



Jason Michelson
Project Manager

**Chevron Environmental
Management Company**
1500 Louisiana Street, #38116
Houston, Texas 77002
Work: 832-854-5601
Cell: 281-660-8564
jmichelson@chevron.com

July 15, 2019

Mr. Rob Hamlet
New Mexico Oil Conservation Division, District II
811 S. First St
Artesia, NM 88210

**Re: Reid Well No. 1
Closure Request
NMOCD Case No. 2RP-3981
Eddy County, New Mexico**

Dear Mr. Hamlet,

Please find enclosed for your files, copies of the following documents:

- Reid Well No. 1 – July 15, 2019 Closure Request
- Reid Well No. 1 Work Plan (White Buffalo Environmental Services, Inc (WBESI) Work Plan)
- Reid Well No. 1 – Laboratory Analytical Reports

The Work Plan was prepared by WBESI for the 2RP-3981 release on behalf of Range Operating New Mexico Inc (Range) and previously submitted to the New Mexico Oil Conservation District (NMOCD) on February 24, 2006. WBESI collected eleven (11) soil samples in response to the release in April and May 2006. No additional file information has been located. Chevron acquired the lease for this well location in October 2018.

The Closure Request was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC). CEMC is respectfully requesting reviewal and written NMOCD approval for closure at the Site.

Please do not hesitate to call Rebecca Andresen with Arcadis at 206-726-4717 or myself at 832-854-5601, should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Michelson".

Jason Michelson

cc Brett Krehbiel, Arcadis

Mr. Rob Hamlet
New Mexico Oil Conservation Division - District II
Environmental Specialist
811 S. First St.
Artesia, NM 88210

Arcadis U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch
Colorado 80129
Tel 720 344 3500
Fax 720 344 3535
www.arcadis.com

Subject:

Closure Request

Reid Well No. 1 Release
NMOCD Case No. 2RP-3981
Eddy County, New Mexico

ENVIRONMENTAL

Date:

July 15, 2019 July 15, 2019

Contact:

Rebecca Andresen

Phone:

206-726-4717

Email:

Rebecca.Andresen@arcadis
.com

Our ref:

B0049810.0000

Dear Mr. Hamlet:

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) prepared this Closure Request (Request) for the Reid Well No. 1 (Site), API No. 30-015-26528, located in Eddy County, New Mexico. Range Operating New Mexico, Inc (Range) a previous owner this well, notified New Mexico Oil Conservation District (NMOCD) of a release on April 16, 2006. Chevron acquired the lease for this well in October 2018.

The purpose of the Request is to summarize known follow up actions from the release on April 16, 2006, and to respectfully request review and written NMOCD approval for closure at the Site.

SITE DESCRIPTION AND BACKGROUND

The Site is located approximately 1.5 miles from Loving in Unit O, Section 14, Township 23S, Range 28E, Eddy County, New Mexico, on private land.

On February 16, 2006, a release was discovered at the Site due to an open 1" ball valve on the circulating pump. According to the initial Form C-141 form, approximately 58 barrels (bbls) was released and contained within the firewall. Initial response included coordinating with a vacuum truck to remove standing fluids, the C-141 form indicated that 58 bbls were recovered. A work plan dated February 24, 2006 was submitted to NMOCD by White Buffalo Environmental Services, Inc. (WBESI) on behalf of Ranger; the plan is included as Attachment 2.

Between February 7, and March 9, 2006, WBESI collected and analyzed soil samples following excavation activities. The collected soil samples include side wall and bottom samples. Copies of the laboratory analytical reports are included in Attachment 3. No additional file information, including a summary of the remediation activities, could be located. It is noted, however, that the laboratory analytical reports were submitted to NMOCD along with other documentation that is no longer available. Due to the length of time since the release, we are respectfully requesting a review of the documentation and written NMOCD approval for closure at the Site.

Sincerely,

Arcadis U.S., Inc.



Rebecca Andresen
Vice President

Copies:

Jason Michelson, Chevron/CEMC

Enclosures:

Attachments

- 1 Reid 001 Release Form C-141
- 2 WBESI Work Plan dated February 24, 2006
- 3 Laboratory Analytical Reports

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

30-015-26528

Release Notification and Corrective Action

1 MLB0616535537

#371115 227583

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Range Operating New Mexico, Inc.

Contact: Linda C. Stiles

Address: 777 Main Street Suite 800 Ft. Worth Tx 76102

Telephone No: (817) 810-1908.

Facility Name: Reid 001 BATTERY

Facility Type: Tank Battery

Surface Owner: Johnny L Reid & Jackie L Reid

Mineral Owner: See Attached

Lease No: 300267

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	14	23S	28E	880	South	1980	East	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release: Produced H2O	Volume of Release 58bbbls	Volume Recovered 58 bbls
Source of Release: 1" Ball Valve	Date and Hour of Occurrence 2-16-06 9:45 AM MST	Date and Hour of Discovery 2-16-06 9:45 AM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Linda Nelson NMOCD - Artesia	
By Whom? Rudy Garcia	Date and Hour: 2-16-06 9:45 AM MST	
Was a Watercourse Reached? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

RECEIVED

FEB 16 2006

OUU-ART-001

Describe Cause of Problem and Remedial Action Taken.*
1" Ball Valve Was Open At Circulating Pump.

Describe Area Affected and Cleanup Action Taken.*
Contained Inside Firewall
Vacuum Truck picked up 58bbbls..

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:		OIL CONSERVATION DIVISION	
Printed Name: Linda C. Stiles		Approved by District Supervisor TIM GUM by MB <i>M. L. Sanchez</i>	
Title: Sr. Engineering Tech		Approval Date: 6/12/06	Expiration Date:
E-mail Address: lstyles@rangeresources.com		Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Date: 2-16-2006 Phone: (817) 810-1908			

* Attach Additional Sheets If Necessary

2RP-3981

cc: operator
Imaged



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

Range Operating New Mexico, Inc.
777 Main Street Suite 800
Ft. Worth, TX 76102

June 13, 2006

Reference: Reid 001 Tank Battery O-14-23s-28e API: 30-015-26528

Operator,

The New Mexico Oil Conservation Division District 2 Office (OCD) is in receipt of an Initial Report Form C-141 reporting a release of produced fluids that occurred on 2/16/2006 at the above referenced well site. A remediation work plan proposal has been formulated and submitted to the OCD by your agent, White Buffalo Environmental Services, Inc.

The work plan proposal submitted is approved with the following general stipulations:

- Notify the OCD 24 hours prior to commencement of activities.
- Notify the OCD 24 hours prior to obtaining samples where analyses of samples obtained are to be submitted to the OCD.
- The OCD may make amendments to work plan stipulations at any time as conditions warrant.
- Submit a Final Report C-141 upon satisfactory completion of remediation project.
- Site is to be ready for confirmation sampling for closure no later than August 14, 2006. If for any reason this deadline cannot be met, please contact this office.

For future reference when submitting a Form C-141, please submit a copy signed by an authorized representative of your company. The C-141 submitted for this release indicates a release volume of 58 bbls and a recovery volume of 58 bbls. Realizing that these volumes are usually estimates, it would generally be unlikely to recover 100 percent of fluids released.

Please be advised that NMOCD approval of this work plan proposal does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health, or the environment. In addition, NMOCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If I can be of assistance in this matter please contact me.

Sincerely,

Mike Bratcher
NMOCD District 2
1301 W. Grand Ave.
Artesia, NM 88210
(505) 748-1283 Ext. 108
(505) 626-0857
Mike.Bratcher@state.nm.us

CC EMAILED operator Oil Conservation Division * 1220 South St. Francis Drive * Santa Fe, New Mexico 87505
" Greg Swindle / Phone: (505) 476-3440 * Fax (505) 476-3462 * <http://www.emnrd.state.nm.us>
HARRIS copy mailed to operator
DMA 50d

February 24, 2006

NMOCD District 2 Office
Oil Conservation Division
Chris Beadle
1301 West Grand
Artesia, New Mexico 88210

RE: Range Operating New Mexico, Inc. Inspection, Reid Battery

Chronology

On February 16, 2006 a spill was discovered at the Range Operating New Mexico, Inc. (Range) site Reid Battery. The spill had occurred when a 1" ball valve was open at the circulating pump. The failure resulted in the loss of approximately 58 barrels of oil and produced water. Approximately 58 barrels of fluids were recovered from inside the firewall. The spill appears to have been completely contained inside the firewall. The site was assessed for a formal work plan and specific site information obtained. WBESI uses the attached information and metrics sheet for summarizing the remediation requirements for this site.

