

GW - 28

REPORTS

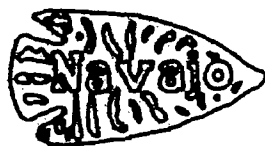
YEAR(S):

1995

2022

VOLUME II
RCRA FACILITY INVESTIGATION
THREE-MILE DITCH & EVAPORATION PONDS
PHASE III REPORT
NAVAJO REFINERY
ARTESIA, NEW MEXICO

Topical Report RSI-0611



RECEIVED

JUN 08 1995

Environmental Bureau
Oil Conservation Division

prepared for

Navajo Refining Company
501 East Main Street
Artesia, New Mexico 88210

April 1995



RE/SPEC Inc.

APPENDIX D
(continued)

RFI Phase III Laboratory Analytical Data Reports



CHAIN OF CUSTODY RECORD

[illegible]

EPA Method 8240
VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: Trip Blank
Laboratory ID: 0694G02152
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 11/18/94
Date Sampled: NA
Date Received: 11/14/94
Date Extracted: 11/18/94
Date Analyzed: 11/18/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

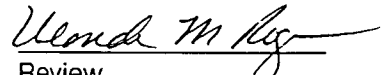
ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Dibromofluoromethane	101%	86 - 118%
	Toluene - d8	98%	88 - 110%
	Bromofluorobenzene	88%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

METHOD 8240

QUALITY CONTROL REPORTS

- * *Method Blank Analyses*
- * *Matrix Spike/Matrix Spike Duplicate Analyses*
- * *Duplicate Analyses*

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1110
Sample Matrix: Water

Report Date: 11/10/94
Date Extracted: 11/10/94
Date Analyzed: 11/10/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	0.035	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1110
Sample Matrix: Water

Report Date: 11/10/94
Date Sampled: 11/10/94
Date Analyzed: 11/10/94

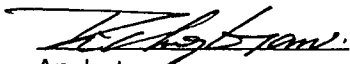
Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

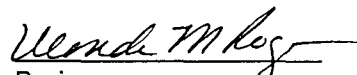
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	102%	86 - 118%
	Toluene - d8	101%	88 - 110%
	Bromofluorobenzene	104%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.
Methylene chloride is a common laboratory contaminant. Analytical results should not be
considered reliable unless the sample results are 5 times the reporting limit or 10 times
the blank concentration.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1111
Sample Matrix: Water

Report Date: 11/11/94
Date Extracted: 11/11/94
Date Analyzed: 11/11/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1111
Sample Matrix: Water

Report Date: 11/11/94
Date Sampled: 11/11/94
Date Analyzed: 11/11/94

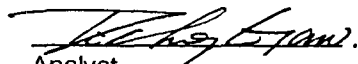
Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

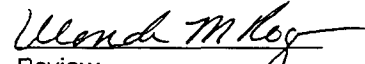
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Dibromofluoromethane	99%	86 - 118%
	Toluene - d8	99%	88 - 110%
	Bromofluorobenzene	99%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1114
Sample Matrix: Water

Report Date: 11/14/94
Date Extracted: 11/14/94
Date Analyzed: 11/14/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1114
Sample Matrix: Water

Report Date: 11/14/94
Date Sampled: 11/14/94
Date Analyzed: 11/14/94

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

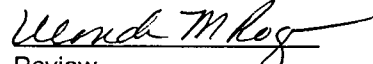
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Dibromofluoromethane	99%	86 - 118%
	Toluene - d8	100%	88 - 110%
	Bromofluorobenzene	98%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1115
Sample Matrix: Water

Report Date: 11/15/94
Date Extracted: 11/15/94
Date Analyzed: 11/15/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	38	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1115
Sample Matrix: Water

Report Date: 11/15/94
Date Sampled: 11/15/94
Date Analyzed: 11/15/94

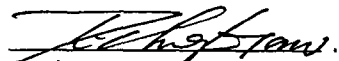
Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	100%	86 - 118%
	Toluene - d8	100%	88 - 110%
	Bromofluorobenzene	97%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.
Methylene chloride is a common laboratory contaminant. Analytical results should not be
considered reliable unless the sample results are 5 times the reporting limit or 10 times
the blank concentration.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1116
Sample Matrix: Water

Report Date: 11/16/94
Date Extracted: 11/16/94
Date Analyzed: 11/16/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	0.006	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1116
Sample Matrix: Water

Report Date: 11/16/94
Date Sampled: 11/16/94
Date Analyzed: 11/16/94

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	117%	86 - 118%
	Toluene - d8	95%	88 - 110%
	Bromofluorobenzene	108%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.
Methylene chloride is a common laboratory contaminant. Analytical results should not be
considered reliable unless the sample results are 5 times the reporting limit or 10 times
the blank concentration.

Analyst

Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1117
Sample Matrix: Water

Report Date: 11/17/94
Date Extracted: 11/17/94
Date Analyzed: 11/17/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1117
Sample Matrix: Water

Report Date: 11/17/94
Date Sampled: 11/17/94
Date Analyzed: 11/17/94

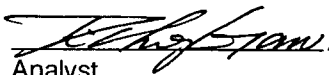
Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

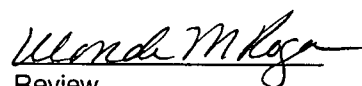
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Dibromofluoromethane	101%	86 - 118%
	Toluene - d8	101%	88 - 110%
	Bromofluorobenzene	103%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846. Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1118
Sample Matrix: Water

Report Date: 11/18/94
Date Extracted: 11/18/94
Date Analyzed: 11/18/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1118
Sample Matrix: Water

Report Date: 11/18/94
Date Sampled: 11/18/94
Date Analyzed: 11/18/94

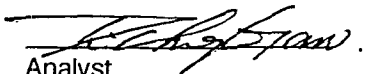
Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

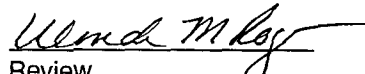
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	101%	86 - 118%
	Toluene - d8	98%	88 - 110%
	Bromofluorobenzene	95%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1121
Sample Matrix: Water

Report Date: 11/21/94
Date Extracted: 11/21/94
Date Analyzed: 11/21/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1121
Sample Matrix: Water

Report Date: 11/21/94
Date Sampled: 11/21/94
Date Analyzed: 11/21/94

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

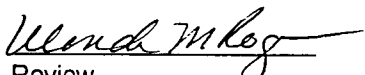
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Dibromofluoromethane	99%	86 - 118%
	Toluene - d8	98%	88 - 110%
	Bromofluorobenzene	98%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1122
Sample Matrix: Water

Report Date: 11/22/94
Date Extracted: 11/22/94
Date Analyzed: 11/22/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1122
Sample Matrix: Water

Report Date: 11/22/94
Date Sampled: 11/22/94
Date Analyzed: 11/22/94

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

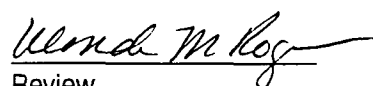
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	102%	86 - 118%
	Toluene - d8	103%	88 - 110%
	Bromofluorobenzene	95%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1123
Sample Matrix: Water

Report Date: 11/23/94
Date Extracted: 11/23/94
Date Analyzed: 11/23/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	0.017	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB1123
Sample Matrix: Water

Report Date: 11/23/94
Date Sampled: 11/23/94
Date Analyzed: 11/23/94

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

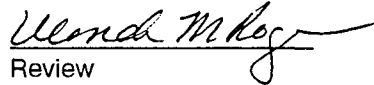
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	101%	86 - 118%
	Toluene - d8	102%	88 - 110%
	Bromofluorobenzene	97%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.
Methylene chloride is a common laboratory contaminant. Analytical results should not be
considered reliable unless the sample results are 5 times the reporting limit or 10 times
the blank concentration.


Analyst


Review

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS**EPA Method 8240 - VOLATILE ORGANICS**

Laboratory ID: 0694G02055
 Sample Matrix: Water
 Preservative: Cool, HCl
 Condition: Intact, pH<2

Report Date: 11/10/94
 Date Sampled: 11/04/94
 Date Received: 11/05/94
 Date Analyzed: 11/10/94

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.086	ND	0.100	86%	50 - 150
Carbon disulfide	0.105	ND	0.100	105%	50 - 150
Benzene	0.099	ND	0.100	99%	76 - 127
Ethylbenzene	0.097	ND	0.100	97%	37 - 162
Toluene	0.098	ND	0.100	98%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits	
					RPD	Rec.
Methyl Ethyl ketone	0.094	94%	86%	9%	15%	50 - 150
Carbon disulfide	0.115	115%	105%	9%	15%	50 - 150
Benzene	0.109	109%	99%	10%	11%	76 - 127
Ethylbenzene	0.110	110%	97%	13%	15%	37 - 162
Toluene	0.108	108%	98%	10%	13%	76 - 125

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 out of 10 outside QC Limits
 RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	101%	100%	86 - 118
	Toluene-d8	102%	101%	88 - 110
	Bromofluorobenzene	99%	104%	86 - 115

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
 Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


 Analyst


 Review

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS**EPA Method 8240 - VOLATILE ORGANICS**

Laboratory ID: 0694G02078
 Sample Matrix: Water
 Preservative: Cool, HCl
 Condition: Intact, pH<2

Report Date: 11/11/94
 Date Sampled: 11/05/94
 Date Received: 11/08/94
 Date Analyzed: 11/11/94

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.094	ND	0.100	94%	50 - 150
Carbon disulfide	0.121	ND	0.100	121%	50 - 150
Benzene	0.126	ND	0.100	126%	76 - 127
Ethylbenzene	0.130	ND	0.100	130%	37 - 162
Toluene	0.123	ND	0.100	123%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits	
					RPD	Rec.
Methyl Ethyl ketone	0.095	95%	94%	1%	15%	50 - 150
Carbon disulfide	0.106	106%	121%	13%	15%	50 - 150
Benzene	0.126	126%	126%	0%	11%	76 - 127
Ethylbenzene	0.128	128%	130%	2%	15%	37 - 162
Toluene	0.124	124%	123%	1%	13%	76 - 125

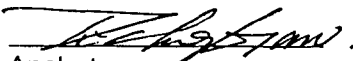
ND - Analyte not detected at stated limit of detection

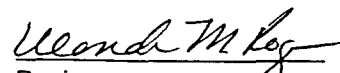
Spike Recovery: 0 out of 10 outside QC Limits
 RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	100%	100%	86 - 118
	Toluene-d8	99%	100%	88 - 110
	Bromofluorobenzene	96%	96%	86 - 115

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
 Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


 Analyst


 Review

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS**EPA Method 8240 - VOLATILE ORGANICS**

Laboratory ID: 0694G02090
 Sample Matrix: Water
 Preservative: Cool, HCl
 Condition: Intact, pH<2

Report Date: 11/14/94
 Date Sampled: 11/06/94
 Date Received: 11/09/94
 Date Analyzed: 11/14/94

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.104	ND	0.100	104%	50 - 150
Carbon disulfide	0.099	ND	0.100	99%	50 - 150
Benzene	0.108	ND	0.100	108%	76 - 127
Ethylbenzene	0.111	ND	0.100	111%	37 - 162
Toluene	0.108	ND	0.100	108%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits	
					RPD	Rec.
Methyl Ethyl ketone	0.107	107%	104%	3%	15%	50 - 150
Carbon disulfide	0.096	96%	99%	3%	15%	50 - 150
Benzene	0.103	103%	108%	5%	11%	76 - 127
Ethylbenzene	0.107	107%	111%	4%	15%	37 - 162
Toluene	0.105	105%	108%	3%	13%	76 - 125

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 out of 10 outside QC Limits
 RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	101%	100%	86 - 118
	Toluene-d8	97%	97%	88 - 110
	Bromofluorobenzene	98%	101%	86 - 115

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
 Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS
EPA Method 8240 - VOLATILE ORGANICS

Laboratory ID: 0694G02170
 Sample Matrix: Water
 Preservative: Cool, HCl
 Condition: Intact, pH<2

Report Date: 11/15/94
 Date Sampled: 11/14/94
 Date Received: 11/15/94
 Date Analyzed: 11/15/94

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.090	ND	0.100	90%	50 - 150
Carbon disulfide	0.091	ND	0.100	91%	50 - 150
Benzene	0.103	ND	0.100	103%	76 - 127
Ethylbenzene	0.104	ND	0.100	104%	37 - 162
Toluene	0.100	ND	0.100	100%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits RPD	Rec.
Methyl Ethyl ketone	0.092	92%	90%	2%	15%	50 - 150
Carbon disulfide	0.087	87%	91%	4%	15%	50 - 150
Benzene	0.103	103%	103%	0%	11%	76 - 127
Ethylbenzene	0.104	104%	104%	0%	15%	37 - 162
Toluene	0.100	100%	100%	0%	13%	76 - 125

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 out of 10 outside QC Limits
 RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	101%	101%	86 - 118
	Toluene-d8	98%	98%	88 - 110
	Bromofluorobenzene	96%	98%	86 - 115

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
 Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS**EPA Method 8240 - VOLATILE ORGANICS**

Laboratory ID: 0694G02112
 Sample Matrix: Water
 Preservative: Cool, HCl
 Condition: Intact, pH<2

Report Date: 11/18/94
 Date Sampled: 11/09/94
 Date Received: 11/10/94
 Date Analyzed: 11/18/94

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.090	ND	0.100	90%	50 - 150
Carbon disulfide	0.095	ND	0.100	95%	50 - 150
Benzene	0.101	ND	0.100	101%	76 - 127
Ethylbenzene	0.098	ND	0.100	98%	37 - 162
Toluene	0.100	ND	0.100	100%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits	
					RPD	Rec.
Methyl Ethyl ketone	0.087	87%	90%	3%	15%	50 - 150
Carbon disulfide	0.096	96%	95%	1%	15%	50 - 150
Benzene	0.098	98%	101%	3%	11%	76 - 127
Ethylbenzene	0.099	99%	98%	1%	15%	37 - 162
Toluene	0.098	98%	100%	2%	13%	76 - 125

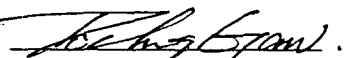
ND - Analyte not detected at stated limit of detection

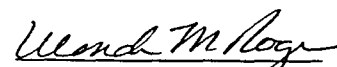
Spike Recovery: 0 out of 10 outside QC Limits
 RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	99%	100%	86 - 118
	Toluene-d8	98%	97%	88 - 110
	Bromofluorobenzene	87%	92%	86 - 115

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
 Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


 Analyst


 Review

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS
EPA Method 8240 - VOLATILE ORGANICS

Laboratory ID: 0694G02153
 Sample Matrix: Water
 Preservative: Cool, HCl
 Condition: Intact, pH<2

Report Date: 11/21/94
 Date Sampled: 11/10/94
 Date Received: 11/14/94
 Date Analyzed: 11/21/94

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.083	ND	0.100	83%	50 - 150
Carbon disulfide	0.083	ND	0.100	83%	50 - 150
Benzene	0.097	ND	0.100	97%	76 - 127
Ethylbenzene	0.096	ND	0.100	96%	37 - 162
Toluene	0.094	ND	0.100	94%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits	
					RPD	Rec.
Methyl Ethyl ketone	0.085	85%	83%	2%	15%	50 - 150
Carbon disulfide	0.084	84%	83%	1%	15%	50 - 150
Benzene	0.098	98%	97%	1%	11%	76 - 127
Ethylbenzene	0.099	99%	96%	3%	15%	37 - 162
Toluene	0.095	95%	94%	1%	13%	76 - 125

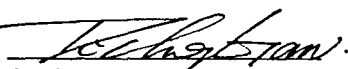
ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 out of 10 outside QC Limits
 RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	100%	99%	86 - 118
	Toluene-d8	95%	96%	88 - 110
	Bromofluorobenzene	90%	93%	86 - 115

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
 Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


 Analyst


 Review

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS**EPA Method 8240 - VOLATILE ORGANICS**

Laboratory ID: 0694G02159
 Sample Matrix: Water
 Preservative: Cool, HCl
 Condition: Intact, pH<2

Report Date: 11/22/94
 Date Sampled: 11/11/94
 Date Received: 11/14/94
 Date Analyzed: 11/22/94

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.100	ND	0.100	100%	50 - 150
Carbon disulfide	0.091	ND	0.100	91%	50 - 150
Benzene	0.097	ND	0.100	97%	76 - 127
Ethylbenzene	0.098	ND	0.100	98%	37 - 162
Toluene	0.097	ND	0.100	97%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits	
					RPD	Rec.
Methyl Ethyl ketone	0.096	96%	100%	4%	15%	50 - 150
Carbon disulfide	0.095	95%	91%	4%	15%	50 - 150
Benzene	0.101	101%	97%	4%	11%	76 - 127
Ethylbenzene	0.101	101%	98%	3%	15%	37 - 162
Toluene	0.100	100%	97%	3%	13%	76 - 125

ND - Analyte not detected at stated limit of detection

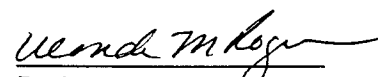
Spike Recovery: 0 out of 10 outside QC Limits
 RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	101%	102%	86 - 118
	Toluene-d8	100%	101%	88 - 110
	Bromofluorobenzene	103%	99%	86 - 115

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
 Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


 Analyst


 Review

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS**EPA Method 8240 - VOLATILE ORGANICS**

Laboratory ID: 0694G02146
 Sample Matrix: Soil
 Preservative: Cool
 Condition: Intact

Report Date: 11/23/94
 Date Sampled: 11/11/94
 Date Received: 11/14/94
 Date Analyzed: 11/23/94

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/Kg)	Sample Result (mg/Kg)	Spike Added (mg/Kg)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.060	ND	0.120	50%	25 - 150
Carbon disulfide	0.109	ND	0.120	91%	50 - 150
Benzene	0.108	ND	0.120	90%	76 - 127
Ethylbenzene	0.109	ND	0.120	91%	37 - 162
Toluene	0.106	ND	0.120	88%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/Kg)	Percent Recovery	Original Spike Result (mg/Kg)	RPD	QC Limits	
					RPD	Rec.
Methyl Ethyl ketone	0.060	51%	50%	2%	20%	25 - 150
Carbon disulfide	0.121	99%	91%	9%	20%	50 - 150
Benzene	0.118	97%	90%	7%	21%	76 - 127
Ethylbenzene	0.118	97%	91%	7%	20%	37 - 162
Toluene	0.118	97%	88%	9%	21%	76 - 125

ND - Analyte not detected at stated limit of detection

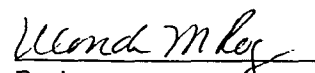
Spike Recovery: 0 out of 10 outside QC Limits
 RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	98%	100%	80 - 120%
	Toluene-d8	99%	99%	81 - 117%
	Bromofluorobenzene	89%	80%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
 Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


 Analyst


 Review

METHOD 8270

QUALITY CONTROL REPORTS

- * *Method Blank Analyses*
- * *Matrix Spike/Matrix Spike Duplicate Analyses*
- * *Duplicate Analyses*

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB 398
Sample Matrix: Water

Report Date: 11/10/94
Date Extracted: 11/09/94
Date Analyzed: 11/10/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Page 2

Sample ID: Method Blank
Laboratory ID: MB 398Report Date: 11/10/94
Date Analyzed: 11/10/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methyl naphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB 398Report Date: 11/10/94
Date Analyzed: 11/10/94

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	57%	21 - 110%
Phenol - d5	52%	10 - 110%
Nitrobenzene - d5	58%	35 - 114%
2 - Fluorobiphenyl	67%	43 - 116%
2,4,6 - Tribromophenol	71%	10 - 123%
Terphenyl - d14	90%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wanda M. Log
Review

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
 Laboratory ID: MB402
 Sample Matrix: Water

Report Date: 11/13/94
 Date Extracted: 11/10/94
 Date Analyzed: 11/11/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Page 2

Sample ID: Method Blank
Laboratory ID: MB402Report Date: 11/13/94
Date Analyzed: 11/11/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methyl naphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB402Report Date: 11/13/94
Date Analyzed: 11/11/94

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

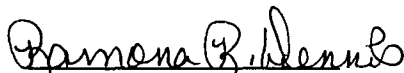
Quality Control:

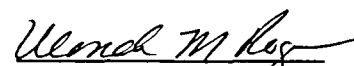
<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	57%	21 - 110%
Phenol - d5	52%	10 - 110%
Nitrobenzene - d5	58%	35 - 114%
2 - Fluorobiphenyl	67%	43 - 116%
2,4,6 - Tribromophenol	71%	10 - 123%
Terphenyl - d14	90%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB403
Sample Matrix: Water

Report Date: 11/13/94
Date Extracted: 11/12/94
Date Analyzed: 11/13/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Page 2

Sample ID: Method Blank
Laboratory ID: MB403Report Date: 11/13/94
Date Analyzed: 11/13/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methyl naphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB403Report Date: 11/13/94
Date Analyzed: 11/13/94

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	59%	21 - 110%
Phenol - d5	56%	10 - 110%
Nitrobenzene - d5	57%	35 - 114%
2 - Fluorobiphenyl	68%	43 - 116%
2,4,6 - Tribromophenol	73%	10 - 123%
Terphenyl - d14	74%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Ulrich M. King
Review

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB411
Sample Matrix: Water

Report Date: 11/18/94
Date Extracted: 11/15/94
Date Analyzed: 11/17/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Page 2

Sample ID: Method Blank
Laboratory ID: MB411Report Date: 11/18/94
Date Analyzed: 11/17/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methyl-naphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB411Report Date: 11/18/94
Date Analyzed: 11/17/94

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	59%	21 - 110%
Phenol - d5	59%	10 - 110%
Nitrobenzene - d5	69%	35 - 114%
2 - Fluorobiphenyl	74%	43 - 116%
2,4,6 - Tribromophenol	68%	10 - 123%
Terphenyl - d14	83%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wanda M. King
Review

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB417
Sample Matrix: Water

Report Date: 11/20/94
Date Extracted: 11/16/94
Date Analyzed: 11/20/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Page 2

Sample ID: Method Blank
Laboratory ID: MB417Report Date: 11/20/94
Date Analyzed: 11/20/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methylnaphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB417Report Date: 11/20/94
Date Analyzed: 11/20/94

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

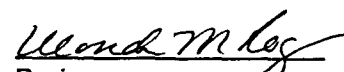
Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	59%	21 - 110%
Phenol - d5	64%	10 - 110%
Nitrobenzene - d5	57%	35 - 114%
2 - Fluorobiphenyl	62%	43 - 116%
2,4,6 - Tribromophenol	50%	10 - 123%
Terphenyl - d14	86%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK**EPA Method 8270****SEMIVOLATILE ORGANIC COMPOUNDS**

Sample ID: Method Blank
 Laboratory ID: MB422
 Sample Matrix: Water

Report Date: 11/21/94
 Date Extracted: 11/17/94
 Date Analyzed: 11/20/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Page 2

Sample ID: Method Blank
Laboratory ID: MB422Report Date: 11/21/94
Date Analyzed: 11/20/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methyl naphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB422

Report Date: 11/21/94
Date Analyzed: 11/20/94

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	48%	21 - 110%
Phenol - d5	46%	10 - 110%
Nitrobenzene - d5	46%	35 - 114%
2 - Fluorobiphenyl	41%	43 - 116%
2,4,6 - Tribromophenol	37%	10 - 123%
Terphenyl - d14	67%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wendy M. Bog
Review

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB425
Sample Matrix: Water

Report Date: 11/21/94
Date Extracted: 11/18/94
Date Analyzed: 11/21/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Page 2

Sample ID: Method Blank
Laboratory ID: MB425Report Date: 11/21/94
Date Analyzed: 11/21/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methyl-naphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB425Report Date: 11/21/94
Date Analyzed: 11/21/94

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	55%	21 - 110%
Phenol - d5	57%	10 - 110%
Nitrobenzene - d5	56%	35 - 114%
2 - Fluorobiphenyl	68%	43 - 116%
2,4,6 - Tribromophenol	59%	10 - 123%
Terphenyl - d14	71%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. DeLuca
Analyst

Ulrich M. Kog
Review

QUALITY CONTROL REPORT - METHOD BLANK**EPA Method 8270****SEMIVOLATILE ORGANIC COMPOUNDS**

Sample ID: Method Blank
 Laboratory ID: MB428
 Sample Matrix: Solid

Report Date: 11/23/94
 Date Extracted: 11/22/94
 Date Analyzed: 11/22/94

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.33
Acenaphthylene	ND	0.33
Anthracene	ND	0.33
Benzo(a)anthracene	ND	0.33
Benzo(b)fluoranthene	ND	0.33
Benzo(k)fluoranthene	ND	0.33
Benzo(g,h,i)perylene	ND	0.33
Benzo(a)pyrene	ND	0.33
Benzoic acid	ND	0.33
Benzyl alcohol	ND	0.33
Bis(2-chloroethoxy)methane	ND	0.33
Bis(2-chloroethyl)ether	ND	0.33
Bis(2-chloroisopropyl)ether	ND	0.33
Bis(2-ethylhexyl)phthalate	ND	0.83
4-Bromophenyl phenyl ether	ND	0.33
Butyl benzyl phthalate	ND	0.33
p - Chloroaniline	ND	0.33
p - Chloro - m - cresol	ND	0.33
2 - Chloronaphthalene	ND	0.33
2 - Chlorophenol	ND	0.33
4-Chlorophenyl phenyl ether	ND	0.33
Chrysene	ND	0.33
o - Cresol	ND	0.33
m,p - Cresol	ND	0.33
Di - n - butylphthalate	ND	0.83
Dibenz(a,h)anthracene	ND	0.33
Dibenzofuran	ND	0.33
o - Dichlorobenzene	ND	0.33
m - Dichlorobenzene	ND	0.33
p - Dichlorobenzene	ND	0.33
3,3 - Dichlorobenzidine	ND	0.33
2,4 - Dichlorophenol	ND	0.33
Diethyl phthalate	ND	0.33
2,4 - Dimethylphenol	ND	0.33
Dimethyl phthalate	ND	0.33

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Page 2

Sample ID: Method Blank
Laboratory ID: MB428Report Date: 11/23/94
Date Analyzed: 11/22/94

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
4,6 - Dinitro -2- methylphenol	ND	0.83
2,4 - Dinitrophenol	ND	0.83
2,4 - Dinitrotoluene	ND	0.33
2,6 - Dinitrotoluene	ND	0.33
Di-n-octyl phthalate	ND	0.83
Fluoranthene	ND	0.33
Fluorene	ND	0.33
Hexachlorobenzene	ND	0.33
Hexachlorocyclopentadiene	ND	0.83
Hexachloroethane	ND	0.33
Hexachlorobutadiene	ND	0.33
Ideno(1,2,3-cd)pyrene	ND	0.33
Isophorone	ND	0.33
2 - Methyl-naphthalene	ND	0.33
Naphthalene	ND	0.33
o - Nitroaniline	ND	0.33
m - Nitroaniline	ND	0.33
p - Nitroaniline	ND	0.33
Nitrobenzene	ND	0.33
o - Nitrophenol	ND	0.33
p - Nitrophenol	ND	0.33
n - Nitrosodimethylamine	ND	0.33
n - Nitrosodiphenylamine	ND	0.33
n-Nitroso-di-n-propylamine	ND	0.33
Pentachlorophenol	ND	0.83
Phenanthrene	ND	0.33
Phenol	ND	0.33
Pyrene	ND	0.33
1,2,4 - Trichlorobenzene	ND	0.33
2,4,5 - Trichlorophenol	ND	0.33
2,4,6 - Trichlorophenol	ND	0.33

ND - Analyte not detected at stated limit of detection

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB428

Report Date: 11/23/94
Date Analyzed: 11/22/94

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/Kg)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	44%	25 - 121%
Phenol - d5	43%	24 - 113%
Nitrobenzene - d5	47%	23 - 120%
2 - Fluorobiphenyl	52%	30 - 115%
2,4,6 - Tribromophenol	42%	19 - 122%
Terphenyl - d14	60%	18 - 137%

References:

Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wendy M. Bog
Review

QUALITY CONTROL REPORT - MATRIX SPIKE

3304 Longmire
College Station, Texas 77845

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Matrix Spike
 Laboratory ID: 0694G02083
 Sample Matrix: Water
 Condition: Intact
 Preservative: Cool

Report Date: 11/13/94
 Date Sampled: 11/05/94
 Date Received: 11/08/94
 Date Extracted: 11/10/94
 Date Analyzed: 11/11/94

Analyte	Spike Concentration (mg/L)	Sample Concentration (mg/L)	Spike Added (mg/L)	Percent Recovery (%)	QC Limits
Phenol	0.072	ND	0.150	48%	5 - 112%
2 - Chlorophenol	0.067	ND	0.150	45%	23 - 134%
1,4 - Dichlorobenzene	0.049	ND	0.100	49%	20 - 124%
n-Nitroso-di-propylamine	0.052	ND	0.100	52%	D - 230%
1,2,4 - Trichlorobenzene	0.051	ND	0.100	51%	44 - 142%
4-Chloro-3-methylphenol	0.090	ND	0.150	60%	22 - 147%
Acenaphthene	0.054	ND	0.100	54%	47 - 145%
4 - Nitrophenol	0.092	ND	0.150	61%	D - 132%
2,4 - Dinitrotoluene	0.056	ND	0.100	56%	39 - 139%
Pentachlorophenol	0.095	ND	0.150	63%	14 - 176%
Pyrene	0.066	ND	0.100	66%	52 - 115%

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 of 11 recoveries outside acceptable limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	50%	21 - 110%
Phenol - d6	54%	10 - 110%
Nitrobenzene - d5	59%	35 - 114%
2 - Fluorobiphenyl	58%	43 - 116%
2,4,6 - Tribromophenol	80%	10 - 123%
Terphenyl - d14	78%	33 - 141%

Reference: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
 Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
 Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments:

Ramona B. Dennis
 Analyst

Wanda M. Rogers
 Review

QUALITY CONTROL REPORT - MATRIX SPIKE

3304 Longmire
College Station, Texas 77845

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Matrix Spike
 Laboratory ID: 0694G02089
 Sample Matrix: Water
 Condition: Intact
 Preservative: Cool

Report Date: 11/14/94
 Date Sampled: 11/06/94
 Date Received: 11/09/94
 Date Extracted: 11/12/94
 Date Analyzed: 11/13/94

Analyte	Spike Concentration (mg/L)	Sample Concentration (mg/L)	Spike Added (mg/L)	Percent Recovery (%)	QC Limits
Phenol	0.054	ND	0.150	36%	5 - 112%
2 - Chlorophenol	0.053	ND	0.150	35%	23 - 134%
1,4 - Dichlorobenzene	0.038	ND	0.100	38%	20 - 124%
n-Nitroso-di-propylamine	0.037	ND	0.100	37%	D - 230%
1,2,4 - Trichlorobenzene	0.034	ND	0.100	34%	44 - 142%
4-Chloro-3-methylphenol	0.057	ND	0.150	38%	22 - 147%
Acenaphthene	0.040	ND	0.100	40%	47 - 145%
4 - Nitrophenol	0.050	ND	0.150	33%	D - 132%
2,4 - Dinitrotoluene	0.043	ND	0.100	43%	39 - 139%
Pentachlorophenol	0.061	ND	0.150	41%	14 - 176%
Pyrene	0.044	ND	0.100	44%	52 - 115%

ND - Analyte not detected at stated limit of detection

Spike Recovery: 3 of 11 recoveries outside acceptable limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	30%	21 - 110%
Phenol - d6	34%	10 - 110%
Nitrobenzene - d5	38%	35 - 114%
2 - Fluorobiphenyl	46%	43 - 116%
2,4,6 - Tribromophenol	49%	10 - 123%
Terphenyl - d14	48%	33 - 141%

Reference:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
 Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
 Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
 Analyst

Wanda M. Kog
 Review

QUALITY CONTROL REPORT - MATRIX SPIKE

3304 Longmire
College Station, Texas 77845

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Matrix Spike
 Laboratory ID: 0694G02113
 Sample Matrix: Water
 Condition: Intact
 Preservative: Cool

Report Date: 11/20/94
 Date Sampled: 11/09/94
 Date Received: 11/10/94
 Date Extracted: 11/15/94
 Date Analyzed: 11/20/94

Analyte	Spike Concentration (mg/L)	Sample Concentration (mg/L)	Spike Added (mg/L)	Percent Recovery (%)	QC Limits
Phenol	0.070	ND	0.150	47%	5 - 112%
2 - Chlorophenol	0.075	ND	0.150	50%	23 - 134%
1,4 - Dichlorobenzene	0.048	ND	0.100	48%	20 - 124%
n-Nitroso-di-propylamine	0.046	ND	0.100	46%	D - 230%
1,2,4 - Trichlorobenzene	0.053	ND	0.100	53%	44 - 142%
4-Chloro-3-methylphenol	0.089	ND	0.150	59%	22 - 147%
Acenaphthene	0.066	ND	0.100	66%	47 - 145%
4 - Nitrophenol	0.101	ND	0.150	67%	D - 132%
2,4 - Dinitrotoluene	0.055	ND	0.100	55%	39 - 139%
Pentachlorophenol	0.000	ND	0.150	0%	14 - 176%
Pyrene	0.076	ND	0.100	76%	52 - 115%

ND - Analyte not detected at stated limit of detection

Spike Recovery: 1 of 11 recoveries outside acceptable limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	32%	21 - 110%
Phenol - d6	43%	10 - 110%
Nitrobenzene - d5	46%	35 - 114%
2 - Fluorobiphenyl	66%	43 - 116%
2,4,6 - Tribromophenol	50%	10 - 123%
Terphenyl - d14	73%	33 - 141%

Reference: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
 Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
 Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments:

Ramona R. Nunn
 Analyst

Wanda M. King
 Review

QUALITY CONTROL REPORT - MATRIX SPIKE

3304 Longmire
College Station, Texas 77845

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Matrix Spike
 Laboratory ID: 0694G02145
 Sample Matrix: Soil
 Condition: Intact
 Preservative: Cool

Report Date: 11/23/94
 Date Sampled: 11/11/94
 Date Received: 11/14/94
 Date Extracted: 11/22/94
 Date Analyzed: 11/23/94

Analyte	Spike Concentration (mg/Kg)	Sample Concentration (mg/Kg)	Spike Added (mg/Kg)	Percent Recovery (%)	QC Limits
Phenol	3.45	ND	5.00	69%	5 - 112%
2 - Chlorophenol	2.63	ND	5.00	53%	23 - 134%
1,4 - Dichlorobenzene	1.21	ND	3.33	36%	20 - 124%
n-Nitroso-di-propylamine	1.47	ND	3.33	44%	D - 230%
1,2,4 - Trichlorobenzene	1.34	ND	3.33	40%	44 - 142%
4-Chloro-3-methylphenol	3.48	ND	5.00	70%	22 - 147%
Acenaphthene	1.56	ND	3.33	47%	47 - 145%
4 - Nitrophenol	4.54	ND	5.00	91%	D - 132%
2,4 - Dinitrotoluene	1.63	ND	3.33	49%	39 - 139%
Pentachlorophenol	3.91	ND	5.00	78%	14 - 176%
Pyrene	1.60	ND	3.33	48%	52 - 115%

ND - Analyte not detected at stated limit of detection

Spike Recovery: 1 of 11 recoveries outside acceptable limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	53%	25 - 121%
Phenol - d6	53%	24 - 113%
Nitrobenzene - d5	63%	23 - 120%
2 - Fluorobiphenyl	68%	30 - 115%
2,4,6 - Tribromophenol	88%	19 - 122%
Terphenyl - d14	74%	18 - 137%

Reference: Method 3550: Sonication Extraction.
 Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
 Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
 Analyst

Wanda M. Logg
 Review

QUALITY CONTROL REPORT - MATRIX SPIKE

3304 Longmore
College Station, Texas 77845

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Matrix Spike
 Laboratory ID: 0694G02153
 Sample Matrix: Water
 Condition: Intact
 Preservative: Cool

Report Date: 11/21/94
 Date Sampled: 11/10/94
 Date Received: 11/14/94
 Date Extracted: 11/17/94
 Date Analyzed: 11/20/94

Analyte	Spike Concentration (mg/L)	Sample Concentration (mg/L)	Spike Added (mg/L)	Percent Recovery (%)	QC Limits
Phenol	0.070	ND	0.150	47%	5 - 112%
2 - Chlorophenol	0.069	ND	0.150	46%	23 - 134%
1,4 - Dichlorobenzene	0.051	ND	0.100	51%	20 - 124%
n-Nitroso-di-propylamine	0.063	ND	0.100	63%	D - 230%
1,2,4 - Trichlorobenzene	0.058	ND	0.100	58%	44 - 142%
4-Chloro-3-methylphenol	0.084	ND	0.150	56%	22 - 147%
Acenaphthene	0.060	ND	0.100	60%	47 - 145%
4 - Nitrophenol	0.099	ND	0.150	66%	D - 132%
2,4 - Dinitrotoluene	0.073	ND	0.100	73%	39 - 139%
Pentachlorophenol	0.028	ND	0.150	19%	14 - 176%
Pyrene	0.073	ND	0.100	73%	52 - 115%

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 of 11 recoveries outside acceptable limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	46%	21 - 110%
Phenol - d6	50%	10 - 110%
Nitrobenzene - d5	57%	35 - 114%
2 - Fluorobiphenyl	63%	43 - 116%
2,4,6 - Tribromophenol	59%	10 - 123%
Terphenyl - d14	74%	33 - 141%

Reference:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
 Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
 Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
 Analyst

Wanda M. Key
 Review

QUALITY CONTROL REPORT - BLANK SPIKE

3304 Longmire
College Station, Texas 77845

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Blank Spike
 Laboratory ID: DI SPK 397
 Sample Matrix: Reagent Water

Report Date: 11/10/94
 Date Extracted: 11/09/94
 Date Analyzed: 11/10/94

Analyte	Spike Conc. (mg/L)	Blank Conc. (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits
Phenol	0.080	ND	0.150	53%	5 - 112%
2 - Chlorophenol	0.074	ND	0.150	49%	23 - 134%
1,4 - Dichlorobenzene	0.056	ND	0.100	56%	20 - 124%
n-Nitroso-di-propylamine	0.068	ND	0.100	68%	D - 230%
1,2,4 - Trichlorobenzene	0.064	ND	0.100	64%	44 - 142%
4-Chloro-3-methylphenol	0.101	ND	0.150	67%	22 - 147%
Acenaphthene	0.064	ND	0.100	64%	47 - 145%
4 - Nitrophenol	0.104	ND	0.150	69%	D - 132%
2,4 - Dinitrotoluene	0.074	ND	0.100	74%	39 - 139%
Pentachlorophenol	0.094	ND	0.150	63%	14 - 176%
Pyrene	0.073	ND	0.100	73%	52 - 115%

ND - Analyte not detected at stated limit of detection.

