

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

August 19, 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

## VXXOP-190821-C-1410

Dear Mr. Hamlet,

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

- Reid Well No. 1 June 18, 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. A C-141 closure form is attached.

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,

Jan Mil-

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

Subject:

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

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. A C-141 Closure Form is included as Attachment 1.

#### 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.

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

ENVIRONMENTAL

Date: August 21, 2019

Contact: Rebecca Andresen

Phone: 206-726-4717

Email: Rebecca.Andresen@arcadis .com

Our ref: B0049810.0000 New Mexico Oil Conservation Division II August 21, 2019

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.

Indusu

Rebecca Andresen Vice President

Copies: Jason Michelson, Chevron/CEMC

#### Attachments

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

Form C-141 Page 6 State of New Mexico Oil Conservation Division

Incident ID	
District RP	2RP-3981
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

<b><u>Closure Report Attachment Checklist</u></b> : Each of the following	items must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.	11 NMAC *
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
X Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities *	
* These attachments were not available through NMOCD online re	ecords.
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in
Printed Name: Jason Michelson	Title: Project Manager
Signature: <u>Aun Milh</u>	Date:8/19/2019
email: jmichelson@chevron.com	Telephone: <u>832-854-5601</u>
OCD Only	
Received by:	Date:
	y of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

District-I	State o	of New Mexico			
1625 N. French Dr., Hobbs, NM 88240 District II		s and Natural Re			Form C-141 Revised October 10, 2003
1301 W. Grand Avenue, Artesia, NM 88210 District III	Oil Cons	ervation Divisi	on		Submit 2 Copies to appropriate
1000 Rio Brazos Road, Aztec, NM 87410 District IV		th St. Francis I			District Office in accordance with Rule 116 on back
1220 S. St. Francis Dr., Santa Fe, NM 87505		Fe, NM 87505			side of form
	Release Notification	on and Corr	ective Acti	on	
	F371115 227588	<b>OPERATO</b>		🛛 Initia	al Report 🔲 Final Repo
Name of Company: Range Operating		Contact: Linda		0	
Address: 777 Main Street Suite 800 Facility Name: Reid OOI BATTER	77. Worth 1x 76102	Telephone No: Facility Type:		<u>o.</u>	
Surface Owner: Johnny L Reid&Jackie		er: See Attached		Lease N	Io: 300267
		ON OF RELEA	ASE		
Unit Letter Section Township Ran	ige Feet from the Nort	h/South Line Fee	et from the Eas	st/West Line	County
O 14 23S 28E	880 Sout	h 198	80 Eas	st	Eddy
	Latitude	Longitude		-	
	NATURI	E OF RELEAS			
Type of Release: Produced H20		Volume of Rele 58bbls	ase	Volume R 58 bbls	ecovered
Source of Release:		Date and Hour of			Hour of Discovery
1" Ball Valve Was Immediate Notice Given?		2-16-06 9:45 AI		2-10-00 9:	45 AM MST
X Yes	🗌 No 📋 Not Required	I Linda Nelson N	IMOCD – Artesia	l	
By Whom? Rudy Garcia			2-16-06 9:45 AI		
Was a Watercourse Reached? No	No No	If YES, Volume	e Impacting the W	atercourse.	
If a Watercourse was Impacted, Describe Fu NA	illy.*			R	ECEIVED
					EB 1 6 2006
Describe Cause of Problem and Remedial A			<u></u>		U-ARTERIN-
1" Ball Valve Was Open At Circulating Pun	np.				
Describe Area Affected and Cleanup Action Contained Inside Firewall	Taken.*				
Vacuum Truck picked up 58bbls					
I hereby certify that the information given all regulations all operators are required to repor- public health or the environment. The accep should their operations have failed to adequa or the environment. In addition, NMOCD ac federal, state, or local laws and/or regulations	rt and/or file certain release t tance of a C-141 report by th tely investigate and remedia cceptance of a C-141 report of	notifications and per ne NMOCD marked te contamination that	rform corrective a l as "Final Report' at pose a threat to	ections for relea does not relie ground water,	ases which may endanger ve the operator of liability surface water, human health
,	<u> </u>	<u>0</u>	DIL CONSER	VATION I	DIVISION
Signature:			TIM	GUM	1.
Printed Name: Linda C. Stiles		Approved by Distri	ict Supervisorby	MB	Amoun
Title: Sr. Engineering Tech		Approval Date: 6/2	13/a	Expiration D	ate:
E-mail Address: lstiles@rangeresources.com	1	Conditions of Appr	roval:		Attached
	(817) 810-1908				
* Attach Additional Sheets If Necessary				<u>,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, </u>	2RP-3981

CC: operator Imaged



# NEW MEXICO ENERGY, MERALS 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. Mila Bennann

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 \* <u>http://www.emnrd.state.nm.us</u> HARA Copy mulled to operator DMA Sod

30-015-26528

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:

#### **<u>Reid Battery</u>**

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.

30-015-26522

- 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

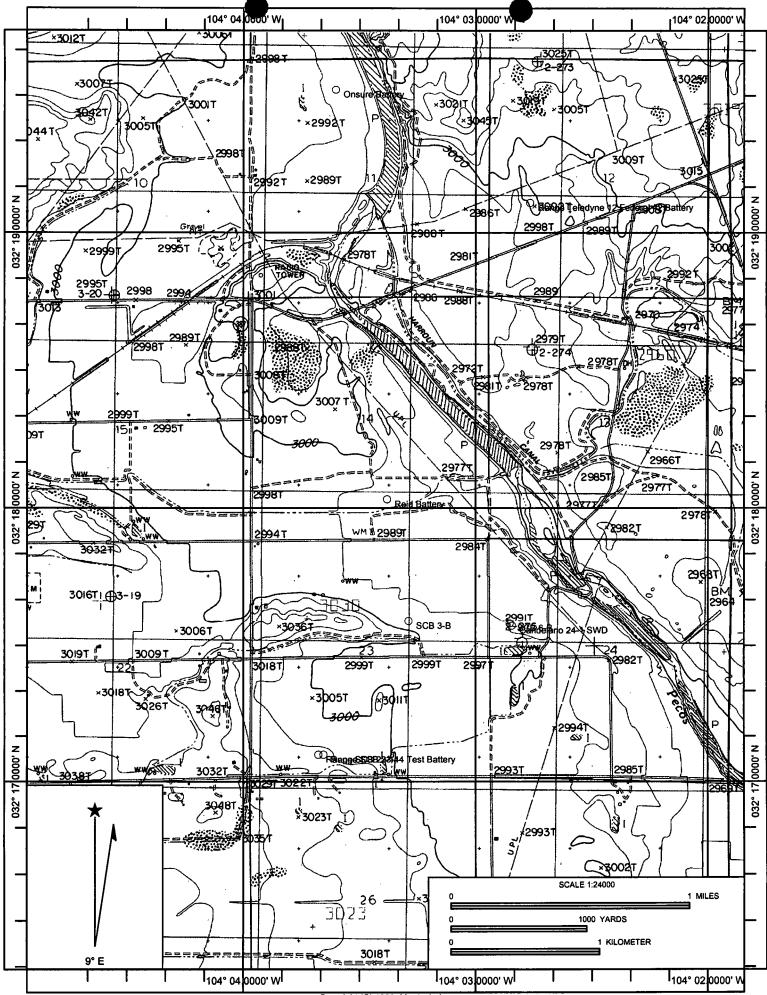
Imagod

30-015-26528

## **RANGE OPERATING NEW MEXICO, INC**

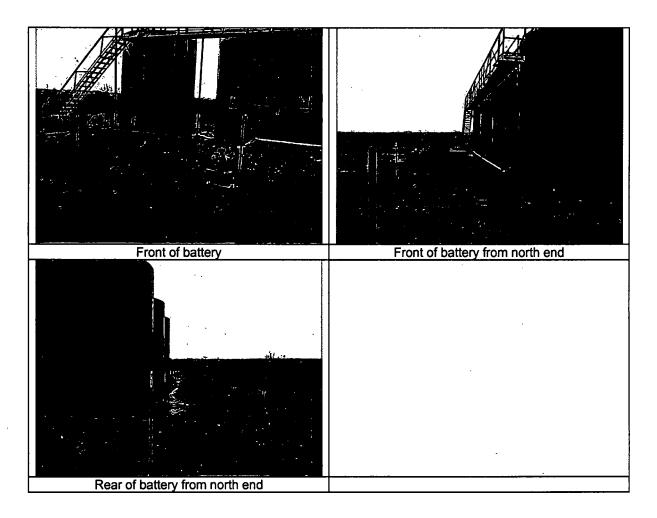
**Information and Metrics** 

· · · · · · · · · · · · · · · · · · ·		Information	and Metrics			
Incident Date: February 1	6,2006		NMOCD Notifie	d: Februa	ry 16, 2006	
Site: Reid Battery Assigned Site Reference #:						
Company: Range Operati	ng New M	lexico, Inc.				
Street Address: 777 Main	Street Sui	ite 800				
Mailing Address: 777 Ma	in Street	Suite 800				
City, State, Zip: Ft. Worth	h, TX 761	02				
Representative: George T						
<b>Representative Telephone</b>	e: (817) 8	70-2601				
Fluid volume released (bt	ols): 58		Recovered (bbls)	: 58		
		<b>10CD</b> verbally within	24 hrs and submit form		hin 15 days.	
	(Also		d releases >500 mcf N			
			form C-141 within 15 a	lays		
Leak, Spill, or Pit (LSP) N				,		
Source of contamination:			<u> </u>			
Land Owner, i.e., BLM, S		ther: Johnny & Ja	ckie L Reid			
LSP Dimensions: 107' X C						
LSP Area: Bases of north						
Location of Reference Po						
Location distance and dir	ection fro	om RP: NA				
Latitude: N 32° 18.021'						
Longitude: W 104° 2.839'						
Elevation above mean sea	level: 29	91' per USGS Map	)			
Location- Unit or ¼ ¼: N	W/4 NW/	4 of Sec. 24	Unit Letter: O			
Location Section: 14						
Location- Township: 23S						
Location Range: 28E						
					· · · · · · · · ·	
Surface water body within	n 1000' ra	adius of site: No .3	000 feet per USGS	Мар		
Domestic water wells with				<b>k</b>		
Agricultural water wells						
Depth from land surface				on relation	ship to Pecos River	
Depth of contamination (						
Depth to ground water (D		= DtGW): 44'				
1. Ground water		· · · · · · · · · · · · · · · · · · ·	Protection Area	3. Dist	ance to Surface Water Body	
If Depth to GW <50 feet: 20 point	nts	If <1000' from water			zontal feet: 20 points	
If Depth to GW 50 to 99 feet: 10		from private domesti			orizontal feet: 10 points	
	, hours	points		200-1001	ionzontal leet. To points	
ISD at a OWN 100 Section	4.	If >1000' from water		> 1000 1		
If Depth to GW >100 feet: 0 point	nts	from private domesti points	c water source: 0	>1000 no:	rizontal feet: 0 points	
Ground Water Score = 20		Wellhead Protection	Area Score = 20	Surface V	/ater Score = 0	
Site Rank $(1+2+3) = 40$						
	Total S	Site Ranking Score an	d Acceptable Concent	trations		
Parameter		12	10-19		0-9	
Benzene		$f(0) = \eta_{g} \cdot \eta$	10 ppm		10 ppm	
BTEX		(#3 - sj + 1 6300 - se - se	50 ppm		50 ppm	
ТРН		- 0.00 j ( 1. s u	] 1,000 ppm		5,000 ppm	



Copyright (C) 1999, Maptech, Inc.

Reid Battery Spill Site Photographs



#### Bratcher, Mike, EMNRD

From:	Greg Swindle [greg@wbesi.com]
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- 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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## Summary Report

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 Tony Tucker
 Report Date: February 12, 2007

 Range Operating New Mexico Inc.
 Work Order: 7021113

 P.O. Box 300
 Work Order: 7021113

 Loving, NM, 88256
 SOCISS 26538

 Project Location:
 Eddy County,NM

 Project Name:
 Eddy County,NM

			$\operatorname{Date}$	Time	Date
Sample	Description	Matrix	Taken	Taken	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 9 155 McCutcheon, Suite H Lubbock, Texas 79424 800•378•1296 El Paso, Texas 79932 888•588•3443 E-Mail lab@traceanalysis.com

806•794•1296 FAX 806•794•1298 915•585•3443 FAX 915•585•4944

## **Analytical and Quality Control Report**

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

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Report Date: February 12, 2007

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Work	Order:	/021113

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

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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.

Michael alm

Dr. Blair Leftwich, Director

**Standard Flags** 

 ${\bf B}\,$  - The sample contains less than ten times the concentration found in the method blank.

Report Date: February 12, 2007 Reid #1

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## **Analytical Report**

Sample: 116									
Analysis:	Chloride (Titratio	n)	Analytical Me		I 4500-Cl B			Prep Metho	
QC Batch:	34557		Date Analyze		07-02-12			Analyzed E	
Prep Batch:	29990		Sample Prepa	ration: 200	07-02-12			Prepared B	y: SM
Descuentes			RL		•,	D	•1 .4		ы
Parameter Chloride	Fla	<u>g</u>	Result 197	Ur mg/	nits Ka	D	ilution 10		RL 5.00
			177	ing/	ng		10		5.00
Method Bla	nk (1) QC Bate	h: 34557							
QC Batch:	34557		Date Analyzed:	2007-02-1	2			Analyzed E	y: ER
Prep Batch:	29990		QC Preparation:	2007-02-1	2			Prepared B	-
			М	IDL					
Parameter	<u> </u>	Flag		sult		Units			RL
Chloride			<3	3.25		mg/Kg	3		5
QC Batch:	Control Spike (LC 34557	CS-1)	Date Analyzed:	2007-02-1				Analyzed B	•
QC Batch:	-	CS-1)	Date Analyzed: QC Preparation:	2007-02-1 2007-02-1				Analyzed E Prepared B	•
Laboratory QC Batch: Prep Batch:	34557	2 <b>S-1</b> ) LC	QC Preparation:			Matri	ix	•	•
QC Batch: Prep Batch: Param	34557	LC: Rest	QC Preparation: S alt Units		2 Spike Amount	Resu	lt	Prepared B Rec.	y: SM Rec. Limit
QC Batch: Prep Batch: Param	34557	LC	QC Preparation: S ult Units	2007-02-1	2 Spike		lt	Prepared B	y: SM Rec.
QC Batch: Prep Batch: Param Chloride	34557 29990	LC Resu 99.	QC Preparation: S alt Units	2007-02-1 Dil.	2 Spike Amount 100	Resu <3.2	lt	Prepared B Rec.	y: SM Rec. Limit
QC Batch: Prep Batch: Param Chloride	34557 29990	LC Resu 99.	QC Preparation: S alt Units 9 mg/Kg	2007-02-1 Dil.	2 Spike Amount 100	Resu <3.2	lt	Prepared B Rec.	y: SM Rec. Limit
QC Batch: Prep Batch: Param Chloride Percent recov Param	34557 29990	LC Rest 99. spike result. RP LCSD Result	QC Preparation: S ult Units 9 mg/Kg D is based on the sp Units Dil.	2007-02-1 Dil. I ike and spike Spike Amount	2 Spike Amount 100 e duplicate re Matrix Result	Resu <3.2 esult. Rec.	lt 5 Rec. Limit	Prepared B Rec. 100	y: SM Rec. <u>Limit</u> 90 - 110 RPD Limit
QC Batch: Prep Batch: Param Chloride Percent recov Param	34557 29990	LC Rest 99. spike result. RPI LCSD	QC Preparation: S ult Units 9 mg/Kg D is based on the sp	2007-02-1 Dil. I ike and spike Spike	2 Spike Amount 100 e duplicate re Matrix	Resu <3.2 esult.	lt 5 Rec.	Prepared B Rec. 100	y: SM Rec. Limit 90 - 110 RPD
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride	34557 29990 very is based on the	LC Resu 99. spike result. RP LCSD Result 101	QC Preparation: S alt Units 9 mg/Kg D is based on the sp Units Dil.	2007-02-1 Dil. I ike and spike Spike Amount 100	2 Spike Amount 100 e duplicate re Matrix Result <3.25	Resu <3.2 esult. Rec. 101	lt 5 Rec. Limit	Prepared B Rec. 100	y: SM Rec. <u>Limit</u> 90 - 110 RPD Limit
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride Percent recov	34557 29990 very is based on the very is based on the	LC Resu 99. spike result. RP LCSD Result 101	QC Preparation: S alt Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp	2007-02-1 Dil. I ike and spike Spike Amount 100	2 Spike Amount 100 e duplicate re Matrix Result <3.25	Resu <3.2 esult. Rec. 101	lt 5 Rec. Limit	Prepared B Rec. 100	y: SM Rec. Limit 90 - 110 RPD Limit
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride	34557 29990 very is based on the very is based on the	LC Resu 99. spike result. RP LCSD Result 101 spike result. RP	QC Preparation: S alt Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp	2007-02-1 Dil. I ike and spike Spike Amount 100	2 Spike Amount 100 e duplicate re Matrix Result <3.25 e duplicate re	Resu <3.2 esult. Rec. 101	lt 5 Rec. Limit	Prepared B Rec. 100	y: SM Rec. Limit 90 - 110 RPD Limit 20
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride Percent recov Matrix Spika QC Batch:	34557 29990 very is based on the very is based on the e (MS-1) Spiked	LC Resu 99. spike result. RP LCSD Result 101 spike result. RP	QC Preparation: S ult Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp	2007-02-1 Dil. I ike and spike Amount 100 ike and spike	2 Spike Amount 100 e duplicate re Matrix Result <3.25 e duplicate re	Resu <3.2 esult. Rec. 101	lt 5 Rec. Limit	Prepared B Rec. 100 t RPD 10 1	y: SM Rec. Limit 90 - 110 RPD Limit 20 Sy: ER
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride Percent recov Matrix Spika QC Batch:	34557 29990 /ery is based on the /ery is based on the /e ( <b>MS-1</b> ) Spiked 34557	LC Resu 99. spike result. RP LCSD Result 101 spike result. RP	QC Preparation: S ult Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp D is based on the sp	2007-02-1 Dil. I ike and spike Amount 100 ike and spike 2007-02-1	2 Spike Amount 100 e duplicate re Matrix Result <3.25 e duplicate re	Resu <3.2 esult. Rec. 101	lt 55 Rec. Limit 90 - 11	Prepared B Rec. 100 RPD 0 1 Analyzed E Prepared B	y: SM Rec. Limit 90 - 110 RPD Limit 20 Sy: ER y: SM Rec.
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride Percent recov Matrix Spike	34557 29990 /ery is based on the /ery is based on the /e ( <b>MS-1</b> ) Spiked 34557	LC Resu 99. spike result. RPI LCSD Result 101 spike result. RPI Sample: 116102	QC Preparation: S 11 Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp Date Analyzed: QC Preparation: It Units	2007-02-1 Dil. I ike and spike Amount 100 ike and spike 2007-02-1	2 Spike Amount 100 e duplicate re Matrix Result <3.25 e duplicate re	Resu <3.2 esult. Rec. 101 esult.	lt 55 Rec. Limit 90 - 11	Prepared B Rec. 100 t RPD 0 1 Analyzed E Prepared B Rec.	y: SM Rec. Limit 90 - 110 RPD Limit 20 By: ER y: SM

