Not detected

NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Enseco
A Corning Company

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering

Client ID: GEW-SD3-185

Lab ID: 012763-0011-SA

Matrix: SOIL

Authorized: 04 SEP 92

Sampled: 03 SEP 92

Prepared: 05 SEP 92

Received: 03 SEP 92

Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	110	ug/g	28

Percent Moisture is 41%. All results and limits are reported on a dry weight basis.

ND = Not detected

NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering

Client ID: GEW-SD4-186

Lab ID: 012763-0012-SA

Matrix: SOIL

Authorized: 04 SEP 92

Sampled: 03 SEP 92

Prepared: 05 SEP 92

Received: 03 SEP 92

Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	150	ug/g	29

Percent Moisture is 43%. All results and limits are reported on a dry weight basis.

ND = Not detected

NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

Total Petroleum Hydrocarbons (TPH) by IR

Enseco
A Corning Company

Method 418.1 (Modified for Soil)

Client Name: Wehran Engineering

Client ID: GEW-SD5-187

Lab ID: 012763-0013-SA

Matrix: SOIL

Authorized: 04 SEP 92

Sampled: 03 SEP 92

Prepared: 05 SEP 92

Received: 03 SEP 92

Analyzed: 09 SEP 92

Parameter	Result	Dry Weight Units	Reporting Limit
Total Petroleum Hydrocarbons	ND	ug/g	22

Percent Moisture is 26%. All results and limits are reported on a dry weight basis.

ND = Not detected

NA = Not applicable

Reported By: Peter Colonero

Approved By: Andrew Yaroshefski

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012763-0006-SA	AQUEOUS	624-A	27 AUG 92-V6A	10 SEP 92-V6A
012763-0007-SA	AQUEOUS	624-A	14 SEP 92-V1A	16 SEP 92-V1A
012763-0008-SA	AQUEOUS	624-A	14 SEP 92-V1A	16 SEP 92-V1A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		AVG	Accuracy		Precision	
		DCS1	Measured DCS2		Average(%)	Limits	(RPD)	DCS Limit
Category: 624-A								
Matrix: AQUEOUS								
QC Lot: 27 AUG 92-V6A								
Concentration Units: ug/L								
1,1-Dichloroethene	50	63.4	55.5	59.5	119	61-145	13	14
Trichloroethene	50	53.7	52.4	53.0	106	71-120	2.4	14
Chlorobenzene	50	49.9	47.2	48.6	97	75-130	5.7	13
Toluene	50	48.6	45.5	47.0	94	76-125	6.6	13
Benzene	50	54.3	52.0	53.1	106	76-127	4.4	11

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V1A
Concentration Units: ug/L

1,1-Dichloroethene	50	53.2	53.1	53.2	106	61-145	0.2	14
Trichloroethene	50	54.8	54.6	54.7	109	71-120	0.4	14
Chlorobenzene	50	57.0	57.6	57.3	115	75-130	1.0	13
Toluene	50	55.5	56.4	56.0	112	76-125	1.6	13
Benzene	50	51.5	52.4	52.0	104	76-127	1.7	11

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A
Matrix: AQUEOUS
QC Lot: 27 AUG 92-V6A QC Run: 10 SEP 92-V6A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	41.3	83	76-114
Toluene-d8	50.0	54.3	109	88-110
4-Bromofluorobenzene	50.0	49.0	98	86-115

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-V1A QC Run: 16 SEP 92-V1A
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	54.4	109	76-114
Toluene-d8	50.0	54.1	108	88-110
4-Bromofluorobenzene	50.0	52.5	105	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 27 AUG 92-V6A QC Run: 10 SEP 92-V6A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 14 SEP 92-V1A QC Run: 16 SEP 92-V1A			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	13	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene			
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

QC LOT ASSIGNMENT REPORT
Organic Prep Lab

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012763-0001-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0002-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0003-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0004-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0005-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0009-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0010-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0011-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0012-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1
012763-0013-SA	SOIL	TPH-IR-S	02 SEP 92-SHA	07 SEP 92-SH1

DUPLICATE CONTROL SAMPLE REPORT
Organic Prep Lab

Analyte	Concentration Spiked	Measured		AVG	Accuracy Average(%)		Precision (RPD)
		DCS1	DCS2		DCS	Limits	DCS Limit
Category: TPH-IR-S							
Matrix: SOIL							
QC Lot: 02 SEP 92-SHA							
Concentration Units: mg/kg							
Fuel Oil #2	213.67	155	156	155	73	60-140	0.5 30

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

METHOD BLANK REPORT
Organic Prep Lab

Analyte	Result	Units	Reporting Limit
Test: TPH-IR-S			
Matrix: SOIL			
QC Lot: 02 SEP 92-SHA QC Run: 07 SEP 92-SH1			
Total Petroleum Hydrocarbons	ND	ug/g	17

Enseco
A Corning Company

RECEIVED
SEP 21 1992

Wehran Engineering
Massachusetts

September 17, 1992

Mr. Eric Wood
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

Dear Mr. Wood:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington:Collected on 9/4/92). This project was received at Enseco - Erco Laboratory on September 4, 1992, and was processed for a 21 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 012770 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,



Jay Cudmore
Program Administrator

Encl.

CHAIN-OF-CUSTODY RECORD

SEND RESULTS TO		(800) 468-5900 ☒ ERCO 205 Alewife Brook Parkway Cambridge MA 02138 (617) 681-3111	
CLIENT NAME	Dan Folan	ENSECO CONTACT	Cudmore
COMPANY	Wehran Engineering	ENSECO PROJECT #	12770
ADDRESS	6 Riverside Drive	SPECIAL INSTRUCTIONS/COMMENTS	
	Andover Research Park		
	Andover, MA	PHONE NO	781-332-1000

[illegible]

Analytical TAT Rush	Sample Identification	Normal		Days		ENSECO COMMENTS
		Wk	Days	Wk	Days	
	GEW-TB-195	40ml	2	9/4/00	AM	HC
	GEW-FMB-196	40ml	2	9/4/00	AM	HC
	GEW-CW-GZAH-197	40ml	3	9/4/00	AM	HC
	GEW-CW-GZAH-198	40ml	3	9/4/00	AM	HC
	GEW-CW-GZAH-199	40ml	3	9/4/00	AM	HC

SAMPLE RELINQUISHED BY	TIME	DATE	SAMPLE RECEIVED BY	TIME	DATE
W. Henry	11:00	9/4/92	W. Henry		
			RECEIVED AT 10:00 W. Henry	9/4	5P
			Samples cold. good		

CLIENT COPY

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
012770-0001-SA	GEW-TB-195	AQUEOUS	04 SEP 92		04 SEP 92
012770-0002-SA	GEW-FMB-196	AQUEOUS	04 SEP 92		04 SEP 92
012770-0003-SA	GEW-GW-GZA14-197	AQUEOUS	04 SEP 92		04 SEP 92
012770-0004-SA	GEW-GW-GZA14A-198	AQUEOUS	04 SEP 92		04 SEP 92
012770-0005-SA	GEW-GW-GZA14B-199	AQUEOUS	04 SEP 92		04 SEP 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 012770	Group Code	Analysis Description	Custom Test?
0001 - 0005	A	Volatile Organics Target Compound List (TCL)	N N

September 17, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington:Collected on 9/4/92
Erco Project No.: 012770

1. This project consists of the results for samples received at Enseco - Erco Laboratory on September 4, 1992. Please see the sample description information sheet for a list of samples.
2. Samples were cold upon receipt.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agreed with the chain of custody.
VOA vials were properly preserved.
VOA vials did not contain air bubbles.
No time of collection was recorded (only "AM").

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for chemical analysis of water and wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1984. Test methods for evaluating solid waste, physical/chemical methods. (SW-846); Washington, D.C. April.

U.S. Environmental Protection Agency. 1986. Methods for determination of organic compounds in finished drinking water and raw source water. Cincinnati, OH, March.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1985. Standard methods for the examination of water and wastewater, 16th edition. Washington, D.C., April.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-TB-195
Lab ID: 012770-0001-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	12	ug/L	5.0	B
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	107	%	--	
Toluene-d8	110	%	--	
4-Bromofluorobenzene	104	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering

Client ID: GEW-TB-195

Lab ID: 012770-0001-SA

Matrix: AQUEOUS

Authorized: 04 SEP 92

Sampled: 04 SEP 92

Prepared: NA

Received: 04 SEP 92

Analyzed: 16 SEP 92

Note B : Compound is also detected in the blank.

ND = Not detected

NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-FMB-196
Lab ID: 012770-0002-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	6.1	ug/L	5.0	B
Acetone	4.2	ug/L	10	J
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	108	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	102	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-FMB-196
Lab ID: 012770-0002-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Note B : Compound is also detected in the blank.

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA14-197
Lab ID: 012770-0003-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	7.3	ug/L	5.0	B
Acetone	ND	ug/L	10	
Carbon disulfide	1.8	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	2.1	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	22	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	14	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	106	%	--	
Toluene-d8	106	%	--	
4-Bromofluorobenzene	103	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA14-197
Lab ID: 012770-0003-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Note B : Compound is also detected in the blank.

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA14A-198
Lab ID: 012770-0004-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	7.1	ug/L	5.0	B
Acetone	ND	ug/L	10	
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	1.4	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	7.3	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	5.5	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	107	%	--	
Toluene-d8	105	%	--	
4-Bromofluorobenzene	102	%	--	

(continued on following page)

ND - Not detected
NA - Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA14A-198
Lab ID: 012770-0004-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Note B : Compound is also detected in the blank.

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA148-199
Lab ID: 012770-0005-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	8.6	ug/L	5.0	B
Acetone	ND	ug/L	10	
Carbon disulfide	2.8	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	2.1	ug/L	5.0	J
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	21	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	13	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	108	%	--	
Toluene-d8	107	%	--	
4-Bromofluorobenzene	103	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-GZA14B-199
Lab ID: 012770-0005-SA
Matrix: AQUEOUS
Authorized: 04 SEP 92

Sampled: 04 SEP 92
Prepared: NA

Received: 04 SEP 92
Analyzed: 16 SEP 92

Note B : Compound is also detected in the blank.

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND - Not detected
NA - Not applicable

Reported By: Kerylynn Krahforst

Approved By: Phuong Vo

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

As an indication of the overall quality of the data generated by Enseco - Erco Laboratory for this report, the following controls have been provided (when applicable).

Method blanks are analyzed to assess the level of contamination which exists in the analytical system. A method blank, analyzed with every batch of samples, consists of reagents specific to the method. This blank is carried through every aspect of the procedure, including preparation, cleanup, and analysis. Ideally, the concentration of an analyte in the blank is below the reporting limit for that analyte. However, some common laboratory solvents and metals are difficult to eliminate to the part-per-billion levels commonly reported in environmental analyses. Therefore, all method blank data is reported to the client. Data are not blank-corrected.

Duplicate control samples (DCS) are used to monitor the laboratory's day-to-day performance of routine analytical methods. A DCS consists of a standard, control matrix which is spiked with a group of target compounds representative of the method analytes. The DCS is analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines.

A DCS has been established for most routine analytical methods. Reagent water is used as the control matrix for the analysis of aqueous samples. The DCS compounds are spiked into reagent water and carried through the appropriate steps of the analysis. As stated in SW-846 (third edition), a universal blank matrix does not exist for solid samples and therefore no matrix is used. The DCS for solid samples consists of the DCS compounds spiked into a reagent blank and carried through the appropriate steps of the analysis. The data thus obtained are used to set the DCS control limits. As sufficient laboratory data become available, the control limits are redefined based upon the most recent six months of DCS data. Control limits for accuracy are based on the historical average recovery of the DCS plus or minus three standard deviation units, or alternatively on established control limits defined in the methodology.

Surrogates are organic compounds that are similar to the analytes of interest in chemical behavior but which are not normally found in environmental samples. Enseco routinely adds surrogates to samples requiring GC/MS and most GC analysis and reports these surrogate recoveries to the client. These surrogates are added to samples to monitor the effect of the matrix on the accuracy of the analysis. Results are reported in terms of percent recovery.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
012770-0001-SA	AQUEOUS	624-A	14 SEP 92-V1A	16 SEP 92-V1A
012770-0002-SA	AQUEOUS	624-A	14 SEP 92-V1A	16 SEP 92-V1A
012770-0003-SA	AQUEOUS	624-A	14 SEP 92-V1A	16 SEP 92-V1A
012770-0004-SA	AQUEOUS	624-A	14 SEP 92-V1A	16 SEP 92-V1A
012770-0005-SA	AQUEOUS	624-A	14 SEP 92-V1A	16 SEP 92-V1A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Spiked	Concentration		Measured DCS2	AVG	Accuracy Average(%)		Precision (RPD)	
		DCS1				DCS	Limits	DCS	Limit
Category: 624-A									
Matrix: AQUEOUS									
QC Lot: 14 SEP 92-V1A									
Concentration Units: ug/L									
1,1-Dichloroethene	50	53.2		53.1	53.2	106	61-145	0.2	14
Trichloroethene	50	54.8		54.6	54.7	109	71-120	0.4	14
Chlorobenzene	50	57.0		57.6	57.3	115	75-130	1.0	13
Toluene	50	55.5		56.4	56.0	112	76-125	1.6	13
Benzene	50	51.5		52.4	52.0	104	76-127	1.7	11

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A
Matrix: AQUEOUS
QC Lot: 14 SEP 92-VIA QC Run: 16 SEP 92-VIA
Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	54.4	109	76-114
Toluene-d8	50.0	54.1	108	88-110
4-Bromofluorobenzene	50.0	52.5	105	86-115

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240-TCL-AP			
Matrix: AQUEOUS			
QC Lot: 14 SEP 92-VIA QC Run: 16 SEP 92-VIA			
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	13	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0



November 12, 1992

Mr. Dan Folan
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

Dear Mr. Folan:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington: Collected on 11/10/92). This project was received at Enseco - Erco Laboratory on November 10, 1992, and was processed for a 2 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 013155 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,

Jay Cudmore
Program Administrator

Encl.



CHAIN-OF-CUSTODY RECORD EMB-1045C

SHIP TO: ☐ ENSECO EAST
2200 Cottontail Lane
Somerset NJ 08876
(908) 489-5800
☒ ERCO
205 Alewife Brook Parkway
Cambridge MA 02138
(617) 881-3111

PAGE 1 OF 1
ENSECO CONTACT
ENSECO PROJECT # 13155
SPECIAL INSTRUCTIONS/COMMENTS

CLIENT NAME Eric Woods
COMPANY WEHMAN ENGINEERING
ADDRESS 60 RIVERSIDE DRIVE S. 101
ANDOVER, MA 01810
PHONE NO 508-682-1980
P.O. NUMBER
PHONE NUMBER
CUSTODY SEAL NUMBER

PROJECT NAME 6E- W. Inj. bn
SAMPLER NAME JOE REY Hand
METHOD OF SHIPMENT AIR BILL NUMBER
COOLER NUMBER

Analytical TAT Rush 2 Days Normal Days

ENSECO #	SAMPLE IDENTIFICATION	MATRIX	CONTAINER SIZE	Normal		PRESERVATIVE	ENSECO COMMENTS
				DATE	SAMPLING TIME		
	6EW-6W-P275-300	GW	40ml	11/10	10:30	X HCL	Samples preserved in lab
	6EW-6W-P270-301	GW	40ml	11/10	10:20	X HCL	
	6EW-6W-P27R-302	GW	40ml	11/10	10:00	X HCL	
	6EW-6W-P288-303	GW	40ml	11/10	-	X HCL	
	6EW-6W-P289-304	GW	40ml	11/10	9:44	X HCL	
	TRIP BLANK	-	40ml	-	-	X HCL	Lab Reported. Published

SAMPLE RELINQUISHED BY		TIME	DATE	SAMPLE RECEIVED BY		TIME	DATE
Jeffrey Hamel		11/10/92	11/10/92	Earl Johnson		12:20	11/10/92
				J. Rey		1400	11/10
				RECEIVED AT ENSECO			

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
013155-0001-SA	GEW-GW-PZ7S-300	AQUEOUS	10 NOV 92	10:50	10 NOV 92
013155-0002-SA	GEW-GW-PZ7D-301	AQUEOUS	10 NOV 92	10:20	10 NOV 92
013155-0003-SA	GEW-GW-PZ7R-302	AQUEOUS	10 NOV 92	10:00	10 NOV 92
013155-0004-SA	GEW-GW-PZ88-303	AQUEOUS	10 NOV 92		10 NOV 92
013155-0005-SA	GEW-GW-PZ89-304	AQUEOUS	10 NOV 92	09:44	10 NOV 92
013155-0006-SA	TRIP BLANK	AQUEOUS	10 NOV 92		10 NOV 92

QUALITY ASSURANCE/QUALITY CONTROL

The results of the internal quality control checks, used to monitor data quality, are included with this report. The following have been provided, where applicable. A comprehensive description of each of these elements can be found in the Enseco Quality Assurance Program Plan for Environmental Chemical Monitoring.

DUPLICATE CONTROL SAMPLES (DCS) are used to monitor the precision and accuracy of the analytical system on an on-going basis. Each DCS consists of a standard, control matrix that is spiked with a group of target compounds representative of the method analytes. A DCS pair is analyzed for every 20 samples processed by the method. DCS are analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines for accuracy and precision.

SINGLE CONTROL SAMPLES (SCS) are analyzed with every batch of samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available (e.g., metals or wet chemistry), a single DCS serves as the control sample. Recovery data generated from the SCS are compared to control limits that have been established for each of the compounds being monitored.

METHOD BLANKS, also known as reagent, analytical, or preparation blanks, are analyzed to assess the level of contamination which exists in the analytical system. A method blank is analyzed with every batch of samples processed. A method blank consists of reagents specific to the method which are carried through every aspect of the procedure, including preparation, cleanup, and analysis. The results of the method blank analysis are evaluated, in conjunction with other QC information, to determine the acceptability of the data generated for that batch of samples.

MATRIX SPIKES, MATRIX DUPLICATES, AND MATRIX SPIKE DUPLICATES are types of Matrix Specific QC, which is used to assess the effects of a sample matrix or field conditions on the analytical data. A Matrix Spike (MS) is an environmental sample to which known concentrations of analytes have been added. A Matrix Duplicate (MD) is a sample that is divided into two separate aliquots which are analyzed separately. A Matrix Spike Duplicate (MSD) is a sample that is divided into two separate aliquots, each of which is spiked with known concentrations of analytes. This data is provided only where required or requested. The samples that are used are either project-specific or part of the analytical batch, depending on the requirements of the project.

November 12, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington:Collected on 11/10/92
Erco Project No.: 013155

1. This project consists of the results for samples received at Enseco - Erco Laboratory on November 10, 1992. Please see the sample description information sheet for a list of samples.
2. Temperature blank upon receipt was 7.5C.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agreed with chain of custody.
VOA vials were properly preserved.
VOA vials did not contain air bubbles.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
013155-0001-SA	AQUEOUS	624-A	11 NOV 92-V6A	11 NOV 92-V6A
013155-0002-SA	AQUEOUS	624-A	04 NOV 92-V5A	11 NOV 92-V5A
013155-0003-SA	AQUEOUS	624-A	04 NOV 92-V5A	11 NOV 92-V5A
013155-0004-SA	AQUEOUS	624-A	10 NOV 92-V2A	12 NOV 92-V2A
013155-0005-SA	AQUEOUS	624-A	04 NOV 92-V5A	11 NOV 92-V5A
013155-0006-SA	AQUEOUS	624-A	10 NOV 92-V2A	10 NOV 92-V2A

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 013155	Group Code	Analysis Description	Custom Test?
0001 - 0006	A	Volatile Organics Target Compound List (TCL)	N N

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a method or procedure from a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. In all cases, Enseco's specific procedures are documented in proprietary Standard Operating Procedures (SOP). The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1990. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846). Washington, D.C., November.

U.S. Environmental Protection Agency. 1988. Methods for Determination of Organic Compounds in Finished Drinking Water and Raw Source water. EPA-600/4-88/039. Cincinnati, OH, December.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1989. Standard Methods for the Examination of Water and Wastewater, 17th Edition. Washington, D.C., September.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7S-300
Lab ID: 013155-0001-SA
Matrix: AQUEOUS
Authorized: 10 NOV 92

Sampled: 10 NOV 92
Prepared: NA

Received: 10 NOV 92
Analyzed: 11 NOV 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	500
Bromomethane	ND	ug/L	500
Vinyl chloride	ND	ug/L	500
Chloroethane	ND	ug/L	500
Methylene chloride	ND	ug/L	250
Acetone	ND	ug/L	500
Carbon disulfide	ND	ug/L	250
1,1-Dichloroethene	ND	ug/L	250
1,1-Dichloroethane	ND	ug/L	250
1,2-Dichloroethene	ND	ug/L	250
(total)	ND	ug/L	250
Chloroform	ND	ug/L	250
1,2-Dichloroethane	ND	ug/L	250
2-Butanone	ND	ug/L	500
1,1,1-Trichloroethane	ND	ug/L	250
Carbon tetrachloride	ND	ug/L	250
Vinyl acetate	ND	ug/L	500
Bromodichloromethane	ND	ug/L	250
1,2-Dichloropropane	ND	ug/L	250
trans-1,3-Dichloropropene	ND	ug/L	250
Trichloroethene	ND	ug/L	250
Dibromochloromethane	ND	ug/L	250
1,1,2-Trichloroethane	ND	ug/L	250
Benzene	830	ug/L	250
cis-1,3-Dichloropropene	ND	ug/L	250
Bromoform	ND	ug/L	250
4-Methyl-2-pentanone	ND	ug/L	500
2-Hexanone	ND	ug/L	500
1,1,2,2-Tetrachloroethane	ND	ug/L	250
Tetrachloroethene	ND	ug/L	250
Toluene	12000	ug/L	250
Chlorobenzene	ND	ug/L	250
Ethylbenzene	2900	ug/L	250
Styrene	ND	ug/L	250
Xylenes (total)	16000	ug/L	250
Surrogate	Recovery		
1,2-Dichloroethane-d4	94	%	--
Toluene-d8	108	%	--
4-Bromofluorobenzene	109	%	--

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7D-301
Lab ID: 013155-0002-SA
Matrix: AQUEOUS
Authorized: 10 NOV 92

Sampled: 10 NOV 92
Prepared: NA

Received: 10 NOV 92
Analyzed: 11 NOV 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	4.2	ug/L	10	J
Carbon disulfide	ND	ug/L	5.0	
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	90	%	--	
Toluene-d8	107	%	--	
4-Bromofluorobenzene	92	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering

Client ID: GEW-GW-PZ7D-301

Lab ID: 013155-0002-SA

Matrix: AQUEOUS

Authorized: 10 NOV 92

Sampled: 10 NOV 92

Prepared: NA

Received: 10 NOV 92

Analyzed: 11 NOV 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected

NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7R-302
Lab ID: 013155-0003-SA
Matrix: AQUEOUS
Authorized: 10 NOV 92

Sampled: 10 NOV 92
Prepared: NA

Received: 10 NOV 92
Analyzed: 11 NOV 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	250	
Bromomethane	ND	ug/L	250	
Vinyl chloride	ND	ug/L	250	
Chloroethane	ND	ug/L	250	
Methylene chloride	59	ug/L	120	J
Acetone	ND	ug/L	250	
Carbon disulfide	ND	ug/L	120	
1,1-Dichloroethene	200	ug/L	120	
1,1-Dichloroethane	ND	ug/L	120	
1,2-Dichloroethene (total)	ND	ug/L	120	
Chloroform	ND	ug/L	120	
1,2-Dichloroethane	ND	ug/L	120	
2-Butanone	ND	ug/L	250	
1,1,1-Trichloroethane	ND	ug/L	120	
Carbon tetrachloride	ND	ug/L	120	
Vinyl acetate	ND	ug/L	250	
Bromodichloromethane	ND	ug/L	120	
1,2-Dichloropropane	ND	ug/L	120	
trans-1,3-Dichloropropene	ND	ug/L	120	
Trichloroethene	150	ug/L	120	
Dibromochloromethane	ND	ug/L	120	
1,1,2-Trichloroethane	ND	ug/L	120	
Benzene	420	ug/L	120	
cis-1,3-Dichloropropene	ND	ug/L	120	
Bromoform	ND	ug/L	120	
4-Methyl-2-pentanone	ND	ug/L	250	
2-Hexanone	ND	ug/L	250	
1,1,2,2-Tetrachloroethane	ND	ug/L	120	
Tetrachloroethene	ND	ug/L	120	
Toluene	4600	ug/L	120	
Chlorobenzene	110	ug/L	120	J
Ethylbenzene	1000	ug/L	120	
Styrene	ND	ug/L	120	
Xylenes (total)	5100	ug/L	120	
Surrogate	Recovery			
1,2-Dichloroethane-d4	90	%	--	
Toluene-d8	109	%	--	
4-Bromofluorobenzene	88	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7R-302
Lab ID: 013155-0003-SA
Matrix: AQUEOUS
Authorized: 10 NOV 92
Sampled: 10 NOV 92
Prepared: NA
Received: 10 NOV 92
Analyzed: 11 NOV 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ88-303
Lab ID: 013155-0004-SA
Matrix: AQUEOUS
Authorized: 10 NOV 92

Sampled: 10 NOV 92
Prepared: NA

Received: 10 NOV 92
Analyzed: 12 NOV 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	250	
Bromomethane	ND	ug/L	250	
Vinyl chloride	ND	ug/L	250	
Chloroethane	ND	ug/L	250	
Methylene chloride	ND	ug/L	120	
Acetone	ND	ug/L	250	
Carbon disulfide	27	ug/L	120	J
1,1-Dichloroethene	ND	ug/L	120	
1,1-Dichloroethane	ND	ug/L	120	
1,2-Dichloroethene				
(total)	ND	ug/L	120	
Chloroform	ND	ug/L	120	
1,2-Dichloroethane	ND	ug/L	120	
2-Butanone	ND	ug/L	250	
1,1,1-Trichloroethane	ND	ug/L	120	
Carbon tetrachloride	ND	ug/L	120	
Vinyl acetate	ND	ug/L	250	
Bromodichloromethane	ND	ug/L	120	
1,2-Dichloropropane	ND	ug/L	120	
trans-1,3-Dichloropropene	ND	ug/L	120	
Trichloroethene	ND	ug/L	120	
Dibromochloromethane	ND	ug/L	120	
1,1,2-Trichloroethane	ND	ug/L	120	
Benzene	240	ug/L	120	J
cis-1,3-Dichloropropene	ND	ug/L	120	
Bromoform	ND	ug/L	120	
4-Methyl-2-pentanone	ND	ug/L	250	
2-Hexanone	ND	ug/L	250	
1,1,2,2-Tetrachloroethane	ND	ug/L	120	
Tetrachloroethene	ND	ug/L	120	
Toluene	3300	ug/L	120	
Chlorobenzene	ND	ug/L	120	
Ethylbenzene	770	ug/L	120	
Styrene	ND	ug/L	120	
Xylenes (total)	4000	ug/L	120	
Surrogate	Recovery			
1,2-Dichloroethane-d4	89	%	--	
Toluene-d8	104	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ88-303
Lab ID: 013155-0004-SA
Matrix: AQUEOUS
Authorized: 10 NOV 92

Sampled: 10 NOV 92
Prepared: NA

Received: 10 NOV 92
Analyzed: 12 NOV 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ89-304
Lab ID: 013155-0005-SA
Matrix: AQUEOUS
Authorized: 10 NOV 92

Sampled: 10 NOV 92
Prepared: NA

Received: 10 NOV 92
Analyzed: 11 NOV 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene	ND	ug/L	5.0
(total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	92	%	--
Toluene-d8	105	%	--
4-Bromofluorobenzene	95	%	--

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: TRIP BLANK
Lab ID: 013155-0006-SA
Matrix: AQUEOUS
Authorized: 10 NOV 92

Sampled: 10 NOV 92
Prepared: NA

Received: 10 NOV 92
Analyzed: 10 NOV 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	2.5	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	88	%	--	
Toluene-d8	103	%	--	
4-Bromofluorobenzene	93	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering

Client ID: TRIP BLANK

Lab ID: 013155-0006-SA

Matrix: AQUEOUS

Authorized: 10 NOV 92

Sampled: 10 NOV 92

Prepared: NA

Received: 10 NOV 92

Analyzed: 10 NOV 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected

NA = Not applicable

Reported By: Linda Mancini

Approved By: Hector Tulier

- QUALITY ASSURANCE/QUALITY CONTROL -

METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 013155 (cont.)

