



**WADSWORTH/ALERT  
LABORATORIES, INC.**

5910 Breckenridge Pkwy., Suite H, Tampa, FL 33610

Sampling, testing, mobile labs

Since 1938

**ANALYTICAL REPORT**

**RECEIVED**

**NOV 26 1991**

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**LIDLAW**

**16 NOVEMBER 1991**

**D. E. R.**

**DEC 4 1991**

**SOUTHWEST DISTRICT  
TAMPA**

**Presented to:**

**STEVE TAYLOR**

**LIDLAW ENVIRONMENTAL SERVICES**

**WADSWORTH/ALERT LABORATORIES, INC.**

**Jay Apitz  
Project Manager**

**Randall C. Grubbs  
Laboratory Director - Florida**

**November 22, 1991**



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Tampa, FL 33610  
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WADSWORTH/ALERT  
LABORATORIES, INC.

### INVOLVEMENT

This report summarizes the analytical results of the Laidlaw site submitted by Laidlaw Environmental Services to Wadsworth/ALERT Laboratories, Inc. who provided independent, analytical services for this project under the direction of Steve Taylor. The samples were accepted into Wadsworth's Florida facility on 16 November 1991, in accordance with documented sample acceptance procedures. The associated analytical methods and sample results are outlined sequentially in this report.

Analytical results included in this report have been reviewed for compliance with the Laboratory QA/QC Plan as summarized in the Quality Control Section at the rear of the report. Sample custody documentation describing the number of samples and sample matrices is also included. Any qualifications and/or non-compliant items have been noted below.



WADSWORTH/ALERT  
LABORATORIES, INC.

#### ANALYTICAL METHODS

Wadsworth/ALERT Laboratories utilizes only USEPA approved analytical methods and instrumentation. The analytical methods utilized for the analysis of these samples are listed below.

#### PARAMETER

#### METHOD

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#### ORGANICS

Volatile Organics  
Extraction

\*\* SW846 Method 8240  
\*\* SW846 Method 5030

NOTE: \*\* Indicates usage of this method to obtain results for this report.

EPA Methods -Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020, March, 1983. July, 1982

Drinking Waters USEPA, 600/4-88/039, December, 1988.

Std. Methods -Standard Methods for the Examination of Water and Wastewater, APHA, 16th edition, 1985.

USEPA Methods -From 40CFR Part 136, published in Federal Register on October 26, 1984.

SW846 Methods -Test Methods for Evaluating Solid Waste Physical/Chemical Methods, 3rd Edition, USEPA, 1986.

ASTM Methods -American Society for Testing and Materials.

NIOSH Method -NIOSH Manual of Analytical Methods, National Institute for Occupational Safety and Health, 2nd Edition, April 1977.



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-1  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: MW-1A

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	ND
2-Butanone	ND**	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	ND
Chlorodibromomethane	ND	Toluene	ND
Chloroethane	ND	1,1,1-Trichloroethane	ND
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	ND
1,1-Dichloroethane	ND	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	ND		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	114	(75-123)	(85-126)	(85-138)
Toluene-d8	102	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	104	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-2  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: MW-2

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	ND
2-Butanone	ND**	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	ND
Chlorodibromomethane	ND	Toluene	ND
Chloroethane	ND	1,1,1-Trichloroethane	ND
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	ND
1,1-Dichloroethane	ND	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	ND		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	102	(75-123)	(85-126)	(85-138)
Toluene-d8	104	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	100	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-3  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/19/91

SAMPLE ID: MW-3A

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	10
2-Butanone	ND**	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	ND
Chlorodibromomethane	ND	Toluene	ND
Chloroethane	ND	1,1,1-Trichloroethane	64
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	ND
1,1-Dichloroethane	21	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	16		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 3 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 30 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	104	(75-123)	(85-126)	(85-138)
Toluene-d8	102	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	101	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-3  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/19/91

SAMPLE ID: MW-3A

VOLATILE ORGANICS  
OTHER COMPOUNDS

CERTIFICATION #: E84059  
HRS84297

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MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS  
with their estimated concentrations

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1,1,2-Trichloro-1,2,2-Trifluoromethane

4 ug/L



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-4  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: MW-4

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	ND
2-Butanone	ND**	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	ND
Chlorodibromomethane	ND	Toluene	ND
Chloroethane	ND	1,1,1-Trichloroethane	ND
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	ND
1,1-Dichloroethane	ND	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	ND		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	104	(75-123)	(85-126)	(85-138)
Toluene-d8	103	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	102	(86-115)	(84-124)	(83-128)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-5  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: MW-5

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	2
2-Butanone	ND**	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	ND
Chlorodibromomethane	ND	Toluene	ND
Chloroethane	ND	1,1,1-Trichloroethane	ND
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	ND
1,1-Dichloroethane	ND	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	ND		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	103	(75-123)	(85-126)	(85-138)
Toluene-d8	102	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	101	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-6  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: MW-6

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	1,600 J	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	35
2-Butanone	210	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	3
Chlorodibromomethane	ND	Toluene	2
Chloroethane	ND	1,1,1-Trichloroethane	24
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	440
1,1-Dichloroethane	36	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	11		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	106	(75-123)	(85-126)	(85-138)
Toluene-d8	105	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	104	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-7  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: MW-7

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	2
2-Butanone	ND**	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	2
Chlorodibromomethane	ND	Toluene	2
Chloroethane	ND	1,1,1-Trichloroethane	14
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	2
1,1-Dichloroethane	7	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	1
1,1-Dichloroethene	5		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	104	(75-123)	(85-126)	(85-138)
Toluene-d8	103	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	101	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-7  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: MW-7

VOLATILE ORGANICS  
OTHER COMPOUNDS

CERTIFICATION #: E84059  
HRS84297

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Trichlorofluoromethane

38 ug/L

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MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS  
with their estimated concentrations

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1,1,2-Trichloro-1,2,2-trifluoro-ethane

260 ug/L



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-8  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: FIELD BLANK

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	2
2-Butanone	570 J	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	ND
Chlorodibromomethane	ND	Toluene	ND
Chloroethane	ND	1,1,1-Trichloroethane	ND
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	ND
1,1-Dichloroethane	ND	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	ND		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	98	(75-123)	(85-126)	(85-138)
Toluene-d8	102	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	99	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-8  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: FIELD BLANK

VOLATILE ORGANICS  
OTHER COMPOUNDS

CERTIFICATION #: E84059  
HRS84297

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MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS  
with their estimated concentrations

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2-Methoxy-1-propene

130 ug/L



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-9  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: TRIP BLANK

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	2
2-Butanone	ND**	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	ND
Chlorodibromomethane	ND	Toluene	ND
Chloroethane	ND	1,1,1-Trichloroethane	ND
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	ND
1,1-Dichloroethane	ND	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	ND		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	105	(75-123)	(85-126)	(85-138)
Toluene-d8	104	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	100	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

## **QUALITY CONTROL SECTION**

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation





WADSWORTH/ALERT  
LABORATORIES, INC.

QUALITY ASSURANCE / QUALITY CONTROL  
PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles

Methylene chloride  
Toluene  
2-Butanone  
Acetone

Semi-volatiles

Dimethyl phthalate  
Diethyl phthalate  
Di-n-butyl phthalate  
Butyl benzyl phthalate  
Bis (2-ethylhexyl) phthalate

Metals

Calcium  
Magnesium  
Sodium

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.



WADSWORTH/ALERT  
LABORATORIES, INC.

QUALITY ASSURANCE / QUALITY CONTROL  
PROGRAM SUMMARY  
(cont'd)

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

\*\*\*\*\*EXAMPLE\*\*\*\*\*

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS	
					RPD	RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150

(cmpd. name)	sample	1st%	2nd%	Rel.%	accep. method
	result	recov.	recov.	diff.	perform range

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1K1601-BK  
MATRIX: WATER

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 8240 - GC/MS

Acetone	ND**	cis-1,3-Dichloropropene	ND
Benzene	ND	trans-1,3-dichloropropene	ND
Bromodichloromethane	ND	Ethylbenzene	ND
Bromoform	ND	2-Hexanone	ND**
Bromomethane	ND	Methylene chloride	ND
2-Butanone	ND**	4-Methyl-2-pentanone	ND**
Carbon disulfide	ND	Styrene	ND
Carbon tetrachloride	ND	1,1,2,2-Tetrachloroethane	ND
Chlorobenzene	ND	Tetrachloroethene	ND
Chlorodibromomethane	ND	Toluene	ND
Chloroethane	ND	1,1,1-Trichloroethane	ND
Chloroform	ND	1,1,2-Trichloroethane	ND
Chloromethane	ND	Trichloroethene	ND
1,1-Dichloroethane	ND	Vinyl chloride	ND
1,2-Dichloroethane	ND	Xylene(Total)	ND
1,1-Dichloroethene	ND		
1,2-Dichloroethene(Total)	ND		
1,2-Dichloropropane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	99	(75-123)	(85-126)	(85-138)
Toluene-d8	102	(92-107)	(89-124)	(89-128)
Bromofluorobenzene	99	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

LAB #: 1K1601-LCS  
MATRIX: WATER  
METHOD: 8240

DATE RECEIVED: 11/16/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 11/18/91

LABORATORY CHECK SAMPLE

COMPOUND	LCS %REC	QC LIMITS %RECOVERY
1,1-Dichloroethene	63	56-133
Trichloroethene	78	67-106
Chlorobenzene	89	78-122
Toluene	88	64-128
Benzene	88	83-123
Dichlorobromomethane	75	71-123

RECEIVED

SEP 3 1991

**P.E. LaMoreaux & Associates, Inc.**

Hydrologists, Geologists Engineers & Environmental Scientists

TELEPHONE

August 29, 1991

Laidlaw  
170 Bartow Air Base  
Bartow, Florida 33830

REF: Chemical Analysis Reports

Dear Sir:

P. E. LaMoreaux and Associates, Inc. (PELA) respectfully submit your chemical analyses reports for the sample(s) you submitted to our laboratory.

Thank you for giving PELA the opportunity to be of service to you. Your patronage of our laboratory is important to us.

If you have any questions or need any additional information, please call 813/646-8526.