Spike Recovery: 0 of 11 spike recoveries outside QC limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	62%	21 - 110 %
Phenol - d6	57%	10 - 110 %
Nitrobenzene - d5	59%	35 - 114 %
2 - Fluorobiphenyl	69%	43 - 116 %
2,4,6 - Tribromoph	86%	10 - 123 %
Terphenyl - d14	81%	33 - 141 %

Reference: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
 Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
 Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Ramona R. Dennis
 Analyst

Wendy M. Logg
 Review

QUALITY CONTROL REPORT - BLANK SPIKE

3304 Longmire
College Station, Texas 77845

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Blank Spike
 Laboratory ID: DI SPK 418
 Sample Matrix: Reagent Water

Report Date: 11/21/94
 Date Extracted: 11/16/94
 Date Analyzed: 11/20/94

Analyte	Spike Conc. (mg/L)	Blank Conc. (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits
Phenol	0.072	ND	0.150	48%	5 - 112%
2 - Chlorophenol	0.071	ND	0.150	47%	23 - 134%
1,4 - Dichlorobenzene	0.050	ND	0.100	50%	20 - 124%
n-Nitroso-di-propylamine	0.047	ND	0.100	47%	D - 230%
1,2,4 - Trichlorobenzene	0.047	ND	0.100	47%	44 - 142%
4-Chloro-3-methylphenol	0.081	ND	0.150	54%	22 - 147%
Acenaphthene	0.055	ND	0.100	55%	47 - 145%
4 - Nitrophenol	0.104	ND	0.150	69%	D - 132%
2,4 - Dinitrotoluene	0.066	ND	0.100	66%	39 - 139%
Pentachlorophenol	0.012	ND	0.150	8%	14 - 176%
Pyrene	0.074	ND	0.100	74%	52 - 115%

ND - Analyte not detected at stated limit of detection.

Spike Recovery: 1 of 11 spike recoveries outside QC limits.

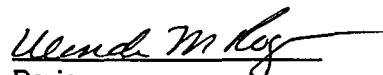
Quality Control:

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	50%	21 - 110 %
Phenol - d6	46%	10 - 110 %
Nitrobenzene - d5	50%	35 - 114 %
2 - Fluorobiphenyl	53%	43 - 116 %
2,4,6 - Tribromoph	58%	10 - 123 %
Terphenyl - d14	74%	33 - 141 %

Reference:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
 Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
 Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.


 Analyst


 Review

QUALITY CONTROL REPORT - BLANK SPIKE

3304 Longmire
College Station, Texas 77845

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Blank Spike
 Laboratory ID: DI SPK 427
 Sample Matrix: Solid

Report Date: 11/28/94
 Date Extracted: 11/22/94
 Date Analyzed: 11/23/94

Analyte	Spike Conc. (mg/Kg)	Blank Conc. (mg/Kg)	Spike Added (mg/Kg)	Percent Recovery	QC Limits
Phenol	3.99	ND	4.98	80%	5 - 112%
2 - Chlorophenol	3.57	ND	4.98	72%	23 - 134%
1,4 - Dichlorobenzene	1.63	ND	3.32	49%	20 - 124%
n-Nitroso-di-propylamine	1.89	ND	3.32	57%	D - 230%
1,2,4 - Trichlorobenzene	1.58	ND	3.32	48%	44 - 142%
4-Chloro-3-methylphenol	4.44	ND	4.98	89%	22 - 147%
Acenaphthene	1.67	ND	3.32	50%	47 - 145%
4 - Nitrophenol	4.57	ND	4.98	92%	D - 132%
2,4 - Dinitrotoluene	2.07	ND	3.32	62%	39 - 139%
Pentachlorophenol	3.56	ND	4.98	71%	14 - 176%
Pyrene	1.99	ND	3.32	60%	52 - 115%

ND - Analyte not detected at stated limit of detection.

Spike Recovery: 0 of 11 spike recoveries outside QC limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	61%	21 - 110 %
Phenol - d6	65%	10 - 110 %
Nitrobenzene - d5	65%	35 - 114 %
2 - Fluorobiphenyl	73%	43 - 116 %
2,4,6 - Tribromoph	73%	10 - 123 %
Terphenyl - d14	87%	33 - 141 %

Reference: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
 Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
 Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
 Environmental Protection Agency, July 1992.

Samana R. Dennis
 Analyst

Wanda M. Rogers
 Review

METALS and GENERAL CHEMISTRY

QUALITY CONTROL REPORTS

- * *Method Blank Analyses***
- * *Matrix Spike/Matrix Spike Duplicate Analyses***
- * *Duplicate Analyses***

QUALITY CONTROL REPORT
METHOD BLANK**CLIENT:** Navajo Refining Co.
PROJECT: RFI Phase III / Artesia, NM**Sample ID:** Blank 11109401
Sample Matrix: Water**Report Date:** 12/13/94

Analyte	Concentration	Units	Detection Limit	Method Reference
Dissolved Arsenic	ND	mg/L	0.005	SW-846 7061A
Dissolved Chromium	ND	mg/L	0.02	SW-846 6010A
Dissolved Lead	ND	mg/L	0.01	SW-846 7421
Dissolved Nickel	ND	mg/L	0.01	SW-846 6010A
Total Arsenic	ND	mg/L	0.005	SW-846 7061A
Total Chromium	0.04	mg/L	0.02	SW-846 6010A
Total Lead	ND	mg/L	0.01	SW-846 7421
Total Nickel	ND	mg/L	0.01	SW-846 6010A

ND - Parameter not detected at stated detection limit.

Detection limits are derived from practical quantitation levels.

Reference: SW-846-"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
US EPA, Third Edition, Final Update 1, July 1993.

Reviewed by:

David N. Poelstra
Laboratory Manager

QUALITY CONTROL REPORT
METHOD BLANK**CLIENT:** Navajo Refining Co.
PROJECT: RFI Phase III / Artesia, NM**Sample ID:** Blank 11299401
Sample Matrix: Water**Report Date:** 12/13/94

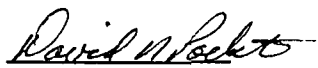
Analyte	Concentration	Units	Detection Limit	Method Reference
Dissolved Arsenic	ND	mg/L	0.005	SW-846 7061A
Dissolved Chromium	ND	mg/L	0.02	SW-846 6010A
Dissolved Lead	ND	mg/L	0.01	SW-846 7421
Dissolved Nickel	ND	mg/L	0.01	SW-846 6010A
Total Arsenic	ND	mg/L	0.005	SW-846 7061A
Total Chromium	ND	mg/L	0.02	SW-846 6010A
Total Lead	ND	mg/L	0.01	SW-846 7421
Total Nickel	ND	mg/L	0.01	SW-846 6010A

ND - Parameter not detected at stated detection limit.

Detection limits are derived from practical quantitation levels.

Reference: SW-846-"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
US EPA, Third Edition, Final Update 1, July 1993.

Reviewed by:

David N. Poelstra
Laboratory Manager

QUALITY CONTROL REPORT
METHOD BLANK**CLIENT:** Navajo Refining Co.
PROJECT: RFI Phase III / Artesia, NM**Sample ID:** Blank 11299403
Sample Matrix: Water**Report Date:** 12/13/94

Analyte	Concentration	Units	Detection Limit	Method Reference
Dissolved Arsenic	ND	mg/L	0.005	SW-846 7061A
Dissolved Chromium	ND	mg/L	0.02	SW-846 6010A
Dissolved Lead	ND	mg/L	0.01	SW-846 7421
Dissolved Nickel	ND	mg/L	0.01	SW-846 6010A
Total Arsenic	ND	mg/L	0.005	SW-846 7061A
Total Chromium	ND	mg/L	0.02	SW-846 6010A
Total Lead	ND	mg/L	0.01	SW-846 7421
Total Nickel	ND	mg/L	0.01	SW-846 6010A

ND - Parameter not detected at stated detection limit.

Detection limits are derived from practical quantitation levels.

Reference: SW-846-"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
US EPA, Third Edition, Final Update 1, July 1993.

Reviewed by:

David N. Poelstra
Laboratory Manager

QUALITY CONTROL REPORT
METHOD BLANK

CLIENT: Navajo Refining Co.
PROJECT: RFI Phase III / Artesia, NM

Sample ID: Blank 11299402
Sample Matrix: Water

Report Date: 12/13/94

Analyte	Concentration	Units	Detection Limit	Method Reference
Dissolved Arsenic	ND	mg/L	0.005	SW-846 7061A
Dissolved Chromium	ND	mg/L	0.02	SW-846 6010A
Dissolved Lead	ND	mg/L	0.01	SW-846 7421
Dissolved Nickel	ND	mg/L	0.01	SW-846 6010A
Total Arsenic	ND	mg/L	0.005	SW-846 7061A
Total Chromium	ND	mg/L	0.02	SW-846 6010A
Total Lead	ND	mg/L	0.01	SW-846 7421
Total Nickel	ND	mg/L	0.01	SW-846 6010A

ND - Parameter not detected at stated detection limit.

Detection limits are derived from practical quantitation levels.

Reference: SW-846-"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
US EPA, Third Edition, Final Update 1, July 1993.

Reviewed by:



David N. Poelstra
Laboratory Manager

QUALITY CONTROL REPORT
MATRIX SPIKE

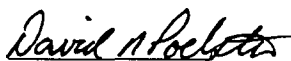
Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: MW-8
Lab ID: 0494W10018
Matrix: Water
Condition: Intact

Report Date: 12/13/94
Receipt Date: 11/07/94
Sample Date: 11/04/94

Analyte	Unspiked Sample Concentration (mg/L)	Spiked Sample Concentration (mg/L)	Spike Amount (mg/L)	Percent Recovery
Dissolved Arsenic	ND	0.012	0.010	120
Dissolved Chromium	0.06	1.01	1.00	95
Dissolved Lead	ND	0.20	0.25	80
Dissolved Nickel	0.50	1.40	1.00	90
Total Arsenic	0.026	0.0	0.010	100
Total Chromium	7.56	8.37	1.00	81
Total Lead	ND	0.20	0.25	80
Total Nickel	1.32	2.21	1.00	89

Reference: SW-846-"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
US EPA, Third Edition, Final Update 1, July 1993.

Reviewed by:



David N. Poelstra
Laboratory Manager

QUALITY CONTROL REPORT
MATRIX SPIKE

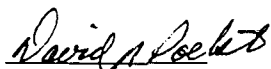
Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: OCD-5
Lab ID: 0494W10128
Matrix: Water
Condition: Intact

Report Date: 12/13/94
Receipt Date: 11/10/94
Sample Date: 11/06/94

Analyte	Unspiked Sample Concentration (mg/L)	Spiked Sample Concentration (mg/L)	Spike Amount (mg/L)	Percent Recovery
Dissolved Arsenic	0.008	0.019	0.010	110
Dissolved Chromium	ND	1.04	1.00	104
Dissolved Lead	ND	0.09	0.10	90
Dissolved Nickel	ND	1.03	1.00	103
Total Arsenic	0.037	0.045	0.010	80
Total Chromium	0.03	1.01	1.00	98
Total Lead	0.02	0.11	0.10	90
Total Nickel	0.02	1.01	1.00	99

Reference: SW-846-"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
US EPA, Third Edition, Final Update 1, July 1993.

Reviewed by:



David N. Poelstra
Laboratory Manager

QUALITY CONTROL REPORT
MATRIX SPIKE

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: EQUIP BLK 6
Lab ID: 0494W10209/0694G02109
Matrix: Water
Condition: Intact

Report Date: 12/13/94
Receipt Date: 11/10/94
Sample Date: 11/08/94

Analyte	Unspiked Sample Concentration (mg/L)	Spiked Sample Concentration (mg/L)	Spike Amount (mg/L)	Percent Recovery
Total Arsenic	ND	0.012	0.010	120
Total Chromium	ND	0.95	1.00	95
Total Lead	ND	0.10	0.10	100
Total Nickel	ND	0.93	1.00	93

Reference: SW-846-"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
US EPA, Third Edition, Final Update 1, July 1993.

Reviewed by:



David N. Poelstra
Laboratory Manager

QUALITY CONTROL REPORT
MATRIX SPIKE

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: NPR-RW-2
Lab ID: 0494W10215/0694G02148
Matrix: Water
Condition: Intact

Report Date: 12/13/94
Receipt Date: 11/15/94
Sample Date: 11/11/94

Analyte	Unspiked Sample Concentration (mg/L)	Spiked Sample Concentration (mg/L)	Spike Amount (mg/L)	Percent Recovery
Total Arsenic	ND	0.011	0.010	110
Total Chromium	ND	0.91	1.00	91
Total Lead	ND	0.09	0.10	90
Total Nickel	ND	0.89	1.00	89

Reference: SW-846-"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods
US EPA, Third Edition, Final Update 1, July 1993.

Reviewed by:



David N. Poelstra
Laboratory Manager



Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

11183 SH 30 College Station, Texas 77845

**Quality Control Report
Duplicate Analysis****Client:** Navajo Refining Co.**Project:** RFI Phase III**Sample ID:** MW-2A**Lab ID:** 0494W10191/0694G02081**Matrix:** Water**Condition:** Intact**Report Date:** 03/28/95**Receipt Date:** 11/10/94**Sample Date:** 11/05/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
pH (Lab)	7.1	7.1	0	0.1 s.u.	SW-846 9040
Conductivity (Lab)	10600	10600	0	1 μ mhos/cm	SW-846 9050
Total Dissolved Solids (180° C)	7620	7670	0	10 mg/L	EPA 160.1
Total Alkalinity (as CaCO ₃)	575	579	0	1 mg/L	EPA 310.1
Total Hardness (as CaCO ₃)	1730	1720	0	1 mg/L	Calculation
Fluoride	14.3	14.3	0	0.1 mg/L	EPA 340.2

Calcium	542	541	0	1 mg/L	SW-846 6010A
Magnesium	91	90	1	1 mg/L	SW-846 6010A
Potassium	10	10	0	1 mg/L	SW-846 6010A
Sodium	2100	2110	0	1 mg/L	SW-846 6010A
Bicarbonate	701	706	0	1 mg/L	EPA 310.1
Carbonate	ND*	ND*	NC*	1 mg/L	EPA 310.1
Chloride	1910	1910	0	1 mg/L	SW-846 9251
Sulfate	2610	2570	1	5 mg/L	SW-846 9036
Major Cation Sum	126.27	126.23	0	meq/L	Calculation
Major Anion Sum	119.53	118.83	0	meq/L	Calculation
Cation/Anion Balance	2.74	3.02		% Diff	Calculation

Total Metals					
Total Arsenic	0.156	0.158	1	0.005 mg/L	SW-846 7061A
Total Chromium	0.02	0.03	20	0.02 mg/L	SW-846 6010A
Total Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Total Nickel	0.03	0.03	0	0.01 mg/L	SW-846 6010A

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

David N. Poelstra
Laboratory Manager



Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

11183 S-H 30 College Station, Texas 77845

Quality Control Report Duplicate Analysis

Client: Navajo Refining Co.

Project: RFI Phase III

Sample ID: MW-2A

Lab ID: 0494W10191/0694G02081

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 11/10/94

Sample Date: 11/05/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
Dissolved Aluminum	ND*	ND*	NC*	0.1 mg/L	SW-846 6010A
Dissolved Antimony	ND*	ND*	NC*	0.1 mg/L	SW-846 6010A
Dissolved Arsenic	0.208	0.259	11	0.2 mg/L	SW-846 6010A
Dissolved Barium	ND*	ND*	NC*	0.05 mg/L	SW-846 6010A
Dissolved Beryllium	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A
Dissolved Boron	0.37	0.37	0	0.05 mg/L	SW-846 6010A
Dissolved Cadmium	ND*	0.03	NC*	0.02 mg/L	SW-846 6010A
Dissolved Chromium	ND*	ND*	NC*	0.02 mg/L	SW-846 6010A
Dissolved Cobalt	ND*	ND*	NC*	0.02 mg/L	SW-846 6010A
Dissolved Copper	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A
Dissolved Iron	4.72	4.59	1	0.05 mg/L	SW-846 6010A
Dissolved Lead	ND*	ND*	NC*	0.1 mg/L	SW-846 6010A
Dissolved Manganese	2.50	2.40	2	0.02 mg/L	SW-846 6010A
Dissolved Molybdenum	ND*	ND*	NC*	0.05 mg/L	SW-846 6010A
Dissolved Nickel	0.02	0.03	20	0.01 mg/L	SW-846 6010A
Dissolved Selenium	ND*	ND*	NC*	0.2 mg/L	SW-846 6010A
Dissolved Silica	20.97	20.94	0	0.05 mg/L	SW-846 6010A
Dissolved Silver	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A
Dissolved Thallium	ND*	ND*	NC*	0.2 mg/L	SW-846 6010A
Dissolved Vanadium	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A
Dissolved Zinc	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

David N. Poelstra
Laboratory Manager



Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

11183 SH 30 College Station, Texas 77845

Quality Control Report
Duplicate Analysis**Client:** Navajo Refining Co.**Project:** RFI Phase III / Artesia, NM**Sample ID:** MW-11A**Lab ID:** 0494W10130/0694G02090**Matrix:** Water**Condition:** Intact**Report Date:** 03/28/95**Receipt Date:** 11/10/94**Sample Date:** 11/06/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
pH (Lab)	7.1	7.1	0	0.1 s.u.	SW-846 9040
Conductivity (Lab)	27800	27800	0	1 µmhos/cm	SW-846 9050
Total Dissolved Solids (180° C)	19200	19200	0	10 mg/L	EPA 160.1
Total Alkalinity (as CaCO ₃)	334	336	0	1 mg/L	EPA 310.1
Total Hardness (as CaCO ₃)	4480	4580	1	1 mg/L	Calculation
Fluoride	0.8	0.8	0	0.1 mg/L	EPA 340.2

Calcium	1065	1106	2	1 mg/L	SW-846 6010A
Magnesium	442	441	0	1 mg/L	SW-846 6010A
Potassium	23	24	2	1 mg/L	SW-846 6010A
Sodium	4920	4800	1	1 mg/L	SW-846 6010A
Bicarbonate	407	409	0	1 mg/L	EPA 310.1
Carbonate	ND*	ND*	NC*	1 mg/L	EPA 310.1
Chloride	9260	9030	1	1 mg/L	SW-846 9251
Sulfate	1770	1760	0	5 mg/L	SW-846 9036
Major Cation Sum	303.94	301.02	0	meq/L	Calculation
Major Anion Sum	304.72	297.85	1	meq/L	Calculation
Cation/Anion Balance	-0.13	0.53		% Diff	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

David N. Poelstra
Laboratory Manager

**Quality Control Report
Duplicate Analysis****Client:** Navajo Refining Co.**Project:** RFI Phase III / Artesia, NM**Sample ID:** MW-11A**Lab ID:** 0494W10130/0694G02090**Matrix:** Water**Condition:** Intact**Report Date:** 03/28/95**Receipt Date:** 11/10/94**Sample Date:** 11/06/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
Total Metals					
Total Arsenic	0.013	0.012	4	0.005 mg/L	SW-846 7061A
Total Chromium	ND*	ND*	NC*	0.02 mg/L	SW-846 6010A
Total Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A

Dissolved Metals					
Dissolved Arsenic	ND*	ND*	NC*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	ND*	NC*	0.02 mg/L	SW-846 6010A
Dissolved Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

David N. Poelstra

Laboratory Manager



Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

11183 SH 30 College Station, Texas 77845

**Quality Control Report
Duplicate Analysis****Client:** Navajo Refining Co.**Project:** RFI Phase III / Artesia, NM**Sample ID:** OCD-7A**Lab ID:** 0494W10127/0694G02104**Matrix:** Water**Condition:** Intact**Report Date:** 03/28/95**Receipt Date:** 11/10/94**Sample Date:** 11/07/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
pH (Lab)	7.2	7.2	0	0.1 s.u.	SW-846 9040
Conductivity (Lab)	10800	10800	0	1 μ mhos/cm	SW-846 9050
Total Dissolved Solids (180° C)	8320	8340	0	10 mg/L	EPA 160.1
Total Alkalinity (as CaCO ₃)	526	526	0	1 mg/L	EPA 310.1
Total Hardness (as CaCO ₃)	2150	2150	0	1 mg/L	Calculation
Fluoride	5.1	4.9	2	0.1 mg/L	EPA 340.2

Calcium	575	575	0	1 mg/L	SW-846 6010A
Magnesium	173	173	0	1 mg/L	SW-846 6010A
Potassium	8	7	7	1 mg/L	SW-846 6010A
Sodium	1960	1970	0	1 mg/L	SW-846 6010A
Bicarbonate	642	641	0	1 mg/L	EPA 310.1
Carbonate	ND*	ND*	NC*	1 mg/L	EPA 310.1
Chloride	2000	2020	0	1 mg/L	SW-846 9251
Sulfate	2920	2920	0	5 mg/L	SW-846 9036
Major Cation Sum	128.26	128.64	0	meq/L	Calculation
Major Anion Sum	127.66	128.39	0	meq/L	Calculation
Cation/Anion Balance	0.23	0.10		% Diff	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

David N. Poelstra
Laboratory Manager



Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

11183 SH 30 College Station, Texas 77845

Quality Control Report
Duplicate Analysis

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: OCD-7A

Lab ID: 0494W10127/0694G02104

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 11/10/94

Sample Date: 11/07/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
Total Metals					
Total Arsenic	0.149	0.164	5	0.005 mg/L	SW-846 7061A
Total Chromium	ND*	ND*	NC*	0.02 mg/L	SW-846 6010A
Total Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Total Nickel	0.03	0.04	14	0.01 mg/L	SW-846 6010A

Dissolved Metals					
Dissolved Arsenic	0.150	0.159	3	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	ND*	NC*	0.02 mg/L	SW-846 6010A
Dissolved Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Dissolved Nickel	0.02	0.02	0	0.01 mg/L	SW-846 6010A

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

David N. Poelstra

Laboratory Manager



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Quality Control Report Duplicate Analysis

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: FIELD DUPLICATE 4

Lab ID: 0494W10212/0694G02165

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 11/15/94

Sample Date: 11/11/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
Total Metals					
Total Arsenic	0.018	0.018	0	0.005 mg/L	SW-846 7061A
Total Chromium	0.04	0.04	0	0.02 mg/L	SW-846 6010A
Total Lead	0.07	0.08	7	0.01 mg/L	SW-846 7421
Total Nickel	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A

Dissolved Metals					
Dissolved Arsenic	ND*	ND*	NC*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	ND*	NC*	0.02 mg/L	SW-846 6010A
Dissolved Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Dissolved Nickel	0.02	0.01	33	0.01 mg/L	SW-846 6010A

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

David N. Poelstra
Laboratory Manager



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Quality Control Report Duplicate Analysis

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-46

Lab ID: 0494W10220/0694G02159

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 11/15/94

Sample Date: 11/11/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
pH (Lab)	7.1	7.1	0	0.1 s.u.	SW-846 9040
Conductivity (Lab)	4410	4410	0	1 mg/L	SW-846 9050
Total Dissolved Solids (180° C)	3880	3920	1	10 mg/L	EPA 160.1
Total Alkalinity (as CaCO ₃)	329	328	0	1 mg/L	EPA 310.1
Total Hardness (as CaCO ₃)	2620	2660	1	1 mg/L	Calculation
Fluoride	2.4	2.4	0	0.1 mg/L	EPA 340.2

Calcium	641	652	1	1 mg/L	SW-846 6010A
Magnesium	247	252	1	1 mg/L	SW-846 6010A
Potassium	14	14	0	1 mg/L	SW-846 6010A
Sodium	205	206	0	1 mg/L	SW-846 6010A
Bicarbonate	401	400	0	1 mg/L	EPA 310.1
Carbonate	ND*	ND*	NC*	1 mg/L	EPA 310.1
Chloride	369	371	0	1 mg/L	SW-846 9251
Sulfate	2020	2010	0	5 mg/L	SW-846 9036
Major Cation Sum	61.60	62.59	1	meq/L	Calculation
Major Anion Sum	59.10	58.92	0	meq/L	Calculation
Cation/Anion Balance	2.07	3.02		% Diff	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

David N. Poelstra
Laboratory Manager



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Quality Control Report Duplicate Analysis

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-46

Lab ID: 0494W10220/0694G02159

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 11/15/94

Sample Date: 11/11/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
Total Metals					
Total Arsenic	ND*	ND*	NC*	0.005 mg/L	SW-846 7061A
Total Chromium	ND*	ND*	NC*	0.005 mg/L	SW-846 7191
Total Lead	0.01	0.01	0	0.01 mg/L	SW-846 7421
Total Nickel	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A

Dissolved Metals					
Dissolved Arsenic	ND*	ND*	NC*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	ND*	NC*	0.02 mg/L	SW-846 6010A
Dissolved Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	ND*	NC*	0.01 mg/L	SW-846 6010A

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

David N. Poelstra
Laboratory Manager

**Quality Control Report
Duplicate Analysis****Client:** Navajo Refining Co.**Project:** RFI Phase III / Artesia, NM**Sample ID:** TMD-SS4**Lab ID:** 0494H10199**Matrix:** Soil**Condition:** Intact**Report Date:** 12/14/94**Receipt Date:** 11/15/94**Sample Date:** 11/11/94

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
INORGANIC CHARACTERIZATION					
pH	7.5	7.5	0	0.1 s.u.	SW-846 9045
Electrical Conductivity	3.8	3.8	0	0.1 mmhos/cm	SW-846 9050
Oil & Grease	3.7	3.6	1	0.1 percent	SW-846 9071

3051 DIGESTION TRACE METAL CONCENTRATIONS					
Arsenic	23.8	21.7	5	0.5 mg/Kg	SW-846 7061
Chromium	1016	959	3	1 mg/Kg	SW-846 6010A
Lead	906	952	2	1 mg/Kg	SW-846 7421
Nickel	20	19	3	5 mg/Kg	SW-846 6010A
Zinc	320	263	10	1 mg/Kg	SW-846 6010A

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

Gary L. Pudge
Director, Soil Laboratory

**Quality Control Report**
Matrix Spike Analysis**Client:** Navajo Refining Co.**Project:** RFI Phase 1**Sample ID:** TMC-SS1**Lab ID:** 0494H10196**Matrix:** Soil**Condition:** Intact**Report Date:** 12/01/94**Receipt Date:** 11/15/94**Sample Date:** 11/11/94

Parameter	Concentration			% Recovery
	Unspiked	Spiked	Spike Amount	
Arsenic	0.252 mg/L	0.282 mg/L	0.030 mg/L	100
Chromium	2.35 mg/L	3.30 mg/L	1.00 mg/L	95
Lead	5.00 mg/L	9.50 mg/L	10.00 mg/L	90
Nickel	0.20 mg/L	1.09 mg/L	1.00 mg/L	89
Zinc	1.88 mg/L	2.81 mg/L	1.00 mg/L	93

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update I, July 1992, Proposed Update II, November, 1992.

Reviewed By:

Gary L. Pudge

Director, Soil Laboratory

METHOD 8141

QUALITY CONTROL REPORTS

** Method Blank Analyses*

QUALITY CONTROL REPORT-METHOD BLANK

3304 Longmire
College Station, Texas 77845EPA Method 8141
ORGANOPHOSPHORUS COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB 408
Sample Matrix: Water
Preservative: NA
Condition: NA

Report Date: 12/12/94
Date Sampled: NA
Date Received: NA
Date Extracted: 11/14/94
Date Analyzed: 12/08/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Azinphos Methyl	ND	0.0002
Bolstar	ND	0.0002
Chlorpyrifos	ND	0.0002
Coumaphos	ND	0.0004
Demeton	ND	0.0002
Diazinon	ND	0.0002
Dichlorvos	ND	0.0002
Dimethoate	ND	0.001
Disulfoton	ND	0.0002
EPN	ND	0.0002
Ethoprop	ND	0.0002
Fensulfothion	ND	0.001
Fenthion	ND	0.0002
Malathion	ND	0.0002
Merphos	ND	0.0002
Mevinphos	ND	0.001
Monocrotophos	ND	0.001
Naled	ND	0.002
Ethyl Parathion	ND	0.0002
Methyl Parathion	ND	0.0002
Phorate	ND	0.0002
Ronnel	ND	0.0002
Sulfotep	ND	0.0002
Tetrachlorovinphos	ND	0.0002
TEPP	ND	0.0002
Tokuthion	ND	0.0002
Trichloronate	ND	0.0002

ND - Analyte not detected at stated limit of detection

Reference: Method 8141: Organophosphorus Compounds by Gas Chromatography: Capillary Column Technique. Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States Environmental Protection Agency, July 1992.

Comments:

QUALITY CONTROL REPORT-METHOD BLANK

3304 Longmire
College Station, Texas 77845

EPA Method 8141

ORGANOPHOSPHORUS COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB 421
Sample Matrix: Water
Preservative: NA
Condition: NA

Report Date: 12/12/94
Date Sampled: NA
Date Received: NA
Date Extracted: 11/17/94
Date Analyzed: 12/08/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Azinphos Methyl	ND	0.0002
Bolstar	ND	0.0002
Chlorpyrifos	ND	0.0002
Coumaphos	ND	0.0004
Demeton	ND	0.0002
Diazinon	ND	0.0002
Dichlorvos	ND	0.0002
Dimethoate	ND	0.001
Disulfoton	ND	0.0002
EPN	ND	0.0002
Ethoprop	ND	0.0002
Fensulfothion	ND	0.001
Fenthion	ND	0.0002
Malathion	ND	0.0002
Merphos	ND	0.0002
Mevinphos	ND	0.001
Monocrotophos	ND	0.001
Naled	ND	0.002
Ethyl Parathion	ND	0.0002
Methyl Parathion	ND	0.0002
Phorate	ND	0.0002
Ronnel	ND	0.0002
Sulfotep	ND	0.0002
Tetrachlorovinphos	ND	0.0002
TEPP	ND	0.0002
Tokuthion	ND	0.0002
Trichloronate	ND	0.0002

ND - Analyte not detected at stated limit of detection

Reference: Method 8141: Organophosphorus Compounds by Gas Chromatography: Capillary Column Technique. Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States Environmental Protection Agency, July 1992.

Comments:

METHOD 8151

QUALITY CONTROL REPORTS

* *Method Blank Analyses*

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8151
CHLORINATED HERBICIDES

Sample ID: Method Blank
Sample Number: MB 410
Sample Matrix: Water

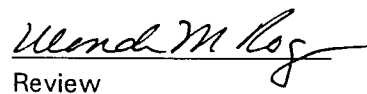
Report Date: 12/09/94
Date Extracted: 11/14/94
Date Analyzed: 12/06/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Dalapon	ND	0.01
3,5-Dichlorobenzoic acid	ND	0.01
4-Nitrophenol	ND	0.01
Dicamba	ND	0.01
MCPP	ND	1
MCPA	ND	1
Dichlorprop	ND	0.01
2,4-D	ND	0.01
Pentachlorophenol	ND	0.01
Chloramben	ND	0.01
2,4,5 - TP	ND	0.01
2,4,5 - T (Silvex)	ND	0.01
2,4 - DB	ND	0.01
Dinoseb	ND	0.01
Bentazon	ND	0.01
Picloram	ND	0.01
DCPA	ND	0.01
Acifluorfen	ND	0.01

ND - Analyte not detected at stated detection limit

Reference: Method 8151: Chlorinated Herbicides
Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental
Protection Agency, Final Update I, July 1992.


Analyst


Review

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8151
CHLORINATED HERBICIDES

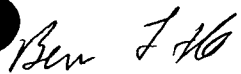
Sample ID: Method Blank
Sample Number: MB 419
Sample Matrix: Water

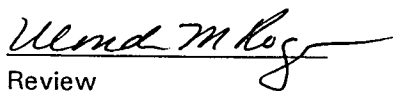
Report Date: 12/09/94
Date Extracted: 11/14/94
Date Analyzed: 12/06/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Dalapon	ND	0.01
3,5-Dichlorobenzoic acid	ND	0.01
4-Nitrophenol	ND	0.01
Dicamba	ND	0.01
MCP	ND	1
MCPA	ND	1
Dichlorprop	ND	0.01
2,4-D	ND	0.01
Pentachlorophenol	ND	0.01
Chloramben	ND	0.01
2,4,5 - TP	ND	0.01
2,4,5 - T (Silvex)	ND	0.01
2,4 - DB	ND	0.01
Dinoseb	ND	0.01
Bentazon	ND	0.01
Picloram	ND	0.01
DCPA	ND	0.01
Acifluorfen	ND	0.01

ND - Analyte not detected at stated detection limit

Reference: Method 8151: Chlorinated Herbicides
Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental
Protection Agency, Final Update I, July 1992.


Analyst


Review





Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

33 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Mr. David Boyer
RE/SPEC
4775 Indian School Road
NE Ste. 300
Albuquerque, New Mexico 87110-3927

December 29, 1994

Dear Mr. Boyer,

This letter has been formulated in response to the fax you sent on December 21, 1994. Questions concerning analytical data for volatile samples MW-6B, MW-15, MW-3, MW-4, MW-5A, MW-5B, MW-10, MW-22A, and semivolatile sample MW-19 will be answered in the text to follow.

MW-19 for semivolatile analysis has a detection limit of 0.020 mg/L because the sample was split to perform a matrix spike. 500 mL of the sample was used for each extraction and the extract was concentrated to one mL. In the future, we can either concentrate the extract to 0.5 mL or you may fill two sample bottles at a site and request that quality control be performed on that sample. There would be no additional charges. We would be happy to do whichever is more convenient for you.

Chromatograms for MW-3, MW-4, MW-5A, MW-10, and MW-22A were checked for the presence of trans-1,3 Dichloropropene. A peak was found near the retention time of the compound. However, the spectral data did not match that of trans-1,3 Dichloropropene. The peak identified as trans-1,3 Dichloropropene in the standard used for calibration was also checked to be sure there was no misidentification for retention time or spectrum. It was correct and checked against the computer data base as a further confirmation. A brief retention time history of trans-1,3 Dichlorobenzene was conducted to establish a tighter retention time window. The retention time of the unknown peak varied significantly from this retention time window. MW-5B was not analyzed by this laboratory because one vial was broken in transit and the other vial froze and burst in the sample refrigerator.

The detection limit for ethylbenzene listed on the report for MW-15 was incorrect. It should have been 0.025 mg/L and not 0.005 mg/L. A revised report is enclosed.

The benzene concentration found in MW-15 has been confirmed by retention time and spectrum. A hydrocarbon envelope is present in the sample from 20 to 25 minutes. The retention time



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

33 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

for benzene is 11.04 minutes; therefore, it would not interfere with the benzene results. Other aromatic compounds which were of interest, elute slightly before this envelope.

Initially, the laboratory ID's were listed incorrectly on chain of custody 14112. This mistake was discovered by the sample custodian and corrected before analysis began. The error was only in recording the identification on the chain of custody after the sample information had been logged into LIMS. The information in the computer was correct. Labels containing both the client sample identification and the laboratory information are generated from the computer database then attached to the sample containers.

If any further questions arise concerning this data package, feel free to contact us at your convenience.

Sincerely,

Ramona R. Dennis
Organics Laboratory Manager

EPA Method 8240
VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-6B
Laboratory ID: 0694G02107
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 11/17/94
Date Sampled: 11/08/94
Date Received: 11/10/94
Date Extracted: 11/17/94
Date Analyzed: 11/17/94

Analyte	Concentration (mg/L)	Detection Limit (mg/L)*
Benzene	ND	0.025
Toluene	ND	0.025
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.025
o-Xylene	ND	0.025
Methyl ethyl ketone	ND	0.025
Carbon disulfide	ND	0.025

old
Analysis
Q/B
1/31/95

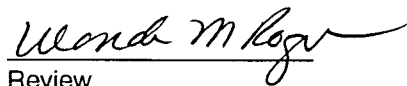
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	100%	86 - 118%
	Toluene - d8	103%	88 - 110%
	Bromofluorobenzene	98%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.
* - Elevated detection limit to minimize matrix interference.