Test: 8240-TCL-AP Volatile Organics Target Compound List (TCL)
Matrix: AQUEOUS
QC Lot: 10 NOV 92-V2A QC Run: 10 NOV 92-V2A

Analyte	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 013155 (cont.)

Test: 8240-TCL-AP Volatile Organics Target Compound List (TCL)
Matrix: AQUEOUS
QC Lot: 10 NOV 92-V2A QC Run: 12 NOV 92-V2A

Analyte	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 013155 (cont.)

Test: 8240-TCL-AP Volatile Organics Target Compound List (TCL)
Matrix: AQUEOUS
QC Lot: 04 NOV 92-V5A QC Run: 11 NOV 92-V5A

Analyte	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 013155

Test: 8240-TCL-AP Volatile Organics Target Compound List (TCL)
Matrix: AQUEOUS
QC Lot: 11 NOV 92-V6A QC Run: 11 NOV 92-V6A

Analyte	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

ND = Not Detected

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 013155 (cont.)

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 10 NOV 92-V2A QC Run: 10 NOV 92-V2A
Concentration Units: ug/L

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits
1,2-Dichloroethane-d4	50.0	47.3	95	76-114
Toluene-d8	50.0	52.4	105	88-110
4-Bromofluorobenzene	50.0	47.0	94	86-115

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

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 013155

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 11 NOV 92-V6A
Concentration Units: ug/L

Analyte	Spiked	Concentration			Accuracy		Precision	
		Measured			Average(%)		(RPD)	
		DCS1	DCS2	AVG	DCS	Limits	DCS	Limit
1,1-Dichloroethene	50.0	51.7	48.5	50.1	100	61-145	6.3	14
Trichloroethene	50.0	46.8	45.6	46.2	92	71-120	2.7	14
Chlorobenzene	50.0	46.4	47.7	47.0	94	75-130	2.9	13
Toluene	50.0	49.0	50.6	49.8	100	76-125	3.1	13
Benzene	50.0	49.8	49.4	49.6	99	76-127	0.75	11

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 04 NOV 92-V5A
Concentration Units: ug/L

Analyte	Spiked	Concentration			Accuracy		Precision	
		Measured			Average(%)		(RPD)	
		DCS1	DCS2	AVG	DCS	Limits	DCS	Limit
1,1-Dichloroethene	50.0	26.2	26.6	26.4	53	61-145	1.7	14
Trichloroethene	50.0	46.7	46.7	46.7	93	71-120	0.0	14
Chlorobenzene	50.0	49.5	50.3	49.9	100	75-130	1.5	13
Toluene	50.0	51.9	52.4	52.2	104	76-125	0.90	13
Benzene	50.0	45.8	49.7	47.8	96	76-127	8.1	11

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 10 NOV 92-V2A
Concentration Units: ug/L

Analyte	Spiked	Concentration			Accuracy		Precision	
		Measured			Average(%)		(RPD)	
		DCS1	DCS2	AVG	DCS	Limits	DCS	Limit
1,1-Dichloroethene	50.0	56.7	55.2	56.0	112	61-145	2.7	14
Trichloroethene	50.0	50.2	51.1	50.6	101	71-120	1.8	14
Chlorobenzene	50.0	48.4	48.9	48.6	97	75-130	1.0	13
Toluene	50.0	49.5	49.6	49.6	99	76-125	0.20	13
Benzene	50.0	49.9	50.8	50.4	101	76-127	1.8	11

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 013155

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 11 NOV 92-V6A QC Run: 11 NOV 92-V6A
Concentration Units: ug/L

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits
1,2-Dichloroethane-d4	50.0	47.7	95	76-114
Toluene-d8	50.0	53.0	106	88-110
4-Bromofluorobenzene	50.0	43.9	88	86-115

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 04 NOV 92-V5A QC Run: 11 NOV 92-V5A
Concentration Units: ug/L

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits
1,2-Dichloroethane-d4	50.0	48.4	97	76-114
Toluene-d8	50.0	52.5	105	88-110
4-Bromofluorobenzene	50.0	48.2	96	86-115

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 10 NOV 92-V2A QC Run: 12 NOV 92-V2A
Concentration Units: ug/L

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits
1,2-Dichloroethane-d4	50.0	50.8	102	76-114
Toluene-d8	50.0	52.8	106	88-110
4-Bromofluorobenzene	50.0	44.4	89	86-115

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



November 18, 1992

Mr. Dan Folan
Wehran Engineering
6 Riverside Drive
Andover, MA 01810

Dear Dan:

Enclosed are the results of the analyses for GE Wilmington SW846 Program 1992 (GE Wilmington:Collected on 11/17/92). This project was received at Enseco - Erco Laboratory on November 17, 1992, and was processed for a 1 day turnaround time.

This report is presented in three sections. The first section consists of the Sample Description Information page, Analytical Test Requests summary, and a Project Narrative which lists any deviations or anomalies associated with sample analyses. The second section contains the analytical results and method references. The third section briefly describes the elements of Enseco's quality assurance/quality control (QA/QC) program and contains the QA/QC results. This letter authorizes the release of the analytical results and should be considered an integral part of this report.

Please refer to this project by the Enseco project number 013202 to expedite any further discussions. I will be happy to address any questions or concerns that you may have.

Sincerely,

Jay Cudmore
Program Administrator

Encl.

SAMPLE DESCRIPTION INFORMATION
for
Wehran Engineering

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
013202-0001-SA	GEW-GW-PZ7R-401	AQUEOUS	17 NOV 92	14:30	17 NOV 92
013202-0002-SA	GEW-GW-PZ7-402	AQUEOUS	17 NOV 92	14:45	17 NOV 92
013202-0003-SA	GEW-GW-PZ99-403	AQUEOUS	17 NOV 92	15:00	17 NOV 92
013202-0004-SA	Trip Blank	AQUEOUS	17 NOV 92		17 NOV 92

ANALYTICAL TEST REQUESTS
for
Wehran Engineering

Lab ID: 013202	Group Code	Analysis Description	Custom Test?
0001 - 0004	A	Volatile Organics Target Compound List (TCL)	N N

November 18, 1992

Project Narrative

Client: Wehran Engineering
Project Name: GE Wilmington: Collected on 11/17/92
Erco Project No.: 013202

1. This project consists of the results for samples received at Enseco - Erco Laboratory on November 17, 1992. Please see the sample description information sheet for a list of samples.
2. The temperature of the cooler upon receipt was 13 degrees C.
Bottles were not broken in transit.
Bottles were properly labeled.
Samples agreed with chain of custody.
VOA vials were properly preserved.
VOA vials did not contain air bubbles.

- ANALYTICAL RESULTS -

ANALYTICAL RESULTS

The method number provided on each data report sheet refers to a method or procedure from a publication originating from a regulatory or standard-setting organization. In general, the methods employed are those specified by the U.S. Environmental Protection Agency and other state and federal agencies. In cases where an approved regulatory method does not exist, a method developed by Enseco will be employed to meet the specific needs of the client. In all cases, Enseco's specific procedures are documented in proprietary Standard Operating Procedures (SOP). The methods commonly employed by Enseco are based on methods from the following references.

U.S. Environmental Protection Agency. 1983. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-020. Cincinnati, OH, March.

U.S. Environmental Protection Agency. 1990. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846). Washington, D.C., November.

U.S. Environmental Protection Agency. 1988. Methods for Determination of Organic Compounds in Finished Drinking Water and Raw Source water. EPA-600/4-88/039. Cincinnati, OH, December.

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," 40 CFR, Part 136; Federal Register, Vol. 49, No. 209.

American Public Health Association, American Water Works Association, Water Pollution Control Federation. 1989. Standard Methods for the Examination of Water and Wastewater, 17th Edition. Washington, D.C., September.

Current EPA Contract Laboratory Program (CLP) protocols for the analysis of organic and inorganic hazardous substances including chlorinated dioxins and furans.

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7R-401
Lab ID: 013202-0001-SA
Matrix: AQUEOUS
Authorized: 17 NOV 92

Sampled: 17 NOV 92
Prepared: NA

Received: 17 NOV 92
Analyzed: 18 NOV 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	100
Bromomethane	ND	ug/L	100
Vinyl chloride	ND	ug/L	100
Chloroethane	ND	ug/L	100
Methylene chloride	130	ug/L	50
Acetone	ND	ug/L	100
Carbon disulfide	ND	ug/L	50
1,1-Dichloroethene	ND	ug/L	50
1,1-Dichloroethane	ND	ug/L	50
1,2-Dichloroethene	ND	ug/L	50
(total)	ND	ug/L	50
Chloroform	ND	ug/L	50
1,2-Dichloroethane	ND	ug/L	50
2-Butanone	ND	ug/L	100
1,1,1-Trichloroethane	ND	ug/L	50
Carbon tetrachloride	ND	ug/L	50
Vinyl acetate	ND	ug/L	100
Bromodichloromethane	ND	ug/L	50
1,2-Dichloropropane	ND	ug/L	50
trans-1,3-Dichloropropene	ND	ug/L	50
Trichloroethene	ND	ug/L	50
Dibromochloromethane	ND	ug/L	50
1,1,2-Trichloroethane	ND	ug/L	50
Benzene	52	ug/L	50
cis-1,3-Dichloropropene	ND	ug/L	50
Bromoform	ND	ug/L	50
4-Methyl-2-pentanone	ND	ug/L	100
2-Hexanone	ND	ug/L	100
1,1,2,2-Tetrachloroethane	ND	ug/L	50
Tetrachloroethene	ND	ug/L	50
Toluene	650	ug/L	50
Chlorobenzene	ND	ug/L	50
Ethylbenzene	190	ug/L	50
Styrene	ND	ug/L	50
Xylenes (total)	990	ug/L	50
Surrogate	Recovery		
1,2-Dichloroethane-d4	90	%	--
Toluene-d8	102	%	--
4-Bromofluorobenzene	90	%	--

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ7-402
Lab ID: 013202-0002-SA
Matrix: AQUEOUS
Authorized: 17 NOV 92

Sampled: 17 NOV 92
Prepared: NA

Received: 17 NOV 92
Analyzed: 18 NOV 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	ND	ug/L	10	
Carbon disulfide	1.1	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene				
(total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	88	%	--	
Toluene-d8	107	%	--	
4-Bromofluorobenzene	92	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering

Client ID: GEW-GW-PZ7-402

Lab ID: 013202-0002-SA

Matrix: AQUEOUS

Authorized: 17 NOV 92

Sampled: 17 NOV 92

Prepared: NA

Received: 17 NOV 92

Analyzed: 18 NOV 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected

NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ99-403
Lab ID: 013202-0003-SA
Matrix: AQUEOUS
Authorized: 17 NOV 92

Sampled: 17 NOV 92
Prepared: NA

Received: 17 NOV 92
Analyzed: 18 NOV 92

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	500
Bromomethane	ND	ug/L	500
Vinyl chloride	ND	ug/L	500
Chloroethane	ND	ug/L	500
Methylene chloride	ND	ug/L	250
Acetone	ND	ug/L	500
Carbon disulfide	ND	ug/L	250
1,1-Dichloroethene	ND	ug/L	250
1,1-Dichloroethane	ND	ug/L	250
1,2-Dichloroethene			
(total)	ND	ug/L	250
Chloroform	ND	ug/L	250
1,2-Dichloroethane	ND	ug/L	250
2-Butanone	ND	ug/L	500
1,1,1-Trichloroethane	ND	ug/L	250
Carbon tetrachloride	ND	ug/L	250
Vinyl acetate	ND	ug/L	500
Bromodichloromethane	ND	ug/L	250
1,2-Dichloropropane	ND	ug/L	250
trans-1,3-Dichloropropene	ND	ug/L	250
Trichloroethene	ND	ug/L	250
Dibromochloromethane	ND	ug/L	250
1,1,2-Trichloroethane	ND	ug/L	250
Benzene	110	ug/L	250
cis-1,3-Dichloropropene	ND	ug/L	250
Bromoform	ND	ug/L	250
4-Methyl-2-pentanone	ND	ug/L	500
2-Hexanone	ND	ug/L	500
1,1,2,2-Tetrachloroethane	ND	ug/L	250
Tetrachloroethene	ND	ug/L	250
Toluene	1400	ug/L	250
Chlorobenzene	ND	ug/L	250
Ethylbenzene	330	ug/L	250
Styrene	ND	ug/L	250
Xylenes (total)	1800	ug/L	250
Surrogate	Recovery		
1,2-Dichloroethane-d4	91	%	--
Toluene-d8	106	%	--
4-Bromofluorobenzene	93	%	--

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering
Client ID: GEW-GW-PZ99-403
Lab ID: 013202-0003-SA
Matrix: AQUEOUS
Authorized: 17 NOV 92

Sampled: 17 NOV 92
Prepared: NA

Received: 17 NOV 92
Analyzed: 18 NOV 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Wehran Engineering
Client ID: Trip Blank
Lab ID: 013202-0004-SA
Matrix: AQUEOUS
Authorized: 17 NOV 92

Sampled: 17 NOV 92
Prepared: NA

Received: 17 NOV 92
Analyzed: 18 NOV 92

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	10	
Bromomethane	ND	ug/L	10	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	10	
Methylene chloride	ND	ug/L	5.0	
Acetone	15	ug/L	10	
Carbon disulfide	1.9	ug/L	5.0	J
1,1-Dichloroethene	ND	ug/L	5.0	
1,1-Dichloroethane	ND	ug/L	5.0	
1,2-Dichloroethene (total)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,2-Dichloroethane	ND	ug/L	5.0	
2-Butanone	ND	ug/L	10	
1,1,1-Trichloroethane	ND	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Vinyl acetate	ND	ug/L	10	
Bromodichloromethane	ND	ug/L	5.0	
1,2-Dichloropropane	ND	ug/L	5.0	
trans-1,3-Dichloropropene	ND	ug/L	5.0	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	5.0	
1,1,2-Trichloroethane	ND	ug/L	5.0	
Benzene	ND	ug/L	5.0	
cis-1,3-Dichloropropene	ND	ug/L	5.0	
Bromoform	ND	ug/L	5.0	
4-Methyl-2-pentanone	ND	ug/L	10	
2-Hexanone	ND	ug/L	10	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	
Tetrachloroethene	ND	ug/L	5.0	
Toluene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	5.0	
Ethylbenzene	ND	ug/L	5.0	
Styrene	ND	ug/L	5.0	
Xylenes (total)	ND	ug/L	5.0	
Surrogate	Recovery			
1,2-Dichloroethane-d4	100	%	--	
Toluene-d8	104	%	--	
4-Bromofluorobenzene	98	%	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

Volatile Organics
Target Compound List (TCL)
Method 8240

Enseco
A Corning Company

Client Name: Wehran Engineering

Client ID: Trip Blank

Lab ID: 013202-0004-SA

Matrix: AQUEOUS

Authorized: 17 NOV 92

Sampled: 17 NOV 92

Prepared: NA

Received: 17 NOV 92

Analyzed: 18 NOV 92

Note J : Result is detected below the reporting limit or is an
estimated concentration.

ND = Not detected

NA = Not applicable

Reported By: Hector Tulier

Approved By: Linda Mancini

- QUALITY ASSURANCE/QUALITY CONTROL -

QUALITY ASSURANCE/QUALITY CONTROL

The results of the internal quality control checks, used to monitor data quality, are included with this report. The following have been provided, where applicable. A comprehensive description of each of these elements can be found in the Enseco Quality Assurance Program Plan for Environmental Chemical Monitoring.

DUPLICATE CONTROL SAMPLES (DCS) are used to monitor the precision and accuracy of the analytical system on an on-going basis. Each DCS consists of a standard, control matrix that is spiked with a group of target compounds representative of the method analytes. A DCS pair is analyzed for every 20 samples processed by the method. DCS are analyzed with environmental samples to provide evidence that the laboratory is performing the method within accepted QC guidelines for accuracy and precision.

SINGLE CONTROL SAMPLES (SCS) are analyzed with every batch of samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available (e.g., metals or wet chemistry), a single DCS serves as the control sample. Recovery data generated from the SCS are compared to control limits that have been established for each of the compounds being monitored.

METHOD BLANKS, also known as reagent, analytical, or preparation blanks, are analyzed to assess the level of contamination which exists in the analytical system. A method blank is analyzed with every batch of samples processed. A method blank consists of reagents specific to the method which are carried through every aspect of the procedure, including preparation, cleanup, and analysis. The results of the method blank analysis are evaluated, in conjunction with other QC information, to determine the acceptability of the data generated for that batch of samples.

MATRIX SPIKES, MATRIX DUPLICATES, AND MATRIX SPIKE DUPLICATES are types of Matrix Specific QC, which is used to assess the effects of a sample matrix or field conditions on the analytical data. A Matrix Spike (MS) is an environmental sample to which known concentrations of analytes have been added. A Matrix Duplicate (MD) is a sample that is divided into two separate aliquots which are analyzed separately. A Matrix Spike Duplicate (MSD) is a sample that is divided into two separate aliquots, each of which is spiked with known concentrations of analytes. This data is provided only where required or requested. The samples that are used are either project-specific or part of the analytical batch, depending on the requirements of the project.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
013202-0001-SA	AQUEOUS	624-A	10 NOV 92-V2A	18 NOV 92-V2A
013202-0002-SA	AQUEOUS	624-A	10 NOV 92-V2A	18 NOV 92-V2A
013202-0003-SA	AQUEOUS	624-A	10 NOV 92-V2A	18 NOV 92-V2A
013202-0004-SA	AQUEOUS	624-A	10 NOV 92-V2A	18 NOV 92-V2A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 013202

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 10 NOV 92-V2A
Concentration Units: ug/L

Analyte	Spiked	-----Concentration-----			Accuracy		Precision	
		-----Measured-----			Average(%)		(RPD)	
		DCS1	DCS2	AVG	DCS	Limits	DCS	Limit
1,1-Dichloroethene	50.0	56.7	55.2	56.0	112	61-145	2.7	14
Trichloroethene	50.0	50.2	51.1	50.6	101	71-120	1.8	14
Chlorobenzene	50.0	48.4	48.9	48.6	97	75-130	1.0	13
Toluene	50.0	49.5	49.6	49.6	99	76-125	0.20	13
Benzene	50.0	49.9	50.8	50.4	101	76-127	1.8	11

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

METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 013202

Test: 8240-TCL-AP Volatile Organics Target Compound List (TCL)
Matrix: AQUEOUS
QC Lot: 10 NOV 92-V2A QC Run: 18 NOV 92-V2A

Analyte	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
2-Butanone	ND	ug/L	10
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
4-Methyl-2-pentanone	ND	ug/L	10
2-Hexanone	ND	ug/L	10
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0

ND = Not Detected

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 013202

Category: 624-A Volatile Organics - GC/MS
Matrix: AQUEOUS
QC Lot: 10 NOV 92-V2A QC Run: 18 NOV 92-V2A
Concentration Units: ug/L

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits
1,2-Dichloroethane-d4	50.0	43.4	87	76-114
Toluene-d8	50.0	53.6	107	88-110
4-Bromofluorobenzene	50.0	45.7	91	86-115

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

APPENDIX F
LITERATURE SEARCH REFERENCES

LITERATURE CITED

1. Allaway., W.H. 1968. Agronomic Control Over Environmental Cycling of Trace Elements. *Advan. Agron* 20:235-274.
2. Bertine, K.K and M.F. 1978. Industrialization of New Haven, Conn., as recorded in reservoir sediments. *Enviro. Sci. Technol.* 12:201-207.
3. Carey, A.E. and Barrett, E.L.R. 1980. "Metals in Soils - a Brief Summary", internal memorandum, Field Studies Branch, U.S. Environmental Protection Agency.
4. Damman, A.W.H. 1979. Mobilization and Accumulation of Heavy Metals in Freshwater Wetlands. Research Project Technical Completion Report, University of Connecticut.
5. Dragun, J. 1985. "What Happens to Hazardous Materials in Soil-Groundwater Systems." Hazardous Materials Control Research Institute.
6. Friedland, A.L., A.H. Johnson, T.G. Siccama, and D.L. Mader. 1984. Trace Element Profiles in the Forest Floor of New England. *Soil Sci. Soc. Am.* J48:422-425.
7. Klein, D.H. 1972. Mercury and Other Metals in Urban Soil. *Environ. Sci. & Technol* 6:560-562.
8. Lagerwerff, J.V. and A.W. Specht. 1970. Contamination of roadside soil and vegetation with cadmium, nickel, lead, and zinc. *Environ. Sci. Technol.* 4:583-586.
9. Lindau, C.W. and L.R. Hozzner. 1982. Sediment fractionation of Cu, Ni, Zn, Cr, Mn, and Fe in one experimental and three natural marshes. *J. Environ. Qual.* 11:540-545.
10. Miller, W.P. and W.W. McFee. 1983. Distribution of cadmium, zinc, cooper and lead in Soils of Industrial Northwestern Indiana. *J. Environ. Qual.* 12:29-33.
11. Simpson, R.L., R.E. Good, R. Walker, and B.R. Frasco. 1983. The Role of Delaware River Freshwater Tidal Wetlands in the Retention of Nutrients and Heavy Metals. *J. Environ. Qual.* Vol. 12, 1:41-48.
12. Site Remediation Program, Cleanup Standards for Contaminated Sites, Proposed New Rule: N.J.A.C. 7:26D. *New Jersey Register*, February 3, 1992.
13. Shacklette, H.T. and J.G. Boerngen. 1984. Elemental Concentrations in Soils and Other Surifical Materials of the Conterminous United States. U.S. Geological Survey Professional Paper 1270. U.S. Government Printing Office, Washington.

14. U.S. Soil Conservation Service, Soil Survey of Middlesex County, MA. Unpublished.
15. Veneman, Peter L.M. 1985. Laboratory Data and Descriptions for Selected Soils in Massachusetts, Research Bulletin 706. University of Massachusetts, Amherst, Massachusetts.



**VOLUME II
SECOND SUPPLEMENTAL PHASE II
INVESTIGATION
FOR THE FORMER GENERAL ELECTRIC FACILITY
50 FORDHAM ROAD, WILMINGTON/NORTH READING,
MASSACHUSETTS**

**Prepared For
GENERAL ELECTRIC - AEROSPACE
Environmental Programs
230 East Goddard Boulevard
King of Prussia, PA 19406**

December 1992

**WEHRAN ENGINEERING CORPORATION
Andover, Massachusetts**

Environmental Engineers • Scientists • Constructors

VOLUME II

SECOND SUPPLEMENTAL PHASE II

INVESTIGATION

**FOR THE FORMER GENERAL ELECTRIC FACILITY
50 FORDHAM ROAD, WILMINGTON/NORTH READING,
MASSACHUSETTS**

Prepared For

GENERAL ELECTRIC - AEROSPACE

Environmental Programs

230 East Goddard Boulevard

King of Prussia, PA 19406

December 1992

WEHRAN ENGINEERING CORPORATION

Andover, Massachusetts

Environmental Engineers • Scientists • Constructors

TABLE OF CONTENTS

VOLUME II of III

APPENDIX A	Soil Boring and Monitoring Well Construction Logs
APPENDIX B	Field Screening GC Chromatograms
APPENDIX C	Hydraulic Conductivity Data

APPENDIX A
SOIL BORING AND MONITORING WELL CONSTRUCTION LOGS

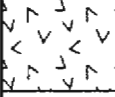


LEGEND FOR BORING LOGS

PROJECT: GE Aerospace – Wilmington/North Reading, MA

PROJECT NO.: 01501.12

BORING NO.: WE-5R1, WE-6, WE-6R, WE-105R2

GRAPHIC SYMBOL	SOIL/ROCK CODE	DESCRIPTION OF SYMBOLS USED IN LITHOLOGIC LOG COLUMN	SYMBOL or PATTERN	DESCRIPTION OF SYMBOLS USED IN WELL CONSTRUCTION AND SAMPLE SYMBOLS
		SAND		Concrete Plug
		SAND & SILT		Bentonite Seal
		SAND & GRAVEL		Cement/Bentonite Grout
		METAMORPHIC ROCK		Filter Sand Pack
		GRANITE		2-inch ID, Sched. 40 PVC Riser Pipe
		DIORITE		2-inch ID, Sched. 40, 0.010-inch, PVC Well Screen
		GRANODIORITE		Split Spoon Sampler
		BEDROCK, UNKNOWN COMPOSITION		NX Core Barrel



PROJECT: General Electric - Wilmington, MA
 CLIENT: General Electric - Aerospace
 CONTRACTOR: Environmental Drilling, Inc.

PROJECT NO: 01501.12

RIG: Acker - 82

GS ELEV: 82.05 ft.

N-S COORD:

E-W COORD:

WL REF ELEV: PVC 81.83 ft.

DATE STARTED: 08/03/92

DATE FINISHED: 08/05/92

OPERATOR: Chris Stamos

GEOLOGIST: Jeff Hamel

GROUNDWATER DATA (feet)					CASING	SAMPLE	TUBE	CORE
DATE	GW DEPTH	GW ELEV	INTAKE	TYPE	HW	SS		NX
08/12/92	5.46	76.37	DPH: 13-28 ELEV: 54-69	DIAM.	4"	2" OD		2 15/16"
				WEIGHT		140 lbs.		
				FALL		30"		

WELL CONSTRUCT	DEPTH (feet)	SAMPLE NUMBER	SAMPLE & TYPE	RECOVERY (inches)	N-VALUE/ ROD	LOG	DRILLING RATE (min)	FIELD DESCRIPTION (Modified Burmister Methodology)	HEADSPACE TEST RESULTS Total VOCs (ppm v/v)
	5	S-1		8	87- 100/3			PAVEMENT - SAND - Very dense, brown, fine SAND, little fine to medium to coarse Gravel, trace Silt, dry	(9)
								- BEDROCK - (unknown composition) Auger refusal, rollerbitted through upper 5 feet of bedrock (5), no sample collected	No Sample Collected
	10	C-1		59.5/ 99%	98%		5 8 10 10	- GRANITE - Excellent quality, light-colored, fractures 30 deg, 90 deg, to rock core with slight mineralization	(45)
							6.3 6.3	Good quality, light-colored, fractures 30 deg, 90 deg, to rock core with slight mineralization	
							6.3 6.3	45 deg fracture, dark staining, severe mineralization, rust oxidation (~16.5 ft)	
							6.3	Excellent quality, light-colored, fractures at 90 deg, 45 deg to rock core, moderate mineralization	
	20	C-2		57/ 95%	70%		4.3 5.25		(0.27)
							6.3		
							7		
	25	C-3		60/ 99%	95%		3.5		(51)
							6.3		
							6.22	- DIORITE - Excellent quality, dark olive green-grey, fractures 45 deg, to rock core, slight mineralization	
							6.2 5.67 10.3 13	- GRANITE - Excellent quality, light-colored, fractures horizontal, 45 deg to rock core	



PROJECT: General Electric - Wilmington, MA
 CLIENT: General Electric - Aerospace
 CONTRACTOR: Environmental Drilling, Inc.

PROJECT NO: 01501.2

RIG: Acker - 82

GS ELEV: 82.65ft.

N-S COORD:

E-W COORD:

WL REF ELEV: PVC 82.39ft.