Sincerely yours,

*Amal Mostafa*

Amal E. Mostafa  
Acting Laboratory Director  
PELA Lakeland Division

AEM/ae  
TL:LE

Enclosures

Offices: P.O. Box 6719, Lakeland, FL 33807 813/646-8526 FAX 813/646-1042

Home Office: P.O. Box 2310, Tuscaloosa, AL 35403 205/752-5543 FAX 205/752-4043

Offices: 2 Office Park, Suite 104, Mobile, AL 36609 205/342-8714

P.O. Box 164, Macon, GA 31201 912/743-6485



# REPORT OF ANALYSIS

P.E. LaMoreaux & Associates, Inc.  
Geochemistry Laboratory

4320 Old Highway 37

Lakeland, Florida 33813

Telephone 813 / 646-8526

Client Name : LAIDLAW  
Identification: MW 7  
Site : SOLVENT RECYCLE PLANT  
Type : WATER  
Designator : PURGEABLES

PELA Lab No. : 08 19-LE-437  
Collection Date: 08-19-91  
Completion Date: 08 22-91

PURGEABLES - EPA METHOD 8260

Parameter	Results	Units: ug/l	
		Detection Limits	Quantitation Limits
Benzene	BDL	0.04	.4
Bromodichloromethane	BDL	0.08	.8
Tribromomethane (Bromoform)	BDL	0.12	1.2
Bromomethane	BDL	0.11	1.1
Carbon Tetrachloride	BDL	0.21	2.1
Chlorobenzene	BDL	0.04	.4
Chloroethane	BDL	0.10	1.00
2 Chloroethylvinyl ether	BDL	0.03	.3
Trichloromethane (Chloroform)	BDL	0.03	.3
Chloromethane	BDL	0.13	1.3
Dibromochloromethane	BDL	0.05	.5
1,2 Dichlorobenzene	BDL	0.03	.3
1,3 Dichlorobenzene	BDL	0.12	1.2
1,4 Dichlorobenzene	BDL	0.03	.3
1,1 Dichloroethane	BDL	0.04	.4
1,2 Dichloroethane	BDL	0.06	.6
1,1 Dichloroethene	BDL	0.12	1.2
trans 1,2 Dichloroethene	BDL	0.06	.6
1,2 Dichloropropane	BDL	0.04	.4
cis 1,3 Dichloropropene	BDL	0.05	0.5
trans 1,3 Dichloropropene	BDL	0.04	.4
Ethylbenzene	BDL	0.06	.6
Methylene Chloride	BDL	0.03	.3
1,1,2,2 Tetrachloroethane	BDL	0.04	.4
Tetrachloroethene	BDL	0.14	1.4
Toluene	4.62	0.11	1.1
1,1,1 Trichloroethane	BDL	0.08	.8
1,1,2 Trichloroethane	BDL	0.10	1.0
Trichloroethene	BDL	0.19	1.9
Trichlorofluoromethane	63.1	0.08	.8
Vinyl Chloride	BDL	0.17	1.7
M,P Xylene	BDL	0.02	0.2
o Xylene	BDL	0.02	0.2

Detection limits reported are method detection limits which may vary with matrix and concentration. nd - Not determined.  
\* Parameters detected in concentrations below quantitation limit.  
Only parameters detected are reported. BDL - Below detection limit.

  
Chief Chemist

State of Florida Certification #84183

State of Alabama Certification #40120

State of Kentucky Certification #90013

METHODS: "Standard Methods for the Examination of Water and Wastewater", Latest Edition, APHA, AWWA, AND WPCF and/or other EPA approved methods which meet FDER or ADEM protocol, unless otherwise designated.



# REPORT OF ANALYSIS

P.E. LaMoreaux & Associates, Inc.  
Geochemistry Laboratory

4320 Old Highway 37

Lakeland, Florida 33813

Telephone 813 / 646-8526

## CLIENT/SAMPLE INFORMATION

Client: LAIDLAW  
170 BARTOW AIR BASE  
BARTOW, FL 33830

Attention : STEVE TAYLOR

Sample Identification: MW 7  
Sample Site : SOLVENT RECYCLE PLANT  
Sample Type : WATER

PELA Laboratory No. : 08 19 LE 437  
Sample Designators : PURGEABLES

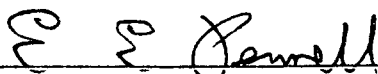
## SAMPLE COLLECTION INFORMATION

Collection Date : 08 19 91  
Collected by : PELA  
Received by Laboratory: 08 19 91

## FIELD PARAMETERS

Specific Conductance: 50 micromhos  
pH : 5.57 standard units  
Water Temperature : 27.0 °C

## COMMENTS

  
Senior Chemist/QA Officer

RECEIVED

NOV - 7 1991

**P.E. LaMoreaux & Associates, Inc.**

Hydrologists, Geologists Engineers & Environmental Scientists

1 AIN1 AW1

November 5, 1991

Laidlaw  
170 Bartow Air Base  
Bartow, Florida 33830

REF: Chemical Analysis Reports


Dear Sir:

P. E. LaMoreaux and Associates, Inc. (PELA) respectfully submit your chemical analyses reports for the sample(s) you submitted to our laboratory.

Thank you for giving PELA the opportunity to be of service to you. Your patronage of our laboratory is important to us.

If you have any questions or need any additional information, please call 813/646-8526.

Sincerely yours,

  
Amal E. Mostafa  
Laboratory Director  
PELA Lakeland Division

AEM/ae  
TL1:LE

Enclosures

Offices: P.O. Box 6719, Lakeland, FL 33807 813/646-8526 FAX 813/646-1042

Home Office: P.O. Box 2310, Tuscaloosa, AL 35403 205/752-5543 FAX 205/752-4043

Offices: 2 Office Park, Suite 104, Mobile, AL 36609 205/342-8714  
P.O. Box 164, Macon, GA 31201 912/743-6485





# REPORT OF ANALYSIS

P.E. LaMoreaux & Associates, Inc.  
Geochemistry Laboratory

4320 Old Highway 37

Lakeland, Florida 33813

Telephone 813 / 646-8526

## CLIENT/SAMPLE INFORMATION

Client: LAIDLAW  
170 BARTOW AIR BASE  
BARTOW, FL 33830

Attention : STEVE TAYLOR

Sample Identification: MW #7  
Sample Site : BARTOW AIRPORT  
Sample Type : WATER

PELA Laboratory No. : 10-19-LE-549  
Sample Designators : PURGEABLES

## SAMPLE COLLECTION INFORMATION

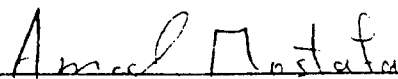
Collection Date : 10-19-91  
Collected by : PELA  
Received by Laboratory: 10-19-91

## FIELD PARAMETERS

Specific Conductance: 60 micromhos  
pH : 4.94 standard units  
Water Temperature : 27.0 °C  
Initial Water Level : 5.41' BMP AT 14:45

## COMMENTS

LOCATION: N.E. CORNER OF PROPERTY, NEAR FENCE

  
Senior Chemist/QA Officer



# REPORT OF ANALYSIS

P.E. LaMoreaux & Associates, Inc.  
Geochemistry Laboratory

4320 Old Highway 37

Lakeland, Florida 33813

Telephone 813 / 646-8526

## CLIENT/SAMPLE INFORMATION

Client: LAIDLAW  
170 BARTOW AIR BASE  
BARTOW, FL 33830

Attention : STEVE TAYLOR

Sample Identification: TRIP BLANK  
Sample Site : BARTOWN AIRPORT  
Sample Type : WATER

PELA Laboratory No. : 10-19-LE-550  
Sample Designators : PURGEABLES

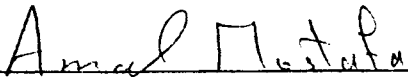
4

## SAMPLE COLLECTION INFORMATION

Collection Date : 10-19-91  
Collected by : PELA  
Received by Laboratory: 10-19-91

## FIELD PARAMETERS

## COMMENTS

  
Senior Chemist/QA Officer



# REPORT OF ANALYSIS

P.E. LaMoreaux & Associates, Inc.  
Geochemistry Laboratory

4320 Old Highway 37

Lakeland, Florida 33813

Telephone 813 / 646-8526

Client Name : LAIDLAW  
Identification: MW #7  
Site : BARTOW AIRPORT  
Type : WATER  
Designator : PURGEABLES

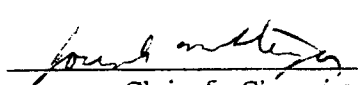
PELA Lab No. : 10-19-LE-549  
Collection Date: 10-19-91  
Completion Date: 10-28-91

PURGEABLES - EPA METHOD 8260

Parameter	----- Units: ug/l -----		
	Results	Detection Limits	Quantitation Limits
Benzene	BDL	0.04	.4
Bromodichlormethane	BDL	0.08	.8
Tribromomethane (Bromoform)	BDL	0.12	1.2
Bromomethane	BDL	0.11	1.1
Carbon Tetrachloride	BDL	0.21	2.1
Chlorobenzene	BDL	0.04	.4
Chloroethane	BDL	0.10	1.00
2-Chloroethylvinyl ether	BDL	0.03	.3
Trichloromethane (Chloroform)	BDL	0.03	.3
Chloromethane	BDL	0.13	1.3
Dibromochloromethane	BDL	0.05	.5
1,2-Dichlorobenzene	BDL	0.03	.3
1,3-Dichlorobenzene	BDL	0.12	1.2
1,4-Dichlorobenzene	BDL	0.03	.3
1,1-Dichloroethane	7.34	0.04	.4
1,2-Dichloroethane	BDL	0.06	.6
1,1-Dichloroethene	6.55	0.12	1.2
trans-1,2-Dichloroethene	BDL	0.06	.6
1,2-Dichloropropane	BDL	0.04	.4
cis-1,3-Dichloropropene	BDL	0.05	0.5
trans-1,3-Dichloropropene	BDL	0.04	.4
Ethylbenzene	BDL	0.06	.6
Methylene Chloride	BDL	0.03	.3
1,1,2,2-Tetrachloroethane	BDL	0.04	.4
Tetrachloroethene	BDL	0.14	1.4
Toluene	9.98	0.11	1.1
1,1,1-Trichloroethane	63.0	0.08	.8
1,1,2-Trichloroethane	BDL	0.10	1.0
Trichloroethene	1.64	0.19	1.9
Trichlorofluoromethane	69.6	0.08	.8
Vinyl Chloride	BDL	0.17	1.7
M,P-Xylene	BDL	0.13	1.3
o-Xylene	BDL	0.11	1.1

Detection limits reported are method detection limits which may vary with matrix and concentration.

BDL - Below detection limit.

  
Chief Chemist



# REPORT OF ANALYSIS

P.E. LaMoreaux & Associates, Inc.  
Geochemistry Laboratory

4320 Old Highway 37

Lakeland, Florida 33813

Telephone 813 / 646-8526

Client Name : LAIDLAW  
Identification: TRIP BLANK  
Site : BARTOWN AIRPORT  
Type : WATER  
Designator : PURGEABLES

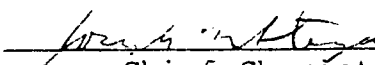
PELA Lab No. : 10-19-LE-550  
Collection Date: 10-19-91  
Completion Date: 10-28-91

PURGEABLES - EPA METHOD 8260

Parameter	Results	----- Units: ug/l -----	
		Detection Limits	Quantitation Limits
Benzene	BDL	0.04	.4
Bromodichlormethane	BDL	0.08	.8
Tribromomethane (Bromoform)	BDL	0.12	1.2
Bromomethane	BDL	0.11	1.1
Carbon Tetrachloride	BDL	0.21	2.1
Chlorobenzene	BDL	0.04	.4
Chloroethane	BDL	0.10	1.00
2-Chloroethylvinyl ether	BDL	0.03	.3
Trichloromethane (Chloroform)	BDL	0.03	.3
Chloromethane	BDL	0.13	1.3
Dibromochloromethane	BDL	0.05	.5
1,2-Dichlorobenzene	BDL	0.03	.3
1,3-Dichlorobenzene	BDL	0.12	1.2
1,4-Dichlorobenzene	BDL	0.03	.3
1,1-Dichloroethane	BDL	0.04	.4
1,2-Dichloroethane	BDL	0.06	.6
1,1-Dichloroethene	BDL	0.12	1.2
trans-1,2-Dichloroethene	BDL	0.06	.6
1,2-Dichloropropane	BDL	0.04	.4
cis-1,3-Dichloropropene	BDL	0.05	0.5
trans-1,3-Dichloropropene	BDL	0.04	.4
Ethylbenzene	BDL	0.06	.6
Methylene Chloride	BDL	0.03	.3
1,1,2,2-Tetrachloroethane	BDL	0.04	.4
Tetrachloroethene	BDL	0.14	1.4
Toluene	BDL	0.11	1.1
1,1,1-Trichloroethane	BDL	0.08	.8
1,1,2-Trichloroethane	BDL	0.10	1.0
Trichloroethene	BDL	0.19	1.9
Trichlorofluoromethane	BDL	0.08	.8
Vinyl Chloride	BDL	0.17	1.7
M,P-Xylene	BDL	0.13	1.3
o-Xylene	BDL	0.11	1.1

Detection limits reported are method detection limits which may vary with matrix and concentration.

