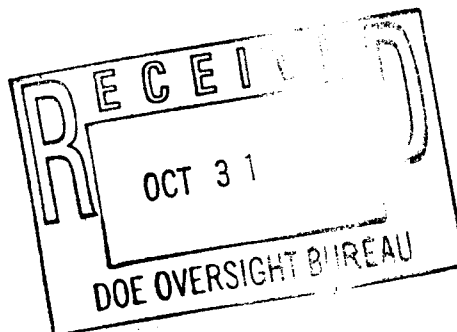


SEVERN
TRENT

STL



Office White Rock Canyon Springs (Perchlorate)

ANALYTICAL REPORT

Perchlorate

Lot #: D3J180124

Michael Dale

New Mexico Environmental Dept. DOE OB
134 State Road, Suite A, Bldg. 00-1313
White Rock, NM 87544

STL DENVER

Donna R. Rydberg
Project Manager

October 30, 2003



Table Of Contents

Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

*The **Cover Letter** and the **Report Cover** page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.*

33

- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **Chain-of-Custody**

Lot #: D3J180124

Case Narrative

Enclosed is the report for eighteen samples received at STL's Denver laboratory on October 17, 2003. The results included in this report have been reviewed for compliance with STL's Quality Assurance/Quality Control (QA/QC) plan. The test results shown in this report meet all requirements of NELAC and any exceptions are noted below.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interferences or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

The test results shown in this report meet all requirements of NELAC. Any exceptions are noted below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D3J180124

Sample Receiving

- The cooler temperatures upon receipt at the Denver laboratory were 2.4°C and 2.8°C. All sample containers were received in acceptable condition.

Holding Times

- The samples were analyzed within the required holding time.

Method 8321A - Perchlorate

- No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D3J180124

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SPRING 1-10-6-03 10/06/03 10:50 001				
Perchlorate	0.21	0.20	ug/L	SW846 8321A
SANDIA SPRING-10-6-03 10/06/03 11:30 003				
Perchlorate	0.16 J	0.20	ug/L	SW846 8321A
SPRING 3-10-6-03 10/06/03 12:25 004				
Perchlorate	0.27	0.20	ug/L	SW846 8321A
SPRING 3A-10-6-03 10/06/03 14:21 005				
Perchlorate	0.34	0.20	ug/L	SW846 8321A
SPRING 3AA-10-6-03 10/06/03 15:52 006				
Perchlorate	0.24	0.20	ug/L	SW846 8321A
SPRING 4-10-6-03 10/06/03 18:20 007				
Perchlorate	0.41	0.20	ug/L	SW846 8321A
SPRING 4A-10-7-03 10/07/03 09:45 008				
Perchlorate	0.42	0.20	ug/L	SW846 8321A
SPRING 5-10-7-03 10/07/03 11:20 009				
Perchlorate	0.29	0.20	ug/L	SW846 8321A
SPRING 5A-10-7-03 10/07/03 11:21 010				
Perchlorate	0.20	0.20	ug/L	SW846 8321A
SPRING 5B-10-7-03 10/07/03 11:15 011				
Perchlorate	0.27	0.20	ug/L	SW846 8321A
SPRING 6A-10-7-03 10/07/03 14:40 012				
Perchlorate	0.19 J	0.20	ug/L	SW846 8321A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

D3J180124

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
SPRING 7-10-7-03 10/07/03 14:25 013				
Perchlorate	0.21	0.20	ug/L	SW846 8321A
SPRING 7B-10-7-03 10/07/03 15:15 014				
Perchlorate	0.18 J	0.20	ug/L	SW846 8321A
SPRING 8-10-7-03 10/07/03 15:20 015				
Perchlorate	0.21	0.20	ug/L	SW846 8321A
SPRING 8A-10-8-03 10/08/03 11:20 016				
Perchlorate	0.15 J	0.20	ug/L	SW846 8321A
SPRING 9-10-8-03 10/08/03 09:55 017				
Perchlorate	0.20	0.20	ug/L	SW846 8321A
SPRING 9A-10-8-03 10/08/03 10:10 018				
Perchlorate	0.17 J	0.20	ug/L	SW846 8321A

METHODS SUMMARY

D3J180124

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
LCMS by 8321A	SW846 8321A	SW846 Direct An

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates .