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

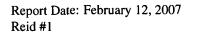
<sup>&</sup>lt;sup>1</sup>Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: February 12, 2007 Reid #1				Work Order: 7021113 Reid #1				Page Number: 3 of 4 Eddy County,NM			
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 reco	overy is based on	the spike result. F	RPD is based	l on the s	pike and spil	ke duplicate r	esult.				
Standard (	<b>ICV-</b> 1)										
orundur u (											
QC Batch:	34557		Date Analyzed: 2007-02-12				Analyzed By: ER				
			ICVs	Ι	CVs	ICVs		Percent			
			True	F	ound	Percent		Recovery		Date	
Param	Flag	Units	Conc.	0	Conc.	Recovery		Limits		alyzed	
Chloride		mg/Kg	100		99.5	100		85 - 115	200	7-02-12	
Standard (	CCV-1)										
QC Batch: 34557			Date A	nalyzed:	2007-02-1	2		An	alyzed B	y: ER	
			CCVs	C	CCVs	CCVs		Percent			
			True	F	ound	Percent		Recovery	]	Date	
Param	Flag	Units	Conc.	C	Conc.	Recovery		Limits	An	alyzed	
Chloride		mg/Kg	100		100	100		85 - 115	200	7-02-12	

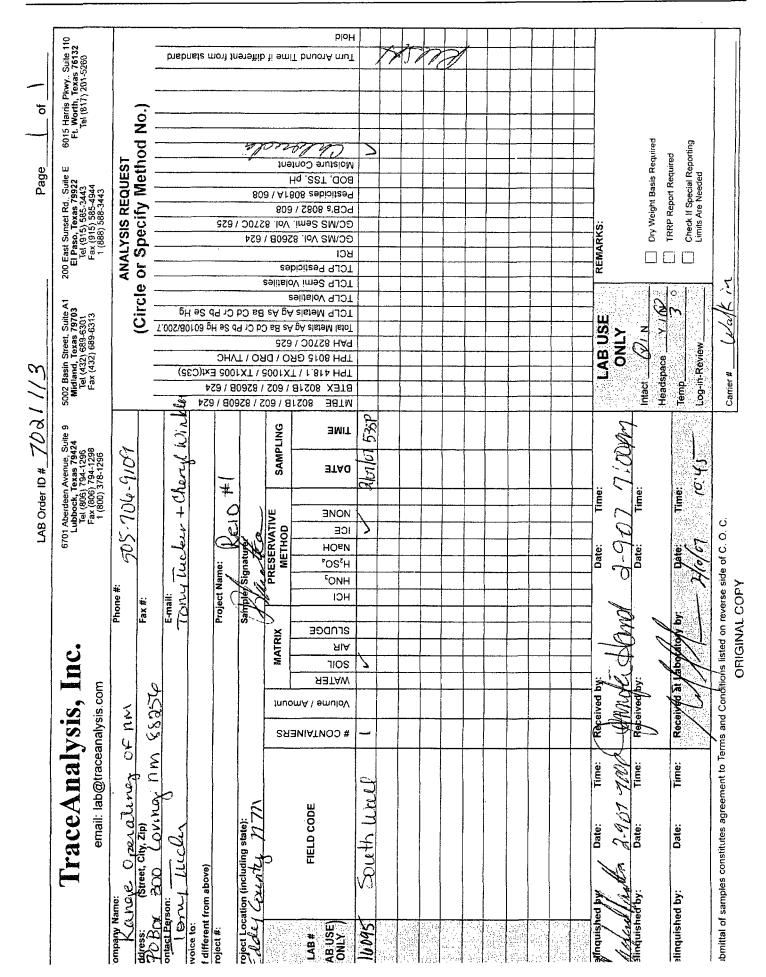
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<sup>&</sup>lt;sup>2</sup>Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.



#### Work Order: 7021113 Reid #1



Report Date: February 28, 2007

### **Summary Report**

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

Report Date: February 28, 2007

Work Order: 7022711 

Reid #1 Project Name:

Project Location: Eddy County,NM 30-015-26528

_			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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

		BTEX				TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(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	$\mathbf{Result}$	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

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296 This is only a summary. Please, refer to the complete report package for quality control data.

Report Date: February 28, 2007		Work Order: 7022711 Reid #1		Page Number: 2 of 2 Eddy County,NM
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	$\mathbf{RL}$
Chloride		971	mg/Kg	5.00
Sample: 117535	- Quad D			
Param	Flag	Result	Units	$\mathbf{RL}$
Chloride		719	mg/Kg	5.00

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206 • 794 • 1296 800+378+12%6 383•548•3443 \$15+535+3443 402+609+6301 517+20 +5269

HAX 866+794+1298 FAX 915+65+4944 FAX 432 +623+6313

### Analytical and Quality Control Report

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

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.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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.

Michael 4

Dr. Blair Leftwich, Director

**Standard Flags** 

 ${\bf B}$  - The sample contains less than ten times the concentration found in the method blank.

Report Date: February 28, 2007

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Work Order: 7022711 

## **Analytical Report**

#### Sample: 117529 - North Wall

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2007-02-27 2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
		RL			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		1180	mg/Kg	20	5.00

#### Sample: 117530 - West Wall

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Method Date Analyzed: Sample Preparatio	2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
		RL	<b>**</b>		D.
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		572	mg/Kg	10	5.00

#### Sample: 117531 - East Wall

Analysis: QC Batch:	Chloride (Titration) 35086	Analytical Method Date Analyzed:	: SM 4500-Cl B 2007-02-27	Prep Method: Analyzed By:	
Prep Batch:	30448	Sample Preparation	n: 2007-02-27	Prepared By:	$\mathbf{SM}$
		$\mathbf{RL}$			
Parameter	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		1330	mg/Kg	20	5.00

#### Sample: 117532 - Quad A

Analysis: QC Batch: Prep Batch:	BTEX 35084 30441		Analytical M Date Analyz Sample Prep	ed:	S 8021B 2007-02-27 2007-02-27		Prep Met Analyzed Prepared	By: KB
			$\mathbf{RL}$					
Parameter	F	ag	$\mathbf{Result}$		Units		Dilution	$\mathbf{RL}$
Benzene			< 0.0100		mg/Kg		1	0.0100
Toluene			< 0.0100		mg/Kg		1	0.0100
Ethylbenzen	е		< 0.0100		mg/Kg		1	0.0100
Xylene			< 0.0100		mg/Kg_		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	g Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.990	mg/Ka	ş 1	1.00	99	52.1 - 131
4-Bromofluor	obenzene (4-BFB	5)	1.05	mg/Kg	g <u>1</u>	1.00	105	48.7 - 146

### Sample: 117532 - Quad A

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Metho Date Analyzed: Sample Preparat	2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
		$\operatorname{RL}$			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		959	mg/Kg	10	5.00

#### Sample: 117532 - Quad A

Analysis: QC Batch: Prep Batch:	TPH DRO 35064 30431		Analytical Me Date Analyzee Sample Prepa	d: 2007-	8015B 02-27 02-27	Analyz	fethod: N/A ed By: SP ed By: SP
Parameter	Flag	5	RL Result		nits	Dilution	RL
DRO			413	mg	/Kg	1	50.0
		<b>_</b> .			Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontan	e	175	mg/Kg	1	150	117	62.5 - 164

#### Sample: 117532 - Quad A

Analysis: QC Batch: Prep Batch:	TPH GRO 35083 30441		Analytical Date Anal Sample Pr		S 8015B 2007-02-27 2007-02-27		Prep Meth Analyzed Prepared 1	By: KB
			$\mathbf{RL}$					
Parameter	Flag		Result		Units	D	vilution	$\mathbf{RL}$
GRO			13.1		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.955	mg/Kg	1	1.00	96	33.2 - 160
4-Bromofluor	obenzene (4-BFB)		1.26	mg/Kg	1	1.00	126	10 - 227

#### Sample: 117533 - Quad B

Analysis: QC Batch: Prep Batch:	BTEX 35084 30441		Analytical Method: Date Analyzed: Sample Preparation:	S 8021B 2007-02-27 2007-02-27	Prep Method: Analyzed By: Prepared By:	
			$\mathbf{RL}$			
Parameter		Flag	Result	Units	Dilution	$\mathbf{RL}$
Benzene			< 0.0100	mg/Kg	1	0.0100
Toluene			< 0.0100	mg/Kg	1	0.0100
Ethylbenzen	e		<0.0100	mg/Kg	1	0.0100
					continued	

continued ...

#### sample 117533 continued ...

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			$\mathbf{RL}$					
Parameter	Flag		Result		$\mathbf{Units}$	Di	ilution	$\mathbf{RL}$
Xylene		<0.0100			mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	Result	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.01	mg/Kg	1	1.00	101	52.1 - 131
4-Bromofluorobenzene (4-BI	FB)		1.02	mg/Kg	1	1.00	102	48.7 - 146

#### Sample: 117533 - Quad B

oride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
86	Date Analyzed:	2007-02-27	Analyzed By:	JS
48	Sample Preparation:	2007-02-27	Prepared By:	SM
	RL			
$\mathbf{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
	<b>628</b>	mg/Kg	10	5.00
	86 48	86 Date Analyzed: 48 Sample Preparation: RL Flag Result	86 Date Analyzed: 2007-02-27 48 Sample Preparation: 2007-02-27 RL Flag Result Units	86 Date Analyzed: 2007-02-27 Analyzed By: 48 Sample Preparation: 2007-02-27 Prepared By: RL Flag Result Units Dilution

#### Sample: 117533 - Quad B

n-Triacontan	e	181	mg/Kg	1	150	121	62.5 - 164
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
DRO			232	mg	/Kg	1	50.0
Parameter	Fla	g	RL Result	U	nits	Dilution	RL
Analysis:TPH DROQC Batch:35064Prep Batch:30431		Analytical Me Date Analyze Sample Prepa	d: 2007	8015B -02-27 -02-27	Analyz	fethod: N/A ed By: SP ed By: SP	

#### Sample: 117533 - Quad B

Analysis: QC Batch: Prep Batch:	TPH GRO 35083 30441		Analytical Date Anal Sample Pr		S 8015B 2007-02-27 2007-02-27		Prep Meth Analyzed Prepared 1	By: KB
			$\mathbf{RL}$					
Parameter	$\mathbf{Flag}$		$\mathbf{Result}$		Units	D	ilution	$\mathbf{RL}$
GRO			2.39		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.980	mg/Kg	1	1.00	98	33.2 - 160
4-Bromofluor	robenzene (4-BFB)		1.04	mg/Kg	1	1.00	104	10 - 227

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Page 1	Numl	ber:	5 of	13
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#### Sample: 117534 - Quad C

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Analysis: QC Batch: Prep Batch:	BTEX 35084 30441		Analytical M Date Analyz Sample Prep	ed:	S 8021B 2007-02-27 2007-02-27		Prep Met Analyzed Prepared	By: KB
			$\mathbf{RL}$					
Parameter	Fla	g	Result		Units	J	Dilution	$\mathbf{RL}$
Benzene			< 0.0100		mg/Kg		1	0.0100
Toluene			< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	9		< 0.0100		mg/Kg		1	0.0100
Xylene			< 0.0100		mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		$\mathbf{F}$ lag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.00	mg/Kg	; 1	1.00	100	52.1 - 131
4-Bromofluor	obenzene (4-BFB)		1.03	mg/Kg	; 1	1.00	103	48.7 - 146

### Sample: 117534 - Quad C

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2007-02-27 2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
		RL			
Parameter	$\mathbf{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
Chloride		971	mg/Kg	10	5.00

#### Sample: 117534 - Quad C

Analysis: QC Batch: Prep Batch:	TPH DRO 35064 30431		Analytical Me Date Analyze Sample Prepa	ed:	Mod. 8 2007-02 2007-02	-27	-	lethod: ed By: ed By:	N/A SP SP
Parameter	Fla	Ŧ	RL Result		Unit		Dilution		$\mathbf{RL}$
DRO	Fla	5	<50.0		mg/K		1		50.0
Surrogate	Flag	Result	Units	Dilut		Spike Amount	Percent Recovery		overy mits
n-Triacontan	e	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 ....

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Parameter	Flag		RL Result		Units	D	vilution	RL
			RL					
Parameter	Flag		Result		Units	D	vilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (T	TFT)		0.964	mg/Kg	1	1.00	96	33.2 - 160
4-Bromofluorobenz	ene (4-BFB)		1.02	mg/Kg	1	1.00	102	10 - 227

#### Sample: 117535 - Quad D

Analysis: QC Batch: Prep Batch:	BTEX 35084 30441		Analytical M Date Analyz Sample Prep	ed:	S 8021B 2007-02-27 2007-02-27		Prep Meth Analyzed I Prepared I	By: KB
			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		Units	D	ilution	$\mathbf{RL}$
Benzene			< 0.0100		mg/Kg		1	0.0100
Toluene			< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	e		< 0.0100		mg/Kg		1	0.0100
Xylene			< 0.0100		mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.10	mg/Kg	g 1	1.00	110	52.1 - 131
4-Bromofluor	robenzene (4-BFB)		1.13	mg/Kg	g 1	1.00	113	48.7 - 146

#### Sample: 117535 - Quad D

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Method: Date Analyzed: Sample Preparation	SM 4500-Cl B 2007-02-27 : 2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
_		RL		<b></b>	
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
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 ...

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Parameter	Fla	g	RL Result	Uni	ts	Dilution	RL
			$\operatorname{RL}$				
Parameter	er Flag		Result	Uni	ts	Dilution	$\mathbf{RL}$
DRO			<50.0	mg/ŀ	íg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		173	mg/Kg	1	150	115	62.5 - 164

#### Sample: 117535 - Quad D

Analysis: QC Batch: Prep Batch:	TPH GRO 35083 30441		Analytical Date Anal Sample Pr		S 8015B 2007-02-27 2007-02-27	Prep Meth Analyzed I Prepared I		By: KB
			$\mathbf{RL}$					
Parameter	$\mathbf{Flag}$		$\mathbf{Result}$		$\mathbf{Units}$	D	ilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg	·	1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		1.06	mg/Kg	1	1.00	106	33.2 - 160
4-Bromofluor	robenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	10 - 227

#### Method Blank (1) QC Batch: 35064

QC Batch: Prep Batch:	QC Batch: 35064 Prep Batch: 30431		Date Analyze QC Preparati				
				MDL			
Parameter		Flag		$\mathbf{Result}$	τ	Jnits	$\mathbf{RL}$
DRO				<10.7	m	g/Kg	50
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	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
			M	DL			
Parameter		Flag	Res	sult	Units		$\mathbf{RL}$
GRO			<0.	121	mg/Kg		1

Report Date: February 28, 2007 Reid #1			Work Order: 7022711 Reid #1				Page Number: 8 of 13 Eddy County,NM		
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					Analyz Prepare	•	
			MD	L			
Parameter	Flag	Result			Unit	$\mathbf{RL}$	
Benzene		< 0.00159			mg/I	0.01	
Toluene		<0.00220			mg/I	mg/Kg	
Ethylbenzene			< 0.0020	)201 п		Χġ	0.01
Xylene			<0.0017	6	mg/Kg		0.01
					Spike	Percent	Recovery
Surrogate	Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.949	mg/Kg	1 1	1.00	95	73.2 - 113
4-Bromofluorobenzene (4-BFB)		0.680	mg/Kg	1	1.00	68	54 - 102

Method Blank (1) Q	C Batch: 35086
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QC Batch: Prep Batch:	35086 30448		Date Analyzed: QC Preparation:			Analyzed By: Prepared By:	
			MI	DL			
Parameter		Flag	Res	ult	Units		$\mathbf{RL}$
Chloride			<3.	25	mg/Kg		5

#### Laboratory Control Spike (LCS-1)

QC Batch: 35064 Prep Batch: 30431		te Analyzed: C Preparation:	2007-02- 2007-02-				alyzed B pared B	•
Param	LCS Result	Units	Dil.	Spike Amount	Mati Resu			Rec. Limit
DRO	206	mg/Kg	1	250	<10	0.7 82	64	.1 - 124
Percent recovery is based on t	-	D is based on	-	-	iplicate r			<b>6</b> .0.0
	LCSD		Spike	Matrix		Rec.		RPD
Param	Result U	nits Dil.	$\mathbf{Amount}$	$\mathbf{Result}$	Rec.	Limit	RPD	Limit
DRO	221 mg	g/Kg 1	<b>25</b> 0	<10.7	88	64.1 - 124	7	20
Percent recovery is based on t	the spike result. RP	D is based on	the spike a	and spike du	uplicate r	esult.		

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continued ...

