Page Number: 1 of 2 Eddy County NM

## **Summary Report**

Dorsey Rogers Cimarex 207 S Mesa Carlsbad, NM, 88220

Report Date: June 6, 2007

Work Order: 7060411 

Project Name:

Project Location: Eddy County NM Vern #1

30-015-34109

			Date	${f Time}$	Date
Sample	Description	Matrix	Taken	$\mathbf{Taken}$	Received
126192	NW-Floor-C	soil	2000-05-04	15:00	2007-06-02
126193	$\operatorname{NE-Floor-C}$	soil	2000-05-04	15:15	2007-06-02
126194	SW-Floor- $C$	soil	2000-05-04	15:30	2007-06-02
126195	SE-Floor-C	soil	2000-05-04	15:40	2007-06-02
126196	Center Floor-C	soil	2000-05-04	15:50	2007-06-02

Sample: 126192 - NW-Floor-C

Param	$\operatorname{Flag}$	Result	${f Units}$	$\mathrm{RL}$
Chloride		174	mg/Kg	5.00

Sample: 126193 - NE-Floor-C

Param	Flag	Result	Units	RL
Chloride		224	${ m mg/Kg}$	5.00

Sample: 126194 - SW-Floor-C

Param	Flag	Result	Units	$\operatorname{RL}$
Chloride		166	mg/Kg	5.00

Sample: 126195 - SE-Floor-C

Param	Flag	Result	$\operatorname{Units}$	RL
Chloride		138	mg/Kg	5.00

Sample: 126196 - Center Floor-C

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: June 6, 2007

Work Order: 7060411 Vern #1 Page Number: 2 of 2 Eddy County NM



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# Analytical and Quality Control Report

**Dorsey Rogers** Cimarex 207 S Mesa

Carlsbad, NM, 88220

Report Date: June 6, 2007

Work Order: 7060411

Project Location: Eddy County NM

Project Name: Vern #1

Project Number: Vern #1

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

			Date	$\operatorname{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
126192	NW-Floor-C	soil	2000-05-04	15:00	2007-06-02
126193	NE-Floor-C	soil	2000-05-04	15:15	2007-06-02
126194	$SW ext{-Floor-}C$	soil	2000-05-04	15:30	2007-06-02
126195	SE-Floor-C	soil	2000-05-04	15:40	2007-06-02
126196	Center Floor-C	soil	2000-05-04	15:50	2007-06-02

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 6 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

#### Standard Flags

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

### Case Narrative

Samples for project Vern #1 were received by TraceAnalysis, Inc. on 2007-06-02 and assigned to work order 7060411. Samples for work order 7060411 were received intact at a temperature of 22.0 deg C.

Samples were analyzed for the following tests using their respective methods.

$\mathbf{Test}$	Method
Chloride (Titration)	SM 4500-Cl B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 7060411 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: June 6, 2007 Vern #1

Work Order: 7060411 Vern #1

Page Number: 3 of 6 **Eddy County NM** 

### **Analytical Report**

Comple	126102	NW-Floor-	
Sample:	120192 -	- 1N VV - 1 100r-	·

Analysis: Chloride (Titration)

QC Batch: 37863 Prep Batch: 32795

Analytical Method: Date Analyzed:

SM 4500-Cl B 2007-06-06 Sample Preparation: 2007-06-05

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

RL

Parameter	Flag	$\mathbf{Result}$	$\mathbf{Units}$	Dilution	RL
Chloride		174	mg/Kg	4	5.00

#### Sample: 126193 - NE-Floor-C

Analysis: Chloride (Titration) QC Batch: 37863 Prep Batch: 32795

Analytical Method: Date Analyzed:

SM 4500-Cl B 2007-06-06 Sample Preparation: 2007-06-05

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

RL

Parameter	Flag	Result	Units	Dilution	RL
Chloride		224	mg/Kg	4	5.00

#### Sample: 126194 - SW-Floor-C

Analysis: Chloride (Titration) QC Batch: 37863 Prep Batch: 32795

Analytical Method: SM 4500-Cl B Date Analyzed: 2007-06-06 Sample Preparation: 2007-06-05

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

RL

Parameter	Flag	Result	$\mathbf{Units}$	Dilution	RL
Chloride		166	mg/Kg	4	5.00

#### Sample: 126195 - SE-Floor-C

Analysis: Chloride (Titration) QC Batch: 37864 Prep Batch: 32796

Analytical Method: SM 4500-Cl B Date Analyzed: 2007-06-06 Sample Preparation: 2007-06-05

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

		RL			
Parameter	$\operatorname{Flag}$	Result	Units	Dilution	RL
Chloride		138	mg/Kg	4	5.00