METHOD / ANALYST SUMMARY

D3J180124

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 8321A	Steve Cowling	008738

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D3J180124

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
F2WHD	001	SPRING	1-10-6-03	10/06/03	10:50
F2WHF	002	SPRING	2-10-6-03	10/06/03	13:25
F2WHH	003	SANDIA	SPRING-10-6-03	10/06/03	11:30
F2WHJ	004	SPRING	3-10-6-03	10/06/03	12:25
F2WHK	005	SPRING	3A-10-6-03	10/06/03	14:21
F2WHL	006	SPRING	3AA-10-6-03	10/06/03	15:52
F2WHM	007	SPRING	4-10-6-03	10/06/03	18:20
F2WHN	008	SPRING	4A-10-7-03	10/07/03	09:45
F2WHP	009	SPRING	5-10-7-03	10/07/03	11:20
F2WHQ	010	SPRING	5A-10-7-03	10/07/03	11:21
F2WHR	011	SPRING	5B-10-7-03	10/07/03	11:15
F2WEV	012	SPRING	6A-10-7-03	10/07/03	14:40
F2WHW	013	SPRING	7-10-7-03	10/07/03	14:25
F2WH1	014	SPRING	7B-10-7-03	10/07/03	15:15
F2WH2	015	SPRING	8-10-7-03	10/07/03	15:20
F2WH4	016	SPRING	8A-10-8-03	10/08/03	11:20
F2WH6	017	SPRING	9-10-8-03	10/08/03	09:55
F2WH7	018	SPRING	9A-10-8-03	10/08/03	10:10

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 1-10-6-03

HPLC

Lot-Sample #...: D3J180124-001 Work Order #...: F2WHD1AA Matrix.....: WATER
Date Sampled...: 10/06/03 10:50 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 11:26
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.21	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 2-10-6-03

HPLC

Lot-Sample #...: D3C180124-002 Work Order #...: F2WHF1AA Matrix.....: WATER
Date Sampled...: 10/06/03 13:25 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 12:00
Dilution Factor: 1
Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SANDIA SPRING-10-6-03

HPLC

Lot-Sample #...: D3J180124-003 Work Order #...: F2WEH1AA Matrix.....: WATER
Date Sampled...: 10/06/03 11:30 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 12:11
Dilution Factor: 1
Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	0.16 J	0.20	ug/L	0.050

NOTE (S) :

J - Estimated result. Result is less than RL.

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 3-10-6-03

HPLC

Lot-Sample #...: D3J180124-004 Work Order #...: F2WHJ1AA Matrix.....: WATER
Date Sampled...: 10/06/03 12:25 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 12:22
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.27	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 3A-10-6-03

HPLC

Lot-Sample #...: D3J180124-005 Work Order #...: F2WHK1AA Matrix.....: WATER
Date Sampled...: 10/06/03 14:21 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 12:33
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.34	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 3AA-10-6-03

HPLC

Lot Sample #...: D3J180124-006 Work Order #...: F2WHL1AA Matrix.....: WATER
Date Sampled...: 10/06/03 15:52 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 12:45
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.24	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 4-10-6-03

HPLC

Lot-Sample #...: D3J180124-007 Work Order #...: F2WHM1AA Matrix.....: WATER
Date Sampled...: 10/06/03 18:20 Date Received..: 10/17/03
Prep Date.....: 10/28/03 Analysis Date..: 10/28/03
Prep Batch #...: 3301223 Analysis Time..: 13:07
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.41	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 4A-10-7-03

HPLC

Lot-Sample #...: D3J180124-008 Work Order #...: F2WHN1AA Matrix.....: WATER
Date Sampled...: 10/07/03 09:45 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 13:18
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.42	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 5-10-7-03