Analyst


Review





Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

**Mr. David Boyer
RE/SPEC
4775 Indian School Road
NE Ste. 300
Albuquerque, New Mexico 87110-3927**

January 31, 1995

Dear Mr. Boyer,

On January 17, 1995, nine water samples, eight soil samples and two trip blanks were received, cool and intact, by Inter-Mountain Laboratories - College Station. The samples were identified by project name "RFI Phase III" and project location "Artesia, NM." With the exception of general chemistry and metals on sample "MW - 6A," analyses for Volatile, Semivolatile, general chemistry, and Metals were performed as requested on the accompanying chains of custody.

One semivolatile sample, "MW - 29," was extracted out of holding time. The data was analyzed and a report has been included. Sample "MW - 4C 56" was re-extracted because of low surrogate recoveries. Also, matrix spike recoveries for two base neutral compounds for the soil matrix are low. Since this appears to be a trend for this location and does not occur in samples from other projects, it has been concluded that these low recoveries are due to matrix effect.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the sample reported here are found in "Test Methods for Evaluating Solid Waste", SW-846, USEPA, Final Update I, July 1992. All reports in this package reference the methods utilized.

Quality Control reports have been included for your information and use. These reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, feel free to call at your convenience.

Sincerely,

Ramona R. Dennis
Organics Laboratory Manager



CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS							
Navajo / RFI Phase III		Artesia NM									
Sampler: (Signature)		Chain of Custody Tape No.		Remarks							
Burr P. Sullivan											
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	VDA	SVOA	GEN/IN	TS 5 N	TS 5 N	Remarks
MW-29	1/14/95	1030	00137	water	6	X ²	X ¹	X	X	X	Intact, cool RFI
MW-15	1/14/95	1445	00138	↓	2	X					No analysis 1/15/95
MW-6A	1/15/95	1630	00139		6	X	X	X	X	X	X
MW-28	1/15/95	0950	00140	↓	6	X	X	X	X	X	1 L amber broken 1/2 sample remain
MW-4C 9-10	1/15/95	A.M.	00141	soil	1	X	X				1 L amber-top broken
MW 4C 14-15	1/15/95	A.M.	00142	↓	2	X	X	X	X	X	Intact, Cool
MW 4C 29-30	1/15/95	P.M.	00143		2	X	X	X	X	X	X
MW 4C 32-33	1/15/95		00144	↓	2	X	X	X	X	X	1 L 250g received leaving
MW 4C 33'	1/15/95		00145		1	X	X	X			
MW 4C 42	1/15/95		00146	↓	2	X	X	X	X	X	
MW 4C 56	1/15/95		00155		2	X	X	X	X	X	X
MW 4C 58-60	1/15/95		00147		2	X	X	X	X	X	
Trip Blank			00148		1	X					Intact, Cool
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	
Burr P. Sullivan		1/16/95		0900		Ramon P. Dennis		1/17/95		1015	
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	
Relinquished by: (Signature)		Date		Time		Received by laboratory: (Signature)		Date		Time	
Inter-Mountain Laboratories, Inc.											
23871											



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project : RFI Phase III / Artesia, NM

Sample ID: MW-29

Laboratory ID: 0695G00137

Sample Matrix: Water

Preservative: Cool, HCl

Condition: Intact, pH<2

Report Date: 01/18/95

Date Sampled: 01/12/95

Date Received: 01/17/95

Date Extracted: 01/18/95

Date Analyzed: 01/18/95

Time Analyzed: 10:07 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

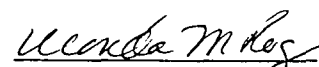
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	99%	76 - 114%
	Toluene-d8	102%	88 - 110%
	Bromofluorobenzene	100%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 29

Laboratory ID: 0695G00137

Sample Matrix: Water

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/12/95

Date Received: 01/17/95

Date Extracted: 01/20/95

Date Analyzed: 01/24/95

Time Analyzed: 4:09 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	58%	21 - 110%
Phenol - d5	32%	10 - 110%
Nitrobenzene - d5	55%	35 - 114%
2 - Fluorobiphenyl	69%	43 - 116%
2,4,6 - Tribromophenol	68%	10 - 123%
Terphenyl - d14	79%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Sample was extracted out of holding time.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: MW-29
Lab ID: 0495W00676/0695G00137
Matrix: Water
Condition: Intact

Report Date: 04/27/95
Receipt Date: 01/19/95
Sample Date: 01/12/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.4 s.u.	0.1	SW-846 9040
Conductivity (Lab)	6410 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	5650 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	306 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	3140 mg/L	1	Calculation
Fluoride	1.8 mg/L	0.1	EPA 340.2

Calcium	537 mg/L	26.80 meq/L	1 mg/L	SW-846 6010A
Magnesium	438 mg/L	36.05 meq/L	1 mg/L	SW-846 6010A
Potassium	5 mg/L	0.13 meq/L	1 mg/L	SW-846 6010A
Sodium	477 mg/L	20.75 meq/L	1 mg/L	SW-846 6010A
Bicarbonate	373 mg/L	6.11 meq/L	1 mg/L	EPA 310.1
Carbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	484 mg/L	13.65 meq/L	1 mg/L	SW-846 9251
Sulfate	3000 mg/L	62.36 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	83.73 meq/L	N/A	Calculation	
Major Anion Sum	82.12 meq/L	N/A	Calculation	
Cation/Anion Balance	0.97 % Diff	N/A	Calculation	

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: MW-29
Lab ID: 0495W00676/0695G00137
Matrix: Water
Condition: Intact

Report Date: 04/27/95
Receipt Date: 01/19/95
Sample Date: 01/12/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.008 mg/L	0.005	SW-846 7061A
Total Chromium	0.025 mg/L	0.005	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

Dissolved Metals			
Dissolved Arsenic	ND*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	0.005 mg/L	SW-846 7191
Dissolved Lead	ND*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project : RFI Phase III / Artesia, NM

Sample ID: MW-15

Laboratory ID: 0695G00138

Sample Matrix: Water

Preservative: Cool, HCl

Condition: Intact, pH<2

Report Date: 01/18/95

Date Sampled: 01/12/95

Date Received: 01/17/95

Date Extracted: 01/18/95

Date Analyzed: 01/18/95

Time Analyzed: 10:42 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	0.013	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

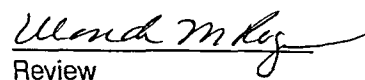
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	100%	76 - 114%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	102%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-6A
Laboratory ID: 0695G00139
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/18/95
Date Sampled: 01/14/95
Date Received: 01/17/95
Date Extracted: 01/18/95
Date Analyzed: 01/18/95
Time Analyzed: 11:20 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	0.006	0.005
m,p-Xylene	ND	0.005
o-Xylene	0.010	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

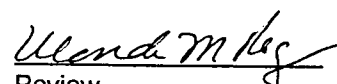
ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	98%	76 - 114%
	Toluene-d8	103%	88 - 110%
	Bromofluorobenzene	99%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

**Inter-Mountain Laboratories, Inc.**

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705**EPA Method 8270****SEMIVOLATILE ORGANIC COMPOUNDS**Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692**Client: NAVAJO REFINING COMPANY****Project:** RFI Phase III / Artesia, NM**Sample ID:** MW - 6A**Laboratory ID:** 0695G00139**Sample Matrix:** Water**Condition:** Intact**Preservative:** Cool**Report Date:** 01/26/95**Date Sampled:** 01/14/95**Date Received:** 01/17/95**Date Extracted:** 01/20/95**Date Analyzed:** 01/24/95**Time Analyzed:** 4:53 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	58%	21 - 110%
Phenol - d5	64%	10 - 110%
Nitrobenzene - d5	59%	35 - 114%
2 - Fluorobiphenyl	70%	43 - 116%
2,4,6 - Tribromophenol	88%	10 - 123%
Terphenyl - d14	78%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Hydrocarbon envelope from 7 to 32 minutes.

Ramona R. Deenno
Analyst

Ulrich M. Berg
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project : RFI Phase III / Artesia, NM

Sample ID: MW-28

Laboratory ID: 0695G00140

Sample Matrix: Water

Preservative: Cool, HCl

Condition: Intact, pH=7

Report Date: 01/18/95

Date Sampled: 01/15/95

Date Received: 01/17/95

Date Extracted: 01/18/95

Date Analyzed: 01/18/95

Time Analyzed: 11:56 AM

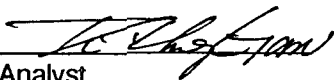
Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

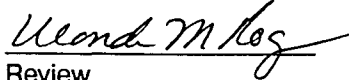
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	100%	76 - 114%
	Toluene-d8	102%	88 - 110%
	Bromofluorobenzene	101%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inorganic Laboratories
1183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**
Project: RFI Phase III / Artesia, NM
Sample ID: MW - 28
Laboratory ID: 0695G00140
Sample Matrix: Water
Condition: Intact
Preservative: Cool

Report Date: 01/26/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/20/95
Date Analyzed: 01/24/95
Time Analyzed: 5:38 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	41%	21 - 110%
Phenol - d5	43%	10 - 110%
Nitrobenzene - d5	42%	35 - 114%
2 - Fluorobiphenyl	48%	43 - 116%
2,4,6 - Tribromophenol	63%	10 - 123%
Terphenyl - d14	63%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Hydrocarbon envelope from 7 to 32 minutes.

Ramona R. Dennis
Analyst

Wanda M. Rogers
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
33 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: MW-28
Lab ID: 0495W00678/0695G00140
Matrix: Water
Condition: Intact

Report Date: 03/28/95
Receipt Date: 01/19/95
Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.8 s.u.	0.1	SW-846 9040
Conductivity (Lab)	4660 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	3930 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	257 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	2290 mg/L	1	Calculation
Fluoride	1.9 mg/L	0.1	EPA 340.2

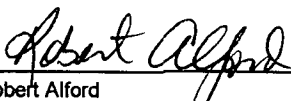
Calcium	512 mg/L	25.55 meq/L	1 mg/L	SW-846 6010A
Magnesium	245 mg/L	20.16 meq/L	1 mg/L	SW-846 6010A
Potassium	6 mg/L	0.14 meq/L	1 mg/L	SW-846 6010A
Sodium	319 mg/L	13.88 meq/L	1 mg/L	SW-846 6010A
Carbonate	313 mg/L	5.13 meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	328 mg/L	9.25 meq/L	1 mg/L	SW-846 9251
Sulfate	2180 mg/L	45.37 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	59.73 meq/L	N/A	Calculation	
Major Anion Sum	59.75 meq/L	N/A	Calculation	
Cation/Anion Balance	0.00 % Diff	N/A	Calculation	

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

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Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-28

Lab ID: 0495W00678/0695G00140

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.120 mg/L	0.005	SW-846 7061A
Total Chromium	0.278 mg/L	0.005	SW-846 7191
Total Lead	0.07 mg/L	0.01	SW-846 7421
Total Nickel	0.11 mg/L	0.05	SW-846 7520

Dissolved Metals			
Dissolved Arsenic	ND*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	0.005 mg/L	SW-846 7191
Dissolved Lead	ND*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

1183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project : RFI Phase III / Artesia, NM

Sample ID: MW-4C, 9-10'

Laboratory ID: 0695G00141

Sample Matrix: Soil

Preservative: Cool

Condition: Intact, Container lid cracked

Report Date: 01/18/95

Date Sampled: 01/15/95

Date Received: 01/17/95

Date Extracted: 01/18/95

Date Analyzed: 01/18/95

Time Analyzed: 4:13 PM

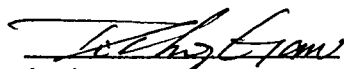
Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

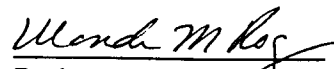
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	100%	70 - 121%
	Toluene-d8	104%	81 - 117%
	Bromofluorobenzene	92%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories
1183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**
Project: RFI Phase III / Artesia, NM
Sample ID: MW - 4C 9 - 10'
Laboratory ID: 0695G00141
Sample Matrix: Soil
Condition: Intact
Preservative: Cool

Report Date: 01/26/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 11:03 PM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Chrysene	ND	0.5
Dibenz(a,h)anthracene	ND	0.5
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Naphthalene	ND	0.5
Phenanthrene	ND	0.5
Pyrene	ND	0.5

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	58%	25 - 121%
Phenol - d5	59%	24 - 113%
Nitrobenzene - d5	62%	23 - 120%
2 - Fluorobiphenyl	74%	30 - 115%
2,4,6 - Tribromophenol	79%	19 - 122%
Terphenyl - d14	85%	18 - 137%

References: Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Ulonde M. King
Review



Inorganics Laboratory
183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C, 14-15'
Laboratory ID: 0695G00142
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 01/18/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/18/95
Date Analyzed: 01/18/95
Time Analyzed: 4:48 PM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	99%	70 - 121%
	Toluene-d8	103%	81 - 117%
	Bromofluorobenzene	88%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 4C 14 - 15'

Laboratory ID: 0695G00142

Sample Matrix: Soil

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/15/95

Date Received: 01/17/95

Date Extracted: 01/24/95

Date Analyzed: 01/24/95

Time Analyzed: 11:48 PM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Chrysene	ND	0.5
Dibenz(a,h)anthracene	ND	0.5
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Naphthalene	ND	0.5
Phenanthrene	ND	0.5
Pyrene	ND	0.5

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	63%	25 - 121%
Phenol - d5	60%	24 - 113%
Nitrobenzene - d5	58%	23 - 120%
2 - Fluorobiphenyl	65%	30 - 115%
2,4,6 - Tribromophenol	82%	19 - 122%
Terphenyl - d14	90%	18 - 137%

References: Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wanda M. King
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW4C 14-15

Lab ID: 0495H00652/0695G00142

Matrix: Soil

Condition: Intact

Report Date: 02/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
3051 DIGESTION TRACE METAL CONCENTRATIONS			
Arsenic	2.6 mg/Kg	0.5	SW-846 7061
Chromium	9 mg/Kg	1	SW-846 7191
Lead	4 mg/Kg	1	SW-846 7421
Nickel	8 mg/Kg	5	SW-846 7520

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

Gary L. Pudge

Director, Soil Laboratory



Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C, 29-30'
Laboratory ID: 0695G00143
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 01/18/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/18/95
Date Analyzed: 01/18/95
Time Analyzed: 5:23 PM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	100%	70 - 121%
	Toluene-d8	103%	81 - 117%
	Bromofluorobenzene	87%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 4C 29 - 30'

Laboratory ID: 0695G00143

Sample Matrix: Soil

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/15/95

Date Received: 01/17/95

Date Extracted: 01/24/95

Date Analyzed: 01/25/95

Time Analyzed: 12:32 AM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Chrysene	ND	0.5
Dibenz(a,h)anthracene	ND	0.5
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Naphthalene	ND	0.5
Phenanthrene	ND	0.5
Pyrene	ND	0.5

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	56%	25 - 121%
Phenol - d5	55%	24 - 113%
Nitrobenzene - d5	60%	23 - 120%
2 - Fluorobiphenyl	75%	30 - 115%
2,4,6 - Tribromophenol	89%	19 - 122%
Terphenyl - d14	88%	18 - 137%

References: Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Hydrocarbon envelope from 19 to 32 minutes.

Ramona R. Dennis
Analyst

Wanda M. Rogers
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW4C 29-30

Lab ID: 0495H00653/0695G00143

Matrix: Soil

Condition: Intact

Report Date: 02/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
3051 DIGESTION TRACE METAL CONCENTRATIONS			
Arsenic	7.9 mg/Kg	0.5	SW-846 7061
Chromium	10 mg/Kg	1	SW-846 7191
Lead	7 mg/Kg	1	SW-846 7421
Nickel	9 mg/Kg	5	SW-846 7520

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

Gary L. Pudge

Director, Soil Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C, 32-33'
Laboratory ID: 0695G00144
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 01/19/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/19/95
Date Analyzed: 01/19/95
Time Analyzed: 10:44 AM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	100%	70 - 121%
	Toluene-d8	99%	81 - 117%
	Bromofluorobenzene	90%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories
1183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**
Project: RFI Phase III / Artesia, NM
Sample ID: MW - 4C 32 - 33'
Laboratory ID: 0695G00144
Sample Matrix: Soil
Condition: Intact
Preservative: Cool

Report Date: 01/26/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/24/95
Date Analyzed: 01/25/95
Time Analyzed: 1:17 AM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Chrysene	ND	0.5
Dibenz(a,h)anthracene	ND	0.5
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Naphthalene	ND	0.5
Phenanthrene	ND	0.5
Pyrene	ND	0.5

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	62%	25 - 121%
Phenol - d5	61%	24 - 113%
Nitrobenzene - d5	69%	23 - 120%
2 - Fluorobiphenyl	81%	30 - 115%
2,4,6 - Tribromophenol	88%	19 - 122%
Terphenyl - d14	84%	18 - 137%

References: Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

1183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C, 33'
Laboratory ID: 0695G00145
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 01/19/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/19/95
Date Analyzed: 01/19/95
Time Analyzed: 11:19 AM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	99%	70 - 121%
	Toluene-d8	100%	81 - 117%
	Bromofluorobenzene	89%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inorganic Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**
Project: RFI Phase III / Artesia, NM
Sample ID: MW - 4C 33'
Laboratory ID: 0695G00145
Sample Matrix: Soil
Condition: Intact
Preservative: Cool

Report Date: 01/26/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/24/95
Date Analyzed: 01/25/95
Time Analyzed: 2:02 AM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Chrysene	ND	0.5
Dibenz(a,h)anthracene	ND	0.5
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Naphthalene	ND	0.5
Phenanthrene	ND	0.5
Pyrene	ND	0.5

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	52%	25 - 121%
Phenol - d5	51%	24 - 113%
Nitrobenzene - d5	56%	23 - 120%
2 - Fluorobiphenyl	68%	30 - 115%
2,4,6 - Tribromophenol	78%	19 - 122%
Terphenyl - d14	80%	18 - 137%

References: Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Hydrocarbon envelope from 21 to 32 minutes.

Ramona R. Wenzel
Analyst

Wanda M. Log
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C, 42'
Laboratory ID: 0695G00146
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 01/19/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/19/95
Date Analyzed: 01/19/95
Time Analyzed: 11:54 AM

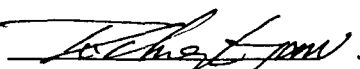
Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	100%	70 - 121%
	Toluene-d8	99%	81 - 117%
	Bromofluorobenzene	91%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 4C 42'

Laboratory ID: 0695G00146

Sample Matrix: Soil

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/15/95

Date Received: 01/17/95

Date Extracted: 01/24/95

Date Analyzed: 01/25/95

Time Analyzed: 2:47 AM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Chrysene	ND	0.5
Dibenz(a,h)anthracene	ND	0.5
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Naphthalene	ND	0.5
Phenanthrene	ND	0.5
Pyrene	ND	0.5

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	58%	25 - 121%
Phenol - d5	56%	24 - 113%
Nitrobenzene - d5	58%	23 - 120%
2 - Fluorobiphenyl	66%	30 - 115%
2,4,6 - Tribromophenol	67%	19 - 122%
Terphenyl - d14	73%	18 - 137%

References: Method 3550: Sonication Extraction.

Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics

Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States

Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wendy M. Long
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW4C 42

Lab ID: 0495H00655/0695G00146

Matrix: Soil

Condition: Intact

Report Date: 02/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
3051 DIGESTION TRACE METAL CONCENTRATIONS			
Arsenic	1.5 mg/Kg	0.5	SW-846 7061
Chromium	4 mg/Kg	1	SW-846 7191
Lead	2 mg/Kg	1	SW-846 7421
Nickel	ND*	5 mg/Kg	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

Gary L. Pudge

Director, Soil Laboratory



Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240
VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C, 56'
Laboratory ID: 0695G00155
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 01/19/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/19/95
Date Analyzed: 01/19/95
Time Analyzed: 12:30 PM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	99%	70 - 121%
	Toluene-d8	100%	81 - 117%
	Bromofluorobenzene	91%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**
Project: RFI Phase III / Artesia, NM
Sample ID: MW - 4C 56'
Laboratory ID: 0695G00155
Sample Matrix: Soil
Condition: Intact
Preservative: Cool

Report Date: 01/29/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/28/95
Date Analyzed: 01/28/95
Time Analyzed: 9:08 PM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Chrysene	ND	0.5
Dibenz(a,h)anthracene	ND	0.5
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Naphthalene	ND	0.5
Phenanthrene	ND	0.5
Pyrene	ND	0.5

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	48%	25 - 121%
Phenol - d5	51%	24 - 113%
Nitrobenzene - d5	56%	23 - 120%
2 - Fluorobiphenyl	66%	30 - 115%
2,4,6 - Tribromophenol	75%	19 - 122%
Terphenyl - d14	82%	18 - 137%

References: Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Wenzel
Analyst

Ulrich M. Reg
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW4C 56

Lab ID: 0495H00656/0695G00155

Matrix: Soil

Condition: Intact

Report Date: 02/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
3051 DIGESTION TRACE METAL CONCENTRATIONS			
Arsenic	1.8 mg/Kg	0.5	SW-846 7061
Chromium	16 mg/Kg	1	SW-846 7191
Lead	7 mg/Kg	1	SW-846 7421
Nickel	5 mg/Kg	5	SW-846 7520

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

Gary L. Pudge

Director, Soil Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C, 58-60'
Laboratory ID: 0695G00147
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 01/19/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/19/95
Date Analyzed: 01/19/95
Time Analyzed: 10:01 AM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	99%	70 - 121%
	Toluene-d8	100%	81 - 117%
	Bromofluorobenzene	91%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 4C 58 - 60'

Laboratory ID: 0695G00147

Sample Matrix: Soil

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/15/95

Date Received: 01/17/95

Date Extracted: 01/24/95

Date Analyzed: 01/25/95

Time Analyzed: 3:31 AM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Chrysene	ND	0.5
Dibenz(a,h)anthracene	ND	0.5
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Naphthalene	ND	0.5
Phenanthrene	ND	0.5
Pyrene	ND	0.5

ND - Analyte not detected at stated limit of detection

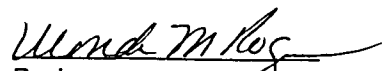
Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	57%	25 - 121%
Phenol - d5	55%	24 - 113%
Nitrobenzene - d5	57%	23 - 120%
2 - Fluorobiphenyl	74%	30 - 115%
2,4,6 - Tribromophenol	78%	19 - 122%
Terphenyl - d14	82%	18 - 137%

References: Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW4C 58-60

Lab ID: 0495H00657/0695G00147

Matrix: Soil

Condition: Intact

Report Date: 02/28/95

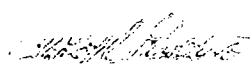
Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
3051 DIGESTION TRACE METAL CONCENTRATIONS			
Arsenic	1.6 mg/Kg	0.5	SW-846 7061
Chromium	7 mg/Kg	1	SW-846 7191
Lead	3 mg/Kg	1	SW-846 7421
Nickel	10 mg/Kg	5	SW-846 7520

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:


Gary L. Pudge

Director, Soil Laboratory



Inorganic Laboratories

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240
VOLATILE ORGANIC COMPOUNDS

Client: NAVAJO REFINING COMPANY
Project : RFI Phase III / Artesia, NM
Sample ID: Travel Blank
Laboratory ID: 0695G00148
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/17/95
Date Sampled: NA
Date Received: 01/17/95
Date Extracted: 01/17/95
Date Analyzed: 01/17/95
Time Analyzed: 4:46 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

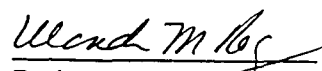
ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	104%	76 - 114%
	Toluene-d8	98%	88 - 110%
	Bromofluorobenzene	104%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review





CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS					
Navajo / RFI Phase III		Artesia NM							
Sampler: (Signature) <i>Brian P. Sullivan</i>		Chain of Custody Tape No.		Remarks					
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	VOA	SVOA	Gen. Chem. Metals As Cr Ni Pb	7000 Series metals
MW-27	✓ 15/15	1045	0655600149	Water	6	X	X	X	X
MW-26	✓	1205	0655600150	✓	6	X	X	X	X
MW-6B	✓	1420	0655600151	✓	6	X	X	X	X
MW-5B	✓	1500	0655600152	✓	2	X	X	X	X
MW-7B	✓	1720	0655600153	✓	1	X	X	X	X
Trip Blank		-	0655600154		1	X	X	X	X
			0655600155						
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			0655600364						
			0655600365						



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project : RFI Phase III / Artesia, NM

Sample ID: MW-27

Laboratory ID: 0695G00149

Sample Matrix: Water

Preservative: Cool, HCl

Condition: Intact, pH<2

Report Date: 01/18/95

Date Sampled: 01/15/95

Date Received: 01/17/95

Date Extracted: 01/18/95

Date Analyzed: 01/18/95

Time Analyzed: 12:32 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	100%	76 - 114%
	Toluene-d8	102%	88 - 110%
	Bromofluorobenzene	100%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**
Project: RFI Phase III / Artesia, NM
Sample ID: MW - 27
Laboratory ID: 0695G00149
Sample Matrix: Water
Condition: Intact
Preservative: Cool

Report Date: 01/26/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/20/95
Date Analyzed: 01/24/95
Time Analyzed: 6:23 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	61%	21 - 110%
Phenol - d5	61%	10 - 110%
Nitrobenzene - d5	58%	35 - 114%
2 - Fluorobiphenyl	68%	43 - 116%
2,4,6 - Tribromophenol	80%	10 - 123%
Terphenyl - d14	81%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wendy M. Rogers
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-27

Lab ID: 0495W00679/0695G00149

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.3 s.u.	0.1	SW-846 9040
Conductivity (Lab)	3250 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	2650 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	212 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	1560 mg/L	1	Calculation
Fluoride	1.2 mg/L	0.1	EPA 340.2

Calcium	470 mg/L	23.45 meq/L	1 mg/L	SW-846 6010A
Magnesium	95 mg/L	7.82 meq/L	1 mg/L	SW-846 6010A
Potassium	10 mg/L	0.26 meq/L	1 mg/L	SW-846 6010A
Sodium	194 mg/L	8.44 meq/L	1 mg/L	SW-846 6010A
Bicarbonate	258 mg/L	4.23 meq/L	1 mg/L	EPA 310.1
Carbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	179 mg/L	5.05 meq/L	1 mg/L	SW-846 9251
Sulfate	1460 mg/L	30.42 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	39.97 meq/L	N/A		Calculation
Major Anion Sum	39.70 meq/L	N/A		Calculation
Cation/Anion Balance	0.34 % Diff	N/A		Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-27

Lab ID: 0495W00679/0695G00149

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.006 mg/L	0.005	SW-846 7061A
Total Chromium	0.017 mg/L	0.005	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

Dissolved Metals			
Dissolved Arsenic	ND*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	0.005 mg/L	SW-846 7191
Dissolved Lead	ND*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-26
Laboratory ID: 0695G00150
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/18/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/18/95
Date Analyzed: 01/18/95
Time Analyzed: 1:08 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	100%	76 - 114%
	Toluene-d8	95%	88 - 110%
	Bromofluorobenzene	97%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories
1183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 26

Laboratory ID: 0695G00150

Sample Matrix: Water

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/15/95

Date Received: 01/17/95

Date Extracted: 01/20/95

Date Analyzed: 01/24/95

Time Analyzed: 7:08 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

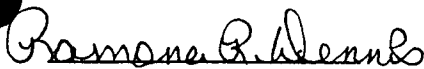
ND - Analyte not detected at stated limit of detection

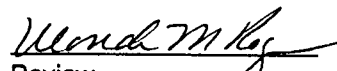
Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	57%	21 - 110%
Phenol - d5	60%	10 - 110%
Nitrobenzene - d5	64%	35 - 114%
2 - Fluorobiphenyl	77%	43 - 116%
2,4,6 - Tribromophenol	91%	10 - 123%
Terphenyl - d14	90%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Quality Control Report Duplicate Analysis

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-26

Lab ID: 0495W00680/0695G00150

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
pH (Lab)	7.8	7.8	0	0.1 s.u.	SW-846 9040
Conductivity (Lab)	8900	8900	0	1 μ mhos/cm	SW-846 9050
Total Dissolved Solids (180° C)	7830	7830	0	10 mg/L	EPA 160.1
Total Alkalinity (as CaCO ₃)	260	260	0	1 mg/L	EPA 310.1
Total Hardness (as CaCO ₃)	3940	3970	0	1 mg/L	Calculation
Fluoride	2.3	2.3	0	0.1 mg/L	EPA 340.2

Calcium	488	494	1	1 mg/L	SW-846 6010A
Magnesium	661	666	0	1 mg/L	SW-846 6010A
Potassium	7	7	0	1 mg/L	SW-846 6010A
Sodium	804	812	0	1 mg/L	SW-846 6010A
Carbonate	317	317	0	1 mg/L	EPA 310.1
Bicarbonate	ND*	ND*	NC*	1 mg/L	EPA 310.1
Chloride	1020	1020	0	1 mg/L	SW-846 9251
Sulfate	3740	3740	0	5 mg/L	SW-846 9036
Major Cation Sum	113.90	114.96	0	meq/L	Calculation
Major Anion Sum	111.65	111.75	0	meq/L	Calculation
Cation/Anion Balance	1.00	1.42		% Diff	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Quality Control Report Duplicate Analysis

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-26

Lab ID: 0495W00680/0695G00150

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
Total Metals					
Total Arsenic	0.013	0.014	4	0.005 mg/L	SW-846 7061A
Total Chromium	0.024	0.021	7	0.005 mg/L	SW-846 7191
Total Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	ND*	NC*	0.05 mg/L	SW-846 7520

Dissolved Metals					
Dissolved Arsenic	ND*	ND*	NC*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	ND*	NC*	0.005 mg/L	SW-846 7191
Dissolved Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	ND*	NC*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-6B
Laboratory ID: 0695G00151
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/18/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/18/95
Date Analyzed: 01/18/95
Time Analyzed: 1:43 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

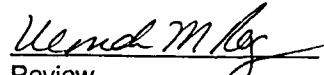
ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	99%	76 - 114%
	Toluene-d8	101%	88 - 110%
	Bromofluorobenzene	99%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: **NAVAJO REFINING COMPANY**
Project: RFI Phase III / Artesia, NM
Sample ID: MW - 6B
Laboratory ID: 0695G00151
Sample Matrix: Water
Condition: Intact
Preservative: Cool

Report Date: 01/26/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/20/95
Date Analyzed: 01/24/95
Time Analyzed: 8:50 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	58%	21 - 110%
Phenol - d5	54%	10 - 110%
Nitrobenzene - d5	53%	35 - 114%
2 - Fluorobiphenyl	64%	43 - 116%
2,4,6 - Tribromophenol	75%	10 - 123%
Terphenyl - d14	91%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wendy M. King
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-5B
Laboratory ID: 0695G00152
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH < 2

Report Date: 01/18/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/18/95
Date Analyzed: 01/18/95
Time Analyzed: 2:18 PM

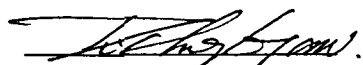
Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

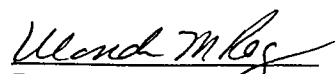
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	103%	76 - 114%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	114%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-7B

Lab ID: 0495W00681/0695G00153

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.4 s.u.	0.1	SW-846 9040
Conductivity (Lab)	9110 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	6620 mg/L	10	EPA 160.1
Total Hardness (as CaCO ₃)	2340 mg/L	1	Calculation
Fluoride	1.3 mg/L	0.1	EPA 340.2

Calcium	543 mg/L	27.10 meq/L	1 mg/L	SW-846 6010A
Magnesium	238 mg/L	19.59 meq/L	1 mg/L	SW-846 6010A
Potassium	8 mg/L	0.19 meq/L	1 mg/L	SW-846 6010A
Sodium	1200 mg/L	52.11 meq/L	1 mg/L	SW-846 6010A
Bicarbonate	287 mg/L	4.70 meq/L	1 mg/L	EPA 310.1
Carbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	1460 mg/L	41.10 meq/L	1 mg/L	SW-846 9251
Sulfate	2550 mg/L	53.09 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	98.99 meq/L	N/A	Calculation	
Major Anion Sum	98.89 meq/L	N/A	Calculation	
Cation/Anion Balance	0.05 % Diff	N/A	Calculation	

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: Travel Blank
Laboratory ID: 0695G00154
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/17/95
Date Sampled: NA
Date Received: 01/17/95
Date Extracted: 01/17/95
Date Analyzed: 01/17/95
Time Analyzed: 5:21 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	101%	76 - 114%
	Toluene-d8	99%	88 - 110%
	Bromofluorobenzene	101%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review

**Inter-Mountain Laboratories, Inc.**

Inorganics Laboratory

183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB0117
Sample Matrix: Water

Report Date: 01/17/95
Date Extracted: 01/17/95
Date Analyzed: 01/17/95
Time Analyzed: 3:37 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.005
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



Inorganic Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Page 2

Sample ID: Method Blank
Laboratory ID: MB0117
Sample Matrix: Water

Report Date: 01/17/95
Date Extracted: 01/17/95
Date Analyzed: 01/17/95
Time Analyzed: 3:37 PM

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	108%	76 - 114%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	103%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

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Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB0118
Sample Matrix: Water

Report Date: 01/18/95
Date Extracted: 01/18/95
Date Analyzed: 01/18/95
Time Analyzed: 9:32 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.005
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Page 2

Sample ID: Method Blank
Laboratory ID: MB0118
Sample Matrix: Water

Report Date: 01/18/95
Date Extracted: 01/18/95
Date Analyzed: 01/18/95
Time Analyzed: 9:32 AM

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	102%	76 - 114%
	Toluene-d8	101%	88 - 110%
	Bromofluorobenzene	99%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

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Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB0119
Sample Matrix: Water

Report Date: 01/19/95
Date Extracted: 01/19/95
Date Analyzed: 01/19/95
Time Analyzed: 9:27 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.005
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Page 2

Sample ID: Method Blank
Laboratory ID: MB0119
Sample Matrix: Water

Report Date: 01/19/95
Date Extracted: 01/19/95
Date Analyzed: 01/19/95
Time Analyzed: 9:27 AM

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	101%	76 - 114%
	Toluene-d8	99%	88 - 110%
	Bromofluorobenzene	94%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

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Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692**QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS****EPA Method 8240 - VOLATILE ORGANICS**Laboratory ID: 0695G00137
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2Report Date: 01/18/95
Date Sampled: 01/12/95
Date Received: 01/17/95
Date Analyzed: 01/18/95
Time Analyzed: 2:59 PM/3:35 PM**MATRIX SPIKE ANALYSIS**

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.068	ND	0.100	68%	50 - 150
Carbon disulfide	0.068	ND	0.100	68%	50 - 150
Benzene	0.077	ND	0.100	77%	76 - 127
Ethylbenzene	0.075	ND	0.100	75%	37 - 162
Toluene	0.078	ND	0.100	78%	76 - 125

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits RPD	Rec.
Methyl Ethyl ketone	0.072	72%	68%	6%	15%	50 - 150
Carbon disulfide	0.068	68%	68%	0%	15%	50 - 150
Benzene	0.082	82%	77%	6%	11%	76 - 127
Ethylbenzene	0.082	82%	75%	9%	15%	37 - 162
Toluene	0.079	79%	78%	1%	13%	76 - 125

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 out of 10 outside QC Limits
RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	1,2-Dichloroethane-d4	97%	108%	76 - 114%
	Toluene-d8	106%	99%	88 - 110%
	Bromofluorobenzene	98%	99%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

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Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS

EPA Method 8240 - VOLATILE ORGANICS

Laboratory ID: 0695G00146
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 01/19/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Analyzed: 01/19/95
Time Analyzed: 4:30 PM/5:07 PM

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/Kg)	Sample Result (mg/Kg)	Spike Added (mg/Kg)	Percent Recovery	QC Limits Recovery
Methyl Ethyl Ketone	0.101	ND	0.100	101%	50 - 150
Carbon disulfide	0.078	ND	0.100	78%	50 - 150
Benzene	0.083	ND	0.100	83%	66 - 142
Ethylbenzene	0.087	ND	0.100	87%	37 - 162
Toluene	0.084	ND	0.100	84%	59 - 139

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/Kg)	Percent Recovery	Original Spike Result (mg/Kg)	RPD	QC Limits RPD	QC Limits Rec.
Methyl Ethyl ketone	0.092	92%	101%	9%	20%	50 - 150
Carbon disulfide	0.091	91%	78%	15%	20%	50 - 150
Benzene	0.083	83%	83%	0%	21%	66 - 142
Ethylbenzene	0.088	88%	87%	1%	20%	37 - 162
Toluene	0.085	85%	84%	1%	21%	59 - 139

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 out of 10 outside QC Limits

RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	1,2-Dichloroethane-d4	106%	98%	70 - 121%
	Toluene-d8	100%	99%	81 - 117%
	Bromofluorobenzene	90%	101%	74 - 121%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

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**Inter-Mountain Laboratories, Inc.**

Inorganics Laboratory

1183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK**EPA Method 8270****SEMIVOLATILE ORGANIC COMPOUNDS**

Sample ID: Method Blank
Laboratory ID: MB033
Sample Matrix: Soil

Report Date: 01/29/95
Date Extracted: 01/28/95
Date Analyzed: 01/28/95
Time Analyzed: 8:23 PM

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Acenaphthene	ND	0.5
Acenaphthylene	ND	0.5
Anthracene	ND	0.5
Benzo(a)anthracene	ND	0.5
Benzo(b)fluoranthene	ND	0.5
Benzo(k)fluoranthene	ND	0.5
Benzo(g,h,i)perylene	ND	0.5
Benzo(a)pyrene	ND	0.5
Benzoic acid	ND	0.5
Benzyl alcohol	ND	0.5
Bis(2-chloroethoxy)methane	ND	0.5
Bis(2-chloroethyl)ether	ND	0.5
Bis(2-chloroisopropyl)ether	ND	0.5
Bis(2-ethylhexyl)phthalate	ND	1.3
4-Bromophenyl phenyl ether	ND	0.5
Butyl benzyl phthalate	ND	0.5
p - Chloroaniline	ND	0.5
p - Chloro - m - cresol	ND	0.5
2 - Chloronaphthalene	ND	0.5
2 - Chlorophenol	ND	0.5
4-Chlorophenyl phenyl ether	ND	0.5
Chrysene	ND	0.5
o - Cresol	ND	0.5
m,p - Cresol	ND	0.5
Di - n - butylphthalate	ND	1.3
Dibenz(a,h)anthracene	ND	0.5
Dibenzofuran	ND	0.5
o - Dichlorobenzene	ND	0.5
m - Dichlorobenzene	ND	0.5
p - Dichlorobenzene	ND	0.5
3,3 - Dichlorobenzidine	ND	0.5
2,4 - Dichlorophenol	ND	0.5
Diethyl phthalate	ND	0.5
2,4 - Dimethylphenol	ND	0.5
Dimethyl phthalate	ND	0.5

**EPA Method 8270**

Page 2

SEMIVOLATILE ORGANIC COMPOUNDS (cont)Sample ID: Method Blank
Laboratory ID: MB033Report Date: 01/29/95
Date Analyzed: 01/28/95

Analyte	Concentration (mg/Kg)	Detection Limit (mg/Kg)
4,6 - Dinitro -2- methylphenol	ND	1.3
2,4 - Dinitrophenol	ND	1.3
2,4 - Dinitrotoluene	ND	0.5
2,6 - Dinitrotoluene	ND	0.5
Di-n-octyl phthalate	ND	1.3
Fluoranthene	ND	0.5
Fluorene	ND	0.5
Hexachlorobenzene	ND	0.5
Hexachlorocyclopentadiene	ND	1.3
Hexachloroethane	ND	0.5
Hexachlorobutadiene	ND	0.5
Ideno(1,2,3-cd)pyrene	ND	0.5
Isophorone	ND	0.5
2 - Methyl naphthalene	ND	0.5
Naphthalene	ND	0.5
o - Nitroaniline	ND	0.5
m - Nitroaniline	ND	0.5
p - Nitroaniline	ND	0.5
Nitrobenzene	ND	0.5
o - Nitrophenol	ND	0.5
p - Nitrophenol	ND	0.5
n - Nitrosodimethylamine	ND	0.5
n - Nitrosodiphenylamine	ND	0.5
n-Nitroso-di-n-propylamine	ND	0.5
Pentachlorophenol	ND	1.3
Phenanthrene	ND	0.5
Phenol	ND	0.5
Pyrene	ND	0.5
1,2,4 - Trichlorobenzene	ND	0.5
2,4,5 - Trichlorophenol	ND	0.5
2,4,6 - Trichlorophenol	ND	0.5

ND - Analyte not detected at stated limit of detection.