The following is an initial "Remediation Work Plan" for this site:

Reid Battery

General site characteristics

Depth to Ground Water: 44'

Wellhead Protection Area: 250' to closest well

Distance to Nearest Surface Water Body: 1000 yards

Site ranking score: 40

Soil remediation action levels

Highly Contaminated / Saturated Soils

Benzene 10 ppm, 50 BTEX ppm, TPH 100 ppm

Soil remediation methods

Excavation and disposal (or alternative approved onsite remediation)

Planned analytical testing

BTEX, TPH, Chlorides on soil

Work Plan

- Continue excavation until limits are obtained in a vertical and horizontal direction.
- Sample site for above parameters.
- Determine quantity of spoils removed from the excavated area.

Imaged

- Determine most cost effective means of disposal or onsite bioremediation in accordance with NMOCD "Guidelines for Remediation of Leaks, Spills, and Releases".
- Contact NMOCD to set up sampling and post remediation inspection.
- Review analytical results.
- Backfill excavation if limits have been achieved or continue excavation.
- Sampling will be per NMOCD guidance including all walls and floor of the excavation.
- A final report will be issued on behalf of Range to the NMOCD documenting all final activities.
- A final letter of concurrence and closure will be issued by NMOCD if all guidelines have been achieved.

For further questions or comments please contact White Buffalo Environmental Services, Inc. at (325) 651-9054.



Greg Swindle,
President
WBESI

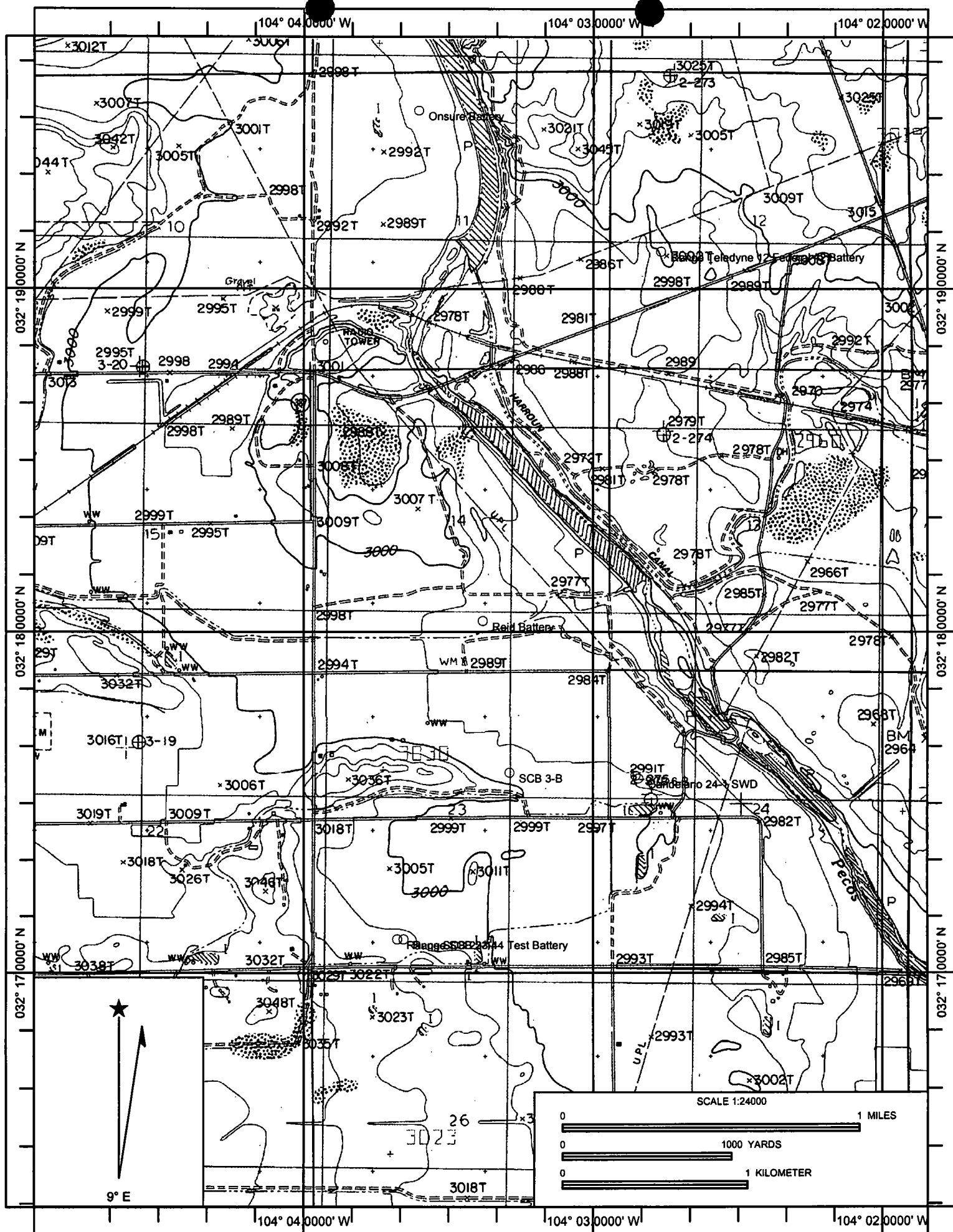
Enclosures:

Information and Metrics sheet
USGS Map
Aerial Photo
Site Photographs

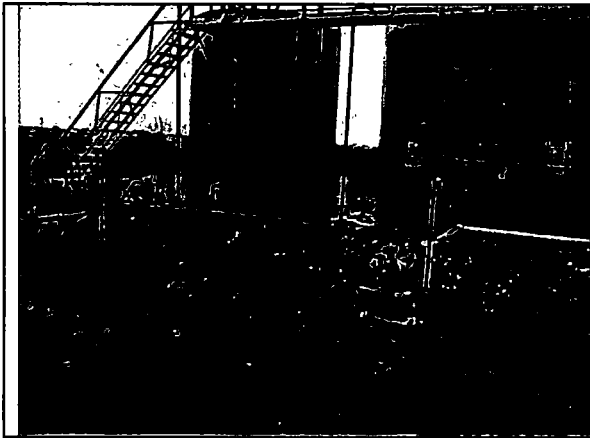
RANGE OPERATING NEW MEXICO, INC

Information and Metrics

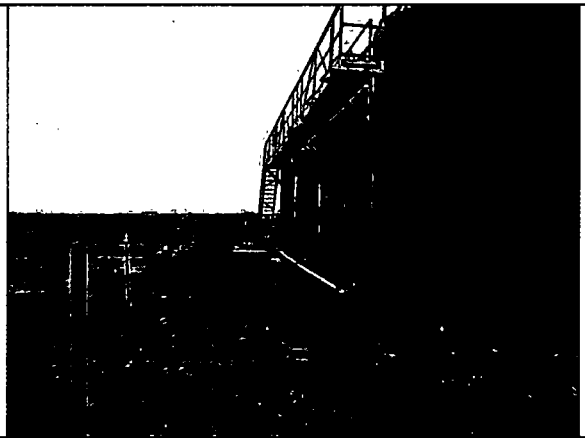
Incident Date: February 16, 2006		NMOCD Notified: February 16, 2006	
Site: Reid Battery		Assigned Site Reference #:	
Company: Range Operating New Mexico, Inc.			
Street Address: 777 Main Street Suite 800			
Mailing Address: 777 Main Street Suite 800			
City, State, Zip: Ft. Worth, TX 76102			
Representative: George Teer			
Representative Telephone: (817) 870-2601			
Fluid volume released (bbls): 58		Recovered (bbls): 58	
25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5 - 25 bbls: Submit form C-141 within 15 days			
Leak, Spill, or Pit (LSP) Name: Reid Battery			
Source of contamination: Spill inside containment area (firewall)			
Land Owner, i.e., BLM, ST, Fee, Other: Johnny & Jackie L Reid			
LSP Dimensions: 107' X 64'			
LSP Area: Bases of north and south tanks			
Location of Reference Point (RP): NA			
Location distance and direction from RP: NA			
Latitude: N 32° 18.021'			
Longitude: W 104° 2.839'			
Elevation above mean sea level: 2991' per USGS Map			
Location- Unit or ¼ ¼: NW/4 NW/4 of Sec. 24		Unit Letter: O	
Location Section: 14			
Location- Township: 23S			
Location Range: 28E			
Surface water body within 1000' radius of site: No 3000 feet per USGS Map			
Domestic water wells within 1000' radius of site: Yes			
Agricultural water wells within 1000' radius of site: Yes			
Depth from land surface to ground water (DG): 42' estimated based upon relationship to Pecos River			
Depth of contamination (DC): 8'			
Depth to ground water (DG - DC = DtGW): 44'			
1. Ground water	2. Wellhead Protection Area	3. Distance to Surface Water Body	
If Depth to GW <50 feet: 20 points	If <1000' from water source, or <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points	
If Depth to GW 50 to 99 feet: 10 points		200-100 horizontal feet: 10 points	
If Depth to GW >100 feet: 0 points	If >1000' from water source, or >200' from private domestic water source: 0 points	>1000 horizontal feet: 0 points	
Ground Water Score = 20	Wellhead Protection Area Score = 20	Surface Water Score = 0	
Site Rank (1+2+3) = 40			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	10-19	10-19	0-9
Benzene	10 ppm	10 ppm	10 ppm
BTEX	50 ppm	50 ppm	50 ppm
TPH	1,000 ppm	1,000 ppm	5,000 ppm



