



DEPARTMENT OF THE ARMY
SENECA ARMY DEPOT
ROMULUS, NEW YORK 14541-5001

451-85

REPLY TO
ATTENTION OF

September 11, 1992

Office of Engineering/Environmental
Management Division

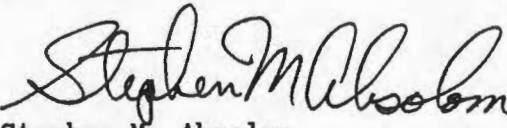
Mr. Michael Dusesneau
Chas. T. Main, Inc.
Prudential Center
Boston, MA 02199

Dear Mr. Dusesneau:

Enclosed please find the most recent quarterly monitoring results for the Ash
Landfill well field.

If you have any questions or comments, please contact Mr. James Miller at
(607) 869-1532.

Sincerely,


Stephen M. Absolom
Chief, Engineering/Environmental
Management Division

Enclosure

CF:

Ms. Carla Struble, Project Manager, Federal Facilities Section, Room 2930,
USEPA, 26 Federal Plaza, New York, New York 10278

Mr. Kamal Gutpa, Project Manager, Federal Project Section, Bureau of Eastern
Remedial Action, Division of Hazardous Waste Remediation, NYSDEC, 50 Wolf Road
Albany, New York 12233-7010

Mr. Charles Carrol, Seneca County Department of Health, 31 Thurber Drive
Waterloo, New York 13165

250-1a17 CERCLA - Ash Landfill



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Syracuse Division
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Client: SENECA ARMY DEPOT
DEH BUILDING 123
ROMULUS, NY 14541-5001

Date: 06/26/1992
Job No: 92.1008

Attention: MR. MARK PAPROCKI

Purchase Order No: DAAC72-91-V-2
Account Number: 82680

Project: SENECA ARMY DEPOT-QRTL

Subject: Samples received on 06/10/1992, identified as PT10 through PT-12, PT15 through PT18, PT20 through PT22, PT23 through PT-26, Farm House Deep, Farm House Shallow, Barn Well and Trip Blank.

Project Manager: Bindy Dain

NET - SYRACUSE

Janece F. Lafferty
Janece F. Lafferty
Technical Director

NET warrants that any sampling and analysis conducted as part of this report are performed in accordance with the analytical industries recognized methodologies and professional standards. NET will not assume liability for any damages resulting from deficient work other than reperformance or cost of said work and will not accept any liability as a result of data interpretation by the client.





Job No: 92.1008

SAMPLE NO: 44766

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-10

Time Collected: 10:20

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44767

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-11

Time Collected: 10:35

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44768

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-12

Time Collected: 12:10

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<2.5	ug/L
Bromodichloromethane		<2.5	ug/L
Bromoform		<2.5	ug/L
Bromomethane		<2.5	ug/L
Carbon Tetrachloride		<2.5	ug/L
Chlorobenzene		<2.5	ug/L
Chloroethane		<2.5	ug/L
2-Chloroethylvinyl ether		<2.5	ug/L
Chloroform		<2.5	ug/L
Chloromethane		<2.5	ug/L
Dibromochloromethane		<2.5	ug/L
1,2-Dichlorobenzene		<2.5	ug/L
1,3-Dichlorobenzene		<2.5	ug/L
1,4-Dichlorobenzene		<2.5	ug/L
1,1-Dichloroethane		<2.5	ug/L
1,2-Dichloroethane		<2.5	ug/L
1,1-Dichloroethene		<2.5	ug/L
trans-1,2-Dichloroethene		<2.5	ug/L
1,2-Dichloropropane		<2.5	ug/L
cis-1,3-Dichloropropene		<2.5	ug/L
trans-1,3-Dichloropropene		<2.5	ug/L
Ethylbenzene		<2.5	ug/L
Methylene Chloride		<2.5	ug/L
1,1,2,2-Tetrachloroethane		<2.5	ug/L
Tetrachloroethene		<2.5	ug/L
Toluene		<2.5	ug/L
1,1,1-Trichloroethane		<2.5	ug/L
1,1,2-Trichloroethane		<2.5	ug/L
Trichloroethene		119	ug/L
Trichlorofluoromethane		<2.5	ug/L
Vinyl Chloride		<2.5	ug/L





Job No: 92.1008

SAMPLE NO: 44769

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-15

Time Collected: 10:55

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44770

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-16

Time Collected: 10:48

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44771

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-17

Time Collected: 11:48

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		72.4	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44772

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-18

Time Collected: 12:20

PARAMETER	AQ	RESULTS	UNITS
Volatiles by GC/MS 624			
Benzene		<100	ug/L
Bromodichloromethane		<100	ug/L
Bromoform		<100	ug/L
Bromomethane		<100	ug/L
Carbon Tetrachloride		<100	ug/L
Chlorobenzene		<100	ug/L
Chloroethane		<100	ug/L
2-Chloroethylvinyl ether		<100	ug/L
Chloroform		175	ug/L
Chloromethane		<100	ug/L
Dibromochloromethane		<100	ug/L
1,2-Dichlorobenzene		<100	ug/L
1,3-Dichlorobenzene		<100	ug/L
1,4-Dichlorobenzene		<100	ug/L
1,1-Dichloroethane		<100	ug/L
1,2-Dichloroethane		<100	ug/L
1,1-Dichloroethene		<100	ug/L
trans-1,2-Dichloroethene		<100	ug/L
1,2-Dichloropropane		<100	ug/L
cis-1,3-Dichloropropene		<100	ug/L
trans-1,3-Dichloropropene		<100	ug/L
Ethylbenzene		<100	ug/L
Methylene Chloride		<100	ug/L
1,1,2,2-Tetrachloroethane		<100	ug/L
Tetrachloroethene		<100	ug/L
Toluene		<100	ug/L
1,1,1-Trichloroethane		<100	ug/L
1,1,2-Trichloroethane		<100	ug/L
Trichloroethene		7920	ug/L
Trichlorofluoromethane		<100	ug/L
Vinyl Chloride		<100	ug/L





Job No: 92.1008

SAMPLE NO: 44773

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-20

Time Collected: 12:05

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		17.9	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44774

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-21

Time Collected: 11:59

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		2.3	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44775

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-22

Time Collected: 11:52

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		2.4	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		98.9	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44776

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-23

Time Collected: 11:19

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44777

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-24

Time Collected: 11:34

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		6.2	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44778

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-25

Time Collected: 11:09

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44779

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : PT-26

Time Collected: 12:15

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44780

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : FARM HOUSE-DEEP

Time Collected: 13:00

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44781

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : FARM HOUSE-SHALLOW

Time Collected: 13:10

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44782

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : BARN WELL

Time Collected: 13:30

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1008

SAMPLE NO: 44783

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : TRIP BLANK

Time Collected: 08:00

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





92-1008

MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795

LAB SAMPLE LOG NO. 44766

JOB NO. 82690

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-10</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START
WELL DEPTH <u>46.2'</u>		TIME	<u>10:30</u>
DEPTH TO WATER <u>5.55'</u>		pH	<u>7</u>
WELL VOLUME <u>6.50g</u>		TEMP.	<u>10°C</u>
METHOD <u>bailed</u>		DEPTH	<u>5.55'</u>
NO. OF VOLUMES <u>2.5</u>		COLOR	<u>C1 Lt. Br.</u>
TOTAL VOLUME <u>16g - Dry</u>		APPEAR	<u>Low Turb Low Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>7.19</u>	
TIME <u>10:20</u>		TEMP. <u>10°C</u>	
METHOD <u>bailed</u>		COLOR <u>Clear</u>	
CONTAINER <u>2 vials</u>		TURB <u>Low</u>	
SAMPLED BY <u>BRM</u>		REDOX <u>203.1</u> COND <u>830</u>	
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY	
PRESERVATIVE	<input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄		
	<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)		
	<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER		
CUSTODY			
SAMPLERS SIGNATURE <u>Brian R. Miller</u>			
TRANSFERED TO #1			
RECIEVED BY		DATE	TIME
#2			
RECIEVED BY <u>Chris Miguel</u>		DATE <u>6/10/92</u>	TIME <u>4:30 pm</u>
FIELD NOTES:			

92.1008

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057

(315) 446-8795



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

LAB SAMPLE LOG NO. 44767

JOB NO. 92880

SOURCE				
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-11</u>		
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>		
EVACUATION	DATE <u>6-9-92</u>	ITEM	START	FINISH
WELL DEPTH <u>19.4'</u>		TIME		<u>10:45</u>
DEPTH TO WATER <u>4.71'</u>		pH		<u>7</u>
WELL VOLUME <u>2.35g</u>		TEMP.		<u>10°C</u>
METHOD <u>bailed</u>		DEPTH	<u>4.71'</u>	
NO. OF VOLUMES <u>2</u>		COLOR	<u>Lt. Br.</u>	<u>Lt. Br.</u>
TOTAL VOLUME <u>4g - Dry</u>		APPEAR	<u>Med Turb</u>	<u>High Turb</u>

SAMPLING	DATE <u>6-10-92</u>	pH <u>7.18</u>
TIME <u>10:35</u>	TEMP. <u>10°C</u>	
METHOD <u>bailed</u>	COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>	TURB <u>Med</u>	
SAMPLED BY <u>BRM</u>	REDOX <u>211.0</u>	COND <u>1010</u>

PRESERVATION	DATE <u>6-10-92</u>
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME _____ BY _____
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME _____ BY _____
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄	
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)	
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER _____	

CUSTODY		
SAMPLERS SIGNATURE <u>Brian R. Mihler</u>	TRANSFERED TO #1	
RECEIVED BY _____	DATE _____	TIME _____
RECEIVED BY #2 <u>Chris Miguel</u>	DATE <u>6/10/92</u>	TIME <u>4:30 pm</u>