B - Analyte detected in method blank.

(J) - Analyte detected below stated limit of detection.



Inorganic Laboratories
1183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB033

Report Date: 01/29/95
Date Analyzed: 01/28/95

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/Kg)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	47%	25 - 121%
Phenol - d5	49%	24 - 113%
Nitrobenzene - d5	61%	23 - 120%
2 - Fluorobiphenyl	75%	30 - 115%
2,4,6 - Tribromophenol	82%	19 - 122%
Terphenyl - d14	85%	18 - 137%

References:

Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

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Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB013
Sample Matrix: Water

Report Date: 01/26/95
Date Extracted: 01/20/95
Date Analyzed: 01/24/95
Time Analyzed: 3:27 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010



Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692**EPA Method 8270**

Page 2

SEMIVOLATILE ORGANIC COMPOUNDS (cont)Sample ID: Method Blank
Laboratory ID: MB013Report Date: 01/26/95
Date Analyzed: 01/24/95

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methyl naphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection.

B - Analyte detected in method blank.

(J) - Analyte detected below stated limit of detection.



Inorganic Laboratories
1183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB013

Report Date: 01/26/95
Date Analyzed: 01/24/95

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	55%	21 - 110%
Phenol - d5	54%	10 - 110%
Nitrobenzene - d5	61%	35 - 114%
2 - Fluorobiphenyl	79%	43 - 116%
2,4,6 - Tribromophenol	73%	10 - 123%
Terphenyl - d14	87%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

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Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - MATRIX SPIKE

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Matrix Spike
Laboratory ID: 0695G00147
Sample Matrix: Soil
Condition: Intact
Preservative: Cool

Report Date: 01/26/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/24/95
Date Analyzed: 01/25/95
Time Analyzed: 4:16 AM

Analyte	Spike Concentration (mg/Kg)	Sample Concentration (mg/Kg)	Spike Added (mg/Kg)	Percent Recovery (%)	QC Limits
Phenol	3.52	ND	9.92	35%	5 - 112%
2 - Chlorophenol	3.53	ND	9.92	36%	23 - 134%
1,4 - Dichlorobenzene	1.91	ND	4.96	39%	20 - 124%
n-Nitroso-di-propylamine	2.13	ND	4.96	43%	D - 230%
1,2,4 - Trichlorobenzene	1.75	ND	4.96	35%	44 - 142%
4-Chloro-3-methylphenol	4.09	ND	9.92	41%	22 - 147%
Acenaphthene	2.19	ND	4.96	44%	47 - 145%
4 - Nitrophenol	5.27	ND	9.92	53%	D - 132%
2,4 - Dinitrotoluene	2.52	ND	4.96	51%	39 - 139%
Pentachlorophenol	5.27	ND	9.92	53%	14 - 176%
Pyrene	3.47	ND	4.96	70%	52 - 115%

ND - Analyte not detected at stated limit of detection

Spike Recovery: 2 of 11 recoveries outside acceptable limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	46%	25 - 121%
Phenol - d6	41%	24 - 113%
Nitrobenzene - d5	36%	23 - 120%
2 - Fluorobiphenyl	41%	30 - 115%
2,4,6 - Tribromophenol	55%	19 - 122%
Terphenyl - d14	79%	18 - 137%

Reference: Method 3550: Sonication Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - MATRIX SPIKE

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Matrix Spike
Laboratory ID: 0695G00151
Sample Matrix: Water
Condition: Intact
Preservative: Cool

Report Date: 01/26/95
Date Sampled: 01/15/95
Date Received: 01/17/95
Date Extracted: 01/20/95
Date Analyzed: 01/24/95
Time Analyzed: 9:34 PM

Analyte	Spike Concentration (mg/L)	Sample Concentration (mg/L)	Spike Added (mg/L)	Percent Recovery (%)	QC Limits
Phenol	0.111	ND	0.200	56%	5 - 112%
2 - Chlorophenol	0.113	ND	0.200	57%	23 - 134%
1,4 - Dichlorobenzene	0.058	ND	0.100	58%	20 - 124%
n-Nitroso-di-propylamine	0.074	ND	0.100	74%	D - 230%
1,2,4 - Trichlorobenzene	0.063	ND	0.100	63%	44 - 142%
4-Chloro-3-methylphenol	0.132	ND	0.200	66%	22 - 147%
Acenaphthene	0.075	ND	0.100	75%	47 - 145%
4 - Nitrophenol	0.134	ND	0.200	67%	D - 132%
2,4 - Dinitrotoluene	0.071	ND	0.100	71%	39 - 139%
Pentachlorophenol	0.142	ND	0.200	71%	14 - 176%
Pyrene	0.080	ND	0.100	80%	52 - 115%

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 of 11 recoveries outside acceptable limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	61%	21 - 110%
Phenol - d6	64%	10 - 110%
Nitrobenzene - d5	69%	35 - 114%
2 - Fluorobiphenyl	77%	43 - 116%
2,4,6 - Tribromophenol	78%	10 - 123%
Terphenyl - d14	85%	33 - 141%

Reference: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wanda M. King
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Quality Control Report Duplicate Analysis

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: MW-26
Lab ID: 0495W00680/0695G00150
Matrix: Water
Condition: Intact

Report Date: 02/08/95
Receipt Date: 01/19/95
Sample Date: 01/15/95

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
pH (Lab)	7.8	7.8	0	0.1 s.u.	SW-846 9040
Conductivity (Lab)	8900	8900	0	1 μ mhos/cm	SW-846 9050
Total Dissolved Solids (180° C)	7830	7830	0	10 mg/L	EPA 160.1
Total Alkalinity (as CaCO ₃)	260	260	0	1 mg/L	EPA 310.1
Total Hardness (as CaCO ₃)	3940	3970	0	1 mg/L	Calculation
Fluoride	2.3	2.3	0	0.1 mg/L	EPA 340.2

Calcium	488	494	1	1 mg/L	SW-846 6010A
Magnesium	661	666	0	1 mg/L	SW-846 6010A
Potassium	7	7	0	1 mg/L	SW-846 6010A
Sodium	804	812	0	1 mg/L	SW-846 6010A
Bicarbonate	317	317	0	1 mg/L	EPA 310.1
Carbonate	ND*	ND*	NC*	1 mg/L	EPA 310.1
Chloride	1020	1020	0	1 mg/L	SW-846 9251
Sulfate	3740	3740	0	5 mg/L	SW-846 9036
Major Cation Sum	113.90	114.96	0	meq/L	Calculation
Major Anion Sum	111.65	111.75	0	meq/L	Calculation
Cation/Anion Balance	1.00	1.42		% Diff	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Prepared By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Quality Control Report Duplicate Analysis

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-26

Lab ID: 0495W00680/0695G00150

Matrix: Water

Condition: Intact

Report Date: 02/09/95

Receipt Date: 01/19/95

Sample Date: 01/15/95

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
Total Metals					
Total Arsenic	0.013	0.014	4	0.005 mg/L	SW-846 7061A
Total Chromium	0.024	0.021	7	0.005 mg/L	SW-846 7191
Total Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	ND*	NC*	0.05 mg/L	SW-846 7520

Dissolved Metals					
Dissolved Arsenic	ND*	ND*	NC*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	ND*	ND*	NC*	0.005 mg/L	SW-846 7191
Dissolved Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	ND*	NC*	0.05 mg/L	SW-846 7520

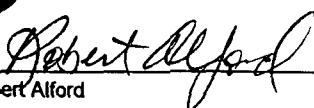
*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Quality Control Report Duplicate Analysis

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: MW4C 42
Lab ID: 0495H00655/0695G00146
Matrix: Soil
Condition: Intact

Report Date: 02/28/95
Receipt Date: 01/19/95
Sample Date: 01/15/95

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
3051 DIGESTION TRACE METAL CONCENTRATIONS					
Arsenic	1.5	1.4	3	0.5 mg/Kg	SW-846 7061
Chromium	4	4	0	1 mg/Kg	SW-846 7191
Lead	2	2	0	1 mg/Kg	SW-846 7421
Nickel	ND*	ND*	NC*	5 mg/Kg	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

Gary L. Pudge

Director, Soil Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Quality Control Report Matrix Spike Analysis

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III, Artesia, NM
Sample ID: MW 4C 14-15
Lab ID: 0495H00652
Matrix: Soil
Condition: Intact

Report Date: 02/28/95
Receipt Date: 01/19/95
Sample Date: 01/15/95

Parameter	Concentration			% Recovery
	Unspiked	Spiked	Spike Amount	
Arsenic	0.026 mg/L	0.033 mg/L	0.010 mg/L	70
Chromium	0.09 mg/L	0.13 mg/L	0.05 mg/L	90
Lead	0.04 mg/L	0.09 mg/L	0.05 mg/L	100
Nickel	0.08 mg/L	1.17 mg/L	1.00 mg/L	109

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

Gary L. Pudge
Director, Soil Laboratory





Chain of Custody Record

7300 JEFFERSON, N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8984

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

1910 N. BIG BEND
MIDLAND, TEXAS 79705
(915) 570-1116

Client RE/SPEC INC Project Manager / Contact DAVID BOYER

Address 4775 Indian School NE #300 Telephone No. 268-2661

City / State / Zip ALB Fax No. 268-0040

Project Name / Number NAVAJO / 318/3.3 Samplers: (Signature) David Boyer

Contract / Purchase Order / Quote per Jim Seely

Page 1 of 1

Lab job no.: 1148 Date: 1/23/95

Analysis Required

No. of Containers

Remarks

Preservation

Temp

Chemical

Type / Size of Container

Sample Type

Time

Date

Field Sample Number / Location

ALL FRACTION NUMBER

1A, B, C, D

2A, B, C, D

3A, B, C, D

4A, B, C, D

5A, B, C, D

6A, B, C, D

7A, B, C, D

8A, B, C, D

9A, B, C, D

10A, B, C, D

11A, B, C, D

12A, B, C, D

13A, B, C, D

14A, B, C, D

15A, B, C, D

16A, B, C, D

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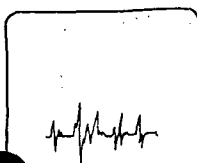
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ASSAIGAI ANALYTICAL LABORATORIES

7300 Jefferson, N.E. • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

3332 Wedgewood, E-5 • El Paso, Texas 79925

1910 N. Big Springs • Midland, Texas 79705

Report Generated:

February 3, 1995 11:23

CERTIFICATE OF ANALYSIS RESULTS BY SAMPLE

SENT RE/SPEC

TO: 4775 INDIAN SCHOOL RD. NE

SUITE 300

ALBUQUERQUE, NM 87110

ATTN: DAVID BOYER

WORKORDER # : 9501148

WORK ID : NAVAJO/318/3.3

CLIENT CODE : RES03

DATE RECEIVED : 01/23/95

Page: 1

Lab ID: 9501148-01A

Sample ID: OCD-7C

Collected: 01/21/95 10:10:00

Matrix: WASTE WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
VOLATILES /SW846 8240						
Dichlorodifluoromethane	ND	ug/L	10	1.0	01/25/95	WMSVOA245
Chloromethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Iodomethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Acetone	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Bromomethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Y Chloride	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
oethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Trichlorofluoromethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Carbon Disulfide	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Acrolein	ND	ug/L	20	1.0	01/25/95	WMSVOA245
Methylene Chloride	ND	ug/L	10	1.0	01/25/95	WMSVOA245
1,1-Dichloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,1-Dichloroethane	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Acrylonitrile	ND	ug/L	20	1.0	01/25/95	WMSVOA245
trans-1,2-Dichloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Chloroform	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,2-Dichloroethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Vinyl Acetate	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
cis-1,2-Dichloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
2-Butanone (MEK)	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,1,1-Trichloroethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Carbon Tetrachloride	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Bromodichloromethane	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
1,2-Dichloropropane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Dibromomethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
trans-1,3-Dichloropropene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Trichloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Chlorodibromomethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Ethyl Methacrylate	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
2-Chloroethylvinyl Ether	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,1,2-Trichloroethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Benzene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
cis-1,3-Dichloropropene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Bromoform	ND	ug/L	10	1.0	01/25/95	WMSVOA245
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Tetrachloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
2-Hexanone (MBK)	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Toluene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Chlorobenzene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
benzene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
1,2-Dichloro-2-Butene	ND	ug/L	10	1.0	01/25/95	WMSVOA245
Styrene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
P/M Xylene	ND	ug/L	2.0	1.0	01/25/95	WMSVOA245



ID: 9501148-01A
Sample ID: OCD-7C

Collected: 01/21/95 10:10:00
Matrix: WASTE WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
VOLATILES /SW846 8240						
O-Xylene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
1,2,3-Trichloropropane	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Methyl-tert Butyl Ether	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245

Lab ID: 9501148-01B
Sample ID: OCD-7C

Collected: 01/21/95 10:10:00
Matrix: WASTE WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
SVOA WATER XT/SW846 3520	01/25/95	N/A				
SVOA WATER/SW846 8270						
n-Nitrosodimethylamine	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Pyridine	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Aniline	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
bis(2-Chloroethyl) Ether	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2-Chlorophenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
1,3-Dichlorobenzene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
1,4-Dichlorobenzene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Phenol	4.2	ug/L	1.0	3.0	01/29/95	WMSSVOA109
1,2-Dichlorobenzene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
1-Propanol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
bis(2-Chloroisopropyl) Ether	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2-Methylphenol / O-Cresol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Hexachloroethane	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
n-Nitroso-di-n-propylamine	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Nitrobenzene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
3/4 Methylphenol / M/P-Cresol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Isophorone	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2-Nitrophenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
bis(2-Chloroethoxy) Methane	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2,4-Dimethylphenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
1,2,4-Trichlorobenzene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Naphthalene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Benzoic Acid	3.9	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2,4-Dichlorophenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
4-Chloroaniline	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Hexachlorobutadiene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2-Methylnaphthalene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
4-Chloro-3-methylphenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Hexachlorocyclopentadiene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2,4,6-Trichlorophenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2,4,5-Trichlorophenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2-Chloronaphthalene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2-Nitroaniline	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Acenaphthylene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Dimethylphthalate	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2,6-Dinitrotoluene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Acenaphthene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
3-Nitroaniline	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Dibenzofuran	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2,4-Dinitrotoluene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Fluorene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
4-Chlorophenyl-phenylether	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Diethylphthalate	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
4-Methylphenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
4-Nitro-2-methylphenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
n-Nitrosodiphenylamine	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
4-Nitroaniline	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109

Lab ID: 9501148-01B
Sample ID: OCD-7C

Collected: 01/21/95 10:10:00
Matrix: WASTE_WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
SVOA WATER/SW846 8270						
4-Bromophenyl-phenylether	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Hexachlorobenzene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Pentachlorophenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
2,4-Dinitrophenol	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Benzidine	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Phenanthrene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Anthracene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Di-n-butylphthalate	12B	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Fluoranthene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Pyrene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Butylbenzylphthalate	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Benzo(a)anthracene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Chrysene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
3,3'-Dichlorobenzidine	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
bis(2-Ethylhexyl)phthalate	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Di-n-octyl phthalate	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Benzo(b)fluoranthene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Benzo(k)fluoranthene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Benzo(a)pyrene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109
Benzo(g,h,i)perylene	ND	ug/L	1.0	3.0	01/29/95	WMSSVOA109

Lab ID: 9501148-01C
Sample ID: OCD-7C

Collected: 01/21/95 10:10:00
Matrix: WASTE_WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
ALKALINITY/EPA 310.1						
Alkalinity	299	mg/L	2.0	1.0	01/27/95	WALK89
BICARBONATE/EPA 310.1						
Bicarbonate	299	mg/L	2.0	1.0	01/27/95	WALK89
CARBONATE/EPA 310.1						
Carbonate	ND	mg/L	2.0	1.0	01/27/95	WALK89
CHLORIDE/EPA 300						
Chloride	880	mg/L	0.50	10.0	01/25/95	WANION92
pH/EPA 150.1						
pH	7.3	pH Units	0.10	1.0	1/24/95	WPH264
SPEC CONDUCTANCE/EPA 120.1						
Specific Conductance	5000	umhos/cm	1.0	1.0	01/30/95	WCOND77
SULFATE/EPA 300						
Sulfate	2210	mg/L	0.50	20.0	01/27/95	WANION94
TDS/EPA 160.1						
Total Dissolved Solids	5260	mg/L	1.0	1.0	01/25/95	WTDS178

Lab ID: 9501148-01D
Sample ID: OCD-7C

Collected: 01/21/95 10:10:00
Matrix: WASTE_WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
ICP/MS/SW 846 3005	01/25/95	N/A				
Metals by ICP/EPA 200.7						
Silver, Ag	NT	mg/L	0.020			WICP20R
Aluminum, Al	NT	mg/L	0.50			WICP20R

Lab ID: 9501148-01D
Sample ID: OCD-7C

Collected: 01/21/95 10:10:00
Matrix: WASTE_WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
METALS by ICP/EPA 200.7						
Arsenic, As	NT	mg/L	0.20			WICP20R
Boron, B	NT	mg/L	0.030			WICP20R
Barium, Ba	NT	mg/L	0.010			WICP20R
Beryllium, Be	NT	mg/L	0.00040			WICP20R
Calcium, Ca	582	mg/L	0.10	1.0	1/26/95	WICP20R
Cadmium, Cd	NT	mg/L	0.0030			WICP20R
Cobalt, Co	NT	mg/L	0.010			WICP20R
Chromium, Cr	NT	mg/L	0.020			WICP20R
Copper, Cu	NT	mg/L	0.010			WICP20R
Iron, Fe	NT	mg/L	0.20			WICP20R
Potassium, K	11.4	mg/L	0.10	1.0	1/26/95	WICP20R
Magnesium, Mg	124	mg/L	0.10	1.0	1/26/95	WICP20R
Manganese, Mn	NT	mg/L	0.0020			WICP20R
Sodium, Na	706	mg/L	0.20	1.0	1/26/95	WICP20R
Nickel, Ni	NT	mg/L	0.010			WICP20R
Lead, Pb	NT	mg/L	0.020			WICP20R
Antimony, Sb	NT	mg/L	0.030			WICP20R
Selenium, Se	NT	mg/L	0.050			WICP20R
Thallium, Tl	NT	mg/L	0.080			WICP20R
Vanadium, V	NT	mg/L	0.0030			WICP20R
Zinc, Zn	NT	mg/L	0.10			WICP20R

Lab ID: 9501148-02A
Sample ID: MW-25

Collected: 01/18/95 08:50:00
Matrix: WASTE_WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
VOLATILES /SW846 8240						
Dichlorodifluoromethane	ND	ug/L	10	1.0	01/25/95	WMSVOA245
Chloromethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Iodomethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Acetone	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Bromomethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Vinyl Chloride	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Chloroethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Trichlorofluoromethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Carbon Disulfide	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Acrolein	ND	ug/L	20	1.0	01/25/95	WMSVOA245
Methylene Chloride	ND	ug/L	10	1.0	01/25/95	WMSVOA245
1,1-Dichloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,1-Dichloroethane	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Acrylonitrile	ND	ug/L	20	1.0	01/25/95	WMSVOA245
trans-1,2-Dichloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Chloroform	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,2-Dichloroethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Vinyl Acetate	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
cis-1,2-Dichloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
2-Butanone (MEK)	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,1,1-Trichloroethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Carbon Tetrachloride	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Bromodichloromethane	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
1,2-Dichloropropane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Dibromomethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
trans-1,3-Dichloropropene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
1,3-Dichloropropane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,1-Dibromomethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Ethyl Methacrylate	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
2-Chloroethylvinyl Ether	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245

ID: 9501148-02A

Sample ID: MW-25

Collected: 01/18/95 08:50:00

Matrix: WASTE_WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
VOLATILES /SW846 8240						
1,1,2-Trichloroethane	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Benzene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
cis-1,3-Dichloropropene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Bromoform	ND	ug/L	10	1.0	01/25/95	WMSVOA245
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Tetrachloroethene	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
2-Hexanone (MBK)	ND	ug/L	5.0	1.0	01/25/95	WMSVOA245
Toluene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Chlorobenzene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Ethylbenzene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
1,4-Dichloro-2-Butene	ND	ug/L	10	1.0	01/25/95	WMSVOA245
Styrene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
P/M Xylene	ND	ug/L	2.0	1.0	01/25/95	WMSVOA245
O-Xylene	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
1,2,3-Trichloropropane	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245
Methyl-tert Butyl Ether	ND	ug/L	1.0	1.0	01/25/95	WMSVOA245

Lab ID: 9501148-02B

Sample ID: MW-25

Collected: 01/18/95 08:50:00

Matrix: WASTE_WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
SVOA WATER XT/SW846 3520	01/25/95	N/A				
SVOA WATER/SW846 8270						
n-Nitrosodimethylamine	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Pyridine	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Aniline	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
bis(2-Chloroethyl) Ether	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2-Chlorophenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
1,3-Dichlorobenzene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
1,4-Dichlorobenzene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Phenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
1,2-Dichlorobenzene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzyl Alcohol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
bis(2-Chloroisopropyl) Ether	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2-Methylphenol / O-Cresol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Hexachloroethane	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
n-Nitroso-di-n-propylamine	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Nitrobenzene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
3/4 Methylphenol / M/P-Cresol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Isophorone	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2-Nitrophenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
bis(2-Chloroethoxy) Methane	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2,4-Dimethylphenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
1,2,4-Trichlorobenzene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Naphthalene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzoic Acid	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2,4-Dichlorophenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
4-Chloroaniline	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Hexachlorobutadiene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2-Methylnaphthalene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
4-Chloro-3-methylphenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Hexachlorocyclopentadiene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2-Trichlorophenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
1-Trichlorophenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2-Chloronaphthalene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2-Nitroaniline	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109

ID: 9501148-02B
Sample ID: MW-25

Collected: 01/18/95 08:50:00
Matrix: WASTE WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
SVOA WATER/SW846 8270						
Acenaphthylene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Dimethylphthalate	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2,6-Dinitrotoluene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Acenaphthene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
3-Nitroaniline	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Dibenzofuran	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2,4-Dinitrotoluene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Fluorene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
4-Chlorophenyl-phenylether	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Diethylphthalate	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
4-Nitrophenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
4,6-Dinitro-2-methylphenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
n-Nitrosodiphenylamine	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
4-Nitroaniline	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
4-Bromophenyl-phenylether	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Hexachlorobenzene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Pentachlorophenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
2,4-Dinitrophenol	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzidine	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Phenanthrene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Anthracene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Di-n-butylphthalate	19B	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Fluoranthene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Pyrene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzyldimethylphthalate	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzo(a)anthracene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzo(b)fluoranthene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
3,3'-Dichlorobenzidine	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
bis(2-Ethylhexyl)phthalate	7.7B	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Di-n-octyl phthalate	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzo(b)fluoranthene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzo(k)fluoranthene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzo(a)pyrene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109
Benzo(g,h,i)perylene	ND	ug/L	1.0	3.2	01/29/95	WMSSVOA109

Lab ID: 9501148-02C
Sample ID: MW-25

Collected: 01/18/95 08:50:00
Matrix: WASTE WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
ICP DIG/SW 846 3005	01/25/95	N/A				
METALS by ICP/EPA 200.7						
Silver, Ag	NT	mg/L	0.020			WICP20R
Aluminum, Al	NT	mg/L	0.50			WICP20R
Arsenic, As	ND	mg/L	0.20	1.0	1/26/95	WICP20R
Boron, B	NT	mg/L	0.030			WICP20R
Barium, Ba	NT	mg/L	0.010			WICP20R
Beryllium, Be	NT	mg/L	0.00040			WICP20R
Calcium, Ca	NT	mg/L	0.10			WICP20R
Cadmium, Cd	NT	mg/L	0.0030			WICP20R
Cobalt, Co	NT	mg/L	0.010			WICP20R
Chromium, Cr	ND	mg/L	0.020	1.0	1/26/95	WICP20R
Copper, Cu	NT	mg/L	0.010			WICP20R
Iron, Fe	NT	mg/L	0.20			WICP20R
Potassium, K	NT	mg/L	0.10			WICP20R
Magnesium, Mg	NT	mg/L	0.10			WICP20R
Manganese, Mn	NT	mg/L	0.0020			WICP20R

ID: 9501148-02C
Sample ID: MW-25

Collected: 01/18/95 08:50:00
Matrix: WASTE_WATER

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
METALS by ICP/EPA 200.7						
Sodium, Na	NT	mg/L	0.20			WICP20R
Nickel, Ni	ND	mg/L	0.010	1.0	1/26/95	WICP20R
Lead, Pb	ND	mg/L	0.020	1.0	1/26/95	WICP20R
Antimony, Sb	NT	mg/L	0.030			WICP20R
Selenium, Se	NT	mg/L	0.050			WICP20R
Thallium, Tl	NT	mg/L	0.080			WICP20R
Vanadium, V	NT	mg/L	0.0030			WICP20R
Zinc, Zn	NT	mg/L	0.10			WICP20R


James A. Seely
Operations Manager

WORKORDER COMMENTS

DATE : 02/03/95
WORKORDER: 9501148

DEFINITIONS/DATA QUALIFIERS

The following are definitions, abbreviations, and data qualifiers which may have been utilized in your report:

ND = Analyte "not detected" in analysis at the sample specific detection limit.

D_F = Sample "dilution factor"

NT = Analyte "not tested" per client request.

B = Analyte was also detected in laboratory method QC blank.

E = Analyte concentration (result) is an estimated value or exceeds analysis calibration range.

LIMIT = The minimum amount of the analyte that AAL can detect utilizing the specified analysis.

Please Note: Multiply the "Limit" value (AAL's Detection Limit) by Dilution Factor (D_F) to obtain the sample specific Detection Limit.

REPORT COMMENTS

Results reflect total metal analysis.





Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Mr. David Boyer
RE/SPEC
4775 Indian School Road
NE Ste. 300
Albuquerque, New Mexico 87110-3927

February 15, 1995

Dear Mr. Boyer,

On January 23, 1995, nine water samples and one trip blank was received, cool and intact, by Inter-Mountain Laboratories - College Station. The samples were identified by project name "RFI Phase III" and project location "Artesia, NM." Analyses for Volatile, Semivolatile, general chemistry, and Metals were performed as requested on the accompanying chains of custody.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the sample reported here are found in "Test Methods for Evaluating Solid Waste", SW-846, USEPA, Final Update I, July 1992. All reports in this package reference the methods utilized.

Quality Control reports have been included for your information and use. These reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, feel free to call at your convenience.

Sincerely,

Ramona R. Dennis
Organics Laboratory Manager



CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS									
NAVAJO Refinery - Phase III RFI		ARTESIA NM											
Sampler: (Signature) <i>A. F. Boyd</i>		Chain of Custody Tape No.											
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	8240-BTEX + MEK + CS ₂	SVOCs	Metals	As, Cr, Ni, Pb	Water chem	Remarks		
MW-2S	1/18/95	0850	0189	Water	6	2	1	2	1	1	metals - 7000 series		
MW-4C Pump	1/20/95	1310	0655600150		5	2	1	1	1	1			
MW-4C Bail	"	1330	191		6	2	1	2	1	1	Full List 8240/8270		
MW-5C Pump	"	1550	192		4	2	1	1	1	1	including TICS		
MW-5C Bail	"	1605	193		6	2	1	2	1	1	1/23/95		
Pond windmill	"	1710	194		4	2	1	1	1	1			
TRIP BLAK			195		12	12					Samples cool & intact		
MW-2S Pump	1/21/95	0950	196	Water	4	2	1	1	1	1			
MW-2S Bail	1/21/95	1010	198	"	6	2	1	2	1	1			
Field dup #1	"		197	"	3	2	1	1	1	1			
Relinquished by: (Signature) <i>A. F. Boyd</i>		Date	Time	Received by: (Signature) <i>Barry I. [Signature]</i>		Date	Time						
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time						
Relinquished by: (Signature)		Date	Time	Received by laboratory: (Signature)		Date	Time						

☐ 1633 Terra Avenue
Sheridan, Wyoming 82801
Telephone (307) 672-8945

☐ 1714 Phillips Circle
Gillette, Wyoming 82716
Telephone (307) 682-8945

☐ 2506 West Main Street
Farmington, NM 87401
Telephone (505) 326-4737

☐ 1160 Research Dr.
Bozeman, Montana 59715
Telephone (406) 586-8450

☐ 11183 SH 30
College Station, TX 77845
Telephone (409) 776-8945

☐ 3304 Longmire Drive
College Station, TX 77845
Telephone (409) 774-4999

Inter-Mountain Laboratories, Inc.

23921



Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-25
Laboratory ID: 0695G00189
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/24/95
Date Sampled: 01/18/95
Date Received: 01/23/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 3:49 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	100%	76 - 114%
	Toluene-d8	99%	88 - 110%
	Bromofluorobenzene	88%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 25

Laboratory ID: 0695G00189

Sample Matrix: Water

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/18/95

Date Received: 01/23/95

Date Extracted: 01/25/95

Date Analyzed: 01/25/95

Time Analyzed: 9:30 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	64%	21 - 110%
Phenol - d5	71%	10 - 110%
Nitrobenzene - d5	68%	35 - 114%
2 - Fluorobiphenyl	86%	43 - 116%
2,4,6 - Tribromophenol	96%	10 - 123%
Terphenyl - d14	93%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wanda M. Log
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-25

Lab ID: 0495W00785/0695G00189

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/18/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.0 s.u.	0.1	SW-846 9040
Conductivity (Lab)	17100 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	11600 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	166 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	3450 mg/L	1	Calculation
Fluoride	1.1 mg/L	0.1	EPA 340.2

Calcium	664 mg/L	33.13 meq/L	1 mg/L	SW-846 6010A
Magnesium	436 mg/L	35.88 meq/L	1 mg/L	SW-846 6010A
Potassium	7 mg/L	0.19 meq/L	1 mg/L	SW-846 6010A
Sodium	2560 mg/L	111.31 meq/L	1 mg/L	SW-846 6010A
Carbonate	202 mg/L	3.31 meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	4010 mg/L	113.15 meq/L	1 mg/L	SW-846 9251
Sulfate	2670 mg/L	55.59 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	180.51 meq/L		N/A	Calculation
Major Anion Sum	172.05 meq/L		N/A	Calculation
Cation/Anion Balance	2.40 % Diff		N/A	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: MW-25
Lab ID: 0495W00785/0695G00189
Matrix: Water
Condition: Intact

Report Date: 03/28/95
Receipt Date: 01/24/95
Sample Date: 01/18/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	ND*	0.005 mg/L	SW-846 7061A
Total Chromium	0.020 mg/L	0.005	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

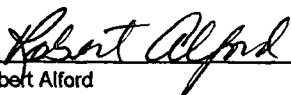
Dissolved Metals			
Dissolved Arsenic	ND*	0.005 mg/L	SW-846 7061A
Dissolved Chromium	0.006 mg/L	0.005	SW-846 7191
Dissolved Lead	ND*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inorganic Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project : RFI Phase III / Artesia, NM

Sample ID: MW-4C Pump

Laboratory ID: 0695G00190

Sample Matrix: Water

Preservative: Cool, HCl

Condition: Intact, pH<2

Report Date: 01/26/95

Date Sampled: 01/20/95

Date Received: 01/23/95

Date Extracted: 01/26/95

Date Analyzed: 01/26/95

Time Analyzed: 5:41 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	0.013	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	0.006	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	97%	76 - 114%
	Toluene-d8	95%	88 - 110%
	Bromofluorobenzene	95%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inorganic Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 4C Pump

Laboratory ID: 0695G00190

Sample Matrix: Water

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/20/95

Date Received: 01/23/95

Date Extracted: 01/25/95

Date Analyzed: 01/26/95

Time Analyzed: 9:46 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.020
Acenaphthylene	ND	0.020
Anthracene	ND	0.020
Benzo(a)anthracene	ND	0.020
Benzo(b)fluoranthene	ND	0.020
Benzo(k)fluoranthene	ND	0.020
Benzo(g,h,i)perylene	ND	0.020
Benzo(a)pyrene	ND	0.020
Chrysene	ND	0.020
Dibenz(a,h)anthracene	ND	0.020
Fluoranthene	ND	0.020
Fluorene	ND	0.020
Ideno(1,2,3-cd)pyrene	ND	0.020
Naphthalene	ND	0.020
Phenanthrene	ND	0.020
Pyrene	ND	0.020

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	37%	21 - 110%
Phenol - d5	40%	10 - 110%
Nitrobenzene - d5	37%	35 - 114%
2 - Fluorobiphenyl	50%	43 - 116%
2,4,6 - Tribromophenol	53%	10 - 123%
Terphenyl - d14	49%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Hydrocarbon envelope from 9 to 30 minutes.

