

3R – 347

2003 AGWMR

08 / 31 / 2004



188 County Road 4900
Bloomfield, NM 87413
(505) 634-4956 Phone
(505) 632-4780 Fax

August 31, 2004

Mr. William Olson
Hydrologist
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: 2003 GROUND WATER SUMMARY REPORT

Dear Bill:

Enclosed for your review is the Williams 2003 Ground Water Summary Report. The report provides results of ground water monitoring at several sites in the San Juan Basin historically impacted from the use of unlined surface impoundments. The report includes those sites where monitored natural attenuation is ongoing. Work at these sites continues as previously communicated.

Thank you for taking the time to review this report. If you have any questions or need other information, please contact me or Jim Struhs at 505-634-4956.

Respectfully,

A handwritten signature in black ink, appearing to read "Mark Harvey", written over a horizontal line.

Mark Harvey
Project Coordinator

Enclosure – 2003 Ground Water Summary Report

Cc: Bill Liess, BLM Farmington Office

Site Summary Report

Site Name: Wilmerding 1M

Reporting Period: 2003

Location: Unit C, Sec 10, Twn 31N, Rng 13W

Canyon: Armenta

Operator: Burlington

Vulnerable Class: original

OCD Ranking: 40

Lead Agency: NMOCD

Status Narrative

Water quality samples were collected for the first time since May 2001 during the second quarter of this year. Regional drought conditions combined with the cessation of irrigation of the surrounding hay field had lowered the water table to a level below the total depths of the wells in the interceding months. In June of this year sufficient water levels were present to allow collection of samples from wells MW-1, MW-2 and MW-4. All the samples were below the cleanup standards. Insufficient water volumes in the first, third, and fourth quarters of this year prevented collection of representative samples.