FIELD NOTES:

92.1008

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

LAB SAMPLE LOG NO. 44768

JOB NO. 82680

SOURCE				
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-12</u>		
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>		
EVACUATION	DATE <u>6-9-92</u>	ITEM	START	FINISH
WELL DEPTH <u>12.3'</u>		TIME		<u>13:22</u>
DEPTH TO WATER <u>5.02'</u>		pH		<u>7</u>
WELL VOLUME <u>1.17g</u>		TEMP.		<u>12°C</u>
METHOD <u>bailed</u>		DEPTH	<u>5.02'</u>	
NO. OF VOLUMES <u>1.5</u>		COLOR	<u>Lt. Br.</u>	<u>Lt. Br.</u>
TOTAL VOLUME <u>2g-dry</u>		APPEAR	<u>Med Turb</u>	<u>High Turb</u>

SAMPLING	DATE <u>6-10-92</u>	pH <u>7.06</u>
TIME <u>12:10</u>	TEMP. <u>12°C</u>	
METHOD <u>bailed</u>	COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>	TURB <u>Med</u>	
SAMPLED BY <u>BRM</u>	REDOX <u>218.8</u>	COND <u>970</u>

PRESERVATION	DATE <u>6-10-92</u>
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME _____ BY _____
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME _____ BY _____
PRESERVATIVE	<input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄
	<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)
	<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER _____

CUSTODY	
SAMPLERS SIGNATURE	<u>Brian M. Miller</u>
TRANSFERED TO #1	
RECIEVED BY _____	DATE _____ TIME _____
#2	
RECIEVED BY <u>Chris Miguel</u>	DATE <u>6/10/92</u> TIME <u>4:30 pm</u>
FIELD NOTES:	



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057

(315) 446-8795

WELL SAMPLE LOG NO. 44769

JOB NO. 82680

SOURCE				
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-15</u>		
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>		
EVACUATION	DATE <u>6-9-92</u>	ITEM	START	FINISH
WELL DEPTH <u>19.5'</u>		TIME		<u>11:09</u>
DEPTH TO WATER <u>4.25'</u>		pH		<u>7</u>
WELL VOLUME <u>2.44g</u>		TEMP.	4.25'	<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>4.25'</u>	
NO. OF VOLUMES <u>1.5</u>		COLOR	<u>Lt. Br.</u>	<u>Lt. Br.</u>
TOTAL VOLUME <u>4g - Dry</u>		APPEAR	<u>Med Turb</u>	<u>High Turb</u>

SAMPLING	DATE <u>6-10-92</u>	pH <u>7.38</u>
TIME <u>10:55</u>	TEMP. <u>11°C</u>	
METHOD <u>bailed</u>	COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>	TURB <u>Med</u>	
SAMPLED BY <u>ARM</u>	REDOX <u>212.2</u>	COND <u>540</u>

PRESERVATION	DATE <u>6-10-92</u>
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME _____ BY _____
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME _____ BY _____
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄	
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)	
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER _____	

CUSTODY	
SAMPLERS SIGNATURE <u>Brian R. Miller</u>	
TRANSFERED TO #1	
RECEIVED BY _____	DATE _____ TIME _____
#2	
RECEIVED BY <u>Chris Miguel</u>	DATE <u>6/10/92</u> TIME <u>4:30 pm</u>

FIELD NOTES:	
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MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795

92.1008

LOG NO. 44770

JOB NO. 82680

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-16</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>11.5'</u>		TIME	<u>10:58</u>
DEPTH TO WATER <u>2.87'</u>		pH	<u>7</u>
WELL VOLUME <u>1.38g.</u>		TEMP.	<u>12°C</u>
METHOD <u>bailed</u>		DEPTH	<u>2.87'</u>
NO. OF VOLUMES <u>3</u>		COLOR	<u>Cl</u> <u>Lt. Br.</u>
TOTAL VOLUME <u>4.5g.</u>		APPEAR	<u>Low Turb</u> <u>Med Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>7.25</u>	
TIME <u>10:48</u>		TEMP. <u>12°C</u>	
METHOD <u>bailed</u>		COLOR <u>Clear</u>	
CONTAINER <u>2 vials</u>		TURB <u>Low</u>	
SAMPLED BY <u>ARM</u>		REDOX <u>216.1</u> COND <u>570</u>	
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY	
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄			
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)			
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER			
CUSTODY			
SAMPLERS SIGNATURE <u>Brian R. Milder</u>			
TRANSFERED TO #1			
RECEIVED BY		DATE	TIME
#2			
RECEIVED BY <u>Chris Mignol</u>		DATE <u>6-10-92</u>	TIME <u>4:30 pm</u>
FIELD NOTES:			

92.1008

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

WELL SAMPLE LOG NO. 44771

JOB NO. 82680

SOURCE		WELL NO. <u>PT-17</u>	
CLIENT <u>Seneca Army Depot</u>		WELL TYPE/SIZE <u>2" PVC</u>	
LOCATION			
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>11.5'</u>		TIME	<u>12:49</u>
DEPTH TO WATER <u>4.00'</u>		pH	<u>7</u>
WELL VOLUME <u>1.20 g.</u>		TEMP.	<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>4.00'</u>
NO. OF VOLUMES <u>3</u>		COLOR	<u>Lt. Br.</u> <u>Lt. Br.</u>
TOTAL VOLUME <u>4 g.</u>		APPEAR	<u>Med Turb</u> <u>High Turb</u>

SAMPLING	DATE <u>6-10-92</u>	pH <u>7.12</u>
TIME <u>11:49</u>	TEMP. <u>11°C</u>	
METHOD <u>bailed</u>	COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>	TURB <u>med</u>	
SAMPLED BY <u>BRM</u>	REDOX <u>222.2</u>	COND <u>740</u>

PRESERVATION	DATE <u>6-10-92</u>
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME BY
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME BY
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄	
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)	
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER	

CUSTODY
SAMPLERS SIGNATURE <u>Brian R. Mibler</u>
TRANSFERED TO #1
RECEIVED BY _____ DATE _____ TIME _____
#2
RECEIVED BY <u>Chris Miguel</u> DATE <u>6/10/92</u> TIME <u>4:30 pm</u>

FIELD NOTES:

92.1008



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795

LAB SAMPLE LOG NO. 44772

JOB NO. 82690

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-18</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>11.5'</u>		TIME	<u>13:30</u>
DEPTH TO WATER <u>5.02'</u>		pH	<u>7</u>
WELL VOLUME <u>1.04 g</u>		TEMP.	<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>5.02'</u>
NO. OF VOLUMES <u>2</u>		COLOR	<u>Lt. Br.</u> <u>Lt. Br.</u>
TOTAL VOLUME <u>2g - Dry</u>		APPEAR	<u>Low Turb</u> <u>Med Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>6.88'</u>	
TIME <u>12:20</u>		TEMP. <u>11°C</u>	
METHOD <u>bailed</u>		COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>		TURB <u>Low</u>	
SAMPLED BY <u>BRM</u>		REDOX <u>228.8</u> COND <u>1370</u>	
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY	
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄			
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)			
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER			
CUSTODY			
SAMPLERS SIGNATURE <u>Brian R. Mibler</u>			
TRANSFERED TO #1		DATE	
RECEIVED BY		TIME	
#2			
RECEIVED BY <u>Chris Miguel</u>		DATE <u>6/10/92</u> TIME <u>4:30 p</u>	
FIELD NOTES:			

92.1008



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795

LAB SAMPLE LOG NO. 44773

JOB NO. 82680

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-20</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>11.5'</u>		TIME	<u>13:14</u>
DEPTH TO WATER <u>4.62'</u>		pH	<u>7</u>
WELL VOLUME <u>1.10 g.</u>		TEMP.	<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>4.62'</u>
NO. OF VOLUMES <u>3</u>		COLOR	<u>Cl Lt. Br.</u>
TOTAL VOLUME <u>3.5 g.</u>		APPEAR	<u>Low Turb Med Turb</u>

SAMPLING	DATE <u>6-10-92</u>	pH <u>7.18</u>
TIME <u>12:05</u>	TEMP. <u>11°C</u>	
METHOD <u>bailed</u>	COLOR <u>Clear</u>	
CONTAINER <u>2 vials</u>	TURB <u>Low</u>	
SAMPLED BY <u>BRM</u>	REDOX <u>222.9</u>	COND <u>730</u>

PRESERVATION	DATE <u>6-10-92</u>
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME _____ BY _____
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME _____ BY _____
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄	
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)	
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER _____	

CUSTODY	
SAMPLERS SIGNATURE <u>Brian R. Muhler</u>	
TRANSFERED TO #1	
RECEIVED BY _____	DATE _____ TIME _____
#2	
RECEIVED BY <u>Chris Miguel</u>	DATE <u>6/10/92</u> TIME <u>4:30 pm</u>
FIELD NOTES:	

