ENVIROMETRIX

Environmental Consultants

National Airmotive Corporation
7200 Earhart Road
Oakland, California 94521-4504

July 3, 1997

Attention: Mr. Cliff Maupin

ANNUAL GROUNDWATER MONITORING
NAC TEST CELL FACILITY
EARHART ROAD
OAKLAND, CALIFORNIA
EMC JOB No. 197415

This letter presents the results of the annual groundwater monitoring conducted in May 1997, by Envirometrix Corporation (EMC) for groundwater monitoring wells MW-1 through MW-3 at the National Airmotive Corporation (NAC) Test Cell facility at the Oakland Airport (Plates 1 and 2). This annual sampling event was conducted to fulfill the requirements by the Alameda County Department of Environmental Health (ACDEH).

LIMITATIONS

This investigation was performed in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No warranty or guarantee, expressed or implied, is made as to the conclusions and opinions included in this report.

The findings of this report are current as of the date of this report. However, changes in the conditions of the property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. Therefore, the actual conditions discovered may change over time.

This report was prepared for the sole use of NAC, the only intended beneficiary of our work. No other party should rely on the information contained herein without the prior written consent of EMC.

PROCEDURES

Groundwater elevations were measured in all wells on May 15, 1997. After the column of water in each well was calculated, approximately three well volumes of

water were purged from each well until temperature, pH, and conductivity readings stabilized. A new pre-cleaned, disposable, weighted bailer was used to purge the groundwater from wells MW-1 through MW-3. Once the groundwater parameter readings stabilized during purging, water samples were collected with a the new disposable bailer and decanted into laboratory supplied containers. The samples were immediately placed in an iced cooler and transported under chain-of-custody procedures to Curtris and Tompkins, Berkeley, a California-certified laboratory for chemical analysis. The samples were analyzed for the following:

- Total petroleum hydrocarbons quantified as jet fuel (TPH-JF) using EPA Method 8015M
- Total petroleum hydrocarbons quantified as diesel (TPH-D) using EPA Method 8015M
- Benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8020

As required by the ACDEH, all the groundwater samples were analyzed for semi-volatile organic compounds (SVOCs) using EPA Method 8270 since TPH-JF was detected.

RESULTS

Groundwater elevation data and historical results of laboratory analyses for the chemical analysis are summarized in Table 1. A groundwater elevation contour map for the May 15, 1997 groundwater monitoring event is presented on Plate 3. The general direction of groundwater flow is interpreted to be to the west-southwest at a magnitude of 0.014 foot per foot. Copies of laboratory reports are attached.

The following are the results of the groundwater sampling and laboratory analyses:

- ▲ No SVOCs or BTEX were detected above reported laboratory detection limits in the water samples collected from wells MW-1 through MW-3.
- ▲ TPH-JF was detected at 600 micrograms per liter (ug/l) only from the water sample collected from MW-3. TPH-D was detected at 67 and 1,100 ug/l in the samples collected from wells MW-1 and MW-3, respectively.

The 1998 annual groundwater sampling event will be completed in May 1998. The annual report will be available in June 1998.

EMC hopes this letter provides the information you require at this time. If you have any questions or require additional information, please call.

Yours very truly,

ENVIROMETRIX CORPORATION

Norman Shopay
Principal

William G. Shipp
Associate Geologist, R.G. No. 6115

Enclosures:
- Table 1 Results of Laboratory Analyses Groundwater Monitoring
- Plate 1 Site Location Map
- Plate 2 Site Vicinity Map
- Plate 3 Site Plan and Groundwater Elevations 5/15/97
- Laboratory Reports and Chain-of-Custody Forms

cc: Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577
Attention: Mr. Scott O. Seery