Ramona R. Dennis
Analyst

Wanda M. Gog
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-4C PUMP

Lab ID: 0495W00786/0695G00190

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.8 s.u.	0.1	SW-846 9040
Conductivity (Lab)	5420 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	3840 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	226 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	1470 mg/L	1	Calculation
Fluoride	1.1 mg/L	0.1	EPA 340.2

Calcium	336	mg/L	16.77	meq/L	1 mg/L	SW-846 6010A
Magnesium	153	mg/L	12.59	meq/L	1 mg/L	SW-846 6010A
Potassium	2	mg/L	0.06	meq/L	1 mg/L	SW-846 6010A
Sodium	622	mg/L	27.06	meq/L	1 mg/L	SW-846 6010A
Carbonate	276	mg/L	4.52	meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*		0.00		1 mg/L	EPA 310.1
Chloride	777	mg/L	21.92	meq/L	1 mg/L	SW-846 9251
Sulfate	1320	mg/L	27.46	meq/L	5 mg/L	SW-846 9036
Major Cation Sum	56.48			meq/L	N/A	Calculation
Major Anion Sum	53.90			meq/L	N/A	Calculation
Cation/Anion Balance	2.34			% Diff	N/A	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-4C PUMP

Lab ID: 0495W00786/0695G00190

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.067 mg/L	0.005	SW-846 7061A
Total Chromium	0.009 mg/L	0.005	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C Bail
Laboratory ID: 0695G00191
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/25/95
Date Sampled: 01/20/95
Date Received: 01/23/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 6:11 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	0.010	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

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3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240
VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Page 2

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-4C Bail
Laboratory ID: 0695G00191

Report Date: 01/25/95
Date Sampled: 01/20/95
Date Analyzed: 01/24/95
Time Analyzed: 6:11 PM

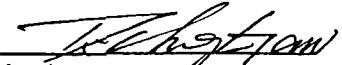
Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
Unknown hydrocarbon	20.08	0.74
Unknown hydrocarbon	21.76	0.13
Unknown hydrocarbon	22.29	0.11
Unknown hydrocarbon	22.80	0.04
Unknown hydrocarbon	23.32	0.11

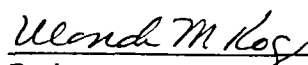
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	1,2-Dichloroethane-d4	99%	86 - 118%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	98%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project Name: RFI Phase III / Artesia, NM

Sample ID: MW - 4C Bail

Laboratory ID: 0695G00191

Sample Matrix: Water

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/20/95

Date Received: 01/23/95

Date Extracted: 01/25/95

Date Analyzed: 01/26/95

Time Analyzed: 10:31 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.020
Acenaphthylene	ND	0.020
Anthracene	ND	0.020
Benzo(a)anthracene	ND	0.020
Benzo(b)fluoranthene	ND	0.020
Benzo(k)fluoranthene	ND	0.020
Benzo(g,h,i)perylene	ND	0.020
Benzo(a)pyrene	ND	0.020
Benzoic acid	ND	0.020
Benzyl alcohol	ND	0.020
Bis(2-chloroethoxy)methane	ND	0.020
Bis(2-chloroethyl)ether	ND	0.020
Bis(2-chloroisopropyl)ether	ND	0.020
Bis(2-ethylhexyl)phthalate	ND	0.050
4-Bromophenyl phenyl ether	ND	0.020
Butyl benzyl phthalate	ND	0.020
p - Chloroaniline	ND	0.020
p - Chloro - m - cresol	ND	0.020
2 - Chloronaphthalene	ND	0.020
2 - Chlorophenol	ND	0.020
4-Chlorophenyl phenyl ether	ND	0.020
Chrysene	ND	0.020
o - Cresol	ND	0.020
m,p - Cresol	ND	0.020
Di - n - butylphthalate	ND	0.050
Dibenz(a,h)anthracene	ND	0.020
o - Dichlorobenzene	ND	0.020
m - Dichlorobenzene	ND	0.020
p - Dichlorobenzene	ND	0.020
3,3 - Dichlorobenzidine	ND	0.020
2,4 - Dichlorophenol	ND	0.020
Diethyl phthalate	ND	0.020
2,4 - Dimethylphenol	ND	0.020
Dimethyl phthalate	ND	0.020



Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Page 2

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project Name: RFI Phase III / Artesia, NM
Sample ID: MW - 4C Bail
Laboratory ID: 0695G00191

Report Date: 01/26/95
Date Sampled: 01/20/95
Date Analyzed: 01/26/95

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.050
2,4 - Dinitrophenol	ND	0.050
2,4 - Dinitrotoluene	ND	0.020
2,6 - Dinitrotoluene	ND	0.020
Di-n-octyl phthalate	ND	0.050
Fluoranthene	ND	0.020
Fluorene	ND	0.020
Hexachlorobenzene	ND	0.020
Hexachlorocyclopentadiene	ND	0.050
Hexachloroethane	ND	0.020
Hexachlorobutadiene	ND	0.020
Ideno(1,2,3-cd)pyrene	ND	0.020
Isophorone	ND	0.020
2 - Methyl naphthalene	ND	0.020
Naphthalene	ND	0.020
o - Nitroaniline	ND	0.020
m - Nitroaniline	ND	0.020
p - Nitroaniline	ND	0.020
Nitrobenzene	ND	0.020
o - Nitrophenol	ND	0.020
p - Nitrophenol	ND	0.020
n - Nitrosodimethylamine	ND	0.020
n - Nitrosodiphenylamine	ND	0.020
n-Nitroso-di-n-propylamine	ND	0.020
Pentachlorophenol	ND	0.050
Phenanthrene	ND	0.020
Phenol	ND	0.020
Pyrene	ND	0.020
1,2,4 - Trichlorobenzene	ND	0.020
2,4,5 - Trichlorophenol	ND	0.020
2,4,6 - Trichlorophenol	ND	0.020

ND - Analyte not detected at stated limit of detection



Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692
Page 3

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project Name: RFI Phase III / Artesia, NM
Sample ID: MW - 4C Bail
Laboratory ID: 0695G00191

Report Date: 01/26/95
Date Sampled: 01/20/95
Date Analyzed: 01/26/95

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L)
Unknown hydrocarbon	8.76	0.2
Unknown hydrocarbon	10.46	0.04
Unknown hydrocarbon	12.08	0.03
Unknown hydrocarbon	14.69	0.03
Hydrocarbon envelope	9 to 31	

* - Concentration calculated using assumed Relative Response Factor = 1

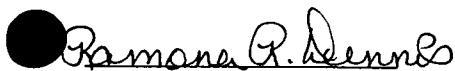
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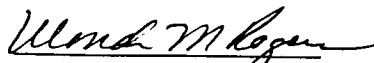
<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	68%	21 - 110 %
Phenol - d5	70%	10 - 110 %
Nitrobenzene - d5	67%	35 - 114 %
2 - Fluorobiphenyl	80%	43 - 116 %
2,4,6 - Tribromophenol	94%	10 - 123 %
Terphenyl - d14	88%	33 - 141 %

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-4C BAIL

Lab ID: 0495W00787/0695G00191

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.3 s.u.	0.1	SW-846 9040
Conductivity (Lab)	5510 µmhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	3830 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	228 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	1490 mg/L	1	Calculation
Fluoride	1.2 mg/L	0.1	EPA 340.2

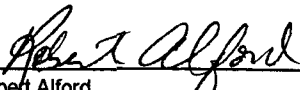
Calcium	351	mg/L	17.51	meq/L	1 mg/L	SW-846 6010A
Magnesium	150	mg/L	12.35	meq/L	1 mg/L	SW-846 6010A
Potassium	2	mg/L	0.04	meq/L	1 mg/L	SW-846 6010A
Sodium	626	mg/L	27.23	meq/L	1 mg/L	SW-846 6010A
Carbonate	278	mg/L	4.56	meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*		0.00		1 mg/L	EPA 310.1
Chloride	784	mg/L	22.12	meq/L	1 mg/L	SW-846 9251
Sulfate	1370	mg/L	28.50	meq/L	5 mg/L	SW-846 9036
Major Cation Sum	57.13		meq/L		N/A	Calculation
Major Anion Sum	55.18		meq/L		N/A	Calculation
Cation/Anion Balance	1.74		% Diff		N/A	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-4C BAIL

Lab ID: 0495W00787/0695G00191

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.070 mg/L	0.005	SW-846 7061A
Total Chromium	0.019 mg/L	0.005	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

Dissolved Metals			
Dissolved Arsenic	0.063 mg/L	0.005	SW-846 7061A
Dissolved Chromium	0.011 mg/L	0.005	SW-846 7191
Dissolved Lead	ND*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project : RFI Phase III / Artesia, NM

Sample ID: MW-5C Pump

Laboratory ID: 0695G00192

Sample Matrix: Water

Preservative: Cool, HCl

Condition: Intact, pH<2

Report Date: 01/25/95

Date Sampled: 01/20/95

Date Received: 01/23/95

Date Extracted: 01/24/95

Date Analyzed: 01/24/95

Time Analyzed: 6:46 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

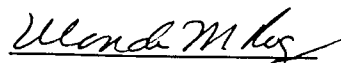
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	102%	76 - 114%
	Toluene-d8	99%	88 - 110%
	Bromofluorobenzene	96%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-5C PUMP

Lab ID: 0495W00788/0695G00192

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.4 s.u.	0.1	SW-846 9040
Conductivity (Lab)	4570 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	3430 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	184 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	1720 mg/L	1	Calculation
Fluoride	1.0 mg/L	0.1	EPA 340.2

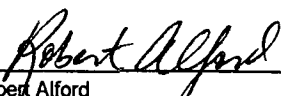
Calcium	480 mg/L	23.95 meq/L	1 mg/L	SW-846 6010A
Magnesium	126 mg/L	10.37 meq/L	1 mg/L	SW-846 6010A
Potassium	4 mg/L	0.10 meq/L	1 mg/L	SW-846 6010A
Sodium	388 mg/L	16.88 meq/L	1 mg/L	SW-846 6010A
Carbonate	224 mg/L	3.67 meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	540 mg/L	15.23 meq/L	1 mg/L	SW-846 9251
Sulfate	1450 mg/L	30.21 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	51.30 meq/L	N/A	Calculation	
Major Anion Sum	49.12 meq/L	N/A	Calculation	
Cation/Anion Balance	2.17 % Diff	N/A	Calculation	

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

3304 Longmire Drive
College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-5C PUMP

Lab ID: 0495W00788/0695G00192

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.022 mg/L	0.005	SW-846 7061A
Total Chromium	0.031 mg/L	0.005	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW-5C Bail
Laboratory ID: 0695G00193
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH=7

Report Date: 01/25/95
Date Sampled: 01/20/95
Date Received: 01/23/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 7:22 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	0.009	0.005
Toluene	0.005	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	96%	76 - 114%
	Toluene-d8	98%	88 - 110%
	Bromofluorobenzene	95%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270 SEMIVOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: MW - 5C Bail

Laboratory ID: 0695G00193

Sample Matrix: Water

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/20/95

Date Received: 01/23/95

Date Extracted: 01/25/95

Date Analyzed: 01/26/95

Time Analyzed: 11:16 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	59%	21 - 110%
Phenol - d5	61%	10 - 110%
Nitrobenzene - d5	54%	35 - 114%
2 - Fluorobiphenyl	61%	43 - 116%
2,4,6 - Tribromophenol	80%	10 - 123%
Terphenyl - d14	82%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Hydrocarbon envelope from 9 to 30 minutes.

Ramona R. Dennis
Analyst

Wendy M. Logg
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-5C BAIL

Lab ID: 0495W00789/0695G00193

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.4 s.u.	0.1	SW-846 9040
Conductivity (Lab)	4820 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	3750 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	174 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	1770 mg/L	1	Calculation
Fluoride	1.2 mg/L	0.1	EPA 340.2

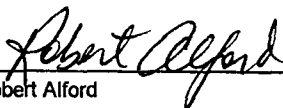
Calcium	503 mg/L	25.10 meq/L	1 mg/L	SW-846 6010A
Magnesium	126 mg/L	10.37 meq/L	1 mg/L	SW-846 6010A
Potassium	6 mg/L	0.15 meq/L	1 mg/L	SW-846 6010A
Sodium	428 mg/L	18.62 meq/L	1 mg/L	SW-846 6010A
Bicarbonate	212 mg/L	3.48 meq/L	1 mg/L	EPA 310.1
Carbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	515 mg/L	14.53 meq/L	1 mg/L	SW-846 9251
Sulfate	1660 mg/L	34.62 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	54.24 meq/L		N/A	Calculation
Major Anion Sum	52.62 meq/L		N/A	Calculation
Cation/Anion Balance	1.52 % Diff		N/A	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

33 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-5C BAIL

Lab ID: 0495W00789/0695G00193

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.204 mg/L	0.005	SW-846 7061A
Total Chromium	0.526 mg/L	0.005	SW-846 7191
Total Lead	0.28 mg/L	0.01	SW-846 7421
Total Nickel	0.35 mg/L	0.05	SW-846 7520

Dissolved Metals			
Dissolved Arsenic	0.013 mg/L	0.005	SW-846 7061A
Dissolved Chromium	ND*	0.005 mg/L	SW-846 7191
Dissolved Lead	ND*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford

Supervisor, Water Laboratory



Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: Pond Wind Mill
Laboratory ID: 0695G00194
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/25/95
Date Sampled: 01/20/95
Date Received: 01/23/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 8:01 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	99%	76 - 114%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	89%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: POND WINDMILL

Lab ID: 0495W00790/0695G00194

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.6 s.u.	0.1	SW-846 9040
Conductivity (Lab)	6610 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	4450 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	118 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	1460 mg/L	1	Calculation
Fluoride	1.0 mg/L	0.1	EPA 340.2

Calcium	298 mg/L	14.87 meq/L	1 mg/L	SW-846 6010A
Magnesium	173 mg/L	14.24 meq/L	1 mg/L	SW-846 6010A
Potassium	4 mg/L	0.10 meq/L	1 mg/L	SW-846 6010A
Sodium	841 mg/L	36.58 meq/L	1 mg/L	SW-846 6010A
Bicarbonate	144 mg/L	2.36 meq/L	1 mg/L	EPA 310.1
Carbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	1070 mg/L	30.18 meq/L	1 mg/L	SW-846 9251
Sulfate	1550 mg/L	32.21 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	65.79 meq/L	N/A		Calculation
Major Anion Sum	64.75 meq/L	N/A		Calculation
Cation/Anion Balance	0.80 % Diff	N/A		Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: POND WINDMILL
Lab ID: 0495W00790/0695G00194
Matrix: Water
Condition: Intact

Report Date: 03/28/95
Receipt Date: 01/24/95
Sample Date: 01/20/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	ND*	0.005 mg/L	SW-846 7061A
Total Chromium	ND*	0.005 mg/L	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	0.06 mg/L	0.05	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: Trip Blank
Laboratory ID: 0695G00195
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/24/95
Date Sampled: NA
Date Received: 01/23/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 3:08 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	102%	76 - 114%
	Toluene-d8	98%	88 - 110%
	Bromofluorobenzene	89%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: OCD-7C Pump
Laboratory ID: 0695G00196
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/25/95
Date Sampled: 01/21/95
Date Received: 01/23/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 8:41 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	100%	76 - 114%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	103%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratory
83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: OCD-7C PUMP
Lab ID: 0495W00791/0695G00196
Matrix: Water
Condition: Intact

Report Date: 03/28/95
Receipt Date: 01/24/95
Sample Date: 01/21/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.1 s.u.	0.1	SW-846 9040
Conductivity (Lab)	12100 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	8730 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	374 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	2490 mg/L	1	Calculation
Fluoride	1.0 mg/L	0.1	EPA 340.2

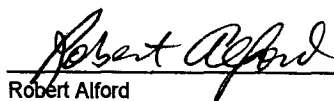
Calcium	643 mg/L	32.09 meq/L	1 mg/L	SW-846 6010A
Magnesium	216 mg/L	17.78 meq/L	1 mg/L	SW-846 6010A
Potassium	11 mg/L	0.28 meq/L	1 mg/L	SW-846 6010A
Sodium	1900 mg/L	82.82 meq/L	1 mg/L	SW-846 6010A
Carbonate	456 mg/L	7.48 meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	2160 mg/L	60.90 meq/L	1 mg/L	SW-846 9251
Sulfate	2860 mg/L	59.55 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	132.97 meq/L	N/A		Calculation
Major Anion Sum	127.93 meq/L	N/A		Calculation
Cation/Anion Balance	1.93 % Diff	N/A		Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: OCD-7C PUMP

Lab ID: 0495W00791/0695G00196

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/21/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.011 mg/L	0.005	SW-846 7061A
Total Chromium	0.018 mg/L	0.005	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: OCD-7C Bail
Laboratory ID: 0695G00198
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH=7

Report Date: 01/25/95
Date Sampled: 01/21/95
Date Received: 01/23/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 9:22 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	102%	76 - 114%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	100%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

EPA Method 8270
SEMIVOLATILE ORGANIC COMPOUNDS
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Organics Laboratory

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: OCD - 7C Bail

Laboratory ID: 0695G00198

Sample Matrix: Water

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/21/95

Date Received: 01/23/95

Date Extracted: 01/25/95

Date Analyzed: 01/26/95

Time Analyzed: 12:47 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	56%	21 - 110%
Phenol - d5	59%	10 - 110%
Nitrobenzene - d5	49%	35 - 114%
2 - Fluorobiphenyl	62%	43 - 116%
2,4,6 - Tribromophenol	86%	10 - 123%
Terphenyl - d14	85%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Hydrocarbon envelope from 11 to 29 minutes.

Ramona R. Dennis
Analyst

Wanda M. Cog
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: OCD-7C BAIL

Lab ID: 0495W00792/0695G00198

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/21/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.3 s.u.	0.1	SW-846 9040
Conductivity (Lab)	7140 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	5280 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	263 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	2100 mg/L	1	Calculation
Fluoride	1.7 mg/L	0.1	EPA 340.2

Calcium	620	mg/L	30.94	meq/L	1 mg/L	SW-846 6010A
Magnesium	134	mg/L	11.03	meq/L	1 mg/L	SW-846 6010A
Potassium	14	mg/L	0.36	meq/L	1 mg/L	SW-846 6010A
Sodium	789	mg/L	34.32	meq/L	1 mg/L	SW-846 6010A
Bicarbonate	320	mg/L	5.25	meq/L	1 mg/L	EPA 310.1
Carbonate	ND*		0.00		1 mg/L	EPA 310.1
Chloride	1000	mg/L	28.24	meq/L	1 mg/L	SW-846 9251
Sulfate	2040	mg/L	42.54	meq/L	5 mg/L	SW-846 9036
Major Cation Sum	76.65			meq/L	N/A	Calculation
Major Anion Sum	76.03			meq/L	N/A	Calculation
Cation/Anion Balance	0.41			% Diff	N/A	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: OCD-7C BAIL

Lab ID: 0495W00792/0695G00198

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/21/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.111 mg/L	0.005	SW-846 7061A
Total Chromium	0.598 mg/L	0.005	SW-846 7191
Total Lead	0.33 mg/L	0.01	SW-846 7421
Total Nickel	0.53 mg/L	0.05	SW-846 7520

Dissolved Metals			
Dissolved Arsenic	0.015 mg/L	0.005	SW-846 7061A
Dissolved Chromium	0.005 mg/L	0.005	SW-846 7191
Dissolved Lead	ND*	0.01 mg/L	SW-846 7421
Dissolved Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: Field Dup #1
Laboratory ID: 0695G00197
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH=7

Report Date: 01/25/95
Date Sampled: 01/21/95
Date Received: 01/23/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 10:02 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	98%	76 - 114%
	Toluene-d8	98%	88 - 110%
	Bromofluorobenzene	87%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inorganic Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project: RFI Phase III / Artesia, NM

Sample ID: Field Dup #1

Laboratory ID: 0695G00197

Sample Matrix: Water

Condition: Intact

Preservative: Cool

Report Date: 01/26/95

Date Sampled: 01/21/95

Date Received: 01/23/95

Date Extracted: 01/25/95

Date Analyzed: 01/26/95

Time Analyzed: 12:01 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Chrysene	ND	0.010
Dibenz(a,h)anthracene	ND	0.010
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Naphthalene	ND	0.010
Phenanthrene	ND	0.010
Pyrene	ND	0.010

ND - Analyte not detected at stated limit of detection

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	60%	21 - 110%
Phenol - d5	67%	10 - 110%
Nitrobenzene - d5	61%	35 - 114%
2 - Fluorobiphenyl	69%	43 - 116%
2,4,6 - Tribromophenol	80%	10 - 123%
Terphenyl - d14	80%	33 - 141%

References: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: Hydrocarbon envelope from 9 to 32 minutes.

Ramona R. Dennis
Analyst

Ulrich M. Kog
Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB0124
Sample Matrix: Water

Report Date: 01/24/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 1:10 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS ADDITIONAL DETECTED COMPOUNDS

Page 2

Sample ID: Method Blank
Laboratory ID: MB0124
Sample Matrix: Water

Report Date: 01/24/95
Date Extracted: 01/24/95
Date Analyzed: 01/24/95
Time Analyzed: 1:10 PM

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

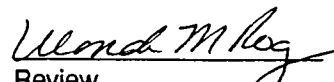
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	1,2-Dichloroethane-d4	100%	86 - 118%
	Toluene - d8	98%	88 - 110%
	Bromofluorobenzene	101%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review

**Inter-Mountain Laboratories, Inc.**

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692**QUALITY CONTROL REPORT - METHOD BLANK**
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDSSample ID: Method Blank
Laboratory ID: MB0126
Sample Matrix: WaterReport Date: 01/26/95
Date Extracted: 01/26/95
Date Analyzed: 01/26/95
Time Analyzed: 3:49 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.025
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.005
2-Butanone (MEK)	ND	0.020
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.005
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



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11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Page 2

Sample ID: Method Blank
Laboratory ID: MB0126
Sample Matrix: Water

Report Date: 01/26/95
Date Extracted: 01/26/95
Date Analyzed: 01/26/95
Time Analyzed: 3:49 PM

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

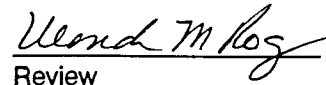
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	91%	86 - 118%
	Toluene - d8	103%	88 - 110%
	Bromofluorobenzene	96%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


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Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - MATRIX SPIKE/SPIKE DUPLICATE ANALYSIS EPA Method 8240 - VOLATILE ORGANICS

Laboratory ID: 0695G00189
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 01/25/95
Date Sampled: 01/18/95
Date Received: 01/23/95
Date Analyzed: 01/24/95
Time Analyzed: 5:03 PM/5:36 PM

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
1,1 - Dichloroethene	0.100	ND	0.100	100%	61 - 145
Trichloroethene	0.108	ND	0.100	108%	71 - 120
Benzene	0.116	ND	0.100	116%	76 - 127
Toluene	0.111	ND	0.100	111%	76 - 125
Chlorobenzene	0.111	ND	0.100	111%	75 - 130

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits RPD	Rec.
1,1 - Dichloroethene	0.104	104%	100%	4%	14%	61 - 145
Trichloroethene	0.113	113%	108%	5%	14%	71 - 120
Benzene	0.121	121%	116%	4%	11%	76 - 127
Toluene	0.116	116%	111%	4%	13%	76 - 125
Chlorobenzene	0.115	115%	111%	4%	13%	75 - 130

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 out of 10 outside QC Limits
RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	102%	101%	86 - 118%
	Toluene-d8	98%	98%	88 - 110%
	Bromofluorobenzene	94%	90%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inorganics Laboratory

11183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK**EPA Method 8270****SEMIVOLATILE ORGANIC COMPOUNDS**

Sample ID: Method Blank
Laboratory ID: MB023
Sample Matrix: Water

Report Date: 01/26/95
Date Extracted: 01/25/95
Date Analyzed: 01/25/95
Time Analyzed: 7:59 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acenaphthene	ND	0.010
Acenaphthylene	ND	0.010
Anthracene	ND	0.010
Benzo(a)anthracene	ND	0.010
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(g,h,i)perylene	ND	0.010
Benzo(a)pyrene	ND	0.010
Benzoic acid	ND	0.010
Benzyl alcohol	ND	0.010
Bis(2-chloroethoxy)methane	ND	0.010
Bis(2-chloroethyl)ether	ND	0.010
Bis(2-chloroisopropyl)ether	ND	0.010
Bis(2-ethylhexyl)phthalate	ND	0.025
4-Bromophenyl phenyl ether	ND	0.010
Butyl benzyl phthalate	ND	0.010
p - Chloroaniline	ND	0.010
p - Chloro - m - cresol	ND	0.010
2 - Chloronaphthalene	ND	0.010
2 - Chlorophenol	ND	0.010
4-Chlorophenyl phenyl ether	ND	0.010
Chrysene	ND	0.010
o - Cresol	ND	0.010
m,p - Cresol	ND	0.010
Di - n - butylphthalate	ND	0.025
Dibenz(a,h)anthracene	ND	0.010
Dibenzofuran	ND	0.010
o - Dichlorobenzene	ND	0.010
m - Dichlorobenzene	ND	0.010
p - Dichlorobenzene	ND	0.010
3,3 - Dichlorobenzidine	ND	0.010
2,4 - Dichlorophenol	ND	0.010
Diethyl phthalate	ND	0.010
2,4 - Dimethylphenol	ND	0.010
Dimethyl phthalate	ND	0.010



Inorganics Laboratory

11183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270

Page 2

SEMIVOLATILE ORGANIC COMPOUNDS (cont)

Sample ID: Method Blank
Laboratory ID: MB023

Report Date: 01/26/95
Date Analyzed: 01/25/95

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
4,6 - Dinitro -2- methylphenol	ND	0.025
2,4 - Dinitrophenol	ND	0.025
2,4 - Dinitrotoluene	ND	0.010
2,6 - Dinitrotoluene	ND	0.010
Di-n-octyl phthalate	ND	0.025
Fluoranthene	ND	0.010
Fluorene	ND	0.010
Hexachlorobenzene	ND	0.010
Hexachlorocyclopentadiene	ND	0.025
Hexachloroethane	ND	0.010
Hexachlorobutadiene	ND	0.010
Ideno(1,2,3-cd)pyrene	ND	0.010
Isophorone	ND	0.010
2 - Methylnaphthalene	ND	0.010
Naphthalene	ND	0.010
o - Nitroaniline	ND	0.010
m - Nitroaniline	ND	0.010
p - Nitroaniline	ND	0.010
Nitrobenzene	ND	0.010
o - Nitrophenol	ND	0.010
p - Nitrophenol	ND	0.010
n - Nitrosodimethylamine	ND	0.010
n - Nitrosodiphenylamine	ND	0.010
n-Nitroso-di-n-propylamine	ND	0.010
Pentachlorophenol	ND	0.025
Phenanthrene	ND	0.010
Phenol	ND	0.010
Pyrene	ND	0.010
1,2,4 - Trichlorobenzene	ND	0.010
2,4,5 - Trichlorophenol	ND	0.010
2,4,6 - Trichlorophenol	ND	0.010

ND - Analyte not detected at stated limit of detection



Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8270
SEMIVOLATILE HYDROCARBONS
ADDITIONAL DETECTED COMPOUNDS

Page 3

Sample ID: Method Blank
Laboratory ID: MB023

Report Date: 01/26/95
Date Analyzed: 01/25/95

Tentative Identification	Retention Time (Minutes)	Concentration* (mg/L)
None detected at reported limits of detection.		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:

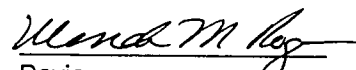
<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
2 - Fluorophenol	53%	21 - 110%
Phenol - d5	54%	10 - 110%
Nitrobenzene - d5	56%	35 - 114%
2 - Fluorobiphenyl	60%	43 - 116%
2,4,6 - Tribromophenol	72%	10 - 123%
Terphenyl - d14	87%	33 - 141%

References:

Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - BLANK SPIKE

EPA Method 8270

SEMIVOLATILE ORGANIC COMPOUNDS

Sample ID: Blank Spike
Laboratory ID: DI SPK 022
Sample Matrix: Water

Report Date: 01/26/95
Date Extracted: 01/25/95
Date Analyzed: 01/25/95
Time Analyzed: 8:45 PM

Analyte	Spike Conc. (mg/L)	Blank Conc. (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits
Phenol	0.099	ND	0.200	50%	5 - 112%
2 - Chlorophenol	0.101	ND	0.200	51%	23 - 134%
1,4 - Dichlorobenzene	0.049	ND	0.100	49%	20 - 124%
n-Nitroso-di-propylamine	0.069	ND	0.100	69%	D - 230%
1,2,4 - Trichlorobenzene	0.061	ND	0.100	61%	44 - 142%
4-Chloro-3-methylphenol	0.126	ND	0.200	63%	22 - 147%
Acenaphthene	0.070	ND	0.100	70%	47 - 145%
4 - Nitrophenol	0.135	ND	0.200	68%	D - 132%
2,4 - Dinitrotoluene	0.073	ND	0.100	73%	39 - 139%
Pentachlorophenol	0.146	ND	0.200	73%	14 - 176%
Pyrene	0.077	ND	0.100	77%	52 - 115%

ND - Analyte not detected at stated limit of detection.

Spike Recovery: 0 of 11 spike recoveries outside QC limits.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
2 - Fluorophenol	49%	21 - 110 %
Phenol - d6	58%	10 - 110 %
Nitrobenzene - d5	63%	35 - 114 %
2 - Fluorobiphenyl	74%	43 - 116 %
2,4,6 - Tribromoph	86%	10 - 123 %
Terphenyl - d14	82%	33 - 141 %

Reference: Method 3510: Separatory Funnel Liquid-Liquid Extraction.
Method 8270: Gas Chromatography / Mass Spectrometry for Semivolatile Organics
Test Methods for Evaluating Solid Wastes, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments:

Ramona R. Dennis
Analyst

Wendy M. Kay
Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratory
183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Quality Control Report Duplicate Analysis

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: POND WINDMILL
Lab ID: 0495W00790/0695G00194
Matrix: Water
Condition: Intact

Report Date: 03/28/95
Receipt Date: 01/24/95
Sample Date: 01/20/95

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
pH (Lab)	7.6	7.6	0	0.1 s.u.	SW-846 9040
Conductivity (Lab)	6610	6610	0	1 µmhos/cm	SW-846 9050
Total Dissolved Solids (180° C)	4450	4500	1	10 mg/L	EPA 160.1
Total Alkalinity (as CaCO ₃)	118	118	0	1 mg/L	EPA 310.1
Total Hardness (as CaCO ₃)	1460	1470	0	1 mg/L	Calculation
Fluoride	1.0	1.0	0	0.1 mg/L	EPA 340.2

Calcium	298	301	1	1 mg/L	SW-846 6010A
Magnesium	173	175	1	1 mg/L	SW-846 6010A
Potassium	4	6	20	1 mg/L	SW-846 6010A
Sodium	841	847	0	1 mg/L	SW-846 6010A
Carbonate	144	143	0	1 mg/L	EPA 310.1
Bicarbonate	ND*	ND*	NC*	1 mg/L	EPA 310.1
Chloride	1070	1120	2	1 mg/L	SW-846 9251
Sulfate	1550	1570	1	5 mg/L	SW-846 9036
Major Cation Sum	65.79	66.40	0	meq/L	Calculation
Major Anion Sum	64.75	66.61	1	meq/L	Calculation
Cation/Anion Balance	0.80	-0.16		% Diff	Calculation

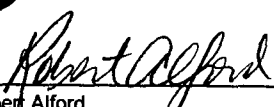
*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Quality Control Report Duplicate Analysis

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: POND WINDMILL

Lab ID: 0495W00790/0695G00194

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 01/24/95

Sample Date: 01/20/95

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
Total Metals					
Total Arsenic	ND*	ND*	NC*	0.005 mg/L	SW-846 7061A
Total Chromium	ND*	ND*	NC*	0.005 mg/L	SW-846 7191
Total Lead	ND*	ND*	NC*	0.01 mg/L	SW-846 7421
Total Nickel	0.06	ND*	NC*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory





Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Mr. David Boyer
RE/SPEC
4775 Indian School Road
NE Ste. 300
Albuquerque, New Mexico 87110-3927

March 13, 1995

Dear Mr. Boyer,

On February 28, 1995, eight water samples and one trip blank were received, cool and intact, by Inter-Mountain Laboratories - College Station. The samples were identified by project name "RFI Phase III." Analyses for Volatiles, general water chemistry, and Metals were performed as requested on the accompanying chain of custody.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the sample reported here are found in "Test Methods for Evaluating Solid Waste", SW-846, USEPA, Final Update I, July 1992. All reports in this package reference the methods utilized.

Quality Control reports have been included for your information and use. These reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, feel free to call at your convenience.

Sincerely,

Ramona R. Dennis

Enclosures

NAV0602



CHAIN OF CUSTODY RECORD

Client/Project Name NAVAJO / RFI Phase III						Project Location ARTESIA, NM		ANALYSES / PARAMETERS							
Chain of Custody Tape No.							No. of Containers						Remarks		
Sample No./ Identification	Date	Time	Lab Number	Matrix											
MW-28	2/23/95	1655	0695G0002	Water									Rush - 10 WORKING Days		
OCD-7C	2/24/95	1255	" " 603				X								
OCD-7A	" "	1315	" " 604				X								
MW-5C	" "	1435	" " 605				X								
MW-5A	" "	1505	" " 606				X								
MW-15	" "	1600	" " 607				X								
MW-4C	" "	1710	" " 608				X								
MW-4A	" "	1740	" " 609				X								
Trip BLANK	-	-	" " 610				X								
Relinquished by: (Signature) <i>[Signature]</i>							Received by: (Signature) <i>[Signature]</i>		Date 2/25/95	Time 1800	Date 2/28/95	Time 1030			
Relinquished by: (Signature)							Received by: (Signature)		Date	Time	Date	Time			
Relinquished by: (Signature)							Received by laboratory: (Signature)		Date	Time	Date	Time			

Inter-Mountain Laboratories, Inc.

☐ 1633 Terra Avenue
Sheridan, Wyoming 82801
Telephone (307) 672-8945

☐ 1714 Phillips Circle
Gillette, Wyoming 82716
Telephone (307) 682-8945

☐ 2506 West Main Street
Farmington, NM 87401
Telephone (505) 326-4737

☐ 1160 Research Dr.
Bozeman, Montana 59715
Telephone (406) 586-8450

☐ 11183 SH 30
College Station, TX 77845
Telephone (409) 776-8945

☒ 3304 Longmire Drive
College Station, TX 77845
Telephone (409) 774-4999

25704



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Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-28

Lab ID: 0495W01924/0695G00602

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 03/01/95

Sample Date: 02/23/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	ND*	0.005 mg/L	SW-846 7061A
Total Chromium	ND*	0.005 mg/L	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: OCD-7C

Lab ID: 0495W01925/0695G00603

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 03/01/95

Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.0 s.u.	0.1	SW-846 9040
Conductivity (Lab)	10400 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	8680 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	431 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	2520 mg/L	1	Calculation
Fluoride	1.2 mg/L	0.1	EPA 340.2

Calcium	650	mg/L	32.44	meq/L	1 mg/L	SW-846 6010A
Magnesium	217	mg/L	17.86	meq/L	1 mg/L	SW-846 6010A
Potassium	11	mg/L	0.28	meq/L	1 mg/L	SW-846 6010A
Sodium	1880	mg/L	81.77	meq/L	1 mg/L	SW-846 6010A
Carbonate	525	mg/L	8.61	meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*		0.00		1 mg/L	EPA 310.1
Chloride	2250	mg/L	63.33	meq/L	1 mg/L	SW-846 9251
Sulfate	3110	mg/L	64.77	meq/L	5 mg/L	SW-846 9036
Major Cation Sum	132.35			meq/L	N/A	Calculation
Major Anion Sum	136.71			meq/L	N/A	Calculation
Cation/Anion Balance	-1.62			% Diff	N/A	Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories
83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: OCD-7C
Lab ID: 0495W01925/0695G00603
Matrix: Water
Condition: Intact

Report Date: 03/28/95
Receipt Date: 03/01/95
Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.011 mg/L	0.005	SW-846 7061A
Total Chromium	ND*	0.005 mg/L	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory
183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: OCD-7A
Lab ID: 0495W01926/0695G00604
Matrix: Water
Condition: Intact

Report Date: 03/28/95
Receipt Date: 03/01/95
Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.3 s.u.	0.1	SW-846 9040
Conductivity (Lab)	10100 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	8590 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	579 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	2350 mg/L	1	Calculation
Fluoride	1.1 mg/L	0.1	EPA 340.2

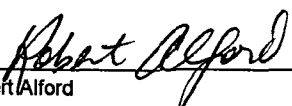
Calcium	571 mg/L	28.49 meq/L	1 mg/L	SW-846 6010A
Magnesium	225 mg/L	18.52 meq/L	1 mg/L	SW-846 6010A
Potassium	3 mg/L	0.09 meq/L	1 mg/L	SW-846 6010A
Sodium	1850 mg/L	80.34 meq/L	1 mg/L	SW-846 6010A
Carbonate	706 mg/L	11.57 meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	1930 mg/L	54.42 meq/L	1 mg/L	SW-846 9251
Sulfate	2950 mg/L	61.48 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	127.44 meq/L	N/A		Calculation
Major Anion Sum	127.47 meq/L	N/A		Calculation
Cation/Anion Balance	-0.01 % Diff	N/A		Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

93 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: OCD-7A

Lab ID: 0495W01926/0695G00604

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 03/01/95

Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.030 mg/L	0.005	SW-846 7061A
Total Chromium	0.007 mg/L	0.005	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:

Robert Alford

Supervisor, Water Laboratory



Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW - 5C
Laboratory ID: 0695G00605
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 03/09/95
Date Sampled: 02/24/95
Date Received: 02/28/95
Date Extracted: 03/08/95
Date Analyzed: 03/08/95
Time Analyzed: 12:05 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

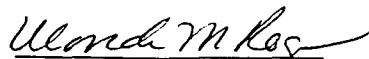
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	96%	86 - 114%
	Toluene-d8	98%	88 - 110%
	Bromofluorobenzene	103%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-5C

Lab ID: 0495W01927/0695G00605

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 03/01/95

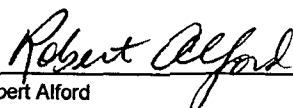
Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.008 mg/L	0.005	SW-846 7061A
Total Chromium	ND*	0.005 mg/L	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-5A

Lab ID: 0495W01928/0695G00606

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 03/01/95

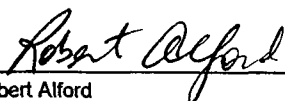
Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.092 mg/L	0.005	SW-846 7061A
Total Chromium	ND*	0.005 mg/L	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories

11183 SH 30 College Station, Texas 77845

Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845

Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**

Project : RFI Phase III / Artesia, NM

Sample ID: MW - 15

Laboratory ID: 0695G00607

Sample Matrix: Water

Preservative: Cool, HCl

Condition: Intact, pH<2

Report Date: 03/09/95

Date Sampled: 02/24/95

Date Received: 02/28/95

Date Extracted: 03/08/95

Date Analyzed: 03/08/95

Time Analyzed: 12:44 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	96%	86 - 114%
	Toluene-d8	102%	88 - 110%
	Bromofluorobenzene	101%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Analyst

Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-15

Lab ID: 0495W01929/0695G00607

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 03/01/95

Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
pH (Lab)	7.6 s.u.	0.1	SW-846 9040
Conductivity (Lab)	2880 μ mhos/cm	1	SW-846 9050
Total Dissolved Solids (180° C)	2200 mg/L	10	EPA 160.1
Total Alkalinity (as CaCO ₃)	102 mg/L	1	EPA 310.1
Total Hardness (as CaCO ₃)	981 mg/L	1	Calculation
Fluoride	1.1 mg/L	0.1	EPA 340.2

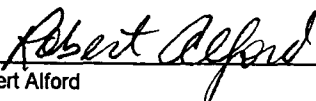
Calcium	263 mg/L	13.12 meq/L	1 mg/L	SW-846 6010A
Magnesium	79 mg/L	6.50 meq/L	1 mg/L	SW-846 6010A
Potassium	4 mg/L	0.11 meq/L	1 mg/L	SW-846 6010A
Sodium	332 mg/L	14.44 meq/L	1 mg/L	SW-846 6010A
Carbonate	124 mg/L	2.03 meq/L	1 mg/L	EPA 310.1
Bicarbonate	ND*	0.00	1 mg/L	EPA 310.1
Chloride	443 mg/L	12.50 meq/L	1 mg/L	SW-846 9251
Sulfate	943 mg/L	19.63 meq/L	5 mg/L	SW-846 9036
Major Cation Sum	34.17 meq/L	N/A		Calculation
Major Anion Sum	34.17 meq/L	N/A		Calculation
Cation/Anion Balance	0.00 % Diff	N/A		Calculation

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: MW - 4C
Laboratory ID: 0695G00608
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 03/09/95
Date Sampled: 02/24/95
Date Received: 02/28/95
Date Extracted: 03/09/95
Date Analyzed: 03/09/95
Time Analyzed: 2:40 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

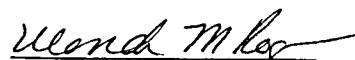
ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	101%	86 - 114%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	103%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

83 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW-4C

Lab ID: 0495W01930/0695G00608

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 03/01/95

Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.061 mg/L	0.005	SW-846 7061A
Total Chromium	ND*	0.005 mg/L	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganics Laboratory

33 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

WATER QUALITY REPORT

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Client: Navajo Refining Co.