92.1008

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

LAB SAMPLE LOG NO. 44774 JOB NO. 82680

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-21</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>19.2'</u>		TIME	<u>13:04</u>
DEPTH TO WATER <u>4.95'</u>		pH	<u>7</u>
WELL VOLUME <u>2.28g</u>		TEMP.	<u>10°C</u>
METHOD <u>bailed</u>		DEPTH	<u>19.2'</u>
NO. OF VOLUMES <u>1</u>		COLOR	<u>Cl</u> <u>Lt. Br.</u>
TOTAL VOLUME <u>2.5g-Dry</u>		APPEAR	<u>Low Turb</u> <u>Med Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>7.36</u>	
TIME <u>11:59</u>		TEMP. <u>10°C</u>	
METHOD <u>bailed</u>		COLOR <u>Clear</u>	
CONTAINER <u>2 vials</u>		TURB <u>Low</u>	
SAMPLED BY <u>BRM</u>		REDOX <u>210.0</u> COND <u>970</u>	
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY	
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄			
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)			
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER			
CUSTODY			
SAMPLERS SIGNATURE <u>Brian R. Mchler</u>			
TRANSFERED TO #1		DATE	
RECEIVED BY		TIME	
#2			
RECEIVED BY <u>Chris Miguel</u>		DATE <u>6/10/92</u> TIME <u>4:30 pm</u>	
FIELD NOTES:			

92.1008



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057

(315) 446-8795

LAB SAMPLE LOG NO. 44775

JOB NO. 82680

SOURCE				
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-22</u>		
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>		
EVACUATION	DATE <u>6-9-92</u>	ITEM	START	FINISH
WELL DEPTH <u>11.5'</u>		TIME		<u>12:57</u>
DEPTH TO WATER <u>4.77'</u>		pH		<u>7</u>
WELL VOLUME <u>1.08g.</u>		TEMP.		<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>4.77'</u>	
NO. OF VOLUMES <u>3</u>		COLOR	<u>Lt. Br.</u>	<u>Lt. Br.</u>
TOTAL VOLUME <u>3.5g.</u>		APPEAR	<u>Low Turb</u>	<u>High Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>7.12</u>		
TIME <u>11:52</u>		TEMP. <u>11°C</u>		
METHOD <u>bailed</u>		COLOR <u>Lt. Brown</u>		
CONTAINER <u>2 vials</u>		TURB <u>Low</u>		
SAMPLED BY <u>BRM</u>		REDOX <u>214.1</u>	COND <u>970</u>	
PRESERVATION	DATE <u>6-10-92</u>			
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY		
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY		
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄				
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)				
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER				
CUSTODY				
SAMPLERS SIGNATURE <u>Brian R. Mubler</u>				
TRANSFERRED TO #1				
RECEIVED BY		DATE	TIME	
#2				
RECEIVED BY <u>Christine</u>		DATE <u>6/10/92</u>	TIME <u>4:30 pm</u>	
FIELD NOTES:				



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795

LAB SAMPLE LOG NO. 44776

JOB NO. 92680

SOURCE					
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-23</u>			
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>			
EVACUATION		DATE <u>6-9-92</u>	ITEM	START	FINISH
WELL DEPTH <u>12'</u>		TIME		<u>11:53</u>	
DEPTH TO WATER <u>4.19'</u>		pH		<u>7</u>	
WELL VOLUME <u>1.25g.</u>		TEMP.		<u>11°C</u>	
METHOD <u>bailed</u>		DEPTH	<u>4.19'</u>		
NO. OF VOLUMES <u>1.5</u>		COLOR	<u>Lt. Br.</u>	<u>Lt. Br.</u>	
TOTAL VOLUME <u>2g. - Dry</u>		APPEAR	<u>Med Turb</u>	<u>High Turb</u>	
SAMPLING		DATE <u>6-10-92</u>	pH <u>7.35</u>		
TIME <u>11:19</u>		TEMP. <u>11°C</u>			
METHOD <u>bailed</u>		COLOR <u>Lt. Brown</u>			
CONTAINER <u>2 vials</u>		TURB <u>Med</u>			
SAMPLED BY <u>BAM</u>		REDOX <u>210.9</u>		COND <u>550</u>	
PRESERVATION		DATE <u>6-10-92</u>			
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		TIME		BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		TIME		BY	
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄					
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)					
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER					
CUSTODY					
SAMPLERS SIGNATURE <u>Brian R. Miller</u>		TRANSFERRED TO #1			
RECEIVED BY		DATE		TIME	
#2 <u>Chris Miguel</u>		DATE <u>6/10/92</u>		TIME <u>4:30 pm</u>	
FIELD NOTES:					

92.1008

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

LAB SAMPLE LOG NO. 44777

JOB NO. 82686

SOURCE				
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>PT-24</u>		
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>		
EVACUATION	DATE <u>6-9-92</u>	ITEM	START	FINISH
WELL DEPTH <u>11.8'</u>		TIME		<u>12:17</u>
DEPTH TO WATER <u>4.29'</u>		pH		<u>7</u>
WELL VOLUME <u>1.20g.</u>		TEMP.		<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>4.29'</u>	
NO. OF VOLUMES <u>3</u>		COLOR	<u>Lt. Br.</u>	<u>Lt. Br</u>
TOTAL VOLUME <u>4g.</u>		APPEAR	<u>Med Turb</u>	<u>Med Turb</u>

SAMPLING	DATE <u>6-10-92</u>	pH <u>7.27</u>
TIME <u>11:34</u>	TEMP. <u>11°C</u>	
METHOD <u>bailed</u>	COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>	TURB <u>Med</u>	
SAMPLED BY <u>BRM</u>	REDOX <u>218, 2</u>	COND <u>650</u>

PRESERVATION	DATE <u>6-10-92</u>
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME _____ BY _____
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME _____ BY _____
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄	
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)	
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER _____	

CUSTODY	
SAMPLERS SIGNATURE <u>Brian R. Milder</u>	TRANSFERED TO #1
RECEIVED BY _____	DATE _____ TIME _____
RECEIVED BY #2 <u>Chris Miguel</u>	DATE <u>6/10/92</u> TIME <u>4:30 pm</u>

FIELD NOTES: _____

92.1008

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

LAB SAMPLE LOG NO. 44778 JOB NO. 82680

SOURCE			
CLIENT	<u>Seneca Army Depot</u>	WELL NO.	<u>PT-25</u>
LOCATION		WELL TYPE/SIZE	<u>2" PVC</u>
EVACUATION	DATE <u>6-9-92</u>	ITEM	START
WELL DEPTH	<u>12'</u>	TIME	<u>11:36</u>
DEPTH TO WATER	<u>3.36'</u>	pH	<u>7</u>
WELL VOLUME	<u>1.38g.</u>	TEMP.	<u>11°C</u>
METHOD	<u>bailed</u>	DEPTH	<u>3.36'</u>
NO. OF VOLUMES	<u>3</u>	COLOR	<u>Lt. Br.</u>
TOTAL VOLUME	<u>4.5g.</u>	APPEAR	<u>Med Turb High Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH	<u>7.17</u>
TIME	<u>11:09</u>	TEMP.	<u>11°C</u>
METHOD	<u>bailed</u>	COLOR	<u>Lt. Brown</u>
CONTAINER	<u>2 vials</u>	TURB	<u>Med</u>
SAMPLED BY	<u>BAM</u>	REDOX	<u>216.5</u>
		COND	<u>540</u>
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
TIME		BY	
PRESERVED YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>
TIME		BY	
PRESERVATIVE	<input type="checkbox"/> H ₂ SO ₄	<input type="checkbox"/> HNO ₃	<input type="checkbox"/> NaOH
	<input checked="" type="checkbox"/> HCL	<input type="checkbox"/> SOD. THIO.	<input type="checkbox"/> Zn(C ₂ H ₃ O ₂)
	<input checked="" type="checkbox"/> COOLED TO 4 C	<input type="checkbox"/> OTHER	
CUSTODY			
SAMPLERS SIGNATURE	<u>Brian R. Mikhlos</u>		
TRANSFERED TO #1		DATE	TIME
RECIEVED BY			
#2		DATE	TIME
RECIEVED BY	<u>Chris Miguel</u>		
DATE	<u>6/10/92</u>	TIME	<u>4:30 pm</u>
FIELD NOTES:			

92.1008



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795

LAB SAMPLE LOG NO. 44779 JOB NO. 82680

SOURCE		WELL NO. <u>PT-26</u>	
CLIENT <u>Seneca Army Depot</u>		WELL TYPE/SIZE <u>2" PVC</u>	
LOCATION			
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>14'</u>		TIME	<u>14:06</u>
DEPTH TO WATER <u>2.96'</u>		pH	<u>7</u>
WELL VOLUME <u>1.77g.</u>		TEMP.	<u>10°C</u>
METHOD <u>bailed</u>		DEPTH	<u>2.96'</u>
NO. OF VOLUMES <u>3</u>		COLOR	<u>Lt. Br.</u> <u>Lt. Br.</u>
TOTAL VOLUME <u>5.5g.</u>		APPEAR	<u>High Turb</u> <u>High Turb</u>

SAMPLING	DATE <u>6-10-92</u>	pH <u>7.11</u>
TIME <u>12:15</u>	TEMP. <u>10°C</u>	
METHOD <u>bailed</u>	COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>	TURB <u>High</u>	
SAMPLED BY <u>ARM</u>	REDOX <u>218.4</u>	COND <u>900</u>

PRESERVATION	DATE <u>6-10-92</u>
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME _____ BY _____
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME _____ BY _____
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄	
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)	
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER _____	

CUSTODY
SAMPLERS SIGNATURE <u>Brian R. Miller</u>
TRANSFERED TO #1 _____
RECIEVED BY _____ DATE _____ TIME _____
#2 _____
RECIEVED BY <u>Chris Miguel</u> DATE <u>6/10/92</u> TIME <u>4:30 pm</u>

FIELD NOTES:



NATIONAL ENVIRONMENTAL TESTING, INC.

92.1008

NET Atlantic, Inc.
Syracuse Division
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly: NET Northeast, Inc.