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control spikes continued.	••										
	LCS	LCSD				Spike	LC		LCSD		Rec.
Surrogate	Result	Result	. 1	Units	Dil.	Amoun	t Re	ec.	Rec.		Limit
	LCS	LCSD				Spike	LC	2°	LCSD		Rec.
Surrogate	Result	Result		Units	Dil.	Amoun			Rec.		Limit
n-Triacontane	146	153		ng/Kg	1	150	9		102		2.5 - 164
	110	100			1	100	0		102		
Laboratory Control Sp	pike (LCS	5-1)									
QC Batch: 35083			Date A	nalyzed	: 2007-02	2-27			Anal	yzed By	y: KB
Prep Batch: 30441				eparatio		2-27				ared By	
-			-	-					-	-	
		LCS				Spike		atrix			Rec.
Param		Resu		Units	Dil.	Amour		esult	Rec.		Limit
GRO		9.1'	71	mg/Kg	1	10.0	(	).121	92	79	).6 - 113
Percent recovery is based	on the spi	ike result.	RPD is	based o	on the spike	and spike	duplicate	e result.			
		LCSD			Spike	Matri	x	R	.ec.		RPD
Param		Result	Units	Dil.	Amount				mit	RPD	Limit
GRO		9.47	mg/Kg	( 1	10.0	< 0.12		79.6	- 113	3	20
Percent recovery is based	on the spi				on the spike	and spike	duplicate				
v	•				•	-	-				D
Company and a		LCS		CSD	Units		Spike .mount	LCS Rec.	LCSI Rec.		Rec.
Surrogate Trifluorotoluene (TFT)		Resul		esult	Units	Dil. A	mount	nec.	n.ec.		Limit
		0 0.24	o ∩	062	malla						71 117
		0.93		963 014	mg/Kg	1	1.00	93	96	77	
4-Bromofluorobenzene (4-	-BFB)	0.933		963 914	mg/Kg mg/Kg					77	
4-Bromofluorobenzene (4-		0.879				1	1.00	93	96	77	
4-Bromofluorobenzene (4- Laboratory Control Sp		0.879	90.	914	mg/Kg	1 1	1.00	93	96 91	77 78	3.1 - 118
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084		0.879	9 0. Date A	914 nalyzed	mg/Kg : 2007-02	1 1 2-27	1.00	93	96 91 Anal	77 78 yzed By	3.1 - 118 y: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084		0.879	9 0. Date A	914	mg/Kg : 2007-02	1 1 2-27	1.00	93	96 91 Anal	77 78	3.1 - 118 y: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084		0.879	9 0. Date A QC Pre	914 nalyzed	mg/Kg : 2007-02	1 1 2-27	1.00 1.00	93	96 91 Anal	77 78 yzed By	3.1 - 118 y: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441		0.879 5-1)	Date A QC Pre	914 nalyzed eparatio Units	mg/Kg : 2007-02	1 1 2-27 2-27	1.00 1.00	93 88	96 91 Anal	77 78 yzed By ared By	9.1 - 118 9: KB 7: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441		0.879 5-1) LCS	Date A QC Pre	914 nalyzed eparatio <u>Units</u> ng/Kg	mg/Kg : 2007-02 n: 2007-02	1 1 2-27 2-27 Spike	1.00 1.00 Ma Re	93 88	96 91 Anal Prep	77 78 yzed B ared By	9.1 - 118 y: KB r: KB Rec. Limit
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param		0.875 5-1) LCS Resu	Date A QC Pre	914 nalyzed eparatio Units	mg/Kg : 2007-02 n: 2007-02 Dil.	1 1 2-27 2-27 Spike Amount	1.00 1.00 Ma Re <0.0	93 88 strix sult	96 91 Anal Prep Rec.	77 78 yzed B ared By 76	9.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene		0.875 5-1) LCS Resu 0.976 0.966 0.949	Date A QC Pre	914 nalyzed eparatio Units ng/Kg ng/Kg	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1	1 1 2-27 2-27 Spike Amount 1.00 1.00 1.00	1.00 1.00 Ma Re <0.0 <0.0 <0.0	93 88 strix sult 00159 00220 00201	96 91 Anal Prep Rec. 98 97 95	77 78 yzed B ared By 76 77 75	<ul> <li>7: KB</li> <li>Rec.</li> <li>Limit</li> <li>3 - 117</li> <li>7.3 - 114</li> <li>6.4 - 115</li> </ul>
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene	pike (LCS	0.875 5-1) LCS Resu 0.977 0.967 0.949 2.80	Date A QC Pre	914 nalyzed eparatio <u>Units</u> ng/Kg ng/Kg ng/Kg ng/Kg	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1	1 1 2-27 2-27 Amount 1.00 1.00 1.00 3.00	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0	93 88 sult 00159 00220 00201 00176	96 91 Anal Prep Rec. 98 97 95 93	77 78 yzed B ared By 76 77 75	y: KB 7: KB Rec. Limit 5.3 - 117 7.3 - 114
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene	pike (LCS	0.875 5-1) LCS Resu 0.977 0.967 0.949 2.80	Date A QC Pre	914 nalyzed eparatio <u>Units</u> ng/Kg ng/Kg ng/Kg ng/Kg	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1	1 1 2-27 2-27 Amount 1.00 1.00 1.00 3.00	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0	93 88 sult 00159 00220 00201 00176	96 91 Anal Prep Rec. 98 97 95 93	77 78 yzed B ared By 76 77 75	<ul> <li>3.1 - 118</li> <li>y: KB</li> <li>r: KB</li> <li>Rec.</li> <li>Limit</li> <li>3.3 - 117</li> <li>7.3 - 114</li> <li>6.4 - 115</li> </ul>
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene	pike (LCS	0.875 5-1) LCS Resu 0.977 0.967 0.949 2.80 ike result. LCSD	Date A QC Pre	914 nalyzed eparatio <u>Units</u> ng/Kg ng/Kg ng/Kg ng/Kg	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 on the spike Spike	1 1 2-27 2-27 Amount 1.00 1.00 1.00 3.00 e and spike Matrix	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 88 90159 90220 90201 90176 2 result.	96 91 Anal Prep Rec. 98 97 95 93 Rec.	77 78 yzed By ared By 76 77 75 73	8.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117 7.3 - 114 6.4 - 115 8.2 - 112 RPD
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based Param	pike (LCS	0.875 5-1) LCS Resu 0.977 0.967 0.949 2.80 ike result. LCSD Result	Date A QC Pre	914 nalyzed eparatio ng/Kg ng/Kg ng/Kg based o Dil.	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 on the spike Amount	1 1 2-27 2-27 Amount 1.00 1.00 1.00 3.00 e and spike Matrix Result	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 88 00159 00220 00201 00176 2 result. F Li	96 91 Anal Prep Rec. 98 97 95 93 Rec. imit	77 78 yzed By ared By 76 77 75 73 8 RPD	8.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117 7.3 - 114 6.4 - 115 8.2 - 112 RPD Limit
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based Param Benzene	pike (LCS	0.875 5-1) 5-1) 0.976 0.966 0.949 2.800 ike result. LCSD Result 0.954	Date A QC Pre lt 3 n 7 n 9 n 0 n RPD is Units mg/Kg	914 nalyzed eparatio ng/Kg ng/Kg ng/Kg based o Dil.	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1 1 5 pike Amount 1.00	1 1 2-27 2-27 2-27 Spike Amount 1.00 1.00 1.00 3.00 2 and spike Matriz Result <0.0013	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 88 00159 00220 00201 00176 2 result. R Li 76.3	96 91 Anal Prep 8 97 95 93 Rec. imit - 117	77 78 yzed By ared By 76 77 75 73 73 <u>RPD</u> 2	8.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117 3.3 - 114 3.2 - 112 RPD Limit 20
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based Param Benzene Toluene Ethylonzene	pike (LCS	0.875 5-1) LCS Resul 0.976 0.949 2.80 ike result. LCSD Result 0.954 0.954 0.943	Date A QC Pre	914 nalyzed eparatio ng/Kg ng/Kg ng/Kg based c Dil. 1 1	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2-27 2-27 2-27 Spike Amount 1.00 1.00 1.00 3.00 2 and spike Matriz Result <0.001 <0.002	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 88 00159 00220 00201 00176 2 result. R Li 76.3 77.3	96 91 Anal Prep 8 97 95 93 Rec. imit - 117 - 114	77 78 yzed By ared By 76 77 75 73 73 <u>RPD</u> 2 2	x: KB x: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based Param Benzene	pike (LCS	0.875 5-1) 5-1) LCS Resul 0.977 0.967 0.944 2.80 ike result. LCSD Result 0.954 0.954 0.943 0.934	Date A QC Pre lt 3 n 7 n 9 n 0 n RPD is Units mg/Kg	914 nalyzed eparatio ng/Kg ng/Kg ng/Kg based c Dil. 1 1 1	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1 1 5 pike Amount 1.00	1 1 2-27 2-27 2-27 Spike Amount 1.00 1.00 1.00 3.00 2 and spike Matriz Result <0.0013	1.00 1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 4.trix sult 00159 00220 00201 00176 2 result. R Li 76.3 77.3 75.4	96 91 Anal Prep 8 97 95 93 Rec. imit - 117	77 78 yzed By ared By 76 77 75 73 73 <u>RPD</u> 2	8.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117 3.3 - 114 3.4 - 115 3.2 - 112 RPD Limit 20

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

Reid #1	, 2007		W		der: 70227 eid #1				0	umber: ddy Co	10 of 13 ounty,NM
		LCS	LCSD				pike	LCS	LCS	D	Rec.
Surrogate		Result					nount	Rec.	Rec		Limit
Trifluorotoluene (TFT)		1.01	0.993		g/Kg		.00	101	99		4.5 - 113
4-Bromofluorobenzene (4-E	SFB)	0.925	0.913	mį	g/Kg	1 1	.00	92	91	6	8.3 - 110
Laboratory Control Spi	ike (LCS-	1)									
QC Batch: 35086			Date Anal	vzed:	2007-02-	27			An	alyzed l	By: JS
Prep Batch: 30448			QC Prepa		2007-02-	27				pared I	-
		LCS				Spike	ſ	Matrix			Rec.
Param		Resul		nits	Dil.	Amoun		Result	Re	c.	Limit
Chloride		105	mg	/Kg	1	100		<3.25	10	5	90 - 110
Percent recovery is based o	on the spik	e result. F	PD is bas	ed on t	he spike a	nd spike o	luplicat	e result			
		LCSD			Spike	Matrix	:	1	Rec.		RPD
Param		Result	Units	Dil.	Amount	Result			imit	RPD	Limit
Chloride		105	mg/Kg	1	100	<3.25	105		- 110	0	20
QC Batch: 35064	Spiked Sa		7533 Date Analy QC Prepar		2007-02- 2007-02-					alyzed H pared H	-
QC Batch: 35064	Spiked Sa	]	Date Anal			27	М	atrix		-	
QC Batch: 35064 Prep Batch: 30431	Spiked Sa	]	Date Anal <u>y</u> QC Prepar	ation:				atrix esult		pared E	By: SP
QC Batch: 35064 Prep Batch: 30431 Param	Spiked Sa	MS	Date Anal <u>y</u> QC Prepar	ration: its	2007-02-	27 Spike	R		Pre	pared E	By: SP Rec. Limit
QC Batch: 35064 Prep Batch: 30431 Param DRO	-	MS Result 392	Date Analy QC Prepar t Un mg/	ration: its Kg	2007-02- Dil. 1	27 Spike Amount 250	R	esult 232	Pre Rec. 64	pared E	By: SP Rec. Limit
QC Batch: 35064 Prep Batch: 30431 Param DRO	-	MS Result 392	Date Analy QC Prepar t Un mg/	ration: its Kg	2007-02- Dil. 1	27 Spike Amount 250	R	esult 232 e result	Pre Rec. 64	pared E	By: SP Rec. Limit 7.5 - 127
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param	on the spik	MS Result 392 re result. F	Date Analy QC Prepar t Un mg/ RPD is bas	ration: its Kg	2007-02- Dil. 1 the spike a Spike Amount	27 Spike Amount 250 Ind spike of Matrix Result	R	esult 232 e result F	Pre Rec. 64	pared E	By: SP Rec. Limit 7.5 - 127 RPD
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param	on the spik	MS Result 392 e result. F MSD Result	Date Analy QC Prepar t Un mg/ RPD is bas	its Kg ed on t	2007-02- Dil. 1 .he spike a Spike	27 Spike Amount 250 Ind spike of Matrix	R luplicat	esult 232 e result F Li	Pre Rec. 64  Rec.	pared E	By: SP Rec. Limit 7.5 - 127 RPD
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO	on the spik	MS Result 392 e result. F MSD Result 401	Date Analy QC Prepar t Un mg/ RPD is bas Units mg/Kg	ation: its Kg ed on t Dil. 1	2007-02- Dil. 1 che spike a Spike Amount 250	27 Spike Amount 250 Ind spike of Matrix Result 232	R luplicat Rec. 68	esult 232 e result F Li 47.5	Pre <u>Rec.</u> 64  Rec. imit 5 - 127	pared E 4 RPD	By: SP Rec. Limit 7.5 - 127 RPD Limit
•	on the spik	MS Result 392 e result. F MSD Result 401	Date Analy QC Prepar t Un mg/ RPD is bas Units mg/Kg	ation: its Kg ed on t Dil. 1	2007-02- Dil. 1 che spike a Spike Amount 250	27 Spike Amount 250 Ind spike of Matrix Result 232	R luplicat Rec. 68 luplicat	esult 232 e result F Li 47.5	Pre <u>Rec.</u> 64  Rec. imit 5 - 127	pared E 4 RPD	By: SP Rec. Limit 7.5 - 127 RPD Limit
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO	on the spik	MS Result 392 e result. F MSD Result 401 e result. F	Date Analy QC Prepar t Un mg/ RPD is bas Units mg/Kg	ation: its Kg ed on t Dil. 1 ed on t	2007-02- Dil. 1 che spike a Spike Amount 250	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of	R luplicat Rec. 68 luplicat	esult 232 e result F Li 47.5 e result	Pre <u>Rec.</u> 64  Rec.  	pared E 4 RPD	By: SP Rec. Limit 7.5 - 127 RPD Limit 20
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate	on the spik	MS Result 392 e result. F MSD Result 401 e result. F MSD	Date Analy QC Prepar t Un RPD is bas Units mg/Kg RPD is bas	ation: its Kg ed on t Dil. 1 ed on t ts	2007-02- Dil. 1 Spike a Amount 250 the spike a	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of Spike	R luplicat Rec. 68 luplicat	esult 232 e result E Li 47.5 e result MS	Pre <u>Rec.</u> 64  Rec. imit 5 - 127  MSD	pared E 4 <u>RPD</u> 2	By: SP Rec. Limit 7.5 - 12 RPD Limit 20 Rec. Limit
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate n-Triacontane Matrix Spike (MS-1) QC Batch: 35083	on the spik on the spik MS Result 167	MS Result 392 e result. F MSD Result 401 e result. F MSD Result 166 ample: 117	Date Analy QC Prepar t Un RPD is bas Units mg/Kg RPD is bas Uni mg/I	ation: its Kg ed on t Dil. 1 ed on t ts Kg /zed:	2007-02- Dil. I Spike Amount 250 Che spike a Dil.	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of Spike Amount 150	R luplicat Rec. 68 luplicat	esult 232 e result E Li 47.5 e result MS Acc.	Pre Rec. 64  Rec. imit 5 - 127  MSD Rec. 111 Ana	pared E 4 <u>RPD</u> 2	By: SP Rec. Limit 7.5 - 127 RPD Limit 20 Rec. Limit 2.5 - 164 y: KB
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate n-Triacontane Matrix Spike (MS-1) QC Batch: 35083	on the spik on the spik MS Result 167	MS Result 392 e result. F MSD Result 401 e result. F MSD Result 166 ample: 117	Date Analy QC Prepar t Un RPD is bas Units mg/Kg RPD is bas Uni mg/I 7535 Date Analy	ation: its Kg ed on t Dil. 1 ed on t ts Kg /zed:	2007-02- Dil. 1 Spike Amount 250 che spike a Dil. 1 2007-02-:	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of Spike Amount 150	Rec. 68 luplicat	esult 232 e result 47.5 e result MS tec. 111	Pre Rec. 64  Rec. imit 5 - 127  MSD Rec. 111 Ana	Pared E 4 RPD 2 6	By: SP Rec. Limit 7.5 - 127 RPD Limit 20 Rec. Limit 2.5 - 164 y: KB y: KB
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate n-Triacontane Matrix Spike (MS-1) QC Batch: 35083	on the spik on the spik MS Result 167	MS Result 392 e result. F MSD Result 401 e result. F MSD Result 166 ample: 117	Date Analy QC Prepar t Un Mg/ RPD is bas Units mg/Kg RPD is bas Unit mg/I 7535 Date Analy QC Prepar	ration: its Kg ed on t Dil. 1 ed on t ts Kg vzed: ation:	2007-02- Dil. 1 Spike Amount 250 che spike a Dil. 1 2007-02-:	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of Spike Amount 150	Rec. 68 luplicat luplicat	esult 232 e result E Li 47.5 e result MS Acc.	Pre Rec. 64  Rec. imit 5 - 127  MSD Rec. 111 Ana	A RPD 2 6 lyzed B bared B	By: SP Rec. <u>Limit</u> 7.5 - 127 RPD <u>Limit</u> 20 Rec. <u>Limit</u> 2.5 - 164 y: KB