BDL - Below detection limit.

  
Chief Chemist



# REPORT OF ANALYSIS

P.E. LaMoreaux & Associates, Inc.  
Geochemistry Laboratory

4320 Old Highway 37

Lakeland, Florida 33813

Telephone 813 / 646-8526

## CLIENT/SAMPLE INFORMATION

Client: LAIDLAW  
170 BARTOW AIR BASE  
BARTOW, FL 33830

Attention : STEVE TAYLOR

Sample Identification: FIELD BLANK  
Sample Site : BARTOW AIRPORT  
Sample Type : WATER


PELA Laboratory No. : 10-19-LE-551  
Sample Designators : PURGEABLES

## SAMPLE COLLECTION INFORMATION

Collection Date : 10-19-91  
Collected by : PELA  
Received by Laboratory: 10-19-91

## FIELD PARAMETERS

## COMMENTS

  
Senior Chemist/QA Officer



# REPORT OF ANALYSIS

P.E. LaMoreaux & Associates, Inc.  
Geochemistry Laboratory

4320 Old Highway 37

Lakeland, Florida 33813

Telephone 813 / 646-8526

Client Name : LAIDLAW  
Identification: FIELD BLANK  
Site : BARTOW AIRPORT  
Type : WATER  
Designator : PURGEABLES

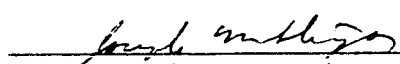
PELA Lab No. : 10-19-LE-551  
Collection Date: 10-19-91  
Completion Date: 10-28-91

PURGEABLES - EPA METHOD 8260

Parameter	Results	Units: ug/l	
		Detection Limits	Quantitation Limits
Benzene	BDL	0.04	.4
Bromodichlormethane	BDL	0.08	.8
Tribromomethane (Bromoform)	BDL	0.12	1.2
Bromomethane	BDL	0.11	1.1
Carbon Tetrachloride	BDL	0.21	2.1
Chlorobenzene	BDL	0.04	.4
Chloroethane	BDL	0.10	1.00
2-Chloroethylvinyl ether	BDL	0.03	.3
Trichloromethane (Chloroform)	BDL	0.03	.3
Chloromethane	BDL	0.13	1.3
Dibromochloromethane	BDL	0.05	.5
1,2-Dichlorobenzene	BDL	0.03	.3
1,3-Dichlorobenzene	BDL	0.12	1.2
1,4-Dichlorobenzene	BDL	0.03	.3
1,1-Dichloroethane	BDL	0.04	.4
1,2-Dichloroethane	BDL	0.06	.6
1,1-Dichloroethene	BDL	0.12	1.2
trans-1,2-Dichloroethene	BDL	0.06	.6
1,2-Dichloropropane	BDL	0.04	.4
cis-1,3-Dichloropropene	BDL	0.05	0.5
trans-1,3-Dichloropropene	BDL	0.04	.4
Ethylbenzene	BDL	0.06	.6
Methylene Chloride	BDL	0.03	.3
1,1,2,2-Tetrachloroethane	BDL	0.04	.4
Tetrachloroethene	BDL	0.14	1.4
Toluene	BDL	0.11	1.1
1,1,1-Trichloroethane	BDL	0.08	.8
1,1,2-Trichloroethane	BDL	0.10	1.0
Trichloroethene	BDL	0.19	1.9
Trichlorofluoromethane	BDL	0.08	.8
Vinyl Chloride	BDL	0.17	1.7
M,P-Xylene	BDL	0.13	1.3
o-Xylene	BDL	0.11	1.1

Detection limits reported are method detection limits which may vary with matrix and concentration.

BDL - Below detection limit.

  
Chief Chemist

State of Florida Certification #84183

State of Alabama Certification #40120

State of Kentucky Certification #90013

METHODS: "Standard Methods for the Examination of Water and Wastewater", Latest Edition, APHA, AWWA, AND WPCF and/or other EPA approved methods which meet FDER or ADEM protocol, unless otherwise designated.



**WADSWORTH/ALERT  
LABORATORIES, INC.**

5910 Breckenridge Pkwy., Suite H, Tampa, FL 33610

Sampling, testing, mobile labs

Since 1938

**ANALYTICAL REPORT**

**RECEIVED**

**JUN 25 1991**

**LAIDLAW-TRICIL**

**22 MAY 1991**

**Presented to:**

**STEVE TAYLOR**

**LAIDLAW ENVIRONMENTAL SERVICES**

**WADSWORTH/ALERT LABORATORIES, INC.**

**Jay Apitz  
Project Manager**

**Randall C. Grubbs  
Laboratory Director - Florida**

**June 19, 1991**



**HEADQUARTERS AND  
LABORATORY**  
P.O. Box 2912  
4101 Shuffel Drive, N.W.  
North Canton, OH 44720  
(216) 497-9396

**REGIONAL  
LABORATORY**  
P.O. Box 31454  
5405 Schaaf Rd.  
Cleveland, OH 44131  
(216) 642-9151

**REGIONAL  
OFFICE**  
1445 Pisgah Church Rd.  
Lexington, SC 29072  
(803) 957-8590

**REGIONAL  
LABORATORY**  
5910 Breckenridge Pkwy  
Suite H  
Tampa, FL 33610  
(813) 621-0784



### INVOLVEMENT

This report summarizes the analytical results of the Laidlaw-Tricil site submitted by Laidlaw Environmental Services to Wadsworth/ALERT Laboratories, Inc. who provided independent, analytical services for this project under the direction of Steve Taylor. The samples were accepted into Wadsworth's Florida facility on 22 May 1991, in accordance with documented sample acceptance procedures. The associated analytical methods and sample results are outlined sequentially in this report.

Analytical results included in this report have been reviewed for compliance with the Laboratory QA/QC Plan as summarized in the Quality Control Section at the rear of the report. Sample custody documentation describing the number of samples and sample matrices is also included. Any qualifications and/or non-compliant items have been noted below.

#### Laboratory ID #

#### Narrative

1E2207-2

Although this sample was originally analyzed for volatile organic compounds within the EPA recommended holding time, the high analyte concentrations necessitated a dilution to within the range of the instruments. This dilution was made after the holding time had expired. Results may be interpreted accordingly.





ANALYTICAL METHODS

Wadsworth/ALERT Laboratories utilizes only USEPA approved analytical methods and instrumentation. The analytical methods utilized for the analysis of these samples are listed below.

PARAMETER	METHOD
-----	
ORGANICS	
Volatile Organics	** EPA Method 624
Base/Neutral Acid Extractables	** EPA Method 625
Pesticides/PCBs	** EPA Method 608
METALS	
Antimony	** EPA Method 200.7
Arsenic	** EPA Method 206.2
Beryllium	** EPA Method 200.7
Cadmium	** EPA Method 200.7
Chromium	** EPA Method 200.7
Copper	** EPA Method 200.7
Iron	** EPA Method 200.7
Lead	** EPA Method 239.2
Mercury	** EPA Method 245.1
Manganese	** EPA Method 200.7

Continued Page Two

NOTE: \*\* Indicates usage of this method to obtain results for this report.

EPA Methods	-Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020, March, 1983. July, 1982 Drinking Waters USEPA, 600/4-88/039, December, 1988.
Std. Methods	-Standard Methods for the Examination of Water and Wastewater, APHA, 16th edition, 1985.
USEPA Methods	-From 40CFR Part 136, published in Federal Register on October 26, 1984.
SW846 Methods	-Test Methods for Evaluating Solid Waste Physical/Chemical Methods, 3rd Edition, USEPA, 1986.
ASTM Methods	-American Society for Testing and Materials.
NIOSH Method	-NIOSH Manual of Analytical Methods, National Institute for Occupational Safety and Health, 2nd Edition, April 1977.



### ANALYTICAL METHODS

Wadsworth/ALERT Laboratories utilizes only USEPA approved analytical methods and instrumentation. The analytical methods utilized for the analysis of these samples are listed below.

#### PARAMETER

#### METHOD

Page Two

#### METALS (continued)

Nickel	** EPA Method 200.7
Selenium	** EPA Method 270.2
Silver	** EPA Method 200.7
Sodium	** EPA Method 200.7
Thallium	** EPA Method 279.2
Zinc	** EPA Method 200.7

#### MISCELLANEOUS

pH	** EPA Method 150.1
Total Cyanide	** EPA Method 335.2
Nitrate/Nitrite	** EPA Method 353.3
Sulfate	** EPA Method 375.4
Chloride	** EPA Method 325.3
Conductivity	** SM 205

NOTE: \*\* Indicates usage of this method to obtain results for this report.

EPA Methods	-Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020, March, 1983. July, 1982 Drinking Waters USEPA, 600/4-88/039, December, 1988.
Std. Methods	-Standard Methods for the Examination of Water and Wastewater, APHA, 16th edition, 1985.
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ASTM Methods	-American Society for Testing and Materials.
NIOSH Method	-NIOSH Manual of Analytical Methods, National Institute for Occupational Safety and Health, 2nd Edition, April 1977.