Project: RFI Phase III / Artesia, NM

Sample ID: MW--4A

Lab ID: 0495W01931/0695G00609

Matrix: Water

Condition: Intact

Report Date: 03/28/95

Receipt Date: 03/01/95

Sample Date: 02/24/95

Parameter	Concentration	PQL	Method
Total Metals			
Total Arsenic	0.051 mg/L	0.005	SW-846 7061A
Total Chromium	ND*	0.005 mg/L	SW-846 7191
Total Lead	ND*	0.01 mg/L	SW-846 7421
Total Nickel	ND*	0.05 mg/L	SW-846 7520

*ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:



Robert Alford

Supervisor, Water Laboratory



Inter-Mountain Laboratories, Inc.

Inorganic Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

EPA Method 8240 VOLATILE ORGANIC COMPOUNDS

Client: **NAVAJO REFINING COMPANY**
Project : RFI Phase III / Artesia, NM
Sample ID: Trip Blank
Laboratory ID: 0695G00610
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 03/09/95
Date Sampled: NA
Date Received: 02/28/95
Date Extracted: 03/07/95
Date Analyzed: 03/07/95
Time Analyzed: 11:27 PM

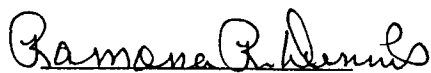
Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.005
Toluene	ND	0.005
Ethylbenzene	ND	0.005
m,p-Xylene	ND	0.005
o-Xylene	ND	0.005
Methyl ethyl ketone	ND	0.005
Carbon disulfide	ND	0.005

ND - Analyte not detected at stated limit of detection

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	95%	86 - 114%
	Toluene-d8	101%	88 - 110%
	Bromofluorobenzene	101%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB0307C
Sample Matrix: Water

Report Date: 03/09/95
Date Extracted: 03/07/95
Date Analyzed: 03/07/95
Time Analyzed: 9:34 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.050
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.010
2-Butanone (MEK)	ND	0.025
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.010
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Page 2

Sample ID: Method Blank
Laboratory ID: MB0307C
Sample Matrix: Water

Report Date: 03/09/95
Date Extracted: 03/07/95
Date Analyzed: 03/07/95
Time Analyzed: 9:34 PM

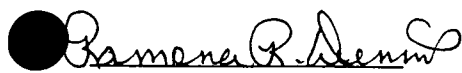
Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	101%	86 - 118%
	Toluene-d8	100%	88 - 110%
	Bromofluorobenzene	100%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



Inorganics Laboratory

11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Inter-Mountain Laboratories, Inc.

Organics Laboratory

3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB0308C
Sample Matrix: Water

Report Date: 03/09/95
Date Extracted: 03/08/95
Date Analyzed: 03/08/95
Time Analyzed: 9:59 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.050
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.010
2-Butanone (MEK)	ND	0.025
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.010
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



Inorganic Laboratories
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Inter-Mountain Laboratories, Inc.

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Page 2

Sample ID: Method Blank
Laboratory ID: MB0308C
Sample Matrix: Water

Report Date: 03/09/95
Date Extracted: 03/08/95
Date Analyzed: 03/08/95
Time Analyzed: 9:59 PM

Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

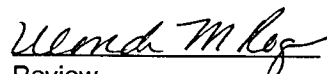
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Dibromofluoromethane	101%	86 - 118%
	Toluene-d8	101%	88 - 110%
	Bromofluorobenzene	101%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


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Inter-Mountain Laboratories, Inc.

Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
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Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
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QUALITY CONTROL REPORT - METHOD BLANK EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS

Sample ID: Method Blank
Laboratory ID: MB0309
Sample Matrix: Water

Report Date: 03/10/95
Date Extracted: 03/09/95
Date Analyzed: 02/09/95
Time Analyzed: 11:51 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	ND	0.050
Benzene	ND	0.005
Bromodichloromethane	ND	0.005
Bromoform	ND	0.005
Bromomethane	ND	0.010
2-Butanone (MEK)	ND	0.025
Carbon disulfide	ND	0.005
Carbon tetrachloride	ND	0.005
Chlorobenzene	ND	0.005
Chloroethane	ND	0.010
Chloroform	ND	0.005
Chloromethane	ND	0.010
Dibromochloromethane	ND	0.005
1,1-Dichloroethane	ND	0.005
1,1-Dichloroethene	ND	0.005
trans-1,2-Dichloroethene	ND	0.005
1,2-Dichloroethane	ND	0.005
1,2-Dichloropropane	ND	0.005
cis-1,3-Dichloropropene	ND	0.005
trans-1,3-Dichloropropene	ND	0.005
Ethylbenzene	ND	0.005
2-Hexanone	ND	0.005
Methylene chloride	ND	0.005
4-Methyl-2-pentanone	ND	0.005
Styrene	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
Tetrachloroethene	ND	0.005
Toluene	ND	0.005
1,1,1-Trichloroethane	ND	0.005
1,1,2-Trichloroethane	ND	0.005
Trichloroethene	ND	0.005
Vinyl acetate	ND	0.005
Vinyl chloride	ND	0.010
Xylenes (total)	ND	0.005

ND - Analyte not detected at stated limit of detection



QUALITY CONTROL REPORT - METHOD BLANK
EPA METHOD 8240 VOLATILE ORGANIC COMPOUNDS
ADDITIONAL DETECTED COMPOUNDS

Page 2

Sample ID: Method Blank
Laboratory ID: MB0309
Sample Matrix: Water

Report Date: 03/10/95
Date Extracted: 03/09/95
Date Analyzed: 02/09/95
Time Analyzed: 11:51 AM

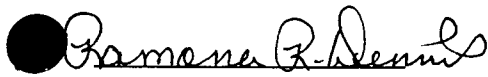
Tentative Identification	Retention Time (Minutes)	Concentration (mg/L) *
None detected at reportable levels		

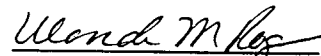
* - Concentration calculated using assumed Relative Response Factor = 1

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Dibromofluoromethane	9%	86 - 118%
	Toluene-d8	101%	88 - 110%
	Bromofluorobenzene	98%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.


Analyst


Review



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11183 SH 30 College Station, Texas 77845
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Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

QUALITY CONTROL REPORT - MATRIX SPIKE / SPIKE DUPLICATE ANALYSIS

EPA Method 8240 - VOLATILE ORGANICS

Laboratory ID: 0695G00608
Sample Matrix: Water
Preservative: Cool, HCl
Condition: Intact, pH<2

Report Date: 03/13/95
Date Sampled: 02/24/95
Date Received: 02/28/95
Date Analyzed: 03/09/95
Time Analyzed: 8:43 PM / 9:22 PM

MATRIX SPIKE ANALYSIS

Analyte	Spiked Sample Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery	QC Limits Recovery
1,1 - Dichloroethene	0.099	ND	0.100	99%	61 - 145
Trichloroethene	0.105	ND	0.100	105%	71 - 120
Benzene	0.112	ND	0.100	112%	76 - 127
Toluene	0.113	ND	0.100	113%	76 - 125
Chlorobenzene	0.115	ND	0.100	115%	75 - 130

MATRIX SPIKE DUPLICATE ANALYSIS

Analyte	Duplicate Result (mg/L)	Percent Recovery	Original Spike Result (mg/L)	RPD	QC Limits RPD	QC Limits Rec.
1,1 - Dichloroethene	0.103	103%	99%	4%	14%	61 - 145
Trichloroethene	0.104	104%	105%	1%	14%	71 - 120
Benzene	0.110	110%	112%	2%	11%	76 - 127
Toluene	0.107	107%	113%	5%	13%	76 - 125
Chlorobenzene	0.113	113%	115%	2%	13%	75 - 130

ND - Analyte not detected at stated limit of detection

Spike Recovery: 0 out of 10 outside QC Limits
RPD: 0 out of 5 outside QC Limits

Quality Control:	Surrogate	Spike Recovery	Duplicate Recovery	Recovery Limits
	Dibromofluoromethane	93%	95%	86 - 114%
	Toluene-d8	103%	101%	88 - 110%
	Bromofluorobenzene	93%	100%	86 - 115%

Reference: Method 8240A: Gas Chromatography / Mass Spectrometry for Volatile Organics
Test Methods for Evaluating Solid Waste, SW - 846, Final Update I, United States
Environmental Protection Agency, July 1992.

Comments: A capillary column is used instead of a packed column as in the reference above.

Ramona R. Dennis
Analyst

Wendy M. King
Review



Inter-Mountain Laboratories, Inc.

Inorganic Laboratories
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 FAX (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0692

Quality Control Report Duplicate Analysis

Client: Navajo Refining Co.
Project: RFI Phase III / Artesia, NM
Sample ID: MW-15
Lab ID: 0495W01929/0695G00607
Matrix: Water
Condition: Intact

Report Date: 03/09/95
Receipt Date: 03/01/95
Sample Date: 02/24/95

Parameter	Original Conc.	Duplicate Conc.	Relative % Diff.	PQL	Method
pH	7.6	7.6	0	0.1 s.u.	SW-846 9040
Electrical Conductivity	2880	2880	0	1 μ mhos/cm	SW-846 9050
Total Dissolved Solids (180° C)	2200	2200	0	10 mg/L	EPA 160.1
Total Alkalinity (as CaCO ₃)	102	103	0	1 mg/L	EPA 310.1
Total Hardness (as CaCO ₃)	981	972	0	1 mg/L	Calculation
Fluoride	1.1	1.1	0	0.1 mg/L	EPA 340.2

Calcium	263	262	0	1 mg/L	SW-846 6010A
Magnesium	79	77	1	1 mg/L	SW-846 6010A
Potassium	4	4	0	1 mg/L	SW-846 6010A
Sodium	332	329	0	1 mg/L	SW-846 6010A
Bicarbonate	124	125	0	1 mg/L	EPA 310.1
Carbonate	ND*	ND*	NC*	1 mg/L	EPA 310.1
Chloride	443	451	1	1 mg/L	SW-846 9251
Sulfate	943	917	1	5 mg/L	SW-846 9036
Major Cation Sum	34.15	33.84	0	meq/L	Calculation
Major Anion Sum	34.17	33.86	0	meq/L	Calculation
Cation/Anion Balance	-0.03	-0.03		% Diff	Calculation

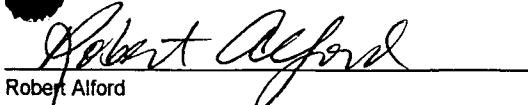
*ND - Parameter not detected at stated Practical Quantitation Limit.

*NC - Non-Calculable RPD due to value(s) less than PQL

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By:


Robert Alford
Supervisor, Water Laboratory



APPENDIX E

**EPA/PRC RFI Phase III Split-Sample
Laboratory Analytical Data Reports**

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262301

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0680.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	15		
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	17		
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	6.7		
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	17		

מחבר: **ד"ר יצחק שניידר**

Soil Aliquot Volume: (uL)

Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262301

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4429.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/24/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
62-75-9	N-Nitrosodimethylamine	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis-(Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
65-85-0	Benzoic acid	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262301

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4429.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/24/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	12	B	B
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U

SAMPLE NU.

U

000097

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2623.01

Level (low/med): _____ Date Received: 11/12/94

‡ Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	241			F
7740-47-3	Chromium	58.8			F
7439-92-1	Lead	35.4			F
7740-02-0	Nickel	82.2			F
	Fluoride	1700			
	pH				

J) C

241
58.8
35.4
82.2

Emf
2/16/95

Emf
3-8-95

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000024

EPA SAMPLE NO.

MW-4

% Solids:

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride	1700			
	pH				

Comments:

000024

LABORATORY REPORT

Client:	PRC	Client Sample ID:	MW-4	Date Sampled:	11/10/94
Project Name:	NAVAJO	PDP Sample ID:	2623.01	Date Received:	11/12/94
Project No.:	070R0603001SA	Report No.:	26230P01	Date Reported:	12/14/94

GC-ORGANOPHOSPHORUS PESTICIDES (DATA SHEET)

Sample Matrix:	WATER	Dilution:	1.0	Method Ref.:	SW846-8141
Multiplying Factor:	1.00	Date Extracted:	11/15/94	GC File ID:	10P1213A11
Sample Volume:	1000 ml	Date Analyzed:	12/13/94	Analyst:	NT
Extract Volume:	1.0 ml				

COMPOUND	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
Dichlorvos	2.0	ND
Trichloronate	2.0	ND
Naled	2.0	ND
Dimethoate	2.0	ND
Monocrotophos	2.0	ND
Ronnel	2.0	ND
Methyl parathion	2.0	ND
Bolstar (Sulprofos)	2.0	ND
Merphos	2.0	ND
De	2.0	ND
Disulfoton	2.0	ND
Malathion	2.0	ND
Ethyl parathion	2.0	ND
Ethoprop	2.0	ND
Disulfoton	2.0	ND
Fenthion	2.0	ND
Mevinphos	2.0	ND
Chlorpyrifos	2.0	ND
Sulfotep	2.0	ND
Phorate	2.0	ND
EPN	2.0	ND
Tokuthion (Protothiofos)	2.0	ND
Stirphos (Tetrachlorovinphos)	2.0	ND
TEPP	2.0	ND
Azinphos methyl	2.0	ND
Coumaphos	2.0	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits ** (Recovery)	% Recovery
Fensulfothion	10.0	(30-150)	72

Blank ID:	2609.WBLK1	LCS ID:	2609.WLCS1	MS ID:	2623.01MS	MSD ID:	2623.01MSD	DUP ID:	NA
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** QC limits are advisory

000054



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4C

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275102

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1458.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/L Q

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

Contract: PRC

MW-4C

Site:

Location:

Group:

Lab Sample ID: V275102

Lab File ID: E1458.D

Date Received: 1/23/95

0

Date Analyzed: 1/26/95

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

Page 2 of 2

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4C

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275102

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D4979.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4C

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275102

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D4979.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10		U
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	100		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
117-81-7	bis(2-ethylhexyl)phthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	25		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	10		U
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

MW-4C

Project No.: 170R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S275102

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D4979.D

Level: (low/med)

Date Received: 1/23/95

% Moisture:

decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7

Concentration Units:

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4CRE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275102R

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D5050.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/13/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.48

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4CRE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275102R

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D5050.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/13/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.48

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10		U
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	67		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	19		
117-81-7	bis(2-ethylhexyl)phthalate	11		
91-94-1	3,3'-Dichlorobenzidine	25		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	21		
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

MW-4CRE

Project No.: 170R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S275102R

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D5050.D

Level: (low/med)

Date Received: 1/23/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/13/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.48

Concentration Units:

[illegible]

INORGANIC ANALYSIS DATA SHEET

MW-4C

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2751.02Level (low/med): _____ Date Received: 01/23/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	140		N	F
7740-47-3	Chromium	25	U		F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	18			F
	Fluoride	1260			
	pH	7.00			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000486



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4CD

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275103

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1459.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

Contract: PRC

MW-4CD

Group:

Soil Aliquot Volume: (uL)

Q

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4CD

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275103

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D4980.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4CD

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275103

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D4980.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10		U
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	96		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
117-81-7	bis(2-ethylhexyl)phthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	25		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	10		U
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U

MW-4CD

Contract: PRC

Location:

Group:

Lab Sample ID: S275103

Lab File ID: D4980.D

Date Received: 1/23/95

% Moisture:

decanted: (Y/N): N

Date Extracted: 1/25/95

Date Analyzed: 2/7/95

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7

Concentration Units:

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4CDRE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275103R

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D5051.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/13/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.3

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-4CDRE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275103R

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D5051.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/13/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.3

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10		U
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	29		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
117-81-7	bis(2-ethylhexyl)phthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	25		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	10		U
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

MW-4CDRE

Project No.: 170R0603001SA

Site: **NAVAJO**

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S275103R

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D5051.D

Level: (low/med)

Date Received: 1/23/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/13/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.3

Concentration Units:

[illegible]

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MW-4CD

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2751.03Level (low/med): _____ Date Received: 01/23/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	135		N	F
7740-47-3	Chromium	13			F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	23			F
	Fluoride	1250			
	pH	7.08			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000457



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5A

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V261603

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0733.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	35	5	U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

000058

SAMPLE NO.

MW-5A

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V261603

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0733.D

Level: (low/med)

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg) ug/L

Q

[illegible]

000059

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5A

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S261603

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4422.D

Level: (low/med) _____ Date Received: 11/10/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
62-75-9	N-Nitrosodimethylamine	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
65-85-0	Benzoic acid	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5A

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S261603

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4422.D

Level: (low/med) _____ Date Received: 11/10/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methyphenol	25	U
86-30-6	N-nitroso-di-phenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	11	
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octylphthalate	10	U
205-92-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U

EPA SAMPLE NO.

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2616.03

Level (low/med): Date Received: 11/10/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	75			F
7740-47-3	Chromium	86			F
7439-92-1	Lead	100	U		F
7740-02-0	Nickel	210			F
	Fluoride	2800			
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5B

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V261604

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0734.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	13 5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

SAMPLE NO.

MW-5B

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V261604

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0734.D

Level: (low/med)

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/L

Q

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5B

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S261604

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4423.D

Level: (low/med) _____ Date Received: 11/10/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	68		
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	25		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U
606-20-2	2,6-Dinitrotoluene	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5B

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S261604

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4423.D

Level: (low/med) _____ Date Received: 11/10/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitroso-di-phenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	14	
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
117-81-7	bis(2-ethylhexyl)phthalate	9.9	J
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octylphthalate	10	U
205-92-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U

SAMPLE NO.

MW-5B

Contract: PRC

Site: NAVAJO

Location:

Group:

Lab Sample ID: S261604

Lab File ID: D4423.D

Date Received: 11/10/94

decanted: (Y/N): N

Date Extracted: 11/10/94

Date Analyzed: 11/23/94

Dilution Factor: 1.0

N

pH:

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/L

Q

[illegible]

EPA SAMPLE NO.



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5C

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275107

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1473.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/27/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/L Q

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

000077

MW-5C

Contract: PRC

Site:

Group:

Lab Sample ID: V275107

Lab File ID: E1473.D

Date Received: 1/23/95

Date Analyzed: 1/27/95

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

[illegible]

000078

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5C

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275107

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D4982.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.1

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5C

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275107

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D4982.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.1

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10		U
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	130		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
117-81-7	bis(2-ethylhexyl)phthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	25		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	10		U
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

MW-5C

Project No.: 170R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S275107

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D4982.D

Level: (low/med)

Date Received: 1/23/95

% Moisture:

decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.1

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
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53-70-3	Dibenzo(a,h)anthracene	10	U
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191-24-2	Benzo(g,h,i)perylene	10	U
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5CRE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275107R

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D5052.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/13/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 6.77

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10	U	U
62-75-9	N-Nitrosodimethylamine	10	U	U
108-95-2	Phenol	10	U	U
111-44-4	bis(2-Chloroethyl)ether	10	U	U
95-57-8	2-Chlorophenol	10	U	U
541-73-1	1,3-Dichlorobenzene	10	U	U
106-46-7	1,4-Dichlorobenzene	10	U	U
95-50-1	1,2-Dichlorobenzene	10	U	U
100-51-6	Benzyl alcohol	10	U	U
95-48-7	2-Methylphenol	10	U	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	U
106-44-5	3&4-Methylphenol	10	U	U
621-64-7	N-Nitroso-di-n-propylamine	10	U	U
67-72-1	Hexachloroethane	10	U	U
98-95-3	Nitrobenzene	10	U	U
78-59-1	Isophorone	10	U	U
88-75-5	2-Nitrophenol	10	U	U
105-67-9	2,4-Dimethylphenol	10	U	U
111-91-1	bis(2-Chloroethoxy)methane	10	U	U
65-85-0	Benzoic acid	10	U	U
120-83-2	2,4-Dichlorophenol	10	U	U
120-82-1	1,2,4-Trichlorobenzene	10	U	U
91-20-3	Naphthalene	10	U	U
106-47-8	4-Chloroaniline	10	U	U
87-68-3	Hexachlorobutadiene	10	U	U
59-50-7	4-Chloro-3-methylphenol	10	U	U
91-57-6	2-Methylnaphthalene	10	U	U
77-47-4	Hexachlorocyclopentadiene	10	U	U
88-06-2	2,4,6-Trichlorophenol	10	U	U
95-95-4	2,4,5-Trichlorophenol	10	U	U
91-58-7	2-Chloronaphthalene	10	U	U
88-74-4	2-Nitroaniline	25	U	U
131-11-3	Dimethylphthalate	10	U	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-5CRE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275107R

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D5052.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/13/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 6.77

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10		U
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	53		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
117-81-7	bis(2-ethylhexyl)phthalate	10		
91-94-1	3,3'-Dichlorobenzidine	25		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	10		U
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U

MW-5CRE

Contract: PRC

Location:

Group:

Lab Sample ID: S275107R

Lab File ID: D5052.D

Date Received: 1/23/95

Date Extracted: 2/7/95

Date Analyzed: 2/13/95

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.77

Concentration Units:

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5C

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix (soil/water): WATER Lab Sample ID: 2751.07
Level (low/med): _____ Date Received: 01/23/95
% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	90		N	F
7740-47-3	Chromium	14			F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	10	U		F
	Fluoride	1170			
	pH	7.10			

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-6B

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V261605

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0731.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

000073

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

MW-6B

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water)

WATER

Lab Sample ID: V261605

Sample wt/vol:

5.0

(g/mL)

ML

Lab File ID: E0731.D

Level: (low/med)

Date Received: 11/10/94

% Moisture: not dec.

0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-6B

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S261605

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4424.D

Level: (low/med) _____ Date Received: 11/10/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	160		
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis-(Chloropropane)	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	25		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U
606-20-2	2,6-Dinitrotoluene	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-6B

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S261605

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4424.D

Level: (low/med) _____ Date Received: 11/10/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	15		
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U

MW-6B

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S261605

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: D4424.D

Level: {low/med}

Date Received: 11/10/94

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH:

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/L

Q

[illegible]

000091

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6B

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2616.05

Level (low/med): Date Received: 11/10/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	11			F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	10	U		F
	Fluoride	600			
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

000023



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-10

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262302

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0676.D

Level: (low/med) _____

Date Received: 11/9/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	30	
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

SAMPLE NO.:

MW-10

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V262302

Lab File ID: E0676.D

Date Received: 11/9/94

Date Analyzed: 11/16/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

Page 2 of 2

000070

MW-10

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262302

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4425.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10	U	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis-(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)methane	10	U	
65-85-0	Benzoic acid	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethylphthalate	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

000101

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262302

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4425.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	18	B	B
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2623.02

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	48			F
7740-47-3	Chromium	102			F
7439-92-1	Lead	122			F
7740-02-0	Nickel	195			F
	Fluoride	1000			
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-14

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262303

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0681.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

Contract: PRC

MW-14

Site: _____

Location: _____

Group: _____

Lab Sample ID: V262303

Lab File ID: E0681.D

Date Received: 11/10/94

Date Analyzed: 11/16/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

000076

MW-14

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S262303

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 04426.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10	U	U
108-95-2	Phenol	10	U	U
111-44-4	bis(2-Chloroethyl)ether	10	U	U
95-57-8	2-Chlorophenol	10	U	U
541-73-1	1,3-Dichlorobenzene	10	U	U
106-46-7	1,4-Dichlorobenzene	10	U	U
100-51-6	Benzyl alcohol	10	U	U
95-50-1	1,2-Dichlorobenzene	10	U	U
95-48-7	2-Methylphenol	10	U	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10	U	U
106-44-5	4-Methylphenol	10	U	U
621-64-7	N-Nitroso-di-n-propylamine	10	U	U
67-72-1	Hexachloroethane	10	U	U
98-95-3	Nitrobenzene	10	U	U
78-59-1	Isophorone	10	U	U
88-75-5	2-Nitrophenol	10	U	U
105-67-9	2,4-Dimethylphenol	10	U	U
111-91-1	bis(2-Chloroethoxy)methane	10	U	U
65-85-0	Benzoic acid	10	U	U
120-83-2	2,4-Dichlorophenol	10	U	U
120-82-1	1,2,4-Trichlorobenzene	10	U	U
91-20-3	Naphthalene	10	U	U
106-47-8	4-Chloroaniline	10	U	U
87-68-3	Hexachlorobutadiene	10	U	U
59-50-7	4-Chloro-3-methylphenol	10	U	U
91-57-6	2-Methylnaphthalene	10	U	U
77-47-4	Hexachlorocyclopentadiene	10	U	U
88-06-2	2,4,6-Trichlorophenol	10	U	U
95-95-4	2,4,5-Trichlorophenol	25	U	U
91-58-7	2-Chloronaphthalene	10	U	U
88-74-4	2-Nitroaniline	25	U	U
131-11-3	Dimethylphthalate	10	U	U
606-20-2	2,6-Dinitrotoluene	10	U	U

000107

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262303

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 04426.0

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/23/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	9.9	JB	JB
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U

Contract: PRC

Location:

Group:

Lab Sample ID: S262303

Lab File ID: D4426.D

Date Received: 11/12/94

decanted: (Y/N): N

Date Extracted: 11/16/94

Date Analyzed: 11/23/94

Dilution Factor: 1.0

N

pH:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

000109

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix (soil/water): WATER Lab Sample ID: 2623.03
Level (low/med): _____ Date Received: 11/12/94
% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	212			F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	10	U		F
7740-02-0	Nickel	28			F
	Fluoride	870			
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____
Comments: _____

000026



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-15

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262304

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0678.D

Level: (low/med) _____

Date Received: 11/9/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

000052

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

MW-15

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V262304

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0678.D

Level: (low/med)

Date Received: 11/9/94

% Moisture:	not dec.	0
-------------	----------	---

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: (uL)

[illegible]

000053

MW-15

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
 Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____
 Matrix: (soil/water) WATER Lab Sample ID: S262304
 Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4432.0
 Level: (low/med) _____ Date Received: 11/12/94
 % Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/24/94
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
62-75-9	N-Nitrosodimethylamine	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
65-85-0	Benzoic acid	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U

000113

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262304Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4432.D

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/16/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 11/24/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	13	B	U
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U

MW-15

Contract: PRC

Location:

Group:

Lab Sample ID: S262304

Lab File ID: D4432.D

Date Received: 11/12/94

decanted: (Y/N): N

Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/24/94

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Concentration Units:

Page 3 of 3**FORM I SV**

3/90

000115

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-15RE

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262304RSample wt/vol: 1000.0 (g/mL) MLLab File ID: D4536.D

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 12/2/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10	U	U
108-95-2	Phenol	10	U	U
111-44-4	bis(2-Chloroethyl)ether	10	U	U
95-57-8	2-Chlorophenol	10	U	U
541-73-1	1,3-Dichlorobenzene	10	U	U
106-46-7	1,4-Dichlorobenzene	10	U	U
100-51-6	Benzyl alcohol	10	U	U
95-50-1	1,2-Dichlorobenzene	10	U	U
95-48-7	2-Methylphenol	10	U	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10	U	U
106-44-5	4-Methylphenol	10	U	U
621-64-7	N-Nitroso-di-n-propylamine	10	U	U
67-72-1	Hexachloroethane	10	U	U
98-95-3	Nitrobenzene	10	U	U
78-59-1	Isophorone	10	U	U
88-75-5	2-Nitrophenol	10	U	U
105-67-9	2,4-Dimethylphenol	10	U	U
111-91-1	bis(2-Chloroethoxy)methane	10	U	U
65-85-0	Benzoic acid	10	U	U
120-83-2	2,4-Dichlorophenol	10	U	U
120-82-1	1,2,4-Trichlorobenzene	10	U	U
91-20-3	Naphthalene	10	U	U
106-47-8	4-Chloroaniline	10	U	U
87-68-3	Hexachlorobutadiene	10	U	U
59-50-7	4-Chloro-3-methylphenol	10	U	U
91-57-6	2-Methylnaphthalene	10	U	U
77-47-4	Hexachlorocyclopentadiene	10	U	U
88-06-2	2,4,6-Trichlorophenol	10	U	U
95-95-4	2,4,5-Trichlorophenol	25	U	U
91-58-7	2-Chloronaphthalene	10	U	U
88-74-4	2-Nitroaniline	25	U	U
131-11-3	Dimethylphthalate	10	U	U
606-20-2	2,6-Dinitrotoluene	10	U	U

000119

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
 Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____
 Matrix: (soil/water) WATER Lab Sample ID: S262304R
 Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4536.D
 Level: (low/med) _____ Date Received: 11/12/94
 % Moisture: 0 decanted: (Y/N): N Date Extracted: 12/2/94
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitroso-di-phenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	150	
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octylphthalate	10	U
205-92-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U

EPA SAMPLE NO.

MW-15

% Solids:

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	34			F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	25	U		F
7740-02-0	Nickel	41			F
	Fluoride	1200			
	pH				

000027



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-19

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262305

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0682.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

1A

MW-19

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V262305

Lab File ID: E0682.D

Date Received: 11/10/94

Date Analyzed: 11/16/94

Dilution Factor: 1.0

Soil Aliquot Volume: _____ (uL)

(ug/L or ug/Kg)

ug/L

Q

[illegible]

000090

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-19

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
 Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____
 Matrix: (soil/water) WATER Lab Sample ID: S262305
 Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4433.D
 Level: (low/med) _____ Date Received: 11/12/94
 % Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/24/94
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
62-75-9	N-Nitrosodimethylamine	10	U
108-95-2	Phenol	13	
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis-(Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
65-85-0	Benzoic acid	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U

000125

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-19

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262305Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4433.D

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/16/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 11/24/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	25	U	
100-02-7	4-Nitrophenol	25	U	
121-14-2	2,4-Dinitrotoluene	10	U	
132-64-9	Dibenzofuran	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	25	U	
534-52-1	4,6-Dinitro-2-methylphenol	25	U	
86-30-6	N-nitroso-di-phenylamine	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	25	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	11	B	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
117-81-7	bis(2-ethylhexyl)phthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	10	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octylphthalate	10	U	
205-92-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	

000126

· MW-19

Contract: PRC

Group:

Lab Sample ID: S262305

Lab File ID: D4433.D

Date Received: 11/12/94

Date Extracted: 11/16/94

Date Analyzed: 11/24/94

Dilution Factor: 1.0

pH:

ug/L

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-19

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2623.05

Level (low/med): _____ Date Received: 11/12/94

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	23			F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	14			F
	Fluoride	950			
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000025



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-22A

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262306

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0686.D

Level: (low/med) _____

Date Received: 11/9/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	80	
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000094

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V262306

Lab File ID: E0686.D

Date Received: 11/9/94

Date Analyzed: 11/16/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

Page 2 of 2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-22A

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262306Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4532.0

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/16/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10	U	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis-(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)methane	10	U	
65-85-0	Benzoic acid	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethylphthalate	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

000131

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-22A

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262306Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4532.D

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/16/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	17	B	B
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U

000132

MW-22A

Contract: PRC

Location:

Group:

Lab Sample ID: S262306

Lab File ID: D4532.D

Date Received: 11/12/94

Date Extracted: 11/16/94

Date Analyzed: 12/2/94

Dilution Factor: 1.0

pH: _____

(ug/L or ug/Kg) ug/L

Q

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-22A

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2623.06

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	102			F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	10	U		F
7740-02-0	Nickel	11			F
	Fluoride	1100			
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

000029



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-23

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262307

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0683.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000101

SAMPLE NO.

MW-23

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V262307

Lab File ID: E0683.D

Date Received: 11/10/94

Date Analyzed: 11/16/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

Page 2 of 2

000102

ID
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-23

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262307

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4435.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/24/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10	U	U
108-95-2	Phenol	10	U	U
111-44-4	bis(2-Chloroethyl)ether	10	U	U
95-57-8	2-Chlorophenol	10	U	U
541-73-1	1,3-Dichlorobenzene	10	U	U
106-46-7	1,4-Dichlorobenzene	10	U	U
100-51-6	Benzyl alcohol	10	U	U
95-50-1	1,2-Dichlorobenzene	10	U	U
95-48-7	2-Methylphenol	10	U	U
108-60-1	2,2'-oxybis-(Chloropropane)	10	U	U
106-44-5	4-Methylphenol	10	U	U
621-64-7	N-Nitroso-di-n-propylamine	10	U	U
67-72-1	Hexachloroethane	10	U	U
98-95-3	Nitrobenzene	10	U	U
78-59-1	Isophorone	10	U	U
88-75-5	2-Nitrophenol	10	U	U
105-67-9	2,4-Dimethylphenol	10	U	U
111-91-1	bis(2-Chloroethoxy)methane	10	U	U
65-85-0	Benzoic acid	10	U	U
120-83-2	2,4-Dichlorophenol	10	U	U
120-82-1	1,2,4-Trichlorobenzene	10	U	U
91-20-3	Naphthalene	10	U	U
106-47-8	4-Chloroaniline	10	U	U
87-68-3	Hexachlorobutadiene	10	U	U
59-50-7	4-Chloro-3-methylphenol	10	U	U
91-57-6	2-Methylnaphthalene	10	U	U
77-47-4	Hexachlorocyclopentadiene	10	U	U
88-06-2	2,4,6-Trichlorophenol	10	U	U
95-95-4	2,4,5-Trichlorophenol	25	U	U
91-58-7	2-Chloronaphthalene	10	U	U
88-74-4	2-Nitroaniline	25	U	U
131-11-3	Dimethylphthalate	10	U	U
606-20-2	2,6-Dinitrotoluene	10	U	U

15
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-23

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262307

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4435.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/24/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methyphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	10	U	U
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U

000138

Contract: PRC

MW-23

Location:

Group:

Lab Sample ID: S262307

Lab File ID: D4435.D

Date Received: 11/12/94

Date Extracted: 11/16/94

Date Analyzed: 11/24/94

Dilution Factor: 1.0

N

pH:

Concentration Units:

000139

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-23

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2623.07

Level (low/med): _____ Date Received: 11/12/94

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	60			F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	10	U		F
7740-02-0	Nickel	22			F
	Fluoride	900			
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000030



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-26

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V274202

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1343.D

Level: (low/med) _____

Date Received: 1/17/95

% Moisture: not dec. 0

Date Analyzed: 1/19/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

SAMPLE NO.

