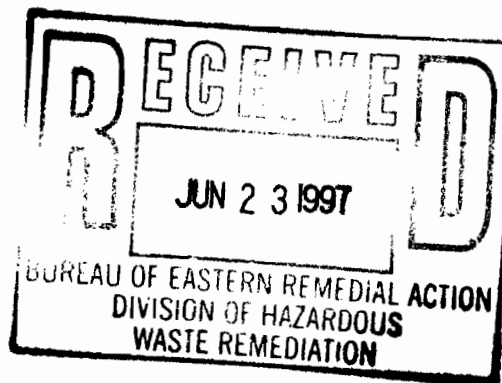


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

VC
what?
Me
6/24/97



June 18, 1997

Mr. Victor Cardona
Federal Projects Section
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233

Ref: Liberty Industrial Finishing Superfund Site - May 6, 1997 Sampling Report and Data Presentation for 10/30 - 11/14/96 Groundwater Sampling Event

Dear Mr. Cardona:

Enclosed please find a copy of a May 6, 1997 Sampling Report and Data Presentation for 10/30 - 11/14/96 Groundwater Sampling Event, conducted by EPA Division of Environmental Science and Assessment.

If you should have any question regarding the enclosed document, please contact me at (212) 637-4240.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Lorenzo Thantu".

Lorenzo Thantu
Eastern New York Remediation Section

Enclosure


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY - 6 1997

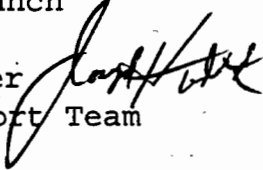
REGION II

DATE:

SUBJECT: Sampling Event Report for Liberty Industrial Finishing Site,
Farmingdale, New York


FROM: Michael A. Mercado, Environmental Scientist
Superfund Contract Support Team

TO: Lorenzo Thantu, RPM
New York Remediation Branch

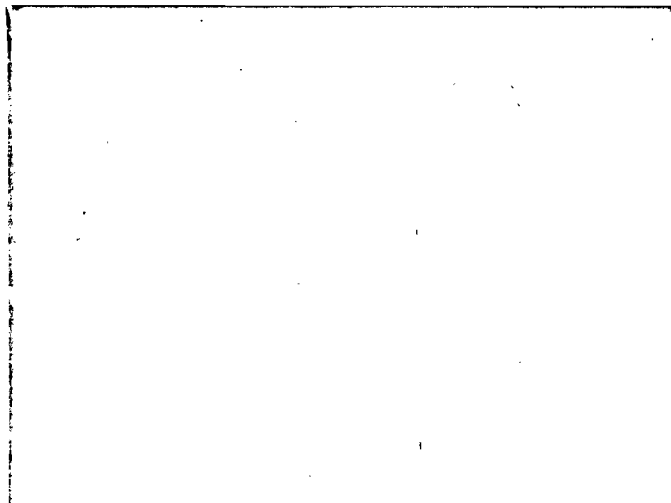
THRU: Joseph Hudek, Team Leader 
Superfund Contract Support Team

Attached is the Sampling Event Report for Liberty Industrial
Finishing Site, Farmingdale, NY done on October 30 thru. November
14, 1996.

If you have any questions, please contact me at your earliest
convenience at (908) 906-6808

Attachment

U.S. ENVIRONMENTAL PROTECTION AGENCY



DIVISION OF ENVIRONMENTAL SCIENCE AND ASSESSMENT

REGION 2

EDISON, NEW JERSEY



**Sampling Report and
Data Presentation**

**LIBERTY INDUSTRIAL
FINISHING SITE
Farmingdale, New York**

**Groundwater Sampling Event
October 30 - November 14,
1996**

Prepared by:

A handwritten signature in black ink, appearing to read "Michael A. Mercado".

Michael A. Mercado, Environmental Scientist
Hazardous Waste Support Branch (DESA/HWSB)

Approved by:

A handwritten signature in black ink, appearing to read "Robert Runyon".

Robert Runyon, Chief
Hazardous Waste Support Branch (DESA/HWSB)

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Appendix A, Quality Assurance Project Plan
Appendix B, Sample Data Sheets
Appendix C, Well Data Sheets
Appendix D, Field Data Sheets

1.0 BACKGROUND

Liberty Industrial Finishing site is located on a 7 1/2 acre tract of land in an industrial park. Liberty Industrial Finishing Company conducted electroplating, dyeing and painting operation on the site between 1948 and 1978. On the site there were vats, basins and a sludge-drying lagoon. The vats contained acids and finishing products. The lagoon was for drying sludge. Two of the three basins were used for leaching and the other one was used for holding storm water. In 1977 Liberty Industrial Finishing was charged with violation of its discharged Permit by the State of New York. In 1978 the company under the supervision of the State removed contaminated soils and sludges from the site. On 1986 the site was listed on the National Priority List (NPL) for groundwater and soil contamination. The groundwater and soils were contaminated with heavy metals including cadmium and chromium. Also there were volatile organic compounds (VOCs) such as dichloroethene and dichloromethane. At the time of listing the site on the NPL there were approximately 20,000 persons living within 1 mile and about 90,000 drawing drinking water from wells within 3 miles of the site. In addition, there were fifty homes 400 yards away, the Bethpage State Park is one mile away and the Massagequa Creek is 3,000 feet downgradient of the site.

Lorenzo Thantu of the U.S. Environmental Protection Agency (EPA), Region II, Emergency and Remedial Response Division (ERRD), the Remedial Project Manager (RPM) for the site, requested that the Hazardous Waste Support Branch (HWSB) provide support in sampling the site. The sampling plan was to collect groundwater samples from twenty-six monitoring wells on and off the site using the Low Flow Purging and Sampling Method (Low Flow Method). These samples were to be analyzed for Cadmium, Chromium and TCL VOC's by the EPA Laboratory Branch in Edison, N.J.. The data from the analyses were used to update the baseline human health risk assessment and for the preparation of a Feasibility Study.

2.0 SAMPLING PROCEDURES

The sampling procedures will be in accordance with EPA/540/P-91/007, dated January 1991, Compendium of ERT Groundwater Sampling Procedures, Groundwater Well Sampling: SOP # 2007. However, due to the previous problems with high turbidity associated with the monitoring wells, the Low Flow Method will be used. The Low Flow Method is a low stress groundwater purging & sampling procedure which is ideal for highly turbid wells. Since SOP # 2007 does not fully address Low Flow Method, paragraph 12.A. in the Quality Assurance Project Plan (QAPP) addressed the Low Stress Purging and Sampling Procedures. The QAPP also addressed the preservation and handling of the sample.

3.0 DESCRIPTION OF EVENTS

The sampling team consisted of Michael A. Mercado and Carlos R. Villafañe of EPA Region II, DESA. Due logistical problems, the sampling event did not start on October 17 and end by November 1, 1996 as stated on the QAPP. On October 29, 1996, the sampling event started with a reconnaissance of the site and the lowering of pumps into wells numbered MW-10A and MW-10B. By November 14, 1996 all wells were sampled except for MW-03, MW-04, MW-08, MW-09A, MW-09B and MW-12.

The following are the reasons that the above six wells were not sampled. MW-03 had a screw-on cap and a steel outer casing. Because the outer casing was about 18 inches above the cap, it was not possible to open the well cap with equipment available. MW-04 was unsecured and had been vandalized. The sampling team found a six-foot fence post inside the well. The pole was removed but the well was still plugged. The team could not lower the water level indicator probe into the well. MW-08 does not exist. After looking for MW-08 in the parking lot on the east corner of the Site on three different occasions by both members of the sampling team and not locating it, it is assumed it no longer exists. MW-09A, MW-09B and MW12 could not be located. The three wells were placed in heavy vegetated areas of Bethpage State Park. With the leaves from the trees on the ground and since these wells were only placed about two inches above ground level, finding them was not possible. After several attempts to locate these wells, totaling about 16 hours, it was decided not to sample them.

MW-15 had a tar-like substances inside of the well casing. When measuring the water column in MW-15 the water level indicator, probe did not operate correctly. The Water level indicator w/P-4 probe was new and had been working correctly until this well. When the probe was withdrawn from the well, the probe had a black tar-like substance on it. MW-15 is located at a gasoline station. The tar-like substance was not observed in any of the other wells sampled. The tar-like substance could have come from the gasoline station during resurfacing of the lot, oil and gasoline spills and/or underground storage tanks leaks. The sampling team immediately informed the site RPM of this situation.

MW-20 was a duplicate sample of MW-11B. The MW-18 had its samples numbered MW-18B for VOAs and MW-18C for Metals.

4.0 RESULTS

The Equipment Blanks and Trip Blanks were taken as a check to see if any outside contaminants were introduced into the samples. If so, this was a way of quantifying the amount. As per Region II's Data Validation SOP for CLPs when contaminants are found in the blanks, in order to consider the same contaminants as attributable to the sample location, the sample compound must be greater than five times the amount

detected in the blanks. In all the Blanks taken, compounds commonly found in gasoline were detected. The following were the compounds detected in the blanks with their highest reading:

Benzene, 3.0 ppb
Ethylbenzene, 8.0 ppb
Ethyl Methyl Benzene, 7.9 ppb
Methoxy Methyl Propane, 15 ppb
1,1,2,2-Tetrachloroethane, 0.7 ppb
Toluene, 46 ppb
Xylenes (Total), 34 ppb

The compounds found in the blanks could be as a result of traveling with the fuel to run the generator in the same vehicle as the samples/sample bottles. Off gassing of the gasoline must have gotten into the sample bottles, contaminating them with the above compounds. How and why was there gasoline in the same vehicle with the sample bottles? One vehicle was available to transport personnel and equipment. The sampling team was required to travel from Edison N.J. to Farmingdale N.Y. and back on a daily basis. This situation allowed the sampling containers and generator fuel (gasoline) to be in the same vehicle for a five hours round trip, plus the time on the site. The amount of contaminants in the samples could be reduced by reducing the hours the samples/sample containers are exposed to the fuel carried on the vehicle.

The analysis shows MW-15 having higher than normal levels of VOAs. This is the well in which there was a tar-like substance on the probe after it was pulled out of the well. The well is also located at a gasoline station. We recommend this monitoring well be further investigated for possible spills or underground leaks of petroleum products.

The following compound detected above the MCL:

Cadmium in monitoring wells: 1, 2, 5, 6A, 6B, 7A, 11A, 17A, 17B and 18.

Chromium in monitoring wells: 1, 7A, and 18.

Benzene in monitoring well: 15

CIS-1,2-Dichloroethene in monitoring wells: 2, 6A and 7A.

Trichloroethylene in monitoring wells: 1, 2, 5, 6A, 7A, 11A, 11C and 18.

A summary of the results of the analysis is listed in the Analytical Results for Cadmium, Chromium and VOAs Table. The table identifies the sample sources with the concentrations for cadmium, chromium and VOAs. The analyzed sample data is from the DESA Laboratory, located in Edison, New Jersey. The data sheets are attached as Appendix B.

Table 1

Sample Name & Lab Number	Cd (ppb)	Cr (ppb)	VOA, types (ppb)	Remarks
Blanks	ND	ND	Benzene, 3.0 (J,QM) Ethylbenzene, 8.0 (J,QM) Ethyl Methyl Benzene, 7.9 (J,QM) Methoxy Methyl Propane, 15.0 (J,QT) 1,1,2,2-Tetrachloroethane, 0.7 (J,QM) Toluene, 46 Xylenes (Total), 34	
MW-01/200814	24 * 1	200 * 1	Trichloroethylene, 11 Ethylbenzene 0.6 (J,QM) Tetrachloroethylene, 0.6 (J,QM) Toluene, 3.0 (J,QM) Xylenes (Total), 3.3 (J,QM)	* 1 * 2 * 2 * 2 * 2
MW-02/200815	336 * 1	32	CIS-1,2-Dichloroethene, 350 (J,QT) Trans-1,2-Dichloroethylene, 1.8 (J,QM) Trichloroethylene, 250 Ethylbenzene, 0.8 (J,QM) Tetrachloroethylene, 2.7, (J,QM) Toluene, 0.8 (J,QM) Xylenes (total), 3.8 (J,QM)	* 1 * 1 * 2 * 2 * 2 * 2
MW-03/not sampled				
MW-04/not sampled				
MW-05/200820	18 * 1	26	Trichloroethylene, 1.5 (J,QM) Tetrachloroethylene, 0.6 (J,QM)	* 2
MW-06A/200812	241 * 1	20	CIS-1,2-Dichloroethene, 71 (J,QT) Trichloroethylene, 110 Ethylbenzene, 0.6 (J,QM) Methoxy Methyl Propane, 16 (J,QT) Tetrachloroethylene, 5.6 (J,QM) Toluene, 2.0 (J,QM) Xylenes (total), 3.5 (J,QM)	* 1 * 1 * 2 * 2 * 2 * 2 * 2
MW-06B/200813	22 * 1	17	Ethylbenzene, 0.8 (J,QM) Methoxy Methyl Propane, 4.3 (J,QM) Toluene, 2.8 (J,QM) Xylenes (total), 4.6 (J,QM)	* 2 * 2 * 2 * 2

(J:Estimated Value, QM:Presence of Material Verified but not Quantified, QT: Tentatively Identified Compound)

*1:Found above the MCL

*2:Found in Blanks but not Attributable to the monitoring well

*3:A Common Lab Contaminated

*4:Found in Blanks and Attributable to the monitoring well

Table 1 (Continue)

Sample Name & Lab Number	Cd (ppb)	Cr (ppb)	VOA, types (ppb)	Remarks
MW-07A/200810	24 * 1	109 * 1	CIS-1,2-Dichloroethene, 99 (J,QT) 1,1-Dichloroethane, 7.7 (J,QM) Trichloroethylene, 740 1,1,1-Trichloroethylene, 41 Ethylbenzene, 1.3 (J,QM) Tetrachloroethylene, 2.4 (J,QM) Toluene, 5.1 (J,QM) Xylenes (total), 5.8 (J,QM)	* 1 * 1 * 2 * 2 * 2 * 2
MW-07B/200811	ND	ND	Chlorobenzene, 2.4 (J,QM) Ethylbenzene 1.9 (J,QM) Toluene, 6.6 (J,QM) Xylenes (Total), 8.8 (J,QM) Unknown, 3.6 (J,QT)	 * 2 * 2 * 2
MW-08/not sampled				
MW-09A/not sampled				
MW-09B/not sampled				
MW-10A/201043	ND	ND	Trimethylsilanol, 1.6 (J,QT)	* 3
MW-10B/201044	ND	ND	ND	
MW-11A/201048	90 * 1	22	CIS-1,2-Dichloroethene,0.6 (J,QM) Trichloroethylene, 10 (J,QM) Ethylbenzene, 0.6 (J,QM) Tetrachloroethylene, 2.9 (J,QM) Toluene, 3.1 (J,QM) Xylenes (total), 2.4 (J,QM)	 * 1 * 2 * 2 * 2 * 2
MW-11B/201049	ND	50	Benzene, 0.8 (J,QM) Chloroform, 0.9 (J,QM) Trichloroethylene, 0.5 (J,QM) Ethylbenzene, 3.1 (J,QM) Methoxy Methyl Propane, 19 (J,QM) Toluene, 15 (J,QM) Xylenes (total), 13 (J,QM)	 * 2 * 2 * 2 * 2

(J:Estimated Value, QM:Presence of Material Verified but not Quantified, QT: Tentatively Identified Compound)

*1:Found above the MCL

*2:Found in Blanks but not Attributable to the monitoring well

*3:A Common Lab Contaminated

*4:Found in Blanks and Attributable to the monitoring well

Table 1 (Continue)

Sample Name & Lab Number	Cd (ppb)	Cr (ppb)	VOA, types (ppb)	Remarks
MW-11C/201050	ND	36	1,1-Dichloroethane, 1.5 (J,QM) Trans-1,2-Dichloroethylene, 4.9 (J,QM) Trichloroethylene, 51 Ethylbenzene, 1.3 (J,QM) Toluene, 4.4 (J,QM) Xylenes (total), 6.0 (J,QM)	* 1 * 2 * 2 * 2
MW-12/not sampled				
MW-13/200817	ND	24	Ethylbenzene, 2.2 (J,QM) Toluene, 7.7 (J,QM) Xylenes (total), 9.9 (J,QM)	* 2 * 2 * 2
MW-14/200809	ND	ND	Ethyl Methyl Benzene, 3.3 (J,QT) Ethylbenzene 3.2 (J,QM) Toluene, 8.0 (J,QM) Xylenes (Total), 15 (J,QM) Unknown, 12 (J,QT)	* 2 * 2 * 2
MW-15/200805	ND	ND	Benzene, 55 Diethyl Benzene, 47 (J,QT) Dihydromethyl-1H-Indene, 86 (J,QT) Ethylbenzene, 68 Indane, 52 (J,QT) 2-Methoxy-2-Methyl Butane, 30 (J,QT) 2-Methoxy-2-Methyl Propane, 790 (J,QT) 2-Methyl-1-Propene, 170 (J,QT) Propyl Benzene, 44 (J,QT) Tetramethyl Benzene, 150 (J,QT) Trimethyl Benzene, 980 (J,QT) Toluene, 37 Xylenes (total), 380 Unknown, 450 (J,QT)	* 1 & * 4 * 4 * 4 * 4 * 4
MW-16/201047	ND	ND	Benzene, 1.6 (J,QM) Ethylbenzene, 5.4 (J,QM) Methoxy Methyl Propane, 26 (J,QM) Toluene, 27 (J,QM) Xylenes (total), 23 (J,QM)	* 2 * 2 * 2 * 2 * 2

(J:Estimated Value, QM:Presence of Material Verified but not Quantified, QT: Tentatively Identified Compound)

*1:Found above the MCL

*2:Found in Blanks but not Attributable to the monitoring well

*3:A Common Lab Contaminated

*4:Found in Blanks and Attributable to the monitoring well

Table 1 (Continue)

Sample Name & Lab Number	Cd (ppb)	Cr (ppb)	VOA, types (ppb)	Remarks
MW-17A/200802	7.0 * 1	46	Chloroform, 0.8 (J,QM) Benzene, 1.2 (J,QM) Ethylbenzene, 4.3 (J,QM) Toluene, 18 Xylenes (total), 19	* 2 * 2 * 2 * 2
MW-17B/200803	147 * 1	45	Benzene, 0.9 (J,QM) Ethylbenzene, 3.8 (J,QM) Toluene, 16 Xylenes (total), 17	* 2 * 2 * 2 * 2
MW-18/ 200819(VOAs) 200821(metals)	24 * 1	143 * 1	Trichloroethylene, 41 2-Methoxy-2-Methyl Propane, 51 (J,QT) Tetachoroethylene, 1.2 (J,QM)	* 1 * 2 * 2
MW-19/201045	ND	ND	Trimethylsilanol, 43 (J,QT)	* 3
MW-20/200804 Dupl for MW-11B	ND	20	Chloroform, 0.8 (J,QM) Trichloroethylene, 0.7 (J,QM) Ethylbenzene, 2.7 (J,QM) Toluene, 14 Xylenes (total), 11	* 2 * 2 * 2

(J:Estimated Value, QM:Presence of Material Verified but not Quantified, QT: Tentatively Identified Compound)

*1:Found above the MCL

*2:Found in Blanks but not Attributable to the monitoring well

*3:A Common Lab Contaminated

*4:Found in Blanks and Attributable to the monitoring well

Appendix A, Quality Assurance Project Plan

WORK/QUALITY ASSURANCE PROJECT PLAN
FOR SAMPLING OF MONITORING WELL
USING A LOW FLOW PUMP PURGING AND SAMPLING PROCEDURES
AT LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NEW YORK

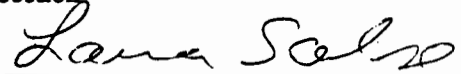
(Project Officer's Signature)



(Project Officer's Name)

Michael A. Mercado, Environmental Scientist
Superfund Support Section

(Project Quality Assurance Officer's Signature)



(Project Quality Assurance Officer's Name)

Laura J. Scalise, Environmental Scientist
Hazardous Waste Support Section

1. **Project Name:** Liberty Industrial Finishing, Farmingdale, NY
2. **Project Requested By:** US EPA - Region 2, ERRD, New York Remediation Branch
3. **Date of Request:** November 1, 1996
4. **Date of Project Initiation:** November 27, 1996
5. **EPA Project Officer:** Michael A. Mercado
6. **EPA Quality Assurance Officer:** Laura J. Scalise
7. **Project Description:** The plan describes the collection of water samples from 26 monitoring wells at the Liberty Industrial Finishing Superfund site in Farmingdale, Long Island. All sampling tasks will conform with the guidelines set forth in the current Region 2 CERCLA Quality Assurance Manual. A copy of this Work/QA Short Form will be on site and available for reference.

A. Objective and Scope Statement: The objective is to get current and representative groundwater contamination data. The analysis of the twenty-six monitoring wells at Liberty Industrial Finishing site will assist in the tracking of the contaminant plume attributable to the site of concern.