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

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49 mg esult. RP MS Result 0.930 1.15 ple: 11753 Da	g/Kg PD is base MSD Result 0.864 1.08		nt Resu <0.12 e and spik Dil. 1 1 202-27	lt Rec. 21 95	Rec. 40.7 - result. MS Rec. 93 115	it	34	RPI Lim 19.0 Rec. Limit .9 - 15 .5 - 15
sult         U           49         mg           result.         RP           MS         Result           0.930         1.15           ple:         11753           Da         QC	g/Kg PD is based MSD Result 0.864 1.08 35 35	Dil. Amoun 1 10.0 d on the spik Units mg/Kg mg/Kg 2007-0	nt Resu <0.12 e and spik Dil. 1 1 202-27	tt Rec. 21 95 e duplicate Spike Amount 1	Lim 40.7 - result. MS Rec. 93	iit 157 MSD Rec. 86	8	Lim 19. Rec. Limit .9 - 13
49 mg esult. RP MS Result 0.930 1.15 ple: 11753 Da QC	g/Kg PD is based MSD Result 0.864 1.08 35 35	1 10.0 d on the spik Units mg/Kg mg/Kg zed: 2007-0	<0.12 ie and spik Dil. 1 1 02-27	21 95 e duplicate Spike Amount 1	40.7 - result. MS Rec. 93	157 MSD Rec. 86	8	19. Rec. Limit .9 - 15
result. RP MS Result 0.930 1.15 ple: 11753 Da QC	D is base MSD Result 0.864 1.08 35 ate Analyz	Units mg/Kg mg/Kg zed: 2007-0	e and spik Dil. 1 1 02-27	e duplicate Spike Amount 1	result. MS Rec. 93	MSD Rec. 86	34	Limit .9 - 13
Result 0.930 1.15 ple: 11753 Da QC	Result 0.864 1.08 35 ate Analyz	mg/Kg mg/Kg zed: 2007-0	1 1 02-27	Amount 1	Rec. 93	Rec. 86	34	Limit .9 - 13
0.930 1.15 ple: 11753 Da QC	0.864 1.08 35 ate Analyz	mg/Kg mg/Kg zed: 2007-0	1 1 02-27	1	93	86	34	.9 - 18
1.15 ple: 11753 Da Q(	1.08 35 ate Analyz	mg/Kg zed: 2007-0	1					
ple: 11753 Da QC	35 ite Analyz	zed: 2007-0	)2-27	1	115	108	58	.5 - 18
Da Q(	ite Analyz							
QC								
-	C Prepara	tion: 2007-0				Analy	zed By	7: KI
MC			)2-27				ured By	
			Spike	Mat	riv			Rec.
Result	Units	Dil.	Amoun			Rec.		Limit
0.978	mg/K		1.00			98		.6 - 14
1.02			1.00			102		.4 - 13
1.11			1.00			111		8 - 14
3.32			3.00			111		.3 - 14
			: Resul	t Rec.	Lin	nit	RPD	RPI Lim
							5	20
)79 mg			< 0.002	20 98	45.4 -	128		
							4	20
06 mg	/Kg 1		< 0.002	01 106	48 -	141	5	20 20
06 mg 17 mg	/Kg 1	3.00	< 0.001	01 106 76 106	48 - 45.3 -	141		20 20
06 mg 17 mg result. RP	/Kg 1 D is base		< 0.001	01 106 76 106 e duplicate	48 - 45.3 - result.	141 142	5 5	20 20 20
06 mg 17 mg result. RP MS	/Kg 1 'D is base MSD	d on the spik	<0.001 a and spik	01 106 76 106 e duplicate Spike	48 - 45.3 - result. MS	141 142 MSD	5 5	20 20 20 Rec.
06 mg 17 mg result. RP	/Kg 1 D is base	3.00	< 0.001	01 106 76 106 e duplicate	48 - 45.3 - result.	141 142	5	20 20 20
5	1.02 1.11 3.32 esult. RF 5D ult Un 33 mg	1.02         mg/K           1.11         mg/K           3.32         mg/K           esult.         RPD is based           SD         ult         Units         Di           33         mg/Kg         1         1	$\begin{array}{ccccccc} 1.02 & mg/Kg & 1\\ 1.11 & mg/Kg & 1\\ 3.32 & mg/Kg & 1\\ \end{array}$ esult. RPD is based on the spike SD Spike ult Units Dil. Amount 33 mg/Kg 1 1.00	1.02mg/Kg1 $1.00$ $1.11$ mg/Kg1 $1.00$ $3.32$ mg/Kg1 $3.00$ esult. RPD is based on the spike and spikeSDSpikeMatriultUnitsDil.Amount $33$ mg/Kg1 $1.00$ <0.001		1.02         mg/Kg         1         1.00         <0.00220           1.11         mg/Kg         1         1.00         <0.00201	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.02       mg/Kg       1       1.00       <0.00220

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

Report Dat Reid #1	e: February 28,	2007			-	rder: 7022 teid #1	711	<u>.</u>	-	lumber: Eddy Cou	
matrix spike	es continued										
			MSD			Spike	Matrix		Rec.		RPD
Param			Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
			MSD			Spike	Matrix		Rec.		RPD
Param			Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		2	1770	mg/Kg	200	20000	<650	9	84.6 - 117	11	20
Percent reco	overy is based or	n the spi	ke result					plicate			
Standard	(ICV-1)										
QC Batch:	. ,			Date Ana	alyzed:	2007-02-2	27		An	alyzed B	y: SP
				ICVs	IC	Ve	ICVs		Percent		
				True	Foi		Percent		Recovery		Date
Param	Flag	Units		Conc.	Co		Recovery		Limits		alyzed
DRO	1 1008	mg/Kg	<u>r</u>	250	22		88		85 - 115		7-02-2
Standard						2007 00 0					0.0
QC Batch:	35064			Date Ana	alyzed:	2007-02-2	27		An	alyzed B	y: SP
				CCVs	CC		$\mathbf{CCVs}$		Percent		
<b>n</b>	-			True	For		Percent		Recovery		Date
Param	Flag	Units		Conc.		nc.	Recovery		Limits		alyzed
DRO		mg/Kg	5	250	22	28	91		85 - 115	200	7-02-2
Standard	(ICV-1)										
QC Batch:	35083			Date Ana	lyzed:	2007-02-2	7		Ana	lyzed By	: KB
				ICVs	IC	Vs	ICVs		Percent		
				True	Γοι	ind	Percent		Recovery		Date
Param	Flag	Units		Conc.	Co	nc.	Recovery		Limits	Аг	alyzed
GRO		mg/K	ξ	1.00	1.0	00	100		85 - 115	200	7-02-2
Standard	(CCV-1)										
QC Batch:	. ,			Date Ana	dyzed:	2007-02-2	7		Ana	lyzed By	·: KB
				CCVs	CC	ZVs	CCVs		Percent		
				True	Foi		Percent		Recovery		Date
Param	Flag	Units		Conc.	Co		Recovery		Limits		alyzed
GRO		mg/Kį	Ş	1.00	0.9	913	91		85 - 115		7-02-27
Standard	(ICV-1)										
	. ,			<b>D</b>			-				•••=
QC Batch:	35084			Date Ana	uyzed:	2007-02-2	1		Ana	lyzed By	: KB

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

Report Date: Fel Reid #1	bruary 28, 20	)07	Wo	rk Order: 7022 Reid #1		Page Number: 13 of 13 Eddy County,NM		
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: 350	184		Date Analyzed	: 2007-02-27		Anal	yzed By: KB
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	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

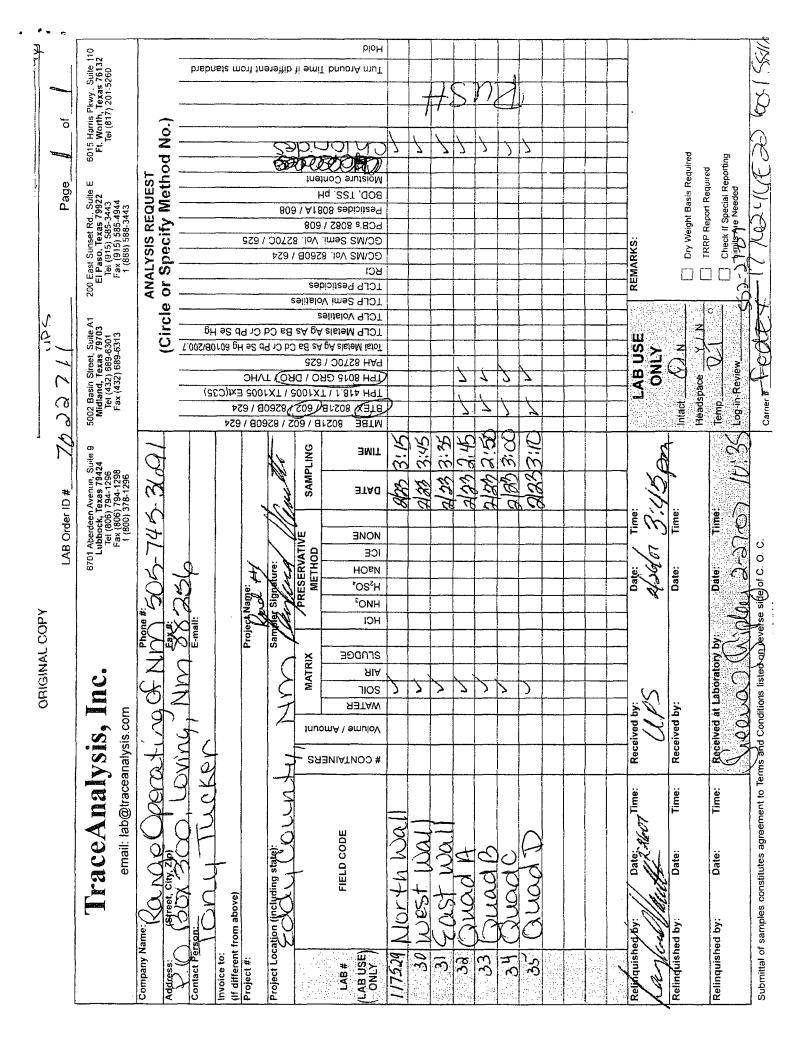
#### Standard (ICV-1)

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

### Standard (CCV-1)

•

QC Batch: 35086			Date Ana	lyzed: 2007-02	2-27	Analyzed By:		
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
118676	North Wall	soil	2007-03-09	13:00	2007-03-10
118677	East Wall	soil	2007-03-09	<b>13</b> :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	$\mathbf{Result}$	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 9 200 East-Sunset Road, Suite E 5002 Basin Street, Suite AT 5015 Harris Parkway, Suite 119 Ft. Worth, Texas 76132

Lubbock, Texas 79424 El Paso, Texas 79922 Midland, Texas 79703 E-Mail: lab@traceanalysis.com

800+378+1296 888+588+3443

806 • 794 • 1295 FAX 806 • 794 • 1298 915+585+3443 432 • 589 • 6301 817 • 201 • 5260

FAX 915+585+4944 FAX 432+589+6313

## 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.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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**

 ${\bf B}\,$  - The sample contains less than ten times the concentration found in the method blank.

Report Date: March 13, 2007	Work Order: 7031203	Page Number: 2 of 3
Reid #1	Reid #1	Eddy County,NM

## **Analytical Report**

#### Sample: 118676 - North Wall

Analysis:	Chloride (Titration)	Analytical Method	: SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35496	Date Analyzed:	2007-03-12	Analyzed By:	$\mathbf{SM}$
Prep Batch:	30788	Sample Preparatio	n: 2007-03-12	Prepared By:	$\mathbf{SM}$
		RL			
Parameter	$\mathbf{Flag}$	Result	Units	Dilution	RL
Chloride		423	mg/Kg	10	5.00

#### Sample: 118677 - East Wall

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35496 30788	Analytical Method: Date Analyzed: Sample Preparation	2007-03-12	Prep Method: Analyzed By: Prepared By:	SM
-		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		145	mg/Kg	10	5.00

#### Sample: 118678 - Floor Comp

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35496	Date Analyzed:	2007-03-12	Analyzed By:	SM
Prep Batch:	30788	Sample Preparation	2007-03-12	Prepared By:	SM
		RL			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		226	mg/Kg	4	5.00

#### Method Blank (1) QC Batch: 35496

QC Batch:	35496	Date Analyzed:	2007-03-12	Analyzed By:	$\mathbf{SM}$
Prep Batch:	30788	QC Preparation:	2007-03-12	Prepared By:	$\mathbf{SM}$

		MDL		
Parameter	Flag	Result	Units	$\mathbf{RL}$
Chloride		<3.25	mg/Kg	5

#### Laboratory Control Spike (LCS-1)

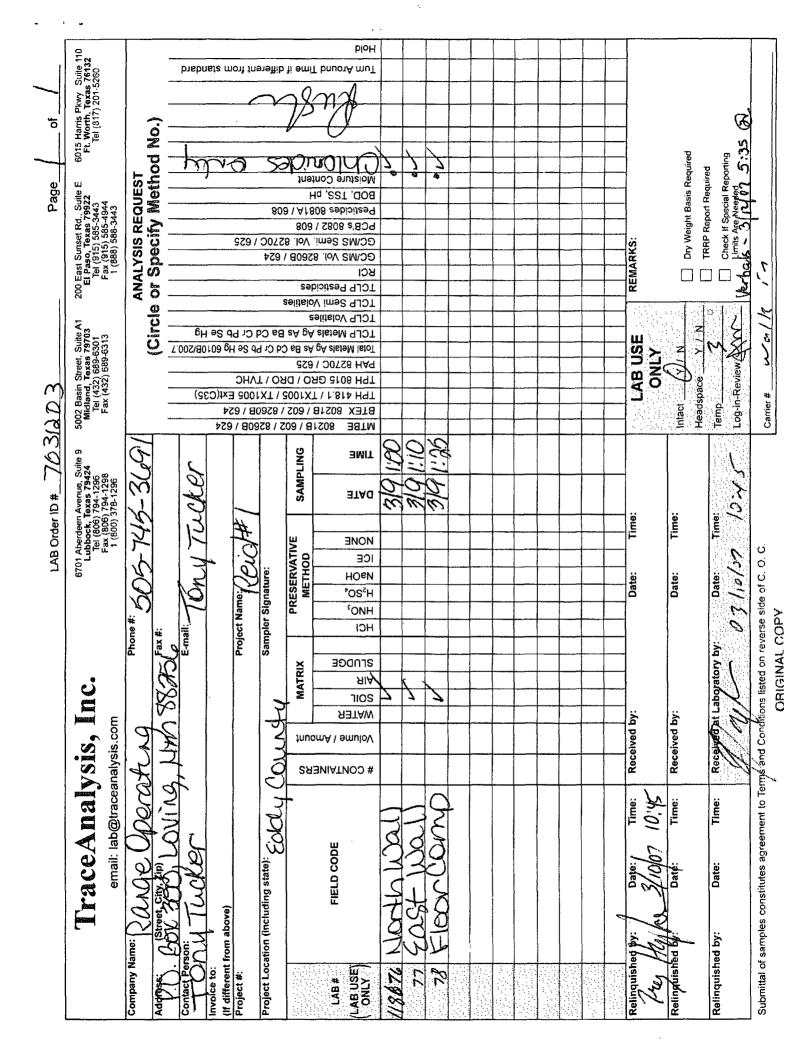
QC Batch:	35496	Date Analyzed:	2007-03-12	Analyzed By:	SM
Prep Batch:	30788	QC Preparation:	2007-03-12	Prepared By:	$\mathbf{SM}$