DATE STARTED: 07/29/92

DATE FINISHED: 07/30/92

OPERATOR: Chris Stamos

GEOLOGIST: Jeff Hamel

GROUNDWATER DATA (feet)					CASING	SAMPLE	TUBE	CORE
DATE	GW DEPTH	GW ELEV	INTAKE	TYPE	HW	SS		
08/12/92	5.85	76.54	DPH:13.7- 23.7 ELEV:59-69	DIAM	4"	2" OD		
				WEIGHT	300 lbs.	140 lbs.		
				FALL	24"	30"		

WELL CONSTRUCT	DEPTH (feet)	SAMPLE NUMBER	SAMPLE & TYPE	RECOVERY (inches)	N-VALUE/ RQD	LOG	DRILLING RATE (min)	FIELD DESCRIPTION (Modified Burmister Methodology)	HEADSPACE TEST RESULTS Total VOCs (ppm v/v)
		S-1	X	10	19			- SAND - Medium dense, gray-brown, fine to medium SAND, little Silt, Gravel and organics, dry	(0)
		S-2	X	18	13			Medium dense, dark brown SAND and SILT, trace Gravel, dry	(0.02)
		S-3	X	16	26			- SAND and SILT - Medium dense, tan-brown, fine to medium SAND and SILT, trace Gravel, trace Clayey Silt, moist	(0)
		S-4	X	24	73			Medium dense, gray, tan, green, fine SAND and SILT, trace coarse Sand with yellow-gray colored zones, wet	(0)
		S-5	X	18	52			Very dense, gray, tan, yellow, brown, micaceous SAND and SILT, trace clayey Silt, wet	(0)
		S-6	X	24	47			Very dense, gray, tan, orange-brown, fine to medium SAND and SILT, trace clayey Silt, iron-stained zones, wet	(0.03)
		S-7	X	18	18			Dense, gray, tan, brown, fine to medium, micaceous SAND and SILT, trace clayey Silt, wet	(0.03)
		S-8	X	18	30			- SAND - Medium dense, brown-gray, fine to medium SAND, some Silt, trace clayey Silt, wet	(0.03)
		S-9	X	22	27			Medium dense, brown, orange-brown, fine to medium to coarse SAND, little Silt and Gravel, wet	(0.23)
		S-10	X	8	126			- SAND and GRAVEL - Medium dense, orange-brown, fine to medium to coarse SAND and GRAVEL, wet	(0.27)
		S-11	X	14	75			Very dense, tan-brown, fine to medium to coarse SAND and GRAVEL, little Silt, trace clayey Silt, (boulder fragments in nose of spoon)	(0.07)
		S-12	X	18	149			Very dense, tan-brown, fine to medium to coarse SAND and GRAVEL, little Silt (boulder fragments in nose of spoon)	(0.91)
								Very dense, tan-brown, fine to medium to coarse SAND and GRAVEL, little Silt	(1.8)
								CASING REFUSAL AT APPROX. 24 FEET BELOW GRADE	0 (ppm v/v) 2
								1. Soil headspace tests performed with a Photovac Model 10550 GC.	
								2. Installation location of monitoring well is approximately 5 feet from soil boring.	
								+Headspace (1.8) number in parenthesis corresponds to total VOC concentration in ppm v/v.	



PROJECT: General Electric - Wilmington, MA
 CLIENT: General Electric - Aerospace
 CONTRACTOR: Environmental Drilling, Inc.

PROJECT NO: 01501.12

RIG: Acker - 82

GS ELEV: 82.71ft.

N-S COORD:

E-W COORD:

WL REF ELEV: PVC 82.36ft.

DATE STARTED: 08/11/92

DATE FINISHED: 08/12/92

OPERATOR: Chris Stamos

GEOLOGIST: Jeff Hamel

GROUNDWATER DATA (feet)				CASING	SAMPLE	TUBE	CORE
DATE	GW DEPTH	GW ELEV	INTAKE	TYPE	HW		NX
08/12/92	5.86	76.50	DPH:30-40 ELEV:43-53	DIAM.	4"		2 15/16"
				WEIGHT			
				FALL			

WELL CONSTRUCT	DEPTH (feet)	SAMPLE NUMBER	SAMPLE & TYPE	RECOVERY (inches)	N-VALUE/ RQD	LOG	DRILLING RATE (min)	FIELD DESCRIPTION (Modified Burmister Methodology)	HEADSPACE TEST RESULTS Total VOCs (ppm v/v)
		S-1	X	10	19			- SAND - Medium dense, gray-brown, fine to medium SAND, little Silt, Gravel and organics, dry Medium dense, dark brown SAND and SILT, trace Gravel, dry Medium dense, light brown-tan, fine to medium SAND and GRAVEL, trace Silt, dry	(0)
		S-2	X	18	13			- SAND and SILT - Medium dense, tan-brown, fine to medium SAND and SILT, trace Gravel, trace Clayey Silt, moist Medium dense, gray, tan, green, fine SAND and SILT, trace coarse Sand with yellow-gray colored zones, wet	(0.02)
	5	S-3	X	16	26			Very dense, gray, tan, yellow, brown, micaceous SAND and SILT, trace clayey Silt, wet	(0)
		S-4	X	24	73			Very dense, gray, tan, orange-brown, fine to medium SAND and SILT, trace clayey Silt, iron-stained zones, wet	(0)
		S-5	X	18	52			Dense, gray, tan, brown, fine to medium, micaceous SAND and SILT, trace clayey Silt, wet	(0.03)
	10	S-6	X	24	47				(0.03)
		S-7	X	18	18			- SAND - Medium dense, brown-gray, fine to medium SAND, some Silt, trace clayey Silt, wet Medium dense, brown, orange-brown, fine to medium to coarse SAND, little Silt and Gravel, wet	(0.03)
	15	S-8	X	18	30				(0.23)
		S-9	X	22	27			- SAND and GRAVEL - Medium dense, orange-brown, fine to medium to coarse SAND and GRAVEL, wet Very dense, tan-brown, fine to medium to coarse SAND and GRAVEL, little Silt, trace clayey Silt. (boulder fragments in nose of spoon)	(0.27)
	20	S-10	X	8	126				(0.07)
		S-11	X	14	75			Very dense, tan-brown, fine to medium to coarse SAND and GRAVEL, little Silt (boulder fragments in nose of spoon)	(0.91)
		S-12	X	18	149			Very dense, tan-brown, fine to medium to coarse SAND and GRAVEL, little Silt	(1.8)
	25							- BEDROCK - (unknown composition) Auger refusal, rollerbitted through upper 5 feet of bedrock (5), no sample collected	No sample collected



PROJECT: General Electric - Wilmington, MA

PROJECT NO: 01501.12

GS ELEV: 82.71ft.

CLIENT: General Electric - Aerospace

N-S COORD:

CONTRACTOR: Environmental Drilling, Inc.

RIG: Acker - 82

E-W COORD:

WELL CONSTRUCT	DEPTH (feet)	SAMPLE NUMBER	SAMPLE & TYPE	RECOVERY (inches)	N-VALUE/ ROD	LOG	DRILLING RATE (min)	FIELD DESCRIPTION (Modified Burmister Methodology)	HEADSPACE TEST RESULTS Total VOCs (ppm v/v)
								- BEDROCK - (unknown composition)	
	30	C-1		22/ 83%	64%		3.00 3.10 3.00	- DIORITE - Fair quality, dark olive-gray with pinkish granite intrusions fractures at 45 deg, 90 deg, to rock core, calcite formations in fractures	(11)
		C-2		58/ 97%	97%		4.34 4.07 4.45	- GRANITE - Excellent quality, light colored, fractures at 45 deg. and 90 deg. to rock core, moderate mineralization, calcite formation in fracture	
	35						4.45 4.15		
		C-3		62/ 100%	85%		2.50 4.00 2.58 3.48	- GRANODIORITE - Good quality, light colored, fractures at 45 deg. to rock core, slight mineralization	
	40						3.50	- GRANITE -	(6)
		C-4		60/ 100%	97%		2.48 3.58 4.1	Excellent quality, pinkish to light colored, fractures at 45 deg. and 90 deg. to rock core, slight mineralization	Groundwater sample not collected
	45						2.59 3.05 9.45		
		C-5		60/ 100%	92%		10.3 6.07 3.27 4.48	Excellent quality, pinkish to light colored, fractures at 45 deg. and 90 deg. to rock core, slight mineralization	Groundwater sample not collected
	50								
								END OF BORING AT 51.4 FEET BELOW GROUND SURFACE	0 (ppm v/v) 20
								1. Water headspace tests performed with a Photovac Model 10S50 GC. 2. Water pressure injection tests were conducted on the following zones: 47.8 to 42.6 feet, 37.4 to 42.6 feet, and 32.2 to 37.4 feet below ground surface. 3. Water quality extraction tests were conducted after each 5 foot core run. 4. Four-inch permanent steel casing pressure grouted in place from 0 to 27 feet below ground surface. 5. Uppermost bedrock zones were drilled with a roller bit approximately 5 feet so a core sample could be extracted from competent rock.	
	55							(11) Number in parenthesis corresponds to total VOC concentration in ppm v/v.	
	60								



PROJECT: General Electric - Wilmington, MA
 CLIENT: General Electric - Aerospace
 CONTRACTOR: Environmental Drilling, Inc.

PROJECT NO: 01501.12

RIG: Acker - B2

GS ELEV: 82.13ft.

N-S COORD:

E-W COORD:

WL REF ELEV: PVC 82.05ft.

DATE STARTED: 08/05/92

DATE FINISHED: 08/10/92

OPERATOR: Chris Stamos

GEOLOGIST: Jeff Hamel

GROUNDWATER DATA (feet)				CASING	SAMPLE	TUBE	CORE
DATE	GW DEPTH	GW ELEV	INTAKE	TYPE			
08/12/92	5.67	76.38	DEPTH: 50-65 ELEV: 17-32	DIAM.	HSA/HW	SS	NX
				WEIGHT	4.25/4"	2" OD	2 15/16"
				FALL	300 lbs.	140 lbs.	
					24"	30"	

WELL CONSTRUCT	DEPTH (feet)	SAMPLE NUMBER	SAMPLE & TYPE	RECOVERY (inches)	N-VALUE/ RQD	LOG	DRILLING RATE (min)	FIELD DESCRIPTION (Modified Burmister Methodology)	HEADSPACE TEST RESULTS Total VOCs (ppm v/v)
		S-0						- PAVEMENT - - SAND - Brown, fine to medium to coarse SAND, little Silt and Gravel, trace clayey Silt, dry to damp, (sample obtained from cuttings due to SS refusal)	
	5	S-1		8	37			6" dense, gray-white, fine to medium to coarse SAND, little Gravel, dry	(0.04)
		S-2		24	69			6" dense, brown-gray, fine to coarse SAND and SILT, trace clayey Silt, moist to wet, black stained	
		S-3		24	40			12" very dense, tan-gray SAND and SILT, little clayey Silt, wet	(0.23)
	10	S-4		3	39			- SAND and GRAVEL - Very dense, orange-brown, fine to medium to coarse SAND and GRAVEL, trace Silt, wet, oily sheen	(0.13)
		S-5		8	16			Very dense, orange-brown, fine to medium to coarse SAND and GRAVEL, trace Silt, wet, cobble in nose of spoon	(0.01)
	15	S-6		7	29			Same as above, wet	(0.25)
		S-7		6	19				(0.24)
		S-8		18	34				(0.03)
	20	S-9		0	25				(0.11)
		S-10		3	54 120/4"			Very dense, tan-brown, fine to medium to coarse SAND and GRAVEL, rock fragments, little Silt, trace clayey Silt, wet, auger refusal at 24 feet	(0.01) (2.8)
	25							- BEDROCK - (unknown composition) Auger refusal, rollerbitted through upper 6 feet of bedrock (5), no sample collected	No sample collected



PROJECT: General Electric - Wilmington, MA
 CLIENT: General Electric - Aerospace
 CONTRACTOR: Environmental Drilling, Inc.

PROJECT NO: 0150112

GS ELEV: 82.1311

N-S COORD:

RIG: Acker - 82

E-W COORD:

WELL CONSTRUCT	DEPTH (feet)	SAMPLE NUMBER	SAMPLE & TYPE	RECOVERY (inches)	N-VALUE/ RQD	LOG	DRILLING RATE (min)	FIELD DESCRIPTION (Modified Burmister Methodology)	HEADSPACE TEST RESULTS Total VOCs (ppm v/v)
	30							- BEDROCK - (unknown composition)	No sample collected
							7.5	- GRANITE -	
		C-1		53/ 98%	96%		9	Excellent quality, becoming less coarse with depth, light colored, fractures at 45 deg., 60 deg., and 90 deg. to the rock core, moderate mineralization and rust oxidation	(64)
							5		
							7		
	35						2/6"		
		C-2		27/ 90%	67%		6	Fair quality, coarse-grained, light-colored, fractures at 45 deg. and 90 deg. to rock core, moderate mineralization and rust oxidation	
							8		
							4/6"		
							6		
		C-3		53/ 98%	94%		5.45 5.40	Excellent quality, coarse grained, light-colored, fractures at 45 deg. and 90 deg. to rock core	
	40						7	- GRANODIORITE - Excellent quality, fracture at contact, 30 deg., 0 deg., 90 deg. to rock core, moderate mineralization	(105)
							3/6"		
		C-4		25/ 100%	76%		3.5 4.4	- DIORITE - Fair quality, dark colored, no fracture at contact zone	
							2.33	Quartz intrusions, fractures at 30 deg., 45 deg., 90 deg., to rock core, moderate mineralization	(237)
	45						2.55	- GRANODIORITE - Good quality, fractures at 0 deg., 30 deg., 90 deg. to rock core, slight mineralization	
		C-5		38/ 100%	84%		3.02		
							3.46		
		C-6		58/ 97%	93%		3.40 3.40	Excellent quality, large vertical fractures, 0 deg., 45 deg., 90 deg. to rock core, severe mineralization	(201)
	50						4.23		
							4.20	- DIORITE -	
							3.35		(376)
		C-7		58/ 97%	85%		4.23 3.39	Good quality, granite intrusions, fractures at 0 deg., 45 deg., 90 deg. to rock core, severe mineralization	
	55						2.58		
							3.59		
		C-8		60/ 100%	58%		4.33 4.00	Fair quality, granite intrusions, fractures at 0 deg., 30 deg., 45 deg. to rock core, severe mineralization	(383)
	60						4.00		



PROJECT: General Electric - Wilmington, MA
 CLIENT: General Electric - Aerospace
 CONTRACTOR: Environmental Drilling, Inc.

PROJECT NO: 01501.12

GS ELEV: 82.13ft.

RIG: Acker - 82

N-S COORD:

E-W COORD:

WELL CONSTRUCT	DEPTH (feet)	SAMPLE NUMBER	SAMPLE & TYPE	RECOVERY (inches)	N-VALUE/ ROD	LOG	DRILLING RATE (min)	FIELD DESCRIPTION (Modified Burmister Methodology)	HEADSPACE TEST RESULTS Total VOCs (ppm v/v)
	65	C-8		60/ 100%	88%		4.10	- DIORITE -	(400)
		C-9					4.30 3.30 3.00	- GRANODIORITE - Good quality, light colored, fractures at 20 deg., 45 deg., 90 deg. to rock core, moderate to severe mineralization and rust oxidation	(315)
	70	C-10		60/ 100%	95%		2.15 3.14 3.22	Excellent quality, light colored, fractures at 90 deg. to rock core, moderate mineralization	(248)
		C-11					3.04 3.5 3.22 4.00	- GRANITE - Excellent quality, light colored, fractures at 45 deg. and 90 deg. to rock core, slight mineralization	No sample collected
	75	C-12		60/ 100%	97%		3.49 4.30 4.30 4.27	Excellent quality, light colored, fractures at 45 deg. and 90 deg. to rock core, slight mineralization	(100)
		C-12					5.10 3.49 4.02 4.37 4.14 3.50 3.58	END OF BORING AT 82 FEET BELOW GROUND SURFACE 1. Water headspace tests performed with a Photovac Model 10S50 GC. 2. Water pressure injection tests were conducted on the following zones: 69 to 74.2 feet, 63.8 to 69 feet, 58.6 to 63.8 feet, 53.4 to 58.6 feet, 48.2 to 53.4 feet, 43 to 48.2 feet, 37.8 to 43 feet, and 32.6 to 37.8 feet below ground surface. 3. Water quality extraction tests were conducted after each 5 foot core run. 4. Four-inch permanent steel casing pressure grouted in place from 0 to 27 feet below ground surface. 5. Uppermost bedrock zones were drilled with a roller bit approximately 6 feet so a core sample could be extracted from competent rock. (100) - Number in parenthesis corresponds to total VOC concentration in ppm v/v.	0 (ppm v/v) 400

APPENDIX B
FIELD SCREENING GC CHROMATOGRAMS

PHOTOVAC GC OPERATION SETTINGS

PHOTOVAC: RED

DATE: 7/28/92

OPERATOR: JEFF HAMEL

TIME: 10:30 AM

EVENT	ON	OFF
1	<u>8</u>	<u>10</u>
2	<u>0</u>	<u>0</u>
3	<u>0</u>	<u>80</u>
4	<u>0</u>	<u>0</u>
5	<u>0</u>	<u>0</u>

PHOTOVAC

FIELD: 23
POWER: 40

SAMPLE	0.0	10.0
CEL	0.0	0.0
EVENT 1	0.0	00.0
EVENT 2	0.0	0.0
EVENT 3	0.0	0.0
EVENT 4	0.0	0.0
EVENT 5	0.0	0.0
EVENT 6	0.0	0.0
EVENT 7	0.0	0.0
EVENT 8	0.0	0.0

PLOTTER DELAY: 0

ANALYSIS TIME: 800

CYCLE TIME: 0

SOURCE FIELD: 29

SOURCE POWER: 40

LIBRARY USED: 1

UP-SLOPE SENS: 16

DOWN-SLOPE SENS: 16

PEAK WIDTH @4 MIN: 6

WINDOW: ± 2

MINIMUM AREA: 20

OFFSET:

CARRIER GAS FLOW: 10

CHART SPEED: 1.0

GAIN: 20

OVEN TEMPERATURE: 40

SAMPLE INJECTION VOLUME: 200

PHOTOVAC

1. COMPOUND 10.4 0.1 0.1

STYL. BENZENE	1	110.0	1.000	0.010
ACE	2	70.0	1.000	0.010
BENZENE	3	54.0	1.000	0.010
ICE	4	100.0	1.000	0.010
TOLUENE	5	106.0	1.000	0.010
TRANS 1,2 DIB	6	106.0	1.000	0.010
D-XYLENE	7	106.0	1.000	0.010
1,1-DI-2,4-DIB	8	106.0	1.000	0.010
ETHYLENE	9	106.0	1.000	0.010
1,1-DI-2,4-DIB	10	106.0	1.000	0.010
ETHYLENE	11	106.0	1.000	0.010
ETHYLENE	12	106.0	1.000	0.010
ETHYLENE	13	106.0	1.000	0.010

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: Trichloroethene

PHOTOVAC: RED

DATE: 7/28/92

OPERATOR: JAH

TIME: 11:00

CALIBRATION TYPE:

- 1) RT-UPDATE
- 2) COMPOUND STORAGE ~~X~~
- 3) CAL-REFRESH ~~X~~

CHROMATOGRAM
(with SETUP):

PHOTOVAC
START

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 24

SAT'D HEADSPACE VOLUME OF STD (uL): 11.56

CALIBRATION SYRINGE SIZE (uL): 25

LIQUID VOLUME OF STD [if applicable] (uL): —

PEAK NUMBER: 2

RETENTION TIME (sec): 120.4

Comments:

SAMPLE LIBRARY: 1 01 00 1000 11:00
ANALYSIS: 2 02 00 1000 11:00
INTERNAL TEST: 00 00 00 00 00
DATE: 00 00 00 00 00

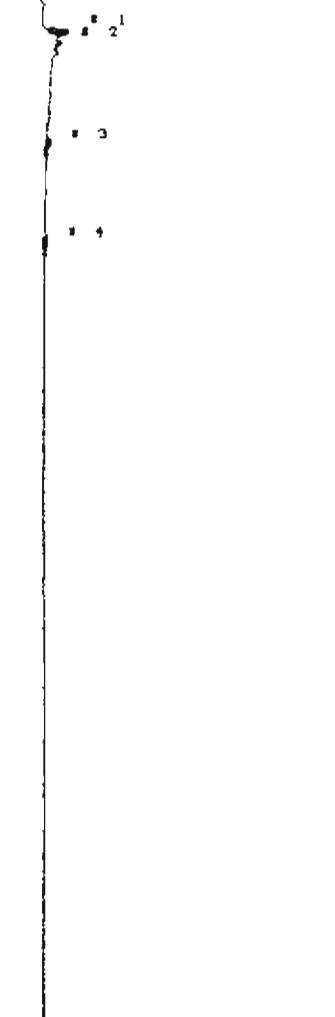
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	29.4	55.2 PPM
TCE	2	120.4	
P-XYLENE	3	154.4	3.511 PPM

STOP @ 000.0
SAMPLE LIBRARY: 1 01 00 1000 11:00
ANALYSIS: 2 02 00 1000 11:00
INTERNAL TEST: 00 00 00 00 00
DATE: 00 00 00 00 00

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	29.4	55.2 PPM
TCE	2	120.4	
P-XYLENE	3	154.4	3.511 PPM

PHOTOVAC

START



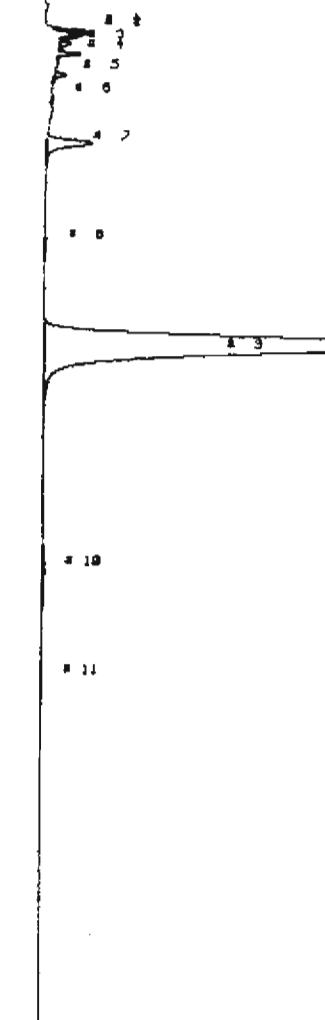
STOP 8 888.8
 SAMPLE LIBRARY 1 JUL 28 1992 11:19
 ANALYSIS # 3 DE WILMINGTON
 INTERNAL TEMP 23 4E-5
 GAIN 20 BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	39.1	89.6 AUS
UNKNOWN	2	43.3	43.3 AUS
TCE	3	128.8	32.34 PPM
TOLUENE	4	137.2	14.03 PPM

LAG Ambient
 Air Blank

PHOTOVAC

START



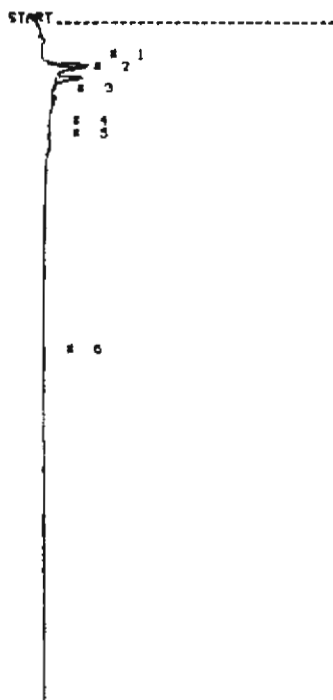
STOP 8 888.8
 SAMPLE LIBRARY 1 JUL 28 1992 11:56
 ANALYSIS # 4 DE WILMINGTON
 INTERNAL TEMP 23 4E-5
 GAIN 20 5-1 2.5-2.3 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	32.3	86.2 AUS
UNKNOWN	2	35.3	43.4 AUS
UNKNOWN	3	43.3	112.4 AUS
UNKNOWN	4	51.3	134.2 AUS
CIS 1,2- DCE	5	82.2	142.2 PPM
TCE	7	128.8	808.3 PPM
TOLUENE	8	137.2	14.38 PPM
PCE	9	226.3	8.138 PPM
P-XYLENE	10	450.8	25.21 PPM

0.5 - 2.5 FT BGS

(DRY) (9)

PHOTOVAC

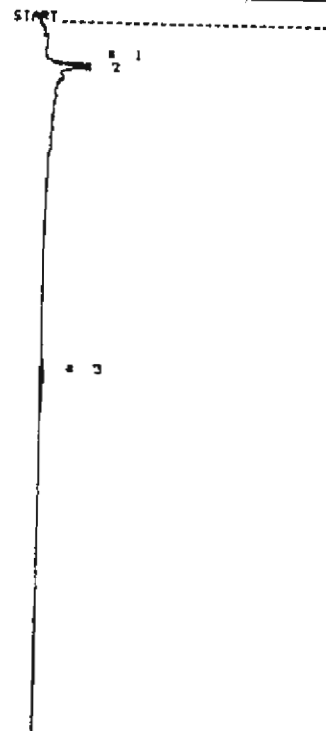


STOP 8 522.2
 SAMPLE LIBRARY 1 JUL 20 1992 16:24
 ANALYSIS 2 5 GE WILMINGTON
 INTERNAL TEST 3: WE-6
 QM 20 5-1 2-2 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	33.2	107.3 AUS
UNKNOWN	2	43.5	253.0 AUS
1,1, DCA	3	53.5	5.626 PPM

S-1
 0-2 FT
 (DRY)

PHOTOVAC



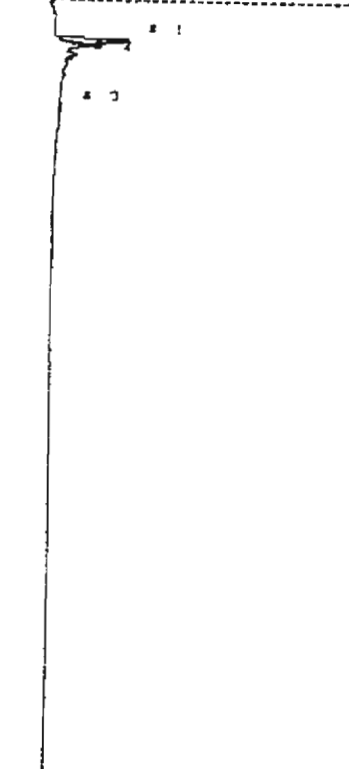
STOP 8 552.3
 SAMPLE LIBRARY 1 JUL 20 1992 16:24
 ANALYSIS 2 6 GE WILMINGTON
 INTERNAL TEST 3: WE-6
 QM 20 5-2 2-4 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	33.3	87.3 AUS
UNKNOWN	2	44.1	28.2 AUS
PCE	3	223.5	28.27 PPM

S-2
 2-4 FT
 (DRY)
 Moist at 4 FT.