B. Data Usage: Data will be used to update the baseline human health risk assessment and prepare a Feasibility Study for evaluation of the groundwater remediation alternatives. The data will be incorporated into the project file. ERRD will be responsible for informing affected residents and the local health department of pertinent results.

C. Monitoring Network Design and Rationale: The twenty-six monitoring wells at Liberty Industrial Finishing site will be sampled for VOAs, Cadmium and Chromium. Because of previous problems with high turbidity associated with the monitoring wells, the low stress groundwater purging & sampling technique is to be used. Therefore, using this technique should provide a more representative sample of the aquifer's actual contents and filtered metals analysis will not be required. Of the twenty-six wells to be sampled, 11 are on the site. The other 15 wells are south of the site. The location of the wells is enclosed as appendix A.

Trip blanks are required for each cooler in which VOAs samples are contained. Field blanks are required, one per decontamination event, not to exceed one per day. Only ten Grundfos Redi-Flo2 pumps are available to be used during this sampling event. Because of the number of pumps available it will require three decontamination operations to insure that each pump is clean before using them to sample. The water used to create blanks will be analyte-free from the DESA lab. Decontamination operations will follow the procedures addressed under section 12, C, in this QAPP

Following this design and rationale, we plan to collect twenty-six groundwater samples, two environmental duplicates, two MS/MSD, two to six trip blanks and three field blanks. The water used for the blank will be supplied by the DESA lab and will be analyte-free.

D. Monitoring Parameters and their Frequency of Collection:

Monitoring well samples and blanks will be analyzed for TCL VOAs, and Cadmium & Chromium except for the trip blanks, which will be analyzed for TCL VOAs only. In the two previous sampling events, VOAs, Cadmium and Chromium were identified as the contaminants of concern. The twenty-six monitoring wells will provide a consistency when comparing the three sampling rounds of data and also to delineate the plume of contaminates.

E. Parameter Table: All analytical and quality assurance requirements of the Laboratory Branch will be followed. All sample parameter data will be incorporated into the table below:

PARAMETER TABLE

Parameter*1	Container Types	Analytical Method	Sample Preservation	Holding Times
TCL VOA's	40ml Vial*2	EPA LAB SOP C-2	(HCl to pH<2.0) Cool to 4 C	14 days
Cadmium & Chromium	1l plastic bottle*3	EPA LAB SOP C-7	(HNO ₃ to pH<2.0) Cool to 4 C	6 months

*1 For each parameter there will be twenty-six well samples, two duplicate, two MS/MSD, and three field blank, for a total of 30 samples and three field blank.

*2 six, 40 ml vials for the first and the twenty-first sample (no head space); three 40 ml vials for each additional sample.

*3 Three, 1 liters bottles for the first and twenty-first sample, one 1 liter bottle for each additional sample.

8. Project Fiscal Information (Optional): Not included.

9. Schedule of Tasks and Products:

<u>Activity</u>	<u>Date</u>
Review and Background Information	October 9, 1996
Submit a QA plan	October 10, 1996
Book samples anticipated to be collected	October 9, 1996

Obtain Site Access	Prearranged by ERRD
Mobilize to Site	October 17, 1996
Complete Field Work	November 1, 1996
Package and ship samples to laboratory	Package at the time of sampling and will be hand delivered by with in 48 hours of sampling
Prepare Sampling Trip Report	Within one week of the sampling event
Prepare and submit data presentation to ERRD	Within two weeks of receipt of validated analytical data from EPA Laboratory

10. Project Organization and Responsibility: The following is a list of key project personnel and their corresponding responsibilities:

Lorenzo Thantu, Site Manager	-site remedial project manager
Michael A Mercado, Superfund Contract Support Team Project Officer	-sampling operations
Michael A Mercado, Superfund Contract Support Team Project Officer	-sampling QC
Laboratory Branch	-laboratory analysis
Laboratory Branch	-laboratory QC
Laboratory Branch	-data processing activities
Laboratory Branch	-data processing QC
Laboratory Branch	-data quality review
N/A	-performance auditing
N/A	-systems auditing
HWSS	-overall QA
Michael A Mercado, Superfund Contract Support Team	-overall sampling project
Michael A Mercado, Superfund Contract Support Team	-health and safety officer

11. Data Quality Requirements and Assessments: The data quality requirements for Laboratory Branch are listed in the EPA-DESA laboratory SOP's.

12. Sampling Procedures: Sampling procedures will be in accordance with EPA/540/P-91/007, dated January 1991, Compendium of ERT Groundwater Sampling Procedures, Groundwater Well Sampling: SOP # 2007. But due to the sampling objectives and the site background, this site is an excellent opportunity for a case study of the low stress purging and sampling technique. Since SOP # 2007 does not fully address low stress purging and sampling, the following procedures will be added to the sampling event.

A. Low Stress Purging and Sampling Procedure:

1. Prior to sampling, Heron Instruments' water level indicator, dipper-T with a P-4 probe will be used to measure the water column. When possible, the well will be sounded the day before sampling. The probe will be lowered slowly into the well to prevent disturbing the water column. The distance from the water surface to the reference measuring point on well casing will be measured and double checked to confirm measurement. The distance to the top of the water column will be recorded to the 10th of an inch. After measuring the top of the water, slowly lower the probe until it touches bottom. Follow the same procedure as in measuring distance to the top of the water column. After recording the measured distances rewind the tape w/ probe. Using Kim wipes and DI water, clean the tape and probe as it is being rewound.

2. Wait at least 2 hours or more after placing the pump in the well before purging, using the low stress purging and sampling procedure. This procedure requires that the wells be purged at a starting rate between 200 and 500 ml/min. The rate is to be adjusted as needed to prevent drawdown and causing turbulence within the well. All wells will be purged and sampled using the Redi-Flo 2 submersible pump from Grundfos. The components of these pumps are made of 316 stainless steel and virgin Teflon. The wells will be considered stabilized and ready for sampling when the indicator parameters have stabilized for three successive readings. Readings will be taken at about five minutes apart. The parameters to be used to determine if the well is stabilized are: pH \pm 0.05%, specific conductance \pm 3%, temperature \pm 10%, dissolved oxygen \pm 10%, and turbidity \pm 10%.

3. The sampling flow rate will be at the same rate that stabilization occurred except for collection of VOAs. Sampling flow rate for VOAs will be at about 100ml/min. For more details see section IV, Sampling procedure, in EPA Region II, Ground Water Sampling Procedure, Low Stress Purging and Sampling Draft SOP (Appendix B).

B. Samples Preservation: Samples will be collected into Environmental Sampling Supply Co. and Eagle Picher Co pre-cleaned glassware. Samples will then be preserved with HCl for VOAs and HNO₃ for Cadmium & Chromium at a pH_≤2.

The procedure for preserving VOAs samples with 1:1 HCl will be as follows:

1. Fill a 40 ml Vial with purge water near the end of the purging cycle.
2. Add four drops of HCl to the 40ml Vial and test with pH paper. If the pH paper indicates that the $\text{pH} \leq 2$, four drops will be used to preserve the sample for VOAs. If the pH paper indicates that the $\text{pH} > 2$, then add a drop at a time until the $\text{pH} \leq 2$ and use this amount of HCl to preserve the VOAs samples.

The procedure for preserving cadmium & chromium with ultrapure HNO_3 will be as follows:

After sampling for cadmium & chromium, add 2ml of HNO_3 . Close the container and shake. Open the container and pour some of the sample on to the cap. Use pH paper to measure the pH of the sample. Pour what is in the cap over the pH paper. If the pH paper indicates that the $\text{pH} \leq 2$, close the container and store the sample in the cooler. If the pH paper indicates that the $\text{pH} > 2$, then add two ml until the $\text{pH} \leq 2$, then store the sample in the cooler. Do this to each sample taken for cadmium & chromium.

Samples will be maintained in sealed cooler(s) w/ice at 4 degrees C. All samples will be taken between October 17 and November 1, 1996. All samples will be handed delivered within 48 hours of sampling to EPA-DESA-LAB.

C. Decontamination Procedures: Equipment must be decontaminated prior to use. The following steps are the decontamination procedures for the Grundfos pump:

1. Flush the equipment/pump with potable water for five minutes, 8-10 gallons.
2. Flush with non-phosphate detergent solution for five minutes, 8-10 gallons.
3. Flush with tap water to remove all of the detergent solution for five minutes, 8-10 gallons.
4. Disassemble the pump.
5. Place the disassembled parts of the pump into a dish pan filled with Alconox solution.
6. Scrub all parts in the dish pan with a test tube brush.
7. Rinse with potable water.
8. Rinse with distilled/deionized water the Inlet Screen, the shaft, the suction interconnector, the motor lead assembly, the rotor and the stator housing.

9. Place the impeller assembly in a large bleaker and rinse with % 1 HNO₃.

10. Rinse impeller assembly with potable water.

11. Place the impeller assembly in a large bleaker and rinse with isopropanol.

12. Rinse impeller assembly with distilled/deionized water.

13. Sample Custody Procedures: Sample custody seals will be placed on each cooler in which samples are contained. Completed Chain of custody forms will accompany each cooler. The custody seals will record the date and time of placement as well as the originator. At the conclusion of the days sampling event the coolers with sample will be sealed. The samples will be hand delivered within forty-eight hours to the EPA Laboratory for log-in. Chain of custody forms will accompany each shipment of samples. If samples are delivered to the Laboratory after 5:00 PM, the coolers will be stored overnight in a designated secure area. The following morning, samples will be delivered to the Laboratory staff followed by log-in. All coolers with samples will be check daily to insure that there is sufficient ice in the cooler to maintain the samples at 4°C.

14. Calibration Procedures and Preventative Maintenance: Laboratory will follow appropriate procedures as specified in the EPA-DESA Laboratory SOP's. The following field equipment will be used to check for stabilization of the aquifer during purging: LaMotte Model 2008 Turbidity Meter, Orion Research Portable pH Meter 200 Series, Cole-Parmer Conductivity Meter, Model 1500 and YSI Model 51B Oxygen meter. All of these will be calibrated before operating and maintained in accordance with the equipment operator's manual.

15. Documentation, Data Reduction, and Reporting:

A. Documentation: Data sheets, field logs, traffic reports, photographs and chain of custody forms will be kept by the project manager of each individual site.

B. Data Reduction and Reporting: The laboratory performing the analysis will calculate and transfer data to ERRD-RPM for the site per DESA protocol.

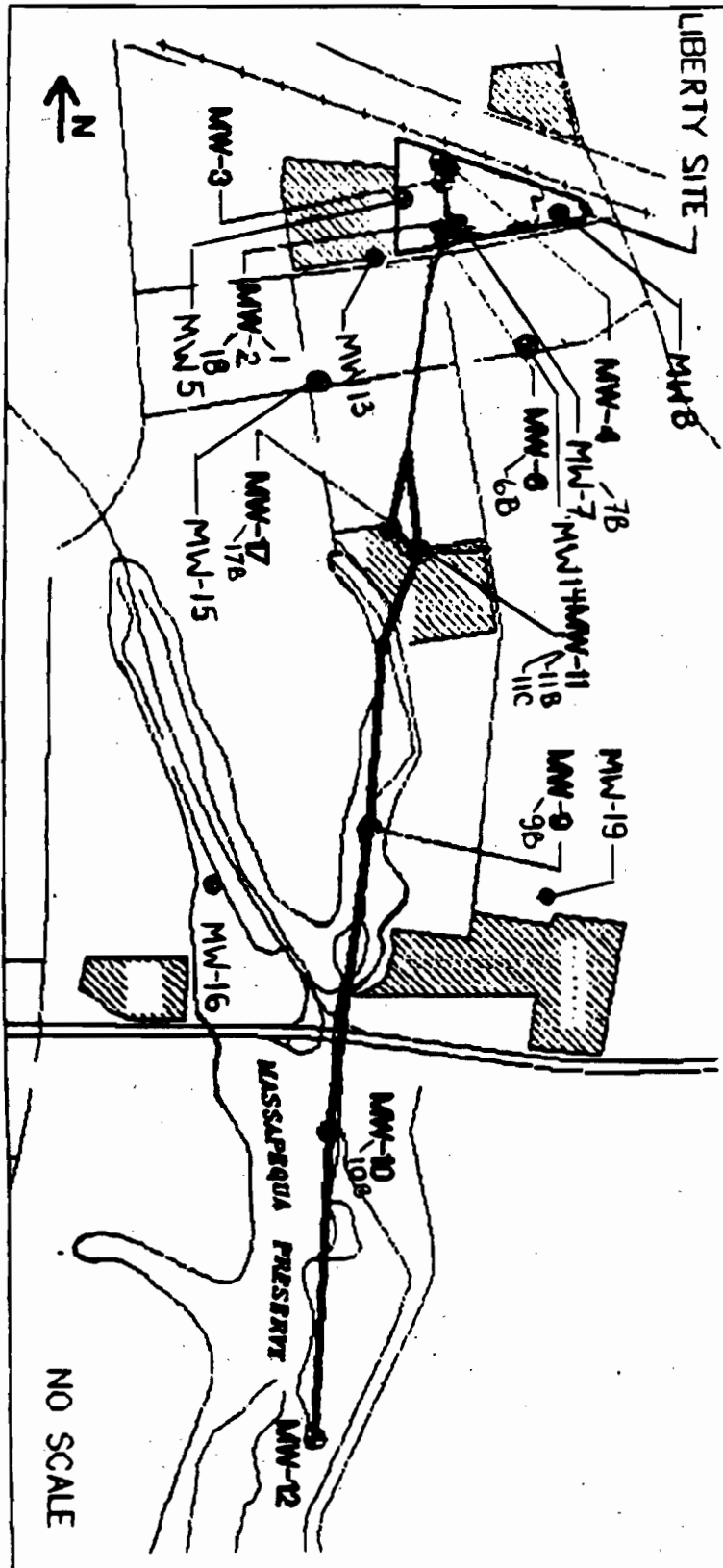
16. Data Validation: The US EPA Laboratory will perform all data validation in house for all samples which it analyzes.

17. Performance and Systems Audits: As according to DESA-HWSB and DESA-Laboratory SOP's.

18. Corrective Action: Corrective Action will be performed as required by the project manager in the field and by the audit report.

19. Reports: A data presentation will be prepared by the project manager and submitted to ERRD's RPM in New York.

LIBERTY INDUSTRIAL FINISHING SITE
FARMINGDALE, LONG ISLAND, NY
MONITORING WELL SITES
LOCATIONS



DRAFTU.S. ENVIRONMENTAL PROTECTION AGENCY
REGION IIGROUND WATER SAMPLING PROCEDURE
LOW STRESS PURGING AND SAMPLING

I. SCOPE & APPLICATION

This Low Stress (also known as Low-Flow) Purging and Sampling Standard Operating Procedure (SOP) is the EPA Region II standard method for collecting groundwater samples from monitoring wells with minimum stress on the formation and minimum disturbance of sediment in the well. This procedure is appropriate for the collection of groundwater samples that will be analyzed for volatile and semi-volatile organic compounds (VOCs and SVOCs), pesticides, PCBs, metals, microbiological and other contaminants in association with any EPA program. This SOP does not address the collection of non-aqueous phase samples. The reader is referred to DNAPL Site Evaluation (Cohen & Mercer, 1993) and the RCRA Ground-Water Monitoring: Draft Technical Guidance (EPA/530-R-93-001).

This SOP does not address the collection of non-aqueous phase samples. For this, the reader is referred to the publications: DNAPL Site Evaluation (Cohen & Mercer, 1993) and the RCRA Ground-Water Monitoring: Draft Technical Guidance (EPA/530-R-93-001).

The goal of the Low Stress Purging and Sampling technique is to collect more representative samples by matching the intake velocity of the sampling device with the natural groundwater flow velocity, thereby reducing sample disturbance. The primary advantage of this procedure is the collection of low turbidity samples (i.e., samples with low concentrations of suspended particles) and the reduction of sample aeration, resulting in samples which are more representative of in situ groundwater conditions. Use of this technique eliminates the need for collecting and analyzing filtered samples at the same well location, thus saving time and analytical costs while producing samples which are more representative of true aquifer conditions. The Low Stress Purging and Sampling technique also, in most cases, significantly reduces the volume of groundwater purged from a well and the costs associated with its proper disposal.

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1
2 **II. EQUIPMENT**
3

- 4 ▶ Adjustable rate, positive displacement groundwater
5 sampling pumps (e.g., centrifugal or bladder pumps
6 constructed of stainless steel or Teflon). Peristaltic
7 pumps may be used only for inorganic sample collection.
8
- 9 ▶ The presence or absence of Light and Dense Non-Aqueous
10 Phase Liquids (LNAPL, DNAPL) should be determined using
11 an interface probe or equivalent method. Ideally, this
12 should be done a day or two before sampling, or after
13 sampling when total well depth is measured. Probing
14 for, and or sampling NAPLs immediately before low flow
15 sampling may cause significant disturbance of the water
16 column in the well and excessive purge durations.
17
- 18 ▶ Tubing: Tubing used in purging and sampling each well
19 must be dedicated to that well. Once properly located,
20 moving the pump in the well should be avoided.
21 Consequently the same tubing shall be used for purging
22 and sampling. Teflon or Teflon lined polyethylene
23 tubing must be used to collect samples for organic
24 analysis. For samples collected for inorganic
25 analysis, Teflon or Teflon lined polyethylene, PVC,
26 Tygon or polyethylene tubing may be used.
27
- 28 ▶ Water level measuring device, 0.01 foot accuracy,
29 (electronic preferred for tracking water level drawdown
30 during all pumping operations).
31
- 32 ▶ Flow measurement supplies (e.g., graduated cylinder and
33 stop watch).
34
- 35 ▶ Interface probe, if needed.
36
- 37 ▶ Power source (generator, nitrogen tank, etc.).
38
- 39 ▶ Purge criteria parameter monitoring instruments - pH,
40 turbidity, specific conductance, temperature, Eh and
41 dissolved oxygen (DO). In-line analyzers and
42 continuous readout displays are highly recommended
43 since they increase the accuracy of the method,
44 generally decrease the effort and time necessary to
45 perform the procedure, and decrease the purge water
46 volume.
47
- 48 ▶ Decontamination supplies.
49
- 50 ▶ Logbook(s).

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- 1 ▶ Sample Bottles.
- 2
- 3 ▶ Sample preservation supplies (as required by the
- 4 analytical methods).
- 5
- 6 ▶ Sample tags or labels, chain of custody.
- 7
- 8 ▶ Well construction data, location map, field data from
- 9 last sampling event.
- 10
- 11 ▶ Approved site-specific Field Sampling Plan /Quality
- 12 Assurance (QAP) Project Plan.
- 13

14 III. PRELIMINARY SITE ACTIVITIES

- 15
- 16 ▶ Check well for damage or evidence of tampering, record
- 17 pertinent observations.
- 18
- 19 ▶ Lay out sheet of polyethylene for monitoring and
- 20 sampling equipment.
- 21
- 22 ▶ Measure VOCs at the rim of the unopened well with a PID
- 23 or FID (Flame Ionization Detector or Photo Ionization
- 24 Detector) instrument and record the reading in the
- 25 field logbook.
- 26
- 27 ▶ Remove well cap.
- 28
- 29 ▶ Measure VOCs at the rim of the well with a PID or FID
- 30 instrument and record the reading in the field logbook.
- 31
- 32 ▶ If the well casing does not have a reference point
- 33 (usually a V-cut or indelible mark in the well casing),
- 34 make one.
- 35
- 36 ▶ Measure and record the depth to water (to 0.01 ft) in
- 37 all wells to be sampled before any purging begins.
- 38 Care should be taken to minimize disturbance to the
- 39 water column and to any particulate attached to the
- 40 sides or at the bottom of the well.
- 41
- 42 ▶ ~~Either procede to IV below, or~~ measure and record the
- 43 ~~depth of any DNAPL's or LNAPL's with an interface probe~~
- 44 ~~as appropriate.~~ When measuring and recording the
- 45 presence or depth of DNAPL, care should be given to
- 46 minimize disturbance of any sediment which has
- 47 accumulated at the bottom of the well.
- 48

49 IV. SAMPLING PROCEDURE

50

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1 Pumps specified in Section II of this SOP will be used to
2 purge and sample monitoring wells which have a 2.0 inch I.D.
3 or greater well casing.
4

- 5 1. Install Pump: Pump, safety cable, tubing and electrical
6 lines will be lowered slowly into the well. The pump intake
7 must be kept at least two feet above the bottom of the well
8 to prevent mobilization of any sediment or NAPL present in
9 the bottom of the well. The depth that to which the pump is
10 lowered and the sample collected should be justified in the
11 sampling plan. In most cases, inspection of borehole
12 geologic and geophysical logs is a good indicator to
13 estimate the most permeable zone in the screened interval.
14 The pump should be placed in the center of this zone.
15 However, in some cases an alternate location for placement of
16 the pump in the well may be considered appropriate. In any
17 case, the depth to which the pump is lowered and the sample
18 collected should be accurately determined and recorded so
19 that the pump can be placed in the same location for
20 subsequent sampling events. ~~to a depth corresponding to the~~
21 ~~center of the saturated screen section of the well.~~
22
- 23 2. Measure Water Level: Before starting the pump, measure the
24 water level again with the pump in the well.
25
- 26 3. Purging: Start pumping the well at 200 to 500
27 milliliters per minute. The water level should
28 optimally be monitored continuously, but at minimum,
29 every three to five minutes during pumping. Ideally, a
30 steady flow rate should be maintained that results in a
31 stabilized water level (less than 0.3 ft variation).
32 Pumping rates should, if needed, be reduced to the
33 minimum capabilities of the pump to ensure
34 stabilization of the water level. However, care should
35 be taken to maintain pump suction and to avoid
36 entrainment of air in the tubing. Record each
37 adjustment made to the pumping rate and the water level
38 measured immediately after each adjustment.
39

40 If the recharge rate of the well is very low, care
41 should be taken to avoid loss of pressure in the tubing
42 line, cascading through the sand pack, or pumping the
43 well dry. Purging should be interrupted before the
44 water in the well to a level below the top of the pump.
45 Sampling should commence as soon as the volume in the
46 well has recovered sufficiently to permit collection of
47 samples. Alternatively, you may consider obtaining
48 ground water samples from low-yielding aquifers with
49 techniques designed for the unsaturated zone, such as
50 lysimeters.