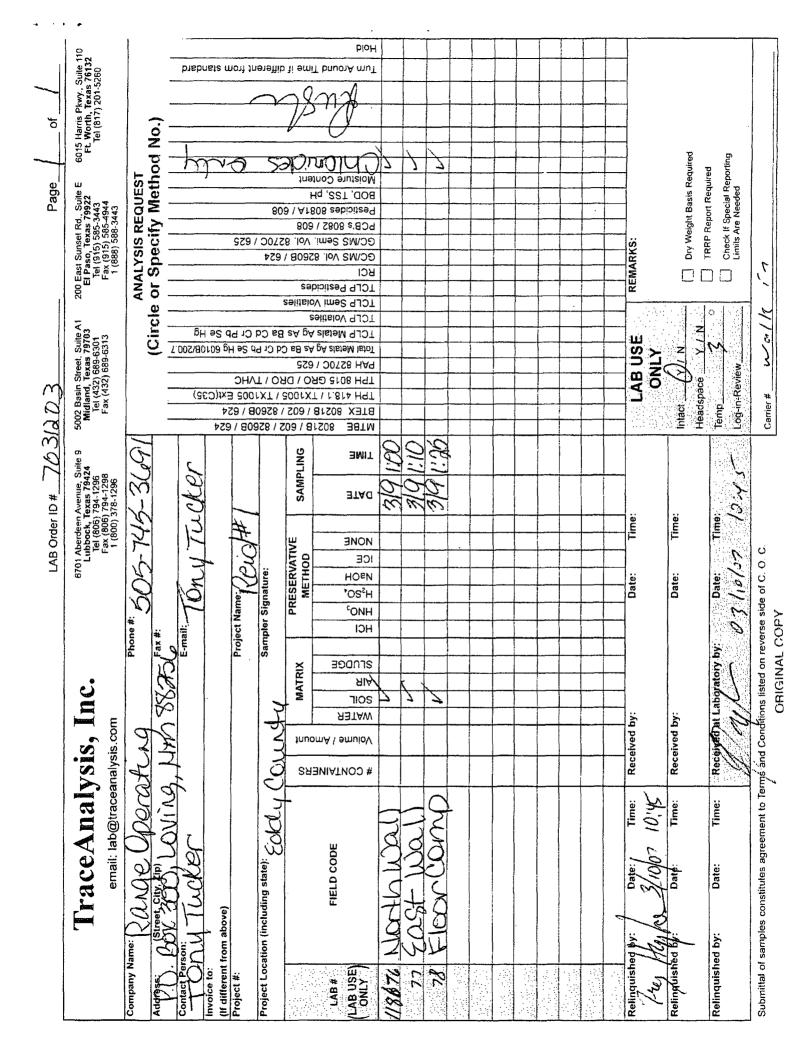
Reid #1	:: March 13, 2	2007			rder: 7031: eid #1	203		Pa		er: 3 of 3 ounty,NM
-			cs			Spike		atrix		Rec.
Param			sult	Units	Dil.	Amount			lec.	Limit
Chloride				mg/Kg	1	100	-		102	90 - 110
Percent recov	very is based	on the spike result.	RPD is I	based on	the spike a	ind spike du	plicate i	result.		
		LCSD			Spike	Matrix		Rec.		RPD
Param		$\mathbf{Result}$	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		101	mg/Kg	1	100	<3.25	101	90 - 110	1	20
Percent recov	very is based (	on the spike result.	RPD is l	based on	the spike a	nd spike du	plicate 1	esult.		
<b>Matrix Spil</b> QC Batch:	ke (MS-1) 35496	Spiked Sample: 1		ulwodu	2007-03-			۸	alyzed B	v: SM
Prep Batch:	30788		Date An OC Prei	paration:					epared B	-
		М	S			Spike	Mat	rix		Rec.
Param		Res		Units	Dil.	Amount	Res			Limit
Chloride		1 12	10 п	ng/Kg	10	1000	1131	.92 8	8	4.6 - 117
		-			_	_				
		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec.	RPD	RPD Limit
Chloride		Result 2 1210	mg/Kg	10	Amount 1000	Result 1131.92	8	Limit 84.6 - 117	RPD 0	
Chloride Percent recov Standard (1	CV-1)	Result	mg/Kg RPD is t	10 pased on	Amount 1000	Result 1131.92 nd spike du	8	Limit 84.6 - 117 result.		Limit 20
Chloride Percent recov Standard (1	CV-1)	Result 2 1210	mg/Kg RPD is t	10 pased on alyzed:	Amount 1000 the spike a	Result 1131.92 nd spike du	8	Limit 84.6 - 117 result.	0	Limit 20
Chloride Percent recov Standard (1	CV-1)	Result 2 1210	mg/Kg RPD is b Date An	10 pased on alyzed: IC	Amount 1000 the spike a 2007-03-1	Result 1131.92 nd spike du	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery	0 alyzed B	Limit 20 y: SM Date
Chloride Percent recov Standard (1 QC Batch: Param	CV-1)	Result <sup>2</sup> 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc.	10 pased on alyzed: IC For Cc	Amount 1000 the spike a 2007-03-12 2Vs und onc.	Result 1131.92 nd spike du ICVs Percent Recovery	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery Limits	0 alyzed B A	Limit 20 y: SM Date nalyzed
Chloride Percent recov Standard (1 QC Batch: Param	CV-1) 35496	Result <sup>2</sup> 1210 on the spike result.	mg/Kg RPD is b Date An ICVs True	10 pased on alyzed: IC For Cc	Amount 1000 the spike a 2007-03-12 2Vs und	Result 1131.92 nd spike du 2 ICVs Percent	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery	0 alyzed B A	Limit 20 y: SM Date nalyzed
Chloride Percent recov Standard (1 QC Batch: Param Chloride Standard (0	CV-1) 35496 Flag CCV-1)	Result <sup>2</sup> 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc. 100	10 pased on alyzed: IC For Cc	Amount 1000 the spike a 2007-03-12 2Vs und onc.	Result 1131.92 nd spike du ICVs Percent Recovery 102	8 plicate r	Limit 84.6 - 117 esult. An Percent Recovery Limits 85 - 115	0 alyzed B A	Limit 20 y: SM Date nalyzed 07-03-12
Chloride Percent recov Standard (1 QC Batch: Param Chloride Standard (0	CV-1) 35496 Flag CCV-1)	Result <sup>2</sup> 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc. 100 Date An	10 pased on alyzed: IC For Cc 10 alyzed:	Amount 1000 the spike a 2007-03-12 2Vs und onc. 02 2007-03-12	Result 1131.92 nd spike du ICVs Percent Recovery 102	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery Limits 85 - 115 An	0 alyzed B A 20	Limit 20 y: SM Date nalyzed 07-03-12
Chloride Percent recov Standard (1 QC Batch: Param Chloride Standard (0	CV-1) 35496 Flag CCV-1)	Result <sup>2</sup> 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc. 100 Date An CCVs	10 pased on alyzed: IC For Cc 10 alyzed: CC	Amount 1000 the spike a 2007-03-12 2Vs und onc. 02 2007-03-12 CVs	Result 1131.92 ICVs Percent Recovery 102 CCVs	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery Limits 85 - 115 An Percent	0 alyzed B A 20	Limit 20 y: SM Date nalyzed 07-03-12 y: SM
Param Chloride Percent recov Standard (1 QC Batch: Param Chloride Standard (0 QC Batch: QC Batch:	CV-1) 35496 Flag CCV-1)	Result <sup>2</sup> 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc. 100 Date An	10 pased on alyzed: IC For Cc 10 alyzed: CC For	Amount 1000 the spike a 2007-03-12 2Vs und onc. 02 2007-03-12	Result 1131.92 nd spike du ICVs Percent Recovery 102	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery Limits 85 - 115 An	0 alyzed B A 20 alyzed B	Limit 20 y: SM Date nalyzed 07-03-12

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<sup>&</sup>lt;sup>1</sup>Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control. <sup>2</sup>Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.





30-015-26528

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:

#### **<u>Reid Battery</u>**

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.

30-015-26522

- 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

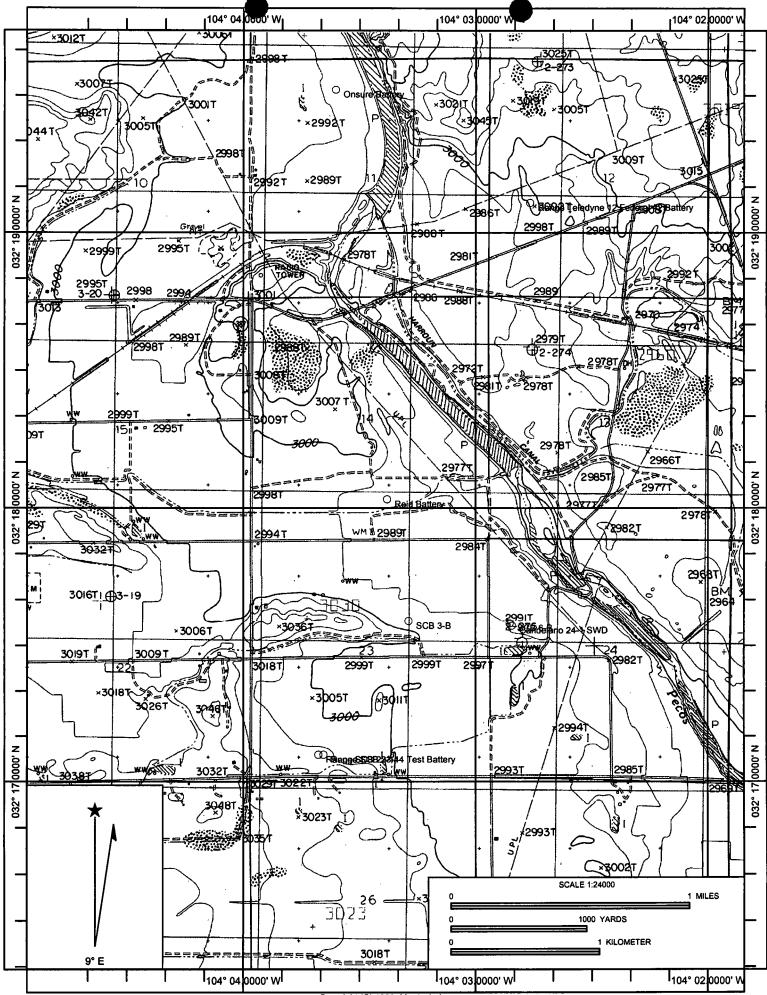
Imagod

30-015-26528

# **RANGE OPERATING NEW MEXICO, INC**

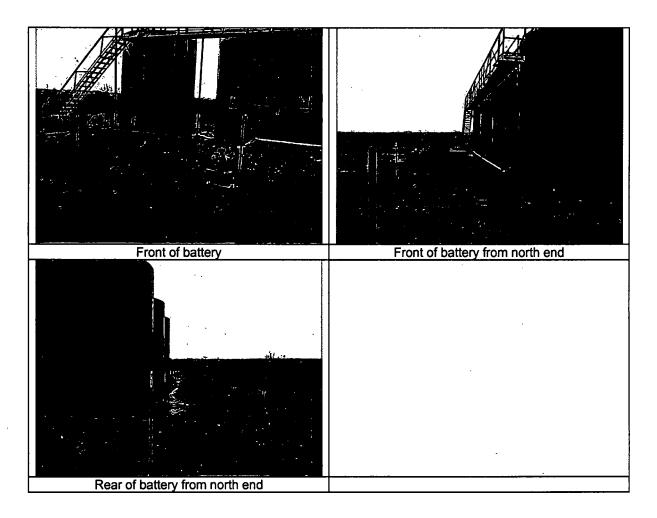
**Information and Metrics** 

· · · · · · · · · · · · · · · · · · ·		Information	and Metrics		
Incident Date: February 1	6,2006		NMOCD Notifie	d: Februa	ry 16, 2006
Site: Reid Battery			Assigned Site Re	ference #	:
Company: Range Operati	ng New M	lexico, Inc.			
Street Address: 777 Main	Street Sui	ite 800			
Mailing Address: 777 Ma	in Street	Suite 800			
City, State, Zip: Ft. Worth	h, TX 761	02			
Representative: George T					
<b>Representative Telephone</b>	e: (817) 8	70-2601			
Fluid volume released (bt	ols): 58		Recovered (bbls)	: 58	
		<b>10CD</b> verbally within	24 hrs and submit form		hin 15 days.
	(Also		d releases >500 mcf N		
			form C-141 within 15 a	lays	
Leak, Spill, or Pit (LSP) N				,	
Source of contamination:			<u> </u>		
Land Owner, i.e., BLM, S		ther: Johnny & Ja	ckie L Reid		
LSP Dimensions: 107' X C					
LSP Area: Bases of north					
Location of Reference Po					
Location distance and dir	ection fro	om RP: NA			
Latitude: N 32° 18.021'					
Longitude: W 104° 2.839'					
Elevation above mean sea	level: 29	91' per USGS Map	)		
Location- Unit or ¼ ¼: N	W/4 NW/	4 of Sec. 24	Unit Letter: O		
Location Section: 14					
Location- Township: 23S					
Location Range: 28E					
Surface water body within	n 1000' ra	adius of site: No .3	000 feet per USGS	Мар	
Domestic water wells with				<b>k</b>	
Agricultural water wells					
Depth from land surface				on relation	ship to Pecos River
Depth of contamination (					
Depth to ground water (D		= DtGW): 44'			
1. Ground water		· · · · · · · · · · · · · · · · · · ·	Protection Area	3. Dist	ance to Surface Water Body
If Depth to GW <50 feet: 20 point	nts	If <1000' from water			zontal feet: 20 points
If Depth to GW 50 to 99 feet: 10		from private domesti			orizontal feet: 10 points
	, hours	points		200-1001	ionzontal leet. To points
ISD at a OWN 100 Section	4.	If >1000' from water		> 1000 1	
If Depth to GW >100 feet: 0 point	nts	from private domesti points	c water source: 0	>1000 no:	rizontal feet: 0 points
Ground Water Score = 20		Wellhead Protection	Area Score = 20	Surface V	/ater Score = 0
Site Rank $(1+2+3) = 40$					
	Total S	Site Ranking Score an	d Acceptable Concent	trations	
Parameter		12	10-19		0-9
Benzene	ļ	$f(0) = \eta_{g} \cdot \eta$	10 ppm		10 ppm
BTEX		(1)3 - 3j + 1 6/103 - 4 - 4	50 ppm		50 ppm
ТРН		- 0.00 j ( 1. s u	] 1,000 ppm		5,000 ppm



Copyright (C) 1999, Maptech, Inc.

Reid Battery Spill Site Photographs



## Bratcher, Mike, EMNRD

From:	Greg Swindle [greg@wbesi.com]
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- 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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information, or both. It is intended only for its addressee(s). If you are not an addressee, then any disclosure, dissemination, copying, or other use of it (including any attached documents) is prohibited. If you receive this e-mail in error, please notify us promptly by e-mail reply, and then delete and destroy all electronic and printed copies of this message and any attached documents. We appreciate your cooperation. Report Date: February 12, 2007

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# Summary Report

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 Tony Tucker
 Report Date: February 12, 2007

 Range Operating New Mexico Inc.
 Work Order: 7021113

 P.O. Box 300
 Work Order: 7021113

 Loving, NM, 88256
 SOCISS 26538

 Project Location:
 Eddy County,NM

 Project Name:
 Eddy County,NM

			$\operatorname{Date}$	Time	Date
Sample	Description	Matrix	Taken	Taken	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 9 155 McCutcheon, Suite H Lubbock, Texas 79424 800•378•1296 El Paso, Texas 79932 888•588•3443 E-Mail lab@traceanalysis.com

806•794•1296 FAX 806•794•1298 915•585•3443 FAX 915•585•4944

# **Analytical and Quality Control Report**

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

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Report Date: February 12, 2007

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Work	Order:	/021113

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

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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.

Michael ale

Dr. Blair Leftwich, Director

**Standard Flags** 

 ${\bf B}\,$  - The sample contains less than ten times the concentration found in the method blank.

Report Date: February 12, 2007 Reid #1

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# **Analytical Report**

Sample: 116									
Analysis:	Chloride (Titratio	n)	Analytical Me		I 4500-Cl B			Prep Metho	
QC Batch:	34557		Date Analyze		07-02-12			Analyzed E	
Prep Batch:	29990		Sample Prepa	ration: 200	07-02-12			Prepared B	y: SM
Descuentes			RL		•,	D	•1 .4		ы
Parameter Chloride	Fla	<u>g</u>	Result 197	Ur mg/	nits Ka	D	ilution 10		RL 5.00
			177	ing/	ng		10		5.00
Method Bla	nk (1) QC Bate	h: 34557							
QC Batch:	34557		Date Analyzed:	2007-02-1	2			Analyzed E	y: ER
Prep Batch:	29990		QC Preparation:	2007-02-1	2			Prepared B	-
			М	IDL					
Parameter	<u> </u>	Flag		sult		Units			RL
Chloride			<3	3.25		mg/Kg	3		5
QC Batch:	Control Spike (LC 34557	CS-1)	Date Analyzed:	2007-02-1				Analyzed B	•
QC Batch:	-	CS-1)	Date Analyzed: QC Preparation:	2007-02-1 2007-02-1				Analyzed E Prepared B	•
Laboratory QC Batch: Prep Batch:	34557	2 <b>S-1</b> ) LC	QC Preparation:			Matri	ix	•	•
QC Batch: Prep Batch: Param	34557	LC: Rest	QC Preparation: S alt Units		2 Spike Amount	Resu	lt	Prepared B Rec.	y: SM Rec. Limit
QC Batch: Prep Batch: Param	34557	LC	QC Preparation: S ult Units	2007-02-1	2 Spike		lt	Prepared B	y: SM Rec.
QC Batch: Prep Batch: Param Chloride	34557 29990	LC Resu 99.	QC Preparation: S alt Units	2007-02-1 Dil.	2 Spike Amount 100	Resu <3.2	lt	Prepared B Rec.	y: SM Rec. Limit
QC Batch: Prep Batch: Param Chloride	34557 29990	LC Resu 99.	QC Preparation: S alt Units 9 mg/Kg	2007-02-1 Dil.	2 Spike Amount 100	Resu <3.2	lt	Prepared B Rec.	y: SM Rec. Limit
QC Batch: Prep Batch: Param Chloride Percent recov Param	34557 29990	LC Rest 99. spike result. RP LCSD Result	QC Preparation: S ult Units 9 mg/Kg D is based on the sp Units Dil.	2007-02-1 Dil. I ike and spike Spike Amount	2 Spike Amount 100 e duplicate re Matrix Result	Resu <3.2 esult. Rec.	lt 5 Rec. Limit	Prepared B Rec. 100	y: SM Rec. <u>Limit</u> 90 - 110 RPD Limit
QC Batch: Prep Batch: Param Chloride Percent recov Param	34557 29990	LC Rest 99. spike result. RPI LCSD	QC Preparation: S ult Units 9 mg/Kg D is based on the sp	2007-02-1 Dil. I ike and spike Spike	2 Spike Amount 100 e duplicate re Matrix	Resu <3.2 esult.	lt 5 Rec.	Prepared B Rec. 100	y: SM Rec. Limit 90 - 110 RPD
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride	34557 29990 very is based on the	LC Resu 99. spike result. RP LCSD Result 101	QC Preparation: S alt Units 9 mg/Kg D is based on the sp Units Dil.	2007-02-1 Dil. I ike and spike Spike Amount 100	2 Spike Amount 100 e duplicate re Matrix Result <3.25	Resu <3.2 esult. Rec. 101	lt 5 Rec. Limit	Prepared B Rec. 100	y: SM Rec. <u>Limit</u> 90 - 110 RPD Limit
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride Percent recov	34557 29990 very is based on the very is based on the	LC Resu 99. spike result. RP LCSD Result 101	QC Preparation: S alt Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp	2007-02-1 Dil. I ike and spike Spike Amount 100	2 Spike Amount 100 e duplicate re Matrix Result <3.25	Resu <3.2 esult. Rec. 101	lt 5 Rec. Limit	Prepared B Rec. 100	y: SM Rec. Limit 90 - 110 RPD Limit
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride	34557 29990 very is based on the very is based on the	LC Resu 99. spike result. RP LCSD Result 101 spike result. RP	QC Preparation: S alt Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp	2007-02-1 Dil. I ike and spike Spike Amount 100	2 Spike Amount 100 e duplicate re Matrix Result <3.25 e duplicate re	Resu <3.2 esult. Rec. 101	lt 5 Rec. Limit	Prepared B Rec. 100	y: SM Rec. Limit 90 - 110 RPD Limit 20
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride Percent recov Matrix Spika QC Batch:	34557 29990 very is based on the very is based on the e (MS-1) Spiked	LC Resu 99. spike result. RP LCSD Result 101 spike result. RP	QC Preparation: S ult Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp	2007-02-1 Dil. I ike and spike Amount 100 ike and spike	2 Spike Amount 100 e duplicate re Matrix Result <3.25 e duplicate re	Resu <3.2 esult. Rec. 101	lt 5 Rec. Limit	Prepared B Rec. 100 t RPD 10 1	y: SM Rec. Limit 90 - 110 RPD Limit 20 Sy: ER
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride Percent recov Matrix Spika QC Batch:	34557 29990 /ery is based on the /ery is based on the e (MS-1) Spiked 34557	LC Resu 99. spike result. RP LCSD Result 101 spike result. RP	QC Preparation: S ult Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp D is based on the sp	2007-02-1 Dil. I ike and spike Amount 100 ike and spike 2007-02-1	2 Spike Amount 100 e duplicate re Matrix Result <3.25 e duplicate re	Resu <3.2 esult. Rec. 101	lt 55 Rec. Limit 90 - 11	Prepared B Rec. 100 RPD 0 1 Analyzed E Prepared B	y: SM Rec. Limit 90 - 110 RPD Limit 20 Sy: ER y: SM Rec.
QC Batch: Prep Batch: Param Chloride Percent recov Param Chloride Percent recov Matrix Spike	34557 29990 /ery is based on the /ery is based on the e (MS-1) Spiked 34557	LC Resu 99. spike result. RPI LCSD Result 101 spike result. RPI Sample: 116102	QC Preparation: S 11 Units 9 mg/Kg D is based on the sp Units Dil. mg/Kg 1 D is based on the sp Date Analyzed: QC Preparation: It Units	2007-02-1 Dil. I ike and spike Amount 100 ike and spike 2007-02-1	2 Spike Amount 100 e duplicate re Matrix Result <3.25 e duplicate re	Resu <3.2 esult. Rec. 101 esult.	lt 55 Rec. Limit 90 - 11	Prepared B Rec. 100 t RPD 0 1 Analyzed E Prepared B Rec.	y: SM Rec. Limit 90 - 110 RPD Limit 20 By: ER y: SM