SAMPLE CHARACTERIZATION/CHAIN OF CUSTODY INFORMATION

CLIENT Seneca Army Depot CLIENT # 82680
 CLIENT CONTACT _____ PHONE () _____
 P.O. # _____ LOG # 44780

SAMPLING:

SAMPLE ID: Farm House - Deep LOCATION: _____
 AMPL TYPE: _____ SOIL WATER _____ OIL _____ SEDIMENT _____ WIPE
 OTHER _____
 COLLECTION METHOD: _____ 24HR COMPOSITE MANUAL GRAB _____ WIPE
 _____ FLOW COMPOSITE OTHER _____
 COMPOSITE:
 SET: DATE _____ TIME _____ BY _____
 PICKED UP: DATE _____ TIME _____ BY _____
 MANUAL GRAB: DATE 6-10-92 TIME 13:00 BY BRM
 FLOW: _____ UNITS: _____ GPM _____ GPD _____ MGD

PRESERVATION:

DATE 6-10-92 TIME _____ BY _____
 PRESERVATIVE: H₂SO₄ _____ HNO₃ _____ NaOH HCl _____ Na₂S₂O₃
 COOLED TO 4 DEGREES CELSIUS _____ TEFLON LINER
 OTHER _____

CONTAINERS:

2 vials

NOTES: pH - 8.15, Temp - 13°C, Cond - 820, Redox = 81.9

CUSTODY:

COLLECTED BY: Brian R. Miller DATE: 6-10-92
 DELIVERED BY: _____ DATE: _____ TIME: _____
 RECEIVED BY: Chris Miguel DATE: 6-10-92 TIME: 4:30pm
 LOGGED IN BY: _____ DATE: _____ TIME: _____



NATIONAL ENVIRONMENTAL TESTING, INC.

92.1008

NET Atlantic, Inc.
Syracuse Division
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly: NET Northeast, Inc.

SAMPLE CHARACTERIZATION/CHAIN OF CUSTODY INFORMATION

CLIENT Seneca Army Depot CLIENT # 82680
 CLIENT CONTACT _____ PHONE () _____
 P.O. # _____ LOG # 44781

SAMPLING:

SAMPLE ID: Farm House - Shallow LOCATION: _____

SAMPLE TYPE: _____ SOIL WATER _____ OIL _____ SEDIMENT _____ WIPE
 OTHER _____

COLLECTION METHOD: _____ 24HR COMPOSITE MANUAL GRAB _____ WIPE
 _____ FLOW COMPOSITE OTHER _____

COMPOSITE:

SET: DATE _____ TIME _____ BY _____
 PICKED UP: DATE _____ TIME _____ BY _____

MANUAL GRAB: DATE 6-10-92 TIME 1310 BY BRM

FLOW: _____ UNITS: _____ GPM _____ GPD _____ MGD

PRESERVATION:

DATE 6-10-92 TIME _____ BY _____

PRESERVATIVE: _____ H₂SO₄ _____ HNO₃ _____ NaOH HCl _____ Na₂S₂O₃
 COOLED TO 4 DEGREES CELSIUS _____ TEFLON LINER
 OTHER _____

CONTAINERS:

2 vials

NOTES: pH - 7.32, Temp - 13°C, Cond - 860, Redox = 154.4

CUSTODY:

COLLECTED BY: Brian R. Mihley DATE: 6-10-92
 DELIVERED BY: _____ DATE: _____ TIME: _____
 RECEIVED BY: Chris Miguel DATE: 6/10/92 TIME: 4:30 p
 LOGGED IN BY: _____ DATE: _____ TIME: _____



NATIONAL ENVIRONMENTAL TESTING, INC.

92.1008

NET Atlantic, Inc.
Syracuse Division
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly: NET Northeast, Inc.

SAMPLE CHARACTERIZATION/CHAIN OF CUSTODY INFORMATION

CLIENT Seneca Army Depot CLIENT # 82680
 CLIENT CONTACT _____ PHONE () _____
 P.O. # _____ LOG # 44782

SAMPLING:

SAMPLE ID: Barn Well LOCATION: _____

AMPLE TYPE: _____ SOIL WATER _____ OIL _____ SEDIMENT _____ WIPE
 OTHER _____

COLLECTION METHOD: _____ 24HR COMPOSITE MANUAL GRAB _____ WIPE
 _____ FLOW COMPOSITE OTHER _____

COMPOSITE:

SET: DATE _____ TIME _____ BY _____
 PICKED UP: DATE _____ TIME _____ BY _____

MANUAL GRAB: DATE 6-10-92 TIME 1330 BY _____

FLOW: _____ UNITS: _____ GPM _____ GPD _____ MGD

PRESERVATION:

DATE 6-10-92 TIME _____ BY _____

PRESERVATIVE: _____ H₂SO₄ _____ HNO₃ _____ NaOH HCl _____ Na₂S₂O₃
 COOLED TO 4 DEGREES CELSIUS _____ TEFLON LINER
 OTHER _____

CONTAINERS:

2 vials

NOTES:

pH - 7.34, Temp - 12°C, Cond - 560, Redox = 148.2

CUSTODY:

COLLECTED BY: Brian R. Miller DATE: 6-10-92

DELIVERED BY: _____ DATE: _____ TIME: _____

RECEIVED BY: Chris Meyer DATE: 6/10/92 TIME: 4:30 pm

LOGGED IN BY: _____ DATE: _____ TIME: _____



NATIONAL ENVIRONMENTAL TESTING, INC.

921008

NET Atlantic, Inc.
Syracuse Division
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly: NET Northeast, Inc.

SAMPLE CHARACTERIZATION/CHAIN OF CUSTODY INFORMATION

CLIENT Seneca Army Depot CLIENT # 82680
 CLIENT CONTACT _____ PHONE () _____
 P.O. # _____ LOG # 44783

SAMPLING:

SAMPLE ID: Trip LOCATION: _____
 SAMPLE TYPE: _____ SOIL WATER _____ OIL _____ SEDIMENT _____ WIPE
 OTHER _____
 COLLECTION METHOD: _____ 24HR COMPOSITE _____ MANUAL GRAB _____ WIPE
 _____ FLOW COMPOSITE _____ OTHER _____
 COMPOSITE:
 SET: DATE _____ TIME _____ BY _____
 PICKED UP: DATE _____ TIME _____ BY _____
 MANUAL GRAB: DATE 6-10-92 TIME 0800 BY _____
 FLOW: _____ UNITS: _____ GPM _____ GPD _____ MGD

PRESERVATION:

DATE 6-10-92 TIME _____ BY _____
 PRESERVATIVE: _____ H₂SO₄ _____ HNO₃ _____ NaOH HCl _____ Na₂S₂O₃
 COOLED TO 4 DEGREES CELSIUS _____ TEFLON LINER
 OTHER _____

CONTAINERS:

2 vials

NOTES:

CUSTODY:

COLLECTED BY: Brian R. Mihler DATE: 6-10-92
 DELIVERED BY: _____ DATE: _____ TIME: _____
 RECEIVED BY: Chris Miguel DATE: 6/10/92 TIME: 4:30p
 LOGGED IN BY: _____ DATE: _____ TIME: _____



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Syracuse Division
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Client: SENECA ARMY DEPOT
DEH BUILDING 123
ROMULUS, NY 14541-5001

Date: 06/23/1992
Job No: 92.1007

Attention: MR. MARK PAPROCKI

Purchase Order No: DAAC72-91-V-2
Account Number: 82680

Project: SENECA ARMY DEPOT

Subject: Samples received on 06/10/1992, identified as MW-27 through
MW-33.

Project Manager: Bindy Dain

NET - SYRACUSE

Janece F. Lafferty
Janece F. Lafferty
Technical Director

NET warrants that any sampling and analysis conducted as part of this report are performed in accordance with the analytical industries recognized methodologies and professional standards. NET will not assume liability for any damages resulting from deficient work other than reperformance or cost of said work and will not accept any liability as a result of data interpretation by the client.





Job No: 92.1007

SAMPLE NO: 44759

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : MW-27

Time Collected: 11:24

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1007

SAMPLE NO: 44760

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : MW-28

Time Collected: 11:29

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		25.8	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1007

SAMPLE NO: 44761

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : MW-29

Time Collected: 11:39

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1007

SAMPLE NO: 44762

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : MW-30

Time Collected: 11:43

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1007

SAMPLE NO: 44763

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : MW-31

Time Collected: 11:14

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1007

SAMPLE NO: 44764

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : MW-32

Time Collected: 11:04

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L





Job No: 92.1007

SAMPLE NO: 44765

LABORATORY ANALYSIS REPORT

Date Received : 06/10/1992

Date Collected: 06/10/1992

LOCATION : MW-33

Time Collected: 11:00

PARAMETER		RESULTS	UNITS
Volatiles by GC/MS 624	AQ		
Benzene		<1.0	ug/L
Bromodichloromethane		<1.0	ug/L
Bromoform		<1.0	ug/L
Bromomethane		<1.0	ug/L
Carbon Tetrachloride		<1.0	ug/L
Chlorobenzene		<1.0	ug/L
Chloroethane		<1.0	ug/L
2-Chloroethylvinyl ether		<1.0	ug/L
Chloroform		<1.0	ug/L
Chloromethane		<1.0	ug/L
Dibromochloromethane		<1.0	ug/L
1,2-Dichlorobenzene		<1.0	ug/L
1,3-Dichlorobenzene		<1.0	ug/L
1,4-Dichlorobenzene		<1.0	ug/L
1,1-Dichloroethane		<1.0	ug/L
1,2-Dichloroethane		<1.0	ug/L
1,1-Dichloroethene		<1.0	ug/L
trans-1,2-Dichloroethene		<1.0	ug/L
1,2-Dichloropropane		<1.0	ug/L
cis-1,3-Dichloropropene		<1.0	ug/L
trans-1,3-Dichloropropene		<1.0	ug/L
Ethylbenzene		<1.0	ug/L
Methylene Chloride		<1.0	ug/L
1,1,2,2-Tetrachloroethane		<1.0	ug/L
Tetrachloroethene		<1.0	ug/L
Toluene		<1.0	ug/L
1,1,1-Trichloroethane		<1.0	ug/L
1,1,2-Trichloroethane		<1.0	ug/L
Trichloroethene		<1.0	ug/L
Trichlorofluoromethane		<1.0	ug/L
Vinyl Chloride		<1.0	ug/L