WGS/197415b/12

ENVIROMETRIX

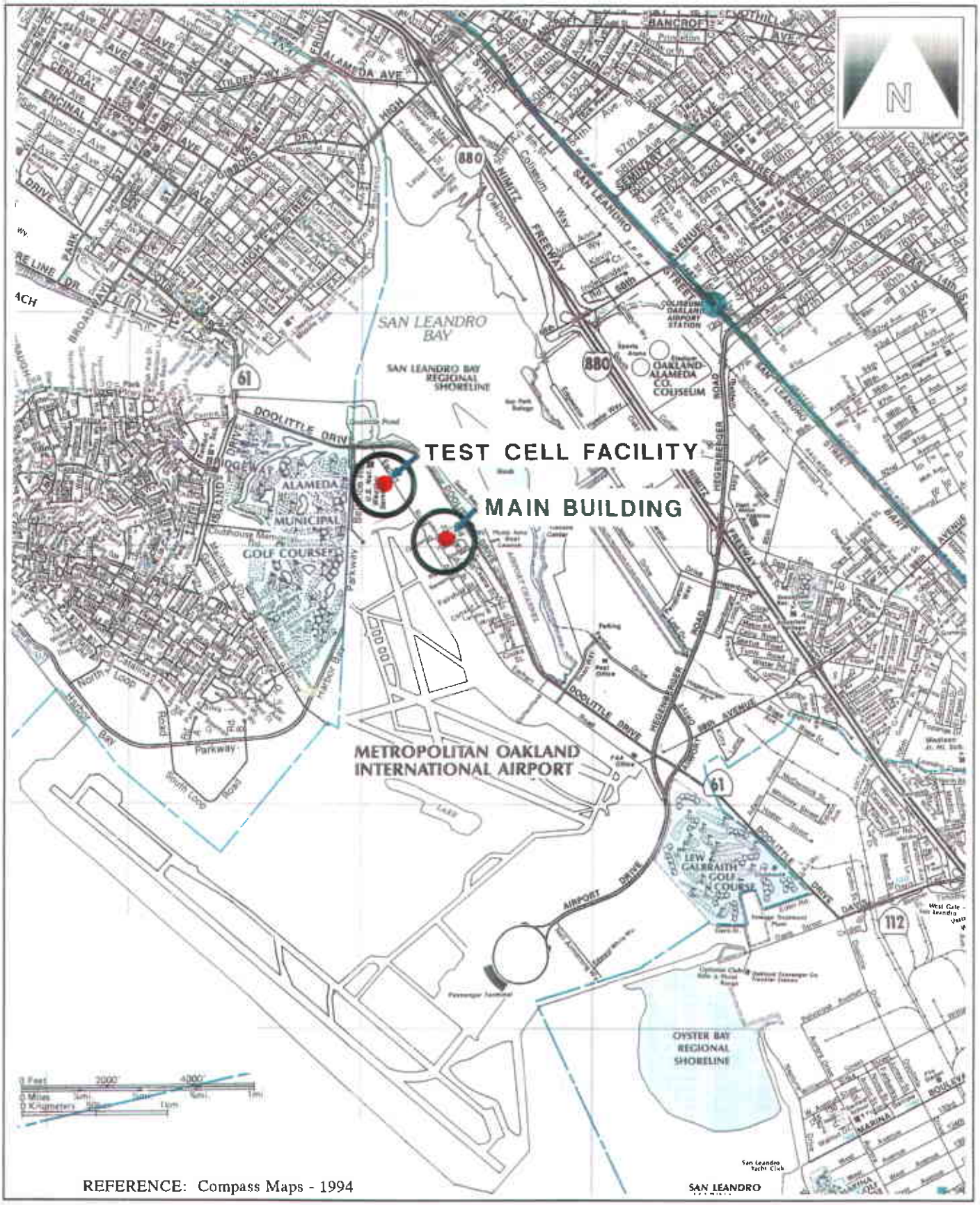
Table 1

Results of Laboratory Analyses and Groundwater Monitoring
National Airmotive Corporation, Test Cell Facility
Oakland, California

Values in shaded areas represent concentrations above laboratory detection limits in micrograms/liter (ug/L)
Values in un-shaded areas are the reported laboratory detection limits in ug/L
Cells that are blank were not measured or sampled
TPH-JF = Total Petroleum Hydrocarbons as Jet Fuel
TPH-D = Total Petroleum Hydrocarbons as Diesel
SVOCs - Semi-Volatile Organic Compounds
ND - Not detected, see laboratory reports for detection limits
TOC = Top of Casing Elevation