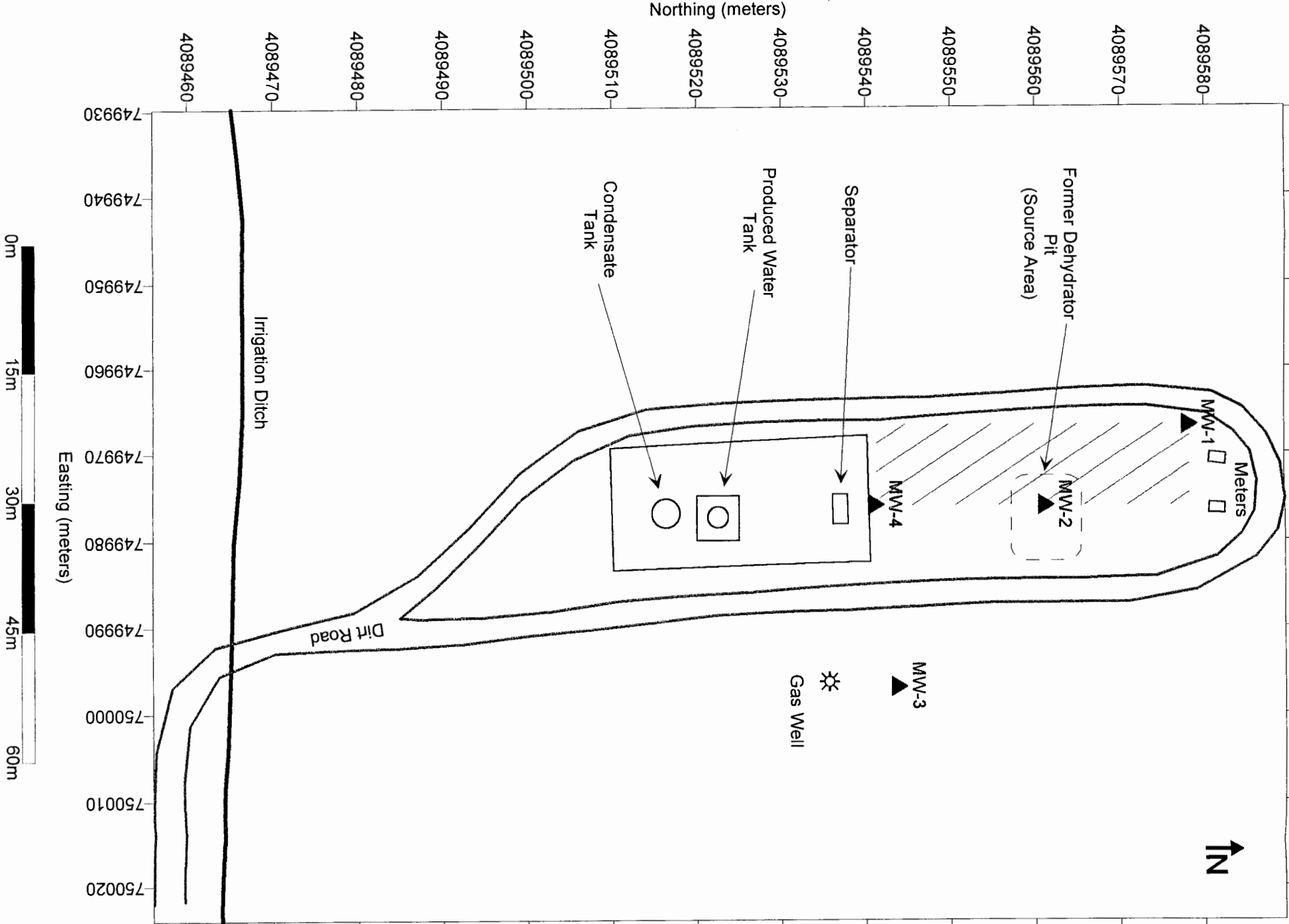


Figure 2
Potentiometric
Surface Map
Wilmerding #1M
(June 2, 2003)

LEGEND

- MW-2
▲
Monitoring Well
- 5585.20
—
Ground Water Elevation (ft. AMSL)

Analytical Data Summary

Site Name:

Emerding 1M

Reporting Period:

1/1/03 To 1/1/04

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-1	6/2/03	133802JUN03	ND	ND	ND	ND
MW-2	5/21/03	095821MAY03	ND	ND	ND	ND
	6/2/03	134802JUN03	2.3	ND	ND	ND
MW-4	6/2/03	140302JUN03	ND	ND	ND	ND



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

June 03, 2003

Mr. Jim Struhs
MILE HIGH ENVIRONMENTAL
188 C.R. 4900
Bloomfield, NM 87413

RE: Lab Project Number: 6070867
Client Project ID: SJBGW-WLM-IM

Dear Mr. Struhs:

Enclosed are the analytical results for sample(s) received by the laboratory on May 28, 2003. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Mary Jane Walls
mjwalls@pacelabs.com
Project Manager

Kansas/NELAP Certification Number E-10116

Enclosures

REPORT OF LABORATORY ANALYSIS

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9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

SAMPLE SUMMARY

Lab Project Number: 6070867
Client Project ID: SJBGW-WLM-IM

Project	Sample				
<u>Sample Number</u>	<u>Number</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
6070867-001	606106342	095821MAY03	Water	05/21/03 09:58	05/28/03 08:40

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Lab Project Number: 6070867
Client Project ID: SJBGW-WLM-IM

Lab Sample No: 606106342 Project Sample Number: 6070867-001 Date Collected: 05/21/03 09:58
Client Sample ID: 095821MAY03 Matrix: Water Date Received: 05/28/03 08:40