PHOTOVAC

START



STOP # 688.0
 SAMPLE LIBRARY 1 JUL 20 1992 16:43
 ANALYSIS # 2 DE WILMINGTON
 INTERNAL TEMP 31 DE-6
 GAIN 20 S-3 4-6 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.5	533.4 MUS
UNKNOWN	2	43.3	72.3 MUS

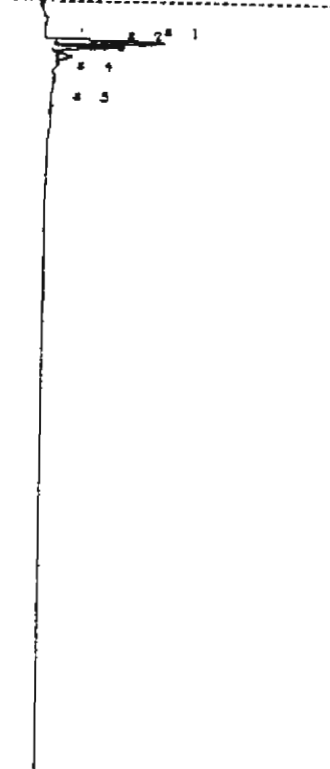
S-3

4-6 FT

wet

PHOTOVAC

START



STOP # 688.0
 SAMPLE LIBRARY 1 JUL 20 1992 16:56
 ANALYSIS # 0 DE WILMINGTON
 INTERNAL TEMP 31 DE-6
 GAIN 20 S-4 6-8 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	32.1	1.1 US
UNKNOWN	2	35.5	555.4 MUS
UNKNOWN	3	44.3	142.2 MUS

S-4

6-8 FT

wet

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: TCE

PHOTOVAC: RED

DATE: 7/29/92

OPERATOR: JAH

TIME: 5:00

CALIBRATION TYPE:

- 1) RT-UPDATE —
- 2) COMPOUND STORAGE —
- 3) CAL-REFRESH X

CHROMATOGRAM (with SETUP):

PHOTOVAC

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 1.0

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 23

SAT'D HEADSPACE VOLUME OF STD (uL): —

CALIBRATION SYRINGE SIZE (uL): —

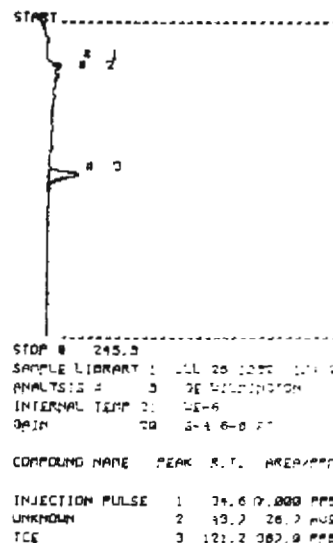
LIQUID VOLUME OF STD [if applicable] (uL): —

PEAK NUMBER: 3

RETENTION TIME (sec): 121.2

Comments:

Percent Recovery = 40%



PHOTOVAC

JUL 23 1332 7:29

FIELD: 23
POWER: 32

SAMPLE	0.0	10.0
CAL	0.0	0.0
EVENT 0	0.0	0.0
EVENT 1	0.0	0.0
EVENT 2	0.0	0.0
EVENT 3	0.0	0.0
EVENT 4	0.0	0.0
EVENT 5	0.0	0.0
EVENT 6	0.0	0.0
EVENT 7	0.0	0.0
EVENT 8	0.0	0.0

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: Benzene

PHOTOVAC: RED

DATE: 7/30/92

OPERATOR: JAH

TIME: 7:30

CALIBRATION TYPE:

- 1) RT-UPDATE
- 2) COMPOUND STORAGE
- 3) CAL-REFRESH X

CHROMATOGRAM (with SETUP):

PHOTOVAC

START



STOP 8 129.1
SAMPLE LIBRARY 1 JUL 29 1992 7:33
ANALYSIS 8 12 30 10.000000
INTERNAL TEMP 10 100.0
GAIN 20 0.1 0.0 1.0

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	2	129.1	100.0
TCE	3	110.3	10.0

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 24

SAT'D HEADSPACE VOLUME OF STD (uL): 8.36

CALIBRATION SYRINGE SIZE (uL): 25

LIQUID VOLUME OF STD [if applicable] (uL):

PEAK NUMBER: 2

RETENTION TIME (sec): 92.8

Comments:

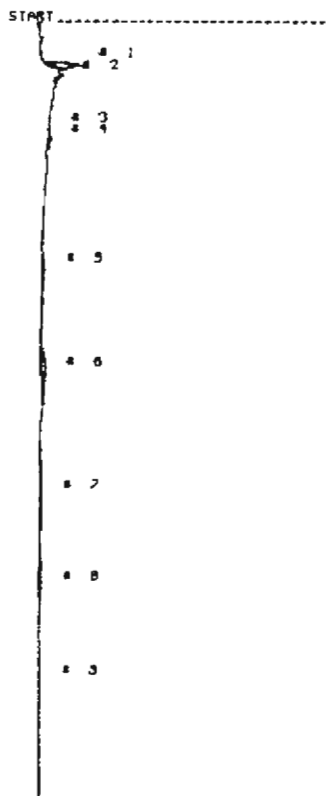
PHOTOVAC

CALIBRATED PEAK 2, BENZENE

SAMPLE LIBRARY 1 JUL 29 1992 7:33
ANALYSIS 8 12 30 10.000000
INTERNAL TEMP 10 100.0
GAIN 20 0.1 0.0 1.0

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	2	129.1	100.0
TCE	3	110.3	10.0

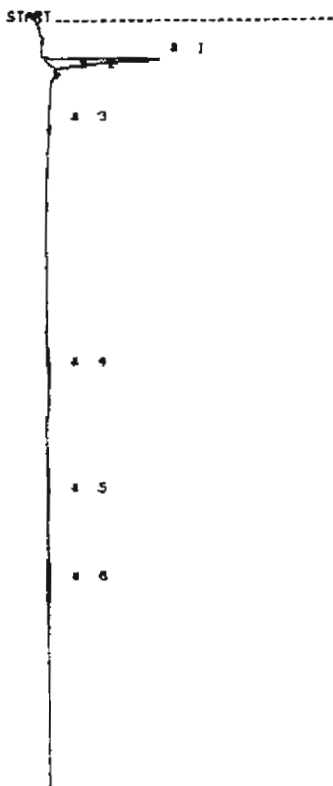
PHOTOVAC



STOP 8 600.0
 SAMPLE LIBRARY 1 JUL 20 1997 2147
 ANALYSIS 8 11 DE WILMINGTON
 INTERNAL TEMP 22 DE-6
 DRYN 70 BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	33.2	17.000 PPM
UNKNOWN	2	42.3	32.4 AUS
BENZENE	4	52.8	22.91 PPM
TOLUENE	5	132.7	51.86 PPM
PCE	6	270.8	111.3 PPM
UNKNOWN	7	368.2	83.8 AUS

PHOTOVAC



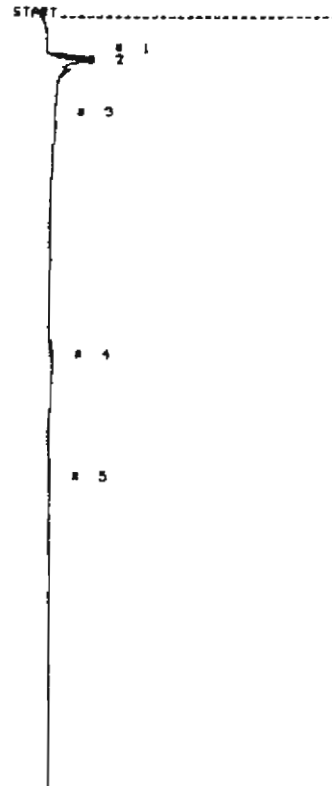
STOP 8 000.0
 SAMPLE LIBRARY : JUL 30 1992 3:12
 ANALYSIS # 17 DE WILMINGTON
 INTERNAL TEMP 30 4E-6
 QAIN 20 5-5 8-10 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPB
UNKNOWN	1	30.7	1.4 US
UNKNOWN	2	42.3	46.1 AUS
PCE	4	273.1	33.68 PPB
n-XTLENE	6	428.8	182.1 PPB

WE-6
 S-5
 8-10 FT

.03

PHOTOVAC



STOP 8 000.0
 SAMPLE LIBRARY : JUL 30 1992 3:33
 ANALYSIS # 13 DE WILMINGTON
 INTERNAL TEMP 30 4E-6
 QAIN 20 5-6 10-12 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPB
INJECTION PULSE	1	33.1	2,000 PPB
UNKNOWN	2	42.3	41.8 AUS
PCE	4	271.7	23.38 PPB
UNKNOWN	5	384.2	27.3 AUS

WE-6
 S-6
 10-12 FT

.03

PHOTOVAC

START



STOP @ 600.0
 SAMPLE LIBRARY 1 JUL 90 1332 10:5
 ANALYSIS # 19 DE WILMINGTON
 INTERNAL TEMP 20 WE-6
 ORIN 20 S-7 12-14 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.1	122.2 MUS
UNKNOWN	2	43.1	20.0 MUS
PCE	4	222.4	22.54 PPB

.027

S-7
 12-14 FT

PHOTOVAC

START



STOP @ 600.0
 SAMPLE LIBRARY 1 JUL 90 1332 10:5
 ANALYSIS # 19 DE WILMINGTON
 INTERNAL TEMP 20 WE-6
 ORIN 20 S-7 12-14 FT

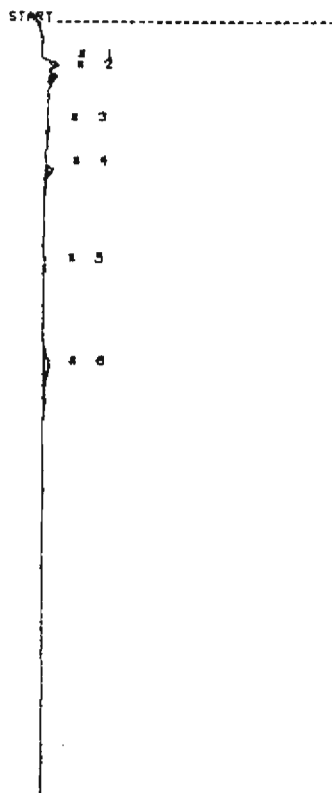
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	32.3	91.7 MUS
UNKNOWN	2	35.2	25.3 MUS
UNKNOWN	3	43.5	22.3 MUS
TCE	5	112.7	98.31 PPB
PCE	6	221.7	100.3 PPB

S-8

14-16 FT

.231

PHOTOVAC



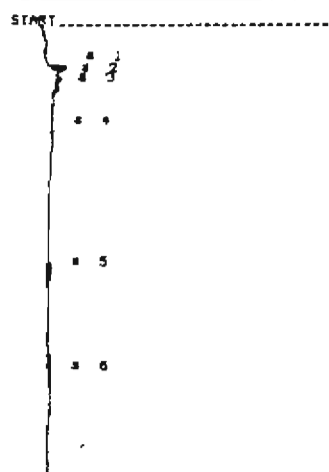
STOP @ 342.0
 SAMPLE LIBRARY 1 JUL 30 1997 10:15
 ANALYSIS # 16 DE WILMINGTON
 INTERNAL TEMP 50 45-6
 DRAIN 70 5-3 16-18 F1

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	33.3	42.5 AUS
UNKNOWN	2	42.3	42.5 AUS
TCE	4	118.0	133.0 PPM
PCE	6	272.4	131.6 PPM

S-9 .271

16-18 FT

PHOTOVAC



STOP @ 342.0
 SAMPLE LIBRARY 1 JUL 30 1997 10:15
 ANALYSIS # 17 DE WILMINGTON
 INTERNAL TEMP 70 45-6
 DRAIN 70 BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	33.3	8.888 PPM
UNKNOWN	2	42.3	42.5 AUS
TOLUENE	5	132.7	25.24 PPM
PCE	6	273.1	24.33 PPM

LAB AMBIENT
 AIR BLANK

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: Benzene

PHOTOVAC: RED

DATE: 7/30/92

OPERATOR: JAH

TIME: 11:00

CALIBRATION TYPE:

- 1) RT-UPDATE
- 2) COMPOUND STORAGE
- 3) CAL-REFRESH
- 4) CAL check Y

CHROMATOGRAM
(with SETUP):

PHOTOVAC

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 25

SAT'D HEADSPACE VOLUME OF STD (uL): -

CALIBRATION SYRINGE SIZE (uL): -

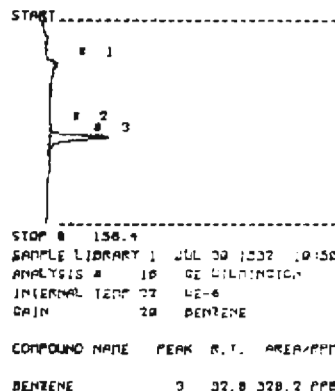
LIQUID VOLUME OF STD [if applicable] (uL):

PEAK NUMBER: 3

RETENTION TIME (sec): 92.8

Comments:

$\bar{x} = 93\%$



PHOTOVAC

START



STOP 8 600.0
 SAMPLE LIBRARY 1 JUL 29 1997 17:12
 ANALYSIS 4 10 DE WILMINGTON
 INTERNAL TEMP 20 4E-6
 GAIN 20 S-10 18-20 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	33.0	0.000 PPM
UNKNOWN	2	35.5	71.0 MUS
UNKNOWN	3	49.1	23.8 MUS
PCE	5	273.8	68.33 PPM

S-10
 18-20 Ft

.068

PHOTOVAC

START



STOP 8 600.0
 SAMPLE LIBRARY 1 JUL 29 1997 17:12
 ANALYSIS 4 20 DE WILMINGTON
 INTERNAL TEMP 20 4E-6
 GAIN 20 S-11 20-22 FT

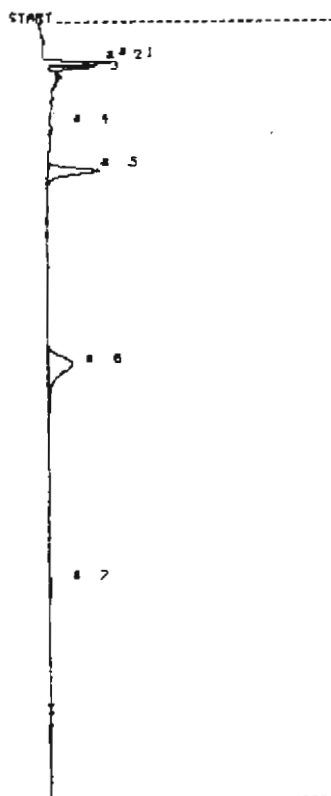
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	32.2	362.1 MUS
UNKNOWN	2	34.8	245.8 MUS
UNKNOWN	3	43.5	48.8 MUS
TCE	5	112.7	885.9 PPM
PCE	6	272.4	381.1 PPM

S-11
 20-22 FT

.906

WE-6?
I assume it
is.

PHOTOVAC



SAMPLE LIBRARY 1 JUL 90 1037 15:11
ANALYSIS 4 71 DE WILMINGTON
INTERNAL TEMP 30 110-6
DATA 20 S-12 22-24 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.3	523.0 AUS
UNKNOWN	2	34.6	330.3 AUS
UNKNOWN	3	43.5	45.1 AUS
TCE	5	117.1	1.200 PPM
PCE	6	221.2	524.0 PPM

S-12

22-24

FT

1.8

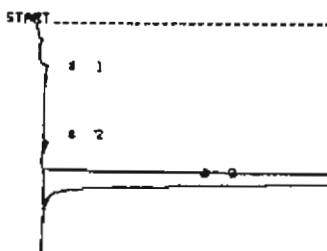
PHOTOVAC

JUL 31 1992 7: 2

FIELD: 23
POWER: 33

SAMPLE	0.0	10.0
CAL	0.0	0.0
EVENT 3	0.0	10.0
EVENT 4	0.0	0.0
EVENT 5	0.0	0.0
EVENT 6	0.0	0.0
EVENT 7	0.0	0.0
EVENT 8	0.0	0.0

PHOTOVAC



STOP @ 122.5
SAMPLE LIBRARY J JUL 31 1992 7:11
ANALYSIS @ 22 85 WILMINGTON
INTERNAL TEST 30 46-105 RD
GAIN 20 156 3.0 PPM

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	2	35.5	32.9 PPM
UNKNOWN	3	121.8	22.8 US

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: TCE

PHOTOVAC: RED

DATE: 7/31/92

OPERATOR: JAH

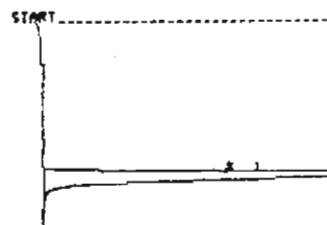
TIME: 7:10

CALIBRATION TYPE:

- 1) RT-UPDATE
- 2) COMPOUND STORAGE
- 3) CAL-REFRESH X

CHROMATOGRAM (with SETUP):

PHOTOVAC



STOP # 133.3
 SAMPLE LIBRARY 1 JUL 31 1992 2116
 ANALYSIS # 25 DE WILMINGTON
 INTERNAL TEMP 70 DE-105 PD
 GAIN 10 TCE 5.0 PPM
 COMPOUND NAME PEAK R.T. AREA/PPM
 TCE 1 120.8 31.22 PPM

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 10

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 5.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 23

SAT'D HEADSPACE VOLUME OF STD (uL): 60.8

CALIBRATION SYRINGE SIZE (uL): 100

LIQUID VOLUME OF STD [if applicable] (uL): —

PEAK NUMBER:

RETENTION TIME (sec):

Comments:

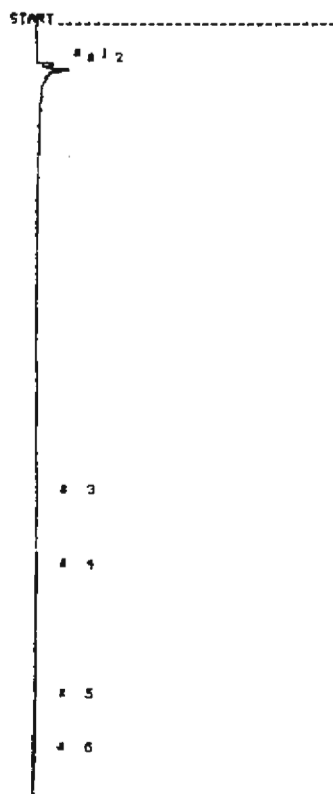
PHOTOVAC

CALIBRATED PEAK 1, TCE
 SAMPLE LIBRARY 1 JUL 31 1992 2116
 ANALYSIS # 25 DE WILMINGTON
 INTERNAL TEMP 70 DE-105 PD
 GAIN 10 TCE 5.0 PPM
 COMPOUND NAME PEAK R.T. AREA/PPM
 TCE 1 120.8 5.000 PPM

PHOTOVAC

1	COMPOUND	ID #	R.T.	41011
1	ETHYL BENZENE	1	120.0	1.000 PPD
2	PCE	2	225.0	1.000 PPD
3	BENZENE	3	34.0	1.000 PPD
4	ICE	4	120.0	1.000 PPD
5	TOLUENE	5	120.1	1.000 PPD
6	TRANS 1,2-DCE	6	56.3	1.000 PPD
7	O-XYLENE	7	87.6	1.000 PPD
8	1,1,1-CCA	8	86.0	1.000 PPD
9	P-XYLENE	9	135.0	1.000 PPD
10	1,1-DCE	10	48.9	1.000 PPD
11	CIS 1,2-DCE	11	62.3	1.000 PPD
12	M-XYLENE	12	142.2	1.000 PPD
13	1,1-DCA	13	50.2	1.000 PPD
14	INJECTION PULSE	14	31.2	0.000 PPD

PHOTOVAC



STOP 8 000.0
 SAMPLE LIBRARY 1 JUL 01 1992 10:12
 ANALYSIS 4 24 GE WILMINGTON
 INTERNAL TEMP 25 WE-105 R2
 GAIN 10 5-1 4-6 FT

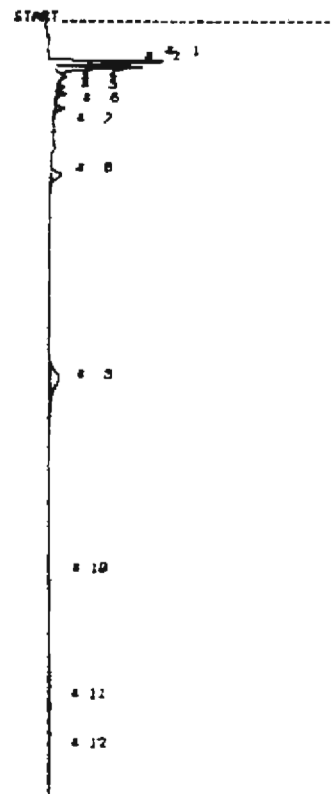
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	32.5	54.5 AUS
UNKNOWN	2	36.2	133.4 AUS
ETHYL BENZENE	4	128.7	10.05 PPM
D-XYLENE	5	128.5	32.00 PPM
UNKNOWN	6	163.0	13.0 AUS

S-1

004

4-6 FT

PHOTOVAC



STOP 8 000.0
 SAMPLE LIBRARY 1 JUL 01 1992 10:24
 ANALYSIS 4 25 GE WILMINGTON
 INTERNAL TEMP 25 WE-105 R2
 GAIN 20 5-2 6-8 FT

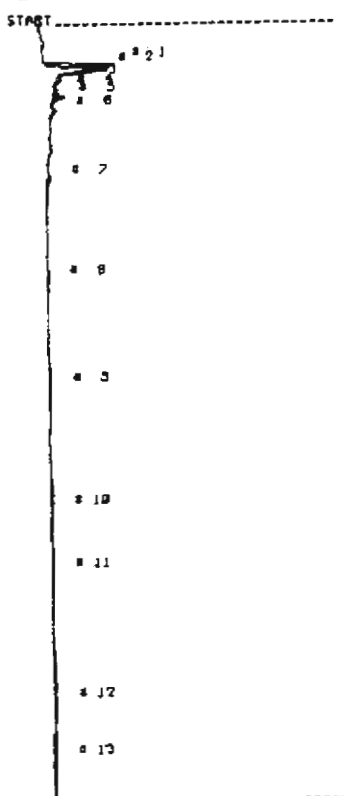
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.4	1.0 US
UNKNOWN	2	35.5	253.5 AUS
UNKNOWN	3	44.1	20.5 AUS
UNKNOWN	4	52.1	33.1 AUS
TRANS 1,2 DCE	5	57.0	2.352 PPM
CIS 1,2- DCE	6	69.0	138.2 PPM
TCE	8	122.0	33.22 PPM
PCE	9	128.1	38.05 PPM
D-XYLENE	11	128.5	18.42 PPM

S-2

023

6-8 FT

PHOTOVAC



STOP # 000.0
SAMPLE LIBRARY 1 JUL 31 1977 10:15
ANALYSIS # 26 DE WILMINGTON
INTERNAL TEMP 30 WE-105 R2
GAIN 20 S-3 8-10 FT

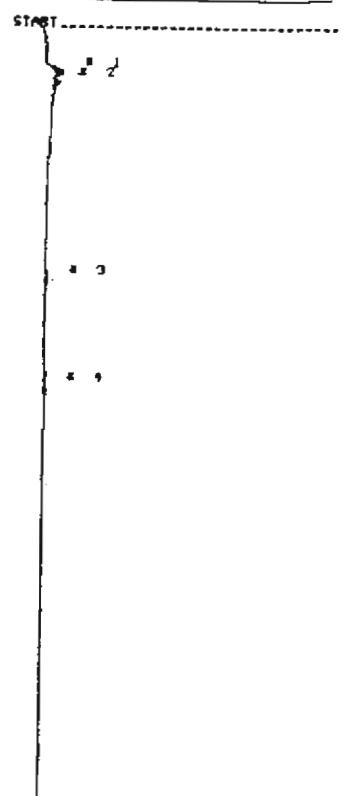
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.9	176.5 AUS
UNKNOWN	2	35.3	85.1 AUS
UNKNOWN	3	42.3	23.9 AUS
TRANS 1,2 DCE	5	57.3	3.483 PPM
CIS 1,2- DCE	6	60.1	61.54 PPM
TCE	7	121.0	3.834 PPM
PCE	8	201.3	0.865 PPM
UNKNOWN	10	320.2	63.2 AUS
ETHYL BENZENE	11	429.5	14.58 PPM
p-XYLENE	12	522.1	37.38 PPM
UNKNOWN	13	521.3	20.4 AUS

S-3

.132

8-10 FT

PHOTOVAC



STOP # 000.0
SAMPLE LIBRARY 1 JUL 31 1977 11:29
ANALYSIS # 27 DE WILMINGTON
INTERNAL TEMP 30 WE-105 R2
GAIN 20 S-4 10-12 FT

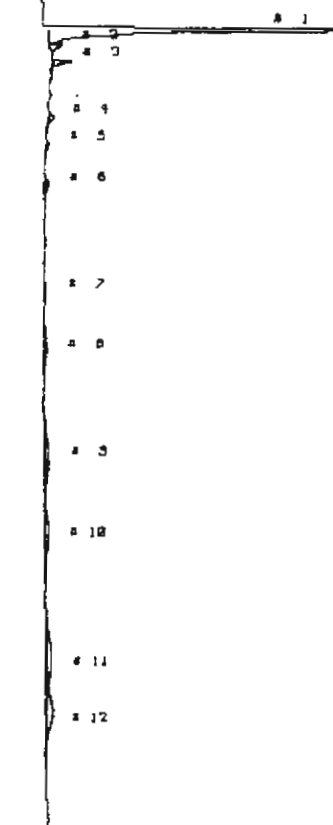
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	35.5	56.4 AUS
UNKNOWN	2	44.1	33.4 AUS
PCE	4	201.1	1.538 PPM

S-4

10-12 FT

PHOTOVAC

START

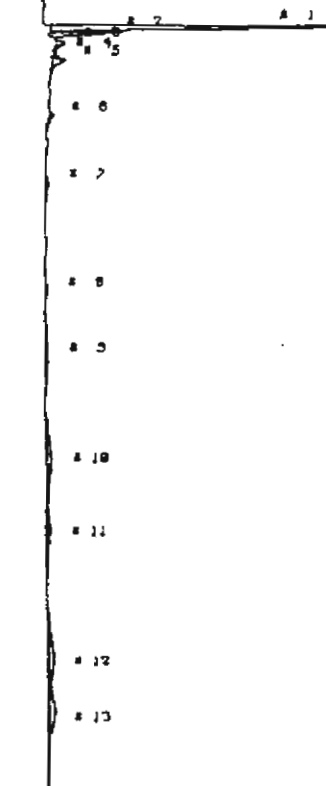


STOP @ 650.0
 SAMPLE LIBRARY 1 JUL 21 1997 11:00
 ANALYSIS 4 20 GE WILMINGTON
 INTERNAL TEMP 20 WE-105 R2
 DRAIN 20 S-6 12-14 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.3	4.0 US
UNKNOWN	2	43.3	185.5 AUS
TRANS 1,2 DCE	3	37.3	0.370 PPB
UNKNOWN	4	100.3	57.3 AUS
UNKNOWN	5	57.3	72.5 AUS
PCE	6	201.3	12.03 PPB
UNKNOWN	7	265.2	502.3 AUS
ETHYL BENZENE	8	420.2	45.13 PPB
O-XYLENE	9	528.3	180.1 PPB
UNKNOWN	10	571.3	040.0 AUS

PHOTOVAC

START



STOP @ 621.5
 SAMPLE LIBRARY 1 JUL 21 1997 11:10
 ANALYSIS 4 20 GE WILMINGTON
 INTERNAL TEMP 20 WE-105 R2
 DRAIN 20 S-6 14-16 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.3	3.4 US
UNKNOWN	2	35.4	512.4 AUS
UNKNOWN	3	44.5	88.3 AUS
TRANS 1,2 DCE	4	57.3	4.611 PPB
UNKNOWN	5	100.3	44.2 AUS
UNKNOWN	6	152.8	80.3 AUS
PCE	7	205.1	11.13 PPB
UNKNOWN	8	270.2	570.2 AUS
ETHYL BENZENE	9	420.2	36.33 PPB
O-XYLENE	10	528.3	180.3 PPB
UNKNOWN	11	571.3	600.1 AUS

S-5

.253

12-14 FT

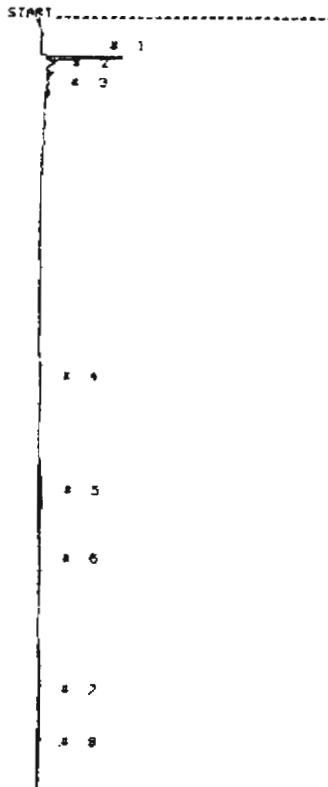
S-6

14-16 FT

.236

W403

PHOTOVAC



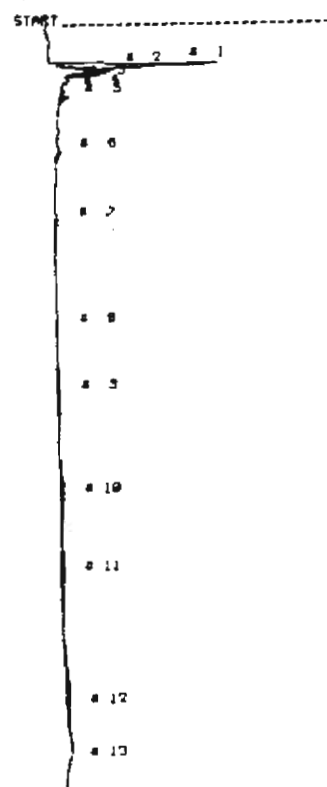
STOP 8 688.8
 SAMPLE LIBRARY 1 JUL 31 1992 17:19
 ANALYSIS 2 01 GE WILMINGTON
 INTERNAL TEMP 30 WE-105 RD
 GAIN 20 S-7 16-18 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.4	338.3 AUS
UNKNOWN	2	44.3	48.8 AUS
1,1,1 DCA	3	53.5	1,734 PPM
PCE	4	286.2	1,342 PPM
UNKNOWN	5	324.2	244.4 AUS
ETHYL BENZENE	6	422.8	1,222 PPM
O-XYLENE	7	523.3	22.43 PPM
UNKNOWN	8	571.3	84.1 AUS

S-7
 16-18 FT .029

WASH?

PHOTOVAC



STOP 8 688.8
 SAMPLE LIBRARY 1 JUL 31 1992 17:23
 ANALYSIS 2 01 GE WILMINGTON
 INTERNAL TEMP 30 WE-105 RD
 GAIN 20 S-8 18-20 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	31.1	388.2 AUS
UNKNOWN	2	43.9	31.8 AUS
TRANS 1,2 DCE	3	52.3	2,323 PPM
UNKNOWN	4	188.3	26.4 AUS
UNKNOWN	5	153.2	31.1 AUS
PCE	6	286.2	8,832 PPM
UNKNOWN	7	386.2	333.8 AUS
ETHYL BENZENE	8	426.7	24.61 PPM
O-XYLENE	9	523.3	22.88 PPM

S-8 .108
 18-20 FT

WASH?