Contract: PRC

MW-26

Site:

Location:

Group:

Lab Sample ID: V274202

Lab File ID: E1343.D

Date Received: 1/17/95

Date Analyzed: 1/19/95

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

Q

000042
3/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW26RE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S274202R

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D5040.D

Level: (low/med) _____

Date Received: 1/17/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/9/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.52

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW26RE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S274202R

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D5040.D

Level: (low/med) _____

Date Received: 1/17/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/9/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.52

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10		U
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	190		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	29		
117-81-7	bis(2-ethylhexyl)phthalate	14		
91-94-1	3,3'-Dichlorobenzidine	25		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	34		
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U

MW26RE

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S274202R

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D5040.D

Level: (low/med)

Date Received: 1/17/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 2/7/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/9/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.52

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MW-26

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2742.02Level (low/med): _____ Date Received: 01/17/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	17		N	F
7740-47-3	Chromium	25	U		F
7439-92-1	Lead	100	U		F
7740-02-0	Nickel	50	U		F
	Fluoride	2320			
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000454



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-27

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V274201

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1342.D

Level: (low/med) _____

Date Received: 1/17/95

% Moisture: not dec. 0

Date Analyzed: 1/19/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
156-60-5	trans-1,2-Dichloroethene	5		U
156-59-2	cis-1,2-Dichloroethene	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U

000037

1A

MW-27

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V274201

Lab File ID: E1342.D

Date Received: 1/17/95

Date Analyzed: 1/19/95

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-27

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S274201

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D4963.D

Level: (low/med) _____

Date Received: 1/17/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 1/21/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/6/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.42

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-27

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S274201

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D4963.D

Level: (low/med) _____

Date Received: 1/17/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 1/21/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/6/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.42

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10	U	U
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methyphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	10	U	U
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	25	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U

SAMPLE NO.

MW-27

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S274201

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D4963.D

Level: (low/med)

Date Received: 1/17/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 1/21/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/6/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.42

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

INORGANIC ANALYSIS DATA SHEET

MW-27

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2742.01

Level (low/med): _____ Date Received: 01/17/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	8	N		F
7740-47-3	Chromium	16			F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	11			F
	Fluoride	1260			
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000483



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-30

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262504

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0710.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

1A

MW-30

Contract: PRC

Location:

Group:

Lab Sample ID: V262504

Lab File ID: E0710.D

Date Received: 11/12/94

Date Analyzed: 11/17/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

[illegible]

0000-42

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-30

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262504Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4523.0

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/18/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	25		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U
606-20-2	2,6-Dinitrotoluene	10		U

000053

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262504Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4523.D

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/18/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	25	U	
100-02-7	4-Nitrophenol	25	U	
121-14-2	2,4-Dinitrotoluene	10	U	
132-64-9	Dibenzofuran	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	25	U	
534-52-1	4,6-Dinitro-2-methylphenol	25	U	
86-30-6	N-nitroso-di-phenylamine	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	25	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	160		
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
117-81-7	bis(2-ethylhexyl)phthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	10	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octylphthalate	10	U	
205-92-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-30

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2625.04

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	32			F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	27			F
	Fluoride	1500			
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-45

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262502

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0709.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

MW-45

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262502

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0709.D

Level: (low/med)

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-45

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262502

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4521.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10	U	U
108-95-2	Phenol	10	U	U
111-44-4	bis(2-Chloroethyl)ether	10	U	U
95-57-8	2-Chlorophenol	10	U	U
541-73-1	1,3-Dichlorobenzene	10	U	U
106-46-7	1,4-Dichlorobenzene	10	U	U
100-51-6	Benzyl alcohol	10	U	U
95-50-1	1,2-Dichlorobenzene	10	U	U
95-48-7	2-Methylphenol	10	U	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10	U	U
106-44-5	4-Methylphenol	10	U	U
621-64-7	N-Nitroso-di-n-propylamine	10	U	U
67-72-1	Hexachloroethane	10	U	U
98-95-3	Nitrobenzene	10	U	U
78-59-1	Isophorone	10	U	U
88-75-5	2-Nitrophenol	10	U	U
105-67-9	2,4-Dimethylphenol	10	U	U
111-91-1	bis(2-Chloroethoxy)methane	10	U	U
65-85-0	Benzoic acid	10	U	U
120-83-2	2,4-Dichlorophenol	10	U	U
120-82-1	1,2,4-Trichlorobenzene	10	U	U
91-20-3	Naphthalene	10	U	U
106-47-8	4-Chloroaniline	10	U	U
87-68-3	Hexachlorobutadiene	10	U	U
59-50-7	4-Chloro-3-methylphenol	10	U	U
91-57-6	2-Methylnaphthalene	10	U	U
77-47-4	Hexachlorocyclopentadiene	10	U	U
88-06-2	2,4,6-Trichlorophenol	10	U	U
95-95-4	2,4,5-Trichlorophenol	25	U	U
91-58-7	2-Chloronaphthalene	10	U	U
88-74-4	2-Nitroaniline	25	U	U
131-11-3	Dimethylphthalate	10	U	U
606-20-2	2,6-Dinitrotoluene	10	U	U

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-45

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262502

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4521.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	150		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
117-81-7	bis(2-ethylhexyl)phthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	10		U
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U

MW-45

Contract: PRC

Group:

Lab Sample ID: S262502

Lab File ID: 04521.0

Date Received: 11/12/94

Date Extracted: 11/18/94

Date Analyzed: 12/2/94

Dilution Factor: 1.0

pH:

(ug/L or ug/Kg)

Compound

ug/L

Q

000053

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-45

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2625.02

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	16			F
7740-47-3	Chromium	21			F
7439-92-1	Lead	96			F
7740-02-0	Nickel	28			F
	Fluoride	2000			
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-45D

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262503

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4522.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
62-75-9	N-Nitrosodimethylamine	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis-(Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
65-85-0	Benzoic acid	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW-45D

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262503

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4522.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methylphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	140		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
117-81-7	bis(2-ethylhexyl)phthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	10		U
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U

SAMPLE NO.

MW-45D

Contract: PRC

Group:

Lab Sample ID: S262503

Lab File ID: D4522.D

Date Received: 11/12/94

Date Extracted: 11/18/94

Date Analyzed: 12/2/94

Dilution Factor: 1.0

pH:

Q

[illegible]

000059

EPA SAMPLE NO.

MW-45D

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	17			F
7740-47-3	Chromium	18			F
7439-92-1	Lead	53			F
7740-02-0	Nickel	28			F
	Fluoride	2100			
	pH				

Comments:



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

OCD-7AR

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V260904

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0725.D

Level: (low/med) _____

Date Received: 11/7/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5	4.9	U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

000053

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

OCD-7AR

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V260904

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0725.D

Level: (low/med)

Date Received: 11/7/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

OCD-7AR

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S260904

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4518.D

Level: (low/med) _____ Date Received: 11/9/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/1/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
62-75-9	N-Nitrosodimethylamine	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
65-85-0	Benzoic acid	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

OCD-7AR

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S260904

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4518.0

Level: (low/med) _____ Date Received: 11/9/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/1/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitroso-di-phenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	23	
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octylphthalate	10	U
205-92-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U

OCD-7AR

Contract: PRC

Group:

Lab Sample ID: S260904

Lab File ID: D4518.D

Date Received: 11/9/94

Date Extracted: 11/10/94

Date Analyzed: 12/1/94

Dilution Factor: 1.0

pH:

Q

[illegible]

U.S. EPA - CLP
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCD-7AR

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix (soil/water): WATER Lab Sample ID: 2609.04
Level (low/med): _____ Date Received: 11/09/94
% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	280			F
7740-47-3	Chromium	9			F
7439-92-1	Lead	10	U		F
7740-02-0	Nickel	51			F
	Fluoride	5200			
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____
Comments: _____

000015



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

OCD-7B

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V260901

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0718.D

Level: (low/med) _____

Date Received: 11/7/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000038

1A

OCD-7B

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V260901

Lab File ID: E0718.D

Date Received: 11/7/94

Date Analyzed: 11/18/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

[illegible]

000039

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

OCD-78

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S260901Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4517.D

Level: (low/med) _____

Date Received: 11/9/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/10/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/1/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10	U	U
108-95-2	Phenol	10	U	U
111-44-4	bis(2-Chloroethyl)ether	10	U	U
95-57-8	2-Chlorophenol	10	U	U
541-73-1	1,3-Dichlorobenzene	10	U	U
106-46-7	1,4-Dichlorobenzene	10	U	U
100-51-6	Benzyl alcohol	10	U	U
95-50-1	1,2-Dichlorobenzene	10	U	U
95-48-7	2-Methylphenol	10	U	U
108-60-1	2,2'-oxybis-(Chloropropane)	10	U	U
106-44-5	4-Methylphenol	10	U	U
621-64-7	N-Nitroso-di-n-propylamine	10	U	U
67-72-1	Hexachloroethane	10	U	U
98-95-3	Nitrobenzene	10	U	U
78-59-1	Isophorone	10	U	U
88-75-5	2-Nitrophenol	10	U	U
105-67-9	2,4-Dimethylphenol	10	U	U
111-91-1	bis(2-Chloroethoxy)methane	10	U	U
65-85-0	Benzoic acid	10	U	U
120-83-2	2,4-Dichlorophenol	10	U	U
120-82-1	1,2,4-Trichlorobenzene	10	U	U
91-20-3	Naphthalene	10	U	U
106-47-8	4-Chloroaniline	10	U	U
87-68-3	Hexachlorobutadiene	10	U	U
59-50-7	4-Chloro-3-methylphenol	10	U	U
91-57-6	2-Methylnaphthalene	10	U	U
77-47-4	Hexachlorocyclopentadiene	10	U	U
88-06-2	2,4,6-Trichlorophenol	10	U	U
95-95-4	2,4,5-Trichlorophenol	25	U	U
91-58-7	2-Chloronaphthalene	10	U	U
88-74-4	2-Nitroaniline	25	U	U
131-11-3	Dimethylphthalate	10	U	U
606-20-2	2,6-Dinitrotoluene	10	U	U

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

OCD-7B

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S260901

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: D4517.D

Level: (low/med) _____

Date Received: 11/9/94

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 11/10/94

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/1/94

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	25	U	
100-02-7	4-Nitrophenol	25	U	
121-14-2	2,4-Dinitrotoluene	10	U	
132-64-9	Dibenzofuran	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	25	U	
534-52-1	4,6-Dinitro-2-methyphenol	25	U	
86-30-6	N-nitroso-di-phenylamine	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	25	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	10	U	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
117-81-7	bis(2-ethylhexyl)phthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	10	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octylphthalate	10	U	
205-92-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	

OCD-7B

Contract: PRC

Location:

Group:

Lab Sample ID: S260901

Lab File ID: D4517.D

Date Received: 11/9/94

decanted: (Y/N): N

Date Extracted: 11/10/94

Date Analyzed: 12/1/94

Dilution Factor: 1.0

N

pH:

(ug/L or ug/Kg)

ug/L

Q

Page 3 of 3

EPA SAMPLE NO.



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

OCD-7C

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275109

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1462.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
156-60-5	trans-1,2-Dichloroethene	5		U
156-59-2	cis-1,2-Dichloroethene	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U

OCD-7C

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V275109

Lab File ID: E1462.D

Date Received: 1/23/95

Date Analyzed: 1/26/95

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

[illegible]

000057

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

OCD-7C

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275109

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D4983.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.14

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

Contract: PRC

OCD-7C

Location:

Group:

Lab Sample ID: S275109

Lab File ID: D4983.D

Date Received: 1/23/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 1/25/95

Date Analyzed: 2/7/95

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.14

Concentration Units:

[illegible]

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

OCD-7C

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2751.09Level (low/med): _____ Date Received: 01/23/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	100		N	F
7740-47-3	Chromium	300			F
7439-92-1	Lead	100	U		F
7740-02-0	Nickel	390			F
	Fluoride				
	pH	7.14			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000493

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

OCD-7C

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2751.12Level (low/med): _____ Date Received: 01/23/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride	1780			
	pH	7.15			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000496



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WINDMILL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262308

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0675.D

Level: (low/med) _____

Date Received: 11/9/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	5 U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

1A

WINDMILL

Contract: PRC

Site:

Location:

Group: _____

Lab Sample ID: V262308

Lab File ID: E0675.D

Date Received: 11/9/94

Date Analyzed: 11/16/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

Page 2 of 2

FORM I VOA

3/90

000105

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WINDMILL

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262308

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4533.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/16/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	25		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U
606-20-2	2,6-Dinitrotoluene	10		U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WINDMILL

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262308Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4533.D

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/16/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	13	8	U
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenz(a,h)anthracene	10	U	U

0001.13

2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 26

pH: _____

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WINDMILL

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2623.08

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	7			F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	10	U		F
7740-02-0	Nickel	39			F
	Fluoride	960			
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

000031



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WINDMILL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275105

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1460.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
156-60-5	trans-1,2-Dichloroethene	5		U
156-59-2	cis-1,2-Dichloroethene	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U

000069

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

WINDMILL

Project No.: NAVAJO

Site: _____

Location: _____

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V275105

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1460.D

Level: (low/med)

Date Received: 1/23/95

% Moisture:	not dec.	0
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Date Analyzed: 1/26/95

GC Column: DB624 ID: 0.53 (mm)Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WINDMILL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275105

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D4981.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.53

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10		U
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis(1-Chloropropane)	10		U
106-44-5	3&4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	10		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WINDMILL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: S275105

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: D4981.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: _____ decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.53

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
606-20-2	2,6-Dinitrotoluene	10		U
208-96-8	Acenaphthylene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methyphenol	25		U
86-30-6	N-nitroso-di-phenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	160		
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
117-81-7	bis(2-ethylhexyl)phthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	25		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-Octylphthalate	10		U
205-92-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U

WINDMILL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S275105

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: D4981.D

Level: (low/med)

Date Received: 1/23/95

% Moisture: decanted: (Y/N): N

Date Extracted: 1/25/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/7/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.53

Concentration Units:

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WINDMILL

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix (soil/water): WATER Lab Sample ID: 2751.05
Level (low/med): _____ Date Received: 01/23/95
% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	5	U	N	F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	10	U		F
	Fluoride	960			
	pH	7.53			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000459



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WM-SOIL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) SOIL

Lab Sample ID: V275106

Sample wt/vol: 5.0 (g/mL) GM

Lab File ID: E1426.D

Level: (low/med) LOW

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/25/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1 (uL)

Soil Aliquot Volume: 1 (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/Kg Q

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

000073

1A

WM-SOIL

Contract: PRC

Site:

Group:

Lab Sample ID: V275106

Sample wt/vol: 5.0 (g/mL) GM

Lab File ID: E1426.D

Level: (low/med) LOW

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/25/95

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1 (uL)

Soil Aliquot Volume: 1 (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WM-SOIL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) soil

Lab Sample ID: S275106

Sample wt/vol: 30.0 (g/mL G

Lab File ID: D5002.D

Level: (low/med) low

Date Received: 1/23/95

% Moisture: 22

decanted: (Y/N): N

Date Extracted: 2/3/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 8.7

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/kg	Q
110-86-1	Pyridine	426		U
62-75-9	N-Nitrosodimethylamine	426		U
108-95-2	Phenol	426		U
111-44-4	bis(2-Chloroethyl)ether	426		U
95-57-8	2-Chlorophenol	426		U
541-73-1	1,3-Dichlorobenzene	426		U
106-46-7	1,4-Dichlorobenzene	426		U
95-50-1	1,2-Dichlorobenzene	426		U
100-51-6	Benzyl alcohol	426		U
95-48-7	2-Methylphenol	426		U
108-60-1	2,2'-oxybis(1-Chloropropane)	426		U
106-44-5	3&4-Methylphenol	426		U
621-64-7	N-Nitroso-di-n-propylamine	426		U
67-72-1	Hexachloroethane	426		U
98-95-3	Nitrobenzene	426		U
78-59-1	Isophorone	426		U
88-75-5	2-Nitrophenol	426		U
105-67-9	2,4-Dimethylphenol	426		U
111-91-1	bis(2-Chloroethoxy)methane	426		U
65-85-0	Benzoic acid	426		U
120-83-2	2,4-Dichlorophenol	426		U
120-82-1	1,2,4-Trichlorobenzene	426		U
91-20-3	Naphthalene	426		U
106-47-8	4-Chloroaniline	426		U
87-68-3	Hexachlorobutadiene	426		U
59-50-7	4-Chloro-3-methylphenol	426		U
91-57-6	2-Methylnaphthalene	426		U
77-47-4	Hexachlorocyclopentadiene	426		U
88-06-2	2,4,6-Trichlorophenol	426		U
95-95-4	2,4,5-Trichlorophenol	426		U
91-58-7	2-Chloronaphthalene	426		U
88-74-4	2-Nitroaniline	1065		U
131-11-3	Dimethylphthalate	426		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WM-SOIL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 170R0603001SA

Site: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) soil

Lab Sample ID: S275106

Sample wt/vol: 30.0 (g/mL G

Lab File ID: D5002.D

Level: (low/med) low

Date Received: 1/23/95

% Moisture: 22

decanted: (Y/N): N

Date Extracted: 2/3/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 8.7

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/kg	Q
606-20-2	2,6-Dinitrotoluene	426		U
208-96-8	Acenaphthylene	426		U
99-09-2	3-Nitroaniline	1065		U
83-32-9	Acenaphthene	426		U
51-28-5	2,4-Dinitrophenol	1065		U
100-02-7	4-Nitrophenol	1065		U
121-14-2	2,4-Dinitrotoluene	426		U
132-64-9	Dibenzofuran	426		U
84-66-2	Diethylphthalate	426		U
7005-72-3	4-Chlorophenyl-phenylether	426		U
86-73-7	Fluorene	426		U
100-01-6	4-Nitroaniline	1065		U
534-52-1	4,6-Dinitro-2-methyphenol	1065		U
86-30-6	N-nitroso-di-phenylamine	426		U
101-55-3	4-Bromophenyl-phenylether	426		U
118-74-1	Hexachlorobenzene	426		U
87-86-5	Pentachlorophenol	1065		U
85-01-8	Phenanthrene	426		U
120-12-7	Anthracene	426		U
86-74-8	Carbazole	426		U
84-74-2	Di-n-butylphthalate	469		
206-44-0	Fluoranthene	426		U
129-00-0	Pyrene	426		U
85-68-7	Butylbenzylphthalate	426		U
117-81-7	bis(2-ethylhexyl)phthalate	554		
91-94-1	3,3'-Dichlorobenzidine	1065		U
56-55-3	Benzo(a)anthracene	426		U
218-01-9	Chrysene	426		U
117-84-0	Di-n-Octylphthalate	426		U
205-92-2	Benzo(b)fluoranthene	426		U
207-08-9	Benzo(k)fluoranthene	426		U
50-32-8	Benzo(a)pyrene	426		U
193-39-5	Indeno(1,2,3-cd)pyrene	426		U

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

WM-SOIL

Project No.: 170R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) soil

Lab Sample ID: S275106

Sample wt/vol: 30.0 (g/mL G

Lab File ID: D5002.D

Level: (low/med) low

Date Received: 1/23/95

% Moisture: 22

decanted: (Y/N): N

Date Extracted: 2/3/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 2/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 8.7

Concentration Units:

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WM-SOIL

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: 2751.06

Level (low/med): _____ Date Received: 01/23/95

% Solids: 78.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	2.1			F
7740-47-3	Chromium	11.3	N		F
7439-92-1	Lead	8.2			F
7740-02-0	Nickel	8.3			F
	Fluoride				
	pH	7.40			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000490



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WW-1

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262505

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0846.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/29/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			Q
74-87-3	Chloromethane	100	UD
74-83-9	Bromomethane	100	UD
75-01-4	Vinyl Chloride	100	UD
75-00-3	Chloroethane	100	UD
75-09-2	Methylene Chloride	50	UD
67-64-1	Acetone	4700	DE
75-15-0	Carbon Disulfide	50	UD
75-35-4	1,1-Dichloroethene	50	UD
75-34-4	1,1-Dichloroethane	50	UD
540-59-0	1,2-Dichloroethene (total)	50	UD
67-66-3	Chloroform	50	UD
107-06-2	1,2-Dichloroethane	50	UD
78-93-3	2-Butanone	770	D
71-55-6	1,1,1-Trichloroethane	50	UD
56-23-5	Carbon Tetrachloride	50	UD
108-05-4	Vinyl Acetate	100	UD
75-27-4	Bromodichloromethane	50	UD
78-87-5	1,2-Dichloropropane	50	UD
110-75-8	2-Chloroethyl vinyl ether	100	UD
10061-01-5	cis-1,3-Dichloropropene	50	UD
79-01-6	Trichloroethene	50	UD
71-43-2	Benzene	50	UD
124-48-1	Dibromochloromethane	50	UD
10061-02-6	trans-1,3-Dichloropropene	50	UD
79-00-5	1,1,2-Trichloroethane	50	UD
75-25-2	Bromoform	50	UD
108-10-1	4-Methyl-2-Pentanone	100	UD
591-78-6	2-Hexanone	100	UD
127-18-4	Tetrachloroethene	50	UD
79-34-5	1,1,2,2-Tetrachloroethane	50	UD
108-88-3	Toluene	50	UD
108-90-7	Chlorobenzene	50	UD
100-41-4	Ethylbenzene	50	UD

000053

SAMPLE NO.

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

WW-1

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V262505

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0846.D

Level: (low/med)

Date Received: 11/12/94

% Moisture:	not dec.	0
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Date Analyzed: 11/29/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WW-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2625.05

Level (low/med): _____ Date Received: 11/12/94

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): NA

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.15			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WW-2

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262506

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0861.D

Level: (low/med) _____

Date Received: _____

% Moisture: not dec. 0

Date Analyzed: 11/30/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	100	UD
74-83-9	Bromomethane	100	UD
75-01-4	Vinyl Chloride	100	UD
75-00-3	Chloroethane	100	UD
75-09-2	Methylene Chloride	50	UD
67-64-1	Acetone	100	UD
75-15-0	Carbon Disulfide	50	UD
75-35-4	1,1-Dichloroethene	50	UD
75-34-4	1,1-Dichloroethane	50	UD
540-59-0	1,2-Dichloroethene (total)	50	UD
67-66-3	Chloroform	50	UD
107-06-2	1,2-Dichloroethane	50	UD
78-93-3	2-Butanone	1000	D
71-55-6	1,1,1-Trichloroethane	50	UD
56-23-5	Carbon Tetrachloride	50	UD
108-05-4	Vinyl Acetate	100	UD
75-27-4	Bromodichloromethane	50	UD
78-87-5	1,2-Dichloropropane	50	UD
110-75-8	2-Chloroethyl vinyl ether	100	UD
10061-01-5	cis-1,3-Dichloropropene	50	UD
79-01-6	Trichloroethene	50	UD
71-43-2	Benzene	50	UD
124-48-1	Dibromochloromethane	50	UD
10061-02-6	trans-1,3-Dichloropropene	50	UD
79-00-5	1,1,2-Trichloroethane	50	UD
75-25-2	Bromoform	50	UD
108-10-1	4-Methyl-2-Pentanone	100	UD
591-78-6	2-Hexanone	50	UD
127-18-4	Tetrachloroethene	50	UD
79-34-5	1,1,2,2-Tetrachloroethane	50	UD
108-88-3	Toluene	50	UD
108-90-7	Chlorobenzene	50	UD
100-41-4	Ethylbenzene	50	UD

000103

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

WW-2

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262506

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0861.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/30/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

(ug/L or ug/Kg) ug/L

Q

[illegible]

000104

EPA SAMPLE NO.

WW-2

% Solids:

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.17			

Comments:

000037



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WW-2D

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262507

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0848.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/29/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	100	UD
74-83-9	Bromomethane	100	UD
75-01-4	Vinyl Chloride	100	UD
75-00-3	Chloroethane	100	UD
75-09-2	Methylene Chloride	50	UD
67-64-1	Acetone	100	UD
75-15-0	Carbon Disulfide	50	UD
75-35-4	1,1-Dichloroethene	50	UD
75-34-4	1,1-Dichloroethane	50	UD
540-59-0	1,2-Dichloroethene (total)	50	UD
67-66-3	Chloroform	50	UD
107-06-2	1,2-Dichloroethane	50	UD
78-93-3	2-Butanone	1100	D
71-55-6	1,1,1-Trichloroethane	50	UD
56-23-5	Carbon Tetrachloride	50	UD
108-05-4	Vinyl Acetate	100	UD
75-27-4	Bromodichloromethane	50	UD
78-87-5	1,2-Dichloropropane	50	UD
110-75-8	2-Chloroethyl vinyl ether	100	UD
10061-01-5	cis-1,3-Dichloropropene	50	UD
79-01-6	Trichloroethene	50	UD
71-43-2	Benzene	50	UD
124-48-1	Dibromochloromethane	10	UD
10061-02-6	trans-1,3-Dichloropropene	50	UD
79-00-5	1,1,2-Trichloroethane	50	UD
75-25-2	Bromoform	50	UD
108-10-1	4-Methyl-2-Pentanone	50	UD
591-78-6	2-Hexanone	50	UD
127-18-4	Tetrachloroethene	50	UD
79-34-5	1,1,2,2-Tetrachloroethane	50	UD
108-88-3	Toluene	50	UD
108-90-7	Chlorobenzene	50	UD
100-41-4	Ethylbenzene	50	UD

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

WW-2D

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V262507

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0848.D

Level: (low/med)

Date Received: 11/12/94

% Moisture: not dec.

Date Analyzed: 11/29/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

[illegible]

EPA SAMPLE NO.



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WW-3

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262508

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0730.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	100		UD
74-83-9	Bromomethane	100		UD
75-01-4	Vinyl Chloride	100		UD
75-00-3	Chloroethane	100		UD
75-09-2	Methylene Chloride	50		UD
67-64-1	Acetone	6500		DE
75-15-0	Carbon Disulfide	50		UD
75-35-4	1,1-Dichloroethene	50		UD
75-34-4	1,1-Dichloroethane	50		UD
540-59-0	1,2-Dichloroethene (total)	50		UD
67-66-3	Chloroform	50		UD
107-06-2	1,2-Dichloroethane	50		UD
78-93-3	2-Butanone	1200		D
71-55-6	1,1,1-Trichloroethane	50		UD
56-23-5	Carbon Tetrachloride	50		UD
108-05-4	Vinyl Acetate	100		UD
75-27-4	Bromodichloromethane	50		UD
78-87-5	1,2-Dichloropropane	50		UD
110-75-8	2-Chloroethyl vinyl ether	100		UD
10061-01-5	cis-1,3-Dichloropropene	50		UD
79-01-6	Trichloroethene	50		UD
71-43-2	Benzene	50	31.4	UD J
124-48-1	Dibromochloromethane	50		UD
10061-02-6	trans-1,3-Dichloropropene	50		UD
79-00-5	1,1,2-Trichloroethane	50		UD
75-25-2	Bromoform	50		UD
108-10-1	4-Methyl-2-Pentanone	100		UD
591-78-6	2-Hexanone	100		UD
127-18-4	Tetrachloroethene	50		UD
79-34-5	1,1,2,2-Tetrachloroethane	50		UD
108-88-3	Toluene	52		D
108-90-7	Chlorobenzene	50		UD
100-41-4	Ethylbenzene	18	50	UD UD

1A

WW-3

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V262508

Lab File ID: E0730.D

Date Received: 11/12/94

Date Analyzed: 11/18/94

Dilution Factor: 10.0

Soil Aliquot Volume: (uL)

Concentration Units:

000047

EPA SAMPLE NO.