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1 4. Monitor Indicator Parameters: During purging of the well,
2 monitor and record the field indicator parameters
3 (turbidity, temperature, specific conductance, pH, DO, etc.)
4 every three to five minutes. In-line analyzers and
5 continuous readout displays are highly recommended. The
6 well is considered stabilized and ready for sample
7 collection once when the indicator parameters have
8 stabilized for three successive readings as follows: 10% for
9 DO and turbidity; 3% for specific conductance; 0.05% for pH
10 (Puls, 1993) all the field indicator parameter values
11 remain within 10% for three consecutive readings. ~~If the~~
12 ~~parameters have stabilized, but the turbidity is not less~~
13 ~~than the 50 NTU SET REFERENCE, goal the pump flow rate~~
14 ~~should be decreased to no more than 250 ml/min. Measurement~~
15 ~~of the indicator parameters should continue every three to~~
16 ~~five minutes. Measurements for DO and Eh must be obtained~~
17 in manner in which the sample is not exposed to air prior to
18 the measurement. Other parameters may be taken in a clean
19 container, such as a glass beaker.

20
21 5. Collect Samples: Samples should be collected at flow rates
22 of between 100 and 250 ml/min ~~and or~~ such that drawdown of
23 the water level within the well ~~is not induced within~~ ~~does~~
24 ~~not exceed~~ the 0.3 ft tolerance. VOCs samples must be
25 collected first and directly into pre-preserved sample
26 containers. All sample containers should be filled by
27 allowing the pump discharge to flow gently down the inside
28 of the container with minimal turbulence.

29
30 Groundwater samples collected in association with some EPA
31 programs require pH adjustment. The appropriate EPA Program
32 Guidance should be consulted to determine whether pH
33 adjustment is necessary.

34
35 6. Remove Pump and Tubing: After collection of the samples,
36 the pump's tubing, unless permanently installed, shall be
37 properly discarded or dedicated to the well for re-sampling
38 (by hanging the tubing inside the well), decontaminated or
39 properly discarded.

40
41 6. Well Depth: Measure and record well depth.

42
43 7. Close down: Secure the well.

44
45
46 V. **DECONTAMINATION**

47
48 Sampling equipment will be decontaminated prior to use and
49 following sampling of each well. Pumps will not be removed
50 between purging and sampling operations. The pump

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1 (including support cable and electrical wires which are in
2 contact with the sample) will be decontaminated by the
3 following procedure.
4

- 5 ▶ The decontaminating solutions can be either be pumped
6 from buckets through the pump or the pump can be
7 disassembled and flushed with the decontaminating
8 solutions. It is recommended that detergent used in
9 the decontamination process be used sparingly and water
10 flushing steps be extended to ensure that any sediment
11 trapped in the pump is flushed out. The outside of the
12 pump and the electrical wires must be rinsed with the
13 decontaminating solutions, as well. The procedure is
14 as follows:
15
- 16 ▶ Flush the equipment/pump with potable water (minimum
17 five gallons).
18
- 19 ▶ Flush with non-phosphate detergent solution (minimum
20 five gallons).
21
- 22 ▶ Flush with tap water to remove all of the detergent
23 solution (minimum five gallons).
24
- 25 ▶ Flush with distilled/deionized water.
26
27

28 VI. FIELD QUALITY CONTROL

29
30 Quality control samples are required to verify that the
31 sample collection and handling process has not affected the
32 quality of the ground water samples. Quality control
33 requirements and procedures may be program specific. some
34 or all of the following procedures are probably required by
35 all.
36

37 All field quality control samples must be prepared exactly
38 as regular investigation samples with regard to sample
39 volume, containers, and preservation. The following
40 quality control samples will be collected for each batch of
41 samples (a batch may not exceed 20 samples). Trip blanks
42 are required for the VOC samples at frequency of one per
43 sample cooler.
44

- 45 ▶ Field duplicate.
46
- 47 ▶ Equipment blank (not necessary if equipment is
48 dedicated to the well).
49
- 50 ▶ Trip blank (VOCs)

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1
2 Groundwater samples should be collected from the areas of
3 the lowest level of contamination at the beginning of daily
4 sampling to areas of the highest at the conclusion of daily
5 sampling. The equipment blanks collected from the pump
6 should be collected after sampling from the most
7 contaminated wells.
8

9 **VII. FIELD LOGBOOK**

10
11 A field log must be kept each time ground water monitoring
12 activities are conducted in the field. The field logbook
13 should document the following:
14

- 15 ▶ Well identification.
- 16
- 17 ▶ Well depth, and measurement technique.
- 18
- 19 ▶ Static water level depth, date, time, and measurement
20 technique.
- 21
- 22 ▶ Presence and thickness of immiscible liquid layers and
23 detection method.
- 24
- 25 ▶ Collection method for immiscible liquid layers.
- 26
- 27 ▶ Pumping rate, drawdown, indicator parameters values,
28 and clock time, at three to five minute intervals;
29 calculate or measure total volume pumped.
- 30
- 31 ▶ Well sampling sequence and time of sample collection.
- 32
- 33 ▶ Types of sample bottles used and sample identification
34 numbers.
- 35
- 36 ▶ Preservatives used.
- 37
- 38 ▶ Parameters requested for analysis.
- 39
- 40 ▶ Field observations of sampling event.
- 41
- 42 ▶ Name of sample collector(s).
- 43
- 44 ▶ Weather conditions.
- 45
- 46 ▶ QA/QC data for field instruments.

Appendix B, Sample Data Sheets



LAB DATA MANAGEMENT SYSTEM - REGION 11
COMPLETED PROJECT APPROVAL

REPORT DATE 97/01/08

PROJECT NUMBER PROJECT DATE PROJECT NAME

425 96/10/31 LIBERTY SITE

g/b
APPROVED ~~K. W. Kull~~
1/8/77

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

EXPLANATIONS OF REMARK CODES

REMARK CODE	EXPLANATION
B	RESULTS BASED UPON COLONY COUNTS OUTSIDE ACCEPTABLE RANGE
J	ESTIMATED VALUE
K	ACTUAL VALUE KNOWN TO BE LESS THAN VALUE GIVEN
L	ACTUAL VALUE KNOWN TO BE GREATER THAN VALUE GIVEN
M	NO OBSERVABLE EFFECT CONCENTRATION < 0.3%
O	SAMPLED BUT NOT ANALYZED DUE TO LAB ACCIDENT
T	REPORTED VALUE LESS THAN CRITERIA OF DETECTION
U	REPORTING LIMIT

QA/QC REMARK CODES

CODE	EXPLANATION
GD	ACCURACY CHECK SAMPLE ABOVE UPPER ACCEPTANCE LIMIT
QE	ACCURACY CHECK SAMPLE BELOW LOWER ACCEPTANCE LIMIT
QF	PRECISION OF CALIBRATION CURVE LESS THAN ACCEPTANCE CRITERIA
QJ	ESTIMATED DETECTION LIMIT DUE TO INTERFERENCE
QG	CONTINUING CALIBRATION CHECK DOES NOT MEET ACCEPTANCE CRITERIA
QS	SPIKE RECOVERIES ABOVE UPPER ACCEPTANCE LIMIT
QR	SPIKE RECOVERIES BELOW LOWER ACCEPTANCE LIMIT
QP	SAMPLE REPLICATE PRECISION DOES NOT MEET ACCEPTANCE CRITERIA
QH	RECOMMENDED HOLDING TIMES EXCEEDED
QT	TENTATIVELY IDENTIFIED COMPOUND
QH	PRESENCE OF MATERIAL VERIFIED BUT NOT QUANTIFIED
QB	BLANK CONTAMINATED BY ANALYTE IN EXCESS OF ACCEPTANCE CRITERIA
QQ	SAMPLE IMPROPERLY PRESERVED

LOCATION CODES FOR IDENTIFICATION OF SAMPLING POINTS AT INDUSTRIAL / SANITARY FACILITIES, LANDFILLS, HAZARDOUS WASTE SITES.

CODE NUMBERS	SAMPLING POINTS
1001 - 1050	EFFLUENT PIPE NUMBER 001 TO 050
1051 - 1099	OTHER EFFLUENTS SUCH AS COOLING TOWER DISCHARGE, DISCHARGE FROM HOLDING PONDS, ETC....
1100 - 1249	IN PLANT SAMPLES
1435 - 1454	SEPARATE INFLUENT POINTS/WATER SOURCES
15XX	INFLUENT ASSOCIATED WITH EFFLUENT 10XX
2000	BLANK FOR VOLATILE ORGANICS
3000 - 3099	GROUND WATER FROM WELL 01 TO 99
3100 - 3199	SEDIMENT SAMPLE (WATER BOTTOM)
3200 - 3299	SOIL SAMPLE
3300 - 3399	STREAM WATER SAMPLE
3400 - 3499	LAGOON SAMPLE
3500 - 3599	STORAGE TANK SAMPLE
3600 - 3699	LEACHATE SAMPLE
3700 - 3799	OTHER TYPE SAMPLE

CORRECTED COPY

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

HOME 96/10/31 1000
 DEPTH: 0000 SUBSTRATE: AQUEOUS
 DESCRIPTION: TRIP BLANK

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY REMARK QA/QC

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	REMARK	QA/QC
200801	34418	METHYL CHLORIDE	UG/L			10 U
	34413	METHYL BROMIDE	UG/L			10 U
	39175	VINYL CHLORIDE	UG/L			10 U
	34311	CHLOROETHANE	UG/L			10 U
	34423	METHYLENE CHLORIDE	UG/L			10 U
	99930	ACETONE	UG/L			10 U
	99964	CARBON DISULFIDE	UG/L			10 U
	34501	1,1-DICHLOROETHYLENE	UG/L			10 U
	34496	1,1-DICHLOROETHANE	UG/L			10 U
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L			10 U
	32106	CHLOROFORM	UG/L			10 U
	99999	2-BUTANONE	UG/L			10 U
	32103	1,2-DICHLOROETHANE	UG/L			10 U
	34506	1,1,1-TRICHLOROETHANE	UG/L			10 U
	99999	VINYL ACETATE	UG/L			10 U
	32102	CARBON TETRACHLORIDE	UG/L			10 U
	32101	DICHLOROBROMOMETHANE	UG/L			10 U
	34541	1,2-DICHLOROPROPANE	UG/L			10 U
	99999	CIS-1,3-DICHLOROPROPENE	UG/L			10 U
	39180	TRICHLOROETHYLENE	UG/L			10 U
	34030	BENZENE	UG/L			3.0 J GM
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L			10 U
	34511	1,1,2-TRICHLOROETHANE	UG/L			10 U
	32105	CHLORODIBROMOMETHANE	UG/L			10 U
	99999	2-HEXANONE	UG/L			10 U
	99999	4-METHYL-2-PENTANONE	UG/L			10 U
	32104	BROMOFORM	UG/L			10 U
	34475	TETRACHLOROETHYLENE	UG/L			10 U
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L			10 U
	34010	TOLUENE	UG/L			46
	34301	CHLOROBENZENE	UG/L			10 U
	34371	ETHYLBENZENE	UG/L			8.0 J GM
	99921	STYRENE	UG/L			10 U
	99920	XYLENES (TOTAL)	UG/L			34
	99999	METHOXY METHYL PROPANE	UG/L			15 J
	99999	ETHYL METHYL BENZENE	UG/L			7.9 J QT

MM17A 96/11/04 1650
 DEPTH: 0016 SUBSTRATE: AQUEOUS
 DESCRIPTION: MM-17A

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC	REMARK
200802	34418	METHYL CHLORIDE	UG/L		10 U		
200802	34413	METHYL BROMIDE	UG/L		10 U		
	39175	VINYL CHLORIDE	UG/L		10 U		
	34311	CHLOROETHANE	UG/L		10 U		
	34423	METHYLENE CHLORIDE	UG/L		10 U		
	99930	ACETONE	UG/L		10 U		
	99964	CARBON DISULFIDE	UG/L		10 U		
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U		
	34496	1,1-DICHLOROETHANE	UG/L		10 U		
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U		
	32106	CHLOROFORM	UG/L		0.8 J		QM
	99999	2-BUTANONE	UG/L		10 U		
	32103	1,2-DICHLOROETHANE	UG/L		10 U		
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U		
	99999	VINYL ACETATE	UG/L		10 U		
	32102	CARBON TETRACHLORIDE	UG/L		10 U		
	32101	DICHLOROBROMOMETHANE	UG/L		10 U		
	34541	1,2-DICHLOROPROPANE	UG/L		10 U		
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U		
	39180	TRICHLOROETHYLENE	UG/L		10 U		
	34030	BENZENE	UG/L		1.2 J		QM
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U		
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U		
	32105	CHLORODIBROMOMETHANE	UG/L		10 U		
	99999	2-HEXANONE	UG/L		10 U		
	99999	4-METHYL-2-PENTANONE	UG/L		10 U		
	32104	BROMOFORM	UG/L		10 U		
	34475	TETRACHLOROETHYLENE	UG/L		10 U		
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U		
	34010	TOLUENE	UG/L		18		
	34301	CHLOROBENZENE	UG/L		10 U		
	34371	ETHYLBENZENE	UG/L		4.3 J		QM
	99921	STYRENE	UG/L		10 U		
	99920	XYLENES (TOTAL)	UG/L		19		
	01077	SILVER	UG/L		10 U		
	01105	ALUMINUM	UG/L		200 U		
	01007	BARIUM	UG/L		200 U		
	01012	BERYLLIUM	UG/L		5 U		
	00916	CALCIUM	MG/L		22		
	01027	CADMIUM	UG/L		7		
	01037	COBALT	UG/L		50 U		

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

MJ178 96/11/04 1645
DEPTH: 0040 SUBSTRATE: AQUEOUS
DESCRIPTION: MJ-178

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200802	01034	CHROMIUM	UG/L		46	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		245	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		15 U	
	00929	SODIUM	MG/L		34	
	01067	NICKEL	UG/L		40 U	
	01097	ANTIMONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		20 U	
200803	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2-DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		10 U	
	34030	BENZENE	UG/L		0.9 J	CM
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO	PARAMO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200803	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		10 U	
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		16	
	34301	CHLOROETHYLENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		3.8 J	CM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		17	
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		15	
	01027	CADMIUM	UG/L		147	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		45	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		180	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		2130	
	00929	SODIUM	MG/L		23	
	01067	NICKEL	UG/L		40 U	
	01097	ANTIMONY	UG/L		80 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		20 U	
200804	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	

MW20 96/10/31 1700
 DEPTH: 0023 SUBSTRATE: AQUEOUS
 DESCRIPTION: MW-20

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC	REMARK
200804	34546	TRANS 1,2-DICHLOROETHYLENE	UG/L		10 U		
	32106	CHLOROFORM	UG/L		0.8 J		OK
	99999	2-BUTANONE	UG/L		10 U		
	32103	1,2-DICHLOROETHANE	UG/L		10 U		
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U		
	99999	VINYL ACETATE	UG/L		10 U		
	32102	CARBON TETRACHLORIDE	UG/L		10 U		
	32101	DICHLOROBROMOMETHANE	UG/L		10 U		
	34541	1,2-DICHLOROPROPANE	UG/L		10 U		
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U		
	39180	TRICHLOROETHYLENE	UG/L		0.7 J		OK
	34030	BENZENE	UG/L		0.9 J		OK
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U		
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U		
	32105	CHLORODIBROMOMETHANE	UG/L		10 U		
	99999	2-HEXANONE	UG/L		10 U		
	99999	4-METHYL-2-PENTANONE	UG/L		10 U		
	32104	BROMOFORM	UG/L		10 U		
	34475	TETRACHLOROETHYLENE	UG/L		10 U		
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U		
	34010	TOLUENE	UG/L		14		
	34301	CHLOROBENZENE	UG/L		10 U		
	34371	ETHYLBENZENE	UG/L		2.7 J		OK
	99921	STYRENE	UG/L		10 U		
	99920	XYLENES (TOTAL)	UG/L		11		
	01077	SILVER	UG/L		10 U		
	01105	ALUMINUM	UG/L		200 U		
	01007	BARIUM	UG/L		200 U		
	01012	BERYLLIUM	UG/L		5 U		
	00916	CALCIUM	MG/L		25		
	01027	CADMIUM	UG/L		5 U		
	01037	COBALT	UG/L		50 U		
	01034	CHROMIUM	UG/L		20		
	01042	COPPER	UG/L		25 U		
	01045	IRON	UG/L		100 U		
	00937	POTASSIUM	MG/L		5 U		
	00927	MAGNESIUM	MG/L		5 U		
	01055	MANGANESE	UG/L		29		
	00929	SODIUM	MG/L		22		
	01067	NICKEL	UG/L		40 U		
	01097	ANTIMONY	UG/L		60 U		

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO
OF DAY

MM15 96/11/05 1015
DEPTH: 0023 SUBSTRATE: AQUEOUS
DESCRIPTION: MW-15

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & QA/QC
REMARK REMARK

200804 01087 VANADIUM 50 U
01092 ZINC 20 U

200805 34418 METHYL CHLORIDE 10 U
34413 METHYL BROMIDE 10 U
39175 VINYL CHLORIDE 10 U
34311 CHLOROETHANE 10 U
34423 METHYLENE CHLORIDE 10 U
99930 ACETONE 10 U
99964 CARBON DISULFIDE 10 U
34501 1,1-DICHLOROETHYLENE 10 U
34496 1,1-DICHLOROETHANE 10 U
34546 TRANS 1,2 DICHLOROETHYLENE 10 U
32106 CHLOROFORM 10 U
99999 2-BUTANONE 10 U
32103 1,2-DICHLOROETHANE 10 U
34506 1,1,1-TRICHLOROETHANE 10 U
99999 VINYL ACETATE 10 U
32102 CARBON TETRACHLORIDE 10 U
32101 DICHLOROBROMOMETHANE 10 U
34541 1,2-DICHLOROPROPANE 10 U
99999 CIS-1,3-DICHLOROPROPENE 10 U
39180 TRICHLOROETHYLENE 10 U
34030 BENZENE 55
99999 TRANS-1,3-DICHLOROPROPENE 10 U
34511 1,1,2-TRICHLOROETHANE 10 U
32105 CHLORODIBROMOMETHANE 10 U
99999 2-HEXANONE 10 U
99999 4-METHYL-2-PENTANONE 10 U
32104 BROMOFORM 10 U
34475 TETRACHLOROETHYLENE 10 U
34516 1,1,2,2-TETRACHLOROETHANE 10 U
34010 TOLUENE 37
34301 CHLOROBENZENE 10 U
34371 ETHYLBENZENE 68
99921 STYRENE 10 U
99920 XYLENES (TOTAL) 380

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO DATE FROM TO DAY OF DAY

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & QA/QC REMARK

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & QA/QC	REMARK
200805	99999	UNKNOWN	UG/L		450 J	QT
	99999	2-METHYL-1-PROPENE	UG/L		170 J	QT
	99999	2-METHOXY-2-METHYL PROPANE	UG/L		790 J	QT
	99999	2-METHOXY-2-METHYL BUTANE	UG/L		30 J	QT
	99999	TRIMETHYL BENZENE	UG/L		980 J	QT
	99999	INDANE	UG/L		52 J	QT
	99999	DIETHYL BENZENE	UG/L		47 J	QT
	99999	TETRAMETHYL BENZENE	UG/L		150 J	QT
	99999	DIHYDROMETHYL-1H-INDENE	UG/L		86 J	QT
	99999	PROPYL BENZENE	UG/L		44 J	QT
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		25	
	01027	CADMIUM	UG/L		5 U	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		10 U	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		11800	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		393	
	00929	SODIUM	MG/L		39	
	01067	NICKEL	UG/L		40 U	
	01097	ANTIMONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		20 U	
	99999	PETRO. HYDROCARBONS IR	MG/L	TOT REC	5 U	QQ
200806	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	