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 6/ 5/91

SAMPLE ID: MW-1A LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	2 B
Chlorobenzene	2	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	83	(75-123)	(85-126)	(85-138)
Toluene-d8	98	(75-123)	(89-124)	(89-128)
Bromofluorobenzene	92	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/31/91

SAMPLE ID: MW-1A LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/31/91

SAMPLE ID: MW-1A LAIDLAW-TRICIL

CERTIFICATION #: E84059

BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

HRS84297

Isophorone	ND
Naphthalene	1 J
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	42	(22-135)	(10-155)
Fluorobiphenyl	39	(34-140)	(12-153)
Terphenyl-d14	36	(10-132)	(13-140)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/31/91

SAMPLE ID: MW-1A LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	44	(17-95)	(24-118)
Phenol-d5	43	(11-89)	(17-124)
2,4,6-Tribromophenol	15	(10-134)	(10-156)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/31/91

SAMPLE ID: MW-1A LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

EXTRACTABLE ORGANICS  
OTHER COMPOUNDS

---

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS  
with their estimated concentrations

---

(5) Unknowns

110 ug/L



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/28/91

SAMPLE ID: MW-1A LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.2
Beta-BHC	ND	0.2
Delta-BHC	ND	0.2
Lindane	ND	0.2
Heptachlor	ND	0.2
Aldrin	ND	0.2
Heptachlor Epoxide	ND	0.2
Endosulfan I	ND	0.2
Dieldrin	ND	0.2
4,4'-DDE	ND	0.2
Endrin	ND	0.2
Endosulfan II	ND	0.2
4,4'-DDD	ND	0.2
Endrin Aldehyde	ND	0.2
Endosulfan Sulfate	ND	0.2
4,4'-DDT	ND	0.2
Chlordane	ND	2.4
Toxaphene	ND	9.4

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE WATER	LIMITS SOLID
Tetrachloro(m)xylene	DIL	(33-122)	(32-154)
Dibutylchloredate	DIL	(18-129)	(27-139)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/28/91

SAMPLE ID: MW-1A LAIDLAW-TRICIL

POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC

CERTIFICATION #: E84059  
HRS84297

PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 5 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
-- (Not Analyzed)

**SURROGATE RECOVERY:**

**X**

**ACCEPTABLE LIMITS**

Tetrachloro(m)xylene

DIL

WATER SOLID  
(33-122) (32-154)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX : WATER

DATE RECEIVED: 5/22/91

SAMPLE ID : MW-1A LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	5/24- 5/28/91	ND	50 ug/L
Arsenic	5/24- 5/29/91	ND	10 ug/L
Beryllium	5/24- 5/28/91	ND	50 ug/L
Cadmium	5/24/91	ND	10 ug/L
Chromium	5/24/91	ND	50 ug/L
Copper	5/24- 5/28/91	ND	50 ug/L
Iron	5/24- 5/28/91	220	100 ug/L
Mercury	5/23- 5/28/91	ND	2.0 ug/L
Manganese	5/24- 5/28/91	ND	50 ug/L
Sodium	5/24- 5/28/91	22,000	200 ug/L
Nickel	5/24- 5/28/91	ND	50 ug/L
Lead	5/24- 5/28/91	ND	5 ug/L
Antimony	5/24- 5/28/91	ND	300 ug/L
Selenium	5/24- 5/29/91	ND	5 ug/L
Thallium	5/24- 5/30/91	ND	10 ug/L
Zinc	5/24- 5/28/91	200	50 ug/L

NOTE: ND (None Detected) as rec'd



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-1  
MATRIX : WATER

DATE RECEIVED: 5/22/91

SAMPLE ID : MW-1A LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

ANALYTICAL REPORT

---

PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	5/27/91	36	5 mg/L
Cyanide	5/24/91	ND	.005 mg/L
Specific Conductance	5/22/91	240	umhos/cm
Nitrate-Nitrite Nitrogen	5/30/91	ND	.05 mg/L
pH - Water	5/22/91	5.6	SU
Sulfate	5/27/91	26	5 mg/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 6/ 6/91

SAMPLE ID: MW-7 LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	10
Carbon tetrachloride	ND	Methylene chloride	58 B
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	120
Chloroform	ND	1,1,1-Trichloroethane	20
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	580 J
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	35
1,1-Dichloroethane	36		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 100 ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/L) as rec'd  
J (Detected, estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	82	(75-123)	(85-126)	(85-138)
Toluene-d8	98	(75-123)	(89-124)	(89-128)
Bromofluorobenzene	88	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 6/ 6/91

SAMPLE ID: MW-7 LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
OTHER COMPOUNDS

---

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS  
with their estimated concentrations

---

1,1,2-Trichloro-1,2,2-triflouro ethane

180 ug/L



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/31/91

SAMPLE ID: MW-7 LAIDLAW-TRICIL

CERTIFICATION #: E84059  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)  
HRS84297

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/31/91

SAMPLE ID: MW-7 LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	3 J
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	80	(22-135)	(10-155)
Fluorobiphenyl	68	(34-140)	(12-153)
Terphenyl-d14	81	(10-132)	(13-140)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/31/91

SAMPLE ID: MW-7 LAIDLAW-TRICIL

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

CERTIFICATION #: E84059  
HRS84297

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	22	(17-95)	(24-118)
Phenol-d5	25	(11-89)	(17-124)
2,4,6-Tribromophenol	16	(10-134)	(10-156)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/31/91

SAMPLE ID: MW-7 LAIDLAW-TRICIL

EXTRACTABLE ORGANICS  
OTHER COMPOUNDS

CERTIFICATION #: E84059  
HRS84297

---

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS  
with their estimated concentrations

---

1,4 Dimethyl benzene	39.0 ug/L
(4) Unknowns	100 ug/L
2-Butoxy-ethanol	17 ug/L
2-(2 butoxyl-ethanol	51 ug/L
Ethyl benzene	11 ug/L



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/28/91

SAMPLE ID: MW-7 LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE WATER	LIMITS SOLID
Tetrachloro(m)xylene	92	(33-122)	(32-154)
Dibutylchloroendate	62	(18-129)	(27-139)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/28/91

SAMPLE ID: MW-7 LAIDLAW-TRICIL

CERTIFICATION #: E84059  
HRS84297

POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC

PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
-- (Not Analyzed)

**SURROGATE RECOVERY:**

**%**

**ACCEPTABLE LIMITS**

Tetrachloro(m)xylene

62

WATER SOLID  
(33-122) (32-154)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-2  
MATRIX : WATER

DATE RECEIVED: 5/22/91

SAMPLE ID : MW-7 LAIDLAW-TRICIL

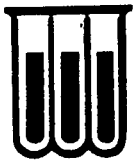
CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	5/24- 5/28/91	ND	50 ug/L
Arsenic	5/24- 5/29/91	ND	10 ug/L
Beryllium	5/24- 5/28/91	ND	50 ug/L
Cadmium	5/24/91	ND	10 ug/L
Chromium	5/24/91	54	50 ug/L
Copper	5/24- 5/28/91	ND	50 ug/L
Iron	5/24- 5/28/91	4,100	100 ug/L
Mercury	5/23- 5/28/91	ND	2.0 ug/L
Manganese	5/24- 5/28/91	ND	50 ug/L
Sodium	5/24- 5/28/91	4,000	100 ug/L
Nickel	5/24- 5/28/91	ND	50 ug/L
Lead	5/24- 5/28/91	24	10 ug/L
Antimony	5/24- 5/28/91	ND	300 ug/L
Selenium	5/24- 5/29/91	ND	5 ug/L
Thallium	5/24- 5/30/91	ND	10 ug/L
Zinc	5/24- 5/28/91	ND	50 ug/L

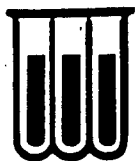
NOTE: ND (None Detected) as rec'd



WADSWORTH/ALERT  
LABORATORIES, INC.

## QUALITY CONTROL SECTION

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation



WADSWORTH/ALERT  
LABORATORIES, INC.

QUALITY ASSURANCE / QUALITY CONTROL  
PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles

Methylene chloride  
Toluene  
2-Butanone  
Acetone

Semi-volatiles

Dimethyl phthalate  
Diethyl phthalate  
Di-n-butyl phthalate  
Butyl benzyl phthalate  
Bis (2-ethylhexyl) phthalate

Metals

Calcium  
Magnesium  
Sodium

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.



WADSWORTH/ALERT  
LABORATORIES, INC.

QUALITY ASSURANCE / QUALITY CONTROL  
PROGRAM SUMMARY  
(cont'd)

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

\*\*\*\*\*EXAMPLE\*\*\*\*\*

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS	
					RPD	RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150

(cmpd. name)	sample	1st%	2nd%	Rel.%	accep. method
	result	recov.	recov.	diff.	perform range

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 6/ 5/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	1
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	95	(75-123)	(85-126)	(85-138)
Toluene-d8	95	(75-123)	(89-124)	(89-128)
Bromofluorobenzene	94	(86-115)	(84-124)	(83-128)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 6/ 6/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	2
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS		
		WATER	SOLID	LOW LEVEL
1,2-Dichloroethane	80	(75-123)	(85-126)	(85-138)
Toluene-d8	95	(75-123)	(89-124)	(89-128)
Bromofluorobenzene	88	(86-115)	(84-124)	(83-128)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/25/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/25/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	72	(22-135)	(10-155)
Fluorobiphenyl	65	(34-140)	(12-153)
Terphenyl-d14	115	(10-132)	(13-140)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/30/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	59	(17-95)	(24-118)
Phenol-d5	58	(11-89)	(17-124)
2,4,6-Tribromophenol	24	(10-134)	(10-156)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 6/10/91  
DATE ANALYZED: 6/12/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 6/10/91  
DATE ANALYZED: 6/12/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
BASE/NEUTRAL EXTRACTABLE ORGANICS HRS84297  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: estimated value)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	80	(22-135)	(10-155)
Fluorobiphenyl	74	(34-140)	(12-153)
Terphenyl-d14	100	(10-132)	(13-140)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICE  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 6/10/91  
DATE ANALYZED: 6/12/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE  
USEPA METHOD 601

4-Chloro-3-methylphenol  
2-Chlorophenol  
2,4-Dichlorophenol  
2,4-Dimethylphenol  
2,4-Dinitrophenol  
2-Methyl-4,6-dinitrophenol  
2-Nitrophenol  
4-Nitrophenol  
Pentachlorophenol  
Phenol  
2,4,6-Trichlorophenol

NOTE: ND (None Detected, lower detection limit)  
ND\* (None Detected, lower detection limit)  
J (Detected, but below quantitation limit)  
B (Compound detected in methanol extract)  
-- (Not Analyzed)

10 = 10 ug/L) as rec'd  
50 = 50 ug/L) as rec'd  
(J; estimated value)  
(B; associated with this sample)

SURROGATE RECOVERY:

%

2-Fluorophenol 72  
Phenol-d5 70  
2,4,6-Tribromophenol 86

TABLE LIMITS  
SOLID

(24-118)  
(17-124)  
(10-156)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/28/91

SAMPLE ID: LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297  
CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE WATER	LIMITS SOLID
Tetrachloro(m)xylene	101	(33-122)	(32-154)
Dibutylchlorendate	96	(18-129)	(27-139)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX: WATER

DATE RECEIVED: 5/22/91  
DATE EXTRACTED: 5/22/91  
DATE ANALYZED: 5/28/91

SAMPLE ID: LABORATORY BLANK

POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC

CERTIFICATION #: E84059  
HRS84297

---

PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS
		WATER SOLID
Tetrachloro(m)xylene	101	(33-122) (32-154)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX : WATER