Reid Battery
Spill Site Photographs



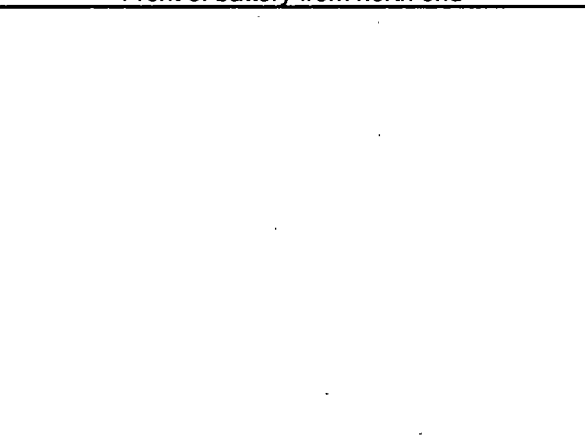
Front of battery



Front of battery from north end



Rear of battery from north end



Bratcher, Mike, EMNRD

From: Greg Swindle [greg@wbesi.com]
Sent: Saturday, June 03, 2006 8:59 AM
To: Bratcher, Mike, EMNRD; 'Tony Tucker'
Cc: 'Linda Stiles'
Subject: Reid Remediation
Attachments: Range Resource Reid Battery Spill Workplan.pdf

Mike,

This week it was brought to my attention that the attached workplan may have not been reviewed by Chris Beadle. I show generating this in late February but at that time we were so busy working on a couple of immediate need sites this one may have gotten misplaced. Tony has a good crew out doing cleanup of all sites and cellars and this was brought to my attention by Tony.

I have reviewed this workplan and agree that it is still appropriate. It was a 58 barrel water spill inside the containment. When you get a chance please look this over. Please send me an email noting your review so that we can work this into our site cleanup schedule.

Tony, Linda,

I will be gone this week June 5-9. I will be on vacation but I will be available via email at least daily so stay in touch.

Greg Swindle

President

White Buffalo Environmental Services, Inc.

5425 Ben Ficklin Road

San Angelo, Texas 76904

Phone (325) 651-9054

Fax (325) 651-2125

Cell (325) 895-0410

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6/8/2006

Summary Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: February 12, 2007

Work Order: 7021113

30-015-26528



Project Location: Eddy County,NM
Project Name: Reid #1

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
116095	South Wall	soil	2007-02-07	17:35	2007-02-10

Sample: 116095 - South Wall

Param	Flag	Result	Units	RL
Chloride		197	mg/Kg	5.00



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail lab@traceanalysis.com

Analytical and Quality Control Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: February 12, 2007

Work Order: 7021113



Project Location: Eddy County, NM
Project Name: Reid #1
Project Number: Reid #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
116095	South Wall	soil	2007-02-07	17:35	2007-02-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 4 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 116095 - South Wall

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	34557	Date Analyzed:	2007-02-12	Analyzed By:	ER
Prep Batch:	29990	Sample Preparation:	2007-02-12	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		197	mg/Kg	10	5.00

Method Blank (1) QC Batch: 34557

QC Batch:	34557	Date Analyzed:	2007-02-12	Analyzed By:	ER
Prep Batch:	29990	QC Preparation:	2007-02-12	Prepared By:	SM

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.25	mg/Kg	5

Laboratory Control Spike (LCS-1)

QC Batch:	34557	Date Analyzed:	2007-02-12	Analyzed By:	ER
Prep Batch:	29990	QC Preparation:	2007-02-12	Prepared By:	SM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.9	mg/Kg	1	100	<3.25	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<3.25	101	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 116102

QC Batch:	34557	Date Analyzed:	2007-02-12	Analyzed By:	ER
Prep Batch:	29990	QC Preparation:	2007-02-12	Prepared By:	SM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	378	mg/Kg	4	400	157.185	55	84.6 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

¹Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	²	366	mg/Kg	4	400	157.185	52	84.6 - 117	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 34557

Date Analyzed: 2007-02-12

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2007-02-12

Standard (CCV-1)

QC Batch: 34557

Date Analyzed: 2007-02-12

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2007-02-12

²Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Summary Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: February 28, 2007

Work Order: 7022711



Project Location: Eddy County, NM
Project Name: Reid #1

30-015-26528

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
117529	North Wall	soil	2007-02-23	15:15	2007-02-27
117530	West Wall	soil	2007-02-23	15:45	2007-02-27
117531	East Wall	soil	2007-02-23	15:35	2007-02-27
117532	Quad A	soil	2007-02-23	14:45	2007-02-27
117533	Quad B	soil	2007-02-23	14:50	2007-02-27
117534	Quad C	soil	2007-02-23	15:00	2007-02-27
117535	Quad D	soil	2007-02-23	15:10	2007-02-27

Sample - Field Code	BTEX				MTBE	TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	MTBE (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
117532 - Quad A	<0.0100	<0.0100	<0.0100	<0.0100		413	13.1
117533 - Quad B	<0.0100	<0.0100	<0.0100	<0.0100		232	2.39
117534 - Quad C	<0.0100	<0.0100	<0.0100	<0.0100		<50.0	<1.00
117535 - Quad D	<0.0100	<0.0100	<0.0100	<0.0100		<50.0	<1.00

Sample: 117529 - North Wall

Param	Flag	Result	Units	RL
Chloride		1180	mg/Kg	5.00

Sample: 117530 - West Wall

Param	Flag	Result	Units	RL
Chloride		572	mg/Kg	5.00

Sample: 117531 - East Wall

Param	Flag	Result	Units	RL
Chloride		1330	mg/Kg	5.00

Sample: 117532 - Quad A

Param	Flag	Result	Units	RL
Chloride		959	mg/Kg	5.00

Sample: 117533 - Quad B

Param	Flag	Result	Units	RL
Chloride		628	mg/Kg	5.00

Sample: 117534 - Quad C

Param	Flag	Result	Units	RL
Chloride		971	mg/Kg	5.00

Sample: 117535 - Quad D

Param	Flag	Result	Units	RL
Chloride		719	mg/Kg	5.00



6701 Alameda Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite 2 El Paso, Texas 79902 889•588•3443 915•535•3443 FAX 915•535•4944
5002 East Street, Suite A1 Mesquite, Texas 79703 432•600•0301 FAX 432•600•0313
6015 Farm Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5269

E-Mail: info@traceanalysis.com

Analytical and Quality Control Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: February 28, 2007

Work Order: 7022711



Project Location: Eddy County, NM
Project Name: Reid #1
Project Number: Reid #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
117529	North Wall	soil	2007-02-23	15:15	2007-02-27
117530	West Wall	soil	2007-02-23	15:45	2007-02-27
117531	East Wall	soil	2007-02-23	15:35	2007-02-27
117532	Quad A	soil	2007-02-23	14:45	2007-02-27
117533	Quad B	soil	2007-02-23	14:50	2007-02-27
117534	Quad C	soil	2007-02-23	15:00	2007-02-27
117535	Quad D	soil	2007-02-23	15:10	2007-02-27

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 117529 - North Wall

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1180	mg/Kg	20	5.00

Sample: 117530 - West Wall

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		572	mg/Kg	10	5.00

Sample: 117531 - East Wall

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1330	mg/Kg	20	5.00

Sample: 117532 - Quad A

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	35084	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.990	mg/Kg	1	1.00	99	52.1 - 131
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	48.7 - 146

Sample: 117532 - Quad A

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 35086 Date Analyzed: 2007-02-27 Analyzed By: JS
Prep Batch: 30448 Sample Preparation: 2007-02-27 Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		959	mg/Kg	10	5.00

Sample: 117532 - Quad A

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 35064 Date Analyzed: 2007-02-27 Analyzed By: SP
Prep Batch: 30431 Sample Preparation: 2007-02-27 Prepared By: SP

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		413	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		175	mg/Kg	1	150	117	62.5 - 164