PHOTOVAC

START

1 # 2
4 # 5

6

7

8

STOP # 600.0

SAMPLE LIBRARY: JUL 31 1992 12.40

ANALYSIS # 33 DE WILMINGTON

INTERNAL TEMP 3: 42-105 AC

DATE: 33 5-10 22-55 ET

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	31.2	65.3 AUS
INJECTION PULSE	2	35.3	0.000 PPM
TRANS 1,2 DCE	4	57.7	1.000 PPM
CIS 1,2- DCE	5	60.5	2.570 PPM
TCE	6	172.0	153.5 PPM
PCE	7	201.3	30.70 PPM
UNKNOWN	8	226.2	24.3 AUS

S-10

22-24 FT 2.4

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: TCE

PHOTOVAC: RED

DATE: 7/31/92

OPERATOR: JAH

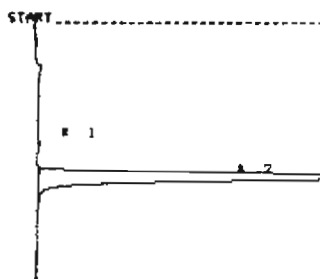
TIME: 3:00

CALIBRATION TYPE:

- 1) RT-UPDATE X
 - 2) COMPOUND STORAGE
 - 3) CAL-REFRESH
- GAL

CHROMATOGRAM (with SETUP):

PHOTOVAC



STOP # 205.0
 SAMPLE LIBRARY 1 JUL 31 1992 10:10
 ANALYSIS # 33 DE WILKINSON
 INTERNAL TEMP 120 46-125.00
 GAIN 10 TCE

COMPOUND NAME	PEAK	R.T.	AREA/PPM
TCE	2	120.9	5.025 PPM

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 10

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 5.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 25

SAT'D HEADSPACE VOLUME OF STD (uL):

CALIBRATION SYRINGE SIZE (uL):

LIQUID VOLUME OF STD [if applicable] (uL):

PEAK NUMBER:

RETENTION TIME (sec):

Comments:

$$\bar{X} = 100\%$$

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: Tetrachloroethene

PHOTOVAC: RED

DATE: 8/3/92

OPERATOR: JAH

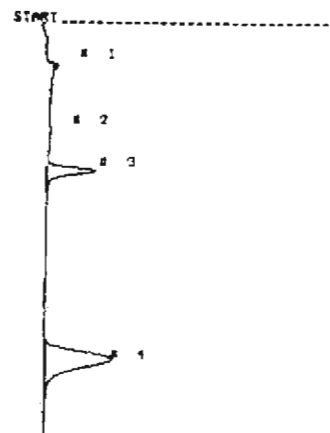
TIME: 8:00

CALIBRATION TYPE:

- 1) RT-UPDATE
- 2) COMPOUND STORAGE
- 3) CAL-REFRESH X

CHROMATOGRAM (with SETUP):

PHOTOVAC



STOP # 325.4
SAMPLE LIBRARY: AUG 3 1992 P105
ANALYSIS # 1 DE WILMINGTON
INTERNAL TEMP 22 WENDS R1
GAIN 20 PCE
COMPOUND NAME PEAK R.T. AREA/PPM
PCE 3 112.1 208.0 PPM
PCE 4 266.6 230.2 PPM

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 23

SAT'D HEADSPACE VOLUME OF STD (uL): 46.76

CALIBRATION SYRINGE SIZE (uL): 100

LIQUID VOLUME OF STD [if applicable] (uL):

PEAK NUMBER: 4

RETENTION TIME (sec): 266.8

Comments:

PHOTOVAC

CALIBRATED PEAK 4.PCE
SAMPLE LIBRARY: AUG 3 1992 P105
ANALYSIS # 1 DE WILMINGTON
INTERNAL TEMP 22 WENDS R1
GAIN 20 PCE
COMPOUND NAME PEAK R.T. AREA/PPM
PCE 3 112.1 201.8 PPM
PCE 4 266.6 1.000 PPM

PHOTOVAC

1	COMPOUND	ID #	R.T.	UNIT
1	STYL BENZENE	1	191.7	1.000 PPM
2	PCE	2	266.6	1.000 PPM
3	BENZENE	3	30.2	1.000 PPM
4	ICE	4	115.2	1.000 PPM
5	TOLUENE	5	100.3	1.000 PPM
6	TRANS 1,2 DCE	6	31.3	1.000 PPM
7	O-XYLENE	7	312.6	1.000 PPM
8	1,1,1,1-TCM	8	87.6	1.000 PPM
9	P-XYLENE	9	133.3	1.000 PPM
10	1,1 DCE	10	16.2	1.000 PPM
11	CIS 1,2- DCE	11	61.2	1.000 PPM
12	M-XYLENE	12	128.3	1.000 PPM
13	1,1,1 DCA	13	36.0	1.000 PPM
14	INJECTION PULSE	14	22.2	0.000 PPM

PHOTOVAC

START

1
3
4

STOP 0 000.0
 SAMPLE LIBRARY 1 AUG 3 1992 10:10
 ANALYSIS 4 2 DE WILMINGTON
 INTERNAL TEMP 20 UE-5 R1
 GAIN 20 BLANK

COMPOUND NAME PEAK R.T. AREA/PPM

INJECTION PULSE 1 25.3 0.000 PPM
 UNKNOWN 3 51.3 116.8 PPM

System blank
 lab ambient air

PHOTOVAC

START

12

STOP 0 000.0
 SAMPLE LIBRARY 1 AUG 3 1992 11:10
 ANALYSIS 4 4 DE WILMINGTON
 INTERNAL TEMP 20 UE-5 R1
 GAIN 20 FIELD BLANK

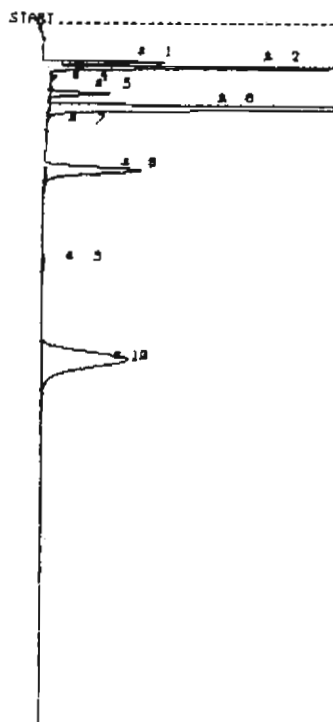
COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 2 25.3 112.3 PPM

Field blank
 Plant water
 through pump
 system.

WE-SR1

PHOTOVAC



STOP @ 548.3
 SAMPLE LIBRARY 1 AUG 3 1992 10:53
 ANALYSIS # 0 GE WILMINGTON
 INTERNAL TEMP 25 4E-5 RI
 GAIN 20 GU-1 8.5-18.5 FT

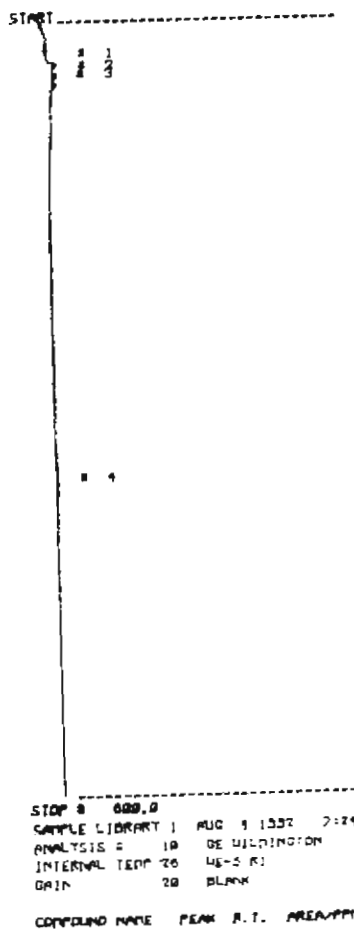
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	38.6	659.4 PPM
INJECTION PULSE	2	39.3	0.000 PPM
1,1,1, DCA	5	56.1	131.3 PPM
CIS 1,2- DCE	6	66.2	41.68 PPM
TCE	8	112.1	1.808 PPM
TOLUENE	9	130.2	31.62 PPM
PC	10	267.5	1.185 PPM

GW-1

45

8.5-18.5 FT

PHOTOVAC



AIR BLANK

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: Trichloroethene

PHOTOVAC: RED

DATE: 8/4/92

OPERATOR: JAH

TIME: 7:15

CALIBRATION TYPE:

- 1) RT-UPDATE X
- 2) COMPOUND STORAGE
- 3) CAL-REFRESH X

CHROMATOGRAM
(with SETUP):

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 21

SAT'D HEADSPACE VOLUME OF STD (uL): 13.5

CALIBRATION SYRINGE SIZE (uL):

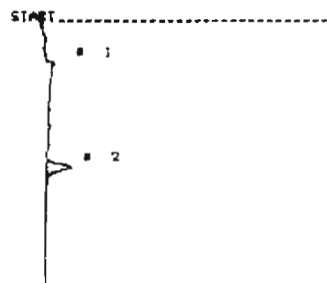
LIQUID VOLUME OF STD [if applicable] (uL):

PEAK NUMBER: 2

RETENTION TIME (sec): 115.6

Comments:

PHOTOVAC



STOP # 205.5
SAMPLE LIBRARY: 1 AUG 4 1992 2:00
ANALYSIS # 11 DE WASHINGTON
INTERNAL TEMP 22 DE-S R1
GAIN 20 TCE CAL
COMPOUND NAME PEAK R.T. AREA/PPB
TCE 2 115.6 440.0 PPB

PHOTOVAC

CALIBRATED PEAK 2, TCE
SAMPLE LIBRARY: 1 AUG 4 1992 2:00
ANALYSIS # 11 DE WASHINGTON
INTERNAL TEMP 22 DE-S R1
GAIN 20 TCE CAL
COMPOUND NAME PEAK R.T. AREA/PPB
TCE 2 115.6 440.0 PPB

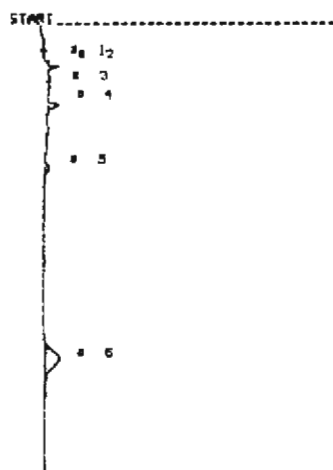
PHOTOVAC

1 COMPOUND ID # R.T. LIMIT

ETHYL BENZENE	1	102.5	1.000 ppm
PCE	2	202.2	1.000 ppm
BENZENE "	3	30.5	1.000 ppm
PCE	4	115.6	1.000 ppm
TOLUENE	5	103.6	1.000 ppm
TRANS 1,2-DCE	6	54.5	1.000 ppm
O-XYLENE	7	114.4	1.000 ppm
1,1,1-CPA	8	83.1	1.000 ppm
P-XYLENE	9	123.4	1.000 ppm
1,1-DCE	10	40.4	1.000 ppm
CIS 1,2-DCE	11	64.4	1.000 ppm
M-XYLENE	12	120.4	1.000 ppm
1,1,1-DCB	13	56.2	1.000 ppm
INJECTION PULSE	14	32.6	0.000 ppm

WE-S R1

PHOTOVAC.



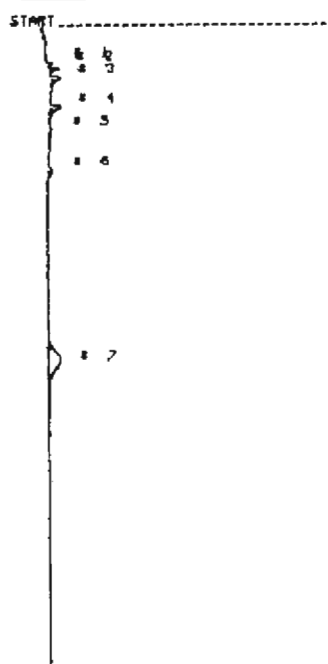
STOP 0 351.2
 SAMPLE LIBRARY 1 AUG 9 1992 3:11
 ANALYSIS 2 12 DE DILUTIONION
 INTERNAL TEMP 22 WE-S R1
 GAIN 20 GWT 10.5-70.5F1

COMPOUND NAME	PEAK	R.T.	AREA/PPB
INJECTION PULSE	2	34.0	0.000 PPB
CIS 1,2- DCE	4	65.3	647.7 PPB
TCE	5	115.3	54.0 PPB
PCE	6	206.0	213.4 PPB

GW-2
 18.5' 23.5 FT

27

PHOTOVAC.



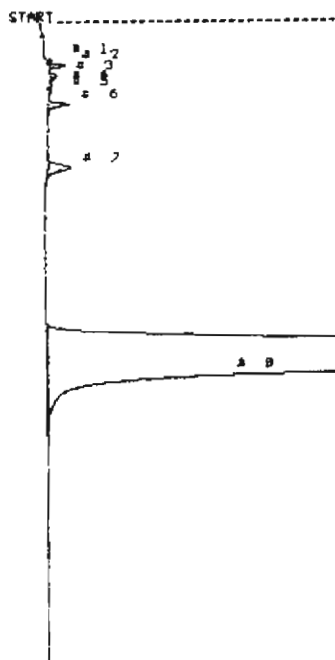
STOP 0 500.0
 SAMPLE LIBRARY 1 AUG 9 1992 2:50
 ANALYSIS 2 13 DE DILUTIONION
 INTERNAL TEMP 22 WE-S R1
 GAIN 20 GWT 10.5-70.5F1

COMPOUND NAME	PEAK	R.T.	AREA/PPB
INJECTION PULSE	2	34.1	0.000 PPB
UNKNOWN	3	42.7	80.2 PPB
CIS 1,2- DCE	4	65.5	606.1 PPB
TCE	6	115.3	38.80 PPB
PCE	7	206.1	181.3 PPB

GW-2

2nd RUN.

PHOTOVAC



STOP # 500.0
 SAMPLE LIBRARY J AUT 9 1202 11:55
 ANALYSIS # 11 DE WILKINSON
 INTERNAL TEMP 22 46-5 RI
 GAIN 20 20-2 10.5-20.0 FI

COMPOUND NAME	PEAK	R.T.	AREA/PPM
---------------	------	------	----------

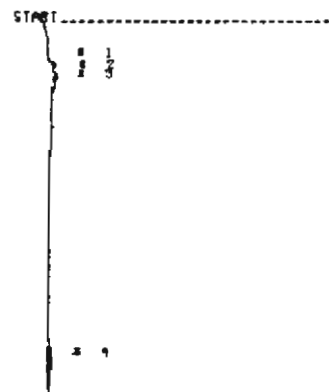
INJECTION PULSE	2	34.3	0.000 PPM
1,1 DCE	3	42.0	231.4 PPM
CIS 1,2- DCE	6	65.5	1.242 PPM
TCE	7	115.6	485.0 PPM
PCE	8	262.2	45.15 PPM

GW-3

23.5 - 28.3 FT 665

51

PHOTOVAC



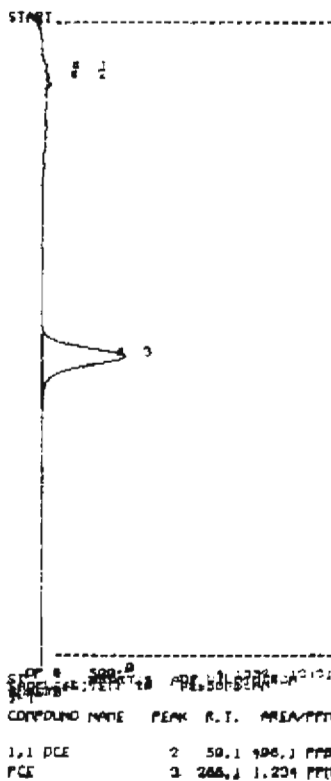
STOP # 200.1
 SAMPLE LIBRARY I AUT 9 1202 11:55
 ANALYSIS # 10 DE WILKINSON
 INTERNAL TEMP 22 46-5 RI
 GAIN 20 BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
---------------	------	------	----------

1,1 DCE	2	43.5	585.8 PPM
PCE	4	266.8	48.52 PPM

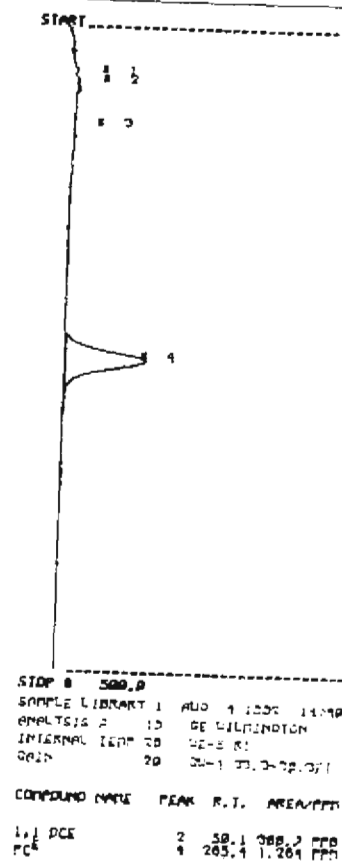
AIR
BLANK

PHOTOVAC



Field Blank

PHOTOVAC



GW-4

33.8-38.3

1.5

PHOTOVAC

START

1

2

STOP 0 300.0
SAMPLE LIBRARY 1 AUG 5 1992 8:50
ANALYSIS 4 20 DE WILMINGTON
INTERNAL TEMP 22 46-5 21
GAIN 20 20 20

COMPOUND NAME PEAK R.T. AREA/PPM

Field Blank
of DI water
through pump, only.

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: Benzene Trichloroethene.

PHOTOVAC: RED

DATE: 8/5/92 8/6/92

OPERATOR: JAH

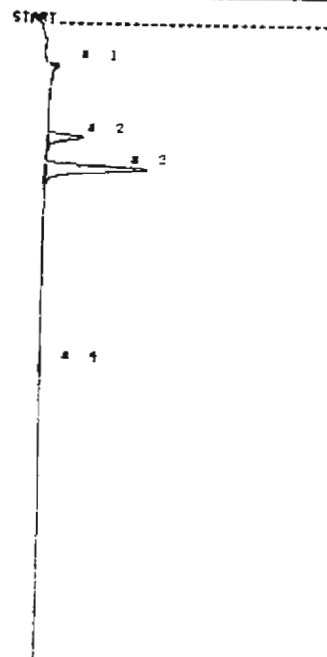
TIME: 12:00 7:15

CALIBRATION TYPE:

- 1) RT-UPDATE X
- 2) COMPOUND STORAGE —
- 3) CAL-REFRESH —

CHROMATOGRAM (with SETUP):

PHOTOVAC



LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 22

SAT'D HEADSPACE VOLUME OF STD (uL): 9.76 12.8

CALIBRATION SYRINGE SIZE (uL): 25

LIQUID VOLUME OF STD [if applicable] (uL): —

PEAK NUMBER: —

RETENTION TIME (sec): —

Comments:

STOP # 500.0
SAMPLE LIBRARY 1 ASD 6 1000 0.00
ANALYSIS 4 01 02 0000000
INTERNAL TEMP 00 00-0000
GAIN 20 100 CAL

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	33.2	0.000 PPM
TCE	2	31.0	286.3 PPM
TCE	3	115.6	1.000 PPM

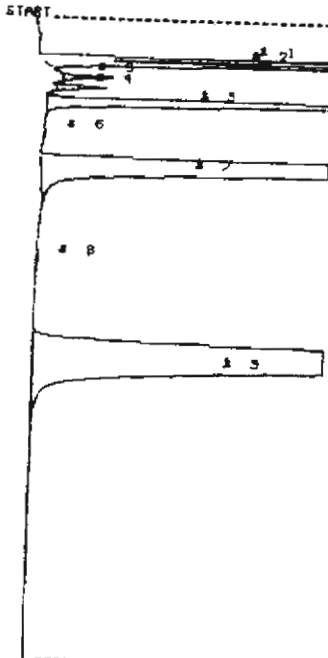
PHOTOVAC

CALIBRATED PEAK 3, TCE

SAMPLE LIBRARY 1 ASD 6 1000 0.00
ANALYSIS 5 01 02 0000000
INTERNAL TEMP 00 00-0000
GAIN 20 100 CAL

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	33.2	0.000 PPM
TCE	2	31.0	286.3 PPM
TCE	3	115.6	1.000 PPM

PHOTOVAC



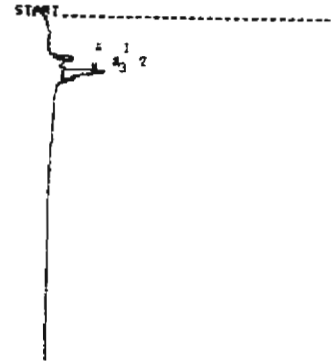
STOP @ 500.0
 SAMPLE LIBRARY 1 AUG 6 1997 0170
 ANALYSIS # 25 DE WILMINGTON
 INTERNAL TEMP 70 4E-10383
 GAIN 70 00-1 22-02.5 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	73.3	0.000 PPM
INJECTION PULSE	2	73.3	0.000 PPM
1,1 DCE	3	98.7	3.521 PPM
TRANS 1,2 DCE	4	51.3	73.37 PPM
CIS 1,2- DCE	5	61.3	27.72 PPM
TCE	2	115.3	18.41 PPM
TOLUENE	8	183.2	12.56 PPM
PCE	5	285.1	14.14 PPM

67

GW-1
 27-37.5 FTBGS.

PHOTOVAC

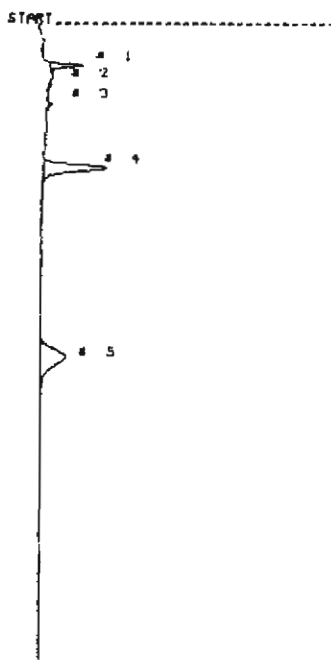


STOP @ 285.0
 SAMPLE LIBRARY 1 AUG 6 1997 0111
 ANALYSIS # 26 DE WILMINGTON
 INTERNAL TEMP 70 4E-10383
 GAIN 70 AIR BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	33.1	0.000 PPM
1,1 DCE	2	91.1	1.818 PPM
1,1 DCE	3	93.7	943.4 PPM

AIR BLANK

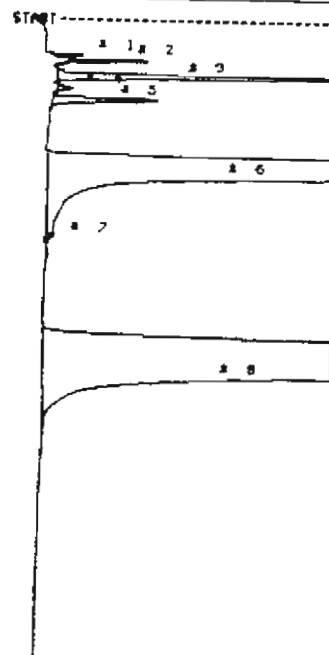
PHOTOVAC



STOP # 500.0
 SAMPLE LIBRARY: AUG 6 1997 219:
 ANALYSIS # 22 DE WILMINGTON
 INTERNAL TEMP 22 WE-105R3
 GAIN 20 AIR BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	34.2	0.000 PPM
CIS 1,2- DCE	2	65.1	57.00 PPM
TCE	4	115.3	535.5 PPM
PCE	5	200.0	183.4 PPM

PHOTOVAC



STOP # 500.0
 SAMPLE LIBRARY: AUG 6 1997 18:11
 ANALYSIS # 28 DE WILMINGTON
 INTERNAL TEMP 22 WE-105R3
 GAIN 20 GW-2 32-42 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	30.1	0.000 PPM
INJECTION PULSE	2	34.0	0.000 PPM
1,1 DCE	3	40.2	23.34 PPM
1,1,1 DCA	4	58.3	28.22 PPM
CIS 1,2- DCE	5	65.3	0.011 PPM
TCE	6	116.3	25.00 PPM
TOLUENE	7	170.2	10.00 PPM
PCE	8	266.5	26.18 PPM

3.5

24.4

25.99

Field Blank

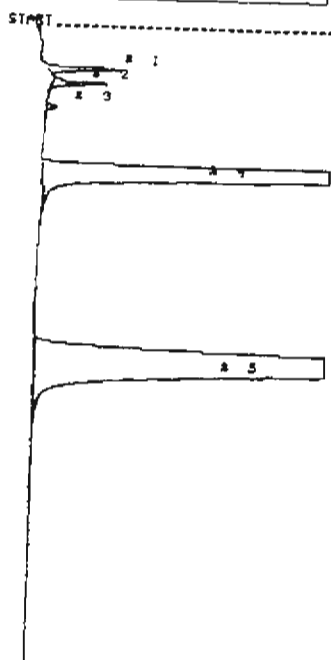
Plant water
 through PVC hose

GW-2

105

37-42 FT BGS

PHOTOVAC

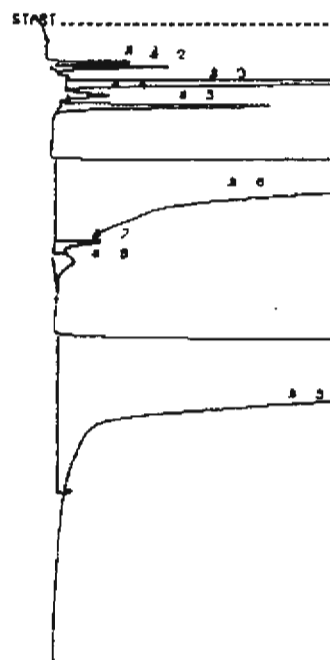


STOP @ 500.0
 SAMPLE LIBRARY: AUG 6 1992 10:43
 ANALYSIS # 20 DE WILMINGTON
 INTERNAL TEMP 70 HE-105R3
 GAIN 20 FIELD BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	31.9	0.000 PPM
1,1 DCE	2	46.3	3.003 PPM
CIS 1,2- DCE	3	65.3	316.8 PPM
TCE	4	115.3	12.03 PPM
PCE	5	264.9	12.13 PPM

Field Blank
 Plant Water
 through PVC Hose

PHOTOVAC



STOP @ 500.0
 SAMPLE LIBRARY: AUG 6 1992 11:20
 ANALYSIS # 30 DE WILMINGTON
 INTERNAL TEMP 70 HE-105R3
 GAIN 20 GW-3 42-47 FI

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	30.1	0.000 PPM
INJECTION PULSE	2	31.9	0.000 PPM
1,1 DCE	3	46.3	38.81 PPM
1,1,1 DCA	4	56.3	83.37 PPM
CIS 1,2- DCE	5	65.3	7.812 PPM
TCE	6	120.8	88.83 PPM
TOLUENE	7	188.3	284.8 PPM
PCE	8	273.1	63.68 PPM

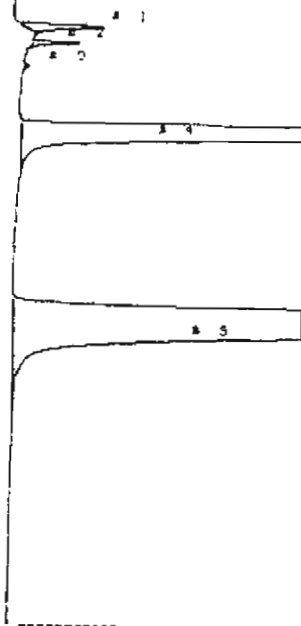
35
 6.7
 51.8
 57.55

GW-3
 42-47TB65.