Well Number	Date	TPH-JF	TPH-D	SVOCs	Benzene	Toluene	Ethyl-benzene	Xylenes	Groundwater Elevation	Depth to Water	TOC Elevation
MW-1	4/3/96	<50	81	ND	<0.5	<0.5	<0.5	<0.5	6.97	3.06	10.03
	5/15/97	<50	67	ND	<0.5	<0.5	<0.5	<0.5	6.85	3.18	10.03
MW-2	4/3/96	<50	<50	ND	<0.5	<0.5	<0.5	<0.5	7.20	2.80	10.00
	5/15/97	<50	<50	ND	<0.5	<0.5	<0.5	<0.5	7.12	2.88	10.00
MW-3	4/3/96	1300	2200	ND	<0.5	<0.5	<0.5	<0.5	6.22	3.51	9.73
	5/15/97	660	1100	ND	<0.5	<0.5	<0.5	<0.5	5.91	3.82	9.73

ENVIROMETRIX	DRAWN: NTS	JOB NUMBER: 197415	**SITE LOCATION MAP** National Airmotive Corporation Test Cell Facility Oakland, California
	APPROVED: WGS	DATE: 7/97	PLATE: 1
	REVISED: 127415A	DATE:	



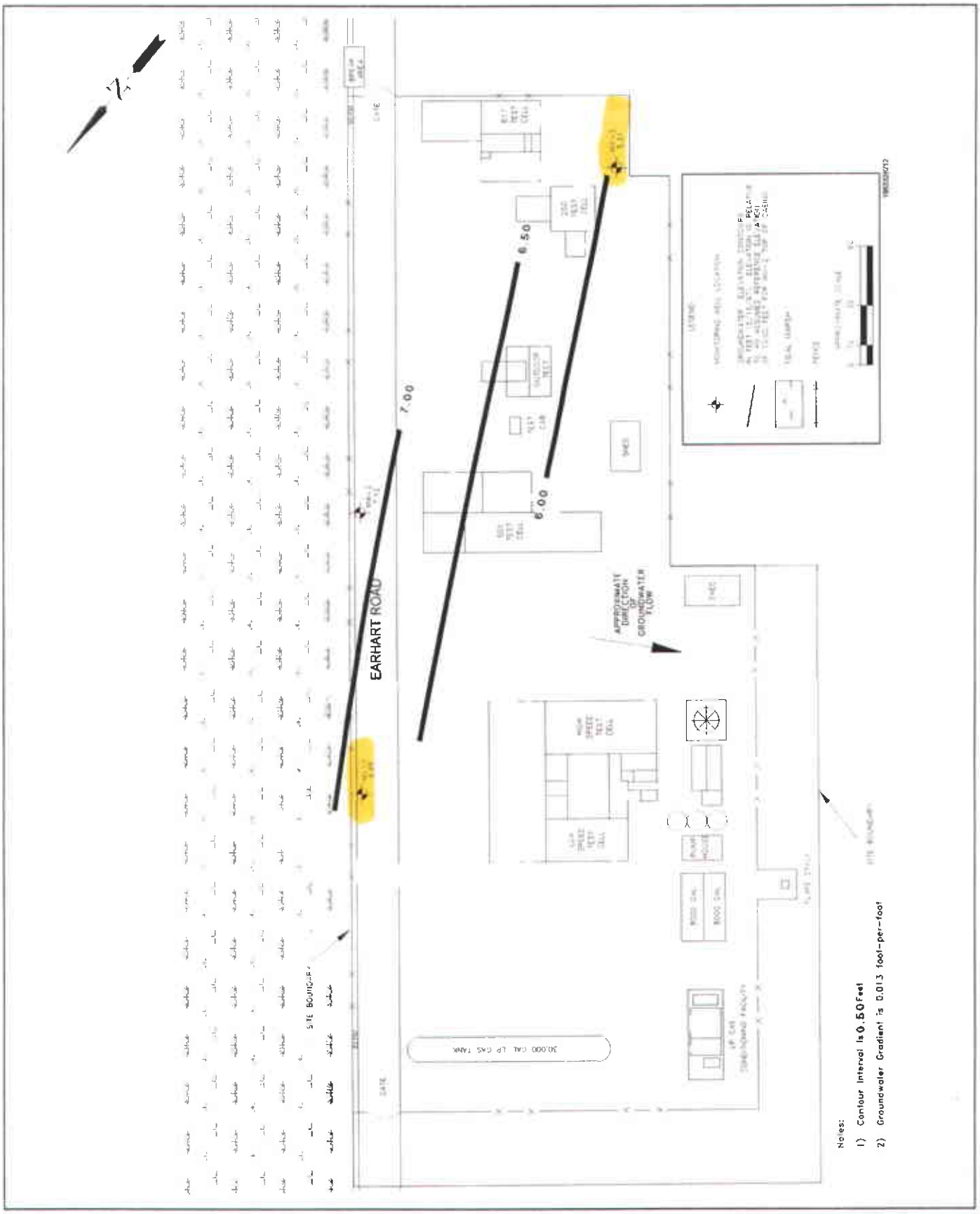
REFERENCE: Compass Maps - 1994

ENVIROMETRIX	DRAWN: NTS	JOB NUMBER: 197415
	APPROVED: WGS	DATE: 7/97
	REVISED: 127415B	DATE:

SITE VICINITY MAP

National Airmotive Corporation
Test Cell Facility
Oakland, California

PLATE 2



ENVIROMETRIX

DRAWN	JOB NUMBER
NTS	197415
APPROVED	DATE
WGS	7/97
REVISED	DATE
127415C	

SITE PLAN AND GROUNDWATER ELEVATIONS 5/15/97
National Airmotive
Test Cell Facility
Oakland, California

PLATE
3

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Envirometrix Corporation
3950 Industrial Boulevard
Suite 200C
West Sacramento, CA 95691-3430

Date: 30-MAY-97
Lab Job Number: 129287
Project ID: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Reviewed by: _____

Reviewed by: _____

Semivolatile Organics by GC/MS

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8270
Prep Method: EPA 3520

Field ID: MW-1
Lab ID: 129287-001
Matrix: Water