Sample: 117532 - Quad A

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 35083 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 Sample Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		13.1	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.955	mg/Kg	1	1.00	96	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.26	mg/Kg	1	1.00	126	10 - 227

Sample: 117533 - Quad B

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 35084 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 Sample Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100

continued ...

sample 117533 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	1	1.00	101	52.1 - 131
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	48.7 - 146

Sample: 117533 - Quad B

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 35086 Date Analyzed: 2007-02-27 Analyzed By: JS
Prep Batch: 30448 Sample Preparation: 2007-02-27 Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		628	mg/Kg	10	5.00

Sample: 117533 - Quad B

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 35064 Date Analyzed: 2007-02-27 Analyzed By: SP
Prep Batch: 30431 Sample Preparation: 2007-02-27 Prepared By: SP

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		232	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		181	mg/Kg	1	150	121	62.5 - 164

Sample: 117533 - Quad B

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 35083 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 Sample Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.39	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.980	mg/Kg	1	1.00	98	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	1	1.00	104	10 - 227

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Sample: 117534 - Quad C

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	35084	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1.00	100	52.1 - 131
4-Bromofluorobenzene (4-BFB)		1.03	mg/Kg	1	1.00	103	48.7 - 146

Sample: 117534 - Quad C

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Chloride		971	mg/Kg	10	5.00

Sample: 117534 - Quad C

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35064	Date Analyzed:	2007-02-27	Analyzed By:	SP
Prep Batch:	30431	Sample Preparation:	2007-02-27	Prepared By:	SP

Parameter	Flag	RL	Units	Dilution	RL
		Result			
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		185	mg/Kg	1	150	123	62.5 - 164

Sample: 117534 - Quad C

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35083	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

continued ...

sample 117534 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.964	mg/Kg	1	1.00	96	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	10 - 227

Sample: 117535 - Quad D

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	35084	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.10	mg/Kg	1	1.00	110	52.1 - 131
4-Bromofluorobenzene (4-BFB)		1.13	mg/Kg	1	1.00	113	48.7 - 146

Sample: 117535 - Quad D

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		719	mg/Kg	10	5.00

Sample: 117535 - Quad D

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35064	Date Analyzed:	2007-02-27	Analyzed By:	SP
Prep Batch:	30431	Sample Preparation:	2007-02-27	Prepared By:	SP

continued ...

sample 117535 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		173	mg/Kg	1	150	115	62.5 - 164

Sample: 117535 - Quad D

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 35083 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 Sample Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.06	mg/Kg	1	1.00	106	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	10 - 227

Method Blank (1) QC Batch: 35064

QC Batch: 35064 Date Analyzed: 2007-02-27 Analyzed By: SP
Prep Batch: 30431 QC Preparation: 2007-02-27 Prepared By: SP

Parameter	Flag	MDL Result	Units	RL
DRO		<10.7	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		147	mg/Kg	1	150	98	62.5 - 164

Method Blank (1) QC Batch: 35083

QC Batch: 35083 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 QC Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
GRO		<0.121	mg/Kg	1

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.939	mg/Kg	1	1.00	94	73.2 - 125
4-Bromofluorobenzene (4-BFB)		0.715	mg/Kg	1	1.00	72	70.5 - 109

Method Blank (1) QC Batch: 35084

QC Batch: 35084
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00159	mg/Kg	0.01
Toluene		<0.00220	mg/Kg	0.01
Ethylbenzene		<0.00201	mg/Kg	0.01
Xylene		<0.00176	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.949	mg/Kg	1	1.00	95	73.2 - 113
4-Bromofluorobenzene (4-BFB)		0.680	mg/Kg	1	1.00	68	54 - 102

Method Blank (1) QC Batch: 35086

QC Batch: 35086
Prep Batch: 30448

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: JS
Prepared By: JS

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.25	mg/Kg	5

Laboratory Control Spike (LCS-1)

QC Batch: 35064
Prep Batch: 30431

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: SP
Prepared By: SP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	206	mg/Kg	1	250	<10.7	82	64.1 - 124

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	221	mg/Kg	1	250	<10.7	88	64.1 - 124	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	146	153	mg/Kg	1	150	97	102	62.5 - 164

Laboratory Control Spike (LCS-1)

QC Batch: 35083
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.17	mg/Kg	1	10.0	<0.121	92	79.6 - 113

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.47	mg/Kg	1	10.0	<0.121	95	79.6 - 113	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.932	0.963	mg/Kg	1	1.00	93	96	77.1 - 117
4-Bromofluorobenzene (4-BFB)	0.879	0.914	mg/Kg	1	1.00	88	91	78.1 - 118

Laboratory Control Spike (LCS-1)

QC Batch: 35084
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.978	mg/Kg	1	1.00	<0.00159	98	76.3 - 117
Toluene	0.967	mg/Kg	1	1.00	<0.00220	97	77.3 - 114
Ethylbenzene	0.949	mg/Kg	1	1.00	<0.00201	95	75.4 - 115
Xylene	2.80	mg/Kg	1	3.00	<0.00176	93	73.2 - 112

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.954	mg/Kg	1	1.00	<0.00159	95	76.3 - 117	2	20
Toluene	0.943	mg/Kg	1	1.00	<0.00220	94	77.3 - 114	2	20
Ethylbenzene	0.934	mg/Kg	1	1.00	<0.00201	93	75.4 - 115	2	20
Xylene	2.76	mg/Kg	1	3.00	<0.00176	92	73.2 - 112	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.01	0.993	mg/Kg	1	1.00	101	99	74.5 - 113
4-Bromofluorobenzene (4-BFB)	0.925	0.913	mg/Kg	1	1.00	92	91	68.3 - 110

Laboratory Control Spike (LCS-1)

QC Batch: 35086
Prep Batch: 30448

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: JS
Prepared By: JS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	105	mg/Kg	1	100	<3.25	105	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	105	mg/Kg	1	100	<3.25	105	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 117533

QC Batch: 35064
Prep Batch: 30431

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: SP
Prepared By: SP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	392	mg/Kg	1	250	232	64	47.5 - 127

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	401	mg/Kg	1	250	232	68	47.5 - 127	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	167	166	mg/Kg	1	150	111	111	62.5 - 164

Matrix Spike (MS-1) Spiked Sample: 117535

QC Batch: 35083
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	10.3	mg/Kg	1	10.0	<0.121	103	40.7 - 157

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.49	mg/Kg	1	10.0	<0.121	95	40.7 - 157	8	19.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.930	0.864	mg/Kg	1	1	93	86	34.9 - 155
4-Bromofluorobenzene (4-BFB)	1.15	1.08	mg/Kg	1	1	115	108	58.5 - 153

Matrix Spike (MS-1) Spiked Sample: 117535

QC Batch: 35084
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.978	mg/Kg	1	1.00	<0.00159	98	39.6 - 141
Toluene	1.02	mg/Kg	1	1.00	<0.00220	102	45.4 - 138
Ethylbenzene	1.11	mg/Kg	1	1.00	<0.00201	111	48 - 141
Xylene	3.32	mg/Kg	1	3.00	<0.00176	111	45.3 - 142

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.933	mg/Kg	1	1.00	<0.00159	93	39.6 - 141	5	20
Toluene	0.979	mg/Kg	1	1.00	<0.00220	98	45.4 - 138	4	20
Ethylbenzene	1.06	mg/Kg	1	1.00	<0.00201	106	48 - 141	5	20
Xylene	3.17	mg/Kg	1	3.00	<0.00176	106	45.3 - 142	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.05	1.02	mg/Kg	1	1	105	102	51.5 - 138
4-Bromofluorobenzene (4-BFB)	1.12	1.08	mg/Kg	1	1	112	108	52.2 - 139

Matrix Spike (MS-1) Spiked Sample: 117544

QC Batch: 35086
Prep Batch: 30448

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: JS
Prepared By: JS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	¹ 1970	mg/Kg	200	20000	<650	10	84.6 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

¹Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	² 1770	mg/Kg	200	20000	<650	9	84.6 - 117	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 35064

Date Analyzed: 2007-02-27

Analyzed By: SP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	220	88	85 - 115	2007-02-27

Standard (CCV-1)

QC Batch: 35064

Date Analyzed: 2007-02-27

Analyzed By: SP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	228	91	85 - 115	2007-02-27

Standard (ICV-1)

QC Batch: 35083

Date Analyzed: 2007-02-27

Analyzed By: KB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.00	100	85 - 115	2007-02-27

Standard (CCV-1)

QC Batch: 35083

Date Analyzed: 2007-02-27

Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.913	91	85 - 115	2007-02-27

Standard (ICV-1)