237

PHOTOVLAC

START



STOP @ 500.0

SAMPLE LIBRARY: AUG 6 1997 17:11:4
 ANALYSIS: 4 01 DE WASHINGTON
 INTERNAL TEMP: 20 DE-10000
 GAIN: 20 FIELD BLANK

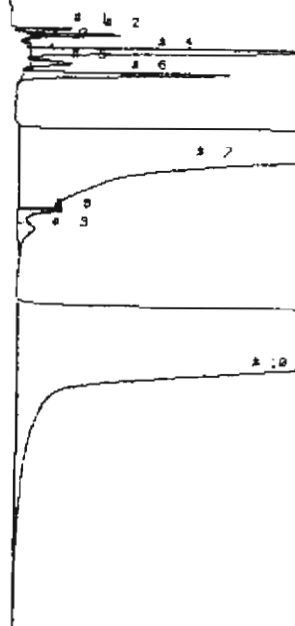
COMPOUND NAME PEAK R.T. AREA/PPM

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	79.8	2,000 PPM
1,1 DCE	2	46.3	2,325 PPM
CIS 1,2- DCE	3	64.3	125.1 PPM
TCE	4	113.8	13,12 PPM
PCE	5	265.0	21,32 PPM

Field Blank
 Plant water
 Through PVC hose

PHOTOVLAC

START



STOP @ 500.0

SAMPLE LIBRARY: AUG 6 1997 17:11:4
 ANALYSIS: 4 01 DE WASHINGTON
 INTERNAL TEMP: 20 DE-10000
 GAIN: 20 47-52 FTB6S

COMPOUND NAME PEAK R.T. AREA/PPM

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	79.2	2,000 PPM
INJECTION PULSE	2	31.1	2,000 PPM
1,1 DCE	3	42.3	168.0 PPM
1,1 DCE	4	46.3	26,23 PPM
1,1, DCA	5	57.1	84.15 PPM
CIS 1,2- DCE	6	65.5	8,387 PPM
TCE	7	128.6	54,51 PPM
TOLUENE	8	123.2	285.8 PPM
TOLUENE	9	188.2	200.2 PPM
PCE	10	272.2	61,31 PPM

24

6.77

35.38

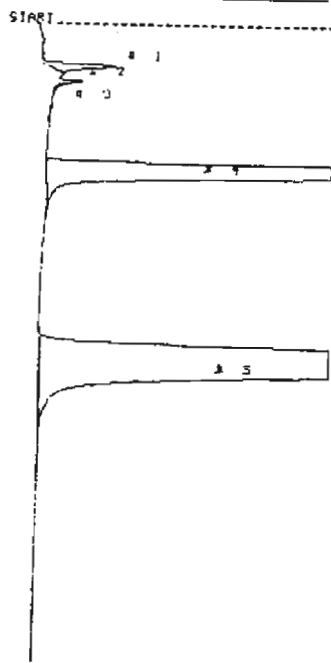
40.54

BW-4

47-52 FTB6S

2021

PHOTOVAC

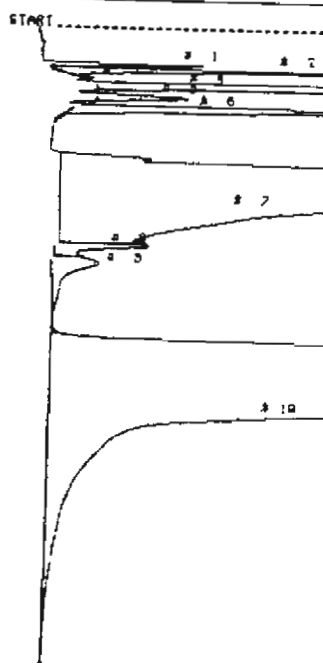


STOP # 500.0
 SAMPLE LIBRARY 1 AUG 6 1997 10:14
 ANALYSIS # 70 GE WILKINSON
 INTERNAL TEMP 70 WE-10500
 DATA TO FIELD BLANK

COMPOUND NAME PEAK R.T. AREA/PPM

INJECTION PULSE	1	29.1	0.000 PPM
1,1 DCE	2	46.2	1.206 PPM
TCE	4	115.4	12.81 PPM
PCE	5	265.2	12.73 PPM

PHOTOVAC



STOP # 500.0
 SAMPLE LIBRARY 1 AUG 6 1997 14:15
 ANALYSIS # 71 GE WILKINSON
 INTERNAL TEMP 70 WE-10500
 DATA TO 52-57 FT

COMPOUND NAME PEAK R.T. AREA/PPM

INJECTION PULSE	1	29.3	0.000 PPM
INJECTION PULSE	2	33.6	0.000 PPM
UNKNOWN	3	41.5	15.2 PPM
1,1 DCE	4	46.3	12.06 PPM
1,1 DCA	5	56.2	131.3 PPM
DIG 1,2- DCE	6	64.4	10.10 PPM
TCE	7	124.3	65.54 PPM
TOLUENE	8	127.2	623.2 PPM
TOLUENE	9	188.2	236.1 PPM
PCE	10	224.2	101.00 PPM

46.45

47.70

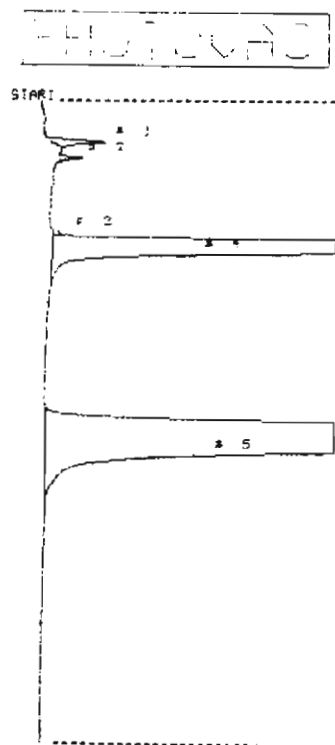
73.09

Field Blank
 Plant water
 Through PVC hose

GW-5
 52-57 FT BGS

(376)

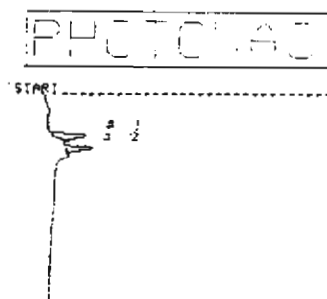
WE-105R2



STOP # 500.0
 SAMPLE LIBRARY 1 P00 6 1000 10103
 ANALYSIS # 01 DE MINUTATION
 INTERNAL TEMP 10 42-10000
 GAIN 70 1120 BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	34.1	0.000 PPM
1,1 DCE	2	46.2	1.180 PPM
TCE	4	115.0	12.55 PPM
PCE	5	265.2	27.34 PPM

Field Blank

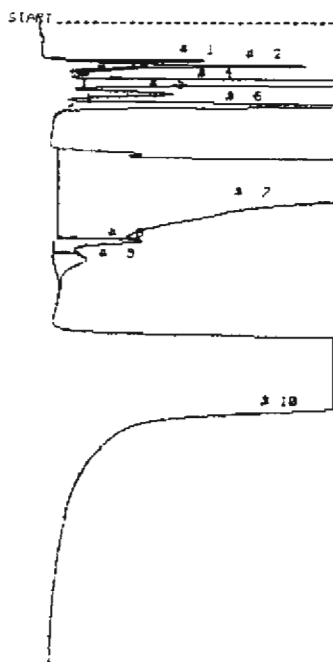


STOP # 162.2
 SAMPLE LIBRARY 1 P00 6 1000 10103
 ANALYSIS # 06 DE MINUTATION
 INTERNAL TEMP 10 42-10000
 GAIN 70 1120 BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	34.1	0.000 PPM
1,1 DCE	2	46.2	1.180 PPM

~~Blank~~ Air BLANK

PHOTOVAC

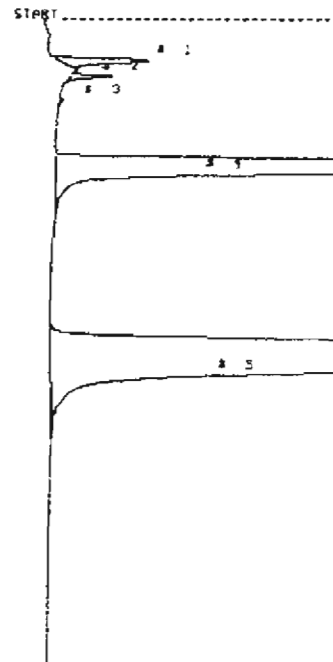


STOP # 500.0
 SAMPLE LIBRARY 1 AUG 6 1992 16:16
 ANALYSIS # 32 DE WILKINSON
 INTERNAL TEMP 20 46-105R0
 GAIN 20 24-6 52-62 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	30.1	0.000 PPM
INJECTION PULSE	2	33.3	0.000 PPM
UNKNOWN	3	41.2	112.2 PPM
1,1 DCE	4	46.3	50.30 PPM
1,1,1 DCA	5	56.3	104.7 PPM
CIS 1,2- DCE	6	61.5	16.12 PPM
TCE	7	123.8	72.28 PPM
TOLUENE	8	129.2	578.1 PPM
TOLUENE	9	188.2	111.0 PPM

10V

PHOTOVAC



STOP # 500.0
 SAMPLE LIBRARY 1 AUG 6 1992 16:15
 ANALYSIS # 32 DE WILKINSON
 INTERNAL TEMP 20 46-105R0
 GAIN 20 FIELD BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	34.1	0.000 PPM
1,1 DCE	2	46.3	2.060 PPM
CIS 1,2- DCE	3	65.1	67.23 PPM
TCE	4	115.6	17.34 PPM
PCE	5	265.2	20.15 PPM

- 1.15 49.12
 - 17.35 55.23
 - 22.31 77.66

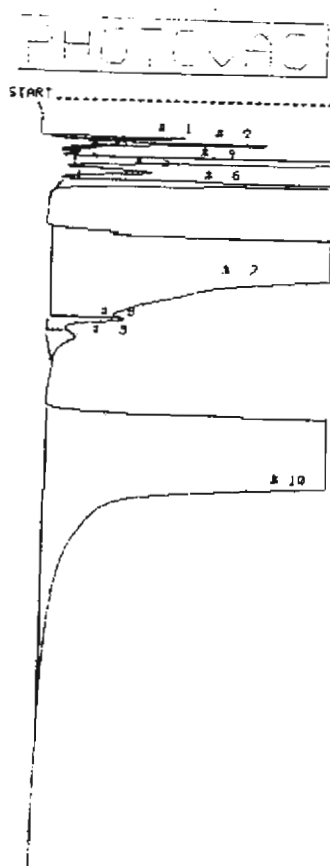
383

GW-6

57-62 FT BGS

Ovm- 130ppm

Field Blank



STOP # 000.0
 SAMPLE LIBRARY 1 AUG 6 1987 12:17
 ANALYSIS # 32 DE WILMINGTON
 INTERNAL TEMP 52 46-103MT
 GAIN 20 20-2 67-60 FT

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	25.3	0.000 PPM
INJECTION PULSE	2	23.2	0.000 PPM
UNKNOWN	3	41.5	32.6 MMS
1,1 DCE	4	46.2	42.37 PPM
1,1,1 DCA	5	56.2	153.5 PPM
1,1,1,1 DCE	6	64.4	15.32 PPM
ICE	7	121.2	75.40 PPM
TOLLENE	8	129.2	127.1 PPM
TOLLENE	9	187.2	751.7 PPM
PCE	10	273.6	65.82 PPM

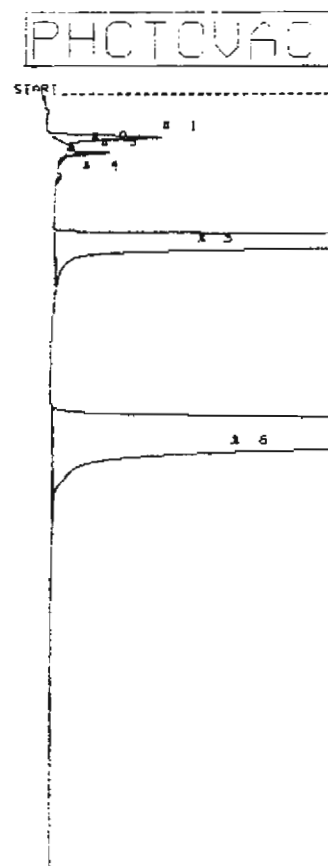
-2.06 40.31
 -10.64 15.25
 -17.94 57.46
 -23.15 42.67

GW-7

62-67FTB6S

OVM-88 ppm

(315)



STOP # 000.0
 SAMPLE LIBRARY 1 AUG 6 1987 12:17
 ANALYSIS # 10 DE WILMINGTON
 INTERNAL TEMP 52 46-103MT
 GAIN 20 FIELD BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	4	28.3	0.000 PPM
1,1 DCE	1	65.1	117.8 PPM
ICE	5	115.8	20.26 PPM
PCE	6	261.8	46.15 PPM

Field BLANK

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: TCE

PHOTOVAC: RED

DATE: 8/6/92

OPERATOR: JAH

TIME: 5:45

CALIBRATION TYPE:

- 1) RT-UPDATE X
- 2) COMPOUND STORAGE —
- 3) CAL-REFRESH —

CHROMATOGRAM
(with SETUP):

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 23

SAT'D HEADSPACE VOLUME OF STD (uL): —

CALIBRATION SYRINGE SIZE (uL): —

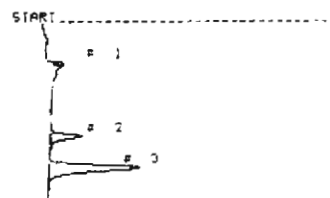
LIQUID VOLUME OF STD [if applicable] (uL): —

PEAK NUMBER: 3

RETENTION TIME (sec): 115.00

Comments:

PHOTOVAC



STOP # 148.8
SAMPLE LIBRARY: 1 800 8 1000 10146
ANALYSIS # 1 02 11/10/1992
INTERNAL TEMP 10 100.000
GAIN 100 100.000

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	20.1	3.000 ppm
BENZENE	2	20.7	170.8 ppm
TCE	3	115.0	840.8 ppm

$\bar{X} = 85\%$

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: TCE

PHOTOVAC: RED

DATE: 8/7/92

OPERATOR: JAV

TIME: 7:15

CALIBRATION TYPE:

- 1) RT-UPDATE ☒
- 2) COMPOUND STORAGE ☐
- 3) CAL-REFRESH ☒

CHROMATOGRAM
(with SETUP):

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 20

SAT'D HEADSPACE VOLUME OF STD (uL): 12.8

CALIBRATION SYRINGE SIZE (uL): 25

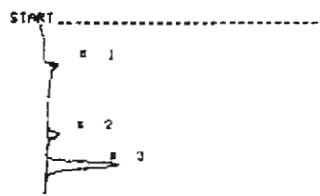
LIQUID VOLUME OF STD [if applicable] (uL):

PEAK NUMBER: 3

RETENTION TIME (sec): 112.3

Comments:

PHOTOVAC



STOP 8 112.3
SAMPLE LIBRARY: 1 8/7/92 11:00
ANALYSIS 4 10 100.000000
INTERNAL TEMP 20 100.0000
GAIN 20 100.0000

COMPOUND NAME	PEAK	R.T.	AREA/HT
INJECTION PULSE	1	93.0	3.000 PPS
BENZENE	2	98.0	60.00 PPS
TCE	3	112.3	60.00 PPS

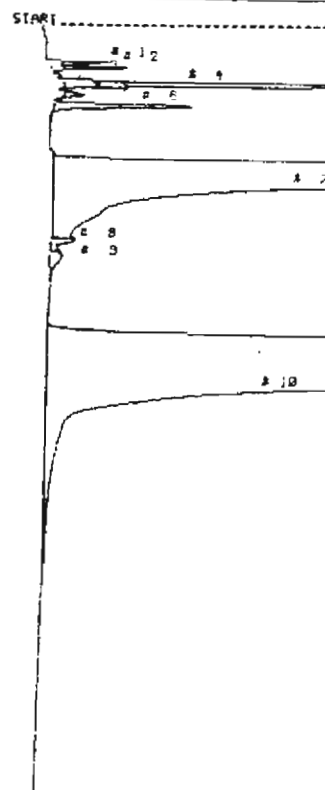
PHOTOVAC

CALIBRATED PEAK 3, TCE

SAMPLE LIBRARY: 1 8/7/92 11:00
ANALYSIS 4 10 100.000000
INTERNAL TEMP 20 100.0000
GAIN 20 100.0000

COMPOUND NAME	PEAK	R.T.	AREA/HT
INJECTION PULSE	1	93.0	3.000 PPS
BENZENE	2	98.0	60.00 PPS
TCE	3	112.3	60.00 PPS

PHOTOGRAPH



STOP 4 600.0
 SAMPLE LIBRARY 1 AUG 2 1982 2100
 ANALYSIS 4 13 DE WILMINGTON
 INTERNAL TEMP 23 46-0850
 DATA 20 3-5 47-11 F

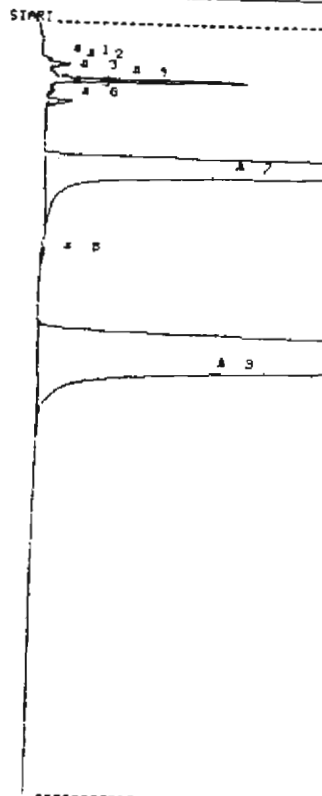
COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	20.8	0.000 PPM
INJECTION PULSE	2	20.8	0.000 PPM
1,1 DCE	3	41.3	721.0 PPM
1,1 DCE	4	45.3	43.22 PPM
1,1 DCE	5	55.3	80.30 PPM
DIS 1,2- DCE	6	65.3	6.211 PPM
TCE	7	115.4	66.12 PPM
1,2 DCE	8	128.2	225.8 PPM
1,2 DCE	9	180.2	70.10 PPM
1,2 DCE	10	202.1	70.10 PPM

BW-8

67-72 FT BGS.

OVM- 76ppm

PHOTOGRAPH



STD # 600.0
 SAMPLE LIBRARY 1 AUG 2 1990 12:50
 ANALYSIS # 10 35 LILINGTON
 INTERNAL TEMP 01 45-100°C
 DATE 70 70-2 22-00 11

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	2	20.5	2.002 PPM
1,1 DCE	4	45.3	14.83 PPM
1,1 DCA	5	55.2	3.754 PPM
CIS 1,2- DCE	6	60.2	1.151 PPM
TCE	7	112.1	16.33 PPM
TOLUENE	8	183.2	21.63 PPM
PCE	9	252.6	37.81 PPM

72-77

NO Flow

GW-9

77-82 FT BGS

0VM- 23 PPM

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: TCE

PHOTOVAC: RED

DATE: 8/7/92

OPERATOR: JAH

TIME: 4:30

CALIBRATION TYPE:

- 1) RT-UPDATE
- 2) COMPOUND STORAGE
- 3) CAL-REFRESH

CHROMATOGRAM (with SETUP):

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 1.0

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 23

SAT'D HEADSPACE VOLUME OF STD (uL):

CALIBRATION SYRINGE SIZE (uL):

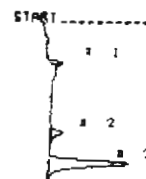
LIQUID VOLUME OF STD [if applicable] (uL):

PEAK NUMBER:

RETENTION TIME (sec):

Comments:

PHOTOVAC



STOP # 102.3
SAMPLE LIBRARY: AUG 2 1992 15:00
ANALYST: JAH DE WILMINGTON
INTERNAL TEST NO 02-10000
DATE 02 02-02-1992

COMPOUND NAME PEAK RT AREA

INJECTION PULSE	1	22.2	3.388	203
PERCENT	2	98.8	181.8	218
	3	111.2	1.005	501

X 94.0

CALIBRATION RECORD FOR VAPOR STANDARDS

NEAT VAPOR STANDARD: Tetrachloroethene

PHOTOVAC: PED

DATE: 8/11/92

OPERATOR: JAH

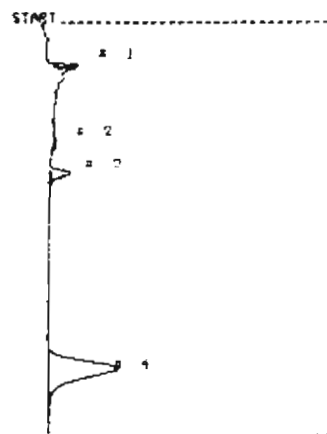
TIME: 7:30

CALIBRATION TYPE:

- 1) RT-UPDATE —
- 2) COMPOUND STORAGE —
- 3) CAL-REFRESH X

CHROMATOGRAM (with SETUP):

PHOTOVAC



STOP	8	274.5
SAMPLE LIBRARY	1	AUG 11 1992 7:10
ANALYSIS	1	DE CONTAMINATION
INTERNAL TEMP	20	118.5 274.5 PPM
GAIN	20	118.5 274.5 PPM
COMPOUND NAME	PEAK	R.T. AREA/PPM
INJECTION PULSE	1	274.5 0.000 PPM
ICE	2	118.5 274.5 PPM
PCE	4	274.5 274.5 PPM

LIBRARY #: 1

COLUMN OVEN TEMP (°C): 40

FLOW RATE (mL/min): 10

GAIN SETTING: 20

GC SAMPLE INJECTION VOLUME (uL): 200

DESIRED CONCENTRATION INTO GC (ppm): 1.0

CALIBRATION BULB SIZE (L): 1.0

AMBIENT TEMP (°C): 22

SAT'D HEADSPACE VOLUME OF STD (uL): 41.4

CALIBRATION SYRINGE SIZE (uL): 25 100

LIQUID VOLUME OF STD [if applicable] (uL): —

.....

PEAK NUMBER: 4

RETENTION TIME (sec): 274.5

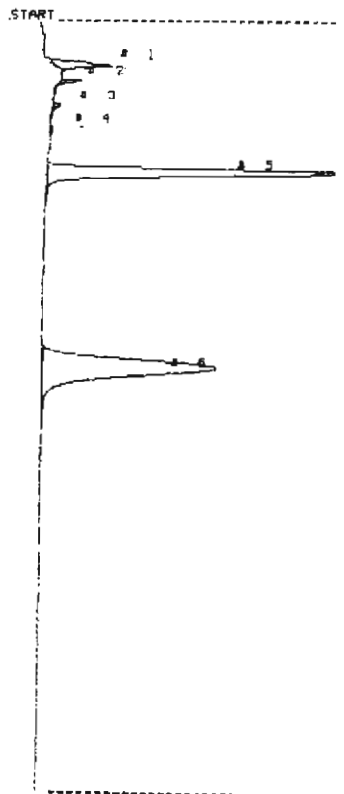
Comments:

PHOTOVAC

CALIBRATED PEAK	4	PCE
SAMPLE LIBRARY	1	AUG 11 1992 7:10
ANALYSIS	1	DE CONTAMINATION
INTERNAL TEMP	20	118.5 274.5 PPM
GAIN	20	118.5 274.5 PPM
COMPOUND NAME	PEAK	R.T. AREA/PPM
INJECTION PULSE	1	274.5 0.000 PPM
ICE	2	118.5 274.5 PPM
PCE	4	274.5 274.5 PPM

WE-62

PHOTOVAD



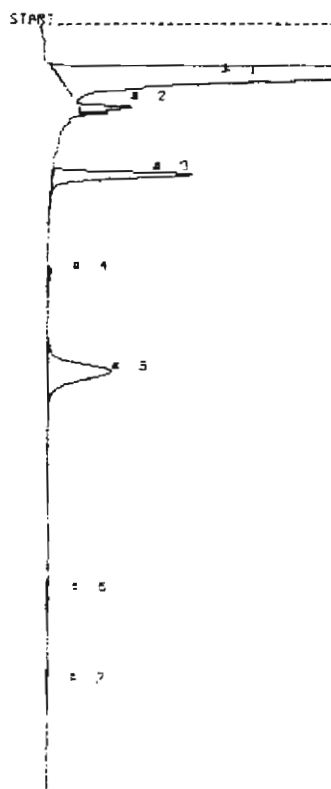
STOP 6 600.0
SAMPLE LIBRARY 1 AUG 11 1997 17: 6
ANALYSIS 1 1 DE DILLINGTON
INTERNAL TEMP 20 45-6 50
DATA 12 20-1 17: 54.2 21
COMPOUND NAME PEAK R.T. AREA/PPM
INJECTION PULSE 1 25.3 0.000 PPM
1,1 DCE 2 48.3 2.012 PPM
CIS 1,2- DCE 3 58.8 0.568 PPM
ACE 4 72.2 2.123 PPM

GW-1

27- 36.2 FT 66S

11

PHOTOLAC

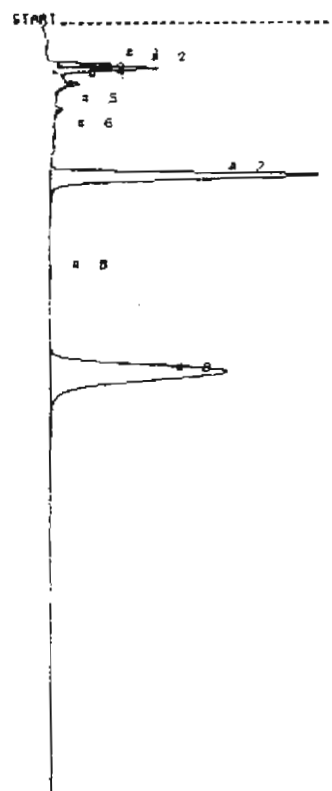


STOP # 600.0
 SAMPLE LIBRARY 1 AUG 11 1997 17:29
 ANALYSIS # 3 02 WILKINSON
 INTERNAL TEMP 10 125.0
 DATA 20 FIELD BLANK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	38.3	34.3 US
CIS 1,2- DCE	2	56.1	3.238 PPM
ICE	3	112.6	2.538 PPM
TOLLENE	4	136.2	52.58 PPM
PCE	5	275.2	336.3 PPM
P-XYLENE	6	146.8	2.831 PPM

Field BLANK.