#### Sample: 126196 - Center Floor-C

Analysis: Chloride (Titration) QC Batch: 37864 Prep Batch: 32796

Analytical Method: SM 4500-Cl B Date Analyzed: 2007-06-06 Sample Preparation: 2007-06-05

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

Report Date: June 6, 2007

Vern #1

Work Order: 7060411 Vern #1

Page Number: 4 of 6 Eddy County NM

RLParameter Flag Result Units Dilution RL5.00 Chloride 138 mg/Kg

Method Blank (1)

QC Batch: 37863

QC Batch: 37863 Prep Batch: 32795 Date Analyzed: QC Preparation: 2007-06-05

2007-06-06

Analyzed By: JS

Prepared By: JS

MDL Flag RLParameter Result Units 5 Chloride < 3.25mg/Kg

Method Blank (1)

QC Batch: 37864

QC Batch: 37864 Prep Batch: 32796

2007-06-06 Date Analyzed: QC Preparation: 2007-06-05

Analyzed By:  $_{
m JS}$ Prepared By:

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

Laboratory Control Spike (LCS-1)

QC Batch: 37863 Prep Batch: 32795

Date Analyzed: QC Preparation:

2007-06-06 2007-06-05 Analyzed By: JS Prepared By: JS

LCS Spike Matrix Rec. Dil. Limit Param Result Units Amount Result Rec. < 3.25 90 - 110 Chloride 104 100 104 mg/Kg 1

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

LCSD Spike RPD Matrix Rec. RPD Param Result Units Dil. Amount Result Rec. Limit Limit < 3.25 90 - 110 20 Chloride 100 mg/Kg 1 100 100 3

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

Laboratory Control Spike (LCS-1)

QC Batch: 37864 Prep Batch: 32796 Date Analyzed: QC Preparation: 2007-06-06 2007-06-05 Analyzed By: JS Prepared By:

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Chloride 104 mg/Kg 100 < 3.25 104 90 - 110 Report Date: June 6, 2007

Vern #1

Work Order: 7060411 Vern #1

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		$\operatorname{RPD}$
Param	Result	$\mathbf{Units}$	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	104	mg/Kg	1	100	< 3.25	104	90 - 110	1	20

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

Matrix Spike (MS-1) Spiked Sample: 126191

QC Batch:

37863 Date Analyzed:

2007-06-06

Analyzed By: JS

Prep Batch: 32795

QC Preparation: 2007-06-05

Prepared By: JS

		MS			$\mathbf{Spike}$	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Chloride	1	254	mg/Kg	4	400	40.665	53	84.6 - 117

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

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	2	242	mg/Kg	4	400	40.665	50	84.6 - 117	5	20

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

Matrix Spike (MS-1) Spiked Sample: 126201

QC Batch:

37864

Date Analyzed:

2007-06-06

Analyzed By: JS

Prep Batch: 32796

QC Preparation: 2007-06-05

Prepared By: JS

		MS			Spike	Matrix		Rec.
Param		Result	$\mathbf{Units}$	Dil.	Amount	Result	Rec.	Limit
Chloride	3	356	mg/Kg	4	400	155,534	50	84.6 - 117

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

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$	RPD	Limit
Chloride	4	349	mg/Kg	4	400	155.534	48	84.6 - 117	2	20

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

Standard (ICV-1)

QC Batch: 37863

Date Analyzed: 2007-06-06

Analyzed By: JS

			ICVs	ICVs	ICVs	Percent	
			$\operatorname{True}$	Found	Percent	Recovery	Date
Param	$\mathbf{Flag}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride	,	mg/Kg	100	99.7	100	85 - 115	2007-06-06

<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>&</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.

<sup>&</sup>lt;sup>3</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>4</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: June 6, 2007 Vern #1 Work Order: 7060411 Vern #1 Page Number: 6 of 6 Eddy County NM

Standard (C	CCV-1)
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QC Batch: 37863

Date Analyzed: 2007-06-06

Analyzed By: JS

			CCVs	CCVs	$\mathrm{CCVs}$	Percent	
			$\operatorname{True}$	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2007-06-06

### Standard (ICV-1)

QC Batch: 37864

Date Analyzed: 2007-06-06

Analyzed By: JS

Param Flag	$\operatorname{Units}$	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride	mg/Kg	100	99.1	99	85 - 115	2007-06-06

### Standard (CCV-1)

QC Batch: 37864

Date Analyzed: 2007-06-06

Analyzed By: JS

			$\mathrm{CCVs}$	CCVs	$\operatorname{CCVs}$	Percent	
			$\mathbf{True}$	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2007-06-06

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

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