EQUIP BLANK 96/11/04 1420
 DEPTH: 0000 SUBSTRATE: AQUEOUS
 DESCRIPTION: EQUIP BLANKS

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO DAY OF DAY

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200806	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		10 U	
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-NETHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		10 U	
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		4.9 J. CH	
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		1.8 J. CH	
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		8.8 J. CH	
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		5 U	
	01027	CADMIUM	UG/L		5 U	
	01037	COBALT	DG/L		50 U	
	01034	CHROMIUM	UG/L		10 U	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		104	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	UG/L		5 U	
	01055	MANGANESE	UG/L		15 U	
	00929	SODIUM	MG/L		5 U	

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

TRIP BLANK 296/11/04 1400
DEPTH: 0000 SUBSTRATE: AQUEOUS
DESCRIPTION: TRIP BLANK #2

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & REMARK QA/QC REMARK

200806 01067 NICKEL 40 U
01097 ANTIMONY 60 U
01087 VANADIUM 50 U
01092 ZINC 20 U

200807 34418 METHYL CHLORIDE 10 U
34413 METHYL BROMIDE 10 U
39175 VINYL CHLORIDE 10 U
34311 CHLOROETHANE 10 U
34423 METHYLENE CHLORIDE 10 U
99930 ACETONE 10 U
99964 CARBON DISULFIDE 10 U
34501 1,1-DICHLOROETHYLENE 10 U
34496 1,1-DICHLOROETHANE 10 U
34546 TRANS 1,2 DICHLOROETHYLENE 10 U
32106 CHLOROFORM 10 U
99999 2-BUTANONE 10 U
32103 1,2-DICHLOROETHANE 10 U
34506 1,1,1-TRICHLOROETHANE 10 U
99999 VINYL ACETATE 10 U
32102 CARBON TETRACHLORIDE 10 U
32101 DICHLOROBROMOMETHANE 10 U
34541 1,2-DICHLOROPROPANE 10 U
99999 CIS-1,3-DICHLOROPROPENE 10 U
39180 TRICHLOROETHYLENE 10 U
34030 BENZENE 10 U
99999 TRANS-1,3-DICHLOROPROPENE 10 U
34511 1,1,2-TRICHLOROETHANE 10 U
32105 CHLORODIBROMOMETHANE 10 U
99999 2-HEXANONE 10 U
99999 4-METHYL-2-PENTANONE 10 U
32104 BROMOFORM 10 U
34475 TETRACHLOROETHYLENE 10 U
34516 1,1,2,2-TETRACHLOROETHANE 10 U
34010 TOLUENE 4.7 J CM
34301 CHLOROBENZENE 10 U
34371 ETHYLBENZENE 1.2 J CM

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO DATE FROM TO TIME OF DAY

TRIP BLANK 396/11/05 0900
DEPTH: 0000 SUBSTRATE: AQUEOUS
DESCRIPTION: TRIP BLANK #3

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC
200807	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		5.4 J	CM
200808	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		10 U	
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		10 U	
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		0.7 J	CM
	34010	TOLUENE	UG/L		5.8 J	CM
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		2.1 J	CM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		9.4 J	CM

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

MW14 96/11/05 1124

DEPTH: 0020 SUBSTRATE: AQUEOUS
DESCRIPTION: MW-14

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200809	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999-2	BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		10 U	
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		10 U	
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		8.0 J	CM
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		3.2 J	CM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		10 U	
	99999	UNKNOWN	UG/L		15	
	99999	ETHYL METHYL BENZENE	UG/L		12 J	QT
	01077	SILVER	UG/L		3.3 J	QT
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		16	

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO DATE FROM TO TIME OF DAY

MW7A 96/11/05 1450
 DEPTH: 0025 SUBSTRATE: AQUEOUS
 DESCRIPTION: MW-7A

LABNO	PARMO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200809	01027	CADMIUM	UG/L		5 U	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		10 U	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		805	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		117	
	00929	SODIUM	MG/L		35	
	01067	NICKEL	UG/L		40 U	
	01097	ANTIMONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		74	
200810	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		7.7 J	CM
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		41	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		740	
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO DATE FROM TO TIME OF DAY

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & REMARK QA/QC REMARK

200810	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		2.4 J	GM
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		5.1 J	GM
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		1.3 J	GM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		5.8 J	GM
	99999	CIS-1,2-DICHLOROETHENE	UG/L		99 J	QT
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		46	
	01027	CADMIUM	UG/L		24	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		109	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		107	
	00937	POTASSIUM	MG/L		6	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		15 U	
	00929	SODIUM	MG/L		15	
	01067	NICKEL	UG/L		40 U	
	01097	ANTIMONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		20 U	
200811	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	

MW7B 96/11/05 1440
 DEPTH: 0050 SUBSTRATE: AQUEOUS
 DESCRIPTION: MW-7B

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC	REMARK
200811	99964	CARBON DISULFIDE	UG/L		10 U		
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U		
	34496	1,1-DICHLOROETHANE	UG/L		10 U		
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U		
	32106	CHLOROFORM	UG/L		10 U		
	99999	2-BUTANONE	UG/L		10 U		
	32103	1,2-DICHLOROETHANE	UG/L		10 U		
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U		
	99999	VINYL ACETATE	UG/L		10 U		
	32101	CARBON TETRACHLORIDE	UG/L		10 U		
	34541	1,2-DICHLOROPROPANE	UG/L		10 U		
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U		
	39180	TRICHLOROETHYLENE	UG/L		10 U		
	34030	BENZENE	UG/L		10 U		
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U		
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U		
	32105	CHLOROETHANETHANE	UG/L		10 U		
	99999	2-HEXANONE	UG/L		10 U		
	99999	4-METHYL-2-PENTANONE	UG/L		10 U		
	32104	BROMOFORM	UG/L		10 U		
	34475	TETRACHLOROETHYLENE	UG/L		10 U		
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U		
	34010	TOLUENE	UG/L		6:6 J	CM	
	34301	CHLOROBENZENE	UG/L		2.4 J	CM	
	34371	ETHYLBENZENE	UG/L		1.9 J	CM	
	99921	STYRENE	UG/L		10 U		
	99920	XYLENES (TOTAL)	UG/L		8.8 J	CM	
	99999	UNKNOWN	UG/L		3.6 J	QT	
	01077	SILVER	UG/L		10 U		
	01105	ALUMINUM	UG/L		200 U		
	01007	BARIUM	UG/L		200 U		
	01012	BERYLLIUM	UG/L		5 U		
	00916	CALCIUM	MG/L		19		
	01027	CADMIUM	UG/L		5 U		
	01037	COBALT	UG/L		50 U		
	01034	CHROMIUM	UG/L		10 U		
	01042	COPPER	UG/L		25 U		
	01045	IRON	UG/L		100 U		
	00937	POTASSIUM	MG/L		5 U		
	00927	MAGNESIUM	MG/L		5 U		

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO DAY

TIME OF DAY

LABNO PARNO PARAMETER NAME

UNITS CHEMISTRY VALUE & QA/QC REMARK

200812	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		0.6 J	CM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		3.5 J	CM
	99999	METHOXY METHYL PROPANE	UG/L		16 J	QT
	99999	CIS-1,2-DICHLOROETHENE	UG/L		71 J	QT
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		25	
	01027	CAUDIUM	UG/L		241	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		20	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		100 U	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		.5	
	01055	MANGANESE	UG/L		342	
	00929	SODIUM	MG/L		7	
	01067	NICKEL	UG/L		51	
	01097	ANTIMONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		161	
200813	34418	METHYL CHLORIDE	UG/L		10 U	
	34463	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	

MM68 96/11/07 1540
 DEPTH: 0050 SUBSTRATE: AQUEOUS
 DESCRIPTION: MM-68

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

MN6A 96/11/07 1620
 DEPTH: 0025 SUBSTRATE: AQUEOUS
 DESCRIPTION: MN6A

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200811	01055	MANGANESE	UG/L		6980	
	00929	SODIUM	MG/L		50	
	01067	NICKEL	UG/L		40 U	
	01097	ANTIMONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		20 U	
200812	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		110	
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		5.6 J	QM
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		2.0 J	QM

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO
DATE FROM TO
TIME OF DAY

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & QA/QC REMARK

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200813	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		10 U	
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		10 U	
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		2.8 J	OM
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		0.8 J	OM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		4.6 J	OM
	99999	METHOXY METHYL PROPANE	UG/L		4.3 J	QT
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		17	
	01027	CADMIUM	UG/L		22	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		17	
	01042	COPPER	UG/L		39	
	01045	IRON	UG/L		118	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		342	
	00929	SODIUM	MG/L		24	
	01067	NICKEL	UG/L		40 U	
	01097	ANTIMONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		49	

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

MJ1 96/11/07 1710
DEPTH: 0025 SUBSTRATE: AQUEOUS
DESCRIPTION: MJ-1

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200814	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		11	
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		0.6 J	CM
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		3.0 J	CM
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		0.6 J	CM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		3.3 J	CM
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		31	
	01027	CADMIUM	UG/L		24	
	01037	COBALT	UG/L		50 U	

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO DATE FROM TO DAY

LABNO PARNO PARAMETER NAME

UNITS CHEMISTRY VALUE & QA/QC REMARK

200814	01034	CHROMIUM	UG/L	200	
	01042	COPPER	UG/L	27	
	01045	IRON	UG/L	172	
	00937	POTASSIUM	MG/L	5 U	
	00927	MAGNESIUM	MG/L	5 U	
	01055	MANGANESE	UG/L	808	
	00929	SODIUM	MG/L	8	
	01067	NICKEL	UG/L	40 U	
	01097	ANTIMONY	UG/L	60 U	
	01087	VANADIUM	UG/L	50 U	
	01092	ZINC	UG/L	25	

MJ-2 96/11/07 1700
 DEPTH: 0025 SUBSTRATE: AQUEOUS
 DESCRIPTION: MJ-2

200815	34418	METHYL CHLORIDE	UG/L	10 U	
	34413	METHYL BROMIDE	UG/L	10 U	
	39175	VINYL CHLORIDE	UG/L	10 U	
	34311	CHLOROETHANE	UG/L	10 U	
	34423	METHYLENE CHLORIDE	UG/L	10 U	
	99930	ACETONE	UG/L	10 U	
	99964	CARBON DISULFIDE	UG/L	10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L	10 U	
	34496	1,1-DICHLOROETHANE	UG/L	10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L	1.8 J	CM
	32106	CHLOROFORM	UG/L	10 U	
	99999	2-BUTANONE	UG/L	10 U	
	32103	1,2-DICHLOROETHANE	UG/L	10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L	10 U	
	99999	VINYL ACETATE	UG/L	10 U	
	32102	CARBON TETRACHLORIDE	UG/L	10 U	
	32101	DICHLOROBROMETHANE	UG/L	10 U	
	34541	1,2-DICHLOROPROPANE	UG/L	10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L	10 U	
	39180	TRICHLOROETHYLENE	UG/L	250	
	34030	BENZENE	UG/L	10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L	10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L	10 U	
	32105	CHLORODIBROMOMETHANE	UG/L	10 U	
	99999	2-HEXANONE	UG/L	10 U	

REPORT DATE: 97/01/Q8

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC
200815	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		2.7 J	QM
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		3.5 J	QM
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		0.8 J	QM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		3.8 J	QM
	99999	CIS-1,2-DICHLOROETHENE	UG/L		350 J	QT
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		22	
	01027	CADMIUM	UG/L		336	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		32	
	01042	COPPER	UG/L		46	
	01045	IRON	UG/L		100.U	
	00937	POTASSIUM	MG/L		5.U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		15 U	
	00929	SODIUM	MG/L		6	
	01067	NICKEL	UG/L		67	
	01097	ANTIMONY	UG/L		60 U.	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		293	
200817	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	

MW-13 96/11/07 1420
 DEPTH: 0020 SUBSTRATE: AQUEOUS
 DESCRIPTION: MW-13

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO	DATE FROM TO	TIME OF DAY	LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200817			34496		1,1-DICHLOROETHANE	UG/L		10 U	
			34546		TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
			32106		CHLOROFORM	UG/L		10 U	
			99999		2-BUTANONE	UG/L		10 U	
			32103		1,2-DICHLOROETHANE	UG/L		10 U	
			34506		1,1,1-TRICHLOROETHANE	UG/L		10 U	
			99999		VINYL ACETATE	UG/L		10 U	
			32102		CARBON TETRACHLORIDE	UG/L		10 U	
			32101		DICHLOROBROMOMETHANE	UG/L		10 U	
			34541		1,2-DICHLOROPROPANE	UG/L		10 U	
			99999		CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
			39180		TRICHLOROETHYLENE	UG/L		10 U	
			34030		BENZENE	UG/L		10 U	
			99999		TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
			34511		1,1,2-TRICHLOROETHANE	UG/L		10 U	
			32105		CHLORODIBROMOMETHANE	UG/L		10 U	
			99999		2-HEXANONE	UG/L		10 U	
			99999		4-METHYL-2-PENTANONE	UG/L		10 U	
			32104		BROMOFORM	UG/L		10 U	
			34475		TETRACHLOROETHYLENE	UG/L		10 U	
			34516		1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
			34010		TOLUENE	UG/L		7.7 J	QM
			34301		CHLOROBENZENE	UG/L		10 U	
			34371		ETHYLBENZENE	UG/L		2.2 J	QM
			99921		STYRENE	UG/L		10 U	
			99920		XYLENES (TOTAL)	UG/L		9.9 J	QM
			01077		SILVER	UG/L		10 U	
			01105		ALUMINUM	UG/L		200 U	
			01007		BARIUM	UG/L		200 U	
			01012		BERYLLIUM	UG/L		5 U	
			00916		CALCIUM	MG/L		20	
			01027		CADMIUM	UG/L		5 U	
			01037		COBALT	UG/L		50 U	
			01034		CHROMIUM	UG/L		24	
			01042		COPPER	UG/L		25 U	
			01045		IRON	UG/L		250	
			00937		POTASSIUM	MG/L		5 U	
			00927		MAGNESIUM	MG/L		5 U	
			01055		MANGANESE	UG/L		15 U	
			00929		SODIUM	MG/L		11	
			01067		NICKEL	UG/L		40 U	

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO DAY

MJ-18A 96/11/14 1250
DEPTH: 0025 SUBSTRATE: AQUEOUS
DESCRIPTION: MJ-18A

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & REMARK

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK
200817	01097	ANTIMONY	UG/L		60 U
	01087	VANADIUM	UG/L		50 U
	01092	ZINC	UG/L		20 U
200818	34418	METHYL CHLORIDE	UG/L		10 U
	34413	METHYL BROMIDE	UG/L		10 U
	39175	VINYL CHLORIDE	UG/L		10 U
	34311	CHLOROETHANE	UG/L		10 U
	34423	METHYLENE CHLORIDE	UG/L		10 U
	99930	ACETONE	UG/L		10 U
	99964	CARBON DISULFIDE	UG/L		10 U
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U
	34496	1,1-DICHLOROETHANE	UG/L		10 U
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U
	32106	CHLOROFORM	UG/L		10 U
	99999	2-BUTANONE	UG/L		10 U
	32103	1,2-DICHLOROETHANE	UG/L		10 U
	34506	1,1-TRICHLOROETHANE	UG/L		10 U
	99999	VINYL ACETATE	UG/L		10 U
	32102	CARBON TETRACHLORIDE	UG/L		10 U
	32101	DICHLOROBROMOMETHANE	UG/L		10 U
	34541	1,2-DICHLOROPROPANE	UG/L		10 U
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U
	39180	TRICHLOROETHYLENE	UG/L		10 U
	34030	BENZENE	UG/L		10 U
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U
	32105	CHLORODIBROMOMETHANE	UG/L		10 U
	99999	2-HEXANONE	UG/L		10 U
	99999	4-METHYL-2-PENTANONE	UG/L		10 U
	32104	BROMOFORM	UG/L		10 U
	34475	TETRACHLOROETHYLENE	UG/L		10 U
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U
	34010	TOLUENE	UG/L		10 U
	34301	CHLOROBENZENE	UG/L		10 U
	34371	ETHYLBENZENE	UG/L		10 U
	99921	STYRENE	UG/L		10 U

2.0 J CM

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

MJ-18B 96/11/14 1250
 DEPTH: 0025 SUBSTRATE: AQUEOUS
 DESCRIPTION: MJ-18B

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200818	99920	XYLENES (TOTAL)	UG/L		1.9 J	QM
200819	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		41	
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		1.2 J	QM
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		10 U	
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		10 U	
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		10 U	
	99999	2-METHOXY-2-METHYL PROPANE	UG/L		51 J	QT

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

MW-5 96/11/14 1100
 DEPTH: 0025 SUBSTRATE: AQUEOUS
 DESCRIPTION: MW-5

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC REMARK
200820	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		1.5 J	CM
	34030	BENZENE	UG/L		10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		0.6 J	CM
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		10 U	
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		10 U	
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		10 U	
	01077	SILVER	UG/L		200 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		5 U	
	01012	BERYLLIUM	UG/L		26	
	00916	CALCIUM	MG/L		18	
	01027	CADMIUM	UG/L		50 U	
	01037	COBALT	UG/L			

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO DATE FROM TO TIME OF DAY

LABNO PARNO PARAMETER NAME

UNITS CHEMISTRY VALUE & QA/QC REMARK

200820	01034	CHROMIUM	UG/L	26	
	01042	COPPER	UG/L	25 U	
	01045	IRON	UG/L	100 U	
	00937	POTASSIUM	MG/L	5 U	
	00927	MAGNESIUM	MG/L	5	
	01055	MANGANESE	UG/L	15 U	
	00929	SODIUM	MG/L	12	
	01067	NICKEL	UG/L	40 U	
	01097	ANTIMONY	UG/L	60 U	
	01087	VANADIUM	UG/L	50 U	
	01092	ZINC	UG/L	74	

MJ-18C 96/11/14 1250
 DEPTH: 0025 SUBSTRATE: AQUEOUS
 DESCRIPTION: MJ-18C

200821	01077	SILVER	UG/L	10 U	
	01105	ALUMINUM	UG/L	200 U	
	01007	BARIUM	UG/L	200 U	
	01012	BERYLLIUM	UG/L	5 U	
	00916	CALCIUM	MG/L	25	
	01027	CADMIUM	UG/L	24	
	01037	COBALT	UG/L	50 U	
	01034	CHROMIUM	UG/L	143	
	01042	COPPER	UG/L	25 U	
	01045	IRON	UG/L	104	
	00937	POTASSIUM	MG/L	5 U	
	00927	MAGNESIUM	MG/L	5 U	
	01055	MANGANESE	UG/L	15 U	
	00929	SODIUM	MG/L	7	
	01067	NICKEL	UG/L	40 U	
	01097	ANTIMONY	UG/L	60 U	
	01087	VANADIUM	UG/L	50 U	
	01092	ZINC	UG/L	22	

MJ10A 96/10/30 1525
 DEPTH: 0017 SUBSTRATE: AQUEOUS
 DESCRIPTION: MJ10A

201043 34418 METHYL CHLORIDE
 34413 METHYL BROMIDE

UG/L	10 U
UG/L	10 U

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO	DATE FROM TO	TIME OF DAY	LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC	REMARK
			201043	39175	VINYL CHLORIDE	UG/L		10 U		
			34311		CHLOROETHANE	UG/L		10 U		
			34423		METHYLENE CHLORIDE	UG/L		10 U		
			99930		ACETONE	UG/L		10 U		
			99964		CARBON DISULFIDE	UG/L		10 U		
			34501		1,1-DICHLOROETHYLENE	UG/L		10 U		
			34496		1,1-DICHLOROETHANE	UG/L		10 U		
			34546		TRANS-1,2-DICHLOROETHYLENE	UG/L		10 U		
			32106		CHLOROFORM	UG/L		10 U		
			99999		2-BUTANONE	UG/L		10 U		
			32103		1,2-DICHLOROETHANE	UG/L		10 U		
			34506		1,1,1-TRICHLOROETHANE	UG/L		10 U		
			99999		VINYL ACETATE	UG/L		10 U		
			32102		CARBON TETRACHLORIDE	UG/L		10 U		
			32101		DICHLOROBROMETHANE	UG/L		10 U		
			34541		1,2-DICHLOROPROPANE	UG/L		10 U		
			99999		CIS-1,3-DICHLOROPROPENE	UG/L		10 U		
			39180		TRICHLOROETHYLENE	UG/L		10 U		
			34030		BENZENE	UG/L		10 U		
			99999		TRANS-1,3-DICHLOROPROPENE	UG/L		10 U		
			34511		1,1,2-TRICHLOROETHANE	UG/L		10 U		
			32105		CHLORO Dibromomethane	UG/L		10 U		
			99999		2-HEXANONE	UG/L		10 U		
			99999		4-METHYL-2-PENTANONE	UG/L		10 U		
			32104		BROMOFORM	UG/L		10 U		
			34475		TETRACHLOROETHYLENE	UG/L		10 U		
			34516		1,1,2,2-TETRACHLOROETHANE	UG/L		10 U		
			34010		TOLUENE	UG/L		10 U		
			34301		CHLOROBENZENE	UG/L		10 U		
			34371		ETHYLBENZENE	UG/L		10 U		
			99921		STYRENE	UG/L		10 U		
			99920		XYLENES (TOTAL)	UG/L		10 U		
			99999		TRIMETHYLSILANOL	UG/L		16 J	QT	
			01077		SILVER	UG/L		10 U		
			01105		ALUMINUM	UG/L		215		
			01007		BARIUM	UG/L		200 U		
			01012		BERYLLIUM	UG/L		5 U		
			00916		CALCIUM	MG/L		7		
			01027		CADMIUM	UG/L		5 U		
			01037		COBALT	UG/L		50 U		
			01034		CHROMIUM	UG/L		10 U		