Batch#: 34116
Units: ug/L
Diln Fac: 1

Sampled: 05/15/97
Received: 05/15/97
Extracted: 05/22/97
Analyzed: 05/27/97

Analyte	Result	Reporting Limit
Phenol	ND	9.4
2-Chlorophenol	ND	9.4
Benzyl alcohol	ND	9.4
2-Methylphenol	ND	9.4
4-Methylphenol	ND	9.4
2-Nitrophenol	ND	47
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
2,4-Dichlorophenol	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	47
2,4-Dinitrophenol	ND	47
4-Nitrophenol	ND	47
4,6-Dinitro-2-methylphenol	ND	47
Pentachlorophenol	ND	47
N-Nitrosodimethylamine	ND	9.4
Aniline	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
1,2-Dichlorobenzene	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
bis(2-Chloroethoxy)methane	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	47
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4

Semivolatile Organics by GC/MS

Field ID:	MW-1	Sampled:	05/15/97
Lab ID:	129287-001	Received:	05/15/97
Matrix:	Water	Extracted:	05/22/97
Batch#:	34116	Analyzed:	05/27/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	47
Acenaphthene	ND	9.4
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
Fluorene	ND	9.4
4-Nitroaniline	ND	47
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	47
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	61	21-110
Phenol-d5	69	10-110
2,4,6-Tribromophenol	51	10-123
Nitrobenzene-d5	67	35-114
2-Fluorobiphenyl	63	43-116
Terphenyl-d14	34	33-141

Semivolatile Organics by GC/MS

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8270
Prep Method: EPA 3520

Field ID: MW-2
Lab ID: 129287-002
Matrix: Water
Batch#: 34116
Units: ug/L
Diln Fac: 1

