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## **Analytical and Quality Control Report**

Cimarex 207 S Mesa

Carlsbad, NM, 88220

Report Date: February 6, 2007

Work Order: 7020501

Project Location: 13-T22\$-R22E Eddy County,NM

Project Name: Project Number: Wagon Wheel 13 Fed #2

Wagon Wheel 13 # Fed #2

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   |
| 115467 | Bkg East    | soil   | 2007-02-02 | 10:00 | 2007-02-03 |
| 115468 | Bkg North   | soil   | 2007-02-02 | 10:10 | 2007-02-03 |
| 115469 | Bkg West    | soil   | 2007-02-02 | 10:20 | 2007-02-03 |
| 115470 | Bkg South   | soil   | 2007-02-02 | 10:30 | 2007-02-03 |

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 5 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.

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### **Analytical Report**

Sample: 115467 - Bkg East

Analysis:

Chloride (Titration)

OC Batch: 34338 Prep Batch: 29798 Analytical Method:

Date Analyzed: 2007-02-06 Sample Preparation: 2007-02-05

SM 4500-Cl B

Prep Method: Analyzed By: Prepared By:

N/A

SM

SM

RL

Units Parameter Result Dilution RLFlag mg/Kg Chloride 16.8 5.00 2

Sample: 115468 - Bkg North

Analysis: OC Batch:

Prep Batch:

34338 29798

Chloride (Titration) Analytical Method: Date Analyzed: Sample Preparation:

SM 4500-Cl B 2007-02-06 2007-02-05

Prep Method: N/A Analyzed By:

SM Prepared By: SM

RL

Parameter Flag Result Units Dilution RL Chloride <10.0 5.00 mg/Kg 2

Sample: 115469 - Bkg West

Analysis:

Chloride (Titration)

QC Batch: 34338 Prep Batch: 29798

Analytical Method: Date Analyzed:

SM 4500-Cl B 2007-02-06 2007-02-05

Prep Method: N/A Analyzed By: SM

SM

Prepared By:

RL

Parameter Flag Result Units Dilution RL Chloride 16.4 mg/Kg 2 5.00

Sample Preparation:

Sample: 115470 - Bkg South

Analysis:

Chloride (Titration)

QC Batch: 34338 Prep Batch: 29798 Analytical Method: Date Analyzed: Sample Preparation:

SM 4500-Cl B 2007-02-06 2007-02-05

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

RL

Parameter Flag Result Units Dilution RL <10.0 Chloride 2 5.00 mg/Kg

Method Blank (1)

QC Batch: 34338

OC Batch: 34338 Prep Batch: 29798 Date Analyzed: 2007-02-06 QC Preparation: 2007-02-05 Analyzed By: SM Prepared By: SM Report Date: February 6, 2007 Wagon Wheel 13 St Fed #2 Work Order: 7020501 Wagon Wheel 13 St Fed #2 Page Number: 3 of 5 13-T225-R22E Eddy County,NM

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

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

QC Batch: 34338 Prep Batch: 29798 Date Analyzed: 2007-02-06 QC Preparation: 2007-02-05 Analyzed By: SM Prepared By: SM

|          | LCS    |       |      | Spike  | Matrix |      | Rec.     |
|----------|--------|-------|------|--------|--------|------|----------|
| Param    | Result | Units | Dil. | Amount | Result | Rec. | Limit    |
| Chloride | 93.2   | mg/Kg | 1    | 100    | <3.25  | 93   | 90 - 110 |

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

|          | LCSD   |       |      | Spike  | Matrix |      | Rec.     |     | RPD   |
|----------|--------|-------|------|--------|--------|------|----------|-----|-------|
| Param    | Result | Units | Dil. | Amount | Result | Rec. | Limit    | RPD | Limit |
| Chloride | 94.9   | mg/Kg | 1    | 100    | <3.25  | 95   | 90 - 110 | 2   | 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: 115470

QC Batch: 34338 Prep Batch: 29798 Date Analyzed: 2007-02-06 QC Preparation: 2007-02-05

Analyzed By: SM Prepared By: SM

|          |     | MS     |       |      | Spike  | Matrix |      | Rec.       |
|----------|-----|--------|-------|------|--------|--------|------|------------|
| Param    |     | Result | Units | Dil. | Amount | Result | Rec. | Limit      |
| Chloride | T T | 152    | mg/Kg | 2    | 200    | < 6.50 | 76   | 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 | 154    | mg/Kg | 2    | 200    | < 6.50 | 77   | 84.6 - 117 | 1   | 20    |