HPLC

Lot-Sample #...: D3J180124-009 Work Order #...: F2WHP1AA Matrix.....: WATER
Date Sampled...: 10/07/03 11:20 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 13:29
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.29	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 5A-10-7-03

HPLC

Lot-Sample #...: D3J180124-010 Work Order #...: F2WHQ1AA Matrix.....: WATER
Date Sampled...: 10/07/03 11:21 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 13:41
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.20	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 5B-10-7-03

HPLC

Lot-Sample #...: D3J180124-011 Work Order #...: F2WHR1AA Matrix.....: WATER
Date Sampled...: 10/07/03 11:15 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 13:52
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.27	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 6A-10-7-03

HPLC

Lot-Sample #...: D3J180124-012 Work Order #...: F2WHV1AA Matrix.....: WATER
Date Sampled...: 10/07/03 14:40 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 14:03
Dilution Factor: 1
Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	0.19 J	0.20	ug/L	0.050

NOTE(S) :

J Estimated result. Result is less than RL.

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 7-10-7-03

HPLC

Lot-Sample #...: D3J180124-013 Work Order #...: F2WHW1AA Matrix.....: WATER
Date Sampled...: 10/07/03 14:25 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 14:14
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.21	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 7B-10-7-03

HPLC

Lot-Sample #...: D3J180124-014 Work Order #...: F2WH11AA Matrix.....: WATER
Date Sampled...: 10/07/03 15:15 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 14:25
Dilution Factor: 1
Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	0.18 J	0.20	ug/L	0.050

NOTE(S) :

J - Estimated result. Result is less than RL.

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 8-10-7-03

HPLC

Lot-Sample #...: D3J180124-015 Work Order #...: F2WH21AA Matrix.....: WATER
Date Sampled...: 10/07/03 15:20 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 14:36
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.21	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 8A-10-8-03

HPLC

Lot-Sample #...: D3J180124-016 Work Order #...: F2WH41AA Matrix.....: WATER
Date Sampled...: 10/08/03 11:20 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 14:59
Dilution Factor: 1
Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	0.15 J	0.20	ug/L	0.050

NOTE(S) :

J Estimated result. Result is less than RL.

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 9-10-8-03

HPLC

Lot-Sample #...: D3J180124-017 Work Order #...: F2WH61AA Matrix-: WATER
Date Sampled...: 10/08/03 09:55 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 15:10
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.20	0.20	ug/L	0.050

NEW MEXICO ENVIRONMENT DEPARTMENT

Client Sample ID: SPRING 9A-10-8-03

HPLC

Lot-Sample #...: D3J180124-018 Work Order #...: F2WH71AA Matrix.....: WATER
Date Sampled...: 10/08/03 10:10 Date Received...: 10/17/03
Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
Prep Batch #...: 3301223 Analysis Time...: 15:21
Dilution Factor: 1
Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perchlorate	0.17 J	0.20	ug/L	0.050

NOTE(S) :

J - Estimated result. Result is less than RL

QC DATA ASSOCIATION SUMMARY

D3J180124

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 8321A		3301223	3301096
002	WATER	SW846 8321A		3301223	
003	WATER	SW846 8321A		3301223	
004	WATER	SW846 8321A		3301223	
005	WATER	SW846 8321A		3301223	
006	WATER	SW846 8321A		3301223	
007	WATER	SW846 8321A		3301223	
008	WATER	SW846 8321A		3301223	
009	WATER	SW846 8321A		3301223	
010	WATER	SW846 8321A		3301223	
011	WATER	SW846 8321A		3301223	
012	WATER	SW846 8321A		3301223	
013	WATER	SW846 8321A		3301223	
014	WATER	SW846 8321A		3301223	
015	WATER	SW846 8321A		3301223	
016	WATER	SW846 8321A		3301223	
017	WATER	SW846 8321A		3301223	
018	WATER	SW846 8321A		3301223	