Sampled: 05/15/97
Received: 05/15/97
Extracted: 05/22/97
Analyzed: 05/27/97

Analyte	Result	Reporting Limit
Phenol	ND	9.4
2-Chlorophenol	ND	9.4
Benzyl alcohol	ND	9.4
2-Methylphenol	ND	9.4
4-Methylphenol	ND	9.4
2-Nitrophenol	ND	47
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
2,4-Dichlorophenol	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	47
2,4-Dinitrophenol	ND	47
4-Nitrophenol	ND	47
4,6-Dinitro-2-methylphenol	ND	47
Pentachlorophenol	ND	47
N-Nitrosodimethylamine	ND	9.4
Aniline	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
1,2-Dichlorobenzene	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
bis(2-Chloroethoxy)methane	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	47
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4

Semivolatile Organics by GC/MS

Field ID:	MW-2	Sampled:	05/15/97
Lab ID:	129287-002	Received:	05/15/97
Matrix:	Water	Extracted:	05/22/97
Batch#:	34116	Analyzed:	05/27/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	47
Acenaphthene	ND	9.4
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
Fluorene	ND	9.4
4-Nitroaniline	ND	47
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	47
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	60	21-110
Phenol-d5	65	10-110
2,4,6-Tribromophenol	43	10-123
Nitrobenzene-d5	63	35-114
2-Fluorobiphenyl	57	43-116
Terphenyl-d14	28*	33-141

* Values outside of QC limits

Semivolatile Organics by GC/MS

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8270
Prep Method: EPA 3520

Field ID: MW-3
Lab ID: 129287-003
Matrix: Water
Batch#: 34116
Units: ug/L
Diln Fac: 1

Sampled: 05/15/97
Received: 05/15/97
Extracted: 05/22/97
Analyzed: 05/27/97

Analyte	Result	Reporting Limit
Phenol	ND	9.4
2-Chlorophenol	ND	9.4
Benzyl alcohol	ND	9.4
2-Methylphenol	ND	9.4
4-Methylphenol	ND	9.4
2-Nitrophenol	ND	47
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
2,4-Dichlorophenol	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	47
2,4-Dinitrophenol	ND	47
4-Nitrophenol	ND	47
4,6-Dinitro-2-methylphenol	ND	47
Pentachlorophenol	ND	47
N-Nitrosodimethylamine	ND	9.4
Aniline	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
1,2-Dichlorobenzene	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
bis(2-Chloroethoxy)methane	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	47
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4

Semivolatile Organics by GC/MS

Field ID:	MW-3	Sampled:	05/15/97
Lab ID:	129287-003	Received:	05/15/97
Matrix:	Water	Extracted:	05/22/97
Batch#:	34116	Analyzed:	05/27/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	47
Acenaphthene	ND	9.4
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
Fluorene	ND	9.4
4-Nitroaniline	ND	47
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	47
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	64	21-110
Phenol-d5	74	10-110
2,4,6-Tribromophenol	55	10-123
Nitrobenzene-d5	68	35-114
2-Fluorobiphenyl	57	43-116
Terphenyl-d14	34	33-141

Lab #: 129287

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8270 Semi-Volatile Organics

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 34116
Units: ug/L
Diln Fac: 1

Prep Date: 05/22/97
Analysis Date: 05/27/97

MB Lab ID: QC46693

Analyte	Result	Reporting Limit
Phenol	ND	10
2-Chlorophenol	ND	10
Benzyl alcohol	ND	10
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
4,6-Dinitro-2-methylphenol	ND	50
Pentachlorophenol	ND	10
N-Nitrosodimethylamine	ND	10
Aniline	ND	10
bis(2-Chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
bis(2-Chloroisopropyl) ether	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
bis(2-Chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50

EPA 8270 Semi-Volatile Organics

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 34116
Units: ug/L
Diln Fac: 1

Prep Date: 05/22/97
Analysis Date: 05/27/97

MB Lab ID: QC46693

Analyte	Result	Reporting Limit
Acenaphthene	ND	10
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
4-Chlorophenyl-phenylether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%Rec	Recovery Limits
2-Fluorophenol	60	21-110
Phenol-d5	65	10-110
2,4,6-Tribromophenol	46	10-123
Nitrobenzene-d5	63	35-114
2-Fluorobiphenyl	65	43-116
Terphenyl-d14	69	33-141

Curtis & Tompkins, Ltd.