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO DATE FROM TO DAY

TIME OF DAY

LABNO PARNO PARAMETER NAME

UNITS CHEMISTRY VALUE & REMARK QA/QC REMARK

201043 01042 COPPER 25 U
 UG/L 140
 01045 IRON 5 U
 MG/L 5 U
 00937 POTASSIUM 54
 MG/L 37
 00927 MAGNESIUM 40 U
 MG/L 60 U
 01055 MANGANESE 50 U
 00929 SODIUM 20 U
 MG/L
 01067 NICKEL
 UG/L
 01097 ANTIMONY
 UG/L
 01087 VANADIUM
 UG/L
 01092 ZINC

MW108 96/10/30 1530
 DEPTH: 0016 SUBSTRATE: AQUEOUS
 DESCRIPTION: MW108

201044 34418 METHYL CHLORIDE 10 U
 UG/L
 34413 METHYL BROMIDE 10 U
 UG/L
 39175 VINYL CHLORIDE 10 U
 UG/L
 34311 CHLOROETHANE 10 U
 UG/L
 34423 METHYLENE CHLORIDE 10 U
 UG/L
 99930 ACETONE 10 U
 UG/L
 99964 CARBON DISULFIDE 10 U
 UG/L
 34501 1,1-DICHLOROETHYLENE 10 U
 UG/L
 34496 1,1-DICHLOROETHANE 10 U
 UG/L
 34546 TRANS 1,2 DICHLOROETHYLENE 10 U
 UG/L
 32106 CHLOROFORM 10 U
 UG/L
 99999 2-BUTANONE 10 U
 UG/L
 32103 1,2-DICHLOROETHANE 10 U
 UG/L
 34506 1,1,1-TRICHLOROETHANE 10 U
 UG/L
 99999 VINYL ACETATE 10 U
 UG/L
 32102 CARBON TETRACHLORIDE 10 U
 UG/L
 32101 DICHLOROBROMETHANE 10 U
 UG/L
 34541 1,2-DICHLOROPROPANE 10 U
 UG/L
 99999 CIS-1,3-DICHLOROPROPENE 10 U
 UG/L
 39180 TRICHLOROETHYLENE 10 U
 UG/L
 34030 BENZENE 10 U
 UG/L
 99999 TRANS-1,3-DICHLOROPROPENE 10 U
 UG/L
 34511 1,1,2-TRICHLOROETHANE 10 U
 UG/L
 32105 CHLORODIBROMOMETHANE 10 U
 UG/L
 99999 2-HEXANONE 10 U
 UG/L
 99999 4-METHYL-2-PENTANONE 10 U
 UG/L

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO PARNO PARAMETER NAME

UNITS CHEMISTRY VALUE & REMARK QA/QC REMARK

201044	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		10 U	
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		10 U	
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		10 U	
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		10 U	
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		29	
	01027	CADMIUM	UG/L		5 U	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		10 U	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		100 U	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		634	
	00929	SODIUM	MG/L		62	
	01067	NICKEL	UG/L		40 U	
	01097	ANTHRONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		20 U	
201045	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	

MM19 96/10/30 1640
 DEPTH: 0027 SUBSTRATE: AQUEOUS
 DESCRIPTION: MM19

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO
DATE FROM TO
OF DAY

LABNO PARNO PARAMETER NAME
UNITS CHEMISTRY VALUE & QA/QC
REMARK REMARK

201045	32106	CHLOROFORM	UG/L	10 U	
	99999	2-BUTANONE	UG/L	10 U	
	32103	1,2-DICHLOROETHANE	UG/L	10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L	10 U	
	99999	VINYL ACETATE	UG/L	10 U	
	32102	CARBON TETRACHLORIDE	UG/L	10 U	
	32101	DICHLOROBROMOMETHANE	UG/L	10 U	
	34541	1,2-DICHLOROPROPANE	UG/L	10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L	10 U	
	39180	TRICHLOROETHYLENE	UG/L	10 U	
	34030	BENZENE	UG/L	10 U	
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L	10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L	10 U	
	32105	CHLORODIBROMOMETHANE	UG/L	10 U	
	99999	2-HEXANONE	UG/L	10 U	
	99999	4-METHYL-2-PENTANONE	UG/L	10 U	
	32104	BROMOFORM	UG/L	10 U	
	34475	TETRACHLOROETHYLENE	UG/L	10 U	
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L	10 U	
	34010	TOLUENE	UG/L	10 U	
	34301	CHLOROBENZENE	UG/L	10 U	
	34371	ETHYLBENZENE	UG/L	10 U	
	99921	STYRENE	UG/L	10 U	
	99920	XYLENES (TOTAL)	UG/L	10 U	
	99999	TRIMETHYLSILANOL	UG/L	43 J	QT
	01077	SILVER	UG/L	10 U	
	01105	ALUMINUM	UG/L	200 U	
	01007	BARIUM	UG/L	200 U	
	01012	BERYLLIUM	UG/L	5 U	
	00916	CALCIUM	MG/L	18	
	01027	CADMIUM	UG/L	5 U	
	01037	COBALT	UG/L	50 U	
	01034	CHROMIUM	UG/L	10 U	
	01042	COPPER	UG/L	25 U	
	01045	IRON	UG/L	100 U	
	00937	POTASSIUM	MG/L	5 U	
	00927	MAGNESIUM	MG/L	5 U	
	01055	MANGANESE	UG/L	15 U	
	00929	SODIUM	MG/L	15	
	01067	NICKEL	UG/L	40 U	
	01097	ANTIMONY	UG/L	60 U	

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO DATE FROM TO TIME OF DAY

NONE 96/10/30 1020 DEPTH: 0000 SUBSTRATE: AQUEOUS DESCRIPTION: TRIP BLANK #1

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & QA/QC REMARK

201045 01087 VANADIUM UG/L 50 U

01092 ZINC UG/L 20 U

201046 34418 METHYL CHLORIDE UG/L 10 U
34413 METHYL BROMIDE UG/L 10 U
39175 VINYL CHLORIDE UG/L 10 U
34311 CHLOROETHANE UG/L 10 U
34423 METHYLENE CHLORIDE UG/L 10 U
99930 ACETONE UG/L 10 U
99964 CARBON DISULFIDE UG/L 10 U
34501 1,1-DICHLOROETHYLENE UG/L 10 U
34496 1,1-DICHLOROETHANE UG/L 10 U
34546 TRANS 1,2 DICHLOROETHYLENE UG/L 10 U
32106 CHLOROFORM UG/L 10 U
99999 2-BUTANONE UG/L 10 U
32103 1,2-DICHLOROETHANE UG/L 10 U
34506 1,1,1-TRICHLOROETHANE UG/L 10 U
99999 VINYL ACETATE UG/L 10 U
32102 CARBON TETRACHLORIDE UG/L 10 U
32101 DICHLOROBROMOMETHANE UG/L 10 U
34541 1,2-DICHLOROPROPANE UG/L 10 U
99999 CIS-1,3-DICHLOROPROPENE UG/L 10 U
39180 TRICHLOROETHYLENE UG/L 10 U
34030 BENZENE UG/L 10 U
99999 TRANS-1,3-DICHLOROPROPENE UG/L 10 U
34511 1,1,2-TRICHLOROETHANE UG/L 10 U
32105 CHLORODIBROMOMETHANE UG/L 10 U
99999 2-HEXANONE UG/L 10 U
99999 4-METHYL-2-PENTANONE UG/L 10 U
32104 BROMOFORM UG/L 10 U
34475 TETRACHLOROETHYLENE UG/L 10 U
34516 1,1,2,2-TETRACHLOROETHANE UG/L 0.7 J CM
34010 TOLUENE UG/L 10 U
34301 CHLOROBENZENE UG/L 10 U
34371 ETHYLBENZENE UG/L 10 U
99921 STYRENE UG/L 10 U
99920 XYLENES (TOTAL) UG/L 10 U

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LHERTY SITE

STATION NO DATE FROM TO DAY

MJ16 96/10/31 1535
DEPTH: 0030 SUBSTRATE: AQUEOUS
DESCRIPTION: MJ-16

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & QA/QC REMARK

LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & QA/QC	REMARK
201047	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		10 U	
	34030	BENZENE	UG/L		1.6 J	GM
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	
	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		10 U	
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		27	
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		5.4 J	GM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		23	
	99999	METHOXY METHYL PROPANE	UG/L		26 J	QT
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		7	
	01027	CADMIUM	UG/L		5 U	

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & QA/QC REMARK

201047	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		10 U	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		100 U	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		15 U	
	00929	SODIUM	MG/L		7	
	01067	NICKEL	UG/L		40 U	
	01097	ANTHONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		20 U	

MJ11A 96/10/31 1640
DEPTH: 0045 SUBSTRATE: AQUEOUS
DESCRIPTION: MJ-11A

201048	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	
	34501	1,1-DICHLOROETHYLENE	UG/L		10 U	
	34496	1,1-DICHLOROETHANE	UG/L		10 U	
	34546	TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U	
	32106	CHLOROFORM	UG/L		10 U	
	99999	2-BUTANONE	UG/L		10 U	
	32103	1,2-DICHLOROETHANE	UG/L		10 U	
	34506	1,1,1-TRICHLOROETHANE	UG/L		10 U	
	99999	VINYL ACETATE	UG/L		10 U	
	32102	CARBON TETRACHLORIDE	UG/L		10 U	
	32101	DICHLOROBROMOMETHANE	UG/L		10 U	
	34541	1,2-DICHLOROPROPANE	UG/L		10 U	
	99999	CIS-1,3-DICHLOROPROPENE	UG/L		10 U	
	39180	TRICHLOROETHYLENE	UG/L		10 U	
	34030	BENZENE	UG/L		10 J	CM
	99999	TRANS-1,3-DICHLOROPROPENE	UG/L		10 U	
	34511	1,1,2-TRICHLOROETHANE	UG/L		10 U	
	32105	CHLORODIBROMOMETHANE	UG/L		10 U	

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO PARNO PARAMETER NAME UNITS CHEMISTRY VALUE & QA/QC REMARK

201048	99999	2-HEXANONE	UG/L		10 U	
	99999	4-METHYL-2-PENTANONE	UG/L		10 U	
	32104	BROMOFORM	UG/L		10 U	
	34475	TETRACHLOROETHYLENE	UG/L		2.9 J	CM
	34516	1,1,2,2-TETRACHLOROETHANE	UG/L		10 U	
	34010	TOLUENE	UG/L		3.1 J	CM
	34301	CHLOROBENZENE	UG/L		10 U	
	34371	ETHYLBENZENE	UG/L		0.6 J	CM
	99921	STYRENE	UG/L		10 U	
	99920	XYLENES (TOTAL)	UG/L		2.4 J	CM
	01077	SILVER	UG/L		10 U	
	01105	ALUMINUM	UG/L		200 U	
	01007	BARIUM	UG/L		200 U	
	01012	BERYLLIUM	UG/L		5 U	
	00916	CALCIUM	MG/L		29	
	01027	CADMIUM	UG/L		90	
	01037	COBALT	UG/L		50 U	
	01034	CHROMIUM	UG/L		22	
	01042	COPPER	UG/L		25 U	
	01045	IRON	UG/L		101	
	00937	POTASSIUM	MG/L		5 U	
	00927	MAGNESIUM	MG/L		5 U	
	01055	MANGANESE	UG/L		5720	
	00929	SODIUM	MG/L		26	
	01067	NICKEL	UG/L		40 U	
	01097	ANTIMONY	UG/L		60 U	
	01087	VANADIUM	UG/L		50 U	
	01092	ZINC	UG/L		20 U	
201049	34418	METHYL CHLORIDE	UG/L		10 U	
	34413	METHYL BROMIDE	UG/L		10 U	
	39175	VINYL CHLORIDE	UG/L		10 U	
	34311	CHLOROETHANE	UG/L		10 U	
	34423	METHYLENE CHLORIDE	UG/L		10 U	
	99930	ACETONE	UG/L		10 U	
	99964	CARBON DISULFIDE	UG/L		10 U	

MN118 96/10/31 0000
 COMPOSITE, 96/10/31 1700
 DEPTH: 0023 SUBSTRATE: AQUEOUS
 DESCRIPTION: MN-118

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NO: 425

PROJECT NAME: LIBERTY SITE

STATION NO	DATE FROM	DATE TO	TIME OF DAY	LABNO	PARNO	PARAMETER NAME	UNITS	CHEMISTRY	VALUE & REMARK	QA/QC	REMARK
201049				34501		1,1-DICHLOROETHYLENE	UG/L		10 U		
				34496		1,1-DICHLOROETHANE	UG/L		10 U		
				34546		TRANS 1,2 DICHLOROETHYLENE	UG/L		10 U		
				32106		CHLOROFORM	UG/L		0.9 J	QM	
				99999		2-BUTANONE	UG/L		10 U		
				32103		1,2-DICHLOROETHANE	UG/L		10 U		
				34506		1,1,1-TRICHLOROETHANE	UG/L		10 U		
				99999		VINYL ACETATE	UG/L		10 U		
				32102		CARBON TETRACHLORIDE	UG/L		10 U		
				32101		DICHLOROBROMOMETHANE	UG/L		10 U		
				34541		1,2-DICHLOROPROPANE	UG/L		10 U		
				99999		CIS-1,3-DICHLOROPROPENE	UG/L		10 U		
				39180		TRICHLOROETHYLENE	UG/L		0.5 J	QM	
				34030		BENZENE	UG/L		0.8 J	QM	
				99999		TRANS-1,3-DICHLOROPROPENE	UG/L		10 U		
				34511		1,1,2-TRICHLOROETHANE	UG/L		10 U		
				32105		CHLORODIBROMOMETHANE	UG/L		10 U		
				99999		2-HEXANONE	UG/L		10 U		
				99999		4-METHYL-2-PENTANONE	UG/L		10 U		
				32104		BROMOFORM	UG/L		10 U		
				34475		TETRACHLOROETHYLENE	UG/L		10 U		
				34516		1,1,2,2-TETRACHLOROETHANE	UG/L		10 U		
				34010		TOLUENE	UG/L		15		
				34301		CHLOROBENZENE	UG/L		10 U		
				34371		ETHYLBENZENE	UG/L		3.1 J	QM	
				99921		STYRENE	UG/L		10 U		
				99920		XYLENES (TOTAL)	UG/L		13		
				99999		METHOXY METHYL PROPANE	UG/L		19 J	QT	
				01077		SILVER	UG/L		10 U		
				01105		ALUMINUM	UG/L		200 U		
				01007		BARIUM	UG/L		200 U		
				01012		BERYLLIUM	UG/L		5 U		
				00916		CALCIUM	MG/L		24		
				01027		CADMIUM	UG/L		5 U		
				01037		COBALT	UG/L		50 U		
				01034		CHROMIUM	UG/L		50		
				01042		COPPER	UG/L		25 U		
				01045		IRON	UG/L		159		
				00937		POTASSIUM	MG/L		5 U		
				00927		MAGNESIUM	MG/L		5 U		
				01055		MANGANESE	UG/L		29		

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

MJ11C 96/11/05 1235
DEPTH: 0100 SUBSTRATE: AQUEOUS
DESCRIPTION: MJ-11C

Table with columns: LABNO, PARNO, PARAMETER NAME, UNITS, CHEMISTRY, VALUE & REMARK, QA/QC REMARK. Contains data for various chemical parameters like SODIUM, NICKEL, ANTIMONY, VANADIUM, ZINC, and numerous chlorinated hydrocarbons.

REPORT DATE: 97/01/08

COMPLETED ANALYSIS REPORT

PROJECT NAME: LIBERTY SITE

PROJECT NO: 425

STATION NO DATE FROM TO TIME OF DAY

LABNO PARNO PARAMETER NAME

UNITS CHEMISTRY

VALUE & QA/QC
REMARK

201050	34371	ETHYLBENZENE	UG/L	1.3	J	CM
99921		STYRENE	UG/L	10	U	
99920		XYLENES (TOTAL)	UG/L	6.0	J	CM
01077		SILVER	UG/L	10	U	
01105		ALUMINUM	UG/L	200	U	
01007		BARIIUM	UG/L	200	U	
01012		BERYLLIUM	UG/L	5	U	
00916		CALCIUM	MG/L	38		
01027		CADMIUM	UG/L	5	U	
01037		COBALT	UG/L	50	U	
01034		CHROMIUM	UG/L	36		
01042		COPPER	UG/L	25	U	
01045		IRON	UG/L	2630		
00937		POTASSIUM	MG/L	5	U	
00927		MAGNESIUM	MG/L	5	U	
01055		MANGANESE	UG/L	158		
00929		SODIUM	MG/L	35		
01067		NICKEL	UG/L	40	U	
01097		ANTIMONY	UG/L	60	U	
01087		VANADIUM	UG/L	50	U	
01092		ZINC	UG/L	20	U	

***** END OF PROJECT *****

Appendix C, Well Data Sheets

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-1

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/7/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 14.0 TO 29.0 H2O LEVEL (FT): 17.35 PUMP IN PLACEMENT (FT): 22

PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.09 NTU

pH METER CALIBRATION: 4(4.01) 7(7.01) 10(10.06) DATE/TIME: 11/7/96 - 1200Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/7/96 1710 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200814

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1640	.5	16	6.01	.90
1645	1.0	17	6.08	.77
1650	1.5	18	6.03	.45
1655	2.0	18	6.10	.43
1700	2.5	18	6.10	.43

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-2
SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/7/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC
WELL SCREEN (FT): 11.0 TO 26.0 H2O LEVEL (FT): 17.05 PUMP IN PLACEMENT(FT): 20
PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.09 NTU
pH METER CALIBRATION: 4(4.01) 7(7.01) 10(10.06) DATE/TIME: 11/7/96 - 1200Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/7/96 1700 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200815

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1640	.5	17	6.03	.30
1645	1.0	17	6.08	.40
1650	1.5	17	6.08	.20
1655	2.0	17	6.08	.20
1700	2.5	17	6.08	.20

GENERAL INFORMATION

WEATHER CONDITIONS: _____
SAMPLE CHARACTERISTICS: _____
COMMENTS AND OBSERVATIONS: _____
ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)
CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-5

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/6/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 11.5 TO 26.5 H2O LEVEL (FT): 19.98 PUMP IN PLACEMENT (FT): 25

PURGED RATE OF EVACUATED: 500 ml/min TURBIDITY TRUE READING: 5.02 NTU

pH METER CALIBRATION: 4(4.04) 7(7.00) 10(10.06) DATE/TIME: 11/14/96 - 1000Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/14/96 1100 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200820

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1028	0.50	13	5.92	1.20
1031	0.75	15	6.12	.80
1034	1.00	15	6.12	.60
1037	1.25	15.5	6.09	.50
1041	1.50	15.5	6.12	.40
1044	1.75	15.5	6.12	.40
1047	2.00	15.5	6.09	.30
1051	2.25	15.5	6.09	.30
1054	2.50	15.5	6.09	.30

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-6A
SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/6/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC
WELL SCREEN (FT): 11.0 TO 26.0 H2O LEVEL (FT): 16.55 PUMP IN PLACEMENT(FT): 22
PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.09 NTU
pH METER CALIBRATION: 4(4.01) 7(7.00) 10(10.06) DATE/TIME: 11/7/96 - 1426Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/7/96 1620 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200812

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1508	2.5	16.5	6.21	.38
1513	5.0	15	6.20	.35
1518	7.5	15	6.22	.23
1523	8.0	16	6.20	.43
1528	8.5	16	6.20	.36
1533	9.0	16	6.19	.45
1538	9.5	16	6.18	.36
1543	10.0	16	6.17	.33
1548	10.5	16.5	6.19	.43
1553	11.0	16.5	6.20	.33
1558	11.5	16.5	6.18	.28
1603	12.0	16.5	6.18	.28