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

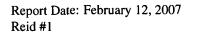
<sup>&</sup>lt;sup>1</sup>Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Report Dat Reid #1	e: February 12, 2	007		Work	Order: 7021 Reid #1	113	<del>.</del>		ge Numbe Eddy Cor	
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 reco	overy is based on	the spike result. F	RPD is based	l on the s	pike and spil	ke duplicate r	esult.			
Standard (	<b>ICV-</b> 1)									
orundur u (										
QC Batch:	34557		Date A	nalyzed:	2007-02-1	2		An	alyzed B	y: ER
			ICVs	Ι	CVs	ICVs		Percent		
			True	F	ound	Percent		Recovery		Date
Param	Flag	Units	Conc.	0	Conc.	Recovery		Limits		alyzed
Chloride		mg/Kg	100		99.5	100		85 - 115	200	7-02-12
Standard (	CCV-1)									
QC Batch:	34557		Date A	nalyzed:	2007-02-1	2		An	alyzed B	y: ER
			CCVs	C	CCVs	CCVs		Percent		
			True	F	ound	Percent		Recovery	]	Date
Param	Flag	Units	Conc.	C	Conc.	Recovery		Limits	An	alyzed
Chloride		mg/Kg	100		100	100		85 - 115	200	7-02-12

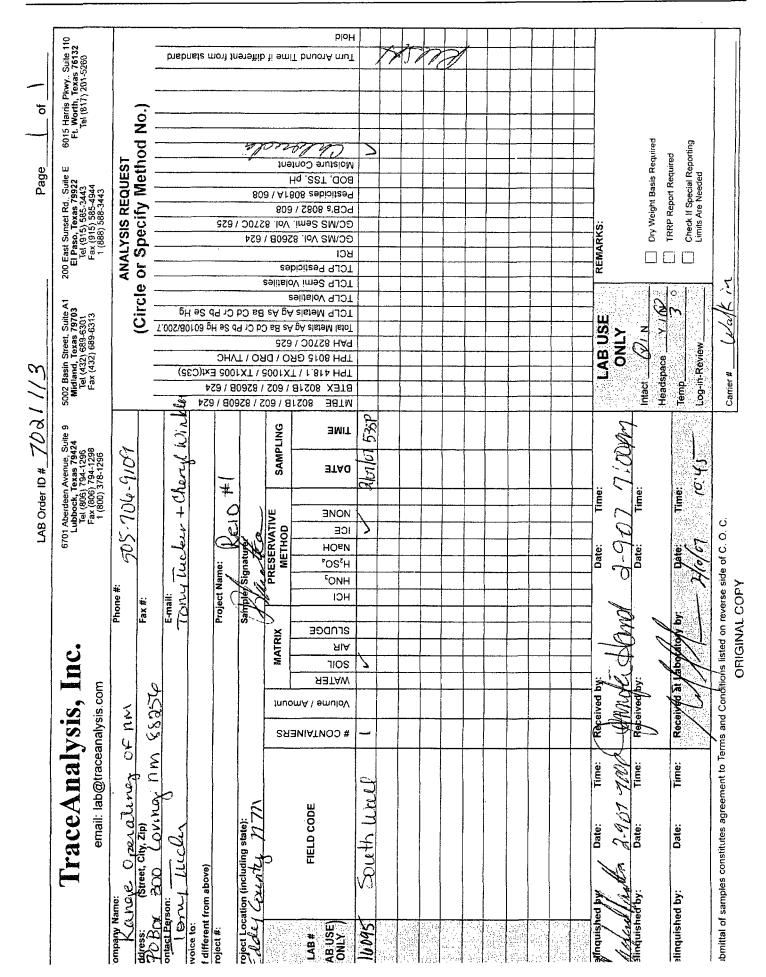
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<sup>&</sup>lt;sup>2</sup>Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.



#### Work Order: 7021113 Reid #1



Report Date: February 28, 2007

# **Summary Report**

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

Report Date: February 28, 2007

Work Order: 7022711 

Reid #1 Project Name:

Project Location: Eddy County,NM 30-015-26528

_			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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

		]	BTEX		MTBE	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	MTBE	DRO	GRO	
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(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	$\mathbf{Result}$	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

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296 This is only a summary. Please, refer to the complete report package for quality control data.

Report Date: February 28, 2007		Work Order: 7022711 Reid #1		Page Number: 2 of 2 Eddy County,NM
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	$\mathbf{RL}$
Chloride		971	mg/Kg	5.00
Sample: 117535	- Quad D			
Param	Flag	Result	Units	$\mathbf{RL}$
Chloride		719	mg/Kg	5.00

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206 • 794 • 1296 800+378+12%6 383•548•3443 \$15+535+3443 402+609+6301 517+20 +5269

HAX 866+794+1298 FAX 915+65+4944 FAX 432 +623+6313

# Analytical and Quality Control Report

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

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.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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.

Michael 4

Dr. Blair Leftwich, Director

**Standard Flags** 

 ${\bf B}$  - The sample contains less than ten times the concentration found in the method blank.

Report Date: February 28, 2007

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Work Order: 7022711 

# **Analytical Report**

## Sample: 117529 - North Wall

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2007-02-27 2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
		RL			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		1180	mg/Kg	20	5.00

## Sample: 117530 - West Wall

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Method Date Analyzed: Sample Preparatio	2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
		RL	<b>**</b>		D.
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		572	mg/Kg	10	5.00

#### Sample: 117531 - East Wall

Analysis: QC Batch:	Chloride (Titration) 35086	Analytical Method Date Analyzed:	: SM 4500-Cl B 2007-02-27	Prep Method: Analyzed By:	
Prep Batch:	30448	Sample Preparation	n: 2007-02-27	Prepared By:	$\mathbf{SM}$
		$\mathbf{RL}$			
Parameter	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		1330	mg/Kg	20	5.00

#### Sample: 117532 - Quad A

Analysis: QC Batch: Prep Batch:	BTEX 35084 30441		Analytical M Date Analyz Sample Prep	ed:	S 8021B 2007-02-27 2007-02-27		Prep Met Analyzed Prepared	By: KB
			$\mathbf{RL}$					
Parameter	F	ag	$\mathbf{Result}$		Units		Dilution	$\mathbf{RL}$
Benzene			< 0.0100		mg/Kg		1	0.0100
Toluene			< 0.0100		mg/Kg		1	0.0100
Ethylbenzen	е		< 0.0100		mg/Kg		1	0.0100
Xylene			< 0.0100		mg/Kg_		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	g Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.990	mg/Ka	ş 1	1.00	99	52.1 - 131
4-Bromofluor	obenzene (4-BFB	5)	1.05	mg/Kg	g <u>1</u>	1.00	105	48.7 - 146

## Sample: 117532 - Quad A

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Metho Date Analyzed: Sample Preparat	2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
		$\operatorname{RL}$			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		959	mg/Kg	10	5.00

## Sample: 117532 - Quad A

Analysis: QC Batch: Prep Batch:	TPH DRO 35064 30431		Analytical Me Date Analyzee Sample Prepa	d: 2007-	8015B 02-27 02-27	Analyz	fethod: N/A ed By: SP ed By: SP
Parameter	Flag	5	RL Result		nits	Dilution	RL
DRO			413	mg	/Kg	1	50.0
		<b>_</b> .			Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontan	e	175	mg/Kg	1	150	117	62.5 - 164

## Sample: 117532 - Quad A

Analysis: QC Batch: Prep Batch:	TPH GRO 35083 30441		Analytical Date Anal Sample Pr		S 8015B 2007-02-27 2007-02-27		Prep Meth Analyzed Prepared 1	By: KB
			$\mathbf{RL}$					
Parameter	Flag		Result		Units	D	vilution	$\mathbf{RL}$
GRO			13.1		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.955	mg/Kg	1	1.00	96	33.2 - 160
4-Bromofluor	obenzene (4-BFB)		1.26	mg/Kg	1	1.00	126	10 - 227

#### Sample: 117533 - Quad B

Analysis: QC Batch: Prep Batch:	BTEX 35084 30441		Analytical Method: Date Analyzed: Sample Preparation:	S 8021B 2007-02-27 2007-02-27	Prep Method: Analyzed By: Prepared By:	
			$\mathbf{RL}$			
Parameter		Flag	Result	Units	Dilution	$\mathbf{RL}$
Benzene			< 0.0100	mg/Kg	1	0.0100
Toluene			< 0.0100	mg/Kg	1	0.0100
Ethylbenzen	e		<0.0100	mg/Kg	1	0.0100
					continued	

continued ...

#### sample 117533 continued ...

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			$\mathbf{RL}$					
Parameter	Flag		Result		$\mathbf{Units}$	Di	ilution	$\mathbf{RL}$
Xylene			< 0.0100		mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	Result	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.01	mg/Kg	1	1.00	101	52.1 - 131
4-Bromofluorobenzene (4-BI	FB)		1.02	mg/Kg	1	1.00	102	48.7 - 146

## Sample: 117533 - Quad B

oride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
86	Date Analyzed:	2007-02-27	Analyzed By:	JS
48	Sample Preparation:	2007-02-27	Prepared By:	SM
	RL			
$\mathbf{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
	<b>628</b>	mg/Kg	10	5.00
	86 48	86 Date Analyzed: 48 Sample Preparation: RL Flag Result	86 Date Analyzed: 2007-02-27 48 Sample Preparation: 2007-02-27 RL Flag Result Units	86 Date Analyzed: 2007-02-27 Analyzed By: 48 Sample Preparation: 2007-02-27 Prepared By: RL Flag Result Units Dilution

## Sample: 117533 - Quad B

n-Triacontan	e	181	mg/Kg	1	150	121	62.5 - 164
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
DRO			232	mg	/Kg	1	50.0
Parameter	Fla	g	RL Result	U	nits	Dilution	RL
Analysis: QC Batch: Prep Batch:	TPH DRO 35064 30431		Analytical Me Date Analyze Sample Prepa	d: 2007	8015B -02-27 -02-27	Analyz	fethod: N/A ed By: SP ed By: SP

## Sample: 117533 - Quad B

Analysis: QC Batch: Prep Batch:	TPH GRO 35083 30441		Analytical Date Anal Sample Pr		S 8015B 2007-02-27 2007-02-27		Prep Meth Analyzed Prepared 1	By: KB
			$\mathbf{RL}$					
Parameter	$\mathbf{Flag}$		$\mathbf{Result}$		Units	D	ilution	$\mathbf{RL}$
GRO			2.39		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.980	mg/Kg	1	1.00	98	33.2 - 160
4-Bromofluor	robenzene (4-BFB)		1.04	mg/Kg	1	1.00	104	10 - 227

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Page 1	Numl	ber:	5 of	13
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## Sample: 117534 - Quad C

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Analysis: QC Batch: Prep Batch:	BTEX 35084 30441		Analytical M Date Analyz Sample Prep	ed:	S 8021B 2007-02-27 2007-02-27	Prep Metho Analyzed B Prepared B		By: KB
			$\mathbf{RL}$					
Parameter	Fla	g	Result		Units	J	Dilution	$\mathbf{RL}$
Benzene			< 0.0100		mg/Kg		1	0.0100
Toluene			< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	9		< 0.0100		mg/Kg		1	0.0100
Xylene			< 0.0100		mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		$\mathbf{F}$ lag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.00	mg/Kg	; 1	1.00	100	52.1 - 131
4-Bromofluor	obenzene (4-BFB)		1.03	mg/Kg	; 1	1.00	103	48.7 - 146

# Sample: 117534 - Quad C

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2007-02-27 2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
		RL			
Parameter	$\mathbf{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
Chloride		971	mg/Kg	10	5.00

## Sample: 117534 - Quad C

Analysis: QC Batch: Prep Batch:	TPH DRO 35064 30431		Analytical Me Date Analyze Sample Prepa	ed:	Mod. 8 2007-02 2007-02	-27	Prep Metho Analyzed By Prepared By		N/A SP SP
Parameter	Fla	Ŧ	RL Result		Unit		Dilution		$\mathbf{RL}$
DRO	Fla	5	<50.0		mg/K		1		50.0
Surrogate	Flag	Result	Units	Dilut		Spike Amount	Percent Recovery		overy mits
n-Triacontan	e	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 ....

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Parameter	Flag		RL Result		Units	D	vilution	RL
			RL					
Parameter	Flag		Result		Units	D	vilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (T	TFT)		0.964	mg/Kg	1	1.00	96	33.2 - 160
4-Bromofluorobenz	ene (4-BFB)		1.02	mg/Kg	1	1.00	102	10 - 227

## Sample: 117535 - Quad D

Analysis: QC Batch: Prep Batch:	BTEX 35084 30441		Analytical M Date Analyz Sample Prep	ed:	S 8021B 2007-02-27 2007-02-27		Prep Meth Analyzed I Prepared I	By: KB
			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		Units	D	ilution	$\mathbf{RL}$
Benzene			< 0.0100		mg/Kg		1	0.0100
Toluene			< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	e		< 0.0100		mg/Kg		1	0.0100
Xylene			< 0.0100		mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.10	mg/Kg	g 1	1.00	110	52.1 - 131
4-Bromofluor	robenzene (4-BFB)		1.13	mg/Kg	g 1	1.00	113	48.7 - 146

## Sample: 117535 - Quad D

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35086 30448	Analytical Method: Date Analyzed: Sample Preparation	SM 4500-Cl B 2007-02-27 : 2007-02-27	Prep Method: Analyzed By: Prepared By:	JŚ
_		RL		<b></b>	
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
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 ...

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Parameter	Fla	g	RL Result	Uni	ts	Dilution	RL
			$\operatorname{RL}$				
Parameter	Fla	g	Result	Uni	ts	Dilution	$\mathbf{RL}$
DRO			<50.0	mg/ŀ	íg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		173	mg/Kg	1	150	115	62.5 - 164

#### Sample: 117535 - Quad D

Analysis: QC Batch: Prep Batch:	TPH GRO 35083 30441		Analytical Date Anal Sample Pr		S 8015B 2007-02-27 2007-02-27		Prep Meth Analyzed Prepared I	By: KB
			$\mathbf{RL}$					
Parameter	$\mathbf{Flag}$		$\mathbf{Result}$		$\mathbf{Units}$	D	ilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg	·	1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		1.06	mg/Kg	1	1.00	106	33.2 - 160
4-Bromofluor	robenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	10 - 227

## Method Blank (1) QC Batch: 35064

QC Batch: Prep Batch:	35064 30431		Date Analyze QC Preparati				vzed By: SP ared By: SP
				MDL			
Parameter		Flag		$\mathbf{Result}$	τ	Jnits	$\mathbf{RL}$
DRO				<10.7	m	g/Kg	50
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	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
			M	DL			
Parameter		Flag	Res	sult	Units		$\mathbf{RL}$
GRO			<0.	121	mg/Kg		1

Report Date: February 28, 2007 Reid #1		Work Order Reid	Page Number: 8 of 13 Eddy County,NM				
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 Ana QC Prepa	5	07-02-27 07-02-27		Analyz Prepare	•
			MD	L			
Parameter	Flag		Resul	t	Unit	S	$\mathbf{RL}$
Benzene			< 0.0015	9	mg/I	ζg	0.01
Toluene			< 0.0022	0	mg/I	Χg	0.01
Ethylbenzene			< 0.0020	1	mg/ł	Χġ	0.01
Xylene			<0.0017	6	mg/H	0.01	
					Spike	Percent	Recovery
Surrogate	Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.949	mg/Kg	1 1	1.00	95	73.2 - 113
4-Bromofluorobenzene (4-BFB)		0.680	mg/Kg	1	1.00	68	54 - 102

Method Blank (1) Q	C Batch: 35086
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QC Batch: Prep Batch:	35086 30448		Date Analyzed: QC Preparation:			Analyzed By: Prepared By:	
			MI	DL			
Parameter		Flag	Res	ult	Units		$\mathbf{RL}$
Chloride			<3.	25	mg/Kg		5

## Laboratory Control Spike (LCS-1)

QC Batch: 35064 Prep Batch: 30431		te Analyzed: C Preparation:	2007-02- 2007-02-				alyzed B pared B	•
Param	LCS Result	Units	Dil.	Spike Amount	Mati Resu			Rec. Limit
DRO	206	mg/Kg	1	250	<10	0.7 82	64	.1 - 124
Percent recovery is based on t	-	D is based on	-	-	iplicate r			<b>6</b> .0.0
	LCSD		Spike	Matrix		Rec.		RPD
Param	Result U	nits Dil.	$\mathbf{Amount}$	$\mathbf{Result}$	Rec.	Limit	RPD	Limit
DRO	221 mg	g/Kg 1	<b>25</b> 0	<10.7	88	64.1 - 124	7	20
Percent recovery is based on t	the spike result. RP	D is based on	the spike a	and spike du	uplicate r	esult.		