Lab #: 129287 BATCH QC REPORT

EPA 8270 Semi-Volatile Organics

Client: Environmetrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8270
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 34116
Units: ug/L
Diln Fac: 1

Prep Date: 05/22/97
Analysis Date: 05/27/97

BS Lab ID: QC46694

Analyte	Spike Added	BS	%Rec #	Limits
Phenol	100	68.77	69	12-110
2-Chlorophenol	100	66.33	66	27-123
4-Chloro-3-methylphenol	100	66.6	67	23-97
4-Nitrophenol	100	42.71	43	10-80
Pentachlorophenol	100	27.65	28	9-103
1,4-Dichlorobenzene	50	27.58	55	36-97
N-Nitroso-di-n-propylamine	50	28.11	56	41-116
1,2,4-Trichlorobenzene	50	29.31	59	39-98
Acenaphthene	50	33.61	67	46-118
2,4-Dinitrotoluene	50	28.99	58	24-96
Pyrene	50	32.51	65	26-127

Surrogate	%Rec	Limits
2-Fluorophenol	61	21-110
Phenol-d5	66	10-110
2,4,6-Tribromophenol	50	10-123
Nitrobenzene-d5	64	35-114
2-Fluorobiphenyl	65	43-116
Terphenyl-d14	69	33-141

BSD Lab ID: QC46695

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Phenol	100	67.18	67	12-110	3	42
2-Chlorophenol	100	64.57	65	27-123	2	40
4-Chloro-3-methylphenol	100	65.57	66	23-97	2	42
4-Nitrophenol	100	42.04	42	10-80	2	50
Pentachlorophenol	100	26.14	26	9-103	7	50
1,4-Dichlorobenzene	50	26.76	54	36-97	2	28
N-Nitroso-di-n-propylamine	50	27.43	55	41-116	2	38
1,2,4-Trichlorobenzene	50	28.54	57	39-98	3	28
Acenaphthene	50	33.24	66	46-118	2	31
2,4-Dinitrotoluene	50	28.46	57	24-96	2	38
Pyrene	50	32.22	64	26-127	2	31

Surrogate	%Rec	Limits
2-Fluorophenol	59	21-110
Phenol-d5	63	10-110
2,4,6-Tribromophenol	50	10-123
Nitrobenzene-d5	63	35-114
2-Fluorobiphenyl	65	43-116
Terphenyl-d14	69	33-141

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

TEH-Tot Ext Hydrocarbons

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129287-001	MW-1	34034	05/15/97	05/19/97	05/21/97	
129287-002	MW-2	34034	05/15/97	05/19/97	05/21/97	
129287-003	MW-3	34034	05/15/97	05/19/97	05/21/97	

Matrix: Water

Analyte	Units	129287-001	129287-002	129287-003
Diln Fac:		1	1	1
Jet Fuel A C10-C16	ug/L	<50	<50	660 YH
Diesel C12-C22	ug/L	67	<50	1100
Surrogate				
Hexacosane	%REC	75	92	92

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard

Lab #: 129287

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 34034
Units: ug/L
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/20/97

MB Lab ID: QC46342

Analyte	Result
Jet Fuel A C10-C16	<50
Diesel C12-C22	<50

Surrogate	%Rec	Recovery Limits
Hexacosane	84	60-140

Lab #: 129287

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 34034
Units: ug/L
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/20/97

LCS Lab ID: QC46343

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C12-C22	1647	2475	67	60-140
Surrogate	**%Rec**	**Limits**		
Hexacosane	79	60-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129287 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons			
Client:	Envirometrix Corporation	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	197415	Prep Method:	EPA 3520
Location:	NAC,6701 Earhart Rd.,Oak.		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE			
Field ID:	ZZZZZZ	Sample Date:	05/13/97
Lab ID:	129267-007	Received Date:	05/13/97
Matrix:	Water	Prep Date:	05/19/97
Batch#:	34034	Analysis Date:	05/21/97
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC46344