(Continue on next page)

CONTINUATION OF WELL DATA SHEET FOR MW-6A

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET) _____

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-6B

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/6/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 47.7 TO 57.7 H2O LEVEL (FT): 21.75 PUMP IN PLACEMENT (FT): 53

PURGED RATE OF EVACUATED: 200 ml/min TURBIDITY TRUE READING: 5.09 NTU

pH METER CALIBRATION: 4(4.01) 7(7.00) 10(10.06) DATE/TIME: 11/7/96 - 1426Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 07/11/96 1540 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200813

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1505	.25	15.9	5.40	0.90
1510	.50	16	5.44	0.57
1515	.75	16	5.43	0.38
1520	1.00	16	5.43	0.55
1525	1.25	15.5	5.42	0.36
1530	1.50	15.5	5.42	0.39
1535	1.75	15.5	5.42	0.34
1540	2.00	15.5	5.42	0.37

GENERAL INFORMATION

WEATHER CONDITIONS: _____

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-7A

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/4/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 10.5 TO 25.5 H2O LEVEL (FT): 20.64 PUMP IN PLACEMENT (FT): 25

PURGED RATE OF EVACUATED: 130 ml/min TURBIDITY TRUE READING: 5.02 NTU

pH METER CALIBRATION: 4(4.08) 7(7.01) 10(10.02) DATE/TIME: 11/5/96 - 0910Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/5/96 1450 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200810

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1412	0	17	6.28	9.4
1415	.1	17	6.23	3.7
1418	.2	18	6.23	2.8
1422	.3	18	6.23	1.8
1425	.4	18.5	6.24	1.2
1428	.5	18.5	6.25	.9
1431	.6	18.5	6.25	.9
1434	.7	18.5	6.25	.9

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-7B

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/4/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 50.0 TO 60.0 H2O LEVEL (FT): 20.08 PUMP IN PLACEMENT(FT): 55

PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.02 NTU

pH METER CALIBRATION: 4(4.08) 7(7.00) 10(10.02) DATE/TIME: 11/5/96 - 0910Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/5/96 1440 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200811

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1400	0	15.5	6.32	.75
1405	.5	16	6.23	3.3
1409	1.0	16	6.24	1.7
1420	1.5	16	6.29	.6
1423	2.0	16	6.25	.5
1426	2.5	16	6.25	.4
1430	3.0	16	6.22	.4
1433	3.5	16	6.22	.4
1438	4.0	16	6.22	.4

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-10

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/29/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 2.0 TO 12.0 H2O LEVEL (FT): 2.6 PUMP IN PLACEMENT (FT): 9

PURGED RATE OF EVACUATED: 200 ml/min TURBIDITY TRUE READING: 5.03 NTU

pH METER CALIBRATION: 4(4.03) 7(7.00) 10(10.05) DATE/TIME: 10/30/96 - 1420Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 10/30/96 1525 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 201043

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1430	0	17.0	5.92	4.50
1435	.25	17.0	5.92	4.50
1440	.50	17.0	5.90	3.62
1445	.75	17.0	5.89	3.53
1450	1.00	17.0	5.89	3.21
1455	1.25	17.5	5.89	2.87
1500	1.50	17.5	5.85	2.55
1505	1.75	18.0	5.86	2.26
1510	2.00	18.0	5.86	2.10
1514	2.25	18.0	5.80	2.10

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-10B

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/29/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 30.0 TO 40.0 H2O LEVEL (FT): 2.52 PUMP IN PLACEMENT(FT): 35

PURGED RATE OF EVACUATED: 500 ml/min TURBIDITY TRUE READING: 5.03 NTU

pH METER CALIBRATION: 4(4.03) 7(7.00) 10(10.05) DATE/TIME: 10/30/96 - 1420 Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 10/30/96 1530 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 201044

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1433	0	17	5.87	5.03
1438	.6	17	5.87	4.03
1443	1.2	17	5.90	3.63
1448	1.8	16	5.81	1.60
1453	2.4	16	5.72	.60
1458	3.0	16	5.60	.48
1503	3.6	16	5.57	.46
1508	4.2	16	5.57	.38
1512	4.8	16	5.57	.38
1516	5.4	16	5.57	.38

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-11A
SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/31/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC
WELL SCREEN (FT): 65.0 TO 75.0 H2O LEVEL (FT): 9.17 PUMP IN PLACEMENT(FT): 70
PURGED RATE OF EVACUATED: 500 ml/min TURBIDITY TRUE READING: 5.01 NTU
pH METER CALIBRATION: 4(4.13) 7(7.00) 10(9.99) DATE/TIME: 10/31/96 - 1320Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 10/31/96 1640 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 201048

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1535	.5	16	6.10	3.79
1542	1.0	16	6.08	1.82
1546	1.5	16	6.07	1.40
1551	2.0	16	6.09	1.10
1600	2.5	16	6.08	.80
1605	3.0	16	6.08	.80
1610	3.5	16	6.08	.80

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: A duplicate was pulled and number MW-20

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-11B

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/31/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 4.0 TO 19.0 H2O LEVEL (FT): 9.22 PUMP IN PLACEMENT (FT): 15

PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.01 NTU

pH METER CALIBRATION: 4(4.13) 7(7.00) 10(9.99) DATE/TIME: 10/31/96 - 1320 Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 10/31/96 1700 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 201049

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1534	.50	19.0	5.80	2.56
1539	1.75	19.5	5.74	1.81
1544	2.50	19.0	5.75	1.12
1549	4.00	19.0	5.74	0.90
1554	5.50	19.0	5.74	0.91
1559	7.00	19.0	5.73	0.65
1604	8.50	18.5	5.73	0.59
1609	9.00	19.0	5.73	0.52
1614	9.5	19.0	5.73	0.48
1619	10.00	19.0	5.78	0.48
1624	10.50	19.0	5.78	0.48

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-11C

SAMPLING PERSONNEL: MERCADO/ VILLAGAÑE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/31/96 -1100 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 110 TO 120 H2O LEVEL (FT): 10.02 PUMP IN PLACEMENT (FT): 115

PURGED RATE OF EVACUATED: 300 ml/min TURBIDITY TRUE READING: 5.02 NTU

pH METER CALIBRATION: 4(4.08) 7(7.00) 10(10.02) DATE/TIME: 11/5/96 - 0910Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/5/96 1235 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 201050

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1158	0	15.5	6.72	14.5
1202	.25	15.0	6.46	7.0
1205	.50	15.0	6.40	6.0
1208	.75	15.5	6.39	5.9
1211	1.00	15.5	6.37	4.5
1214	1.252	15.5	6.33	3.4
1217	1.75	16.0	6.34	3.2
1221	1.75	16.0	6.34	3.2
1224	2.00	16.0	6.34	2.6
1227	2.25	16.0	6.32	2.6
1230	2.50	16.0	6.32	2.6
1233	3.00	16.0	6.32	2.6

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-13

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/4/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 8.5 TO 23.5 H2O LEVEL (FT): 15.92 PUMP IN PLACEMENT(FT): 20

PURGED RATE OF EVACUATED: 200 ml/min TURBIDITY TRUE READING: 5.09 NTU

pH METER CALIBRATION: 4(4.01) 7(7.01) 10(10.06) DATE/TIME: 11/7/96 - 1200Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/7/96 1420 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200817

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1233	1.0	18.0	6.01	13.3
1237	1.2	18.5	5.99	19.5
1240	1.4	18.5	5.97	23.0
1243	1.6	18.5	5.95	23.7
1247	1.8	18.0	6.06	15.8
1251	2.0	18.5	6.02	21.3
1254	2.2	18.5	6.03	14.5
1257	2.4	18.5	6.02	12.1
1301	2.6	18.5	6.00	9.7
1305	2.8	19.0	5.98	9.1
1308	3.0	20.0	5.99	8.0
1311	3.2	20.0	6.00	8.0
1316	3.4	20.0	5.98	8.0

(The pump when down and a new pump inserted into the well. Restart Field Measurement Data. Restart data on next page)

CONTINUATION OF WELL DATA SHEET FOR MW13

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1331	0.5	18.0	5.96	12.8
1334	1.0	18.5	5.91	28.8
1337	1.5	19.0	5.88	28.9
1341	2.0	19.5	6.02	24.6
1344	2.5	19.5	6.02	24.6
1349	3.0	19.5	6.02	24.6

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: On Nov 6, problems with pump caused us to stop purging and replace the pump. On Nov 7 we restarted to purge the well and was successful. Two Field Measurement Data Tables are part of this Well Data Sheet. The first table is the initial purge data measurements and the second is for the restart purge data measurements.

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET) _____

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-14

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/4/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 10.0 TO 25.0 H2O LEVEL (FT): 16.92 PUMP IN PLACEMENT(FT): 20

PURGED RATE OF EVACUATED: 100 ml/min TURBIDITY TRUE READING: 5.02 NTU

pH METER CALIBRATION: 4(4.08) 7(7.00) 10(10.02) DATE/TIME: 11/5/96 - 0910Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/5/96 1024 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200809

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1037	0	15.5	6.19	86.1
1039	.1	17.0	6.13	79.0
1043	.2	18.0	6.10	59.0
1046	.3	18.5	6.08	40.9
1049	.4	18.5	6.04	32.0
1052	.5	18.5	6.02	25.9
1055	.6	19.0	5.97	21.5
1058	.7	20.0	5.92	18.0
1100	.8	19.5	5.95	16.5
1103	.9	19.5	5.98	14.9
1106	1.0	19.5	5.98	12.1
1111	1.1	19.5	5.98	10.8
1116	1.2	19.5	5.98	10.8
1121	1.3	19.5	5.98	10.8

(Continues on next page)

CONTINUATION OF WELL DATA SHEET FOR 14

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: Problems while purging required us to purged at a very slow rate.

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-15

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/31/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 4.0 TO 19.0 H2O LEVEL (FT): 19.42 PUMP IN PLACEMENT (FT): 23

PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.02 NTU

pH METER CALIBRATION: 4(4.08) 7(7.00) 10(10.02) DATE/TIME: 11/5/96 - 0910Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/5/96 1015 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200805

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
0900	2.0	18.5	5.96	16.52
0905	2.5	19.0	6.04	10.48
0910	3.0	19.0	6.04	8.80
0915	3.5	19.0	6.17	8.08
0920	4.0	19.5	6.17	6.29
0925	4.5	20.0	6.17	6.06
0930	5.0	20.0	6.12	5.87
0935	5.5	20.0	6.12	5.65
0940	6.0	20.0	6.12	5.65
0945	6.5	20.0	6.12	5.65

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: Black grit, asphalt type substances on well cap. At the bottom of the well there is a black oily sediment.

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-16

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/30/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 12.0 TO 27.0 H2O LEVEL (FT): 20.49 PUMP IN PLACEMENT(FT): 22

PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.01 NTU

pH METER CALIBRATION: 4(4.13) 7(7.00) 10(9.99) DATE/TIME: 10/31/96 - 1320Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 10/31/96 1535 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 201047

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1340	1.5	16	5.59	1.92
1347	2.0	16	5.67	1.01
1352	2.5	16.5	5.69	.90
1400	3.0	16	5.69	.63
1405	3.5	16.5	5.69	.90
1410	4.0	16.5	5.69	.79
1415	4.5	15.0	5.67	.50
1420	5.0	15.0	5.72	.40
1425	5.5	14.5	5.71	.40
1430	6.0	14.5	5.71	.32
1435	6.5	14.5	5.72	.28

(Continues on the next page)

CONTINUATION OF WELL DATA SHEET FOR MW-16

CONT. FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1440	7.0	14.5	5.71	.22
1445	7.5	14.5	5.72	.21
1450	8.0	14.5	5.72	.21

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET) _____

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-17A

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/4/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 13.0 TO 23.0 H2O LEVEL (FT): 10.12 PUMP IN PLACEMENT (FT): 16

PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.01 NTU

pH METER CALIBRATION: 4(4.04) 7(7.00) 10(10.04) DATE/TIME: 11/4/96 - 1600Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/4/96 1650 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200802

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1615	1.0	17.0	6.09	11.30
1620	1.5	16.5	6.13	19.2
1625	2.0	18.0	6.09	9.8
1630	2.5	18.0	6.10	8.65
1635	3.0	18.0	6.09	8.66
1640	3.5	18.0	6.09	8.66
1645	4.0	18.0	6.09	8.66

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-17B

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/4/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 45.0 TO 55.0 H2O LEVEL (FT): 9.95 PUMP IN PLACEMENT (FT): 50

PURGED RATE OF EVACUATED: 150 ml/min TURBIDITY TRUE READING: 5.01 NTU

pH METER CALIBRATION: 4(4.04) 7(7.00) 10(10.04) DATE/TIME: 11/4/96 - 1600Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/4/96 1645 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200803

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1625	2.0	15.5	5.88	1.44
1630	2.2	15.5	5.90	1.45
1635	2.4	15.5	5.90	1.44
1640	2.6	15.5	5.90	1.44

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-18

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 11/6/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 11.5 TO 26.5 H2O LEVEL (FT): 17.10 PUMP IN PLACEMENT (FT): 22

PURGED RATE OF EVACUATED: 300 ml/min TURBIDITY TRUE READING: 5.09 NTU

pH METER CALIBRATION: 4(4.04) 7(7.00) 10(10.06) DATE/TIME: 11/14/96 - 1010Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 11/14/96 1250 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200819 & 200821

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1134	0.5	15.0	5.88	9.4
1137	1.0	16.0	5.92	5.2
1141	1.5	16.5	5.90	4.0
1143	2.0	16.5	5.89	3.2
1147	2.5	16.0	5.89	2.2
1151	3.0	16.0	5.87	1.9
1154	3.5	16.0	5.89	1.5
1157	4.0	16.0	5.89	1.3
1201	4.5	16.0	5.89	.9
1204	5.0	16.0	5.89	.9
1207	5.5	16.0	5.89	.9

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-19

SAMPLING PERSONNEL: MERCADO/VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/30/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC

WELL SCREEN (FT): 8.0 TO 23.0 H2O LEVEL (FT): 12.57 PUMP IN PLACEMENT(FT): 17.7

PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.03 NTU

pH METER CALIBRATION: 4(4.03) 7(7.00) 10(10.05) DATE/TIME: 10/30/96 - 1420Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 10/30/96 1640 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 201045

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1545	0	17	5.60	1.63
1550	.5	16.5	5.51	0.35
1555	1.0	18	5.54	0.43
1600	1.2	18	5.54	0.48
1605	2.5	17.5	5.57	1.53
1610	3.0	17.5	5.46	.54
1615	3.5	17.5	5.46	.54
1620	4.0	17.5	5.46	.54

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: _____

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

WELL DATA SHEET

SITE: LIBERTY INDUSTRIAL FINISHING WELL#: MW-20 (DUPL)
SAMPLING PERSONNEL: MERCADO/ VILLAFANE AIR MONITORING: (HNU) -0-

EVACUATION INFORMATION

DATE/TIME: 10/31/96 METHOD: REDI-FLO2 (LOW FLOW) WELL CSG. TYPE/DIA: 4" PVC
WELL SCREEN (FT): 4.0 TO 19.0 H2O LEVEL (FT): 9.22 PUMP IN PLACEMENT (FT): 15
PURGED RATE OF EVACUATED: 378 ml/min TURBIDITY TRUE READING: 5.01 NTU
pH METER CALIBRATION: 4(4.13) 7(7.00) 10(9.99) DATE/TIME: 10/31/96 - 1320 Hrs

SAMPLING INFORMATION

DATE/TIME OF SAMPLING: 10/31/96 1700 METHOD: REDI-FLO2 (LOW FLOW) SAMPLE #: 200804

FIELD MEASUREMENT DATA

TIME	VOLUME EVACUATED (GAL)	TEMP (C)	pH (SU)	TURBIDITY (NTU)
1534	.50	19.0	5.80	2.56
1539	1.75	19.5	5.74	1.81
1544	2.50	19.0	5.75	1.12
1549	4.00	19.0	5.74	0.90
1554	5.50	19.0	5.74	0.91
1559	7.00	19.0	5.73	0.65
1604	8.50	18.5	5.73	0.59
1609	9.00	19.0	5.73	0.52
1614	9.5	19.0	5.73	0.48
1619	10.00	19.0	5.78	0.48
1624	10.50	19.0	5.78	0.48

GENERAL INFORMATION

WEATHER CONDITIONS: _____

SAMPLE CHARACTERISTICS: _____

COMMENTS AND OBSERVATIONS: This sample is a Dupl of MW-11B

ANALYSIS/PRESERVATION: (SEE FIELD DATA SHEET)

CERTIFICATION: _____

Appendix D, Field Data Sheets

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MELIARD / C. V. NATARIE Affiliation U.S. EPA

Samples to:

Bact	Bio	Chem <input checked="" type="checkbox"/>	Other
------	-----	------------------------------------------	-------

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Hand pour

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.

--	--	--	--	--	--	--	--	--	--

Sample Depth (Ft.)/Fac. Loc. Code

--	--	--	--	--	--	--	--	--	--

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological

Solvent Extract Other ()

Lab Number

201046

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<input checked="" type="checkbox"/> <u>POA Vial</u>	Solvent Rinse:	Depth: _____	Drum
Cubitainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<input checked="" type="checkbox"/> <u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>E/P Glassware</u>	Middle	Effluent-Non CI
Other _____		Bottom	Sludge
		Truck	Ambient
		Drum	Lake
Preservation		Tank	Stream
<input checked="" type="checkbox"/> <u>Acid</u>		Other _____	Pond
Solvent _____			Ocean
Chemical _____		Wells	Estuary
<input checked="" type="checkbox"/> <u>Wet Ice</u>		Monitoring	
Dry Ice _____		Production	
Ambient _____		Drinking	
Other _____		Private	

Type of Sample

Grab <input checked="" type="checkbox"/>	Composite
Time <input type="checkbox"/>	Space <input type="checkbox"/>

Collection (Ending) Date

Yr	Mo	Day
9	10	30

Ending Time (24 Hr)

1	0	2	0

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--	--

pH

--	--	--	--

Sample Temp. (°C)

--	--	--	--

DO (mg/l)

--	--	--	--

Cond. (uMHOS/CM)

--	--	--	--	--	--

Salinity(‰)

--	--	--	--

Sample Split

Yes No

If Yes With Whom? _____

Receipt Yes No

Sample Location Description:

TRIP BLANK #1

Remarks:

TCL DAs: 3-40 u/Vials, pres w/HCl pH < 2
 Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
Collector(s) M. MERCADO / C.V. HAFER Affiliation U.S. EPA

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other LOW FLOW PUMPS

LDMS CODE _____
DATA BASE CODE _____
STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
Solvent Extract Other ()

BOD — Seed Supplied Yes No Source: _____

Sample Preparation (Circle)

Sample Source Type (Circle)

Container
Glass Jar
Plastic Jar
Metal
60A Vial
Cubitainer
Acetate Core
Paper Cap
Tetlon Cap
Foil Cap
Other _____
Preservation
Acid HCl
Solvent
Chemical
Wet Ice
Dry Ice
Ambient
Other _____

Cleaning Procedure
Detergent Wash
Water Rinse
Acid Rinse
Solvent Rinse:
Acetone
Hexane
Methylene Chloride
Other (Specify):
ESS
GLASSWARE

Landfill
Leachate
Drum
Test Well
Depth:
Other: _____
Storage Tank
Top
Middle
Bottom
Truck
Drum
Tank
Other: _____
Wells
Monitoring
Production
Drinking
Private

Industrial
Effluent
Process Stream
Holding Pond
Drum
Waste Pile
Municipal Treatment
Influent
Effluent-Cl
Effluent-Non Cl
Sludge
Ambient
Lake
Stream
Pond
Ocean
Estuary

Sample Location Description:

Trip Blank

Remarks:

TEL USES: 3.40ml Vial pres w/ HCL pH 2 Cool to 4°C

Samples to:

Bact Bio Chem Other

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

00

Lab Number

200801

Type of Sample

Grab Composite
 Time Space

Collection (Ending) Date

Yr Mo Day
9 / 10 / 31

Ending Time (24 Hr)

1000

Beginning Date

Yr Mo Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split

Yes No

If Yes With Whom?

Receipt Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MERCADO/C. Villafra Affiliation U.S. EPA

Samples to:

Bact	Bio	Chem <input checked="" type="checkbox"/>	Other
------	-----	------------------------------------------	-------

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other LOW FLOW PUMPING

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.