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continued ...

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control spikes continued.	••										
	LCS	LCSD				Spike	LC		LCSD		Rec.
Surrogate	Result	Result	. 1	Units	Dil.	Amoun	t Re	ec.	Rec.		Limit
	LCS	LCSD				Spike	LC	2°	LCSD		Rec.
Surrogate	Result	Result		Units	Dil.	Amoun			Rec.		Limit
n-Triacontane	146	153		ng/Kg	1	150	9		102		2.5 - 164
	110	100			1	100	0		102		
Laboratory Control Sp	pike (LCS	5-1)									
QC Batch: 35083			Date A	nalyzed	: 2007-02	2-27			Anal	yzed By	y: KB
Prep Batch: 30441				eparatio		2-27				ared By	
-			-	-					-	-	
		LCS				Spike		atrix			Rec.
Param		Resu		Units	Dil.	Amour		esult	Rec.		Limit
GRO		9.1'	71	mg/Kg	1	10.0	(	).121	92	79	).6 - 113
Percent recovery is based	on the spi	ike result.	RPD is	based o	on the spike	and spike	duplicate	e result.			
		LCSD			Spike	Matri	x	R	.ec.		RPD
Param		Result	Units	Dil.	Amount				mit	RPD	Limit
GRO		9.47	mg/Kg	( 1	10.0	< 0.12		79.6	- 113	3	20
Percent recovery is based	on the spi				on the spike	and spike	duplicate				
v	•				•	-	-				D
Company and a		LCS		CSD	Units		Spike .mount	LCS Rec.	LCSI Rec.		Rec.
Surrogate Trifluorotoluene (TFT)		Resul		esult	Units	Dil. A	mount	nec.	n.ec.		Limit
		0 0.24	o ∩	062	malla						71 117
		0.93		963 014	mg/Kg	1	1.00	93	96	77	
4-Bromofluorobenzene (4-	-BFB)	0.933		963 914	mg/Kg mg/Kg					77	
4-Bromofluorobenzene (4-		0.879				1	1.00	93	96	77	
4-Bromofluorobenzene (4- Laboratory Control Sp		0.879	90.	914	mg/Kg	1 1	1.00	93	96 91	77 78	3.1 - 118
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084		0.879	9 0. Date A	914 nalyzed	mg/Kg : 2007-02	1 1 2-27	1.00	93	96 91 Anal	77 78 yzed By	3.1 - 118 y: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084		0.879	9 0. Date A	914	mg/Kg : 2007-02	1 1 2-27	1.00	93	96 91 Anal	77 78	3.1 - 118 y: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084		0.879	9 0. Date A QC Pre	914 nalyzed	mg/Kg : 2007-02	1 1 2-27	1.00 1.00	93	96 91 Anal	77 78 yzed By	3.1 - 118 y: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441		0.879 5-1)	Date A QC Pre	914 nalyzed eparatio Units	mg/Kg : 2007-02	1 1 2-27 2-27	1.00 1.00	93 88	96 91 Anal	77 78 yzed By ared By	9.1 - 118 9: KB 7: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441		0.879 5-1) LCS	Date A QC Pre	914 nalyzed eparatio <u>Units</u> ng/Kg	mg/Kg : 2007-02 n: 2007-02	1 1 2-27 2-27 Spike	1.00 1.00 Ma Re	93 88	96 91 Anal Prep	77 78 yzed B ared By	9.1 - 118 y: KB r: KB Rec. Limit
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param		0.875 5-1) LCS Resu	Date A QC Pre	914 nalyzed eparatio Units	mg/Kg : 2007-02 n: 2007-02 Dil.	1 1 2-27 2-27 Spike Amount	1.00 1.00 Ma Re <0.0	93 88 strix sult	96 91 Anal Prep Rec.	77 78 yzed B ared By 76	9.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene		0.875 5-1) LCS Resu 0.976 0.966 0.949	Date A QC Pre	914 nalyzed eparatio Units ng/Kg ng/Kg	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1	1 1 2-27 2-27 Spike Amount 1.00 1.00 1.00	1.00 1.00 Ma Re <0.0 <0.0 <0.0	93 88 strix sult 00159 00220 00201	96 91 Anal Prep Rec. 98 97 95	77 78 yzed B ared By 76 77 75	<ul> <li>7: KB</li> <li>Rec.</li> <li>Limit</li> <li>3 - 117</li> <li>7.3 - 114</li> <li>6.4 - 115</li> </ul>
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene	pike (LCS	0.875 5-1) LCS Resu 0.977 0.967 0.949 2.80	Date A QC Pre	914 nalyzed eparatio <u>Units</u> ng/Kg ng/Kg ng/Kg ng/Kg	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1	1 1 2-27 2-27 Amount 1.00 1.00 1.00 3.00	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0	93 88 sult 00159 00220 00201 00176	96 91 Anal Prep Rec. 98 97 95 93	77 78 yzed B ared By 76 77 75	y: KB 7: KB Rec. Limit 5.3 - 117 7.3 - 114
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene	pike (LCS	0.875 5-1) LCS Resu 0.977 0.967 0.949 2.80	Date A QC Pre	914 nalyzed eparatio <u>Units</u> ng/Kg ng/Kg ng/Kg ng/Kg	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1	1 1 2-27 2-27 Amount 1.00 1.00 1.00 3.00	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0	93 88 sult 00159 00220 00201 00176	96 91 Anal Prep Rec. 98 97 95 93	77 78 yzed B ared By 76 77 75	<ul> <li>3.1 - 118</li> <li>y: KB</li> <li>r: KB</li> <li>Rec.</li> <li>Limit</li> <li>3.3 - 117</li> <li>7.3 - 114</li> <li>6.4 - 115</li> </ul>
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene	pike (LCS	0.875 5-1) LCS Resu 0.977 0.967 0.949 2.80 ike result. LCSD	Date A QC Pre	914 nalyzed eparatio <u>Units</u> ng/Kg ng/Kg ng/Kg ng/Kg	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 on the spike Spike	1 1 2-27 2-27 Amount 1.00 1.00 1.00 3.00 e and spike Matrix	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 88 90159 90220 90201 90176 2 result.	96 91 Anal Prep Rec. 98 97 95 93 Rec.	77 78 yzed By ared By 76 77 75 73	8.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117 7.3 - 114 6.4 - 115 8.2 - 112 RPD
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based Param	pike (LCS	0.875 5-1) LCS Resu 0.977 0.967 0.949 2.80 ike result. LCSD Result	Date A QC Pre	914 nalyzed eparatio ng/Kg ng/Kg ng/Kg based o Dil.	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 on the spike Amount	1 1 2-27 2-27 Amount 1.00 1.00 1.00 3.00 e and spike Matrix Result	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 88 00159 00220 00201 00176 2 result. Fill Lit	96 91 Anal Prep Rec. 98 97 95 93 Rec. imit	77 78 yzed By ared By 76 77 75 73 8 RPD	8.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117 7.3 - 114 6.4 - 115 8.2 - 112 RPD Limit
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based Param Benzene	pike (LCS	0.875 5-1) 5-1) 0.976 0.966 0.949 2.80 ike result. LCSD Result 0.954	Date A QC Pre lt 3 n 7 n 9 n 0 n RPD is Units mg/Kg	914 nalyzed eparatio ng/Kg ng/Kg ng/Kg based o Dil.	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1 on the spike Amount 1.00	1 1 2-27 2-27 2-27 Spike Amount 1.00 1.00 1.00 3.00 2 and spike Matriz Result <0.0013	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 88 00159 00220 00201 00176 2 result. R Li 76.3	96 91 Anal Prep 8 97 95 93 Rec. imit - 117	77 78 yzed By ared By 76 77 75 73 73 <u>RPD</u> 2	8.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117 3.3 - 114 3.2 - 112 RPD Limit 20
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based Param Benzene Toluene Ethylonzene	pike (LCS	0.875 5-1) LCS Resul 0.976 0.949 2.80 ike result. LCSD Result 0.954 0.954 0.943	Date A QC Pre	914 nalyzed eparatio ng/Kg ng/Kg ng/Kg based c Dil. 1 1	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2-27 2-27 2-27 Spike Amount 1.00 1.00 1.00 3.00 2 and spike Matriz Result <0.001 <0.002	1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 88 00159 00220 00201 00176 2 result. R Li 76.3 77.3	96 91 Anal Prep 8 97 95 93 Rec. imit - 117 - 114	77 78 yzed By ared By 76 77 75 73 73 <u>RPD</u> 2 2	x: KB x: KB
4-Bromofluorobenzene (4- Laboratory Control Sp QC Batch: 35084 Prep Batch: 30441 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based Param Benzene	pike (LCS	0.875 5-1) 5-1) LCS Resul 0.977 0.967 0.944 2.80 ike result. LCSD Result 0.954 0.954 0.943 0.934	Date A QC Pre lt 3 n 7 n 9 n 0 n RPD is Units mg/Kg	914 nalyzed eparatio ng/Kg ng/Kg ng/Kg based c Dil. 1 1 1	mg/Kg : 2007-02 n: 2007-02 Dil. 1 1 1 1 1 on the spike Amount 1.00	1 1 2-27 2-27 2-27 Spike Amount 1.00 1.00 1.00 3.00 2 and spike Matriz Result <0.0013	1.00 1.00 1.00 Ma Re <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	93 88 4.trix sult 00159 00220 00201 00176 2 result. R Li 76.3 77.3 75.4	96 91 Anal Prep 8 97 95 93 Rec. imit - 117	77 78 yzed By ared By 76 77 75 73 73 <u>RPD</u> 2	8.1 - 118 y: KB 7: KB Rec. Limit 3.3 - 117 3.3 - 114 3.4 - 115 3.2 - 112 RPD Limit 20

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

Reid #1	, 2007		W		der: 70227 eid #1				0	umber: ddy Co	10 of 13 ounty,NM
		LCS	LCSD				pike	LCS	LCS	D	Rec.
Surrogate		Result					nount	Rec.	Rec		Limit
Trifluorotoluene (TFT)		1.01	0.993		g/Kg		.00	101	99		4.5 - 113
4-Bromofluorobenzene (4-E	SFB)	0.925	0.913	mį	g/Kg	1 1	.00	92	91	6	8.3 - 110
Laboratory Control Spi	ike (LCS-	1)									
QC Batch: 35086			Date Anal	vzed:	2007-02-	27			An	alyzed l	By: JS
Prep Batch: 30448			QC Prepa		2007-02-	27				pared I	-
		LCS				Spike	ſ	Matrix			Rec.
Param		Resul		nits	Dil.	Amoun		Result	Re	c.	Limit
Chloride		105	mg	/Kg	1	100		<3.25	10	5	90 - 110
Percent recovery is based o	on the spik	e result. F	PD is bas	ed on t	he spike a	nd spike o	luplicat	e result			
		LCSD			Spike	Matrix	:	1	Rec.		RPD
Param		Result	Units	Dil.	Amount	Result			imit	RPD	Limit
Chloride		105	mg/Kg	1	100	<3.25	105		- 110	0	20
QC Batch: 35064	Spiked Sa		7533 Date Analy QC Prepar		2007-02- 2007-02-					alyzed H pared H	-
QC Batch: 35064	Spiked Sa	]	Date Anal			27	М	atrix		-	
QC Batch: 35064 Prep Batch: 30431	Spiked Sa	]	Date Anal <u>y</u> QC Prepar	ation:				atrix esult		pared E	By: SP
QC Batch: 35064 Prep Batch: 30431 Param	Spiked Sa	MS	Date Anal <u>y</u> QC Prepar	ration: its	2007-02-	27 Spike	R		Pre	pared E	By: SP Rec. Limit
QC Batch: 35064 Prep Batch: 30431 Param DRO	-	MS Result 392	Date Analy QC Prepar t Un mg/	ration: its Kg	2007-02- Dil. 1	27 Spike Amount 250	R	esult 232	Pre Rec. 64	pared E	By: SP Rec. Limit
QC Batch: 35064 Prep Batch: 30431 Param DRO	-	MS Result 392	Date Analy QC Prepar t Un mg/	ration: its Kg	2007-02- Dil. 1	27 Spike Amount 250	R	esult 232 e result	Pre Rec. 64	pared E	By: SP Rec. Limit 7.5 - 127
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param	on the spik	MS Result 392 re result. F	Date Analy QC Prepar t Un mg/ RPD is bas	ration: its Kg	2007-02- Dil. 1 the spike a Spike Amount	27 Spike Amount 250 Ind spike of Matrix Result	R	esult 232 e result F	Pre Rec. 64	pared E	By: SP Rec. Limit 7.5 - 127 RPD
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param	on the spik	MS Result 392 e result. F MSD Result	Date Analy QC Prepar t Un mg/ RPD is bas	its Kg ed on t	2007-02- Dil. 1 .he spike a Spike	27 Spike Amount 250 Ind spike of Matrix	R luplicat	esult 232 e result F Li	Pre Rec. 64  Rec.	pared E	By: SP Rec. Limit 7.5 - 127 RPD
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO	on the spik	MS Result 392 e result. F MSD Result 401	Date Analy QC Prepar t Un mg/ RPD is bas Units mg/Kg	ation: its Kg ed on t Dil. 1	2007-02- Dil. 1 che spike a Spike Amount 250	27 Spike Amount 250 Ind spike of Matrix Result 232	R luplicat Rec. 68	esult 232 e result F Li 47.5	Pre <u>Rec.</u> 64  Rec. imit 5 - 127	pared E 4 RPD	By: SP Rec. Limit 7.5 - 127 RPD Limit
•	on the spik	MS Result 392 e result. F MSD Result 401	Date Analy QC Prepar t Un mg/ RPD is bas Units mg/Kg	ation: its Kg ed on t Dil. 1	2007-02- Dil. 1 che spike a Spike Amount 250	27 Spike Amount 250 Ind spike of Matrix Result 232	R luplicat Rec. 68 luplicat	esult 232 e result F Li 47.5	Pre <u>Rec.</u> 64  Rec. imit 5 - 127	pared E 4 RPD	By: SP Rec. Limit 7.5 - 127 RPD Limit
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO	on the spik	MS Result 392 e result. F MSD Result 401 e result. F	Date Analy QC Prepar t Un mg/ RPD is bas Units mg/Kg	ation: its Kg ed on t Dil. 1 ed on t	2007-02- Dil. 1 che spike a Spike Amount 250	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of	R luplicat Rec. 68 luplicat	esult 232 e result F Li 47.5 e result	Pre <u>Rec.</u> 64  Rec.  	pared E 4 RPD	By: SP Rec. Limit 7.5 - 127 RPD Limit 20
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate	on the spik	MS Result 392 e result. F MSD Result 401 e result. F MSD	Date Analy QC Prepar t Un RPD is bas Units mg/Kg RPD is bas	ation: its Kg ed on t Dil. 1 ed on t ts	2007-02- Dil. 1 Spike a Amount 250 the spike a	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of Spike	R luplicat Rec. 68 luplicat	esult 232 e result E Li 47.5 e result MS	Pre <u>Rec.</u> 64  Rec. imit 5 - 127  MSD	pared E 4 <u>RPD</u> 2	By: SP Rec. Limit 7.5 - 12 RPD Limit 20 Rec. Limit
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate n-Triacontane Matrix Spike (MS-1) QC Batch: 35083	on the spik on the spik MS Result 167	MS Result 392 e result. F MSD Result 401 e result. F MSD Result 166 ample: 117	Date Analy QC Prepar t Un RPD is bas Units mg/Kg RPD is bas Uni mg/I	ation: its Kg ed on t Dil. 1 ed on t ts Kg /zed:	2007-02- Dil. I Spike Amount 250 Che spike a Dil.	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of Spike Amount 150	R luplicat Rec. 68 luplicat	esult 232 e result E Li 47.5 e result MS Acc.	Pre Rec. 64  Rec. imit 5 - 127  MSD Rec. 111 Ana	pared E 4 <u>RPD</u> 2	By: SP Rec. Limit 7.5 - 127 RPD Limit 20 Rec. Limit 2.5 - 164 y: KB
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate n-Triacontane Matrix Spike (MS-1) QC Batch: 35083	on the spik on the spik MS Result 167	MS Result 392 e result. F MSD Result 401 e result. F MSD Result 166 ample: 117	Date Analy QC Prepar t Un RPD is bas Units mg/Kg RPD is bas Uni mg/I 7535 Date Analy	ation: its Kg ed on t Dil. 1 ed on t ts Kg /zed:	2007-02- Dil. 1 Spike Amount 250 che spike a Dil. 1 2007-02-	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of Spike Amount 150	Rec. 68 luplicat	esult 232 e result 47.5 e result MS tec. 111	Pre Rec. 64  Rec. imit 5 - 127  MSD Rec. 111 Ana	Pared E 4 RPD 2 6	By: SP Rec. Limit 7.5 - 127 RPD Limit 20 Rec. Limit 2.5 - 164 y: KB y: KB
QC Batch: 35064 Prep Batch: 30431 Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate n-Triacontane Matrix Spike (MS-1) QC Batch: 35083	on the spik on the spik MS Result 167	MS Result 392 e result. F MSD Result 401 e result. F MSD Result 166 ample: 117	Date Analy QC Prepar t Un Mg/ RPD is bas Units mg/Kg RPD is bas Unit mg/I 7535 Date Analy QC Prepar	ration: its Kg ed on t Dil. 1 ed on t ts Kg vzed: ation:	2007-02- Dil. 1 Spike Amount 250 che spike a Dil. 1 2007-02-	27 Spike Amount 250 Ind spike of Matrix Result 232 Ind spike of Spike Amount 150	Rec. 68 luplicat luplicat	esult 232 e result E Li 47.5 e result MS Acc.	Pre Rec. 64  Rec. imit 5 - 127  MSD Rec. 111 Ana	A RPD 2 6 lyzed B bared B	By: SP Rec. <u>Limit</u> 7.5 - 127 RPD <u>Limit</u> 20 Rec. <u>Limit</u> 2.5 - 164 y: KB