92.1007



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057

(315) 446-8795

LAB SAMPLE LOG NO. 44759

JOB NO. 82680

SOURCE				
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>MW-27</u>		
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>		
EVACUATION	DATE <u>6-9-92</u>	ITEM	START	FINISH
WELL DEPTH <u>10.5'</u>		TIME		<u>12:00</u>
DEPTH TO WATER <u>5.21'</u>		pH		<u>7</u>
WELL VOLUME <u>.85g.</u>		TEMP.	<u>12°C</u>	
METHOD <u>bailed</u>		DEPTH	<u>5.21'</u>	
NO. OF VOLUMES <u>1</u>		COLOR	<u>Dk. Br.</u>	<u>Dk Br.</u>
TOTAL VOLUME <u>1g - Dry</u>		APPEAR	<u>Med Turb</u>	<u>High Turb</u>

SAMPLING	DATE <u>6-10-92</u>	pH <u>7.20</u>
TIME <u>11:24</u>	TEMP. <u>12°C</u>	
METHOD <u>bailed</u>	COLOR <u>Dk. Brown</u>	
CONTAINER <u>2 vials</u>	TURB <u>Med</u>	
SAMPLED BY <u>ARM</u>	REDOX <u>74.0</u>	COND <u>690</u>

PRESERVATION	DATE <u>6-10-92</u>
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME _____ BY _____
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME _____ BY _____
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄	
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)	
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER _____	

CUSTODY		
SAMPLERS SIGNATURE	<u>Brian R. Miller</u>	
TRANSFERRED TO #1	RECEIVED BY _____	DATE _____ TIME _____
RECEIVED BY #2	<u>Chris Miguel</u>	DATE <u>6/10/92</u> TIME <u>4:30 pm</u>

FIELD NOTES:	
--------------	--



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795

92.1001

LAB SAMPLE LOG NO. 44760

JOB NO. 82680

SOURCE				
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>MW-28</u>		
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>		
EVACUATION	DATE <u>6-9-92</u>	ITEM	START	FINISH
WELL DEPTH <u>10.5'</u>		TIME		<u>12:09</u>
DEPTH TO WATER <u>4.13'</u>		pH		<u>7</u>
WELL VOLUME <u>1.02 g.</u>		TEMP.		<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>4.13'</u>	
NO. OF VOLUMES <u>3</u>		COLOR	<u>Dk. Br.</u>	<u>Dk Br.</u>
TOTAL VOLUME <u>4 g.</u>		APPEAR	<u>Med Turb</u>	<u>High Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH	<u>7.07</u>	
TIME <u>11:29</u>		TEMP.	<u>11:29</u>	
METHOD <u>bailed</u>		COLOR	<u>Dk. Brown</u>	
CONTAINER <u>2 vials</u>		TURB	<u>Med</u>	
SAMPLED BY <u>BRM</u>		REDOX <u>122.6</u>	COND <u>650</u>	
PRESERVATION	DATE <u>6-10-92</u>			
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY		
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY		
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄				
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)				
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER				
CUSTODY				
SAMPLERS SIGNATURE <u>Brian R. McMiller</u>				
TRANSFERRED TO #1				
RECEIVED BY		DATE	TIME	
#2				
RECEIVED BY <u>Chris meguel</u>		DATE <u>6/10/92</u>	TIME <u>4:30 pm</u>	
FIELD NOTES:				



92.100' /
 MONITORING WELL
 SAMPLE CHARACTERIZATION AND
 CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
 EAST SYRACUSE, NY
 13057
 (315) 446-8795

LAB SAMPLE LOG NO. 44761 JOB NO. 82680

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>MW-29</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>10.5'</u>		TIME	<u>12:27</u>
DEPTH TO WATER <u>5.74'</u>		pH	<u>7</u>
WELL VOLUME <u>176g.</u>		TEMP.	<u>100</u> <u>10°C</u>
METHOD <u>bailed</u>		DEPTH	<u>5.74'</u>
NO. OF VOLUMES <u>3</u>		COLOR	<u>Dk. Br.</u> <u>Dk. Br.</u>
TOTAL VOLUME <u>2.5g.</u>		APPEAR	<u>High Turb</u> <u>High Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>7.00</u>	
TIME <u>11:39</u>		TEMP. <u>10°C</u>	
METHOD <u>bailed</u>		COLOR <u>Clear</u>	
CONTAINER <u>2 vials</u>		TURB <u>Low</u>	
SAMPLED BY <u>BAM</u>		REDOX <u>136.5</u> COND <u>770</u>	
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY	
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄			
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)			
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER			
CUSTODY			
SAMPLERS SIGNATURE <u>Brian R. Milder</u>			
TRANSFERED TO #1			
RECEIVED BY		DATE	TIME
#2			
RECEIVED BY <u>Chris Miguel</u>		DATE <u>6-10-92</u>	TIME <u>4:30 pm</u>
FIELD NOTES:			

92.1007

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057
(315) 446-8795



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

LAB SAMPLE LOG NO. 44762

JOB NO. 42680

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>MW-30</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>10.5'</u>		TIME	<u>12:37</u>
DEPTH TO WATER <u>3.99'</u>		pH	<u>7</u>
WELL VOLUME <u>1.04 g.</u>		TEMP.	<u>12°C</u>
METHOD <u>bailed</u>		DEPTH	<u>3.99'</u>
NO. OF VOLUMES <u>3</u>		COLOR	<u>Lt. Br.</u> <u>Lt. Br.</u>
TOTAL VOLUME <u>3.5g.</u>		APPEAR	<u>Med Turb</u> <u>High Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>7.12</u>	
TIME <u>11:43</u>		TEMP. <u>12°C</u>	
METHOD <u>bailed</u>		COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>		TURB <u>Med</u>	
SAMPLED BY <u>BAM</u>		REDOX <u>132.7</u>	COND <u>760</u>
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY	
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄			
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)			
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER			
CUSTODY			
SAMPLERS SIGNATURE <u>Brian R. Mihler</u>			
TRANSFERED TO #1			
RECEIVED BY		DATE	TIME
#2			
RECEIVED BY <u>Chris Miguel</u>		DATE <u>6-10-92</u>	TIME <u>4:30 pm</u>
FIELD NOTES:			



92.1007
 MONITORING WELL
 SAMPLE CHARACTERIZATION AND
 CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
 EAST SYRACUSE, NY
 13057

(315) 446-8795

LAB SAMPLE LOG NO. 44763

JOB NO. 82680

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>MW-31</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>10.5'</u>		TIME	<u>11:45</u>
DEPTH TO WATER <u>2.26'</u>		pH	<u>7</u>
WELL VOLUME <u>1.32g.</u>		TEMP.	<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>2.26'</u>
NO. OF VOLUMES <u>3</u>		COLOR	<u>Lt. Br.</u> <u>Lt. Br.</u>
TOTAL VOLUME <u>4g.</u>		APPEAR	<u>High Turb</u> <u>High Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>7.18</u>	
TIME <u>11:14</u>		TEMP. <u>11°C</u>	
METHOD <u>Bailed</u>		COLOR <u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>		TURB <u>High</u>	
SAMPLED BY <u>BAM</u>		REDOX <u>139.4</u>	COND <u>490</u>
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY	
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄			
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)			
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER			
CUSTODY			
SAMPLERS SIGNATURE <u>Brian R. Mibler</u>			
TRANSFERRED TO #1			
RECEIVED BY	DATE	TIME	
#2			
RECEIVED BY <u>Chris Meigs</u>	DATE <u>6/10/92</u>	TIME <u>4:30 pm</u>	
FIELD NOTES:			

92.1007

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057

(315) 446-8795



MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

LAB SAMPLE LOG NO. 44764

JOB NO. 82680

SOURCE			
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>MW-32</u>	
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>	
EVACUATION	DATE <u>6-9-92</u>	ITEM	START FINISH
WELL DEPTH <u>10.5'</u>		TIME	<u>11:27</u>
DEPTH TO WATER <u>3.81'</u>		pH	<u>7</u>
WELL VOLUME <u>1.07 g.</u>		TEMP.	<u>10°C</u>
METHOD <u>bailed</u>		DEPTH	<u>3.81'</u>
NO. OF VOLUMES <u>3</u>		COLOR	<u>Dk. Br. Dk. Br.</u>
TOTAL VOLUME <u>3.5g</u>		APPEAR	<u>High Turb High Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH <u>7</u>	
TIME <u>11:04</u>		TEMP. <u>10°C</u>	
METHOD <u>bailed</u>		COLOR <u>Dk. Brown</u>	
CONTAINER <u>2 vials</u>		TURB <u>High</u>	
SAMPLED BY <u>BRM</u>		REDOX <u>144.5</u>	COND <u>740</u>
PRESERVATION	DATE <u>6-10-92</u>		
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY	
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY	
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄			
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)			
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER			
CUSTODY			
SAMPLERS SIGNATURE <u>Brian R. Mihler</u>			
TRANSFERED TO #1			
RECEIVED BY		DATE	TIME
#2			
RECEIVED BY <u>Chris Miguel</u>		DATE <u>6/10/92</u>	TIME <u>4:30 pm</u>
FIELD NOTES:			