E	Q	U	I	P	B	L	A	N	K
---	---	---	---	---	---	---	---	---	---

Sample Depth (Ft./Fac. Loc. Code)

		0	0
--	--	---	---

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number

200806

BOD - Seed Supplied Yes No Source: _____

Type of Sample

Grab <input checked="" type="checkbox"/>	Composite
Time	Space

Sample Preparation (Circle)

Container	Cleaning Procedure
Glass Jar	Detergent Wash
<u>Elastic Jar</u>	Water Rinse
Metal	Acid Rinse
<u>POA Vial</u>	Solvent Rinse:
Cubtainer	Acetone
Acetate Core	Hexane
Paper Cap	Methylene Chloride
<u>Teflon Cap</u>	Other (Specify):
Foil Cap	<u>E/P: ESS</u>
Other _____	<u>Glassware</u>
Preservation:	
<u>Acid HCl/HNO₃</u>	
Solvent _____	
Chemical _____	
<u>Wet Ice</u>	
Dry Ice _____	
Ambient _____	
Other _____	

Sample Source Type (Circle)

Landfill	Industrial
Leachate	Effluent
Drum	Process Stream
Test Well	Holding Pond
Depth: _____	Drum
Other: _____	Waste Pile
	Municipal Treatment
Storage Tank	Influent
Top	Effluent-CI
Middle	Effluent-Non CI
Bottom	Sludge
Tank	Ambient
Drum	Lake
Tank	Stream
Other _____	Pond
	Ocean
Wells	Estuary
Monitoring	
Production	
Drinking	
Private	

Collection (Ending) Date

Yr	Mo	Day
9	6	11
0	4	4

Ending Time (24 Hr)

1	4	2	0
---	---	---	---

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--	--

pH

--	--	--	--

Sample Temp. (°C)

--	--	--	--

DO (mg/l)

--	--	--	--

Cond. (µMHO/CM)

--	--	--	--

Salinity(‰)

--	--	--	--

Sample Spill

Yes No

If Yes With Whom? _____

Receipt Yes No

Sample Location Description:

EQUIP BLANKS

Remarks:

TCL UBRs: 3-40ml Vials, pres w/HCl, pH CZ, Cool to 4°C
CD & CR: 1-1L Plastic Jar, pres w/HNO₃, pH CZ
Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) Michael Villafranca Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container Glass Jar <u>Plastic Jar</u> Metal Roll Vat Cup/Sifter Acetate Core Paper Cap <u>Teflon Cap</u> Felt Cap Other _____	Cleaning Procedure Detergent Wash Water Rinse Acid Rinse Solvent Rinse: Acetone Hexane Methylene Chloride Other (Specify): <u>E/P + ESS</u> <u>Glassware</u>	Landfill Landfill Burn Test Well Depth: Other: Storage Tank Top Middle Bottom Trench Open Tank Other _____ Well Monitoring Production Existing Private	Industrial Effluent Process Stream Holding Pond Run Waste Pile Municipal Treatment Effluent Effluent-Cl Effluent-Non Cl Sludge Ambient Lake Stream Pond Ocean Slurry

Sample Location Description:
TRIP Blank II 2

Remarks:
TCL VOAs: 3-40ul/vials, pres w/HCl, pH < 2
Cool to 4°C

Sampler lot:
 Sect Size Type Other

Station No.
TRIP BLANK II 2

Sample Depth (Ft.)/Fac. Loc. Code
00

Lab Number
200807

Type of Sample
 Grab Composite
 Time Space

Collection (Starting) Date
9/6/11/04

Ending Time (24 Hr)
1800

Beginning Date
 W M Day

Beginning Time (24 Hr)
 [] [] []

pH
 [] [] []

Sample Temp. (C)
 [] [] []

DO (mg/L)
 [] [] []

Cond. (µMHO/cm)
 [] [] [] [] []

Salinity (‰)
 [] [] []

Sample Split
 Yes No

If Yes With What?
 Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. Mercado / C. Villafra Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth: _____	Drum
Cubitainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>E/P S.E.S.S</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
Preservation		Tank	Stream
<u>Acid HCl/HNO₃</u>		Other _____	Pond
Solvent			Ocean
Chemical		Vials	Estuary
<u>Wet Ice</u>		Monitoring	
Dry Ice		Production	
Ambient		Drinking	
Other _____		Salvage	

Sample Location Description:
TRIP BLANK #3

Remarks:
TCL VOAs: 3-40ml Vials, pres w/HCl, pH < 2, Cool to 4°C

Samples to:

Bact	Bio	Chem	Other
		✓	

Station No.
TRIP BLANK 3

Sample Depth (Ft.)/Fac. Loc. Code

		00	

Lab Number
200808

Type of Sample

Grab	Composite
✓	Time Space

Collection (Ending) Date

Yr	Mo	Day
96	11	05

Ending Time (24 Hr)
0900

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--

pH

--	--	--

Sample Temp. (°C)

--	--	--

DO (mg/l)

--	--	--

Cond. (µMOS/cm)

--	--	--	--

Salinity (‰)

--	--	--

Sample Spill
 Yes No

If Yes With Whom?
 Receipt Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) MERCADO/VILLAFANE Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POX VIAL</u>	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Open	Lake
Preservation		Bank	Stream
<u>Acid HCl</u>		Other	Reef
Solvent			Open
Chemical			Sewer
<u>None</u>			
Dry Ice			
Ambient			
Other _____			

Sample Location Description:
TRIP Blank #4

Remarks:
TCL VOA's: 3-40 ml Vials, pres w/HCl, pH 2, Cool to 4°C

Samples to:
 Bact Bio Chem Other

Station No.
TRIP BLANK #4

Sample Depth (Ft./Fac. Loc. Code)
00

Lab Number
200816

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 11 Day 06

Ending Time (24 Hr)
 [] [] [] []

Beginning Date
 Yr [] Mo [] Day []

Beginning Time (24 Hr)
 [] [] [] []

pH
 [] [] [] []

Sample Temp. (°C)
 [] [] [] []

DO (mg/L)
 [] [] [] []

Cond. (µMOS/cm)
 [] [] [] [] [] [] [] []

Salinity (‰)
 [] [] [] []

Sample Size
 [] [] [] []
 If Yes (100-1000)
 [] [] [] []
 Sample [] [] [] []

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MERCADO, C. Villafañe Affiliation U.S. EPA

Samples to:

Bact	Bio	<input checked="" type="checkbox"/>	Chem
			Other

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.

M	W	1	8	A					
---	---	---	---	---	--	--	--	--	--

Sample Depth (Ft.)/Fac. Loc. Code

		2	5	0
--	--	---	---	---

Lab Number

2	0	0	8	1	8
---	---	---	---	---	---

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological

Solvent Extract Other ()

Type of Sample

Grab	Composite
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Time	Space

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container Glass Jar Plastic Jar Metal <u>POX VIAL</u> Cuvette Acetate Core Paper Cap <u>Teflon Cap</u> Foil Cap Other _____	Cleaning Procedure Detergent Wash Water Rinse Acid Rinse Solvent Rinse: Acetone Hexane Methylene Chloride Other (Specify): <u>ESS Glassware</u>	Landfill Leachate Drum Test Well Depth: Other: _____ Storage Tank Top Middle Bottom Truck Drum Tank Other: _____ Wells <u>Monitoring</u> Production Drilling Private	Industrial Effluent Process Stream Holding Pond Drum Waste Pile Municipal Treatment Influent Effluent-Ct Effluent-Non Ct Sludge Ambient Lake Stream Pond Ocean Estuary

Collection (Ending) Date

Yr	Mo	Day
9	11	14

Ending Time (24 Hr)

1	2	5	0
---	---	---	---

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--	--

pH

5	8	9
---	---	---

Sample Temp. (°C)

1	6	0
---	---	---

DO (mg/l)

--	--	--	--

Cond. (µMHOS/CM)

--	--	--	--	--	--

Salinity (‰)

--	--	--	--

Sample Split

Yes No

If Yes With Whom?

Receipt Yes No

Sample Location Description:

MW-1A (TRIP BLANK)

Remarks:

TCH Vials: 3-40ul Vials, pres w/HCl, pH 2, Cool to 4°

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. HERCOLD / C. Villafraie Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubtainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Leffon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EP'SESS</u>	Middle	Effluent-Non CI
Other _____	<u>GLASSWARE</u>	Bottom	Sludge
		Truck	Ambient
Preservation		Drum	Lake
<u>Acid HNO₃/H₂O₂</u>		Tank	Stream
Solvent		Other _____	Pond
Chemical			Ocean
<u>Wet Ice</u>		Wells	Estuary
Dry Ice		<u>Monitoring</u>	
Ambient		Production	
Other _____		Drinking	
		Rebate	

Sample Location Description:
MU-1

Remarks:
TEL VOAs: 3-40ml vials, pres w/HCl, pH < 2, Cool to 4°C
CD & CR: 1-1L Plastic Jar, pres w/HNO₃, pH < 2
Cool to 4°C

Samples to:
 Bact Blo Chem Other

Station No.
MU-1

Sample Depth (Ft.)/Fac. Loc. Code
250

Lab Number
200814

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 11 Day 07

Ending Time (24 Hr)
1710

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
610

Sample Temp. (°C)
180

DO (mg/l)

Cond. (µMHO/cm)

Salinity (‰)

Sample Split
 Yes No

If Yes, With Whom?
 Receipt Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) MERCADO/CUKATASE Affiliation U.S. EPA

Samples to:
 Bact Bio Chem Other

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.
MW-2

Sample Depth (Ft./Fac. Loc. Code)
250

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number
200815

BOD - Seed Supplied Yes No Source:

Type of Sample
 Grab Composite
 Time Space

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>ELP & ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
Preservation		Tank	Stream
<u>Acid HCl/HNO₃</u>		Other _____	Pond
Solvent			Ocean
Chemical			Estuary
<u>Wet Ice</u>		Wells	
Dry Ice		<u>Identifying</u>	
Ambient		Production	
Other _____		Drinking	
		Private	

Collection (Ending) Date
 Yr Mo Day
9/6/11 07

Ending Time (24 Hr)
1700

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
6.08

Sample Temp. (C)
17.0

DO (mg/l)

Cond. (µMHO/cm)

Salinity (‰)

Sample Split
 Yes No

If Yes With Whom?
 Receipt Yes No

Sample Location Description:
MW-2

Remarks:
TCL VOA's: 3-40 ml Vials, pres w/ HCl, pH 2, Cool to 4°C
CD & CR: 1-1 Lt Plastic Jar, pres w/ HNO₃, pH 2
Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
Collector(s) MERCADO/C Villalobos Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Samples to:

Bact	Bio	Chem <input checked="" type="checkbox"/>	Other
------	-----	------------------------------------------	-------

Station No.

MW-5							
------	--	--	--	--	--	--	--

Sample Depth (Ft./Fac. Loc. Code)

250

Lab Number

200820

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Type of Sample

Grab <input checked="" type="checkbox"/>	Composite
Time	Space

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubitalner	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>ESS Glassware</u>	Middle	Effluent-Non CI
Other _____		Bottom	Sludge
		Truck	Ambient
		Drum	Lake
Preservation:		Test	Stream
<u>Acid HCl/HNO3</u>		Other _____	Pond
Solvent			Ocean
Chemical		Wells	Estuary
<u>Wet Ice</u>		<u>Monitoring</u>	
Dry Ice		<u>Production</u>	
Ambient		Drinking	
Other _____		Private	

Collection (Ending) Date

Yr	Mo	Day
96	11	14

Ending Time (24 Hr)

1050	1100
------	------

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--

pH

6.09

Sample Temp. (°C)

15.5

DO (mg/l)

--	--	--

Cond. (µMHO/CM)

--	--	--	--	--

Salinity (‰)

--	--	--

Sample Split
 Yes No

If Yes With Whom?

Receipt Yes No

Sample Location Description:

MW-5

Remarks:
TCLVAPs: 3-40ml Vials, pres w/HCl, pH 2, Cool to 4°C
cd & cc: 1-1L Plastic Jar, pres w/HNO₃, pH 2.2
 Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
Collector(s) M. HERRADO / C. VILLALBA Affiliation U.S. EPA

Samples to:

Bact	Bio	Chem <input checked="" type="checkbox"/>	Other
------	-----	------------------------------------------	-------

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other LOW FLOW PUMPING

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.

M	W	6	A																
---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample Depth (Ft./Fac. Loc. Code)

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number

2	0	0	8	1	2
---	---	---	---	---	---

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EIP & ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
		Tank	Stream
		Other _____	Pond
			Ocean
			Estuary
		Wells	
		<u>Monitoring</u>	
		Production	
		Drinking	
		Private	

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date

Yr	Mo	Day
9	6	11
		07

Ending Time (24 Hr)

1	6	20
---	---	----

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--	--	--	--

pH

6	1	8
---	---	---

Sample Temp. (°C)

1	6	5
---	---	---

DO (mg/l)

--	--	--	--	--	--

Cond. (µMHO/cm)

--	--	--	--	--	--

Salinity (‰)

--	--	--	--	--	--

Sample Location Description:
MW 6A

Remarks: MS/MSD
TCL VOAs: 6 - 40ml vials, pres w/HCl, pH < 2, Cool to 4°C
Cd & Cr: 3 - 12 Plastic Jar, pres w/HNO₃, pH < 2
Cool to 4°C

Sample Split
 Yes No

Is Your Vial Whirl?
 Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. H. Z. CADY / C. VILLAFRANCA Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>PCA VBI</u>	Solvent Rinse:	Depth:	Drum
Container	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>E/P & ESS</u>	Middle	Effluent-Non CI
Other	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
		Tank	Stream
		Other	Pond
			Ocean
			Estuary
Preservation			
<u>Acid HNO_3/H_2O_2</u>			
Solvent			
Chemical			
<u>Wet Ice</u>			
Dry Ice			
Ambient			
Other			

Sample Location Description:
HW 6B

Remarks:
TCL VOA's: 3 - 40ml Vials, pres w/ HCl, pH 12, Cool to 4°C
Cd & Cr: 1 - 100ml Plastic Jar, pres w/ HNO₃, pH 12
Cool to 4°C

Samples to:
 Bact Bio Chem Other

Station No.
HW 6B

Sample Depth (Ft./Fac. Loc. Code)
500

Lab Number
200813

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 11 Day 07

Ending Time (24 Hr)
1540

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
5.42

Sample Temp (°C)
15.5

DO (mg/L)

Cond. (µmhos/cm)

Salinity (‰)

Temperature
 in the sun
 in the shade

Number of Observations No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MERCADO / C. VILLATAPE Affiliation U.S. EPA

Samples to:
 Bact Bio Chem Other

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other LOW FLOW PUMPING

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.
MW-7A

Sample Depth (Ft.)/Fac. Loc. Code
250

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number
200810

BOD - Seed Supplied Yes No Source: _____

Type of Sample
 Grab Composite
 Time Space

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubittainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EP: ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Boat	Lake
Preservation		Truck	Stream
Acid <u>HCl/HNO3</u>		Other _____	Pond
Solvent _____			Ocean
Chemical _____		Wells	Estuary
<u>Wet Ice</u>		<u>Monitoring</u>	
Dry Ice _____		Production	
Ambient _____		Drinking	
Other _____		Waste	

Collection (Ending) Date
 Yr Mo Day
9/6/05

Ending Time (24 Hr)
1450

Beginning Date
 Yr Mo Day
9/6/05

Beginning Time (24 Hr)

pH
6.25

Sample Temp. (°C)
18.5

DO (mg/l)

Cond. (µMHO/CM)

Salinity (‰)

Sample Spill
 Yes No

If Yes With Whom?
 Receipt Yes No

Sample Location Description:
MW-7A

Remarks:
TCL VOAs: 3-40ml Vials, pres w/HCl, pH 2, cool to 4°C
Cd & Cr: 1-10ml Plastic Jar, pres w/HNO3 pH 2
Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MERCADANTONIO Affiliation U.S. EPA

Samples to:
 Bact Bio Chem Other

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.
MW-7B

Sample Depth (Ft.)/Fac. Loc. Code
500

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number
200811

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source: _____	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>PCA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubetainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Capton Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EIP</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Boat	Lake
		Tank	Stream
		Other _____	Pond
			Ocean
			Estuary
Preservation		Well	
<u>Acid KNO3 HNO3</u>		Manufacturing	
Solvent _____		Production	
Chemical _____		Shipping	
<u>Wet Ice</u>		Private	
Dry Ice _____			
Ambient _____			
Other _____			

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr Mo Day
9 6 11 0 15

Ending Time (24 Hr)
7 4 4 0

Beginning Date
 Yr Mo Day
9 6 11 0 15

Beginning Time (24 Hr)

pH
6.22

Sample Temp. (°C)
16.0

DO (mg/L)

Cond. (µMHO/cm)

Salinity (‰)

Sample Split
 Yes No

If Yes With What? _____

Receipt Yes No

Sample Location Description:

MW-7B

Remarks:

TCL VOA's: 3-40 ml/wals, pres w/NaCl, pH < 2, Cool to 4°C
Cd: Cr: 1-1 Lt Plastic Jar, pres w/HNO3, pH < 2, Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name <u>Liberty Site</u> Collector(s) <u>M. MERCADO / C. V. HARRIS</u> Affiliation <u>U.S. EPA</u>		Samples to: <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Bact</td> <td>Bio</td> <td>Chem</td> <td>Other</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Bact	Bio	Chem	Other																	
Bact	Bio	Chem	Other																				
SAMPLING METHOD (Circle) Kemmerer <input type="checkbox"/> Dredge <input type="checkbox"/> Ponar <input type="checkbox"/> Manual <input type="checkbox"/> Niskin <input type="checkbox"/> Net <input type="checkbox"/> Seine <input type="checkbox"/> Trawl <input type="checkbox"/> Bucket <input type="checkbox"/> Trowel <input type="checkbox"/> Cream <input type="checkbox"/> Dipper <input type="checkbox"/> Automatic <input type="checkbox"/> Other <u>Low Flow Pumping</u>		LDMS CODE _____ DATA BASE CODE _____ STA. TYPE CODE _____																					
SUBSTRATE TYPE (Circle) <u>Aqueous</u> Sediment Sludge Oil Biological Solvent Extract Other ()		Station No. <table border="1" style="width: 100%; text-align: center;"> <tr> <td>M</td><td>W</td><td>1</td><td>0</td><td>A</td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table>		M	W	1	0	A															
M	W	1	0	A																			
BOD — Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No Source: _____		Sample Depth (Ft.)/Fac. Loc. Code <table border="1" style="width: 100%; text-align: center;"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table>																					
Sample Preparation (Circle) Container: <u>Glass Jar</u> , <u>Plastic Jar</u> , <u>POA Vial</u> , <u>Teflon Cap</u> Cleaning Procedure: <u>Detergent Wash</u> , <u>Water Rinse</u> , <u>Acid Rinse</u> , <u>Solvent Rinse</u> Solvent Rinse: <u>Acetone</u> , <u>Hexane</u> , <u>Methylene Chloride</u> Other (Specify): <u>EPA Glassware & ESS Glassware</u>		Sample Source Type (Circle) Landfill: <u>Leachate</u> , <u>Drum</u> , <u>Test Well</u> , <u>Depth</u> , <u>Other</u> Industrial: <u>Effluent</u> , <u>Process Stream</u> , <u>Holding Pond</u> , <u>Drum</u> , <u>Waste Pile</u> , <u>Municipal Treatment</u> Storage Tank: <u>Top</u> , <u>Middle</u> , <u>Bottom</u> , <u>Truck</u> , <u>Drum</u> , <u>Tank</u> , <u>Other</u> Wells: <u>Monitoring</u> , <u>Production</u> , <u>Drinking</u> , <u>Private</u>																					
Preservation: <u>Acid HCl/HNO₃</u> , <u>Solvent</u> , <u>Chemical</u> , <u>Wet Ice</u> , <u>Dry Ice</u> , <u>Ambient</u> , <u>Other</u>		Type of Sample Grab <input checked="" type="checkbox"/> Composite <input type="checkbox"/> Time <input type="checkbox"/> Space <input type="checkbox"/>																					
Sample Location Description: <p style="text-align: center; font-size: 2em;"><u>MW10A</u></p>		Collection (Ending) Date <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Yr</td><td>Mo</td><td>Day</td> </tr> <tr> <td>9</td><td>6</td><td>10</td> </tr> </table>		Yr	Mo	Day	9	6	10														
Yr	Mo	Day																					
9	6	10																					
		Ending Time (24 Hr) <table border="1" style="width: 100%; text-align: center;"> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td>1</td><td>5</td><td>2</td><td>5</td> </tr> </table>						1	5	2	5												
1	5	2	5																				
		Beginning Date <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Yr</td><td>Mo</td><td>Day</td> </tr> <tr> <td> </td><td> </td><td> </td> </tr> </table>		Yr	Mo	Day																	
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		pH <table border="1" style="width: 100%; text-align: center;"> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> </table>																					
		Sample Temp. (°C) <table border="1" style="width: 100%; text-align: center;"> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> </table>																					
		DO (mg/l) <table border="1" style="width: 100%; text-align: center;"> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> </table>																					
		Cond. (µMHOS/CM) <table border="1" style="width: 100%; text-align: center;"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table>																					
		Salinity (‰) <table border="1" style="width: 100%; text-align: center;"> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td> </td><td> </td><td> </td><td> </td> </tr> </table>																					
Remarks: <p><u>TCL Vials: 3, 40 ml vial, pres w/HCl pH < 2 Cool to 4°C</u> <u>Cadmium & Chromium: 1, 10 plastic Jar, pres w/HNO₃</u> <u>pH < 2 Cool to 4°C</u></p>		Sample Split <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes With Whom? Receipt <input type="checkbox"/> Yes <input type="checkbox"/> No																					

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
Collector(s) MARCATO / C. Villa Affiliation US EPA

Samples to:

Bact	Bio	Chem <input checked="" type="checkbox"/>	Other
------	-----	------------------------------------------	-------

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow pump

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.