PHOTOLAC



STOP # 600.0
 SAMPLE LIBRARY 1 AUG 11 1997 18:12
 ANALYSIS # 3 02 WILKINSON
 INTERNAL TEMP 10 125.0
 DATA 20 20-2 50.0 11.07

COMPOUND NAME	PEAK	R.T.	AREA/PPM
INJECTION PULSE	1	32.6	9.908 PPM
INJECTION PULSE	2	35.5	8.888 PPM
1,1 DCE	4	48.3	1.564 PPM
CIS 1,2- DCE	5	62.5	322.8 PPM
ICE	2	110.6	4.982 PPM
PCE	3	275.3	2.512 PPM

2.377
1.576

GW-2

36.2-41.4 FT B6S

5.61

APPENDIX C
HYDRAULIC CONDUCTIVITY DATA

TIME (min)	DRAWDOWN (feet)	WEIGHT FACTOR
---------------	--------------------	---------------

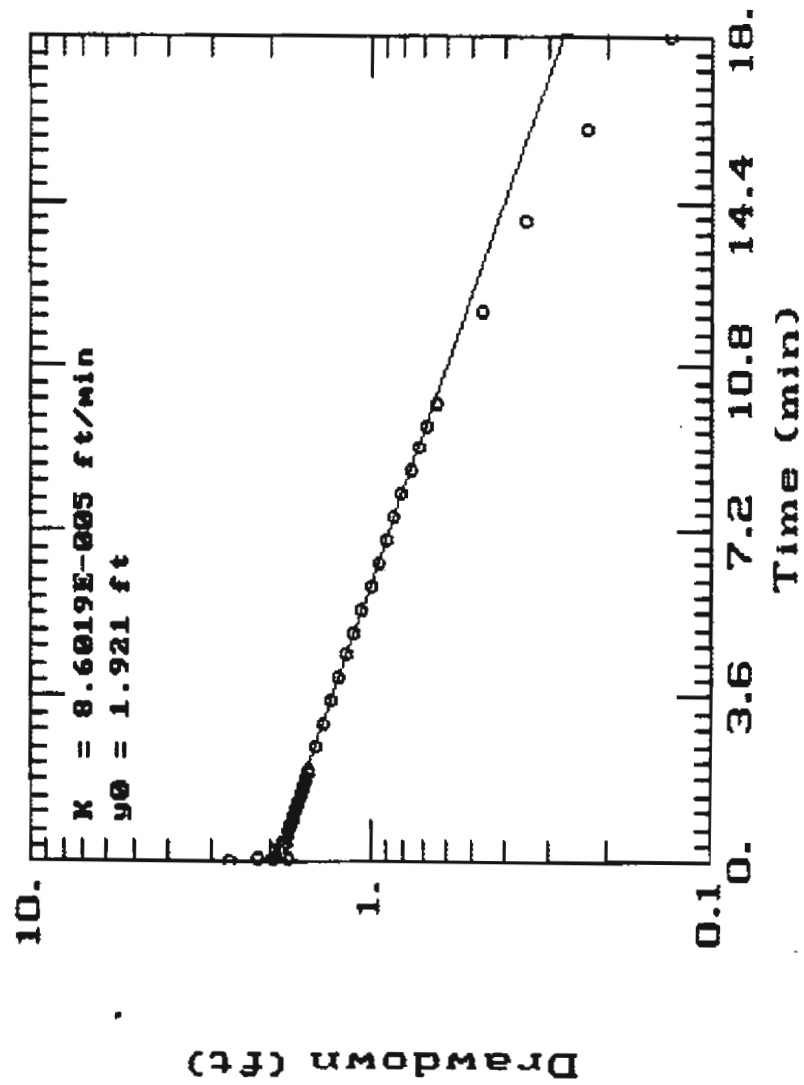
INPUT PARAMETERS

0	2.4	1
0.0033	4.61	1
0.0066	1.83	1
0.0099	3.47	1
0.0133	4.9	1
0.0166	2.83	1
0.02	3.02	1
0.0233	4.25	1
0.0266	3.3	1
0.03	2.98	1
0.0333	3.88	1
0.05	2.64	1
0.0666	2.19	1
0.0833	1.76	1
0.1	1.98	1
0.1166	1.86	1
0.1333	1.91	1
0.15	1.88	1
0.1666	1.88	1
0.1833	1.88	1
0.2	1.87	1
0.2166	1.87	1
0.2333	1.86	1
0.25	1.86	1
0.2666	1.85	1
0.2833	1.85	1
0.3	1.84	1
0.3166	1.84	1
0.3333	1.84	1
0.4167	1.82	1
0.5	1.8	1
0.5833	1.78	1
0.6667	1.77	1
0.75	1.75	1
0.8333	1.73	1
0.9167	1.72	1
1	1.71	1
1.0833	1.69	1
1.1667	1.67	1
1.25	1.66	1
1.3333	1.65	1
1.4166	1.64	1
1.5	1.62	1
1.5833	1.6	1
1.6667	1.59	1
1.75	1.58	1
1.8333	1.57	1
1.9167	1.55	1
2	1.54	1
2.5	1.47	1
3	1.39	1
3.5	1.32	1
4	1.25	1
4.5	1.2	1
5	1.13	1
5.5	1.08	1
6	1.01	1

WELL NUMBER: WE-5R1
 INITIAL DRAWDOWN: 2.64 FEET
 WELL RADIUS: .08 FEET
 BOREHOLE RADIUS: .17 FEET
 WELL SCREEN LENGTH: 15 FEET
 AQUIFER THICKNESS: 23 FEET
 HEIGHT OF WATER
 IN WELL: 23 FEET
 ANALYSIS METHOD: BOUWER AND
 RICE (1976)

6.5	0.96	1
7	0.91	1
7.5	0.86	1
8	0.81	1
8.5	0.76	1
9	0.72	1
9.5	0.68	1
10	0.64	1
12	0.47	1
14	0.35	1
16	0.23	1
18	0.13	1

"SLUG" TEST WE - 5 R1



TIME (min)	DRAWDOWN (feet)	WEIGHT FACTOR
---------------	--------------------	---------------

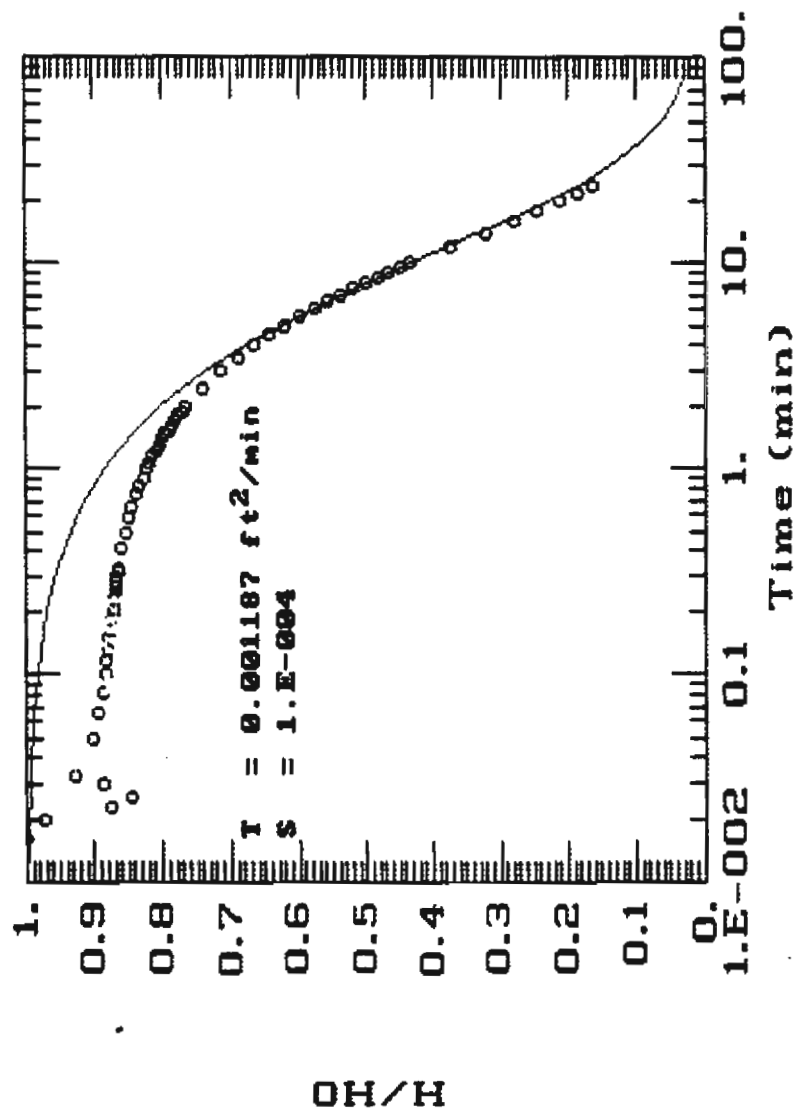
INPUT PARAMETERS

0	4.99	1
0.0033	11.85	1
0.0066	8.25	1
0.0099	6.53	1
0.0133	7.58	1
0.0166	8.61	1
0.02	8.37	1
0.0233	7.54	1
0.0266	7.27	1
0.03	7.64	1
0.0333	7.99	1
0.05	7.77	1
0.0666	7.69	1
0.0833	7.64	1
0.1	7.6	1
0.1166	7.59	1
0.1333	7.57	1
0.15	7.56	1
0.1666	7.55	1
0.1833	7.54	1
0.2	7.52	1
0.2166	7.52	1
0.2333	7.5	1
0.25	7.49	1
0.2666	7.49	1
0.2833	7.47	1
0.3	7.47	1
0.3166	7.45	1
0.3333	7.45	1
0.4167	7.4	1
0.5	7.35	1
0.5833	7.31	1
0.6667	7.27	1
0.75	7.22	1
0.8333	7.18	1
0.9167	7.13	1
1	7.1	1
1.0833	7.05	1
1.1667	7.01	1
1.25	6.97	1
1.3333	6.93	1
1.4166	6.89	1
1.5	6.85	1
1.5833	6.81	1
1.6667	6.77	1
1.75	6.73	1
1.8333	6.69	1
1.9167	6.65	1
2	6.61	1
2.5	6.38	1
3	6.16	1
3.5	5.94	1
4	5.74	1
4.5	5.54	1
5	5.34	1
5.5	5.15	1
6	4.97	1

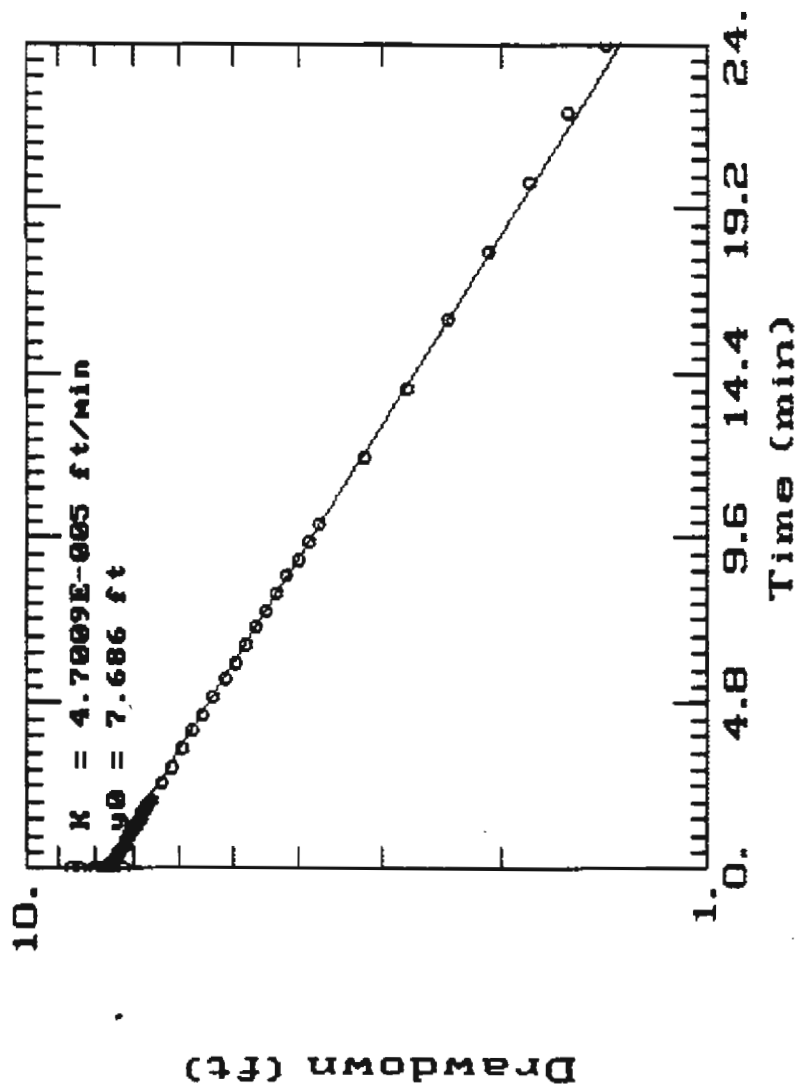
WELL NUMBER: WE-105 R2
 INITIAL DRAWDOWN: 8.61 FEET
 WELL RADIUS: .08 FEET
 BOREHOLE RADIUS: .17 FEET
 WELL SCREEN LENGTH: 15 FEET
 AQUIFER THICKNESS: 41 FEET
 HEIGHT OF WATER
 IN WELL: 60.18 FEET
 ANALYSIS METHOD: COOPER, et al (1967)

6.5	4.79	1
7	4.63	1
7.5	4.47	1
8	4.31	1
8.5	4.16	1
9	4.01	1
9.5	3.86	1
10	3.72	1
12	3.2	1
14	2.77	1
16	2.4	1
18	2.1	1
20	1.82	1
22	1.6	1
24	1.41	1

"SLUG" TEST WE-105R2



"SLUG" TEST WE-105R2



TIME (min)	DRAWDOWN (feet)	WEIGHT FACTOR
---------------	--------------------	---------------

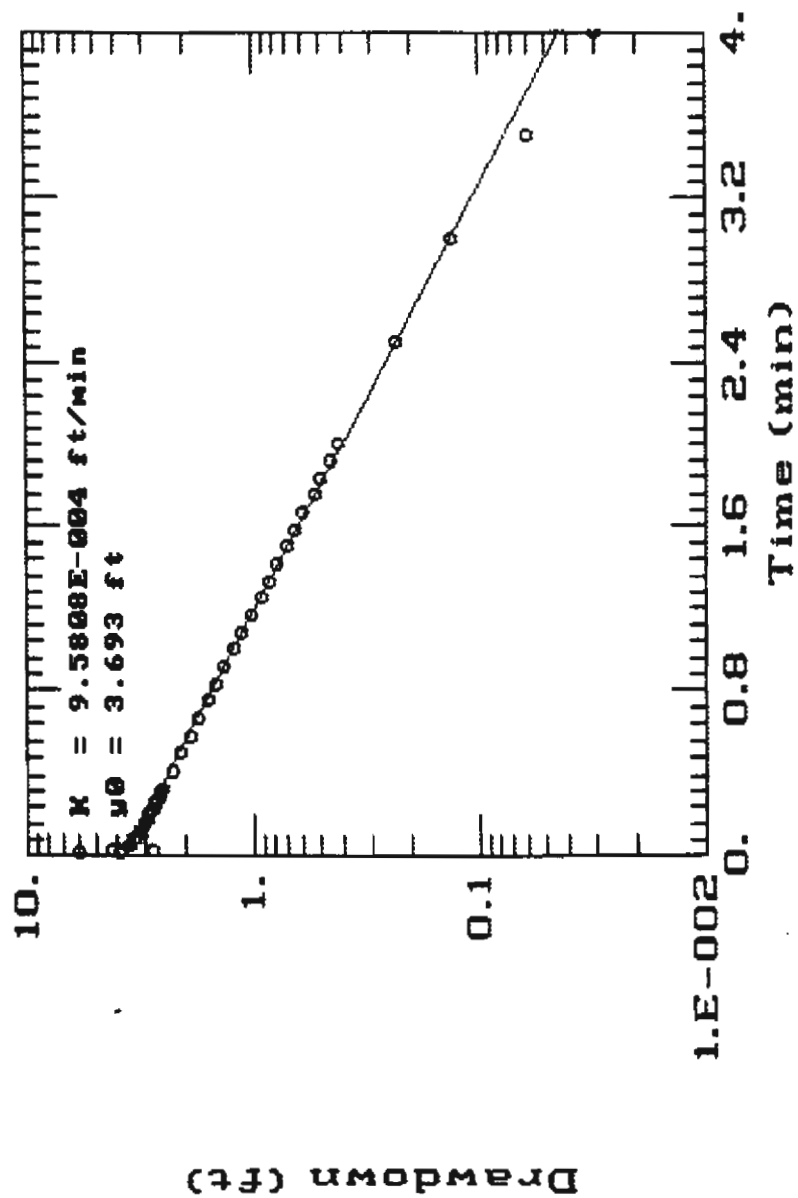
INPUT PARAMETERS

0	0.58	1
0.0033	2.04	1
0.0066	9.99	1
0.0099	11.26	1
0.0133	2.16	1
0.0166	1.58	1
0.02	5.92	1
0.0233	3.88	1
0.0266	2.79	1
0.03	4.21	1
0.0333	3.78	1
0.05	3.57	1
0.0666	3.44	1
0.0833	3.36	1
0.1	3.28	1
0.1166	3.22	1
0.1333	3.15	1
0.15	3.09	1
0.1666	3.03	1
0.1833	2.98	1
0.2	2.92	1
0.2166	2.86	1
0.2333	2.81	1
0.25	2.76	1
0.2666	2.7	1
0.2833	2.66	1
0.3	2.61	1
0.3166	2.56	1
0.3333	2.52	1
0.4167	2.3	1
0.5	2.09	1
0.5833	1.92	1
0.6667	1.75	1
0.75	1.6	1
0.8333	1.46	1
0.9167	1.34	1
1	1.22	1
1.0833	1.12	1
1.1667	1.02	1
1.25	0.93	1
1.3333	0.85	1
1.4166	0.78	1
1.5	0.71	1
1.5833	0.65	1
1.6667	0.6	1
1.75	0.54	1
1.8333	0.5	1
1.9167	0.46	1
2	0.42	1
2.5	0.23	1
3	0.13	1
3.5	0.06	1
4	0.03	1
4.5	0	1
5	0	1
5.5	0.01	0
6	0.01	0

WELL NUMBER: WE-6
 INITIAL DRAWDOWN: 5.92 FEET
 WELL RADIUS: .08 FEET
 BOREHOLE RADIUS: .42 FEET
 WELL SCREEN LENGTH: 10 FEET
 AQUIFER THICKNESS: 17 FEET
 HEIGHT OF WATER
 IN WELL: 17 FEET
 ANALYSIS METHOD: BOUWER AND
 RICE (1976)

6.5	0.01	0
7	0.02	0
7.5	0.02	0
8	0.02	0
8.5	0.02	0
9	0.02	0
9.5	0.02	0
10	0.02	0
12	0.02	0
14	0.02	0

"SLUG TEST" WE-6



TIME DRAWDOWN WEIGHT FACTOR
(min) (feet)

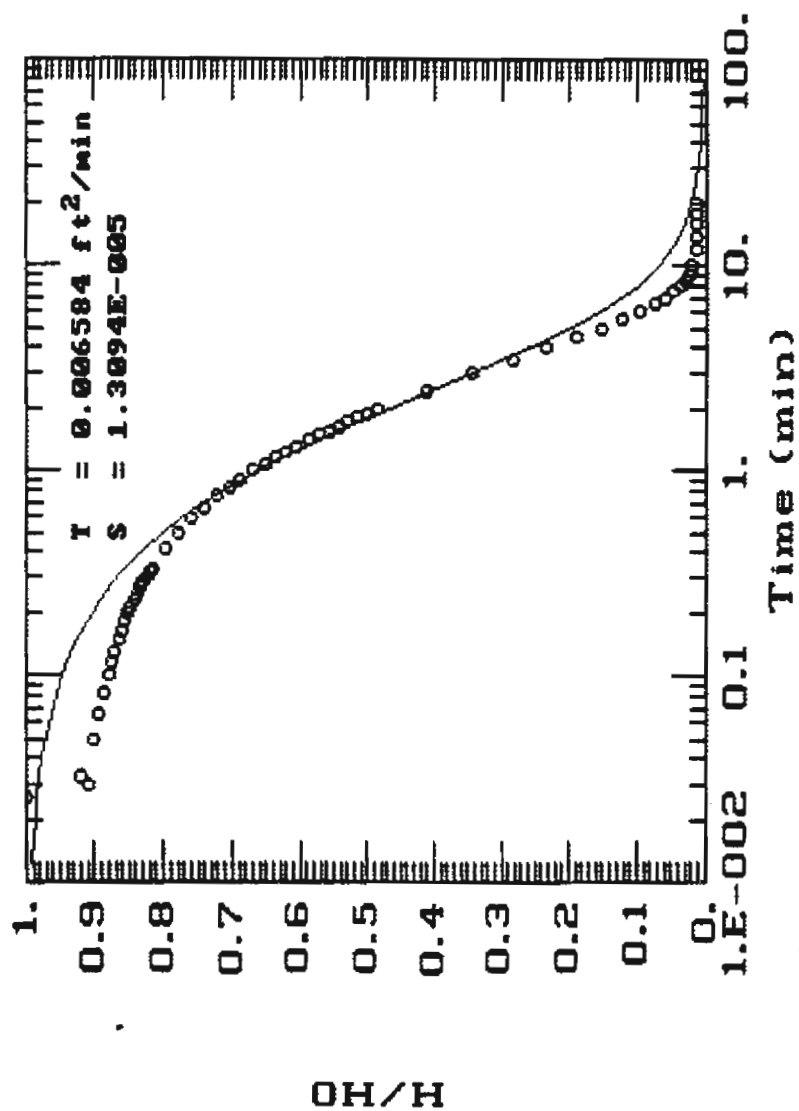
INPUT PARAMETERS

0	3.03	1
0.0033	2.76	1
0.0066	4.98	1
0.0099	17.72	1
0.0133	18.29	1
0.0166	19.81	1
0.02	12.81	1
0.0233	5.02	1
0.0266	7.94	1
0.03	7.23	1
0.0333	7.31	1
0.05	7.15	1
0.0666	7.09	1
0.0833	7.04	1
0.1	6.99	1
0.1166	6.95	1
0.1333	6.91	1
0.15	6.87	1
0.1666	6.83	1
0.1833	6.8	1
0.2	6.76	1
0.2166	6.73	1
0.2333	6.69	1
0.25	6.66	1
0.2666	6.62	1
0.2833	6.59	1
0.3	6.55	1
0.3166	6.52	1
0.3333	6.49	1
0.4167	6.33	1
0.5	6.17	1
0.5833	6.02	1
0.6667	5.87	1
0.75	5.72	1
0.8333	5.58	1
0.9167	5.45	1
1	5.31	1
1.0833	5.18	1
1.1667	5.05	1
1.25	4.92	1
1.3333	4.8	1
1.4166	4.67	1
1.5	4.55	1
1.5833	4.43	1
1.6667	4.31	1
1.75	4.2	1
1.8333	4.08	1
1.9167	3.98	1
2	3.87	1
2.5	3.26	1
3	2.73	1
3.5	2.26	1
4	1.85	1
4.5	1.5	1
5	1.2	1
5.5	0.96	1
6	0.75	1

WELL NUMBER : WE - 6R
 INITIAL DRAWDOWN: 7.94 FEET
 WELL RADIUS: .08 FEET
 BOREHOLE RADIUS: .17 FEET
 WELL SCREEN LENGTH: 10 FEET
 AQUIFER THICKNESS: 16 FEET
 HEIGHT OF WATER
 IN WELL: 34 FEET
 ANALYSIS METHOD: COOPER, et al
 1967

6.5	0.59	1
7	0.46	1
7.5	0.37	1
8	0.29	1
8.5	0.23	1
9	0.2	1
9.5	0.17	1
10	0.15	1
12	0.11	1
14	0.1	1

"SLUG" TEST WE - 6 R



WATER PRESSURE INJECTION TESTS

The following equation and assumptions were used to calculate the hydraulic conductivity from data collected during the water pressure injection tests. (See Groundwater Manual, 1977 edition.)

Equation: $K = Q / C_s r H$

where,

- K = hydraulic conductivity (feet per second)
- Q = flow rate into borehole (cubic feet per second)
- C_s = conductivity coefficient (dimensionless)
- r = radius of borehole (feet)
- H = h₁ + h₂ - L (feet)
- h₁ = distance between the pressure gauge and the water table (feet)
- h₂ = applied pressure at gauge (feet) (1 PSI = 2.307 feet of water)
- L = head loss due to friction in pipe (feet)
- A = test section interval

Assumptions/Conversions

- C_s = 68, determined from Figure 10-8, page 263, Groundwater Manual (1977)
- 1 cubic foot per second = 448.8 gallons per minute (gpm)
- r = 0.122 feet
- A = 5.2 feet
- L = negligible (flow < 0.5 gpm)

HOLE NO WE-5RI	TEST NO. 1
----------------	------------

FILE NO. 01561.12
SHEET NO. 1
LOCATION: WE-5A
ELEVATION:
DATE START: 8/4/92
DATE FINISH: 8/4/92
DRILLER: Chris Stamus
INSPECTOR: Jeff Hamel
GEOLOGIST:

NOV 1961

HOLE SIZE . 2 5/16

TESTED INTERVAL: 29.7 - 34.9 FT BGS

6.2 Feet

[illegible]

WATER PRESSURE TEST

PROJECT: <u>GE - Wilmington</u>					HOLE NO <u>WE-SR1</u>		TEST NO. <u>2</u>	
CLIENT: <u>GE - Aerospace</u>					FILE NO. <u>01501.12</u>			
CONTRACTOR: <u>EDI</u>					SHEET NO. <u>1</u>			
					LOCATION: <u>WE-SR1</u>			
					ELEVATION: _____			
TYPE					DATE START: <u>8/4/92</u>			
MFG.					DATE FINISH: <u>8/4/92</u>			
MODEL NO.					DRILLER: <u>Chris Starnus</u>			
					INSPECTOR: <u>Jeff Hamel</u>			
					GEOLOGIST: _____			
M.G.P. = (0.886 in 1.01 in)					ROCK TYPE <u>Granite</u>		HOLE SIZE <u>2 15/16</u>	
COMPUTED MAX GAUGE PRESS: (MGP) <u>15</u>					RECOVERY (%) <u>99.5%</u>			
COMPUTED INTERNAL FRICTION: <u>0</u>					R Q D (%) <u>99%</u>			
DEPTHS: (All Distances Measured From Ground Surface In Feet) TESTED INTERVAL : <u>22.2 - 27.4 FT BGS</u> TO TOP OF ROCK <u>3.5</u> TO TOP LOWER PACKER <u>27.4</u> TO BOTTOM OF BORING <u>38.5</u> TO BOTTOM UPPER PACKER IN <u>22.2</u> TO WATER TABLE <u>5.5</u> LENGTH OF TEST SECTION <u>5.2</u> HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE <u>3.0 FT</u>								
TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS		
	1:30	120	5		0.2	Avg. q = 0.21 gpm		
	1:00				0.22			
	1:30				0.20			
	2:00				0.22			
	2:30				0.21			
	3:00				0.42	Avg. q = 0.38 gpm		
	1:00		10		0.37			
	1:30				0.38			
	2:00				0.38			
	2:30				0.37			
	3:00				0.38	Avg. q = 0.50 gpm		
	1:00		15		0.5			
	2:00				0.55			
	3:00				0.48			
	4:00				0.52			
	5:00				0.49			
	6:00				0.46			
	7:00				0.50			
	8:00				0.49			
	9:00				0.47			
	10:00				0.51			

HOLE NO WE-521	TEST NO. 3
----------------	------------

NO. 10 WE-SR1	TEST NO. 3
---------------	------------

FILE NO. 01501.12
SHEET NO. 1
LOCATION: WE-SR1
ELEVATION:
DATE START: 8/4/92
DATE FINISH: 8/4/92
DRILLER: Chris Stamos
INSPECTOR: Jeff Hamel
GEOLOGIST:

ELEVATION: _____
DATE START: 8/4/92
DATE FINISH: 8/4/92
DRILLER: Chris Stamos
INSPECTOR: Jeff Hamel
GEOLOGIST: _____

ADD (%) 70%

TO TOP OF ROCK	<u>3.5</u> Ft	TO TOP LOWER PACKER	<u>19.9</u> Ft
TO BOTTOM OF BORING	<u>38.5</u> Ft	TO BOTTOM UPPER PACKER (IN)	<u>14.7</u> Ft
TO WATER TABLE	<u>5.5</u>	LENGTH OF TEST SECTION	<u>5.2</u> Ft
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE		<u>4.7</u> Ft	

[illegible]

WATER PRESSURE TEST

WE-105R2

PROJECT: <u>GE Wilmington</u>					HOLE NO.	TEST NO. <u>1</u>
CLIENT: <u>GE-Aerospace</u>					FILE NO.	<u>01501.12</u>
CONTRACTOR: <u>Environmental Drilling Inc.</u>					SHEET NO.	
					LOCATION:	<u>WE-105R2</u>
	PACKER SYSTEM	WATER METER	PRESSURE GAUGE	SURGE CHAMBER	ELEVATION:	
TYPE					DATE START:	<u>8/7/92</u>
MFG.					DATE FINISH:	<u>8/7/92</u>
MODEL NO.					DRILLER:	<u>Chris Stramos</u>
					INSPECTOR:	<u>Jeff Hamel</u>
					GEOLOGIST:	

M.G.P. = (0.558 to 1.0) x 5

COMPUTED MAX GAUGE PRESS: (MGP) 50

COMPUTED INTERNAL FRICTION: 0

ROCK TYPE Diorite

RECOVERY (%) 100%

R Q D (%) 98%

HOLE SIZE 2 1/16

DEPTH: (All Distances Measured From Ground Surface in Feet)

TO TOP OF ROCK 24 TO TOP LOWER PACKER 74.2

TO BOTTOM OF BORING 82 TO BOTTOM UPPER PACKER (IN) 69.0

TO WATER TABLE 5.7 LENGTH OF TEST SECTION 5.2

HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE 8.2 ft

TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS
	1:30	120	17			no water accepted
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					no water accepted
	1:30	120	33			
	1:00					
	1:30					
	2:00					
	2:30					no water accepted
	3:00					
	1:00	120	50			
	2:00					
	3:00					
	4:00					
	5:00					
	6:00					
	7:00					
	8:00					
	9:00					
	10:00					

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u>					HOLE NO.	TEST NO. <u>2</u>
CLIENT: <u>GE Aerospace</u>					FILE NO.	<u>01501.12</u>
CONTRACTOR: <u>Environmental Drilling Inc.</u>					SHEET NO.	
					LOCATION:	<u>WE-105 R2</u>
	PACKER SYSTEM	WATER METER	PRESSURE GAUGE	SURGE CHAMBER	ELEVATION	
TYPE					DATE START:	<u>8/7/92</u>
MPG.					DATE FINISH:	<u>8/7/92</u>
MODEL NO.					DRILLER:	<u>Chris Stamos</u>
					INSPECTOR:	<u>Jeff Hamel</u>
					GEOLOGIST:	