QC Batch: 35084

Date Analyzed: 2007-02-27

Analyzed By: KB

²Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0972	97	85 - 115	2007-02-27
Toluene		mg/Kg	0.100	0.0962	96	85 - 115	2007-02-27
Ethylbenzene		mg/Kg	0.100	0.0966	97	85 - 115	2007-02-27
Xylene		mg/Kg	0.300	0.286	95	85 - 115	2007-02-27

Standard (CCV-1)

QC Batch: 35084

Date Analyzed: 2007-02-27

Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0962	96	85 - 115	2007-02-27
Toluene		mg/Kg	0.100	0.0947	95	85 - 115	2007-02-27
Ethylbenzene		mg/Kg	0.100	0.0926	93	85 - 115	2007-02-27
Xylene		mg/Kg	0.300	0.275	92	85 - 115	2007-02-27

Standard (ICV-1)

QC Batch: 35086

Date Analyzed: 2007-02-27

Analyzed By: JS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2007-02-27

Standard (CCV-1)

QC Batch: 35086

Date Analyzed: 2007-02-27

Analyzed By: JS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2007-02-27

Summary Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: March 13, 2007

Work Order: 7031203



Project Location: Eddy County,NM
Project Name: Reid #1

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
118676	North Wall	soil	2007-03-09	13:00	2007-03-10
118677	East Wall	soil	2007-03-09	13:10	2007-03-10
118678	Floor Comp	soil	2007-03-09	13:25	2007-03-10

Sample: 118676 - North Wall

Param	Flag	Result	Units	RL
Chloride		423	mg/Kg	5.00

Sample: 118677 - East Wall

Param	Flag	Result	Units	RL
Chloride		145	mg/Kg	5.00

Sample: 118678 - Floor Comp

Param	Flag	Result	Units	RL
Chloride		226	mg/Kg	5.00



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: March 13, 2007

Work Order: 7031203



Project Location: Eddy County, NM
Project Name: Reid #1
Project Number: Reid #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
118676	North Wall	soil	2007-03-09	13:00	2007-03-10
118677	East Wall	soil	2007-03-09	13:10	2007-03-10
118678	Floor Comp	soil	2007-03-09	13:25	2007-03-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 3 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 118676 - North Wall

Analysis: Chloride (Titration)
QC Batch: 35496
Prep Batch: 30788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2007-03-12
Sample Preparation: 2007-03-12

Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		423	mg/Kg	10	5.00

Sample: 118677 - East Wall

Analysis: Chloride (Titration)
QC Batch: 35496
Prep Batch: 30788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2007-03-12
Sample Preparation: 2007-03-12

Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		145	mg/Kg	10	5.00

Sample: 118678 - Floor Comp

Analysis: Chloride (Titration)
QC Batch: 35496
Prep Batch: 30788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2007-03-12
Sample Preparation: 2007-03-12

Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		226	mg/Kg	4	5.00

Method Blank (1) QC Batch: 35496

QC Batch: 35496
Prep Batch: 30788

Date Analyzed: 2007-03-12
QC Preparation: 2007-03-12

Analyzed By: SM
Prepared By: SM

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.25	mg/Kg	5

Laboratory Control Spike (LCS-1)

QC Batch: 35496
Prep Batch: 30788

Date Analyzed: 2007-03-12
QC Preparation: 2007-03-12

Analyzed By: SM
Prepared By: SM

Report Date: March 13, 2007
Reid #1

Work Order: 7031203
Reid #1

Page Number: 3 of 3
Eddy County,NM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	102	mg/Kg	1	100	<3.25	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<3.25	101	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 118692

QC Batch: 35496
Prep Batch: 30788

Date Analyzed: 2007-03-12
QC Preparation: 2007-03-12

Analyzed By: SM
Prepared By: SM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	¹ 1210	mg/Kg	10	1000	1131.92	8	84.6 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	² 1210	mg/Kg	10	1000	1131.92	8	84.6 - 117	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 35496

Date Analyzed: 2007-03-12

Analyzed By: SM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2007-03-12

Standard (CCV-1)

QC Batch: 35496

Date Analyzed: 2007-03-12

Analyzed By: SM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.7	98	85 - 115	2007-03-12

¹Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

²Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

February 24, 2006

NMOCD District 2 Office
Oil Conservation Division
Chris Beadle
1301 West Grand
Artesia, New Mexico 88210

RE: Range Operating New Mexico, Inc. Inspection, Reid Battery

Chronology

On February 16, 2006 a spill was discovered at the Range Operating New Mexico, Inc. (Range) site Reid Battery. The spill had occurred when a 1" ball valve was open at the circulating pump. The failure resulted in the loss of approximately 58 barrels of oil and produced water. Approximately 58 barrels of fluids were recovered from inside the firewall. The spill appears to have been completely contained inside the firewall. The site was assessed for a formal work plan and specific site information obtained. WBESI uses the attached information and metrics sheet for summarizing the remediation requirements for this site.

The following is an initial "Remediation Work Plan" for this site:

Reid Battery

General site characteristics

Depth to Ground Water: 44'

Wellhead Protection Area: 250' to closest well

Distance to Nearest Surface Water Body: 1000 yards

Site ranking score: 40

Soil remediation action levels

Highly Contaminated / Saturated Soils

Benzene 10 ppm, 50 BTEX ppm, TPH 100 ppm

Soil remediation methods

Excavation and disposal (or alternative approved onsite remediation)

Planned analytical testing

BTEX, TPH, Chlorides on soil

Work Plan

- Continue excavation until limits are obtained in a vertical and horizontal direction.
- Sample site for above parameters.
- Determine quantity of spoils removed from the excavated area.

Imaged

- Determine most cost effective means of disposal or onsite bioremediation in accordance with NMOCD "Guidelines for Remediation of Leaks, Spills, and Releases".
- Contact NMOCD to set up sampling and post remediation inspection.
- Review analytical results.
- Backfill excavation if limits have been achieved or continue excavation.
- Sampling will be per NMOCD guidance including all walls and floor of the excavation.
- A final report will be issued on behalf of Range to the NMOCD documenting all final activities.
- A final letter of concurrence and closure will be issued by NMOCD if all guidelines have been achieved.

For further questions or comments please contact White Buffalo Environmental Services, Inc. at (325) 651-9054.



Greg Swindle,
President
WBESI

Enclosures:

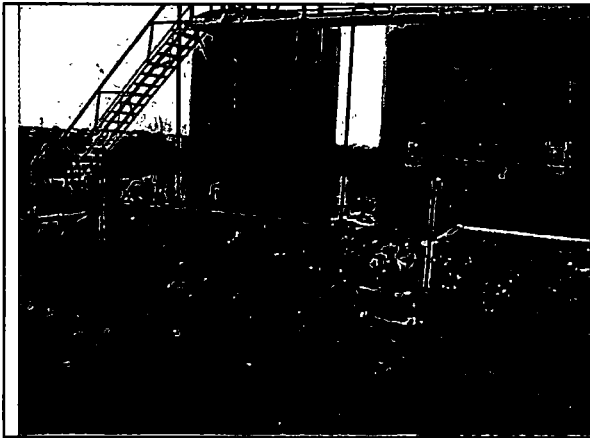
Information and Metrics sheet
USGS Map
Aerial Photo
Site Photographs