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

#### Standard (ICV-1)

QC Batch: 34338

Date Analyzed: 2007-02-06

Analyzed By: SM

| Param    | Flag | Units | ICVs<br>True<br>Conc. | ICVs<br>Found<br>Conc. | ICVs<br>Percent<br>Recovery | Percent<br>Recovery<br>Limits | Date<br>Analyzed |
|----------|------|-------|-----------------------|------------------------|-----------------------------|-------------------------------|------------------|
| Chloride |      | mg/Kg | 100                   | 98.9                   | 99                          | 85 - 115                      | 2007-02-06       |

#### Standard (CCV-1)

QC Batch: 34338

Date Analyzed: 2007-02-06

Analyzed By: SM

<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.

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|          |      |       | CCVs<br>True | CCVs<br>Found | CCVs<br>Percent | Percent<br>Recovery | Date       |
|----------|------|-------|--------------|---------------|-----------------|---------------------|------------|
| Param    | Flag | Units | Conc.        | Conc.         | Recovery        | Limits              | Analyzed   |
| Chloride |      | mg/Kg | 100          | 101           | 101             | 85 - 115            | 2007-02-06 |

# TraceAnalysis, Inc.

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200 East Sunset Rd., Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 6015 Harris Pkwy., Suite 110 Ft. Worth, Texas 76132 Tel (817) 201-5260