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C12-C22	2475	1320	3239	78	60-140
Surrogate	%Rec	Limits			
Hexacosane	90	60-140			

MSD Lab ID: QC46345

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	2497	48 *	60-140	26 *	25
Surrogate	%Rec	Limits				
Hexacosane	79	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 1 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

BTXE

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129287-001	MW-1	34058	05/15/97	05/21/97	05/21/97	
129287-002	MW-2	34058	05/15/97	05/21/97	05/21/97	
129287-003	MW-3	34058	05/15/97	05/21/97	05/21/97	

Matrix: Water

Analyte Diln Fac:	Units	129287-001 1	129287-002 1	129287-003 1
Benzene	ug/L	<0.5	<0.5	<0.5
Toluene	ug/L	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	<0.5	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	<0.5	<0.5
o-Xylene	ug/L	<0.5	<0.5	<0.5
Surrogate				
Trifluorotoluene	%REC	86	87	87
Bromobenzene	%REC	102	104	99

Lab #: 129287

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TCLP BTXE

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 34058
Units: ug/L
Diln Fac: 1

Prep Date: 05/21/97
Analysis Date: 05/21/97

MB Lab ID: QC46449

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	85	58-130
Bromobenzene	97	62-131

Lab #: 129287

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Envirometrix Corporation
Project#: 197415
Location: NAC,6701 Earhart Rd.,Oak.

Analysis Method: EPA 8020
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 34058
Units: ug/L
Diln Fac: 1

Prep Date: 05/21/97
Analysis Date: 05/21/97

BS Lab ID: QC46450

Analyte	Spike Added	BS	%Rec #	Limits
Benzene	20	18.61	93	80-120
Toluene	20	17.69	88	80-120
Ethylbenzene	20	19.29	96	80-120
m,p-Xylenes	40	32.02	80	80-120
o-Xylene	20	19.18	96	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	87	58-130
Bromobenzene	102	62-131

BSD Lab ID: QC46451

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Benzene	20	18.69	93	80-120	0	20
Toluene	20	17.84	89	80-120	1	20
Ethylbenzene	20	19.45	97	80-120	1	20
m,p-Xylenes	40	32.22	81	80-120	1	20
o-Xylene	20	19.23	96	80-120	0	20

Surrogate	%Rec	Limits
Trifluorotoluene	87	58-130
Bromobenzene	100	62-131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

129287

ENVIROMETRIX

ENVIROMETRIX CORPORATION
3950 Industrial Blvd
Suite 200C
West Sacramento CA 95691
Phone: (916) 375-1000
FAX: (916) 375-1024

CHAIN OF CUSTODY RECORD

Sample Collector: William G. Shipp Date/Time: 5/15/97

Signature of Collector: William G. Shipp

LABORATORY: C&T

Project Name: NAC Job #: 197415

Project Location: 6701 Earhart Rd. Oakland Project Manager: William G. Shipp

REMARKS:
If TPH-JF is detected in any of the samples, analyze all three samples for SVOCs EPA 8270.

SAMPLE ID	Sampling Date	Sampling Time	DESCRIPTION	Container: VOA / Tube / Liters	Preservatives: (ICE) / None / HCl	Matrix: Water / Soil /	BTEX (602/8020)/503.1	BTEX/TPH gas (602/8020	TPHdiesel (8015)	EPA 601	TPH-JF EPA 8015M	Turn Around Time: Standard	Turn Around Time: Rush Services (72hr/48hr/24hr/12hr)
-1 MW-1	5/15/97	1035		3/2	X	X	X				X	X	
-2 MW-2	5/15/97	1010		3/2	X	X	X				X	X	
-3 MW-3	5/15/97	1107		3/2	X	X	X				X	X	

Relinquished by:	Received by:	Relinquished by:	Received by:
William G. Shipp			
Date: 5/15/97 Time: 14:30	Date:	Date: 5/15/97 Time: 14:30	Date:

CHAINCD.xls(10a) 3/11/95