METHOD BLANK REPORT

HPLC

Client Lot #...: D3J180124 Work Order #...: F3J2M1AA Matrix.....: WATER
 MB Lot-Sample #: R3J280000-223 Prep Date.....: 10/28/03 Analysis Time...: 11:04
 Analysis Date...: 10/28/03 Prep Batch #...: 3301223
 Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Perchlorate	ND	0.20	ug/L	SW846 8321A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: D3J180124 Work Order #...: F3J2M1AC Matrix.. ..: WATER
 LCS Lot-Sample#: R3J280000-223
 Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
 Prep Batch #...: 3301223 Analysis Time...: 11:15
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	109	(70 - 130)	SW846 8321A

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: D3J180124 Work Order #...: F3J2M1AC Matrix.....: WATER
 LCS Lot-Sample#: R3J280000-223
 Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
 Prep Batch #...: 3301223 Analysis Time...: 11:15
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
Perchlorate	1.00	1.09	ug/L	109	SW846 8321A

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: D3J180124 Work Order #...: F2WHD1AC-MS Matrix...: WATER
 MS Lot-Sample #: D3J180124-001 F2WHD1AD-MSD
 Date Sampled...: 10/06/03 10:50 Date Received...: 10/17/03
 Prep Date...: 10/28/03 Analysis Date...: 10/28/03
 Prep Batch #...: 3301223 Analysis Time...: 11:38
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Perchlorate	92	(50 - 150)			SW846 8321A
	85	(50 - 150)	6.3	(0-40)	SW846 8321A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: D3J180124 Work Order #...: F2WHD1AC-MS Matrix...: WATER
 MS Lot-Sample #: D3J180124-001 F2WHD1AD-MSD
 Date Sampled...: 10/06/03 10:50 Date Received...: 10/17/03
 Prep Date.....: 10/28/03 Analysis Date...: 10/28/03
 Prep Batch #...: 3301223 Analysis Time...: 11:38
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Perchlorate	0.21	1.00	1.13	ug/L	92		SW846 8321A
	0.21	1.00	1.06	ug/L	85	6.3	SW846 8321A

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJECT #: 10.06.03-363 (WR Canyon Raft Trip)		Total Number of Containers				Signature: <i>Kim Granzow</i> Time: 9:30		Signature:	
PROJ. NAME: White Rock Canyon Raft Trip		Chain of Custody Seals				Printed Name: Kim Granzow Date: 10-16-03		Printed Name:	
QC LEVEL: <u>STD</u> IV		Received Intact?						Company	
QC REQUIRED: MS MSD BLANK		Received Good Cond./Cold							
TAT: <u>STANDARD</u> RUSHII		LAB NUMBER:				RECEIVED BY: 1.		RECEIVED BY: 2.	
DUE DATE:		<p>Per Bill Lipsteur: one of these samples is to be analyzed free of charge. Please send invoice to HWB at above address.</p>		Signature: <i>Aaron Bindel</i> Time: 1000		Signature:			
RUSH SURCHARGE:				Printed Name: Aaron Bindel Date: 10/17/03		Printed Name:			
CLIENT DISCOUNT:				Company: <i>Reagan Laboratories, Inc.</i> <u>STL</u>		Company:			
SPECIAL CERTIFICATION									
REQUIRED YES NO									

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		1. RELINQUISHED BY:		2.	
PROJECT #: 10 06 03-363 (WR Canyon Raft Trip)		Total Number of Containers				Signature:		Time:		Signature:	
PROJ. NAME: White Rock Canyon Raft Trip		Chain of Custody Seals				Printed Name:		Date:		Printed Name:	
QC LEVEL: STD IV		Received Intact?				Kim Granzow		10-16-03			
QC REQUIRED: MS MSD BLANK		Received Good Cond./Cold								Company	
TAT: STANDARD RUSH!!		LAB NUMBER:								Company	
DUE DATE:		<p>Per Bill Lipsteur: one of these samples is to be analyzed free of charge. Please send invoice to HWB at above address.</p>				RECEIVED BY:		1.		2.	
RUSH SURCHARGE:						Signature:		Time:		Signature:	
CLIENT DISCOUNT:						Printed Name:		Date:		Printed Name:	
SPECIAL CERTIFICATION											
REQUIRED, YES NO						Company		Paragon Laboratories, Inc.		Company	