RANGE OPERATING NEW MEXICO, INC

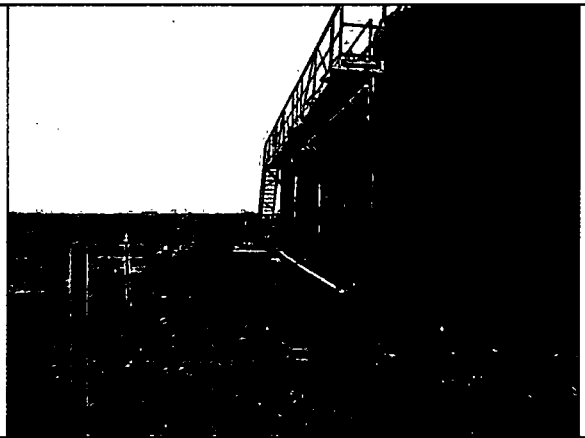
Information and Metrics

Incident Date: February 16, 2006		NMOCD Notified: February 16, 2006	
Site: Reid Battery		Assigned Site Reference #:	
Company: Range Operating New Mexico, Inc.			
Street Address: 777 Main Street Suite 800			
Mailing Address: 777 Main Street Suite 800			
City, State, Zip: Ft. Worth, TX 76102			
Representative: George Teer			
Representative Telephone: (817) 870-2601			
Fluid volume released (bbls): 58		Recovered (bbls): 58	
25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5 - 25 bbls: Submit form C-141 within 15 days			
Leak, Spill, or Pit (LSP) Name: Reid Battery			
Source of contamination: Spill inside containment area (firewall)			
Land Owner, i.e., BLM, ST, Fee, Other: Johnny & Jackie L Reid			
LSP Dimensions: 107' X 64'			
LSP Area: Bases of north and south tanks			
Location of Reference Point (RP): NA			
Location distance and direction from RP: NA			
Latitude: N 32° 18.021'			
Longitude: W 104° 2.839'			
Elevation above mean sea level: 2991' per USGS Map			
Location- Unit or ¼ ¼: NW/4 NW/4 of Sec. 24		Unit Letter: O	
Location Section: 14			
Location- Township: 23S			
Location Range: 28E			
Surface water body within 1000' radius of site: No 3000 feet per USGS Map			
Domestic water wells within 1000' radius of site: Yes			
Agricultural water wells within 1000' radius of site: Yes			
Depth from land surface to ground water (DG): 42' estimated based upon relationship to Pecos River			
Depth of contamination (DC): 8'			
Depth to ground water (DG - DC = DtGW): 44'			
1. Ground water	2. Wellhead Protection Area	3. Distance to Surface Water Body	
If Depth to GW <50 feet: 20 points	If <1000' from water source, or <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points	
If Depth to GW 50 to 99 feet: 10 points		200-100 horizontal feet: 10 points	
If Depth to GW >100 feet: 0 points	If >1000' from water source, or >200' from private domestic water source: 0 points	>1000 horizontal feet: 0 points	
Ground Water Score = 20	Wellhead Protection Area Score = 20	Surface Water Score = 0	
Site Rank (1+2+3) = 40			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	10-19	10-19	0-9
Benzene	10 ppm	10 ppm	10 ppm
BTEX	50 ppm	50 ppm	50 ppm
TPH	1,000 ppm	1,000 ppm	5,000 ppm

Reid Battery
Spill Site Photographs



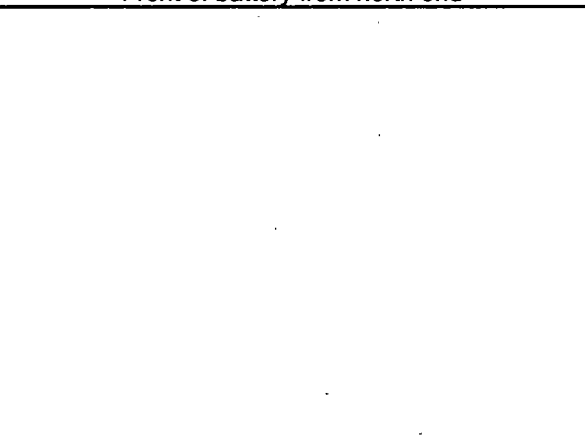
Front of battery



Front of battery from north end



Rear of battery from north end



Bratcher, Mike, EMNRD

From: Greg Swindle [greg@wbesi.com]
Sent: Saturday, June 03, 2006 8:59 AM
To: Bratcher, Mike, EMNRD; 'Tony Tucker'
Cc: 'Linda Stiles'
Subject: Reid Remediation
Attachments: Range Resource Reid Battery Spill Workplan.pdf

Mike,

This week it was brought to my attention that the attached workplan may have not been reviewed by Chris Beadle. I show generating this in late February but at that time we were so busy working on a couple of immediate need sites this one may have gotten misplaced. Tony has a good crew out doing cleanup of all sites and cellars and this was brought to my attention by Tony.

I have reviewed this workplan and agree that it is still appropriate. It was a 58 barrel water spill inside the containment. When you get a chance please look this over. Please send me an email noting your review so that we can work this into our site cleanup schedule.

Tony, Linda,

I will be gone this week June 5-9. I will be on vacation but I will be available via email at least daily so stay in touch.

Greg Swindle

President

White Buffalo Environmental Services, Inc.

5425 Ben Ficklin Road

San Angelo, Texas 76904

Phone (325) 651-9054

Fax (325) 651-2125

Cell (325) 895-0410

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6/8/2006

Summary Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: February 12, 2007

Work Order: 7021113

30-015-26528



Project Location: Eddy County,NM
Project Name: Reid #1

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
116095	South Wall	soil	2007-02-07	17:35	2007-02-10

Sample: 116095 - South Wall

Param	Flag	Result	Units	RL
Chloride		197	mg/Kg	5.00



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail lab@traceanalysis.com

Analytical and Quality Control Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: February 12, 2007

Work Order: 7021113



Project Location: Eddy County, NM
Project Name: Reid #1
Project Number: Reid #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
116095	South Wall	soil	2007-02-07	17:35	2007-02-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 4 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 116095 - South Wall

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	34557	Date Analyzed:	2007-02-12	Analyzed By:	ER
Prep Batch:	29990	Sample Preparation:	2007-02-12	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		197	mg/Kg	10	5.00

Method Blank (1) QC Batch: 34557

QC Batch:	34557	Date Analyzed:	2007-02-12	Analyzed By:	ER
Prep Batch:	29990	QC Preparation:	2007-02-12	Prepared By:	SM

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.25	mg/Kg	5

Laboratory Control Spike (LCS-1)

QC Batch:	34557	Date Analyzed:	2007-02-12	Analyzed By:	ER
Prep Batch:	29990	QC Preparation:	2007-02-12	Prepared By:	SM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.9	mg/Kg	1	100	<3.25	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<3.25	101	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 116102

QC Batch:	34557	Date Analyzed:	2007-02-12	Analyzed By:	ER
Prep Batch:	29990	QC Preparation:	2007-02-12	Prepared By:	SM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	378	mg/Kg	4	400	157.185	55	84.6 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

¹Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	²	366	mg/Kg	4	400	157.185	52	84.6 - 117	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 34557

Date Analyzed: 2007-02-12

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2007-02-12

Standard (CCV-1)

QC Batch: 34557

Date Analyzed: 2007-02-12

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2007-02-12

²Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

LAB Order ID # 7021113 Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

Company Name: Range Operating of NM

Address: (Street, City, Zip)

702 Box 200 Corvino NM 88254

Contact Person:

Tony Tucker

E-mail:

Tony Tucker + Cheryl Winkler

voice to:

f different from above)

Project #:

Project Name: Reid #1

Project Location (including state):

Eddy County NM

Sample Signature:

[Signature]

LAB #	FIELD CODE	# CONTAINERS	MATRIX				PRESERVATIVE METHOD					SAMPLING	
			WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	DATE	TIME
10095	South well	1	✓								✓	2/10/07	5:38P

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B / 602 / 8260B / 624	
BTEX 8021B / 602 / 8260B / 624	
TPH 418.1 / TX1005 / TX1005 EXI(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270C / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C / 625	
PCBs 8082 / 608	
Pesticides 8081A / 608	
BOD, TSS, pH	
Moisture Content	
Turn Around Time if different from standard	

REMARKS:

LAB USE ONLY

- ☐ Dry Weight Basis Required
☐ TRRP Report Required
☐ Check If Special Reporting Limits Are Needed

Intact: QIN
 Headspace: Y/N
 Temp: 30
 Log-in-Review:

Initial of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier # Waltin

Summary Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: February 28, 2007

Work Order: 7022711



Project Location: Eddy County, NM
Project Name: Reid #1

30-015-26528

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
117529	North Wall	soil	2007-02-23	15:15	2007-02-27
117530	West Wall	soil	2007-02-23	15:45	2007-02-27
117531	East Wall	soil	2007-02-23	15:35	2007-02-27
117532	Quad A	soil	2007-02-23	14:45	2007-02-27
117533	Quad B	soil	2007-02-23	14:50	2007-02-27
117534	Quad C	soil	2007-02-23	15:00	2007-02-27
117535	Quad D	soil	2007-02-23	15:10	2007-02-27

Sample - Field Code	BTEX				MTBE	TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	MTBE (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
117532 - Quad A	<0.0100	<0.0100	<0.0100	<0.0100		413	13.1
117533 - Quad B	<0.0100	<0.0100	<0.0100	<0.0100		232	2.39
117534 - Quad C	<0.0100	<0.0100	<0.0100	<0.0100		<50.0	<1.00
117535 - Quad D	<0.0100	<0.0100	<0.0100	<0.0100		<50.0	<1.00