M.Q.P. = (0.006 to 1.0) x 8	ROCK TYPE	<u>Diorite</u>	HOLE SIZE	<u>2 1/16</u>
COMPUTED MAX GAUGE PRESS (MGP) <u>46</u>	RECOVERY (%)	<u>100</u>		
COMPUTED INTERNAL FRICTION: <u>0</u>	R.O.D. (%)	<u>92</u>		

DEPTHS: (All Distances Measured From Ground Surface in Feet)

TO TOP OF ROCK	<u>24</u>	TO TOP LOWER PACKER	<u>69.0</u>
TO BOTTOM OF BORING	<u>82</u>	TO BOTTOM UPPER PACKER (IN)	<u>63.8</u>
TO WATER TABLE	<u>5.8</u>	LENGTH OF TEST SECTION	<u>5.2</u>
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE		<u>2.9 ft</u>	

TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS
	1:30	120	15			No water accepted
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					
	1:30	120	32	0.00	0.10	V = 0.17 gpm
	1:00				0.08	
	1:30					
	2:00				0.20	
	2:30					
	3:00				0.14	
	1:00	120	46		0.10	V = 0.10 gpm
	2:00				0.09	
	3:00				0.11	
	4:00				0.10	
	5:00				0.10	
	6:00					
	7:00					
	8:00					
	9:00					
	10:00					

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u> CLIENT: <u>GE Aerospace</u> CONTRACTOR: <u>Environmental Drilling Inc.</u>					HOLE NO. _____	TEST NO. <u>3</u>
TYPE _____					FILE NO. <u>01501.12</u>	
MFG. _____					SHEET NO. _____	
MODEL NO. _____					LOCATION: <u>WE-105R2</u>	
PACKER SYSTEM _____					ELEVATION: _____	
WATER METER _____					DATE START: <u>8/7/92</u>	
PRESSURE GAUGE _____					DATE FINISH: <u>8/7/92</u>	
SURGE CHAMBER _____					DRILLER: <u>Chris Stamos</u>	
INSPECTOR: <u>Jeff Hamel</u>					GEOLOGIST: _____	

M.G.P. = (0.006 to 1.0) x 8 COMPUTED MAX GAUGE PRESS (MGP) <u>42</u> COMPUTED INTERNAL FRICTION: <u>0</u>	ROCK TYPE <u>Granite</u> HOLE SIZE <u>2 1/16</u> RECOVERY (%) <u>100</u> R.O.D (%) <u>58</u>
--	--

DEPTHS: (All Distances Measured From Ground Surface in Feet)

TO TOP OF ROCK <u>24</u> TO BOTTOM OF BORING <u>82</u> TO WATER TABLE <u>5.7</u>	TO TOP LOWER PACKER <u>63.8</u> TO BOTTOM UPPER PACKER IN <u>58.6</u> LENGTH OF TEST SECTION <u>5.2</u>
---	--

HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE 8.1 ft

TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALLONS)	REMARKS
	1:30	120	14		0.24	V = .17 gpm
	1:00				0.48	
	1:30				0.92	
	2:00				1.20	
	2:30				1.66	
	3:00				1.84	
	1:30	120	29			V = .28 gpm
	1:00				0.30	
	1:30					
	2:00				0.29	
	2:30					
	3:00				0.26	
	1:00	120	42		0.4	V = .42 gpm
	2:00				0.43	
	3:00				0.45	
	4:00				0.4	
	5:00				0.41	
	6:00					
	7:00					
	8:00					
	9:00					
	10:00					

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u>					HOLE NO. _____		TEST NO. <u>4</u>	
CLIENT: <u>GE Aerospace</u>					FILE NO. <u>01501.12</u>			
CONTRACTOR: <u>Environmental Drilling Inc.</u>					SHEET NO. _____			
					LOCATION: <u>WE-105 R3</u>			
					ELEVATION: _____			
TYPE					DATE START: <u>8/7/92</u>			
MFG.					DATE FINISH: <u>8/7/92</u>			
					DRILLER: <u>Chris Stamos</u>			
MODEL NO.					INSPECTOR: <u>Jeff Hamel</u>			
					GEOLOGIST: _____			
M.G.P. = (0.888 to 1.0) x 3					ROCK TYPE: <u>Diorite</u>		HOLE SIZE: <u>2 1/16</u>	
COMPUTED MAX GAUGE PRESS: (MGP) <u>38</u>					RECOVERY (%): <u>97</u>			
COMPUTED INTERNAL FRICTION: <u>0</u>					R.O.D (%): <u>85</u>			
DEPTHS: (All Distances Measured From Ground Surface to Feet)								
TO TOP OF ROCK <u>24</u>			TO TOP LOWER PACKER <u>58.6</u>					
TO BOTTOM OF BORING <u>82</u>			TO BOTTOM UPPER PACKER (IN) <u>53.4</u>					
TO WATER TABLE <u>5.7</u>			LENGTH OF TEST SECTION <u>5.2</u>					
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE <u>2.75</u>								
TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GAL)	VOLUME OF FLOW (GAL/MIN)	REMARKS		
	1:30	120	13			No water accepted		
	1:00							
	1:30							
	2:00							
	2:30							
	3:00							
	1:30	120	25			v = .03 gpm		
	1:00				.03			
	1:30							
	2:00				.03			
	2:30							
	3:00				.03			
	1:00	120	38		.05	v = .05 gpm		
	2:00				.05			
	3:00				.06			
	4:00				.06			
	5:00				.05			
	6:00							
	7:00							
	8:00							
	9:00							
	10:00							

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u>					HOLE NO.	TEST NO. <u>5</u>
CLIENT: <u>GE - Aerospace</u>					FILE NO.	<u>0150112</u>
CONTRACTOR: <u>Environmental Drilling Inc.</u>					SHEET NO.	
					LOCATION:	<u>WE-105 R3</u>
					ELEVATION:	
					DATE START:	<u>8/7/92</u>
					DATE FINISH:	<u>8/7/92</u>
					DRILLER:	<u>Chris Stamos</u>
					INSPECTOR:	<u>Jeff Hamel</u>
					GEOLOGIST:	

M.G.P. = (0.986 to 1.01 x 5)	ROCK TYPE	<u>Diorite</u>	HOLE SIZE	<u>2 19/32</u>
COMPUTED MAX GAUGE PRESS (MGP) <u>36</u>	RECOVERY (%)	<u>97</u>		
COMPUTED INTERNAL FRICTION: <u>0</u>	R.G.D. (%)	<u>93</u>		

DEPTHS: (All Distances Measured From Ground Surface In Feet)

TO TOP OF ROCK	<u>24</u>	TO TOP LOWER PACKER	<u>53.4</u>
TO BOTTOM OF BORING	<u>82</u>	TO BOTTOM UPPER PACKER (IN)	<u>48.2</u>
TO WATER TABLE	<u>5.7</u>	LENGTH OF TEST SECTION	<u>5.2</u>
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE		<u>7.9</u>	

TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS
	1:30		12			No water accepted
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					No water accepted
	1:30		23			
	1:00					
	1:30					
	2:00					
	2:30					
	3:00		36		not	
	1:00		36		.01	
	2:00				.01	
	3:00				0	
	4:00				-	
	5:00				-	
	6:00					
	7:00					
	8:00					
	9:00					
	10:00					

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u>					HOLE NO. _____		TEST NO. <u>6</u>	
CLIENT: <u>GE Aerospace</u>					FILE NO. <u>01501.12</u>			
CONTRACTOR: <u>Environmental Drilling Inc.</u>					SHEET NO. _____			
					LOCATION: <u>WE-105R2</u>			
					ELEVATION: _____			
TYPE _____					DATE START: <u>8/7/92</u>			
MFG. _____					DATE FINISH: <u>8/7/92</u>			
MODEL NO. _____					DRILLER: <u>Chris Stamos</u>			
					INSPECTOR: <u>Jeff Hamel</u>			
					GEOLOGIST: _____			
M.G.P. = (L.S.D. $\times$ 1.0) $\times$ 8					ROCK TYPE <u>Diorite</u>		HOLE SIZE <u>2 15/16</u>	
COMPUTED MAX GAUGE PRESS. (MGP) <u>31</u>					RECOVERY (%) <u>100</u>			
COMPUTED INTERNAL FRICTION: <u>0</u>					R Q D (%) <u>84</u>			
DEPTHS: (All Distances Measured From Ground Surface In Feet)								
TO TOP OF ROCK <u>24</u>				TO TOP LOWER PACKER <u>48.2</u>				
TO BOTTOM OF BORING <u>82</u>				TO BOTTOM UPPER PACKER IN <u>43.0</u>				
TO WATER TABLE <u>5.7</u>				LENGTH OF TEST SECTION <u>5.2</u>				
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE <u>2.3</u>								
TIME	ELAPSED TIME (MM)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MM)	REMARKS		
	1:30		10			v = .36 gpm		
	1:00				0.39			
	1:30							
	2:00				0.34			
	2:30							
	3:00				0.35			
	3:30		21			v = .55 gpm		
	4:00				0.53			
	4:30							
	5:00				0.56			
	5:30							
	6:00				0.57			
	6:30		31		0.60	v = .70 gpm		
	7:00				0.68			
	7:30				0.74			
	8:00				0.72			
	8:30				0.74			
	9:00							
	9:30							
	10:00							

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u>					HOLE NO. _____		TEST NO. <u>7</u>																					
CLIENT: <u>GE-Aerospace</u>					FILE NO. <u>01501.12</u>																							
CONTRACTOR: <u>Environmental Drilling Inc.</u>					SHEET NO. _____																							
					LOCATION: <u>WE-10528</u>																							
					ELEVATION: _____																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>PACKER SYSTEM</th> <th>WATER METER</th> <th>PRESSURE GAUGE</th> <th>SURGE CHAMBER</th> </tr> <tr> <td>TYPE</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MFG.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MODEL NO.</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						PACKER SYSTEM	WATER METER	PRESSURE GAUGE	SURGE CHAMBER	TYPE					MFG.					MODEL NO.					DATE START: <u>8/17/92</u>			
						PACKER SYSTEM	WATER METER	PRESSURE GAUGE	SURGE CHAMBER																			
TYPE																												
MFG.																												
MODEL NO.																												
				DATE FINISH: <u>8/17/92</u>																								
					DRILLER: <u>Chris Stamos</u>																							
					INSPECTOR: <u>Jeff Hamel</u>																							
					GEOLOGIST: _____																							

M.G.P. = (LESS TO 1.0 x 8)		ROCK TYPE <u>Diorite</u>		HOLE SIZE <u>2 13/16</u>	
COMPUTED MAX GAUGE PRESS: (MGP) <u>27</u>		RECOVERY (%) <u>98</u>			
COMPUTED INTERNAL FRICTION: <u>0</u>		ROD (IN) <u>94</u>			

DEPTHS: (All Distances Measured From Ground Surface In Feet)

TO TOP OF ROCK	<u>24</u>	TO TOP LOWER PACKER	<u>43.0</u>
TO BOTTOM OF BORING	<u>82</u>	TO BOTTOM UPPER PACKER (IN)	<u>37.8</u>
TO WATER TABLE	<u>5.7</u>	LENGTH OF TEST SECTION	<u>5.2</u>

HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE 7.9

TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS
	1:30		9			non-measurable
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					
	1:30		17			non-measurable
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					
	1:00		27		.03	v = .04 gpm
	2:00				.04	
	3:00				.04	
	4:00				.04	
	5:00				.04	
	6:00					
	7:00					
	8:00					
	9:00					
	10:00					

WATER PRESSURE TEST

PROJECT: GE Wilmington					HOLE NO.	TEST NO. 8																				
CLIENT: GE Aerospace					FILE NO.	01501.12																				
CONTRACTOR: Environmental Drilling Inc.					SHEET NO.																					
					LOCATION	WE-105R2																				
					ELEVATION																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>PACKER SYSTEM</th> <th>WATER METER</th> <th>PRESSURE GAUGE</th> <th>SURGE CHAMBER</th> </tr> <tr> <td>TYPE</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MFG.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MODEL NO.</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						PACKER SYSTEM	WATER METER	PRESSURE GAUGE	SURGE CHAMBER	TYPE					MFG.					MODEL NO.					DATE START	8/7/92
						PACKER SYSTEM	WATER METER	PRESSURE GAUGE	SURGE CHAMBER																	
TYPE																										
MFG.																										
MODEL NO.																										
					DATE FINISH	8/7/92																				
					DRILLER	Chris Stamos																				
					INSPECTOR	Jeff Hamel																				
					GEOLOGIST																					

M.G.P. = (0.000 to 1.000 x 3)	23	ROCK TYPE	Granite	HOLE SIZE	2 1/16
COMPUTED MAX GAUGE PRESS (MP)		RECOVERY (%)	94		
COMPUTED INTERNAL FRICTION:	0	R.G.D (%)	82		

DEPTHS: (All Distances Measured From Ground Surface in Feet)

TO TOP OF ROCK	24	TO TOP LOWER PACKER	37.8
TO BOTTOM OF BORING	82	TO BOTTOM UPPER PACKER (B)	32.6
TO WATER TABLE	5.7	LENGTH OF TEST SECTION	5.2
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE		2.3	

TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS
	1:30		8			no water accepted
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					non-measurable
	1:30		16			
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					
	1:00		23			
	2:00				.01	
	3:00				.01	
	4:00				.01	v = .001 gpm
	5:00				.01	
	6:00					
	7:00					
	8:00					
	9:00					
	10:00					

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u> CLIENT: <u>GE Aerospace</u> CONTRACTOR: <u>Environmental Drilling Inc.</u>					HOLE NO.	TEST NO. <u>1</u>
TYPE	PACKER SYSTEM	WATER METER	PRESSURE GAUGE	BURGE CHAMBER	FILE NO. <u>01501.12</u>	SHEET NO.
MPQ.					LOCATION: <u>WE-6R</u>	ELEVATION:
MODEL NO.					DATE START: <u>8/13/92</u>	DATE FINISH: <u>8/13/92</u>
					DRILLER: <u>Chris Stamos</u>	INSPECTOR: <u>Jeff Hamel</u>
					GEOLOGIST:	
M.G.P. = (R.S.S. to 1.0) x 8 COMPUTED MAX GAUGE PRESS: (MGP) <u>30</u> COMPUTED INTERNAL FRICTION:					ROCK TYPE RECOVERY (%) <u>100</u> R Q D (%) <u>97</u>	
HOLE SIZE <u>2 15/16"</u>						
DEPTHS: (All Distances Measured From Ground Surface in Feet)						
TO TOP OF ROCK <u>24</u>		TO TOP LOWER PACKER <u>47.8</u>				
TO BOTTOM OF BORDING <u>51.4</u>		TO BOTTOM UPPER PACKER (IN) <u>42.6</u>				
TO WATER TABLE <u>5.9</u>		LENGTH OF TEST SECTION <u>5.2</u>				
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE <u>3.6</u>						
TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS
	1:30	110	10			no water accepted
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					
	1:30		20		.06	Avg Q = .04 gpm
	1:00				.01	
	1:30				.005	
	2:00					
	2:30				.02	
	3:00				.07	
	1:00		30		.09	Avg Q = .08 gpm
	2:00				.10	
	3:00				.09	
	4:00				.08	
	5:00				.08	
	6:00				.07	
	7:00					Note: Possible packer failure, due to excessive pressure noted on gauge.
	8:00					
	9:00					
	10:00					

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u> CLIENT: <u>GE Aerospace</u> CONTRACTOR: <u>Environmental Drilling Inc.</u>					HOLE NO. _____ TEST NO. <u>2</u>
TYPE _____ MPQ _____ MODEL NO. _____					FILE NO. <u>01501.12</u> SHEET NO. _____ LOCATION: <u>WE-6R</u> ELEVATION: _____ DATE START: <u>5/13/92</u> DATE FINISH: <u>5/13/92</u> DRILLER: <u>Chris Stamos</u> INSPECTOR: <u>Jeff Hamel</u> GEOLOGIST: _____
PACKER SYSTEM	WATER METER	PRESSURE GAUGE	SURGE CHAMBER		

M.G.P. = (0.888 to 1.0) x 8	ROCK TYPE _____	HOLE SIZE <u>2 1/16</u>
COMPUTED MAX GAUGE PRESS: (MGP) <u>26</u>	RECOVERY (%) <u>700</u>	
COMPUTED INTERNAL FRICTION: <u>0</u>	R.O.D. NO. <u>85</u>	

DEPTHS: (All Distances Measured From Ground Surface in Feet)

TO TOP OF ROCK <u>24</u>	TO TOP LOWER PACKER <u>42.6</u>
TO BOTTOM OF BORING <u>51.4</u>	TO BOTTOM UPPER PACKER (IN) <u>37.4</u>
TO WATER TABLE <u>5.9</u>	LENGTH OF TEST SECTION <u>5.2</u>
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE <u>8.7</u>	

TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS
	1:30	90	9			no water accepted
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					no water accepted
	1:30		17			
	1:00					
	1:30					
	2:00					
	2:30					non-measurable water flow (very low)
	3:00					
	1:00		26			
	2:00					
	3:00					
	4:00					
	5:00					
	6:00					
	7:00					
	8:00					
	9:00					
	10:00					

WATER PRESSURE TEST

PROJECT: <u>GE Wilmington</u>					HOLE NO. _____		TEST NO. <u>3</u>	
CLIENT: <u>GE-Aerospace</u>					FILE NO. <u>01501.12</u>			
CONTRACTOR: <u>Environmental Drilling Inc.</u>					SHEET NO. _____			
					LOCATION: <u>WE-6R</u>			
					ELEVATION: _____			
					DATE START: <u>5/13/92</u>			
					DATE FINISH: <u>5/13/92</u>			
					DRILLER: <u>Chris Stamos</u>			
					INSPECTOR: <u>Jeff Hamel</u>			
					GEOLOGIST: _____			

M.G.P. - (HSG to 1.0) x 8	ROCK TYPE _____
COMPUTED MAX GAUGE PRESS (MGP) <u>22</u>	RECOVERY (%) <u>97</u>
COMPUTED INTERNAL FRICTION: _____	R.G.D (%) <u>97</u>
HOLE SIZE <u>2 15/16</u>	

DEPTHS: (All Distances Measured From Ground Surface in Feet)

TO TOP OF ROCK <u>24</u>	TO TOP LOWER PACKER <u>37.4</u>
TO BOTTOM OF BORING <u>51.4</u>	TO BOTTOM UPPER PACKER (B) <u>32.2</u>
TO WATER TABLE <u>5.9</u>	LENGTH OF TEST SECTION <u>5.2</u>
HEIGHT OF WATER PRESSURE GAUGE ABOVE GROUND SURFACE <u>3.7</u>	

TIME	ELAPSED TIME (MIN)	PACKER PRESSURE (PSI)	GAUGE PRESSURE (PSI)	METER READING (GALS)	VOLUME OF FLOW (GALS/MIN)	REMARKS
	1:30	90	7			no water accepted
	1:00					
	1:30					
	2:00					
	2:30					
	3:00					no water accepted
	1:30		15			
	1:00					
	1:30					
	2:00					
	2:30					no water accepted
	3:00					
	1:00		22			
	2:00					
	3:00					
	4:00					
	5:00					
	6:00					
	7:00					
	8:00					
	9:00					
	10:00					

By _____ Date _____
Chkd. by _____ Date _____
Subject _____



Wehran EnviroTech

Job No. _____
Sheet No. _____ of _____

WE-5R1

TEST #1 29.7 - 34.9 Feet

MGP: 21 PSI

NO WATER ACCEPTED

TEST #2 22.2 - 27.4 Feet

$$Q = 0.21 \text{ gpm} = .0005 \text{ ft}^3/\text{s}$$

$$H = 8.5 + (2.307 \times 5)$$

$$H = 20.0$$

$$K = \frac{.0005}{(68)(.122)(20)} \times 86,400$$

$$= 0.26 \text{ ft/day}$$

$$= 9.2 \times 10^{-5} \text{ cm/s}$$

$$Q = .38 \text{ gpm} = .0008 \text{ ft}^3/\text{s}$$

$$H = 8.5 + (2.307 \times 10)$$

$$H = 31.6$$

$$K = \frac{.0008}{(68)(.122)(31.6)} \times 86,400$$

$$= 0.26 \text{ ft/day}$$

$$= 9.3 \times 10^{-5} \text{ cm/s}$$

$$Q = .50 \text{ gpm} = .001 \text{ ft}^3/\text{s}$$

$$H = 8.5 + (2.307 \times 15)$$

$$H = 43.1$$

$$K = \frac{.001}{(68)(.122)(43.1)} \times 86,400$$

$$= 0.24 \text{ ft/day}$$

$$= 8.5 \times 10^{-5} \text{ cm/s}$$

TEST #3 14.7 - 19.9 Feet

MGP: 9 PSI

NO WATER ACCEPTED

By _____ Date _____
Chkd. by _____ Date _____
Subject _____



Wehran EnviroTech

Job No. _____
Sheet No. _____ of _____

WE-105R2

Test #4 53.4 - 58.6 FE

MGP = 38

Pressure = 13 normal, accepted

$$Q = .035 \text{ gpm} = .00007 \text{ Ft}^3/\text{s}$$

$$H = 8.45 + (2.307 \times 25)$$

$$H = 66.1$$

$$K = \frac{0.00007}{(68)(.122)(66.1)} \times 86,400$$

$$= 0.01 \text{ Ft/day}$$

$$= 3.9 \times 10^{-6} \text{ cm/s}$$

$$Q = .055 \text{ gpm} = .0001 \text{ Ft}^3/\text{s}$$

$$H = 8.45 + (2.307 \times 38)$$

$$H = 96.1$$

$$K = \frac{0.0001}{(68)(.122)(96.1)} \times 86,400$$

$$= 0.01$$

$$= 3.8 \times 10^{-6} \text{ cm/s}$$

Test #5 48.2 - 53.4 FE

MGP = 36 PSI

NO WATER ACCEPTED

TEST #6 43.0 - 48.2

$$Q = .365 \text{ gpm} = .0008 \text{ Ft}^3/\text{s}$$

$$H = 8.0 + (2.307 \times 10)$$

$$H = 31.1$$

$$K = \frac{0.0008}{(68)(.122)(31.1)} \times 86,400$$

$$= 0.27 \text{ Ft/day}$$

$$= 9.5 \times 10^{-5} \text{ cm/s}$$

$$Q = .555 \text{ gpm} = .001 \text{ Ft}^3/\text{s}$$

$$H = 8 + (2.307 \times 21)$$

$$H = 56.5$$

$$K = \frac{.001}{(68)(.122)(56.5)} \times 86,400$$

$$= .18 \text{ Ft/day}$$

$$= 6.5 \times 10^{-5} \text{ cm/s}$$

$$Q = .709 \text{ gpm} = .0016 \text{ Ft}^3/\text{s}$$

$$H = 8 + (2.307 \times 31)$$

$$H = 79.5$$

$$K = \frac{.0016}{(68)(.122)(79.5)} \times 86,400$$

$$= 0.21 \text{ Ft/day}$$

$$= 7.8 \times 10^{-5} \text{ cm/s}$$

TEST #7 37.8 - 43.0 FE

$$Q = .049 \text{ gpm} = .00009 \text{ Ft}^3/\text{s}$$

$$H = 13.6 + (2.307 \times 27)$$

$$H = 75.9 \text{ FT}$$

$$K = \frac{.00009}{(68)(.122)(75.9)} \times 86,400$$

$$= .01 \text{ Ft/day}$$

$$= 4.4 \times 10^{-6} \text{ cm/s}$$

TEST #8 32.6 - 37.8 FT

$$Q = .019 \text{ gpm} = .00002 \text{ Ft}^3/\text{s}$$

$$H = 8 + (2.307 \times 23)$$

$$H = 61.1$$

$$K = \frac{.00002}{(68)(.122)(61.1)} \times 86,400$$

$$= .003 \text{ Ft/day}$$

$$= 1.2 \times 10^{-6} \text{ cm/s}$$

By _____ Date _____
Chkd. by _____ Date _____
Subject _____



Wehran EnviroTech

Job No. _____
Sheet No. _____ of _____

WE-105 R2

Test #1 69.0 - 74.2 FT

no water accepted

MGP = 50 PSI

Test #2 63.8 - 69.0 FT

MGP = 46

$$Q = .17 \text{ gpm} \times \frac{1 \text{ Ft}^3/\text{s}}{448.8 \text{ gpm}} = 0.00038 \text{ Ft}^3/\text{s}$$

$$C_s = 68$$

$$r = .123 \text{ Feet}$$

$$\begin{aligned} H &= h_1 + h_2 \\ &= 8.6 + \left(\frac{2.307 \text{ Ft}}{1 \text{ PSI}} \times 32 \text{ PSI} \right) \\ &= 8.6 + 73.8 \\ &= 82.4 \text{ Feet} \end{aligned}$$

$$\begin{aligned} K &= \frac{0.00038}{(68)(.123)(82.4)} \times 86,400 \frac{\text{sec}}{\text{day}} \\ &= 0.048 \text{ Ft/day} \\ &= 1.7 \times 10^{-5} \text{ cm/sec} \end{aligned}$$

$$Q = .10 \text{ gpm} \times \frac{1 \text{ Ft}^3/\text{s}}{448.8 \text{ gpm}} = 0.00022 \text{ Ft}^3/\text{s}$$

$$\begin{aligned} H &= 8.6 + (2.307 \times 46) \\ &= 8.6 + 106 \\ &= 114.7 \text{ Ft} \end{aligned}$$

$$\begin{aligned} K &= \frac{0.00022}{(68)(.123)(114.7)} \times 86,400 \\ &= 0.020 \text{ Ft/day} \\ &= 7 \times 10^{-6} \text{ cm/sec} \end{aligned}$$

Test #3 58.6 - 63.8 FT

MGP = 42

$$Q = .17 \text{ gpm} = 0.00038 \text{ Ft}^3/\text{s}$$

$$H = 13.8 + (2.307 \times 14)$$

$$H = 46.1 \text{ Ft}$$

$$\begin{aligned} K &= \frac{0.00038}{(68)(.122)(46.1)} \times 86,400 \\ &= 0.086 \text{ Ft/day} \\ &= 3 \times 10^{-5} \text{ cm/s} \end{aligned}$$

$$Q = .28 \text{ gpm} = 0.0006 \text{ Ft}^3/\text{s}$$

$$H = 13.8 + (2.307 \times 29)$$

$$H = 80.7$$

$$\begin{aligned} K &= \frac{0.0006}{(68)(.122)(80.7)} \times 86,400 \\ &= .08 \text{ Ft/day} \\ &= 2.7 \times 10^{-5} \text{ cm/s} \end{aligned}$$

$$Q = 0.42 \text{ gpm} = 0.0009 \text{ Ft}^3/\text{s}$$

$$H = 13.8 + (2.307 \times 42)$$

$$H = 110.9$$

$$\begin{aligned} K &= \frac{0.0009}{(68)(.122)(110.7)} \times 86,400 \\ &= .085 \text{ Ft/day} \\ &= 2.0 \times 10^{-5} \text{ cm/sec} \end{aligned}$$

By _____ Date _____
Chkd. by _____ Date _____
Subject _____



Wehran EnviroTech

Job No. _____
Sheet No. _____ of _____

WE-6R

TEST #1 47.8 - 42.6 Feet

$$Q = .045 \text{ gpm} = .00009 \text{ Ft}^3/\text{s}$$
$$H = 9.5 + (2.307 \times 20)$$
$$H = 55.6$$

$$K = \frac{.00009}{(68)(.122)(55.6)} \times 86,400$$
$$= .012 \text{ Ft/day}$$
$$= 5.9 \times 10^{-6} \text{ cm/s}$$

$$Q = .085 \text{ gpm} = .0002 \text{ Ft}^3/\text{s}$$
$$H = 9.5 + (2.307 \times 30)$$
$$H = 78.7$$

$$K = \frac{.0002}{(68)(.122)(78.7)} \times 86,400$$
$$= .03 \text{ Ft/day}$$
$$= 9.3 \times 10^{-6} \text{ cm/s}$$

TEST #2 37.4 - 42.6 Feet

MGP - 26 PSI very low water flow - non-measurable.

TEST #3 32.2 - 37.4 Feet

MGP - 22 PSI NO WATER ACCEPTED