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

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49 mg esult. RP MS Result 0.930 1.15 ple: 11753 Da	g/Kg PD is base MSD Result 0.864 1.08		nt Resu <0.12 e and spik Dil. 1 1 202-27	lt Rec. 21 95	Rec. 40.7 - result. MS Rec. 93 115	it	34	RPI Lim 19.0 Rec. Limit .9 - 15 .5 - 15
sult         U           49         mg           result.         RP           MS         Result           0.930         1.15           ple:         11753           Da         QC	g/Kg PD is based MSD Result 0.864 1.08 35 35	Dil. Amoun 1 10.0 d on the spik Units mg/Kg mg/Kg 2007-0	nt Resu <0.12 e and spik Dil. 1 1 202-27	tt Rec. 21 95 e duplicate Spike Amount 1	Lim 40.7 - result. MS Rec. 93	iit 157 MSD Rec. 86	8	Lim 19. Rec. Limit .9 - 13
49 mg esult. RP MS Result 0.930 1.15 ple: 11753 Da QC	g/Kg PD is based MSD Result 0.864 1.08 35 35	1 10.0 d on the spik Units mg/Kg mg/Kg zed: 2007-0	<0.12 ie and spik Dil. 1 1 02-27	21 95 e duplicate Spike Amount 1	40.7 - result. MS Rec. 93	157 MSD Rec. 86	8	19. Rec. Limit .9 - 15
result. RP MS Result 0.930 1.15 ple: 11753 Da QC	D is base MSD Result 0.864 1.08 35 ate Analyz	Units mg/Kg mg/Kg zed: 2007-0	e and spik Dil. 1 1 02-27	e duplicate Spike Amount 1	result. MS Rec. 93	MSD Rec. 86	34	Limit .9 - 13
Result 0.930 1.15 ple: 11753 Da QC	Result 0.864 1.08 35 ate Analyz	mg/Kg mg/Kg zed: 2007-0	1 1 02-27	Amount 1	Rec. 93	Rec. 86	34	Limit .9 - 13
0.930 1.15 ple: 11753 Da QC	0.864 1.08 35 ate Analyz	mg/Kg mg/Kg zed: 2007-0	1 1 02-27	1	93	86	34	.9 - 18
1.15 ple: 11753 Da Q(	1.08 35 ate Analyz	mg/Kg zed: 2007-0	1					
ple: 11753 Da QC	35 ite Analyz	zed: 2007-0	)2-27	1	115	108	58	.5 - 18
Da Q(	ite Analyz							
QC								
-	C Prepara	tion: 2007-0				Analy	zed By	7: KI
MC			)2-27				ured By	
			Spike	Mat	riv			Rec.
Result	Units	Dil.	Amoun			Rec.		Limit
0.978	mg/K		1.00			98		.6 - 14
1.02			1.00			102		.4 - 13
1.11			1.00			111		8 - 14
3.32			3.00			111		.3 - 14
			: Resul	t Rec.	Lin	nit	RPD	RPI Lim
							5	20
)79 mg			< 0.002	20 98	45.4 -	128		
							4	20
06 mg	/Kg 1		< 0.002	01 106	48 -	141	5	20 20
06 mg 17 mg	/Kg 1	3.00	< 0.001	01 106 76 106	48 - 45.3 -	141		20 20
06 mg 17 mg result. RP	/Kg 1 D is base		< 0.001	01 106 76 106 e duplicate	48 - 45.3 - result.	141 142	5 5	20 20 20
06 mg 17 mg result. RP MS	/Kg 1 'D is base MSD	d on the spik	<0.001 a and spik	01 106 76 106 e duplicate Spike	48 - 45.3 - result. MS	141 142 MSD	5 5	20 20 20 Rec.
06 mg 17 mg result. RP	/Kg 1 D is base	3.00	< 0.001	01 106 76 106 e duplicate	48 - 45.3 - result.	141 142	5	20 20 20
5	1.02 1.11 3.32 esult. RF 5D ult Un 33 mg	1.02         mg/K           1.11         mg/K           3.32         mg/K           esult.         RPD is based           SD         ult         Units         Di           33         mg/Kg         1         1	$\begin{array}{ccccccc} 1.02 & mg/Kg & 1\\ 1.11 & mg/Kg & 1\\ 3.32 & mg/Kg & 1\\ \end{array}$ esult. RPD is based on the spike SD Spike ult Units Dil. Amount 33 mg/Kg 1 1.00	1.02mg/Kg1 $1.00$ $1.11$ mg/Kg1 $1.00$ $3.32$ mg/Kg1 $3.00$ esult. RPD is based on the spike and spikeSDSpikeMatriultUnitsDil.Amount $33$ mg/Kg1 $1.00$ <0.001		1.02         mg/Kg         1         1.00         <0.00220           1.11         mg/Kg         1         1.00         <0.00201	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.02       mg/Kg       1       1.00       <0.00220

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

Report Dat Reid #1	e: February 28,	2007			-	rder: 7022 teid #1	711	<u>.</u>	-	lumber: Eddy Cou	
matrix spike	es continued										
			MSD			Spike	Matrix		Rec.		RPD
Param			Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
			MSD			Spike	Matrix		Rec.		RPD
Param			Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		2	1770	mg/Kg	200	20000	<650	9	84.6 - 117	11	20
Percent reco	overy is based or	n the spi	ke result					plicate			
Standard	(ICV-1)										
QC Batch:	. ,			Date Ana	alyzed:	2007-02-2	27		An	alyzed B	y: SP
				ICVs	IC	Ve	ICVs		Percent		
				True	Foi		Percent		Recovery		Date
Param	Flag	Units		Conc.	Co		Recovery		Limits		alyzed
DRO	1 1008	mg/Kg	<u>r</u>	250	22		88		85 - 115		7-02-2
Standard						2007 00 0					0.0
QC Batch: 35064				Date Ana	alyzed:	2007-02-2	27		An	alyzed B	y: SP
				CCVs	CC		$\mathbf{CCVs}$		Percent		
<b>n</b>	-			True	For		Percent		Recovery		Date
Param	Flag	Units		Conc.		nc.	Recovery		Limits		alyzed
DRO		mg/Kg	5	250	22	28	91		85 - 115	200	7-02-2
Standard	(ICV-1)										
QC Batch:	35083			Date Ana	lyzed:	2007-02-2	7		Ana	lyzed By	: KB
				ICVs	IC	Vs	ICVs		Percent		
				True	Γοι	ind	Percent		Recovery		Date
Param	Flag	Units		Conc.	Co	nc.	Recovery		Limits	Аг	alyzed
GRO		mg/K	ξ	1.00	1.0	00	100		85 - 115	200	7-02-2
Standard	(CCV-1)										
QC Batch:	. ,			Date Ana	dyzed:	2007-02-2	7		Ana	lyzed By	·: KB
				CCVs	CC	ZVs	CCVs		Percent		
				True	Foi		Percent		Recovery		Date
Param	Flag	Units		Conc.	Co		Recovery		Limits		alyzed
GRO		mg/Kį	Ş	1.00	0.9	913	91		85 - 115		7-02-27
Standard	(ICV-1)										
	. ,			<b>D</b>			-				•••=
QC Batch:	35084			Date Ana	uyzed:	2007-02-2	1		Ana	lyzed By	: KB

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

Report Date: February 28, 2007 Reid #1			Wo	rk Order: 7022 Reid #1		-	umber: 13 of 13 ldy County,NM
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)

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QC Batch: 35084			Date Analyzed	: 2007-02-27		Anal	yzed By: KB
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	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

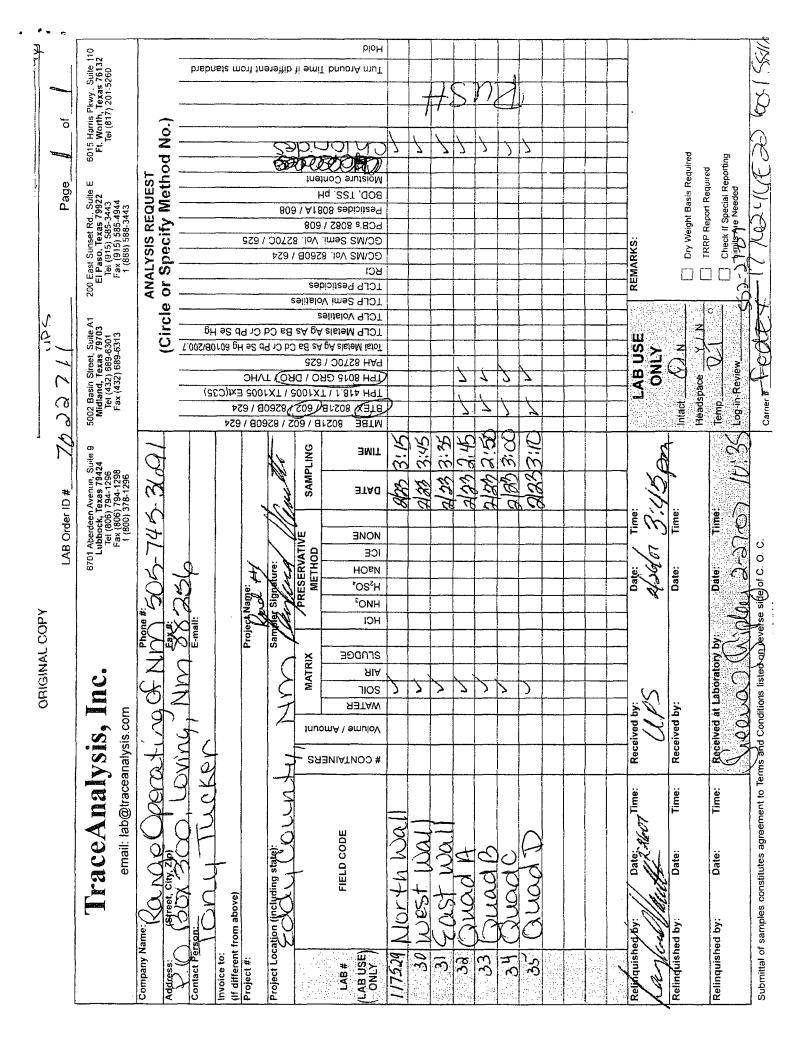
## Standard (ICV-1)

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

## Standard (CCV-1)

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QC Batch:	35086		Date Ana	lyzed: 2007-02	2-27	· Ana	lyzed By: JS
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
118676	North Wall	soil	2007-03-09	13:00	2007-03-10
118677	East Wall	soil	2007-03-09	<b>13</b> :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	$\mathbf{Result}$	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 9 200 East-Sunset Road, Suite E 5002 Basin Street, Suite AT 5015 Harris Parkway, Suite 119 Ft. Worth, Texas 76132

Lubbock, Texas 79424 El Paso, Texas 79922 Midland, Texas 79703 E-Mail: lab@traceanalysis.com

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806 • 794 • 1295 FAX 806 • 794 • 1298 915+585+3443 432 • 589 • 6301 817 • 201 • 5260

FAX 915+585+4944 FAX 432+589+6313

# 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.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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**

 ${\bf B}\,$  - The sample contains less than ten times the concentration found in the method blank.

Report Date: March 13, 2007	Work Order: 7031203	Page Number: 2 of 3
Reid #1	Reid #1	Eddy County,NM

# **Analytical Report**

## Sample: 118676 - North Wall

Analysis:	Chloride (Titration)	Analytical Method	: SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35496	Date Analyzed:	2007-03-12	Analyzed By:	$\mathbf{SM}$
Prep Batch:	30788	Sample Preparatio	n: 2007-03-12	Prepared By:	$\mathbf{SM}$
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		423	mg/Kg	10	5.00

#### Sample: 118677 - East Wall

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 35496 30788	Analytical Method: Date Analyzed: Sample Preparation	2007-03-12	Prep Method: Analyzed By: Prepared By:	SM
-		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		145	mg/Kg	10	5.00

## Sample: 118678 - Floor Comp

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	35496	Date Analyzed:	2007-03-12	Analyzed By:	SM
Prep Batch:	30788	Sample Preparation	2007-03-12	Prepared By:	SM
		RL			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		226	mg/Kg	4	5.00

## Method Blank (1) QC Batch: 35496

QC Batch:	35496	Date Analyzed:	2007-03-12	Analyzed By:	$\mathbf{SM}$
Prep Batch:	30788	QC Preparation:	2007-03-12	Prepared By:	$\mathbf{SM}$

		MDL		
Parameter	Flag	Result	Units	$\mathbf{RL}$
Chloride		<3.25	mg/Kg	5

## Laboratory Control Spike (LCS-1)

QC Batch:	35496	Date Analyzed:	2007-03-12	Analyzed By:	SM
Prep Batch:	30788	QC Preparation:	2007-03-12	Prepared By:	$\mathbf{SM}$

Report Date: March 13, 2007 Reid #1		2007			rder: 7031: .eid #1	203		Pa		er: 3 of 3 ounty,NM
-			cs			Spike		atrix		Rec.
Param			sult	Units	Dil.	Amount			lec.	Limit
Chloride				mg/Kg	1	100	-		102	90 - 110
Percent recov	very is based	on the spike result.	RPD is I	based on	the spike a	and spike du	plicate	result.		
		LCSD			Spike	Matrix		Rec.		RPD
Param		$\mathbf{Result}$	Units	Dil.	Amount		Rec.	Limit	RPD	Limit
Chloride		101	mg/Kg	1	100	<3.25	101	90 - 110	1	20
Percent recov	very is based	on the spike result.	RPD is l	based on	the spike a	and spike du	plicate i	esult.		
<b>Matrix Spil</b> QC Batch:	ke (MS-1) 35496	Spiked Sample: 1		ulwood.	2007-03-			Δ	alyzed B	v: SM
Prep Batch:	30788		Date An OC Prei	paration:					epared B	-
		М	S			Spike	Mat	rix		Rec.
Param		Res		Units	Dil.	Amount	Res			Limit
Chloride		1 12	10 n	ng/Kg	10	1000	1131	.92 8	8	4.6 - 117
		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec.	RPD	RPD Limit
Chloride		Result 2 1210	mg/Kg	10	Amount 1000	Result 1131.92	8	Limit 84.6 - 117	RPD 0	
Chloride Percent recov Standard (1	CV-1)	Result	mg/Kg RPD is t	10 pased on	Amount 1000	Result 1131.92 and spike du	8	Limit 84.6 - 117 result.		Limit 20
Chloride Percent recov Standard (1	CV-1)	Result 2 1210	mg/Kg RPD is t	10 pased on alyzed:	Amount 1000 the spike a	Result 1131.92 and spike du	8	Limit 84.6 - 117 result.	0	Limit 20
Chloride Percent recov Standard (1	CV-1)	Result 2 1210	mg/Kg RPD is b Date An	10 pased on alyzed: IC	Amount 1000 the spike a 2007-03-1	Result 1131.92 and spike du	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery	0 alyzed B	Limit 20 y: SM Date
Chloride Percent recov Standard (1 QC Batch: Param	CV-1)	Result 2 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc.	10 pased on alyzed: IC For Cc	Amount 1000 the spike a 2007-03-12 2Vs und onc.	Result 1131.92 and spike du 2 ICVs Percent Recovery	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery Limits	0 alyzed B A	Limit 20 y: SM Date nalyzed
Chloride Percent recov Standard (1 QC Batch: Param	CV-1) 35496	Result 2 1210 on the spike result.	mg/Kg RPD is b Date An ICVs True	10 pased on alyzed: IC For Cc	Amount 1000 the spike a 2007-03-12 2Vs und	Result 1131.92 and spike du 2 ICVs Percent	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery	0 alyzed B A	Limit 20 y: SM Date nalyzed
Chloride Percent recov Standard (1 QC Batch: Param Chloride Standard (0	CV-1) 35496 Flag CCV-1)	Result 2 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc. 100	10 pased on alyzed: IC For Cc	Amount 1000 the spike a 2007-03-12 2Vs und onc.	Result 1131.92 and spike du 2 ICVs Percent Recovery 102	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery Limits 85 - 115	0 alyzed B A	Limit 20 y: SM Date nalyzed 07-03-12
Chloride Percent recov Standard (1 QC Batch: Param Chloride Standard (0	CV-1) 35496 Flag CCV-1)	Result 2 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc. 100 Date An	10 pased on alyzed: IC For Cc 10 alyzed:	Amount 1000 the spike a 2007-03-12 2Vs und onc. 02 2007-03-12	Result 1131.92 and spike du 2 ICVs Percent Recovery 102	8 plicate r	Limit 84.6 - 117 result. An Percent Recovery Limits 85 - 115 An	0 alyzed B A 20	Limit 20 y: SM Date nalyzed 07-03-12
Param Chloride Percent recov Standard (1 QC Batch: Param Chloride Standard (0 QC Batch:	CV-1) 35496 Flag CCV-1)	Result 2 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc. 100 Date An CCVs	10 pased on alyzed: IC For Cc 10 alyzed: CC	Amount 1000 the spike a 2007-03-12 UVs und onc. 02 2007-03-12 CVs	Result 1131.92 and spike du 2 ICVs Percent Recovery 102 2 2 CCVs	8 plicate 1	Limit 84.6 - 117 result. An Percent Recovery Limits 85 - 115 An Percent	0 alyzed B A 20	Limit 20 y: SM Date nalyzed 07-03-12 y: SM
Chloride Percent recov Standard (1 QC Batch: Param Chloride Standard (0	CV-1) 35496 Flag CCV-1)	Result 2 1210 on the spike result. Units	mg/Kg RPD is b Date An ICVs True Conc. 100 Date An	10 pased on alyzed: IC For Cc 10 alyzed: CC For	Amount 1000 the spike a 2007-03-12 2Vs und onc. 02 2007-03-12	Result 1131.92 and spike du 2 ICVs Percent Recovery 102	8 plicate 1	Limit 84.6 - 117 result. An Percent Recovery Limits 85 - 115 An	0 alyzed B A 20 alyzed B	Limit 20 y: SM Date nalyzed 07-03-12

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<sup>&</sup>lt;sup>1</sup>Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control. <sup>2</sup>Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