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	ReqLmt
GC Volatiles									
Aromatic Volatile Organics	Method: EPA 8021								
Benzene	ND	ug/l	2.0	1.0	06/02/03 13:27	SHF	71-43-2		
Ethylbenzene	ND	ug/l	2.0	1.0	05/31/03 01:03	SHF	100-41-4		
Toluene	ND	ug/l	2.0	1.0	05/31/03 01:03	SHF	108-88-3		
Xylene (Total)	ND	ug/l	5.0	1.0	06/02/03 13:27	SHF	1330-20-7		
a,a,a-Trifluorotoluene (S)	92	%		1.0	05/31/03 01:03	SHF	98-08-8		

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PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
(S) Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 6070867
Client Project ID: SJBGW-WLM-IM

QC Batch: 145741 Analysis Method: EPA 8021
QC Batch Method: EPA 8021 Analysis Description: Aromatic Volatile Organics
Associated Lab Samples: 606106342

METHOD BLANK: 606106888
Associated Lab Samples: 606106342

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	2.0	
Ethylbenzene	ug/l	ND	2.0	
Toluene	ug/l	ND	2.0	
Xylene (Total)	ug/l	ND	5.0	
a,a,a-Trifluorotoluene (S)	%	93		

LABORATORY CONTROL SAMPLE: 606106896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Footnotes
Benzene	ug/l	20.00	20.88	104	85-120	
Ethylbenzene	ug/l	20.00	19.72	99	87-114	
Toluene	ug/l	20.00	19.99	100	87-114	
Xylene (Total)	ug/l	60.00	61.49	102	88-115	
a,a,a-Trifluorotoluene (S)				91	86-115	1

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QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate
[1]	Insufficient sample volume received for the MS/MSD. Acceptable recovery of the LCS indicates the analytical system is in control.

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Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

June 09, 2003

Mr. Jim Struhs
MILE HIGH ENVIRONMENTAL
188 C.R. 4900
Bloomfield, NM 87413

RE: Lab Project Number: 6071172
Client Project ID: SJBGW-WLMIM

Dear Mr. Struhs:

Enclosed are the analytical results for sample(s) received by the laboratory on June 5, 2003. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

For: Mary Jane Walls
mjwalls@pacelabs.com
Project Manager

Kansas/NELAP Certification Number E-10116

Enclosures

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

Phone: 913.599.5665

Fax: 913.599.1759

Lab Project Number: 6071172

Client Project ID: SJBGW-WLMIM

<u>Project</u>	<u>Sample</u>				
<u>Sample Number</u>	<u>Number</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
6071172-001	606131399	133802JUN03	Water	06/02/03 13:38	06/05/03 09:15
6071172-002	606131407	140302JUN03	Water	06/02/03 14:03	06/05/03 09:15
6071172-003	606131415	134802JUN03	Water	06/02/03 13:48	06/05/03 09:15

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SAMPLE ANALYTE COUNT

Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

Phone: 913.599.5665

Fax: 913.599.1759

Lab Project Number: 6071172

Client Project ID: SJBGW-WLMIM

Project			Analysis		Analysis Description	Analytes Reported
Sample Number	Sample No	Client Sample ID	Code			
6071172-001	606131399	133802JUN03	8020	WPAC	Aromatic Volatile Organics	5
6071172-002	606131407	140302JUN03	8020	WPAC	Aromatic Volatile Organics	5
6071172-003	606131415	134802JUN03	8020	WPAC	Aromatic Volatile Organics	5

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Lab Project Number: 6071172
Client Project ID: SJBGW-WLMIM

Lab Sample No: 606131399 Project Sample Number: 6071172-001 Date Collected: 06/02/03 13:38
Client Sample ID: 133802JUN03 Matrix: Water Date Received: 06/05/03 09:15

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Volatiles									
Aromatic Volatile Organics	Method: EPA 8021								
Benzene	ND	ug/l	2.0	1.0	06/06/03 21:49 ARF		71-43-2		
Ethylbenzene	ND	ug/l	2.0	1.0	06/06/03 21:49 ARF		100-41-4		
Toluene	ND	ug/l	2.0	1.0	06/06/03 21:49 ARF		108-88-3		
Xylene (Total)	ND	ug/l	5.0	1.0	06/06/03 21:49 ARF		1330-20-7		
a,a,a-Trifluorotoluene (S)	101	%		1.0	06/06/03 21:49 ARF		98-08-8		