DATE RECEIVED: 5/22/91

SAMPLE ID : LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	5/24- 5/28/91	ND	50 ug/L
Arsenic	5/24- 5/29/91	ND	10 ug/L
Beryllium	5/24- 5/28/91	ND	50 ug/L
Cadmium	5/24/91	ND	10 ug/L
Chromium	5/24/91	ND	50 ug/L
Copper	5/24- 5/28/91	ND	50 ug/L
Iron	5/24- 5/28/91	ND	100 ug/L
Mercury	5/23- 5/28/91	ND	2.0 ug/L
Manganese	5/24- 5/28/91	ND	50 ug/L
Sodium	5/24- 5/28/91	ND	50 ug/L
Nickel	5/24- 5/28/91	ND	50 ug/L
Lead	5/24- 5/28/91	ND	5 ug/L
Antimony	5/24- 5/28/91	ND	300 ug/L
Selenium	5/24- 5/29/91	ND	5 ug/L
Thallium	5/24- 5/30/91	ND	10 ug/L
Zinc	5/24- 5/28/91	ND	50 ug/L

NOTE: ND (None Detected) as rec'd



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : LAIDLAW ENVIRONMENTAL SERVICES  
LAB #: 1E2207-BK  
MATRIX : WATER

DATE RECEIVED: 5/22/91

SAMPLE ID : LABORATORY BLANK

CERTIFICATION #: E84059  
HRS84297

ANALYTICAL REPORT

---

PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT	
Chloride	5/27/91	ND	5	mg/L
Cyanide	5/24/91	ND	.005	mg/L
Nitrate-Nitrite Nitrogen	5/30/91	ND	.05	mg/L
Sulfate	5/27/91	ND	5	mg/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

LAB #: 1E2207-LCS  
MATRIX: WATER  
METHOD: 624

DATE RECEIVED: 05/22/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 06/05/91

LABORATORY CHECK SAMPLE

COMPOUND	LCS %REC	QC LIMITS %RECOVERY
1,1-Dichloroethene	137	61-145
Trichloroethene	89	71-120
Chlorobenzene	100	75-130
Toluene	91	76-125
Benzene	89	76-127
Dichlorobromomethane	86	78-104



WADSWORTH/ALERT  
LABORATORIES, INC.

LAB #: 1E2207-LCS  
MATRIX: WATER  
METHOD: 624

DATE RECEIVED: 05/22/91  
DATE EXTRACTED: NA  
DATE ANALYZED: 06/06/91

LABORATORY CHECK SAMPLE

COMPOUND	LCS %REC	QC LIMITS %RECOVERY
1,1-Dichloroethene	137	61-145
Trichloroethene	94	71-120
Chlorobenzene	107	75-130
Toluene	92	76-125
Benzene	91	76-127
Dichlorobromomethane	86	78-104



WADSWORTH/ALERT  
LABORATORIES, INC.

LAB #: 1E2207-LCS  
MATRIX: WATER  
METHOD: 625

DATE RECEIVED: 05/22/91  
DATE EXTRACTED: 05/22/91  
DATE ANALYZED: 05/25/91

LABORATORY CHECK SAMPLE RECOVERY

COMPOUND	LCS %REC	QC LIMITS RECOVERY
1,2,4-Trichlorobenzene	61	39-98
Acenaphthene	74	46-118
2,4-Dinitrotoluene	50	24-96
Pyrene	82	26-127
Nitrosodipropylamine	77	41-116
1,4-Dichlorobenzene	59	36-97
Pentachlorophenol	12	9-103
Phenol	40	12-89
2-Chlorophenol	56	27-123
4-Chloro-o-cresol	55	23-97
4-Nitrophenol	21	10-80



WADSWORTH/ALERT  
LABORATORIES, INC.

LAB #: 1E2207-LCS  
MATRIX: WATER  
METHOD: 625

DATE RECEIVED: 05/22/91  
DATE EXTRACTED: 06/10/91  
DATE ANALYZED: 06/12/91

LABORATORY CHECK SAMPLE RECOVERY

COMPOUND	LCS %REC	QC LIMITS RECOVERY
1,2,4-Trichlorobenzene	77	39-98
Acenaphthene	99	46-118
2,4-Dinitrotoluene	90	24-96
Pyrene	105	26-127
Nitrosodipropylamine	88	41-116
1,4-Dichlorobenzene	82	36-97
Pentachlorophenol	80	9-103
Phenol	72	12-89
2-Chlorophenol	76	27-123
4-Chloro-o-cresol	75	23-97
4-Nitrophenol	77	10-80



WADSWORTH ALERT  
LABORATORIES, INC.

LAB #: 1E2207-LCS  
MATRIX: WATER  
METHOD: 8080

DATE RECEIVED: 05/22/91  
DATE EXTRACTED: 05/22/91  
DATE ANALYZED: 05/29/91

LABORATORY CHECK SAMPLE RECOVERY

COMPOUND	LCS %REC	QC LIMITS RECOVERY
Lindane	112	56-123
Heptachlor	108	40-131
Aldrin	119	40-120
Dieldrin	112	52-126
Endrin	118	56-121
4,4'-DDT	99	38-127





WADSWORTH/ALERT  
LABORATORIES, INC.

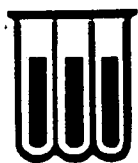
LAB #: 1E2207-LCS  
MATRIX: WATER

DATE RECEIVED: 05/22/91  
DATE PREP'D: 05/23/91 to  
05/24/91  
DATE ANALYZED: 05/24/91 to  
05/30/91

LABORATORY CHECK SAMPLE RECOVERY

COMPOUND	LCS %REC	QC LIMITS RECOVERY
Antimony	120	87-128
Arsenic, furnace	110	74-126
Beryllium	92	90-112
Cadmium	97	83-113
Chromium	111	88-120
Copper	98	59-147
Iron	108	83-178
Lead, furnace	94	44-126
Manganese	102	85-125
Mercury	98	89-127
Nickel	99	86-134
Selenium, furnace	96	64-115
Silver	96	71-122
Sodium	101	75-125*
Thallium, furnace	111	75-125*
Zinc	106	82-116

NOTE: \* Advisory limits; no database



WADSWORTH/ALERT  
LABORATORIES, INC.

LAB #: 1E2207-LCS  
MATRIX: WATER

DATE RECEIVED: 05/22/91  
DATE ANALYZED: 05/24/91 to  
05/30/91

**LABORATORY CHECK SAMPLE**

COMPOUND	LCS %REC	QC LIMITS RECOVERY
Chloride	110	94-119
Sulfate	90	77-117
Cyanide	95	48-116
Nitrate-Nitrite Nitrogen	100	75-125*

NOTE: \* Advisory limits; no database



WADSWORTH/ALERT  
LABORATORIES, INC.

LAB#: 1E2207-2  
MATRIX: WATER  
METHOD: 625

DATE RECEIVED: 05/22/91  
DATE EXTRACTED: 06/10/91  
DATE ANALYZED: 06/13/91

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

COMPOUND	MS %REC	MSD %REC	RPD	QC LIMITS RPD RECOVERY	
1,2,4-Trichlorobenzene	82	80	2	28	39-98
Acenaphthene	98	95	3	31	46-118
2,4-Dinitrotoluene	48	57	17	38	24-96
Pyrene	82	74	10	31	26-127
Nitrosodipropylamine	88	86	2	38	41-116
1,4-Dichlorobenzene	84	83	1	28	36-97
Pentachlorophenol	43	36	17	50	9-103
Phenol	63	65	3	42	12-89
2-Chlorophenol	72	73	1	40	27-123
4-Chloro-o-cresol	62	58	7	42	23-97
4-Nitrophenol	38	32	17	50	10-80

WADSWORTH/ALERT LABORATORIES  
SAMPLE SHIPPER EVALUATION AND RECEIPT FORM

Client: Laidlaw - Project: Laidlaw-Tricil  
Samples received on 5/22/91 By: Carol  
LAB Lot#: 2379 Carol McNulty  
(Signature)

What type of shipping container were samples received in? WAL Cooler X  
Client Cooler      WAL Shipper      Box      Other     

Any "NO" responses or discrepancies should be explained in comments section.

- |  | YES      | NO          |
|--|----------|-------------|
| 1. Were custody papers included with samples? . . . . .  | <u>X</u> | <u>    </u> |
| 2. Were custody papers properly filled out (ink, signed, match labels)? . . . . .  | <u>X</u> | <u>    </u> |
| 3. Were samples in direct contact with wet ice? . . . . .  | <u>X</u> | <u>    </u> |
| 4. Did all bottles arrive in good condition (unbroken)? . . . . .  | <u>X</u> | <u>    </u> |
| 5. Were all bottle labels complete (Sample No., date, signed, analysis preservatives)? . . . . .                                   | <u>X</u> | <u>    </u> |
| 6. Were correct bottles used for the tests indicated? . . . . .  | <u>X</u> | <u>    </u> |
| 7. Were proper sample preservation techniques indicated? . . . . .   | <u>X</u> | <u>    </u> |
| 8. Were samples received within adequate holding time? . . . . .   | <u>X</u> | <u>    </u> |
| 9. Were all VOA bottles checked for the presence of air bubbles? (If air bubbles were found indicate in comment section) . . . . . | <u>X</u> | <u>    </u> |
| 10. Were samples accepted into the laboratory? (If no see action section) . . . . .  | <u>X</u> | <u>    </u> |

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Action:

Samples held due to discrepancies and project manager notified \_\_\_\_\_  
Date discrepancy resolved and samples accepted \_\_\_\_\_

## Chain-of Custody Record

[illegible]

**Distribution Original Accompanies Shipment. Copy returned with Report.**

Remarks  
\* Metals = Sb, As, Bi, Cd, Sn, Cu, Fe, Pb, Hg,  
Mn, Ni, Se, Ag, Na, Te, Zn

~~was~~ Sampled by Danny & Heron  
Wadsworth Alert.  
~~was~~ HES (Henson's Env Source) / Sampling  
DAPP # 980816 has = 3 1/2



**WADSWORTH/ALERT  
LABORATORIES, INC.**

Route 3 - Box 235 / Bartow, FL 33830 / (813) 533-2150

Sampling, testing, mobile labs

Since 1938

**ANALYTICAL REPORT**

**MONITORING WELLS**

**14 FEBRUARY 1990**

**D. E. R.**

**DEC 4 1991**

**SOUTHWEST DISTRICT  
TAMPA**

**Presented to :**

**STEVE TAYLOR**

**TRICIL RECOVERY SERVICES INC**

**WADSWORTH/ALERT LABORATORIES, INC.**

*Jay Apitz*

**JAY APITZ  
Project Manager**

*Randall C. Grubbs*

**Randall C. Grubbs  
Laboratory Director - Florida**

**March 21, 1990**

*Need a new file  
AI 4-j  
not yet  
requested*



**HEADQUARTERS AND  
LABORATORY**  
P.O. Box 2912  
4101 Shuffel Drive, N.W.  
North Canton, OH 44720  
(216) 497-9396

**REGIONAL  
LABORATORY**  
P.O. Box 31454  
5405 Schaaf Rd.  
Cleveland, OH 44131  
(216) 642-9151

**REGIONAL  
OFFICE**  
1445 Pisgah Church Rd.  
Lexington, SC 29072  
(803) 957-8590

**REGIONAL  
LABORATORY**  
Route 3 - Box 235  
Bldg. 170, Bartow Airport  
Bartow, FL 33830  
(813) 533-2150



WADSWORTH/ALERT  
LABORATORIES, INC.