Sample: 117529 - North Wall

Param	Flag	Result	Units	RL
Chloride		1180	mg/Kg	5.00

Sample: 117530 - West Wall

Param	Flag	Result	Units	RL
Chloride		572	mg/Kg	5.00

Sample: 117531 - East Wall

Param	Flag	Result	Units	RL
Chloride		1330	mg/Kg	5.00

Sample: 117532 - Quad A

Param	Flag	Result	Units	RL
Chloride		959	mg/Kg	5.00

Sample: 117533 - Quad B

Param	Flag	Result	Units	RL
Chloride		628	mg/Kg	5.00

Sample: 117534 - Quad C

Param	Flag	Result	Units	RL
Chloride		971	mg/Kg	5.00

Sample: 117535 - Quad D

Param	Flag	Result	Units	RL
Chloride		719	mg/Kg	5.00



6701 Alameda Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 306•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite 2 Fort Worth, Texas 76102 817•535•3443 515•535•3443 FAX 817•535•4944
5002 East Street, Suite A1 Mesquite, Texas 79709 409•699•6301 FAX 409•699•6301
6015 Fort Worth Parkway, Suite 100 Ft. Worth, Texas 76132 817•231•5269
E-Mail: info@traceanalysis.com

Analytical and Quality Control Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: February 28, 2007

Work Order: 7022711



Project Location: Eddy County, NM
Project Name: Reid #1
Project Number: Reid #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
117529	North Wall	soil	2007-02-23	15:15	2007-02-27
117530	West Wall	soil	2007-02-23	15:45	2007-02-27
117531	East Wall	soil	2007-02-23	15:35	2007-02-27
117532	Quad A	soil	2007-02-23	14:45	2007-02-27
117533	Quad B	soil	2007-02-23	14:50	2007-02-27
117534	Quad C	soil	2007-02-23	15:00	2007-02-27
117535	Quad D	soil	2007-02-23	15:10	2007-02-27

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 117529 - North Wall

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1180	mg/Kg	20	5.00

Sample: 117530 - West Wall

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		572	mg/Kg	10	5.00

Sample: 117531 - East Wall

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1330	mg/Kg	20	5.00

Sample: 117532 - Quad A

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	35084	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.990	mg/Kg	1	1.00	99	52.1 - 131
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	48.7 - 146

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Sample: 117532 - Quad A

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		959	mg/Kg	10	5.00

Sample: 117532 - Quad A

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35064	Date Analyzed:	2007-02-27	Analyzed By:	SP
Prep Batch:	30431	Sample Preparation:	2007-02-27	Prepared By:	SP

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		413	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		175	mg/Kg	1	150	117	62.5 - 164

Sample: 117532 - Quad A

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35083	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		13.1	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.955	mg/Kg	1	1.00	96	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.26	mg/Kg	1	1.00	126	10 - 227

Sample: 117533 - Quad B

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	35084	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100

continued ...

sample 117533 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	1	1.00	101	52.1 - 131
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	48.7 - 146

Sample: 117533 - Quad B

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 35086 Date Analyzed: 2007-02-27 Analyzed By: JS
Prep Batch: 30448 Sample Preparation: 2007-02-27 Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		628	mg/Kg	10	5.00

Sample: 117533 - Quad B

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 35064 Date Analyzed: 2007-02-27 Analyzed By: SP
Prep Batch: 30431 Sample Preparation: 2007-02-27 Prepared By: SP

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		232	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		181	mg/Kg	1	150	121	62.5 - 164

Sample: 117533 - Quad B

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 35083 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 Sample Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.39	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.980	mg/Kg	1	1.00	98	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	1	1.00	104	10 - 227

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Sample: 117534 - Quad C

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	35084	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1.00	100	52.1 - 131
4-Bromofluorobenzene (4-BFB)		1.03	mg/Kg	1	1.00	103	48.7 - 146

Sample: 117534 - Quad C

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35086	Date Analyzed:	2007-02-27	Analyzed By:	JS
Prep Batch:	30448	Sample Preparation:	2007-02-27	Prepared By:	SM

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Chloride		971	mg/Kg	10	5.00

Sample: 117534 - Quad C

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35064	Date Analyzed:	2007-02-27	Analyzed By:	SP
Prep Batch:	30431	Sample Preparation:	2007-02-27	Prepared By:	SP

Parameter	Flag	RL	Units	Dilution	RL
		Result			
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		185	mg/Kg	1	150	123	62.5 - 164

Sample: 117534 - Quad C

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35083	Date Analyzed:	2007-02-27	Analyzed By:	KB
Prep Batch:	30441	Sample Preparation:	2007-02-27	Prepared By:	KB

continued ...

sample 117534 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.964	mg/Kg	1	1.00	96	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	10 - 227

Sample: 117535 - Quad D

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 35084 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 Sample Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.10	mg/Kg	1	1.00	110	52.1 - 131
4-Bromofluorobenzene (4-BFB)		1.13	mg/Kg	1	1.00	113	48.7 - 146

Sample: 117535 - Quad D

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 35086 Date Analyzed: 2007-02-27 Analyzed By: JS
Prep Batch: 30448 Sample Preparation: 2007-02-27 Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		719	mg/Kg	10	5.00

Sample: 117535 - Quad D

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 35064 Date Analyzed: 2007-02-27 Analyzed By: SP
Prep Batch: 30431 Sample Preparation: 2007-02-27 Prepared By: SP

continued ...

sample 117535 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		173	mg/Kg	1	150	115	62.5 - 164

Sample: 117535 - Quad D

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 35083 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 Sample Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.06	mg/Kg	1	1.00	106	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	10 - 227

Method Blank (1) QC Batch: 35064

QC Batch: 35064 Date Analyzed: 2007-02-27 Analyzed By: SP
Prep Batch: 30431 QC Preparation: 2007-02-27 Prepared By: SP

Parameter	Flag	MDL Result	Units	RL
DRO		<10.7	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		147	mg/Kg	1	150	98	62.5 - 164

Method Blank (1) QC Batch: 35083

QC Batch: 35083 Date Analyzed: 2007-02-27 Analyzed By: KB
Prep Batch: 30441 QC Preparation: 2007-02-27 Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
GRO		<0.121	mg/Kg	1

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.939	mg/Kg	1	1.00	94	73.2 - 125
4-Bromofluorobenzene (4-BFB)		0.715	mg/Kg	1	1.00	72	70.5 - 109

Method Blank (1) QC Batch: 35084

QC Batch: 35084
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00159	mg/Kg	0.01
Toluene		<0.00220	mg/Kg	0.01
Ethylbenzene		<0.00201	mg/Kg	0.01
Xylene		<0.00176	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.949	mg/Kg	1	1.00	95	73.2 - 113
4-Bromofluorobenzene (4-BFB)		0.680	mg/Kg	1	1.00	68	54 - 102

Method Blank (1) QC Batch: 35086

QC Batch: 35086
Prep Batch: 30448

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: JS
Prepared By: JS

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.25	mg/Kg	5

Laboratory Control Spike (LCS-1)

QC Batch: 35064
Prep Batch: 30431

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: SP
Prepared By: SP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	206	mg/Kg	1	250	<10.7	82	64.1 - 124

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	221	mg/Kg	1	250	<10.7	88	64.1 - 124	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	146	153	mg/Kg	1	150	97	102	62.5 - 164

Laboratory Control Spike (LCS-1)

QC Batch: 35083
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.17	mg/Kg	1	10.0	<0.121	92	79.6 - 113

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.47	mg/Kg	1	10.0	<0.121	95	79.6 - 113	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.932	0.963	mg/Kg	1	1.00	93	96	77.1 - 117
4-Bromofluorobenzene (4-BFB)	0.879	0.914	mg/Kg	1	1.00	88	91	78.1 - 118

Laboratory Control Spike (LCS-1)

QC Batch: 35084
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.978	mg/Kg	1	1.00	<0.00159	98	76.3 - 117
Toluene	0.967	mg/Kg	1	1.00	<0.00220	97	77.3 - 114
Ethylbenzene	0.949	mg/Kg	1	1.00	<0.00201	95	75.4 - 115
Xylene	2.80	mg/Kg	1	3.00	<0.00176	93	73.2 - 112

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.954	mg/Kg	1	1.00	<0.00159	95	76.3 - 117	2	20
Toluene	0.943	mg/Kg	1	1.00	<0.00220	94	77.3 - 114	2	20
Ethylbenzene	0.934	mg/Kg	1	1.00	<0.00201	93	75.4 - 115	2	20
Xylene	2.76	mg/Kg	1	3.00	<0.00176	92	73.2 - 112	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.01	0.993	mg/Kg	1	1.00	101	99	74.5 - 113
4-Bromofluorobenzene (4-BFB)	0.925	0.913	mg/Kg	1	1.00	92	91	68.3 - 110

Laboratory Control Spike (LCS-1)

QC Batch: 35086
Prep Batch: 30448

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: JS
Prepared By: JS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	105	mg/Kg	1	100	<3.25	105	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	105	mg/Kg	1	100	<3.25	105	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 117533