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Lab Project Number: 6071172

Client Project ID: SJBGW-WLMIM

Lab Sample No: 606131407

Project Sample Number: 6071172-002

Date Collected: 06/02/03 14:03

Client Sample ID: 140302JUN03

Matrix: Water

Date Received: 06/05/03 09:15

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	ReqLmt
GC Volatiles									
Aromatic Volatile Organics	Method: EPA 8021								
Benzene	ND	ug/l	2.0	1.0	06/06/03 22:18	ARF	71-43-2		
Ethylbenzene	ND	ug/l	2.0	1.0	06/06/03 22:18	ARF	100-41-4		
Toluene	ND	ug/l	2.0	1.0	06/06/03 22:18	ARF	108-88-3		
Xylene (Total)	ND	ug/l	5.0	1.0	06/06/03 22:18	ARF	1330-20-7		
a,a,a-Trifluorotoluene (S)	101	%		1.0	06/06/03 22:18	ARF	98-08-8		

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Lab Project Number: 6071172
Client Project ID: SJBGW-WLMIM

Lab Sample No: 606131415 Project Sample Number: 6071172-003 Date Collected: 06/02/03 13:48
Client Sample ID: 134802JUN03 Matrix: Water Date Received: 06/05/03 09:15

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Volatiles									
Aromatic Volatile Organics	Method: EPA 8021								
Benzene	2.3	ug/l	2.0	1.0	06/06/03 22:48	ARF	71-43-2		
Ethylbenzene	ND	ug/l	2.0	1.0	06/06/03 22:48	ARF	100-41-4		
Toluene	ND	ug/l	2.0	1.0	06/06/03 22:48	ARF	108-88-3		
Xylene (Total)	ND	ug/l	5.0	1.0	06/06/03 22:48	ARF	1330-20-7		
a,a,a-Trifluorotoluene (S)	102	%		1.0	06/06/03 22:48	ARF	98-08-8		

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PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
(S) Surrogate

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6071172
Client Project ID: SJBGW-WLMIM

QC Batch: 146400 Analysis Method: EPA 8021
QC Batch Method: EPA 8021 Analysis Description: Aromatic Volatile Organics
Associated Lab Samples: 606131399 606131407 606131415

METHOD BLANK: 606132967
Associated Lab Samples: 606131399 606131407 606131415

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	2.0	
Ethylbenzene	ug/l	ND	2.0	
Toluene	ug/l	ND	2.0	
Xylene (Total)	ug/l	ND	5.0	
a,a,a-Trifluorotoluene (S)	%	105		

LABORATORY CONTROL SAMPLE: 606132975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Footnotes
Benzene	ug/l	20.00	21.93	110	85-120	
Ethylbenzene	ug/l	20.00	21.45	107	87-114	
Toluene	ug/l	20.00	21.48	107	87-114	
Xylene (Total)	ug/l	60.00	65.59	109	88-115	
a,a,a-Trifluorotoluene (S)				102	86-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 606133239 606133247

Parameter	Units	606131548 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Footnotes
Benzene	ug/l	0	20.00	21.45	20.80	107	104	82-121	3	16	
Ethylbenzene	ug/l	0	20.00	21.11	20.56	106	103	84-114	3	14	
Toluene	ug/l	0	20.00	20.93	20.13	105	101	85-112	4	18	
Xylene (Total)	ug/l	0.7257	60.00	64.86	62.82	107	104	83-115	3	16	
a,a,a-Trifluorotoluene (S)						108	107	86-115			

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QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)
MS(D) Matrix Spike (Duplicate)
DUP Sample Duplicate
ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
RPD Relative Percent Difference
(S) Surrogate

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