#### INTRODUCTION

This report summarizes the analytical results of samples from Tricil Recovery Services Inc. Wadsworth/ALERT Laboratories, Inc. provided independent, analytical services for this project as a sub-contractor to Tricil Recovery Services under the direction of Mr. Steve Taylor, Safety Compliance Manager.

The samples were collected by Wadsworth/ALERT Laboratories, Inc. The samples were accepted into the laboratory in accordance with documented sample acceptance procedures. The samples were analyzed as requested for organics and metal contaminants. These parameters and associated analytical methods are outlined in this report. Sample analytical results are sequentially presented at the rear of the report.



ANALYTICAL METHODS

Wadsworth/ALERT Laboratories utilizes only USEPA approved analytical methods and instrumentation. The analytical methods utilized for the analysis of these samples are listed below.

PARAMETER	METHOD
-----	
ORGANICS	
Volatile Organics	** USEPA Method 624
Base Neutral Acids	** USEPA Method 625
Pesticides/PCB's	** USEPA Method 608
METALS	
Antimony	** USEPA Method 200.7
Arsenic	** USEPA Method 206.2
Beryllium	** USEPA Method 200.7
Cadmium	** USEPA Method 200.7
Chromium	** USEPA Method 200.7
Copper	** USEPA Method 200.7
Iron	** USEPA Method 200.7
Lead	** USEPA Method 239.2
Mercury	** USEPA Method 245.1
Manganese	** USEPA Method 200.7
Nickel	** USEPA Method 200.7
Selenium	** USEPA Method 270.2
Silver	** USEPA Method 200.7
Sodium	** USEPA Method 200.7
Thallium	** USEPA Method 279.2
Zinc	** USEPA Method 200.7
Digestions	** SW846 Method 3010, 3020
Note: ** indicates usage of this method to obtain results for this report.	
Note: EPA - Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020, March, 1983. July, 1982.	
Std. Methods - Standard Methods for the Examination of Water and Wastewater, APHA, 16th edition, 1985.	
USEPA Methods - from 40CFR Part 136, published in Federal Register on October 26, 1984.	
SW846	- Test Methods for Evaluating Solid Waste Physical/Chemical Methods, 3rd Edition, USEPA, 1986.
ASTM	- American Society for Testing and Materials





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-1  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-1

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	96	(76-114)	(70-121)
Toluene-d8	98	(88-110)	(81-117)
Bromofluorobenzene	94	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-1  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: MW-1

CERTIFICATION #: E84059  
HRS84297  
CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-1  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: MW-1

CERTIFICATION #: E84059  
HRS84297  
POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC

---

PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-1  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/27/90

SAMPLE ID: MW-1

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-1  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/27/90

SAMPLE ID: MW-1

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	57	(35-114)	(23-120)
2-Fluorobiphenyl	67	(43-116)	(30-115)
Terphenyl-d14	44	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-1  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/27/90

SAMPLE ID: MW-1

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	53	(21-100)	(25-121)
Phenol-d5	55	(10-94)	(24-113)
2,4,6-Tribromophenol	62	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-1  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-1

CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT	
Silver	2/15- 2/21/90	ND	50	ug/L
Arsenic	2/15- 2/16/90	ND	10	ug/L
Beryllium	2/15- 2/20/90	ND	50	ug/L
Cadmium	2/15- 2/20/90	ND	10	ug/L
Chromium	2/15- 2/20/90	ND	50	ug/L
Copper	2/15- 2/20/90	ND	200	ug/L
Iron	2/15- 2/20/90	ND	300	ug/L
Mercury	2/15- 2/20/90	ND	2	ug/L
Manganese	2/15- 2/20/90	ND	50	ug/L
Sodium	2/15- 2/20/90	4,400	50	ug/L
Nickel	2/15- 2/20/90	ND	50	ug/L
Lead	2/15- 2/19/90	ND	5	ug/L
Antimony	2/15- 2/19/90	ND	1000	ug/L
Selenium	2/15- 2/16/90	ND	5	ug/L
Thallium	2/15- 2/19/90	ND	10	ug/L
Zinc	2/15- 2/20/90	ND	50	ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-1  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-1

CERTIFICATION #: E84059  
HRS84297

ANALYTICAL REPORT

---

PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20/90	7	2 mg/L
Cyanide	2/21- 2/22/90	ND	0.005 mg/L
Specific Conductance	2/15/90	50	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	4.9	S.U.
Sulfate	2/20/90	9	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-2  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/17/90

SAMPLE ID: MW-1A

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	93	(76-114)	(70-121)
Toluene-d8	97	(88-110)	(81-117)
Bromofluorobenzene	96	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-2  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: MW-1A

CERTIFICATION #: E84059  
HRS84297

CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-2  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: MW-1A

CERTIFICATION #: E84059  
POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC  
HRS84297

PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-2  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-1A

CERTIFICATION #: E84059  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS HRS84297  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benididine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-2  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-1A

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	117	(35-114)	(23-120)
2-Fluorobiphenyl	112	(43-116)	(30-115)
Terphenyl-d14	87	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-2  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-1A

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	70	(21-100)	(25-121)
Phenol-d5	72	(10-94)	(24-113)
2,4,6-Tribromophenol	100	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-2  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-1A

CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	2/15- 2/21/90	ND	50 ug/L
Arsenic	2/15- 2/16/90	ND	10 ug/L
Beryllium	2/15- 2/20/90	ND	50 ug/L
Cadmium	2/15- 2/20/90	ND	10 ug/L
Chromium	2/15- 2/20/90	ND	50 ug/L
Copper	2/15- 2/20/90	ND	200 ug/L
Iron	2/15- 2/20/90	410	300 ug/L
Mercury	2/15- 2/20/90	ND	2 ug/L
Manganese	2/15- 2/20/90	ND	50 ug/L
Sodium	2/15- 2/20/90	9,000	50 ug/L
Nickel	2/15- 2/20/90	ND	50 ug/L
Lead	2/15- 2/19/90	ND	5 ug/L
Antimony	2/15- 2/20/90	ND	1000 ug/L
Selenium	2/15- 2/16/90	ND	5 ug/L
Thallium	2/15- 2/19/90	ND	10 ug/L
Zinc	2/15- 2/20/90	ND	50 ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-2  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-1A

CERTIFICATION #: E84059  
HRS84297

**ANALYTICAL REPORT**

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PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20/90	18	2 mg/L
Cyanide	2/21- 2/22/90	ND	0.005 mg/L
Specific Conductance	2/15/90	240	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	6.5	S.U.
Sulfate	2/20/90	34	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-3  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/17/90

SAMPLE ID: MW-2

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	94	(76-114)	(70-121)
Toluene-d8	96	(88-110)	(81-117)
Bromofluorobenzene	96	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-3  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: MW-2

CERTIFICATION #: E84059  
HRS84297  
CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-3  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: MW-2

POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC

CERTIFICATION #: E84059  
HRS84297

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PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-3  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-2

CERTIFICATION #: E84059  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS HRS84297  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-3  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-2

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	80	(35-114)	(23-120)
2-Fluorobiphenyl	80	(43-116)	(30-115)
Terphenyl-d14	113	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-3  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-2

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	54	(21-100)	(25-121)
Phenol-d5	62	(10-94)	(24-113)
2,4,6-Tribromophenol	80	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-3  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-2

CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	2/15- 2/21/90	ND	50 ug/L
Arsenic	2/15- 2/16/90	ND	10 ug/L
Beryllium	2/15- 2/20/90	ND	50 ug/L
Cadmium	2/15- 2/20/90	ND	10 ug/L
Chromium	2/15- 2/20/90	ND	50 ug/L
Copper	2/15- 2/20/90	ND	200 ug/L
Iron	2/15- 2/20/90	ND	300 ug/L
Mercury	2/15- 2/20/90	ND	2 ug/L
Manganese	2/15- 2/20/90	ND	50 ug/L
Sodium	2/15- 2/20/90	4,700	50 ug/L
Nickel	2/15- 2/20/90	ND	50 ug/L
Lead	2/15- 2/19/90	5	5 ug/L
Antimony	2/15- 2/20/90	ND	1000 ug/L
Selenium	2/15- 2/16/90	ND	5 ug/L
Thallium	2/15- 2/19/90	ND	10 ug/L
Zinc	2/15- 2/20/90	ND	50 ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-3  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-2

CERTIFICATION #: E84059  
HRS84297

**ANALYTICAL REPORT**

---

PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20/90	9	2 mg/L
Cyanide	2/21- 2/22/90	ND	0.005 mg/L
Specific Conductance	2/15/90	110	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	5.3	S.U.
Sulfate	2/20/90	20	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-4  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/17/90

SAMPLE ID: MW-3A

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

CERTIFICATION #: E84059  
HRS84297

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	96	(76-114)	(70-121)
Toluene-d8	97	(88-110)	(81-117)
Bromofluorobenzene	95	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-4  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: MW-3A

CERTIFICATION #: E84059  
HRS84297

CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-4  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: MW-3A

POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC

CERTIFICATION #: E84059  
HRS84297

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PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-4  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-3A

CERTIFICATION #: E84059  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS HRS84297  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-4  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-3A

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	117	(35-114)	(23-120)
2-Fluorobiphenyl	100	(43-116)	(30-115)
Terphenyl-d14	111	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-4  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-3A

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

CERTIFICATION #: E84059  
HRS84297

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	62	(21-100)	(25-121)
Phenol-d5	61	(10-94)	(24-113)
2,4,6-Tribromophenol	69	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-4  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-3A

CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	2/15- 2/21/90	ND	50 ug/L
Arsenic	2/15- 2/16/90	ND	10 ug/L
Beryllium	2/15- 2/20/90	ND	50 ug/L
Cadmium	2/15- 2/20/90	ND	10 ug/L
Chromium	2/15- 2/20/90	ND	50 ug/L
Copper	2/15- 2/20/90	ND	200 ug/L
Iron	2/15- 2/20/90	770	300 ug/L
Mercury	2/15- 2/20/90	ND	2 ug/L
Manganese	2/15- 2/20/90	ND	50 ug/L
Sodium	2/15- 2/20/90	2,200	50 ug/L
Nickel	2/15- 2/20/90	ND	50 ug/L
Lead	2/15- 2/19/90	ND	5 ug/L
Antimony	2/15- 2/20/90	ND	1000 ug/L
Selenium	2/15- 2/16/90	ND	5 ug/L
Thallium	2/15- 2/19/90	ND	10 ug/L
Zinc	2/15- 2/20/90	ND	50 ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-4  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-3A

CERTIFICATION #: E84059  
HRS84297

### ANALYTICAL REPORT

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PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20/90	3	2 mg/L
Cyanide	2/20- 2/21/90	ND	0.005 mg/L
Specific Conductance	2/15/90	57	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	5.0	S.U.
Sulfate	2/20-22/20/90	18	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-5  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/17/90