QC Batch: 35064
Prep Batch: 30431

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: SP
Prepared By: SP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	392	mg/Kg	1	250	232	64	47.5 - 127

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	401	mg/Kg	1	250	232	68	47.5 - 127	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	167	166	mg/Kg	1	150	111	111	62.5 - 164

Matrix Spike (MS-1) Spiked Sample: 117535

QC Batch: 35083
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	10.3	mg/Kg	1	10.0	<0.121	103	40.7 - 157

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.49	mg/Kg	1	10.0	<0.121	95	40.7 - 157	8	19.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.930	0.864	mg/Kg	1	1	93	86	34.9 - 155
4-Bromofluorobenzene (4-BFB)	1.15	1.08	mg/Kg	1	1	115	108	58.5 - 153

Matrix Spike (MS-1) Spiked Sample: 117535

QC Batch: 35084
Prep Batch: 30441

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: KB
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.978	mg/Kg	1	1.00	<0.00159	98	39.6 - 141
Toluene	1.02	mg/Kg	1	1.00	<0.00220	102	45.4 - 138
Ethylbenzene	1.11	mg/Kg	1	1.00	<0.00201	111	48 - 141
Xylene	3.32	mg/Kg	1	3.00	<0.00176	111	45.3 - 142

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.933	mg/Kg	1	1.00	<0.00159	93	39.6 - 141	5	20
Toluene	0.979	mg/Kg	1	1.00	<0.00220	98	45.4 - 138	4	20
Ethylbenzene	1.06	mg/Kg	1	1.00	<0.00201	106	48 - 141	5	20
Xylene	3.17	mg/Kg	1	3.00	<0.00176	106	45.3 - 142	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.05	1.02	mg/Kg	1	1	105	102	51.5 - 138
4-Bromofluorobenzene (4-BFB)	1.12	1.08	mg/Kg	1	1	112	108	52.2 - 139

Matrix Spike (MS-1) Spiked Sample: 117544

QC Batch: 35086
Prep Batch: 30448

Date Analyzed: 2007-02-27
QC Preparation: 2007-02-27

Analyzed By: JS
Prepared By: JS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	¹ 1970	mg/Kg	200	20000	<650	10	84.6 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

¹Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	² 1770	mg/Kg	200	20000	<650	9	84.6 - 117	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 35064

Date Analyzed: 2007-02-27

Analyzed By: SP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	220	88	85 - 115	2007-02-27

Standard (CCV-1)

QC Batch: 35064

Date Analyzed: 2007-02-27

Analyzed By: SP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	228	91	85 - 115	2007-02-27

Standard (ICV-1)

QC Batch: 35083

Date Analyzed: 2007-02-27

Analyzed By: KB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.00	100	85 - 115	2007-02-27

Standard (CCV-1)

QC Batch: 35083

Date Analyzed: 2007-02-27

Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.913	91	85 - 115	2007-02-27

Standard (ICV-1)

QC Batch: 35084

Date Analyzed: 2007-02-27

Analyzed By: KB

²Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0972	97	85 - 115	2007-02-27
Toluene		mg/Kg	0.100	0.0962	96	85 - 115	2007-02-27
Ethylbenzene		mg/Kg	0.100	0.0966	97	85 - 115	2007-02-27
Xylene		mg/Kg	0.300	0.286	95	85 - 115	2007-02-27

Standard (CCV-1)

QC Batch: 35084

Date Analyzed: 2007-02-27

Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0962	96	85 - 115	2007-02-27
Toluene		mg/Kg	0.100	0.0947	95	85 - 115	2007-02-27
Ethylbenzene		mg/Kg	0.100	0.0926	93	85 - 115	2007-02-27
Xylene		mg/Kg	0.300	0.275	92	85 - 115	2007-02-27

Standard (ICV-1)

QC Batch: 35086

Date Analyzed: 2007-02-27

Analyzed By: JS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2007-02-27

Standard (CCV-1)

QC Batch: 35086

Date Analyzed: 2007-02-27

Analyzed By: JS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2007-02-27

Summary Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: March 13, 2007

Work Order: 7031203



Project Location: Eddy County,NM
Project Name: Reid #1

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
118676	North Wall	soil	2007-03-09	13:00	2007-03-10
118677	East Wall	soil	2007-03-09	13:10	2007-03-10
118678	Floor Comp	soil	2007-03-09	13:25	2007-03-10

Sample: 118676 - North Wall

Param	Flag	Result	Units	RL
Chloride		423	mg/Kg	5.00

Sample: 118677 - East Wall

Param	Flag	Result	Units	RL
Chloride		145	mg/Kg	5.00

Sample: 118678 - Floor Comp

Param	Flag	Result	Units	RL
Chloride		226	mg/Kg	5.00



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Tony Tucker
Range Operating New Mexico Inc.
P.O. Box 300
Loving, NM, 88256

Report Date: March 13, 2007

Work Order: 7031203



Project Location: Eddy County, NM
Project Name: Reid #1
Project Number: Reid #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
118676	North Wall	soil	2007-03-09	13:00	2007-03-10
118677	East Wall	soil	2007-03-09	13:10	2007-03-10
118678	Floor Comp	soil	2007-03-09	13:25	2007-03-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 3 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 118676 - North Wall

Analysis: Chloride (Titration)
QC Batch: 35496
Prep Batch: 30788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2007-03-12
Sample Preparation: 2007-03-12

Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		423	mg/Kg	10	5.00

Sample: 118677 - East Wall

Analysis: Chloride (Titration)
QC Batch: 35496
Prep Batch: 30788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2007-03-12
Sample Preparation: 2007-03-12

Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		145	mg/Kg	10	5.00

Sample: 118678 - Floor Comp

Analysis: Chloride (Titration)
QC Batch: 35496
Prep Batch: 30788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2007-03-12
Sample Preparation: 2007-03-12

Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		226	mg/Kg	4	5.00

Method Blank (1) QC Batch: 35496

QC Batch: 35496
Prep Batch: 30788

Date Analyzed: 2007-03-12
QC Preparation: 2007-03-12

Analyzed By: SM
Prepared By: SM

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.25	mg/Kg	5

Laboratory Control Spike (LCS-1)

QC Batch: 35496
Prep Batch: 30788

Date Analyzed: 2007-03-12
QC Preparation: 2007-03-12

Analyzed By: SM
Prepared By: SM

Report Date: March 13, 2007
Reid #1

Work Order: 7031203
Reid #1

Page Number: 3 of 3
Eddy County,NM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	102	mg/Kg	1	100	<3.25	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<3.25	101	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 118692

QC Batch: 35496
Prep Batch: 30788

Date Analyzed: 2007-03-12
QC Preparation: 2007-03-12

Analyzed By: SM
Prepared By: SM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	¹ 1210	mg/Kg	10	1000	1131.92	8	84.6 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	² 1210	mg/Kg	10	1000	1131.92	8	84.6 - 117	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 35496

Date Analyzed: 2007-03-12

Analyzed By: SM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2007-03-12

Standard (CCV-1)

QC Batch: 35496

Date Analyzed: 2007-03-12

Analyzed By: SM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.7	98	85 - 115	2007-03-12

¹Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

²Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1298
Fax (806) 794-1298
1 (800) 378-1296200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-34436015 Harris Pkwy Suite 110
Ft. Worth, Texas 76132
Tel (817) 201-5260

Company Name: Range Operating Phone #: 505-745-3691

Address: (Street, City, Zip) P.O. Box 300, Loving, NM 88766 Fax #:

Contact Person: Tony Tucker E-mail: Tony Tucker

Invoice to: Tony Tucker

(If different from above)

Project #: Project Name: Reich #1

Project Location (including state): Eddy County Sampler Signature:

CONTAINERS

Volume / Amount

FIELD CODE

WATER

SOIL

AIR

SLUDGE

PRESERVATIVE METHOD

HCl

HNO₃H₂SO₄

NaOH

ICE

NONE

DATE

TIME

118676 North wall

77 East wall

78 Floor Camp

3/9/00

3/9/00

3/9/00

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B / 602 / 8260B / 624	
BTEX 8021B / 602 / 8260B / 624	
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270C / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C / 625	
PCBs 8082 / 608	
Pesticides 8081A / 608	
BOD, TSS, pH	
Moisture Content	
Turn Around Time if different from standard	

Hold

Relinquished by: Date: 3/10/07 Time: 10:45

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp 3

Log-in-Review

Carrier # walk

☐ Dry Weight Basis Required☐ TRRP Report Required☐ Check if Special Reporting Limits Are Needed

16746-3/12/07 5:35

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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