92.1007

MONITORING WELL
SAMPLE CHARACTERIZATION AND
CHAIN OF CUSTODY SHEET

5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY
13057

(315) 446-8795

LAB SAMPLE LOG NO. 44765

JOB NO. 82680

SOURCE				
CLIENT <u>Seneca Army Depot</u>		WELL NO. <u>MW -33</u>		
LOCATION		WELL TYPE/SIZE <u>2" PVC</u>		
EVACUATION	DATE <u>6-7-92</u>	ITEM	START	FINISH
WELL DEPTH <u>10.5'</u>		TIME		<u>11:18</u>
DEPTH TO WATER <u>3.67'</u>		pH		<u>7</u>
WELL VOLUME <u>1.09 g.</u>		TEMP.		<u>11°C</u>
METHOD <u>bailed</u>		DEPTH	<u>3.67'</u>	
NO. OF VOLUMES <u>3</u>		COLOR	<u>Lt. Br.</u>	<u>Lt. Br.</u>
TOTAL VOLUME <u>4g.</u>		APPEAR	<u>High Turb</u>	<u>High Turb</u>
SAMPLING	DATE <u>6-10-92</u>	pH	<u>7.00</u>	
TIME <u>11:00</u>		TEMP.	<u>11°C</u>	
METHOD <u>bailed</u>		COLOR	<u>Lt. Brown</u>	
CONTAINER <u>2 vials</u>		TURB	<u>High</u>	
SAMPLED BY <u>BRM</u>		REDOX	<u>147.0</u>	COND <u>610</u>
PRESERVATION	DATE <u>6-10-92</u>			
FILTERED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TIME	BY		
PRESERVED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	TIME	BY		
PRESERVATIVE <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> H ₃ PO ₄ +C ₂ SO ₄				
<input checked="" type="checkbox"/> HCL <input type="checkbox"/> SOD. THIO. <input type="checkbox"/> Zn(C ₂ H ₃ O ₂)				
<input checked="" type="checkbox"/> COOLED TO 4 C <input type="checkbox"/> OTHER				
CUSTODY				
SAMPLERS SIGNATURE <u>Brian R. Milder</u>				
TRANSFERED TO #1				
RECEIVED BY		DATE	TIME	
#2				
RECEIVED BY <u>Chris Miguel</u>		DATE <u>6/10/92</u>	TIME <u>4:30 pm</u>	
FIELD NOTES:				



DEPARTMENT OF THE ARMY
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5422



REPLY TO
ATTENTION OF

HSHB-ME-SR (40)

23 OCT 1992

Jim Mi
info

MEMORANDUM FOR Division Engineer, U.S. Army Engineering
Division - Huntsville, ATTN: CEHND-ED-CS
(Mr. Healy), P.O. Box 1600, Huntsville, AL
35807-4301

SUBJECT: Draft Response to Comments from the EPA and New York
State, Work Plan for the Ash Landfill, Remedial Investigation
Feasibility Study, Seneca Army Depot, Romulus, New York,
4 September 1992

1. This document does not have to be resubmitted to the USAEHA
for further review because of the minor nature of our concerns.
Our detailed comments and recommendations are provided in the
enclosure.

2. The engineers and scientists reviewing this document were:
CPT David Martin, Air Pollution Engineering Division; Mr. Richard
Valdivia, Water Quality Engineering Division; Mr. Robert
Berkshire, Organic and Environmental Chemistry Division, Ms. Kim
Fleischmann and Mr. Keith Hoddinott, Waste Disposal Engineering
Division. The point of contact for technical questions is
Mr. Hoddinott. Additional comments and concerns may be directed
to MAJ William E. Legg, DSN 584-2953 or commercial (410) 671-
2953.

FOR THE COMMANDER:

Encl

for *John W. Bauer*
WILLIAM T. BROADWATER
LTC, MS
Chief, Waste Disposal
Engineering Division

CF (w/encl):
HQDA(SGPS-PSP-E)
CDR, HSC, ATTN: HSCL-P
CDR, AMC, ATTN: AMCEN-A
CDR, Seneca AD, ATTN: SDSSE-HE

DETAILED COMMENTS AND RECOMMENDATIONS
DRAFT RESPONSE TO COMMENTS FROM THE EPA AND NEW YORK STATE
WORK PLAN FOR THE ASH LANDFILL
REMEDIAL INVESTIGATION FEASIBILITY STUDY
SENECA ARMY DEPOT, ROMULUS, NEW YORK
4 SEPTEMBER 1992

1. Page 6, Comment p3-13, Mr. Hoddinott

Comment: The 0.25 effective porosity would be extremely low for a sandy till with few fines. For a soil of a similar description, effective porosities up to 0.60 can be achieved. An effective porosity of 0.25 indicates that a significant amount of the pore space forms a "dead end". This type of behavior can only be achieved with the sub-silt sized particles. While a smaller effective porosity would be more conservative, the 0.25 value would be appropriate for a till of high silt content such as exists in central New York State.

Recommendation: The lowering of the effective porosity could be accomplished to make the investigation more conservative but it is not clear that the lower effective porosity would be more correct.

ENGINEERING-SCIENCE, INC.

Prudential Center • Boston, Massachusetts 02199 • (617) 859-2576 • FAX (617) 859-2576

November 18, 1992
720229-05000

Mr. Kevin Healy
U.S. Army Corps of Engineers
Huntsville Division
106 Wynn Drive
P.O. Box 1600
Huntsville, AL 35805

**SUBJECT: Ash Landfill Phase II Field Investigation,
Seneca Army Depot, Romulus, NY**

Dear Mr. Healy:

Engineering-Science, Inc. (ES) has reviewed the comments prepared by both the New York State Department of Environmental Conservation (NYSDEC) and the Environmental Protection Agency (EPA) on the proposed Phase II field program for the Ash Landfill. NYSDEC's letter approved the proposed Phase II field investigation with no changes. (EPS's) comment letter of November 10, 1992 outlined six recommendations for the proposed Phase II field investigation. ES's responses to these recommendations are provided below.

Comment 1: MAIN does not adequately describe the potential hazards associated with coring to depths of 100 feet below ground surface. MAIN indicates that the potential for vertical cross-contamination within the bedrock aquifer during Phase II coring, geophysics, etc. it expected to be minimal. EPA disagrees with this assessment.

We are not convinced that open-hole rock coring to 100 feet in competent bedrock would not create a contaminant migration pathway. The concern is that once the first fracture zone is encountered within each deep bedrock corehole, the likelihood that cross-contamination within the bedrock aquifer increases with depth. Therefore, we suggest that MAIN consider an alternate approach such as coring down only to the first significant water-bearing fracture zone, and subsequently installing each deep bedrock well screen to intercept this zone. This will enable these deep wells to effectively intercept potential vertical contaminant migration from shallower depths, without exposing deeper, uncontaminated fractures.

Response 1: Agreed. ES proposes to modify the drilling and testing procedures outlined in the proposed Phase II workplan to address the issues presented by EPA. The new drilling and testing procedure will consist of rock coring combined with packer testing to determine hydraulic conductivity and hydraulic head in discrete 20-foot zones. The coring and aquifer testing will continue to a depth of 100 feet or until the "first significant water-bearing fracture zone" is encountered. For the purposes of this

ENGINEERING-SCIENCE, INC.

investigation, "significant water-bearing fracture zone" will be defined as any 20-foot zone of competent bedrock that exhibits a hydraulic conductivity equal to or greater than 1.0×10^{-6} cm/sec.

This value was chosen as it is representative of hydraulic conductivities in a "significant water bearing fracture zone" in existing competent bedrock wells installed during the phase 1 investigation. These wells recovered from sampling within one to two hours after purging to near dryness and in ES's opinion are indicative of the cut-off point for the definition of a "significant water-bearing fracture zone."

In order to avoid cross-contamination of the bedrock, ES proposes to install triple cased bedrock wells. The specific procedure for installation of the deep bedrock wells will be as follows:

1. Drive 6 inch steel casing set up to 2 feet into the top of competent bedrock. This will isolate the overburden from the bedrock system.
2. Using an air hammer, drill for a depth of 20 feet into competent bedrock and set a 4 inch steel casing 20 feet into competent bedrock. The annular spacing between the outer and inner casing will be grouted to the surface. This will isolate the upper 20 feet of bedrock.
3. Collect a core from the 20-40 foot zone below the 4 inch casing.
4. Set a single packer immediately below the 4 inch steel casing to isolate the 20-40 foot zone in competent bedrock.
5. Perform hydraulic conductivity testing and determine hydraulic head for this discrete 20-foot zone. If the hydraulic conductivity for this zone is 1.0×10^{-6} cm/sec or greater then no further coring will be performed in this hole and a 2-inch diameter 20 foot PVC well screen will be installed in this zone. If the hydraulic conductivity value is less than 1.0×10^{-6} cm/sec, then coring in the same hole will continue.
6. Core the 40 to 60 foot section of competent bedrock and repeat step 5 above.
7. Coring and packer testing will continue in 20 foot intervals until a hydraulic conductivity value greater than 1.0×10^{-6} cm/sec is obtained or until a total depth of 100 feet below the ground surface is reached.
8. If the 100 foot depth is reached, the core hole will be grouted to the base of the 20-foot interval which yielded the highest hydraulic conductivity value and a 2-inch diameter 20-foot PVC well screen will be installed in this interval.

Comment 2: MAIN does not effectively differentiate between the till and the weathered shale materials, and consequently does not provide a strategy for determining the screening interval for shallow monitoring wells within the till/weathered shale aquifer.

ENGINEERING-SCIENCE, INC.