WW-3

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% Solids:
```

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.13			

Comments :



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WW-3DL

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262508L

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0794.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/23/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 50.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			Q
74-87-3	Chloromethane	500	UD
74-83-9	Bromomethane	500	UD
75-01-4	Vinyl Chloride	500	UD
75-00-3	Chloroethane	500	UD
75-09-2	Methylene Chloride	250	UD
67-64-1	Acetone	7300	D
75-15-0	Carbon Disulfide	250	UD
75-35-4	1,1-Dichloroethene	250	UD
75-34-4	1,1-Dichloroethane	250	UD
540-59-0	1,2-Dichloroethene (total)	250	UD
67-66-3	Chloroform	250	UD
107-06-2	1,2-Dichloroethane	250	UD
78-93-3	2-Butanone	1300	D
71-55-6	1,1,1-Trichloroethane	250	UD
56-23-5	Carbon Tetrachloride	250	UD
108-05-4	Vinyl Acetate	500	UD
75-27-4	Bromodichloromethane	250	UD
78-87-5	1,2-Dichloropropane	250	UD
110-75-8	2-Chloroethyl vinyl ether	500	UD
10061-01-5	cis-1,3-Dichloropropene	250	UD
79-01-6	Trichloroethene	250	UD
71-43-2	Benzene	250	UD
124-48-1	Dibromochloromethane	250	UD
10061-02-6	trans-1,3-Dichloropropene	250	UD
79-00-5	1,1,2-Trichloroethane	250	UD
75-25-2	Bromoform	250	UD
108-10-1	4-Methyl-2-Pentanone	500	UD
591-78-6	2-Hexanone	500	UD
127-18-4	Tetrachloroethene	250	UD
79-34-5	1,1,2,2-Tetrachloroethane	250	UD
108-88-3	Toluene	250	UD
108-90-7	Chlorobenzene	250	UD
100-41-4	Ethylbenzene	250	UD

000053

1A

WW-3DL

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V262508L

Lab File ID: E0794.D

Date Received: 11/12/94

Date Analyzed: 11/23/94

Dilution Factor: 50.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

[illegible]

000054



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WW-4

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262509

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0849.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/29/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	100		UD
74-83-9	Bromomethane	100		UD
75-01-4	Vinyl Chloride	100		UD
75-00-3	Chloroethane	100		UD
75-09-2	Methylene Chloride	50		UD
67-64-1	Acetone	4700		DE
75-15-0	Carbon Disulfide	50		UD
75-35-4	1,1-Dichloroethene	50		UD
75-34-4	1,1-Dichloroethane	50		UD
540-59-0	1,2-Dichloroethene (total)	50		UD
67-66-3	Chloroform	50		UD
107-06-2	1,2-Dichloroethane	50		UD
78-93-3	2-Butanone	830		D
71-55-6	1,1,1-Trichloroethane	50		UD
56-23-5	Carbon Tetrachloride	50		UD
108-05-4	Vinyl Acetate	100		UD
75-27-4	Bromodichloromethane	50		UD
78-87-5	1,2-Dichloropropane	50		UD
110-75-8	2-Chloroethyl vinyl ether	50		UD
10061-01-5	cis-1,3-Dichloropropene	50		UD
79-01-6	Trichloroethene	50		UD
71-43-2	Benzene	50		UD
124-48-1	Dibromochloromethane	50		UD
10061-02-6	trans-1,3-Dichloropropene	50		UD
79-00-5	1,1,2-Trichloroethane	50		UD
75-25-2	Bromoform	50		UD
108-10-1	4-Methyl-2-Pentanone	100		UD
591-78-6	2-Hexanone	100		UD
127-18-4	Tetrachloroethene	50		UD
79-34-5	1,1,2,2-Tetrachloroethane	50		UD
108-88-3	Toluene	50		UD
108-90-7	Chlorobenzene	50		UD
100-41-4	Ethylbenzene	50		UD

1A

WW-4

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V262509

Lab File ID: E0849.D

Date Received: 11/12/94

0

Date Analyzed: 11/29/94

ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Aliquot Volume: (uL)

Page 2 of 2

000097

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WW-4

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2625.09

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): NA

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.12			

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:



SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS-1

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) SOILLab Sample ID: S262516Sample wt/vol: 1.0 (g/mL) GLab File ID: D4548.DLevel: (low/med) MEDDate Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/23/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/3/94Injection Volume: 1.0 (uL)Dilution Factor: 2.0

GPC Cleanup: (Y/N)

N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
62-75-9	N-Nitrosodimethylamine	20000		UD
108-95-2	Phenol	20000		UD
111-44-4	bis(2-Chloroethyl)ether	20000		UD
95-57-8	2-Chlorophenol	20000		UD
541-73-1	1,3-Dichlorobenzene	20000		UD
106-46-7	1,4-Dichlorobenzene	20000		UD
100-51-6	Benzyl alcohol	20000		UD
95-50-1	1,2-Dichlorobenzene	20000		UD
95-48-7	2-Methylphenol	20000		UD
108-60-1	2,2'-oxybis-(1-Chloropropane)	20000		UD
106-44-5	4-Methylphenol	20000		UD
621-64-7	N-Nitroso-di-n-propylamine	20000		UD
67-72-1	Hexachloroethane	20000		UD
98-95-3	Nitrobenzene	20000		UD
78-59-1	Isophorone	20000		UD
88-75-5	2-Nitrophenol	20000		UD
105-67-9	2,4-Dimethylphenol	20000		UD
111-91-1	bis(2-Chloroethoxy)methane	20000		UD
65-85-0	Benzoic acid	50000		UD
120-83-2	2,4-Dichlorophenol	20000		UD
120-82-1	1,2,4-Trichlorobenzene	20000		UD
91-20-3	Naphthalene	20000		UD
106-47-8	4-Chloroaniline	50000		UD
87-68-3	Hexachlorobutadiene	20000		UD
59-50-7	4-Chloro-3-methylphenol	20000		UD
91-57-6	2-Methylnaphthalene	20000		UD
77-47-4	Hexachlorocyclopentadiene	20000		UD
88-06-2	2,4,6-Trichlorophenol	20000		UD
95-95-4	2,4,5-Trichlorophenol	20000		UD
91-58-7	2-Chloronaphthalene	20000		UD
88-74-4	2-Nitroaniline	20000		UD
131-11-3	Dimethylphthalate	20000		UD
606-20-2	2,6-Dinitrotoluene	20000		UD

000057

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) SOILLab Sample ID: S262516Sample wt/vol: 1.0 (g/mL) GLab File ID: D4548.DLevel: (low/med) MEDDate Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/23/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/3/94Injection Volume: 1.0 (uL)Dilution Factor: 2.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
208-96-8	Acenaphthylene	20000		UD
99-09-2	3-Nitroaniline	20000		UD
83-32-9	Acenaphthene	20000		UD
51-28-5	2,4-Dinitrophenol	50000		UD
100-02-7	4-Nitrophenol	20000		UD
121-14-2	2,4-Dinitrotoluene	20000		UD
132-64-9	Dibenzofuran	20000		UD
84-66-2	Diethylphthalate	20000		UD
7005-72-3	4-Chlorophenyl-phenylether	20000		UD
86-73-7	Fluorene	20000		UD
100-01-6	4-Nitroaniline	20000		UD
534-52-1	4,6-Dinitro-2-methylphenol	50000		UD
86-30-6	N-nitroso-di-phenylamine	20000		UD
101-55-3	4-Bromophenyl-phenylether	20000		UD
118-74-1	Hexachlorobenzene	20000		UD
87-86-5	Pentachlorophenol	50000		UD
85-01-8	Phenanthrene	20000		UD
120-12-7	Anthracene	20000		UD
86-74-8	Carbazole	20000		UD
84-74-2	Di-n-butylphthalate	20000		UD
206-44-0	Fluoranthene	20000		UD
129-00-0	Pyrene	20000		UD
85-68-7	Butylbenzylphthalate	20000		UD
117-81-7	bis(2-ethylhexyl)phthalate	20000		UD
91-94-1	3,3'-Dichlorobenzidine	20000		UD
56-55-3	Benzo(a)anthracene	20000		UD
218-01-9	Chrysene	20000		UD
117-84-0	Di-n-Octylphthalate	20000		UD
205-92-2	Benzo(b)fluoranthene	20000		UD
207-08-9	Benzo(k)fluoranthene	20000		UD
50-32-8	Benzo(a)pyrene	20000		UD
193-39-5	Indeno(1,2,3-cd)pyrene	20000		UD
53-70-3	Dibenzo(a,h)anthracene	20000		UD

SS-1

Contract: PRC

Site: NAVAJO

Location:

Group:

Lab Sample ID: S262516

Lab File ID: D4548.D

Date Received: 11/12/94

decanted: (Y/N): N

Date Extracted: 11/23/94

Date Analyzed: 12/3/94

Dilution Factor: 2.0

N

pH:

CAS No.

Compound

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix (soil/water): SOIL Lab Sample ID: 2625.16
Level (low/med): _____ Date Received: 11/12/94
% Solids: _____

Concentration Units (ug/L or mg/kg ~~dry weight~~): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	23			F
7740-47-3	Chromium	320			F
7439-92-1	Lead	580			F
7740-02-0	Nickel	22			F
	Fluoride				
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____
Comments: _____

000014



SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS-1D

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
 Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____
 Matrix: (soil/water) SOIL Lab Sample ID: S262517
 Sample wt/vol: 1.0 (g/mL) G Lab File ID: D4563.D
 Level: (low/med) MED Date Received: 11/12/94
 % Moisture: 0 decanted: (Y/N): N Date Extracted: 11/23/94
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/6/94
 Injection Volume: 1.0 (uL) Dilution Factor: 2.0
 GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
62-75-9	N-Nitrosodimethylamine	20000		UD
108-95-2	Phenol	20000		UD
111-44-4	bis(2-Chloroethyl)ether	20000		UD
95-57-8	2-Chlorophenol	20000		UD
541-73-1	1,3-Dichlorobenzene	20000		UD
106-46-7	1,4-Dichlorobenzene	20000		UD
100-51-6	Benzyl alcohol	20000		UD
95-50-1	1,2-Dichlorobenzene	20000		UD
95-48-7	2-Methylphenol	20000		UD
108-60-1	2,2'-oxybis-(1-Chloropropane)	20000		UD
106-44-5	4-Methylphenol	20000		UD
621-64-7	N-Nitroso-di-n-propylamine	20000		UD
67-72-1	Hexachloroethane	20000		UD
98-95-3	Nitrobenzene	20000		UD
78-59-1	Isophorone	20000		UD
88-75-5	2-Nitrophenol	20000		UD
105-67-9	2,4-Dimethylphenol	20000		UD
111-91-1	bis(2-Chloroethoxy)methane	20000		UD
65-85-0	Benzoic acid	50000		UD
120-83-2	2,4-Dichlorophenol	20000		UD
120-82-1	1,2,4-Trichlorobenzene	20000		UD
91-20-3	Naphthalene	20000		UD
106-47-8	4-Chloroaniline	50000		UD
87-68-3	Hexachlorobutadiene	20000		UD
59-50-7	4-Chloro-3-methylphenol	20000		UD
91-57-6	2-Methylnaphthalene	20000		UD
77-47-4	Hexachlorocyclopentadiene	20000		UD
88-06-2	2,4,6-Trichlorophenol	20000		UD
95-95-4	2,4,5-Trichlorophenol	20000		UD
91-58-7	2-Chloronaphthalene	20000		UD
88-74-4	2-Nitroaniline	20000		UD
131-11-3	Dimethylphthalate	20000		UD
606-20-2	2,6-Dinitrotoluene	20000		UD

000092

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS-1D

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) SOIL Lab Sample ID: S262517

Sample wt/vol: 1.0 (g/mL) G Lab File ID: D4563.D

Level: (low/med) MED Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/23/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/6/94

Injection Volume: 1.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
208-96-8	Acenaphthylene	20000		UD
99-09-2	3-Nitroaniline	20000		UD
83-32-9	Acenaphthene	20000		UD
51-28-5	2,4-Dinitrophenol	50000		UD
100-02-7	4-Nitrophenol	20000		UD
121-14-2	2,4-Dinitrotoluene	20000		UD
132-64-9	Dibenzofuran	20000		UD
84-66-2	Diethylphthalate	20000		UD
7005-72-3	4-Chlorophenyl-phenylether	20000		UD
86-73-7	Fluorene	20000		UD
100-01-6	4-Nitroaniline	20000		UD
534-52-1	4,6-Dinitro-2-methylphenol	50000		UD
86-30-6	N-nitroso-di-phenylamine	20000		UD
101-55-3	4-Bromophenyl-phenylether	20000		UD
118-74-1	Hexachlorobenzene	20000		UD
87-86-5	Pentachlorophenol	50000		UD
85-01-8	Phenanthrene	20000		UD
120-12-7	Anthracene	20000		UD
86-74-8	Carbazole	20000		UD
84-74-2	Di-n-butylphthalate	20000		UD
206-44-0	Fluoranthene	20000		UD
129-00-0	Pyrene	20000		UD
85-68-7	Butylbenzylphthalate	20000		UD
117-81-7	bis(2-ethylhexyl)phthalate	20000		UD
91-94-1	3,3'-Dichlorobenzidine	20000		UD
56-55-3	Benzo(a)anthracene	20000		UD
218-01-9	Chrysene	20000		UD
117-84-0	Di-n-Octylphthalate	20000		UD
205-92-2	Benzo(b)fluoranthene	20000		UD
207-08-9	Benzo(k)fluoranthene	20000		UD
50-32-8	Benzo(a)pyrene	20000		UD
193-39-5	Indeno(1,2,3-cd)pyrene	20000		UD
53-70-3	Dibenzo(a,h)anthracene	20000		UD

SS-1D

Contract: PRC

Location:

Group:

SOIL

Lab Sample ID: S262517

1.0

(g/mL) G

Lab File ID: D4563.D

MED

Date Received: 11/12/94

0

decanted: (Y/N): N

Date Extracted: 11/23/94

1000 (uL)

Date Analyzed: 12/6/94

1.0

(uL)

Dilution Factor: 2.0

N

pH:

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

000094

EPA SAMPLE NO.

SS-1D

% Solids:

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	26			F
7740-47-3	Chromium	290			F
7439-92-1	Lead	730			F
7740-02-0	Nickel	23			F
	Fluoride				
	pH				

Comments:

0000.15



Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
 Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____
 Matrix: (soil/water) SOIL Lab Sample ID: S262518
 Sample wt/vol: 1.0 (g/mL) G Lab File ID: D4555.0
 Level: (low/med) MED Date Received: 11/12/94
 % Moisture: 0 decanted: (Y/N): N Date Extracted: 11/23/94
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/3/94
 Injection Volume: 1.0 (uL) Dilution Factor: 2.0
 GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/Kg
62-75-9	N-Nitrosodimethylamine	20000	UD
108-95-2	Phenol	20000	UD
111-44-4	bis(2-Chloroethyl)ether	20000	UD
95-57-8	2-Chlorophenol	20000	UD
541-73-1	1,3-Dichlorobenzene	20000	UD
106-46-7	1,4-Dichlorobenzene	20000	UD
100-51-6	Benzyl alcohol	20000	UD
95-50-1	1,2-Dichlorobenzene	20000	UD
95-48-7	2-Methylphenol	20000	UD
108-60-1	2,2'-oxybis-(1-Chloropropane)	20000	UD
106-44-5	4-Methylphenol	20000	UD
621-64-7	N-Nitroso-di-n-propylamine	20000	UD
67-72-1	Hexachloroethane	20000	UD
98-95-3	Nitrobenzene	20000	UD
78-59-1	Isophorone	20000	UD
88-75-5	2-Nitrophenol	20000	UD
105-67-9	2,4-Dimethylphenol	20000	UD
111-91-1	bis(2-Chloroethoxy)methane	20000	UD
65-85-0	Benzoic acid	50000	UD
120-83-2	2,4-Dichlorophenol	20000	UD
120-82-1	1,2,4-Trichlorobenzene	20000	UD
91-20-3	Naphthalene	20000	UD
106-47-8	4-Chloroaniline	50000	UD
87-68-3	Hexachlorobutadiene	20000	UD
59-50-7	4-Chloro-3-methylphenol	20000	UD
91-57-6	2-Methylnaphthalene	20000	UD
77-47-4	Hexachlorocyclopentadiene	20000	UD
88-06-2	2,4,6-Trichlorophenol	20000	UD
95-95-4	2,4,5-Trichlorophenol	20000	UD
91-58-7	2-Chloronaphthalene	20000	UD
88-74-4	2-Nitroaniline	20000	UD
131-11-3	Dimethylphthalate	20000	UD
606-20-2	2,6-Dinitrotoluene	20000	UD

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS-3

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) SOILLab Sample ID: S262518Sample wt/vol: 1.0 (g/mL) GLab File ID: D4555.DLevel: (low/med) MEDDate Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/23/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/3/94Injection Volume: 1.0 (uL)Dilution Factor: 2.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
208-96-8	Acenaphthylene	20000		UD
99-09-2	3-Nitroaniline	20000		UD
83-32-9	Acenaphthene	20000		UD
51-28-5	2,4-Dinitrophenol	50000		UD
100-02-7	4-Nitrophenol	20000		UD
121-14-2	2,4-Dinitrotoluene	20000		UD
132-64-9	Dibenzofuran	20000		UD
84-66-2	Diethylphthalate	20000		UD
7005-72-3	4-Chlorophenyl-phenylether	20000		UD
86-73-7	Fluorene	20000		UD
100-01-6	4-Nitroaniline	20000		UD
534-52-1	4,6-Dinitro-2-methylphenol	50000		UD
86-30-6	N-nitroso-di-phenylamine	20000		UD
101-55-3	4-Bromophenyl-phenylether	20000		UD
118-74-1	Hexachlorobenzene	20000		UD
87-86-5	Pentachlorophenol	50000		UD
85-01-8	Phenanthrene	20000		UD
120-12-7	Anthracene	20000		UD
86-74-8	Carbazole	20000		UD
84-74-2	Di-n-butylphthalate	20000		UD
206-44-0	Fluoranthene	20000		UD
129-00-0	Pyrene	20000		UD
85-68-7	Butylbenzylphthalate	20000		UD
117-81-7	bis(2-ethylhexyl)phthalate	20000		UD
91-94-1	3,3'-Dichlorobenzidine	20000		UD
56-55-3	Benzo(a)anthracene	20000		UD
218-01-9	Chrysene	20000		UD
117-84-0	Di-n-Octylphthalate	20000		UD
205-92-2	Benzo(b)fluoranthene	20000		UD
207-08-9	Benzo(k)fluoranthene	20000		UD
50-32-8	Benzo(a)pyrene	20000		UD
193-39-5	Indeno(1,2,3-cd)pyrene	20000		UD
53-70-3	Dibenzo(a,h)anthracene	20000		UD

000095

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-3

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): SOIL Lab Sample ID: 2625.18

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	43			F
7740-47-3	Chromium	580			F
7439-92-1	Lead	4300			F
7740-02-0	Nickel	38			F
	Fluoride				
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

000016



SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS-6

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) SOILLab Sample ID: S262520Sample wt/vol: 1.0 (g/mL) GLab File ID: D4552.0Level: (low/med) MEDDate Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/23/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/3/94Injection Volume: 1.0 (uL)Dilution Factor: 2.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
62-75-9	N-Nitrosodimethylamine	20000		UD
108-95-2	Phenol	20000		UD
111-44-4	bis(2-Chloroethyl)ether	20000		UD
95-57-8	2-Chlorophenol	20000		UD
541-73-1	1,3-Dichlorobenzene	20000		UD
106-46-7	1,4-Dichlorobenzene	20000		UD
100-51-6	Benzyl alcohol	20000		UD
95-50-1	1,2-Dichlorobenzene	20000		UD
95-48-7	2-Methylphenol	20000		UD
108-60-1	2,2'-oxybis-(1-Chloropropane)	20000		UD
106-44-5	4-Methylphenol	20000		UD
621-64-7	N-Nitroso-di-n-propylamine	20000		UD
67-72-1	Hexachloroethane	20000		UD
98-95-3	Nitrobenzene	20000		UD
78-59-1	Isophorone	20000		UD
88-75-5	2-Nitrophenol	20000		UD
105-67-9	2,4-Dimethylphenol	20000		UD
111-91-1	bis(2-Chloroethoxy)methane	20000		UD
65-85-0	Benzoic acid	50000		UD
120-83-2	2,4-Dichlorophenol	20000		UD
120-82-1	1,2,4-Trichlorobenzene	20000		UD
91-20-3	Naphthalene	20000		UD
106-47-8	4-Chloroaniline	50000		UD
87-68-3	Hexachlorobutadiene	20000		UD
59-50-7	4-Chloro-3-methylphenol	20000		UD
91-57-6	2-Methylnaphthalene	20000		UD
77-47-4	Hexachlorocyclopentadiene	20000		UD
88-06-2	2,4,6-Trichlorophenol	20000		UD
95-95-4	2,4,5-Trichlorophenol	20000		UD
91-58-7	2-Chloronaphthalene	20000		UD
88-74-4	2-Nitroaniline	20000		UD
131-11-3	Dimethylphthalate	20000		UD
606-20-2	2,6-Dinitrotoluene	20000		UD

000107

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS-6

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) SOILLab Sample ID: S262520Sample wt/vol: 1.0 (g/mL) GLab File ID: 04552.0Level: (low/med) MEDDate Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/23/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/3/94Injection Volume: 1.0 (uL)Dilution Factor: 2.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
208-96-8	Acenaphthylene	20000		UD
99-09-2	3-Nitroaniline	20000		UD
83-32-9	Acenaphthene	20000		UD
51-28-5	2,4-Dinitrophenol	50000		UD
100-02-7	4-Nitrophenol	20000		UD
121-14-2	2,4-Dinitrotoluene	20000		UD
132-64-9	Dibenzofuran	20000		UD
84-66-2	Diethylphthalate	20000		UD
7005-72-3	4-Chlorophenyl-phenylether	20000		UD
86-73-7	Fluorene	20000		UD
100-01-6	4-Nitroaniline	20000		UD
534-52-1	4,6-Dinitro-2-methylphenol	50000		UD
86-30-6	N-nitroso-di-phenylamine	20000		UD
101-55-3	4-Bromophenyl-phenylether	20000		UD
118-74-1	Hexachlorobenzene	20000		UD
87-86-5	Pentachlorophenol	50000		UD
85-01-8	Phenanthrene	20000		UD
120-12-7	Anthracene	20000		UD
86-74-8	Carbazole	20000		UD
84-74-2	Di-n-butylphthalate	20000		UD
206-44-0	Fluoranthene	20000		UD
129-00-0	Pyrene	20000		UD
85-68-7	Butylbenzylphthalate	20000		UD
117-81-7	bis(2-ethylhexyl)phthalate	20000		UD
91-94-1	3,3'-Dichlorobenzidine	20000		UD
56-55-3	Benzo(a)anthracene	20000		UD
218-01-9	Chrysene	20000		UD
117-84-0	Di-n-Octylphthalate	20000		UD
205-92-2	Benzo(b)fluoranthene	20000		UD
207-08-9	Benzo(k)fluoranthene	20000		UD
50-32-8	Benzo(a)pyrene	20000		UD
193-39-5	Indeno(1,2,3-cd)pyrene	20000		UD
53-70-3	Dibenzo(a,h)anthracene	20000		UD

000105

SS-6

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-6

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): SOIL Lab Sample ID: 2625.20

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	16.6			F
7740-47-3	Chromium	260			F
7439-92-1	Lead	205			F
7740-02-0	Nickel	20			F
	Fluoride				
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SD-1

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) SOIL

Lab Sample ID: V262519

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B2034.D

Level: (low/med) LOW

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/20/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1 (uL)

Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/Kg</u>	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	34		
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

000109

SAMPLE NO.

SD-1

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) SOIL

Lab Sample ID: V262519

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B2034.D

Level: (low/med) LOW

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/20/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1 (uL)

Soil Aliquot Volume: 1 (uL)

[illegible]

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) SOILLab Sample ID: S262519Sample wt/vol: 30.0 (g/mL) GLab File ID: D4539.DLevel: (low/med) LOWDate Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/22/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
62-75-9	N-Nitrosodimethylamine	330		U
108-95-2	Phenol	330		U
111-44-4	bis(2-Chloroethyl)ether	330		U
95-57-8	2-Chlorophenol	330		U
541-73-1	1,3-Dichlorobenzene	330		U
106-46-7	1,4-Dichlorobenzene	330		U
100-51-6	Benzyl alcohol	330		U
95-50-1	1,2-Dichlorobenzene	330		U
95-48-7	2-Methylphenol	330		U
108-60-1	2,2'-oxybis-(Chloropropane)	330		U
106-44-5	4-Methylphenol	330		U
621-64-7	N-Nitroso-di-n-propylamine	330		U
67-72-1	Hexachloroethane	330		U
98-95-3	Nitrobenzene	330		U
78-59-1	Isophorone	330		U
88-75-5	2-Nitrophenol	330		U
105-67-9	2,4-Dimethylphenol	330		U
111-91-1	bis(2-Chloroethoxy)methane	330		U
65-85-0	Benzoic acid	330		U
120-83-2	2,4-Dichlorophenol	330		U
120-82-1	1,2,4-Trichlorobenzene	330		U
91-20-3	Naphthalene	330		U
106-47-8	4-Chloroaniline	330		U
87-68-3	Hexachlorobutadiene	330		U
59-50-7	4-Chloro-3-methylphenol	330		U
91-57-6	2-Methylnaphthalene	330		U
77-47-4	Hexachlorocyclopentadiene	330		U
88-06-2	2,4,6-Trichlorophenol	330		U
95-95-4	2,4,5-Trichlorophenol	800		U
91-58-7	2-Chloronaphthalene	330		U
88-74-4	2-Nitroaniline	800		U
131-11-3	Dimethylphthalate	330		U
606-20-2	2,6-Dinitrotoluene	330		U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SD-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) SOIL Lab Sample ID: S262519

Sample wt/vol: 30.0 (g/mL) G Lab File ID: D4539.D

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/22/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/Kg
			Q
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
121-14-2	2,4-Dinitrotoluene	330	U
132-64-9	Dibenzofuran	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	U
86-30-6	N-nitroso-di-phenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
117-81-7	bis(2-ethylhexyl)phthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octylphthalate	330	U
205-92-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U

000103

UNION LL 140.

Lab Name:	PDP ANALYTICAL SERVICES		Contract:	PRC
Project No.:	070R0603001SA	Site:	NAVAJO	Location:
Matrix: (soil/water)	SOIL			Lab Sample ID:
Sample wt/vol:	30.0	(g/mL)	G	Lab File ID:
Level: (low/med)	LOW			Date Received:
% Moisture:	0	decanted: (Y/N):	N	Date Extracted:
Concentrated Extract Volume:	1000	(uL)		Date Analyzed:
Injection Volume:	1.0	(uL)		Dilution Factor:
GPC Cleanup: (Y/N)	N		pH:	

Concentration Units:

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: 2625.19

Level (low/med): _____ Date Received: 11/12/94

% Solids: _____

Concentration Units (ug/L or mg/kg ~~mg/kg~~): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	0.5	U		F
7740-47-3	Chromium	1.7			F
7439-92-1	Lead	1.9			F
7740-02-0	Nickel	1.9			F
	Fluoride				
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000017



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SD-3

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) SOIL

Lab Sample ID: V262521

Sample wt/vol: 5.0 (g/mL) GM

Lab File ID: B2035.D

Level: (low/med) LOW

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/20/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1 (uL)

Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/Kg
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	19	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000114

1A

SD-3

Contract: PRC

Site: _____

Location: _____

Group: _____

Lab Sample ID: V262521

Lab File ID: B2035.D

Date Received: 11/12/94

Date Analyzed: 11/20/94

Dilution Factor: 1.0

Soil Aliquot Volume: 1 (uL)

Concentration Units:

000115.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SD-3

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) SOIL Lab Sample ID: S262521

Sample wt/vol: 30.0 (g/mL) G Lab File ID: D4540.0

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/22/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
62-75-9	N-Nitrosodimethylamine	330		U
108-95-2	Phenol	330		U
111-44-4	bis(2-Chloroethyl)ether	330		U
95-57-8	2-Chlorophenol	330		U
541-73-1	1,3-Dichlorobenzene	330		U
106-46-7	1,4-Dichlorobenzene	330		U
100-51-6	Benzyl alcohol	330		U
95-50-1	1,2-Dichlorobenzene	330		U
95-48-7	2-Methylphenol	330		U
108-60-1	2,2'-oxybis-(1-Chloropropane)	330		U
106-44-5	4-Methylphenol	330		U
621-64-7	N-Nitroso-di-n-propylamine	330		U
67-72-1	Hexachloroethane	330		U
98-95-3	Nitrobenzene	330		U
78-59-1	Isophorone	330		U
88-75-5	2-Nitrophenol	330		U
105-67-9	2,4-Dimethylphenol	330		U
111-91-1	bis(2-Chloroethoxy)methane	330		U
65-85-0	Benzoic acid	330		U
120-83-2	2,4-Dichlorophenol	330		U
120-82-1	1,2,4-Trichlorobenzene	330		U
91-20-3	Naphthalene	330		U
106-47-8	4-Chloroaniline	330		U
87-68-3	Hexachlorobutadiene	330		U
59-50-7	4-Chloro-3-methylphenol	330		U
91-57-6	2-Methylnaphthalene	330		U
77-47-4	Hexachlorocyclopentadiene	330		U
88-06-2	2,4,6-Trichlorophenol	330		U
95-95-4	2,4,5-Trichlorophenol	800		U
91-58-7	2-Chloronaphthalene	330		U
88-74-4	2-Nitroaniline	800		U
131-11-3	Dimethylphthalate	330		U
606-20-2	2,6-Dinitrotoluene	330		U

000112

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SD-3

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) SOILLab Sample ID: S262521Sample wt/vol: 30.0 (g/mL) GLab File ID: D4540.DLevel: (low/med) LOWDate Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/22/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
208-96-8	Acenaphthylene	330		U
99-09-2	3-Nitroaniline	800		U
83-32-9	Acenaphthene	330		U
51-28-5	2,4-Dinitrophenol	800		U
100-02-7	4-Nitrophenol	800		U
121-14-2	2,4-Dinitrotoluene	330		U
132-64-9	Dibenzofuran	330		U
84-66-2	Diethylphthalate	330		U
7005-72-3	4-Chlorophenyl-phenylether	330		U
86-73-7	Fluorene	330		U
100-01-6	4-Nitroaniline	800		U
534-52-1	4,6-Dinitro-2-methyphenol	800		U
86-30-6	N-nitroso-di-phenylamine	330		U
101-55-3	4-Bromophenyl-phenylether	330		U
118-74-1	Hexachlorobenzene	330		U
87-86-5	Pentachlorophenol	800		U
85-01-8	Phenanthrene	330		U
120-12-7	Anthracene	330		U
86-74-8	Carbazole	330		U
84-74-2	Di-n-butylphthalate	510		B
206-44-0	Fluoranthene	330		U
129-00-0	Pyrene	330		U
85-68-7	Butylbenzylphthalate	330		U
117-81-7	bis(2-ethylhexyl)phthalate	330		U
91-94-1	3,3'-Dichlorobenzidine	330		U
56-55-3	Benzo(a)anthracene	330		U
218-01-9	Chrysene	330		U
117-84-0	Di-n-Octylphthalate	330		U
205-92-2	Benzo(b)fluoranthene	330		U
207-08-9	Benzo(k)fluoranthene	330		U
50-32-8	Benzo(a)pyrene	330		U
193-39-5	Indeno(1,2,3-cd)pyrene	330		U
53-70-3	Dibenzo(a,h)anthracene	330		U

000113

SD-3

SD-3

Group:

Lab Sample ID: S262521

Lab File ID: D4540.D

Date Received: 11/12/94

Date Extracted: 11/22/94

Date Analyzed: 12/2/94

Dilution Factor: 1.0

pH: _____

(ug/L or ug/Kg) ug/Kg

000114

EPA SAMPLE NO.

Concentration Units (ug/L or mg/kg): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	0.5	U		F
7740-47-3	Chromium	2.7			F
7439-92-1	Lead	1.6			F
7740-02-0	Nickel	3.4			F
	Fluoride				
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SD-3D

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) SOIL

Lab Sample ID: V262522

Sample wt/vol: 5.0 (g/mL) GM

Lab File ID: B2036.D

Level: (low/med) LOW

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/20/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1 (uL)

Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/Kg
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	31	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000119

SAMPLE NO. 1

SD-3D

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) SOIL

Lab Sample ID: V262522

Sample wt/vol: 5.0 (g/mL) GM

Lab File ID: B2036.D

Level: (low/med) LOW

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/20/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1 (uL)

Soil Aliquot Volume: 1 (uL)

[illegible]

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SD-3D

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) SOIL Lab Sample ID: S262522

Sample wt/vol: 30.0 (g/mL) G Lab File ID: D4558.0

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/22/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/4/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
62-75-9	N-Nitrosodimethylamine	330		U
108-95-2	Phenol	330		U
111-44-4	bis(2-Chloroethyl)ether	330		U
95-57-8	2-Chlorophenol	330		U
541-73-1	1,3-Dichlorobenzene	330		U
106-46-7	1,4-Dichlorobenzene	330		U
100-51-6	Benzyl alcohol	330		U
95-50-1	1,2-Dichlorobenzene	330		U
95-48-7	2-Methylphenol	330		U
108-60-1	2,2'-oxybis-(1-Chloropropane)	330		U
106-44-5	4-Methylphenol	330		U
621-64-7	N-Nitroso-di-n-propylamine	330		U
67-72-1	Hexachloroethane	330		U
98-95-3	Nitrobenzene	330		U
78-59-1	Isophorone	330		U
88-75-5	2-Nitrophenol	330		U
105-67-9	2,4-Dimethylphenol	330		U
111-91-1	bis(2-Chloroethoxy)methane	330		U
65-85-0	Benzoic acid	330		U
120-83-2	2,4-Dichlorophenol	330		U
120-82-1	1,2,4-Trichlorobenzene	330		U
91-20-3	Naphthalene	330		U
106-47-8	4-Chloroaniline	330		U
87-68-3	Hexachlorobutadiene	330		U
59-50-7	4-Chloro-3-methylphenol	330		U
91-57-6	2-Methylnaphthalene	330		U
77-47-4	Hexachlorocyclopentadiene	330		U
88-06-2	2,4,6-Trichlorophenol	330		U
95-95-4	2,4,5-Trichlorophenol	800		U
91-58-7	2-Chloronaphthalene	330		U
88-74-4	2-Nitroaniline	800		U
131-11-3	Dimethylphthalate	330		U
606-20-2	2,6-Dinitrotoluene	330		U

000118

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SD-3D

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) SOIL Lab Sample ID: S262522

Sample wt/vol: 30.0 (g/mL) G Lab File ID: D4558.D

Level: (low/mad) LOW Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/22/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/4/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/Kg
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
121-14-2	2,4-Dinitrotoluene	330	U
132-64-9	Dibenzofuran	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	U
86-30-6	N-nitroso-di-phenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	320	JB
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
117-81-7	bis(2-ethylhexyl)phthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octylphthalate	330	U
205-92-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U

000119

SD-3D

Contract: PRC

Location:

Group:

Lab Sample ID: S262522

Lab File ID: D4558.D

Date Received: 11/12/94

decanted: (Y/N): N

Date Extracted: 11/22/94

Date Analyzed: 12/4/94

Dilution Factor: 1.0

pH:

Concentration Units:

000120

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1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-3D

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix (soil/water): SOIL Lab Sample ID: 2625.22
Level (low/med): _____ Date Received: 11/12/94
% Solids: _____

Concentration Units (ug/L or mg/kg ~~_____~~): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	0.5	U		F
7740-47-3	Chromium	2.3			F
7439-92-1	Lead	1.4			F
7740-02-0	Nickel	1.9			F
	Fluoride				
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000050



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SW-1

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262510

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0711.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

000058

000059

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SW-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262510

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4524.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	Q
62-75-9	N-Nitrosodimethylamine	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis-(Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
65-85-0	Benzoic acid	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U

000069

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SW-1

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262510Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4524.D

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/18/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	U
99-09-2	3-Nitroaniline	25	U	U
83-32-9	Acenaphthene	10	U	U
51-28-5	2,4-Dinitrophenol	25	U	U
100-02-7	4-Nitrophenol	25	U	U
121-14-2	2,4-Dinitrotoluene	10	U	U
132-64-9	Dibenzofuran	10	U	U
84-66-2	Diethylphthalate	10	U	U
7005-72-3	4-Chlorophenyl-phenylether	10	U	U
86-73-7	Fluorene	10	U	U
100-01-6	4-Nitroaniline	25	U	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U	U
86-30-6	N-nitroso-di-phenylamine	10	U	U
101-55-3	4-Bromophenyl-phenylether	10	U	U
118-74-1	Hexachlorobenzene	10	U	U
87-86-5	Pentachlorophenol	25	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
86-74-8	Carbazole	10	U	U
84-74-2	Di-n-butylphthalate	140		
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
85-68-7	Butylbenzylphthalate	10	U	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U	U
91-94-1	3,3'-Dichlorobenzidine	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
117-84-0	Di-n-Octylphthalate	10	U	U
205-92-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U

000070

Contract: PRC

Group:

Lab Sample ID: S262510

Lab File ID: D4524.0

Date Received: 11/12/94

Date Extracted: 11/18/94

Date Analyzed: 12/2/94

Dilution Factor: 1.0

pH:

ug/L Q

U

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1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix (soil/water): WATER Lab Sample ID: 2625.10
Level (low/med): _____ Date Received: 11/12/94
% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	5	U		F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	10	U		F
	Fluoride				
	pH				

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____
Comments: _____

000041



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SW-2

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262511

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0713.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

1A

SW-2

Contract: PRC

Location: _____

Group:

Lab Sample ID: V262511

Lab File ID: E0713.D

Date Received: 11/12/94

Date Analyzed: 11/17/94

Dilution Factor: 1.0

Soil Aliquot Volume: _____ (uL)

(ug/L or ug/Kg) ug/L

Q

Page 2 of 2

FORM I VOA

3/90

000063

SW-2

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262511Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4525.D

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/18/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	25		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U
606-20-2	2,6-Dinitrotoluene	10		U

000075

SW-2

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262511

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 04525.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitroso-di-phenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	140	
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octylphthalate	10	U
205-92-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U

000076

Contract: PRC

Location:

Group:

Lab Sample ID: S262511

Lab File ID: 04525.D

Date Received: 11/12/94

decanted: (Y/N): N

Date Extracted: 11/18/94

Date Analyzed: 12/2/94

Dilution Factor: 1.0

N

pH:

Concentration Units:

[illegible]

000077

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-2

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2625.11

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	5	U		F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	50	U		F
7740-02-0	Nickel	10	U		F
	Fluoride				
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

000012



SW-2D

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262515

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4526.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/2/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
62-75-9	N-Nitrosodimethylamine	10		U
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
100-51-6	Benzyl alcohol	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	2,2'-oxybis-(1-Chloropropane)	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
65-85-0	Benzoic acid	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	25		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U
606-20-2	2,6-Dinitrotoluene	10		U

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SASite: NAVAJO

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: S262515Sample wt/vol: 1000.0 (g/mL) MLLab File ID: D4526.0

Level: (low/med) _____

Date Received: 11/12/94% Moisture: 0decanted: (Y/N): NDate Extracted: 11/18/94Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/2/94Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	25	U	
100-02-7	4-Nitrophenol	25	U	
121-14-2	2,4-Dinitrotoluene	10	U	
132-64-9	Dibenzofuran	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	25	U	
534-52-1	4,6-Dinitro-2-methylphenol	25	U	
86-30-6	N-nitroso-di-phenylamine	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	25	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	120		
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
117-81-7	bis(2-ethylhexyl)phthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	10	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octylphthalate	10	U	
205-92-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	

SW-2D

Contract: PRC

Group:

Lab Sample ID: S262515

Lab File ID: 04526.0

Date Received: 11/12/94

Date Extracted: 11/18/94

Date Analyzed: 12/2/94

Dilution Factor: 1.0

pH:

Q

[illegible]

000053

EPA SAMPLE NO.

SW-2D

% Solids:

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	5	U		F
7740-47-3	Chromium	5			F
7439-92-1	Lead	10	U		F
7740-02-0	Nickel	10	U		F
	Fluoride				
	pH				

Comments:

0000.13



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER-1

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262501

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0708.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

1A

ER-1

Soil Aliquot Volume: _____ (uL)

ug/L

Q

Page 2 of 2

3/90

000032

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262501

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4571.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/7/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
62-75-9	N-Nitrosodimethylamine	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis-(Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
65-85-0	Benzoic acid	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: 070R0603001SA Site: NAVAJO Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: S262501

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D4571.D

Level: (low/med) _____ Date Received: 11/12/94

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/7/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitroso-di-phenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
117-81-7	bis(2-ethylhexyl)phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octylphthalate	10	U
205-92-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

ER-1

Project No.: 070R0603001SA

Site: NAVAJO

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: S262501

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: D4571.D

Level: (low/med)

Date Received: 11/12/94

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 11/18/94

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/7/94

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH:

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER-1

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2625.01

Level (low/med): Date Received: 11/12/94

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic	5	U		F
7740-47-3	Chromium	5	U		F
7439-92-1	Lead	17			F
7740-02-0	Nickel	10	U		F
	Fluoride	100	U		
	pH				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB-2

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262309

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0684.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

000112

Contract: PRC

Site:

Group:

Soil Aliquot Volume: _____ (uL)

ug/L

Q

000113



VOLATILE ORGANICS ANALYSIS DATA SHEET

FB-1

Lab Name: PDP ANALYTICAL SERVICESContract: PRCProject No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: V260903Sample wt/vol: 5.0 (g/mL) MLLab File ID: E0717.D

Level: (low/med) _____

Date Received: 11/7/94% Moisture: not dec. 0Date Analyzed: 11/18/94GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000048

SAMPLE NO.

FB-1

Contract: PRC

Location: _____

Group: _____

Lab Sample ID: V260903

Lab File ID: E0717.D

Date Received: 11/7/94

Date Analyzed: 11/18/94

Dilution Factor: 1.0

Soil Aliquot Volume: _____ (uL)

Page 2 of 2



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FIELD BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275110

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1456.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	8.1		J
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
156-60-5	trans-1,2-Dichloroethene	5		U
156-59-2	cis-1,2-Dichloroethene	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U

FIELD BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V275110

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1456.D

Level: (low/med)

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/L

Q

[illegible]

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2751.10

Level (low/med): _____ Date Received: 01/23/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.80			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000494



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Project No.: NAVAJO Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: V274203

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E1341.D

Level: (low/med) _____ Date Received: 1/17/95

% Moisture: not dec. 0 Date Analyzed: 1/19/95

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) <u>ug/L</u>	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

SAMPLE NO.

TRIP BLANK

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V274203

Lab File ID: E1341.D

Date Received: 1/17/95

0

Date Analyzed: 1/19/95

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

Page 2 of 2



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262512

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0707.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
540-59-0	1,2-Dichloroethene (total)	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U
100-41-4	Ethylbenzene	5		U

000088

1A

TRIP BLANK

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V262512

Lab File ID: E0707.D

Date Received: 11/12/94

Date Analyzed: 11/17/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg) ug/L

Compound

Q

Page 2 of 2

FORM I VOA

3/90

000089



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

T.B.#2

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V261606

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0728.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000075

SAMPLE NO.

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

T.B.#2

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V261606

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0728.D

Level: (low/med)

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: _____ (uL)

[illegible]



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-3

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262310

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0685.D

Level: (low/med) _____

Date Received: 11/10/94

% Moisture: not dec. 0

Date Analyzed: 11/16/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000117

1A

TB-3

Soil Aliquot Volume: (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	

000115



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

T.B.#4

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262513

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0694.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

000073

1A

T.B.#4

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

000074



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

T.B.#5

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V262514

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0695.D

Level: (low/med) _____

Date Received: 11/12/94

% Moisture: not dec. 0

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

T.B.#5

Project No.: 070R0603001SA

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V262514

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0695.D

Level: (low/med)

Date Received: 11/12/94

% Moisture:	not dec.	0
-------------	----------	---

Date Analyzed: 11/17/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

[illegible]



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: 070R0603001SA

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V260902

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E0716.D

Level: (low/med) _____

Date Received: 11/7/94

% Moisture: not dec. 0

Date Analyzed: 11/18/94

GC Column: RESTEK RTX-502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U

SAMPLE NO.

TRIP BLANK

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V260902

Lab File ID: E0716.D

Date Received: 11/7/94

Date Analyzed: 11/18/94

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

3/90

000044



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275101

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1465.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		U
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	5		U
75-35-4	1,1-Dichloroethene	5		U
75-34-4	1,1-Dichloroethane	5		U
156-60-5	trans-1,2-Dichloroethene	5		U
156-59-2	cis-1,2-Dichloroethene	5		U
67-66-3	Chloroform	5		U
107-06-2	1,2-Dichloroethane	5		U
78-93-3	2-Butanone	10		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
108-05-4	Vinyl Acetate	10		U
75-27-4	Bromodichloromethane	5		U
78-87-5	1,2-Dichloropropane	5		U
110-75-8	2-Chloroethyl vinyl ether	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
79-01-6	Trichloroethene	5		U
71-43-2	Benzene	5		U
124-48-1	Dibromochloromethane	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
75-25-2	Bromoform	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
108-88-3	Toluene	5		U
108-90-7	Chlorobenzene	5		U



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275104

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1454.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: V275104

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1454.D

Level: (low/med)

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/L

Q

[illegible]



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275108

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1455.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

TRIP BLANK

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V275108

Lab File ID: E1455.D

Level: (low/med)

Date Received: 1/23/95

% Moisture: not dec.

Date Analyzed: 1/26/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/L

Q

Page 2 of 2



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES

Contract: PRC

Project No.: NAVAJO

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: V275111

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E1457.D

Level: (low/med) _____

Date Received: 1/23/95

% Moisture: not dec. 0

Date Analyzed: 1/26/95

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
110-75-8	2-Chloroethyl vinyl ether	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U

TRIP BLANK

Contract: PRC

Site:

Location:

Group:

Lab Sample ID: V275111

Lab File ID: E1457.D

Date Received: 1/23/95

0

Date Analyzed: 1/26/95

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/L

Q

000096



U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2751.01

Level (low/med): _____ Date Received: 01/23/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.03			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000485

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2751.04

Level (low/med): Date Received: 01/23/95

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.03			

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

000455

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER Lab Sample ID: 2751.08

Level (low/med): Date Received: 01/23/95

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.06			

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

000492

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: 2751.11

Level (low/med): _____ Date Received: 01/23/95

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7740-38-2	Arsenic				F
7740-47-3	Chromium				F
7439-92-1	Lead				F
7740-02-0	Nickel				F
	Fluoride				
	pH	8.02			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

000495