SAMPLE ID: MW-3

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

CERTIFICATION #: E84059  
HRS84297

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	96	(76-114)	(70-121)
Toluene-d8	97	(88-110)	(81-117)
Bromofluorobenzene	95	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-5  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: MW-3

CERTIFICATION #: E84059  
HRS84297  
CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-5  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: MW-3

CERTIFICATION #: E84059  
POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC  
HRS84297

---

PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-5  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-3

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-5  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-3

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	75	(35-114)	(23-120)
2-Fluorobiphenyl	71	(43-116)	(30-115)
Terphenyl-d14	160	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-5  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-3

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	48	(21-100)	(25-121)
Phenol-d5	50	(10-94)	(24-113)
2,4,6-Tribromophenol	49	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-5  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-3

CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	2/15- 2/21/90	ND	50 ug/L
Arsenic	2/15- 2/16/90	ND	10 ug/L
Beryllium	2/15- 2/20/90	ND	50 ug/L
Cadmium	2/15- 2/20/90	ND	10 ug/L
Chromium	2/15- 2/20/90	ND	50 ug/L
Copper	2/15- 2/20/90	ND	200 ug/L
Iron	2/15- 2/20/90	580	300 ug/L
Mercury	2/15- 2/20/90	ND	2 ug/L
Manganese	2/15- 2/20/90	ND	50 ug/L
Sodium	2/15- 2/20/90	1,200	50 ug/L
Nickel	2/15- 2/20/90	ND	50 ug/L
Lead	2/15- 2/19/90	ND	5 ug/L
Antimony	2/15- 2/20/90	ND	1000 ug/L
Selenium	2/15- 2/16/90	ND	5 ug/L
Thallium	2/15- 2/19/90	ND	10 ug/L
Zinc	2/15- 2/20/90	ND	50 ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC

LAB #: B1401-5

MATRIX : WATER

SAMPLE ID : MW-3

DATE RECEIVED: 2/14/90

CERTIFICATION #: E84059  
HRS84297

### ANALYTICAL REPORT

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PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20- 2/22/90	11	2 mg/L
Cyanide	2/20- 2/21/90	ND	0.005 mg/L
Specific Conductance	2/15/90	160	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	6.3	S.U.
Sulfate	2/20/90	14	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-6  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/17/90

SAMPLE ID: MW-4

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	97	(76-114)	(70-121)
Toluene-d8	100	(88-110)	(81-117)
Bromofluorobenzene	92	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-6  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: MW-4

CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

CERTIFICATION #: E84059  
HRS84297

---

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-6  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: MW-4

POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC

CERTIFICATION #: E84059  
HRS84297

---

PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-6  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-4

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzydine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-6  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-4

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	115	(35-114)	(23-120)
2-Fluorobiphenyl	108	(43-116)	(30-115)
Terphenyl-d14	95	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-6  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-4

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

CERTIFICATION #: E84059  
HRS84297

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	66	(21-100)	(25-121)
Phenol-d5	68	(10-94)	(24-113)
2,4,6-Tribromophenol	68	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-6  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-4

CERTIFICATION #: E84059  
HRS84297

METALS ANALYTICAL REPORT  
SELECTED LIST

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT	
Silver	2/15- 2/21/90	ND	50	ug/L
Arsenic	2/15- 2/16/90	ND	10	ug/L
Beryllium	2/15- 2/20/90	ND	50	ug/L
Cadmium	2/15- 2/20/90	ND	10	ug/L
Chromium	2/15- 2/20/90	ND	50	ug/L
Copper	2/15- 2/20/90	ND	200	ug/L
Iron	2/15- 2/20/90	1,200	300	ug/L
Mercury	2/15- 2/20/90	ND	2	ug/L
Manganese	2/15- 2/20/90	ND	50	ug/L
Sodium	2/15- 2/20/90	4,000	50	ug/L
Nickel	2/15- 2/20/90	ND	50	ug/L
Lead	2/15- 2/19/90	10	5	ug/L
Antimony	2/15- 2/20/90	ND	1000	ug/L
Selenium	2/15- 2/16/90	ND	5	ug/L
Thallium	2/15- 2/19/90	ND	10	ug/L
Zinc	2/15- 2/20/90	53	50	ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-6  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-4

CERTIFICATION #: E84059  
HRS84297

**ANALYTICAL REPORT**

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PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20/90	7	2 mg/L
Cyanide	2/20- 2/21/90	ND	0.005 mg/L
Specific Conductance	2/15/90	200	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	6.4	S.U.
Sulfate	2/20/90	33	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-7  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/17/90

SAMPLE ID: MW-5

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

CERTIFICATION #: E84059  
HRS84297

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	95	(76-114)	(70-121)
Toluene-d8	98	(88-110)	(81-117)
Bromofluorobenzene	94	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-7  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: MW-5

CERTIFICATION #: E84059  
HRS84297

CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-7  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: MW-5

CERTIFICATION #: E84059  
POLYCHLORINATED BIPHENYLS HRS84297  
METHOD 608 LIST - GC

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PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-7  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-5

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-7  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-5

CERTIFICATION #: E84059  
BASE/NEUTRAL EXTRACTABLE ORGANICS HRS84297  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	77	(35-114)	(23-120)
2-Fluorobiphenyl	74	(43-116)	(30-115)
Terphenyl-d14	152	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-7  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-5

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethylphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	50	(21-100)	(25-121)
Phenol-d5	45	(10-94)	(24-113)
2,4,6-Tribromophenol	54	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-7  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-5

CERTIFICATION #: E84059  
HRS84297

**METALS ANALYTICAL REPORT  
SELECTED LIST**

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	2/15- 2/21/90	ND	50 ug/L
Arsenic	2/15- 2/16/90	ND	10 ug/L
Beryllium	2/15- 2/20/90	ND	50 ug/L
Cadmium	2/15- 2/20/90	ND	10 ug/L
Chromium	2/15- 2/20/90	ND	50 ug/L
Copper	2/15- 2/20/90	ND	200 ug/L
Iron	2/15- 2/20/90	1,000	300 ug/L
Mercury	2/15- 2/20/90	ND	2 ug/L
Manganese	2/15- 2/20/90	ND	50 ug/L
Sodium	2/15- 2/20/90	8,000	50 ug/L
Nickel	2/15- 2/20/90	ND	50 ug/L
Lead	2/15- 2/19/90	ND	5 ug/L
Antimony	2/15- 2/20/90	ND	1000 ug/L
Selenium	2/15- 2/16/90	ND	5 ug/L
Thallium	2/15- 2/19/90	ND	10 ug/L
Zinc	2/15- 2/20/90	ND	50 ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC

LAB #: B1401-7

MATRIX : WATER

SAMPLE ID : MW-5

DATE RECEIVED: 2/14/90

CERTIFICATION #: E84059  
HRS84297

### ANALYTICAL REPORT

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PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20/90	11	2 mg/L
Cyanide	2/20- 2/21/90	ND	0.005 mg/L
Specific Conductance	2/15/90	110	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	4.6	S.U.
Sulfate	2/20/90	11	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-8  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/17/90

SAMPLE ID: MW-7

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	2
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	2		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	93	(76-114)	(70-121)
Toluene-d8	94	(88-110)	(81-117)
Bromofluorobenzene	92	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-8  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: MW-7

CERTIFICATION #: E84059  
HRS84297  
CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

---

RESULT (ug/L )      DETECTION LIMIT

Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-8  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: MW-7

POLYCHLORINATED BIPHENYLS  
METHOD 608 LIST - GC

CERTIFICATION #: E84059  
HRS84297

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PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCE-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-8  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-7

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-8  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-7

CERTIFICATION #: E84059  
BASE/NEUTRAL EXTRACTABLE ORGANICS HRS84297  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	81	(35-114)	(23-120)
2-Fluorobiphenyl	68	(43-116)	(30-115)
Terphenyl-d14	92	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-8  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: MW-7

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethyphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	40	(21-100)	(25-121)
Phenol-d5	36	(10-94)	(24-113)
2,4,6-Tribromophenol	34	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-8  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-7

CERTIFICATION #: E84059

METALS ANALYTICAL REPORT  
SELECTED LIST

HRS84297

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	2/15- 2/21/90	ND	50 ug/L
Arsenic	2/15- 2/16/90	ND	10 ug/L
Beryllium	2/15- 2/20/90	ND	50 ug/L
Cadmium	2/15- 2/20/90	ND	10 ug/L
Chromium	2/15- 2/20/90	ND	50 ug/L
Copper	2/15- 2/20/90	ND	200 ug/L
Iron	2/15- 2/20/90	2,000	300 ug/L
Mercury	2/15- 2/20/90	ND	2 ug/L
Manganese	2/15- 2/20/90	ND	50 ug/L
Sodium	2/15- 2/20/90	3,900	50 ug/L
Nickel	2/15- 2/20/90	ND	50 ug/L
Lead	2/15- 2/19/90	10	5 ug/L
Antimony	2/15- 2/20/90	ND	1000 ug/L
Selenium	2/15- 2/16/90	ND	5 ug/L
Thallium	2/15- 2/19/90	ND	10 ug/L
Zinc	2/15- 2/20/90	ND	50 ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-8  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : MW-7

CERTIFICATION #: E84059  
HRS84297

### ANALYTICAL REPORT

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PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20/90	7	2 mg/L
Cyanide	2/20- 2/21/90	ND	0.005 mg/L
Specific Conductance	2/15/90	62	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	5.2	S.U.
Sulfate	2/20/90	56	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-9  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/16/90

SAMPLE ID: FIELD BLANK

CERTIFICATION #: E84059  
HRS84297

VOLATILE ORGANICS  
USEPA METHOD 624 - GC/MS

Acrolein	ND*	1,1-Dichloroethene	ND
Acrylonitrile	ND*	1,2-Dichloroethene(Total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon tetrachloride	ND	Methylene chloride	ND
Chlorobenzene	ND	1,1,2,2-Tetrachloroethane	ND
Chloroethane	ND	Tetrachloroethene	ND
2-Chloroethylvinyl ether	ND	Toluene	ND
Chloroform	ND	1,1,1-Trichloroethane	ND
Chloromethane	ND	1,1,2-Trichloroethane	ND
Dibromochloromethane	ND	Trichloroethene	ND
1,2-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,3-Dichlorobenzene	ND	Vinyl chloride	ND
1,4-Dichlorobenzene	ND	Xylene(Total)	ND
1,1-Dichloroethane	2		
1,2-Dichloroethane	ND		

NOTE: ND (None Detected, lower detectable limit = 1 ug/l) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/l) as rec'd  
ND\*\* (None Detected, lower detectable limit = ug/l) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
1,2-Dichloroethane-d4	94	(76-114)	(70-121)
Toluene-d8	97	(88-110)	(81-117)
Bromofluorobenzene	95	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-9  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: FIELD BLANK

CERTIFICATION #: E84059  
HRS84297  
CHLORINATED PESTICIDES  
METHOD 608 LIST - GC

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	ND	0.1
Endosulfan Sulfate	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	1
Toxaphene	ND	1