Mr. Kevin Healy
November 18, 1992
Page 3

The weathered shale is expected to maintain a higher hydraulic conductivity as compared to the glacial till, thereby making the weathered shale the preferential pathway. Shallow well screens should be installed in one formation or the other but not both, since the utility of the hydraulic conductivity data would be greatly reduced if well screens were installed across both formations. If MAIN proposes to screen both formations, justifications should be provided that materials are sufficiently similar to preclude the need for separate well screens.

Response 2: Disagree. ES proposes to screen the overburden monitoring wells at the Ash Landfill across both the weathered shale and the glacial till units. Up to ten feet of screen will be installed in each well with the base of the screen set just above the competent shale.

ES believes that based upon available data these two geologic units are sufficiently similar to preclude the need for multiple wells and screens. Attachment B is a revised version of Table 3-8 of the PSCR for the Open Burning Grounds. This table summarizes hydraulic conductivity testing performed on glacial till and weathered shale wells at the OB Grounds site. As shown, the hydraulic conductivities for the 6 on-site glacial till wells averaged 1.08×10^{-4} cm/sec based upon the calculation method of Bouwer and Rice. The 10 on-site weathered shale wells have an average K value of 2.85×10^{-4} cm/sec. ES believes that these data support the treatment of both geologic units as one aquifer system since the geologic units at both sites are identical.

Comment 3: According the Section 4.0 of the Revised RI/FS Work Plan, the installation of up to three 100-foot deep bedrock wells is contingent on the volatile organic compound (VOC) screening results in three shallower competent bedrock wells (approximately 20 feet deep) proposed to be installed at similar locations. If no VOCs are detected in the shallower bedrock well(s), the deeper bedrock well(s) will not be installed. EPA does not concur with this methodology.

Given the current lack of information regarding hydrologic and water quality characteristics of the deep bedrock layer (i.e., degree of fracturing, fracture orientation, ground water etc.) we suggest that MAIN install at least three deep bedrock wells to the first water bearing fracture regardless of whether VOCs are detected in the shallow bedrock wells.

Response 3: Agreed. ES will install the deeper bedrock wells as part of the Phase 2 field investigation. The installation of those wells will not be contingent on headspace screening for VOCs.

Comment 4: EPA recommended additional soil borings in the immediate vicinity of B15-91 and Wetland W-B to further define the extent of VOCs in this area. MAIN indicated that a maximum of four soil borings will be performed in this area.

ENGINEERING-SCIENCE, INC.

Mr. Kevin Healy
November 18, 1992
Page 4

The concern is that MAIN may not have proposed a sufficient number of borings to adequately delineate the lateral extent of VOC contamination in this source area. We suggest that MAIN conduct compound-specific field screening using a portable GC of soils from split spoons so that the source boundaries are delineated in both lateral and vertical directions. Based on initial screening results, additional soil borings could be drilled along a line perpendicular to the interpreted source boundary until the source boundary is located. Boring spacing could be determined during Phase II field work, depending on such factors as ground water gradients, contaminant concentrations, and subsurface stratigraphy.

Response 4: Agreed. ES will perform 4 additional borings in the vicinity of the B15-91 and Wetland W-B to further define the source boundaries for VOCs. These four borings will supplement the four boring already proposed for this area. Prior to performing these eight borings, ES will conduct a soil gas survey criss crossing the North-South and East-West profiles. The soil gas points will be at 50-foot centers along these profiles beginning at B15-91. The soil gas points will be performed along each profile until two successive samples contain less than 100 ppb of a combined concentration of TCE and DCE, as these are the principle volatile compounds in the source area. Two borings will be performed along the profiles at the northern, southern, eastern and western boundaries as defined by the soil gas survey. Specifically, one boring will be performed at the outermost soil gas point within the source area and second boring will be performed at the next successive soil gas point outside the source area (i.e., the first of two successive soil gas samples with a concentration of 100 ppb or less). ES anticipates that four soil samples will be collected from each boring, one at the surface and three from the subsurface. Since four borings were originally proposed, four additional borings will be added yielding a total of 32 soil samples.

Comment 5: EPA commented that additional monitoring well pairs be installed along the western and southwestern edge of the interpreted ground water plume emanating from the western portion of the Ash Landfill. MAIN responded by proposing a single monitoring well cluster (MW-47, MW-51D, MW-52D) along the western edge of the contaminant plume.

While we agree with the placement of a well cluster along the western edge of the contaminant plume, we recommend that additional monitoring wells (i.e., overburden and bedrock) be installed along the southwestern edge of this plume to provide adequate water quality coverage in this area, as previously recommended by EPA.

ENGINEERING-SCIENCE, INC.

Mr. Kevin Healy
November 18, 1992
Page 5

Response 5: Agreed. ES proposed to move the monitoring well cluster MW-47/MW-51D/MW-52D approximately 300 feet to the North while adding a monitoring well cluster at the suspected center of the toe of the groundwater plume. Attachment C shows the new location for well cluster MW-47/MW-51D/MW-52D and the location of the proposed additional well cluster. The bedrock wells within each of these clusters will be installed following the procedures described in Response #1.

Comment 6: EPA commented that additional geophysical surveys employing very low frequency (VLF), electric resistivity, or seismic refraction should be considered in order to better define contaminant migration pathways. MAIN responded by proposing three seismic transects at undisclosed locations to identify on-site bedrock fractures.

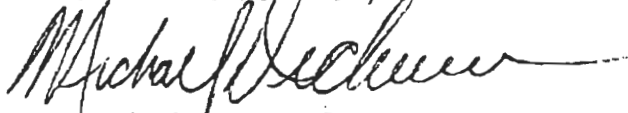
Although a seismic survey may be useful in identifying bedrock fracture locations, a VLF survey may be a more precise method for identifying potential subsurface fractures. VLF also has the potential to identify fracture orientation off the vertical, so that shallow and deep bedrock monitoring wells can be more effectively located.

Response 6: Agreed. ES will conduct a Very Low Frequency Electromagnetic (VLF-EM) survey to map the presence of fractures at the Ash Landfill site. The VLF survey will be grid based with profiles spaced at 50 foot intervals and samples collected at 10 foot intervals along each profile. ES will layout and survey 12 profiles, running West-East, to the north of the West Smith Farm Road. These profiles will each be 1000 feet in length.

If you have any questions about these responses, please do not hesitate to call me.

Very truly yours,

ENGINEERING-SCIENCE, INC.



Michael Duchesneau, P.E.
Project Manager

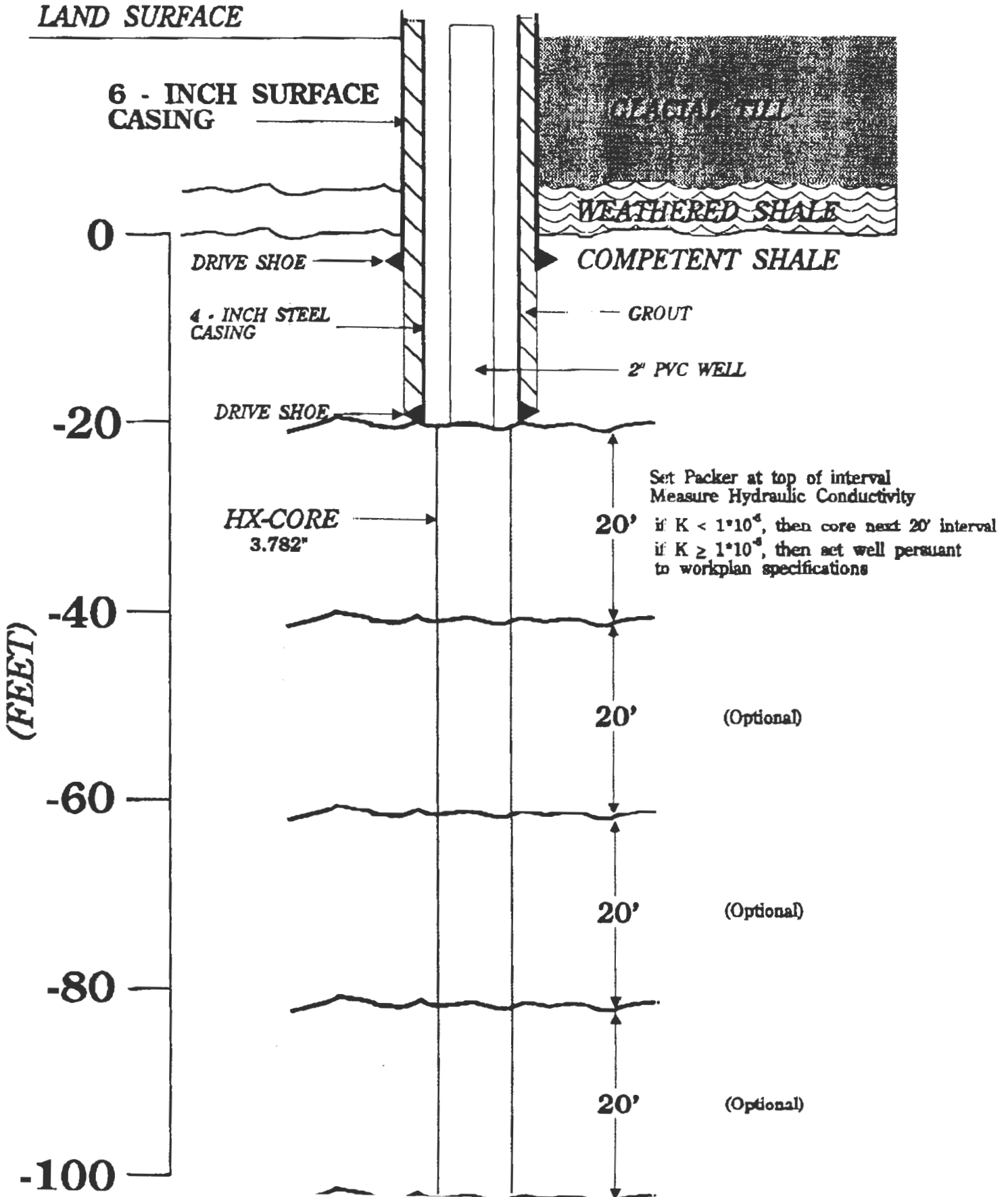
Response Requested Yes No
Date Requested _____

MD/cmf/D#9

ENGINEERING-SCIENCE, INC.