M	W	1	0	B					
---	---	---	---	---	--	--	--	--	--

Sample Depth (Ft./Fac. Loc. Code)

	1	6	-
--	---	---	---

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number

201044

BOD -- Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EIP & ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
Preservation		Tank	Stream
Acid <u>HCl/HNO3</u>		Other _____	Pond
Solvent			Ocean
Chemical		Wells	Estuary
<u>Wet Ice</u>		<u>Monitoring</u>	
<u>Dry Ice</u>		Production	
Ambient		Drinking	
Other _____		Private	

Type of Sample

Grab <input checked="" type="checkbox"/>	Composite
Time	Space

Collection (Ending) Date

Yr	Mo	Day
9	6	10
		30

Ending Time (24 Hr)

1	5	30
---	---	----

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--

pH

5	5	7
---	---	---

Sample Temp. (°C)

1	6	-
---	---	---

DO (mg/l)

--	--	--

Cond. (uMHOS/CM)

--	--	--

Salinity(‰)

--	--	--

Sample Split
 Yes No
 If Yes With Whom? _____

Receipt Yes No

Sample Location Description:
HW10B

Remarks:
TCL VOA's: 3-40 ml/vial, pres w/HCl pH 2 Cool to 4°C
Cadmium & Chromium: 1-14 Plastic Jar, pres w/HNO3 pH 2 Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MERCADY/C. V. LAFAIE Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EP: ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
Preservation		Drum	Lake
<u>Acid HNO₃</u>		Tank	Stream
Solvent		Other _____	Pond
Chemical			Ocean
<u>Wet Ice</u>		Wells	Estuary
Dry Ice		<u>Monitoring</u>	
Ambient		Production	
Other _____		Drinking	
		Private	

Sample Location Description:
HW11A

Remarks: MS/MSD
TCL Vials: 8-40ml vial, pres w/HCl pH < 2 Cool to 4°C
Cadmium / Chromium: 3-1L plastic jar, pres w/HNO₃ pH < 2, Cool to 4°C

Samples to:
 Bact Bio Chem Other

Station No.
HW11A

Sample Depth (Ft./Fac. Loc. Code)
45-

Lab Number
201048

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 10 Day 31

Ending Time (24 Hr)
1640

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
6.08

Sample Temp. (°C)
16.0

DO (mg/l)

Cond. (uMHOS/CM)
 279

Salinity(‰)

Sample Split
 Yes No

If Yes With Whom?
 Yes No

Receipt Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
Collector(s) M. MERCADO / C. VILLALBA Affiliation U.S. EPA

Samples to:

Bact	Blo	Chem <input checked="" type="checkbox"/>	Other
------	-----	------------------------------------------	-------

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.

HW	11	B	
----	----	---	--

Sample Depth (Ft.)/Fac. Loc. Code

2	3	0	
---	---	---	--

Lab Number

201049

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Type of Sample
 Grab Composite
 Time Space

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EPA ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
		Tank	Stream
		Other _____	Pond
			Ocean
			Estuary
Preservation		Wells	
<u>Acid HCl/HNO₃</u>		<u>Monitoring</u>	
Solvent		Production	
Chemical		Drinking	
<u>Wet Ice</u>		Private	
Dry Ice			
Ambient			
Other _____			

Collection (Ending) Date

Yr	Mo	Day
96	10	31

Ending Time (24 Hr)

1	7	00
---	---	----

Beginning Date

Yr	Mo	Day
96	10	31

Beginning Time (24 Hr)

--	--	--

pH

5	7	8
---	---	---

Sample Temp. (°C)

1	9	0
---	---	---

DO (mg/l)

--	--	--

Cond. (uMhos/cm)

	2	45
--	---	----

Salinity(‰)

--	--	--

Sample Split
 Yes No
 If Yes With Whom?
 Receipt Yes No

Sample Location Description:

HW-11B

Remarks:

3-400ul vials pres HCl, pH 2, Cool to 4°C
 1-1L Plastic Jar, pres w/ HCl
 pH 2 Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name <u>Liberty Site</u>		Samples to:									
Collector(s) <u>WATERBURY, C. VILLA</u> Affiliation <u>USEPA</u>		<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Bact</td> <td>Bio</td> <td>Chem</td> <td>Other</td> </tr> <tr> <td></td> <td></td> <td>✓</td> <td></td> </tr> </table>		Bact	Bio	Chem	Other			✓	
Bact	Bio	Chem	Other								
		✓									
SAMPLING METHOD (Circle) Kemmerer Dredge Ponar Manual Niskin Net Seine Trawl Bucket Trowel Cream Dipper Automatic Other <u>Low Flow Pumping</u>		LDMS CODE _____ DATA BASE CODE _____ STA. TYPE CODE _____									
SUBSTRATE TYPE (Circle) <input checked="" type="checkbox"/> Aqueous Sediment Sludge Oil Biological Solvent Extract Other ()		Station No. <u>MW 112</u> Sample Depth (Ft./Fac. Loc. Code) <u>100-</u> Lab Number <u>201050</u>									
BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No Source: _____		Type of Sample Grab Composite <input checked="" type="checkbox"/> Time <input type="checkbox"/> Space									
Sample Preparation (Circle)		Sample Source Type (Circle)									
Container Glass Jar <input checked="" type="checkbox"/> Plastic Jar Metal <input checked="" type="checkbox"/> POA Vial Container Acetate Core Paper Cap <input checked="" type="checkbox"/> Teflon Cap Foil Cap Other _____	Cleaning Procedure Detergent Wash Water Rinse Acid Rinse Solvent Rinse: Acetone Hexane Methylene Chloride Other (Specify): <u>EtOH, ESS, Glassware</u>	Landfill Leachate Drum Test Well Depth: _____ Other: _____ Storage Tank Top Middle Bottom Truck Drum Tank Other: _____ <input checked="" type="checkbox"/> Sewer Production Drinking Storage	Industrial Effluent Process Stream Holding Pond Drum Waste Pile Municipal Treatment Influent Effluent-CI Effluent-Non CI Sludge Ambient Lake Stream Pond Ocean Estuary								
Preservation <input checked="" type="checkbox"/> Cold <u>20/10/10</u> Solvent Chemical <input checked="" type="checkbox"/> Wet Ice Dry Ice Ambient Other _____		Collection (Ending) Date Yr Mo Day <u>9/6/10</u> Ending Time (24 Hr) <u>1235</u> Beginning Date Yr Mo Day _____ Beginning Time (24 Hr) _____									
Sample Location Description: <u>MW-112</u>		pH <u>632</u> Sample Temp. (°C) <u>160</u> DO (mg/l) _____ Cond. (µMHO/cm) _____ Salinity (‰) _____ Sample Spill <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes With What? _____ Receipt: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Remarks: <u>TCL UOAs: 3-40ml Vials, pres w/ HCl pH ≤ 2 Cool to 4°C</u> <u>Cadmium & Chromium: 1-1ct Plastic Jar, pres w/ HNO3 pH ≤ 2 Cool to 4°C</u>											

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
Collector(s) M. MECCADO/C. VILLAFANE Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POX VIAL</u>	Solvent Rinse:	Depth:	Drum
Cubittainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>E/P 3 ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
		Tank	Stream
		Other _____	Pool
			Ocean
			Estuary
		Well	
		Monitoring	
		Production	
		Quarrying	
		Paints	

Sample Location Description:
MW-13

Remarks:
TCL VOA's: 3-40ml Vial, pres w/HCl, pH < 2, Cool to 4°C
Cd & Cr: 1-14 Plastic JAR, pres w/HNO₃, pH < 2
Cool to 4°C

Samples to:
 Bact Blo Chem Other

Station No.
MW-13

Sample Depth (Ft.)/Fac. Loc. Code
20-

Lab Number
200817

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 11 Day 07

Ending Time (24 Hr)
1420

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
6.02

Sample Temp. (C)
19.5

DO (mg/l)

Cond. (µMHO/cm)

Salinity (‰)

Sample Split
 Yes No

Presert Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
Collector(s) MERCADO/CVILLAFRANCA Affiliation U.S. EPA

Samples to:

Bact	Bio	<input checked="" type="checkbox"/> Chem	Other
------	-----	------------------------------------------	-------

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.

4	W	1	4						
---	---	---	---	--	--	--	--	--	--

Sample Depth (Ft.)/Fac. Loc. Code

	2	0	0
--	---	---	---

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number

200809

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubtainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Tetlon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>E/P & ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
		Tank	Stream
		Other _____	Pond
			Ocean
			Estuary
		Wells	
		Monitoring	
		Production	
		Drinking	
		Private	

Type of Sample

<input checked="" type="checkbox"/> Grab	<input type="checkbox"/> Composite
Time	Space

Collection (Ending) Date

Yr	Mo	Day
96	11	05

Ending Time (24 Hr)

1	24
---	----

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--

pH

5	98
---	----

Sample Temp. (°C)

19	5
----	---

DO (mg/l)

--	--	--

Cond. (µMHO/cm)

--	--	--	--	--

Salinity (‰)

--	--	--

Sample Spill
 Yes No
 If Yes With Whom?
 Sample Yes No

Sample Location Description:
MW-14

Remarks:
TCL Vials: 3-40ml vials, pres w/HCl, pH 2, Cool to 4°C
CD & CR: 1-1 Lt Plastic Jar, pres w/HNO₃, pH 2
Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MERCADANT/C. VILLAFADE Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth: _____	Drum
Cubitainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>E/P + ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
Preservation		Tank	Stream
<u>Acid HCl/HNO3</u>		Other _____	Pond
Solvent			Ocean
Chemical		Wells	Estuary
<u>Wet Ice</u>		<u>Monitoring</u>	
Dry Ice		Process	
Ambient		Drinking	
Other _____		Private	

Sample Location Description:
MW-15

Remarks: M5/HSD
TCL UGAs: 8-40ml Vials, pres w/HCl pH 12, Cool to 4°C
Cd & Cr: 2-1lt Plastic Jar, pres w/HNO3, pH 12
Cool to 4°C
TPH: 2-1lt Plastic Jar, Cool to 4°C

Samples to:
 Bact Bio Chem Other

Station No.
MW15

Sample Depth (Ft./Fac. Loc. Code)
230

Lab Number
200805

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
9/6/05

Ending Time (24 Hr)
10:25 1015

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
6.2

Sample Temp. (°C)
20.0

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Sample Split
 Yes No

If Yes With Whom?
 Receipt Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MERCADANTE / C. VILAFRANCA Affiliation U.S. EPA

Samples to:
 Bact Bio Chem Other

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.

M	W	1	6						
---	---	---	---	--	--	--	--	--	--

Sample Depth (Ft./Fac. Loc. Code)

3	0	0			

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number

2	0	1	0	4	7
---	---	---	---	---	---

BOD - Seed Supplied Yes No Source: _____

Type of Sample
 Grab Composite
 Time Space

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EFF & ESS</u>	Middle	Effluent-Non CI
Other _____		Bottom	Sludge
		Truck	Ambient
Preservation		Drum	Lake
<u>Acid HNO3 / H2O2</u>	<u>Glassware</u>	Tank	Stream
Solvent		Other _____	Pond
Chemical			Ocean
<u>Wet Ice</u>		Wells	Estuary
Dry Ice		<u>Monitoring</u>	
Ambient		Production	
Other _____		Drinking	
		Private	

Collection (Ending) Date

Yr	Mo	Day
9	10	31

Ending Time (24 Hr)

1	5	3	5
---	---	---	---

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr)

--	--	--

pH

5	7	2
---	---	---

Sample Temp. (°C)

1	4	5
---	---	---

DO (mg/l)

--	--	--

Cond. (uMHOS/CM)

			7	4

Salinity(‰)

--	--	--

Sample Split
 Yes No

If Yes With Whom?

Receipt Yes No

Sample Location Description:
MW-16

Remarks:
TEL vials. 3-40ml vials. pres w/HCl pH=2 Cool to 4°C
Lead and Chromium. 1-100 Plastic Jar, pres w/HNO₃
pH=2 Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) U. Maccario, J. Villafranca Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>PLASTIC JAR</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>FOR VIAL</u>	Solvent Rinse:	Depth:	Drain
Cubtainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>5/16 1/255</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
Preparation:		Tank	Stream
<u>Acid HNO3</u>		Other	Sand
Solvent _____			Coast
Chemical _____			Sewery
<u>Water</u>			
Dry Ice			
Ambient			
Other _____			

Samples to:
 Best Bio Chem Other

Station No.
MW17A

Sample Depth (Ft.)/Fac. Loc. Code
160

Lab Number
200802

Type of Sample
 Single Composite
 Time Space

Collection (Ending) Date
9/6/04

Ending Time (24 Hr)
1850

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)
 [] [] []

pH
6.09

Sample Temp. (C)
18.0

DO (mg/l)
 [] [] []

Cond. (uMHO/cm)
 [] [] [] [] []

Salinity (‰)
 [] [] [] []

Sample Spill
 Yes No
 If Yes With What?
 Receipt Yes No

Sample Location Description:
MW-17A

Remarks:
TOL UOAs: 3-40ml Vials, pres w/HCl, pH < 2, Cool to 4°C
Cadmium & Chromium: 1-1L Plastic Jar, pres w/ HNO3
pH < 2 Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) HERNANDEZ, C. VILLALBA Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:	
Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holdng Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubittainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane	Storage Tank	Municipal Treatment
Paper Cap	Methylene Chloride	Top	Influent
<u>Teflon Cap</u>	Other (Specify):	Middle	Effluent-CI
Foil Cap	<u>EPRESS</u>	Bottom	Effluent-Non CI
Other _____	<u>Glassware</u>	Truck	Sludge
		Drum	Ambient
		Tank	Lake
		Other _____	Stream
			Pond
			Ocean
			Estuary
		Wells	
		<u>Monitoring</u>	
		Freignage	
		Drinking	
		Private	

Samples to:
 Bact Bio Chem Other

Station No.
MW-17B

Sample Depth (Ft.)/Fac. Loc. Code
400

Lab Number
200803

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 11 Day 04

Ending Time (24 Hr)
1645

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

Sample Location Description:
MW-17B

pH
5.90

Sample Temp. (°C)
15.5

DO (mg/l)

Cond. (µMHO/CM)

Salinity(‰)

Sample Split
 Yes No

If Yes With What?
 Yes No

Remarks:
TELVOAs: 3-40ml Vials, pres w/HCl, pH < 2 Cool to 4°C
Cadmium & Chromium: 1-1L Plastic Jar, pres w/ HNO₃, pH < 2 Cool to 4°C

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. MERCADO / C. Villafra Affiliation U.S. EPA

Samples to:
 Bact Bio Chem Other

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

Station No.
MW-18B

Sample Depth (Ft.)/Fac. Loc. Code
25-

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

Lab Number
200819

BOD - Seed Supplied Yes No Source: _____

Type of Sample
 Grab Composite
 Time Space

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubittainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
		Drum	Lake
Preservation		Tank	Stream
<u>Acid HCl</u>		Other _____	Pond
Solvent			Ocean
Chemical		Wells	Estuary
<u>Wet Ice</u>		<u>Monitoring</u>	
Dry Ice		Production	
Ambient		Drinking	
Other _____		Private	

Collection (Ending) Date
 Yr Mo Day
9 6 11 14

Ending Time (24 Hr)
1250

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
5.89

Sample Temp. (°C)
16.0

DO (mg/l)

Cond. (µMHOS/CM)

Salinity(‰)

Sample Split
 Yes No

If Yes With Whom?

Receipt Yes No

Sample Location Description:

MW-18B

Remarks:

TCL VOAs: 3-40µl/Vials, pres w/HCl, pH < 2
Cool to 4°

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) M. HENRICH / C. LAFAYETTE Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
POA Vial	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Tallon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>ESS</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Tray	Ambient
Preservation		Drum	Lake
<u>Acid HNO_3</u>		Tank	Stream
Solvent		Other _____	Pond
Chemical			Ocean
<u>Wet Ice</u>		Wells	Estuary
Dry Ice		<u>Monitoring</u>	
Ambient		Production	
Other _____		Striking	
		Rebate	

Sample Location Description:
MW-18C

Remarks:
cd:ca: 1-10 Plastic Jar, pres w/ HNO_3 , pH < 2
Cool to 4°C

Samples to:
 Bact Bio Chem Other

Station No.
MW18C

Sample Depth (Ft.)/Fac. Loc. Code
25-

Lab Number
200821

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 11 Day 14

Ending Time (24 Hr)
1250

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
5.89

Sample Temp. (°C)
16.0

DO (mg/l)

Cond. (µMHO/cm)

Salinity (‰)

Sample Spill
 Yes No

If Yes With Whom?

Receipt Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name Liberty Site
 Collector(s) H. MERCADO / C. VILLALBA Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied Yes No Source: _____

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
<u>Plastic Jar</u>	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
<u>POA Vial</u>	Solvent Rinse:	Depth:	Drum
Cubittainer	Acetone	Other: _____	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
<u>Teflon Cap</u>	Other (Specify):	Top	Effluent-CI
Foil Cap	<u>EP, ES</u>	Middle	Effluent-Non CI
Other _____	<u>Glassware</u>	Bottom	Sludge
		Truck	Ambient
Preservation		Drum	Lake
Acid <u>HCl/HNO3</u>		Tank	Stream
Solvent		Other _____	Pond
Chemical			Ocean
<u>Wet Ice</u>		Wells	Estuary
Dry Ice		<u>Monitoring</u>	
Ambient		Production	
Other _____		Drinking	
		Private	

Sample Location Description:
MW 19

Remarks:
TCL Vials: 3-40ml vial, pres w/ HCl pH=2 Cool to 4°C
Cadmium & Chromium: 1-1L Plastic Jar, pres w/ HNO3
pH=2, Cool to 4°C

Samples to:
 Bact Bio Chem Other

Station No.
MW 19

Sample Depth (Ft./Fac. Loc. Code)
27.0

Lab Number
201045

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 10 Day 30

Ending Time (24 Hr)
1640

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
5.46

Sample Temp. (°C)
17.5

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Sample Split
 Yes No

If Yes With Whom?
 Yes No

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey
ENVIRONMENTAL SERVICES DIVISION

Project Name M. MERCADO Liberty Site
 Collector(s) M. MERCADO / C. V. ... Affiliation U.S. EPA

SAMPLING METHOD (Circle)
 Kemmerer Dredge Ponar Manual
 Niskin Net Seine Trawl Bucket
 Trowel Cream Dipper
 Automatic
 Other Low Flow Pumping

LDMS CODE _____
 DATA BASE CODE _____
 STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
 Solvent Extract Other ()

BOD - Seed Supplied <input type="checkbox"/> Yes <input type="checkbox"/> No		Source:
Sample Preparation (Circle)	Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill
Glass Jar	Detergent Wash	Leachate
<u>Plastic Jar</u>	Water Rinse	Drum
Metal	Acid Rinse	Test Well
<u>POA Vial</u>	Solvent Rinse:	Depth:
Cubitainer	Acetone	Other: _____
Acetate Core	Hexane	Industrial
Paper Cap	Methylene Chloride	Effluent
<u>Teflon Cap</u>	Other (Specify):	Process Stream
Foil Cap	<u>EIP & ESS</u>	Holding Pond
Other: _____	<u>GLASSWARE</u>	Drum
Preservation		Waste Pile
<u>Acid HCl/HNO3</u>		Municipal Treatment
Solvent		Storage Tank
Chemical		Influent
<u>Wet Ice</u>		Effluent-CI
Dry Ice		Effluent-Non CI
Ambient		Sludge
Other		Ambient
		Lake
		Stream
		Pond
		Ocean
		Estuary
		Wells
		<u>Monitoring</u>
		Production
		Drinking
		Private

Sample Location Description:
MW 20

Remarks:
TCC CO2s, 3-40 ml vials, pres w/ HCl, pH < 2, cool to 4°C
Cadmium & Chromium: 1-12 Plastic Jar, pres w/ HNO3
pH < 2, cool to 7°C

Samples to:
 Bact Bio Chem Other

Station No.
MW 20

Sample Depth (Ft./Fac. Loc. Code)
230

Lab Number
200804

Type of Sample
 Grab Composite
 Time Space

Collection (Ending) Date
 Yr 96 Mo 10 Day 31

Ending Time (24 Hr)
1700

Beginning Date
 Yr Mo Day

Beginning Time (24 Hr)

pH
5.78

Sample Temp. (°C)
19.0

DO (mg/l)

Cond. (uMHOS/CM)
 245

Salinity (‰)

Sample Split
 Yes No

If Yes With Whom?
 Receipt Yes No