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-9  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: FIELD BLANK

CERTIFICATION #: E84059  
POLYCHLORINATED BIPHENYLS HRS84297  
METHOD 608 LIST - GC

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PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L)  
ND\* (None Detected, lower detectable limit = ug/L)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-9  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: FIELD BLANK

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL -- EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (1 of 2)

Acenaphthene	ND	Dibenzo(a,h)anthracene	ND
Acenaphthylene	ND	Di-n-butyl phthalate	ND
Anthracene	ND	1,2-Dichlorobenzene	ND
Benzidine	ND*	1,3-Dichlorobenzene	ND
Benzo(a)anthracene	ND	1,4-Dichlorobenzene	ND
Benzo(b)fluoranthene	ND	3,3'-Dichlorobenzidine	ND*
Benzo(k)fluoranthene	ND	Diethyl phthalate	ND
Benzo(ghi)perylene	ND	Dimethyl phthalate	ND
Benzo(a)pyrene	ND	2,4-Dinitrotoluene	ND
Bis(2-Chloroethoxy)methane	ND	2,6-Dinitrotoluene	ND
Bis(2-Chloroethyl)ether	ND	Di-n-octyl phthalate	ND
Bis(2-Chloroisopropyl)ether	ND	Fluoranthene	ND
Bis(2-Ethylhexyl)phthalate	ND	Fluorene	ND
4-Bromophenyl phenyl ether	ND	Hexachlorobenzene	ND
Butyl benzyl phthalate	ND	Hexachlorobutadiene	ND
2-Chloronaphthalene	ND	Hexachlorocyclopentadiene	ND
4-Chlorophenyl phenyl ether	ND	Hexachloroethane	ND
Chrysene	ND	Indeno(1,2,3-cd)pyrene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-9  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: FIELD BLANK

CERTIFICATION #: E84059  
HRS84297  
BASE/NEUTRAL EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS (2 of 2)

Isophorone	ND
Naphthalene	ND
Nitrobenzene	ND
N-Nitrosodimethylamine	ND
N-Nitrosodiphenylamine	ND
N-Nitrosodi-n-propylamine	ND
Phenanthrene	ND
Pyrene	ND
1,2,4-Trichlorobenzene	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit: quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY:	%	ACCEPTABLE LIMITS	
		WATER	SOLID
Nitrobenzene-d5	82	(35-114)	(23-120)
2-Fluorobiphenyl	69	(43-116)	(30-115)
Terphenyl-d14	220	(33-141)	(18-137)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: TRICIL RECOVERY SERVICES INC  
LAB #: B1401-9  
MATRIX: WATER

DATE RECEIVED: 2/14/90  
DATE EXTRACTED: 2/16/90  
DATE ANALYZED: 2/16/90

SAMPLE ID: FIELD BLANK

CERTIFICATION #: E84059  
HRS84297

ACID EXTRACTABLE ORGANICS  
USEPA METHOD 625 - GC/MS

4-Chloro-3-methylphenol	ND
2-Chlorophenol	ND
2,4-Dichlorophenol	ND
2,4-Dimethyphenol	ND
2,4-Dinitrophenol	ND*
2-Methyl-4,6-dinitrophenol	ND*
2-Nitrophenol	ND
4-Nitrophenol	ND*
Pentachlorophenol	ND*
Phenol	ND
2,4,6-Trichlorophenol	ND

NOTE: ND (None Detected, lower detectable limit = 10 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 50 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
B (Compound detected in method blank associated with this sample)  
-- (Not Analyzed)

SURROGATE RECOVERY :	%	ACCEPTABLE LIMITS	
		WATER	SOLID
2-Fluorophenol	46	(21-100)	(25-121)
Phenol-d5	40	(10-94)	(24-113)
2,4,6-Tribromophenol	18	(10-123)	(10-122)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-9  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : FIELD BLANK

CERTIFICATION #: E84059  
HRS84297

METALS ANALYTICAL REPORT  
SELECTED LIST

Total metals analysis results - as received

ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	2/15- 2/21/90	ND	50 ug/L
Arsenic	2/15- 2/16/90	ND	10 ug/L
Beryllium	2/15- 2/20/90	ND	50 ug/L
Cadmium	2/15- 2/20/90	ND	10 ug/L
Chromium	2/15- 2/20/90	ND	50 ug/L
Copper	2/15- 2/20/90	ND	200 ug/L
Iron	2/15- 2/20/90	ND	300 ug/L
Mercury	2/15- 2/20/90	ND	2 ug/L
Manganese	2/15- 2/20/90	ND	50 ug/L
Sodium	2/15- 2/20/90	270	50 ug/L
Nickel	2/15- 2/20/90	ND	50 ug/L
Lead	2/15- 2/19/90	ND	5 ug/L
Antimony	2/15- 2/20/90	ND	1000 ug/L
Selenium	2/15- 2/16/90	ND	5 ug/L
Thallium	2/15- 2/19/90	ND	10 ug/L
Zinc	2/15- 2/20/90	ND	50 ug/L

NOTE: ND (None Detected)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : TRICIL RECOVERY SERVICES INC  
LAB #: B1401-9  
MATRIX : WATER

DATE RECEIVED: 2/14/90

SAMPLE ID : FIELD BLANK

CERTIFICATION #: E84059  
HRS84297

**ANALYTICAL REPORT**

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PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Chloride	2/20/90	ND	2 mg/L
Cyanide	2/20- 2/21/90	ND	0.005 mg/L
Specific Conductance	2/15/90	0	umhos/cm
Nitrate-Nitrite Nitrogen	2/21/90	ND	0.1 mg/L
pH - Water	2/15/90	6.3	S.U.
Sulfate	2/20/90	ND	5 mg/L

NOTE: ND (None Detected)





WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: Wadsworth/Alert Laboratories  
LAB #: 0-90217  
MATRIX: WATER

DATE RECEIVED: 0/ 0/0  
DATE EXTRACTED: NA  
DATE ANALYZED: 2/17/90

SAMPLE ID:

VOLATILE ORGANICS  
BLANK COMPOUND LIST - GC/MS

Acetone	--	1,1-Dichloroethane	ND
Acrolein	ND*	1,2-Dichloroethane	ND
Acrylonitrile	ND*	1,1-Dichloroethene	ND
2-Butanone	--	1,2-Dichloroethene (total)	ND
Benzene	ND	1,2-Dichloropropane	ND
Bromodichloromethane	ND	cis-1,3-Dichloropropene	ND
Bromoform	ND	trans-1,3-Dichloropropene	ND
Bromomethane	ND	Ethylbenzene	ND
Carbon disulfide	--	2-Hexanone	--
Carbon tetrachloride	ND	4-Methyl-2-pentanone	--
Chlorobenzene	ND	Methylene chloride	2
Chloroethane	ND	Styrene	--
Chloroform	--	1,1,2,2-Tetrachloroethane	ND
2-Chloroethyl vinyl ether	ND	Tetrachloroethene	ND
Chloromethane	ND	Toluene	ND
Chloromethyl methyl ether	--	1,1,1-Trichloroethane	ND
Dibromochloromethane	ND	1,1,2-Trichloroethane	ND
1,2-Dichlorobenzene	ND	Trichloroethene	ND
1,3-Dichlorobenzene	ND	Trichlorofluoromethane	ND
1,4-Dichlorobenzene	ND	Vinyl acetate	--
Dichlorodifluoromethane	--	Vinyl chloride	ND
		Total xylenes	ND

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = 10 ug/L) as rec'd  
J (Detected, but below quantitation limit; quantitation suspect)  
-- (Not Analyzed)

SURROGATE RECOVERY:		ACCEPTABLE LIMITS	
	%	WATER	SOLID
1,2-Dichloroethane-d4	96	(76-114)	(70-121)
Toluene-d8	96	(88-110)	(81-117)
Bromofluorobenzene	94	(86-115)	(74-121)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY: Wadsworth/Alert Laboratories  
LAB #: 9090-90215  
MATRIX: WATER

DATE RECEIVED: 2/15/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/21/90

SAMPLE ID: INTRA-LAB BLANK , 2/15/90

CHLORINATED PESTICIDES ANALYTICAL BLANK REPORT  
SELECTED LIST

---

	RESULT (ug/L )	DETECTION LIMIT
Alpha-BHC	ND	0.1
Beta-BHC	ND	0.1
Delta-BHC	ND	0.1
Lindane	ND	0.1
Heptachlor	ND	0.1
Aldrin	ND	0.1
Heptachlor Epoxide	ND	0.1
Endosulfan I	ND	0.1
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
4,4'-DDD	ND	0.1
Endrin Aldehyde	--	
Endosulfan Sulfate	--	
4,4'-DDT	--	
Methoxychlor	--	
Endrin Ketone	--	
Chlordane	ND	1
Alpha Chlordane	--	
Gamma Chlordane	--	
Toxaphene	ND	1
Kepone	--	
Alachlor	--	
Metolachlor	--	
Methyl Parathion	--	
Parathion	--	

NOTE: ND (None Detected) as rec'd  
-- (Not Analyzed)



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : Wadsworth/Alert Laboratories, Inc.  
LABORATORY ID : 9090-90215  
SAMPLE MATRIX : WATER

RECEIVING DATE : 2/15/90

SAMPLE ID : INTRA-LAB BLANK , 2/15/90

**METALS ANALYTICAL BLANK REPORT  
SELECTED LIST**

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ELEMENT	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT
Silver	2/15- 2/21/90	ND	50 ug/L
Arsenic	2/15- 2/16/90	ND	10 ug/L
Beryllium	2/15- 2/20/90	ND	50 ug/L
Cadmium	2/15- 2/20/90	ND	10 ug/L
Chromium	2/15- 2/20/90	ND	50 ug/L
Copper	2/15- 2/20/90	ND	200 ug/L
Iron	2/15- 2/20/90	ND	300 ug/L
Mercury	2/15- 2/20/90	ND	2 ug/L
Manganese	2/15- 2/20/90	ND	50 ug/L
Sodium	2/15- 2/20/90	220	50 ug/L
Nickel	2/15- 2/20/90	ND	50 ug/L
Antimony	2/15- 2/20/90	ND	1000 ug/L
Selenium	2/15- 2/16/90	ND	5 ug/L
Thallium	2/15- 2/19/90	ND	10 ug/L
Zinc	2/15- 2/16/90	ND	50 ug/L

ND - NONE DETECTED



WADSWORTH/ALERT  
LABORATORIES, INC.

COMPANY : Wadsworth/Alert Laboratories  
LAB #: 9090-90215  
MATRIX: WATER

DATE RECEIVED: 2/15/90  
DATE EXTRACTED: 2/15/90  
DATE ANALYZED: 2/19/90

SAMPLE ID: INTRA-LAB BLANK , 2/15/90

POLYCHLORINATED BIPHENYLS  
ANALYTICAL BLANK REPORT

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PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND
PCB-1262	--

NOTE: ND (None Detected, lower detectable limit = 1 ug/L) as rec'd  
ND\* (None Detected, lower detectable limit = ug/L) as rec'd  
-- (Not Analyzed)