ATTACHMENT A

SENECA ARMY DEPOT DEEP BEDROCK WELL INSTALLATION SCHEME



ENGINEERING-SCIENCE, INC.

ATTACHMENT B

SENECA ARMY DEPOT OB GROUNDS

REVISED

REVISED 11-18-1992

TABLE 3-8

Hydraulic Conductivity Values For Rising Head Slug Tests
OB Grounds
(cm/sec)

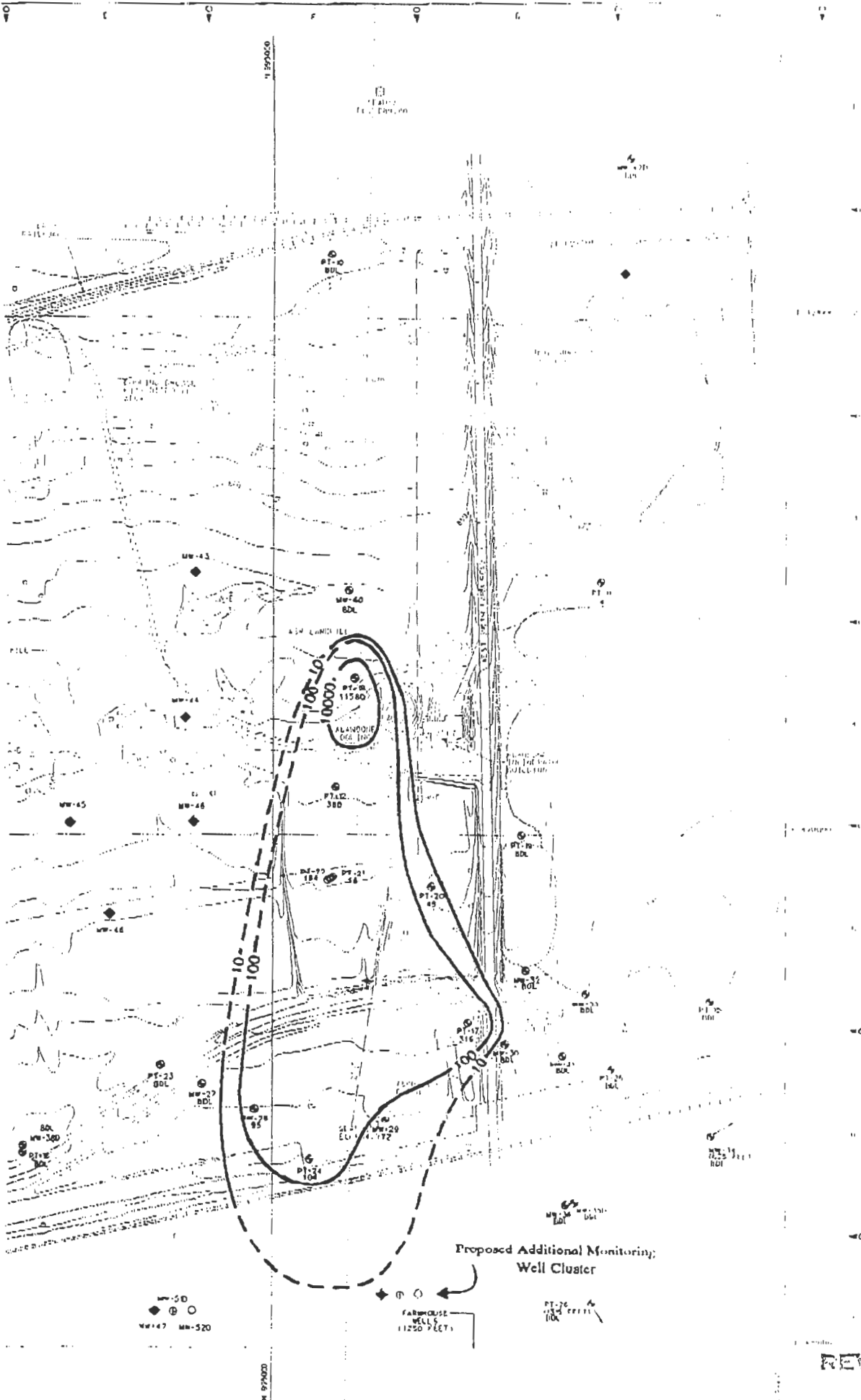
Monitoring Well	Bouwer and Rice (1976)	Horslev (1951)	Average
MW-1 (1)	1.643E-06	5.000E-04	2.508E-04
MW-5 (1)	3.546E-05	2.000E-04	1.177E-04
MW-6 (1)	8.947E-07	8.000E-05	4.045E-05
MW-7 (1)	5.180E-06	3.000E-04	1.526E-04
MW-8 (2)	7.884E-06	7.000E-05	3.894E-05
MW-10 (2)	1.401E-05	2.000E-04	1.070E-04
MW-11 (2)	4.602E-04	2.000E-03	1.230E-03
MW-14 (2)	7.546E-05	4.000E-04	2.377E-04
MW-18 (3)	5.893E-05	6.000E-04	3.295E-04
MW-21 (3)	1.285E-05	6.000E-05	3.642E-05
MW-22 (3)	6.839E-05	2.000E-04	1.342E-04
MW-23 (3)	4.713E-04	4.000E-03	2.236E-03
MW-24 (2)	4.976E-05	1.590E-05	3.283E-05
MW-25 (3)	2.680E-04	1.040E-05	1.392E-04
MW-27 (3)	3.542E-04	2.730E-04	3.136E-04
MW-28 (3)	4.156E-05	9.140E-05	6.648E-05
MW-29 (2)	4.371E-05	2.000E-03	1.022E-03
MW-30 (3)	1.438E-03	5.200E-03	3.319E-03
MW-31 (3)	1.003E-04	2.450E-04	1.726E-04
MW-32 (3)	3.457E-05	1.000E-04	6.728E-05
Site Average:	1.771E-04	8.273E-04	2.643E-04
Till:	1.085E-04	7.810E-04	4.447E-04
W. Shale:	2.848E-04	1.078E-03	6.814E-04

Notes:

- (1) Well construction details not available
- (2) Well screened in glacial till
- (3) Well screened in weathered shale

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ATTACHMENT C



NOTES:

- THE HIGHEST HAD SHOWS TOTAL VOLATILE ORGANICS IN THE SHALLOW TILL WEATHERED SHALE ADJACENT.
- PT-10 IS A NEW MONITORING WELL SCHEDULED IN COMPETENT SHALE (PT-21, MW-330, MW-331, MW-410, MW-411, MW-520) WERE NOT USED TO DRAW CONCLUSIONS OF TOTAL VOLATILE ORGANICS IN THE SHALLOW WEATHERED SHALE AND TILL ADJACENT.
- WELLS PT-10, PT-21, MW-330, MW-331, MW-410 AND MW-411 WERE SCHEDULED IN COMPETENT SHALE (PT-10) ADJACENT.

SOURCE:
DRAFT PRELIMINARY SITE CHARACTERIZATION REPORT AT THE ASH LANDFILL
11/18/92 UNTIL 1992

LEGEND:

- PHASE II SHALLOW TILL WEATHERED SHALE WELLS
- PHASE I SHALLOW BEDROCK WELLS
- ◆ PHASE II DEEP BEDROCK WELLS
- MONITORING WELL A DESIGNATION WITH CONCENTRATION OF TOTAL VOLATILE ORGANICS IN UNPAVED ROAD
- MONITORING WELL A DESIGNATION WITH CONCENTRATION OF TOTAL VOLATILE ORGANICS IN PAVED ROAD
- DIRT ROAD
- GROUND CONTOUR AND ELEVATION
- UTILITY POLE
- APPROXIMATE EXTENT OF FILL
- FILL (NO TOTAL)
- TREE
- BRUSH
- APPROXIMATE LOCATION OF THE HYDRAULIC FILL OR UNDERGROUND STORAGE TANK
- WETLAND & DISCONTINUED
- TOTAL VOLATILE ORGANICS CONCENTRATION (CONCENTRATION WERE MEASURED WITH CONCENTRATION)
- BELOW DETECTION LIMIT
- MONUMENT

NO. OF WELLS	NO. OF MONUMENTS	NO. OF TANKS	NO. OF DISCONTINUED	NO. OF FILL	NO. OF BRUSH	NO. OF TREE	NO. OF UTILITY POLES	NO. OF DIRT ROADS	NO. OF PAVED ROADS	NO. OF GROUND CONTOURS	NO. OF APPROXIMATE EXTENT OF FILL	NO. OF PHASE II DEEP BEDROCK WELLS	NO. OF PHASE I SHALLOW BEDROCK WELLS	NO. OF PHASE II SHALLOW TILL WEATHERED SHALE WELLS

MAIN
CHAS. T. MAIN, INC.
DESIGNER - CONSULTANT - ENGINEER

SENECA ARMY DEPOT
WORK PLAN ADDENDUM
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ASH LANDFILL

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FIGURE 4.2-1b
LOCATION OF PHASE II
SHALLOW AND DEEP
MONITORING WELLS

REVISED

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