|                 | eman, lab@trace                                 | analy      | 313.00   | ,,,,,                                   |       |                           |             |                |                                |             | 1 (00 | 30) 3/6-1290 |       |               |                     |                  |                 |                         |                |                  |        | 1 10           | .00)                   | 300-             | 3443         | ·<br>        |                  |       |   |  |   |
|-----------------|---|------------|----------|---|-------|---------------------------|-------------|----------------|--------------------------------|-------------|-------|--------------|-------|---------------|---------------------|------------------|-----------------|-------------------------|----------------|------------------|--------|----------------|------------------------|------------------|--------------|--------------|------------------|-------|---|--|---|
| Company Na      | (   |            |          |   |       |                           | hon         | #:<br>57K;     | 2.70                           | 6. 6        | 71.2  | (1 Sk)       | eles  |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              | UE           |                  |       |   |  |   |
| Address:        | (Street, City, Zip)  S. M. S. (Wilsham)  Son:   | Lide       | 1 552 X  |   |       |                           |             |                |                                |             |       | 7            | 1.    |               |                     |                  | Ci              | rci                     | e              | or               | Sp     | ec             | if)                    | γŅ               | vie:         | the          | od N             | 0.)   |   |  |   |
| Contact Pers    | son:  | . 7//      | -1 5     | E-mail:<br>Vally energy & platiculation |       |                           |             |                |                                |             |       |              | 1     | $\frac{1}{2}$ |                     |                  |                 | 200.7                   |                |                  |        |                |                        |                  |              |              | `                |       |   | p.a.   |   |
| Invoice to:     | Sly Kogers                                      |            |          |   |       | <u>V</u>                  | all         | 41             | riters                         | 29.6        | PL    | attenti      | Like  | 1 1           | 524                 | 3                |                 | Cr Pb Se Hg 6010B/200   | 50             |                  |        |                |                        |                  |              |              |                  |       |   | Lead Turn Around Time if different from standard |   |
| (If different f | rom above)                                      |            |          |   |       |                           |             |                | ·                              |             |       |              |       | 624           | 524                 |                  |                 | F 4                     | ő              |                  |        |                |                        |                  |              |              |                  |       |   | om s   |   |
| Project #:      |   |            |          |   |       | /UM                       | roje<br>W.V | ct Na<br>1 (U) | mo:<br>liel                    | 13          | 87    | Fiel         | ).    | 8260B /       | 3260B / 62          |                  |                 | S Se                    | 5              |                  |        |                | 1676                   | 70 /             |              |              |                  |       |   | ent fr   |   |
| Project Loca    | ition (including state):<br>5° RD3E — Eclelylai | 104,       | na       |   | -     | SQ S                      | Samp        | ler S          | gnatur                         | <b>e</b> :  | La    |              |       | / 82          | 826(                | 10               |                 | Sa Cr.                  | 5              |                  |        |                | 624                    | 3                | 608          |              |                  |       |   | iffere   |   |
| V 1310          | S ASSE CECUGIO                                  | 1.1        | ł        | T                                       | MAT   | RIX                       | 1           | ر ب<br>و       | RESEI<br>MET                   | RVAT<br>HOD | IVE   | Fiel # 1     | PLING | 3 / 602       | / 602 / 8260B / 624 | GRO / DRO / TVHC | 1               | S Ba Cd                 | SV 5           | Semi Volatiles   | Sea    |                | GC/MS Vol. 8260B / 624 | 70 Kg            | -            |              | -ut              | . ]   |   | me if c  |   |
|                 |   | IN E       | / Amount |   | TT    |                           | $\top$      | T              | П                              |             |       |              |       | 8021B         | 8021B /             |                  | 0 / 6           | Ag Ag                   | atiles         | li Vo            | sticid | 3              | 82                     | E 2              | 8081A        | E S          | Conte            | Euch  |   | T pu   |   |
| LAB#            | FIELD CODE                                      | CONTAINERS | Volume / | WATER                                   |       | SLUDGE                    |             | ľ              | , 0, 3                         | 5           | 밀     | Щ.           | ш     | 1 1           |                     | TPH 8015         | PAH 8270C / 625 | Total Metais Ag As Ba ( | TCLP Volatiles | TCLP Semi Volati | P Pe   |                | MS                     | GC/MS Semi. Vol. | Pesticides 8 | BOD, TSS. pH | Moisture Content | (3)   |   | Aron   |   |
| ONLY            |   | )<br>#±    | \<br>No. | WA                                      | SOIL  | SEL                       |             | S S            | H <sub>2</sub> SO <sub>4</sub> | E E         | NON   | DATE         | TIME  | MTBE          | BTEX                |                  | PAH             | Total<br>C              | 칠              | Į                | 77     | 200            | 000                    | 3 2              | Pes          | 8            | Mois             | 14    |   | Tur  | 일 |
| 115467          | Bkg-EASt<br>Bkg-Wist<br>Bkg-Wist<br>Bkg-South   | i          |          |   | V     |                           |             |                |                                |             |       | 2/2/07       | lac   |               |                     |                  |                 | _                       |                |                  |        |                |                        | ,                |              |              |                  | V     |   |  |   |
| 68              | Bkg- North                                      | 1_         |          |   | 2     |                           |             |                |                                |             |       | 42/01        |       |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              |              |                  | V     |   | X  |   |
| 69              | Bkg-Wust  | 1          |          |   | 20-   |                           |             |                |                                |             |       | 70/07        | 1000  |               |                     | ,                |                 |                         |                |                  |        |                |                        |                  |              | Ī            |                  | 1     |   | 3  |   |
| 70              | Bkg. South                                      |            |          |   | v     |                           |             |                |                                |             |       | 2/3/0        | 1030  |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              | Ī            |                  | 4     |   | 50   |   |
|                 | <u> </u>  |            |          |   |       |                           |             |                |                                |             |       |              |       |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              |              |                  |       |   | V  |   |
|                 |   |            |          |   |       |                           |             |                |                                |             |       |              |       |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              |              |                  |       |   |  |   |
|                 |   |            |          |   |       |                           |             |                |                                |             |       |              |       |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              |              |                  |       |   |  |   |
|                 |   |            |          |   |       |                           |             |                |                                |             |       |              |       |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              |              |                  |       |   |  |   |
|                 |   |            |          |   |       |                           |             |                |                                |             |       |              |       |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              |              |                  |       |   |  |   |
|                 |   |            |          |   |       |                           |             | T              |                                |             |       |              |       |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              |              |                  |       |   |  |   |
|                 |   |            |          |   |       |                           | 2           |                |                                |             |       |              |       |               |                     |                  |                 |                         |                |                  |        |                |                        |                  |              |              |                  |       |   |  |   |
| Relinquishe     | of 1 plates                                     | 1          | ceived   | by:                                     | . /   | 19                        | ,           |                | Date                           | 1           |       | me:          |       |               | L                   | AE               |                 |                         |                |                  | RE     | MAF            | RKS                    | i:               |              |              |                  |       |   |  |   |
| July            | Schicken 1100 M                                 |            | יטיק     | 7                                       |       | [1/                       | <u>(2</u>   |                | 2/0.                           |             |       | 1100 HH      |       | -             |                     | O                | ۷L              | (                       |                |                  |        |                |                        |                  |              |              |                  |       |   |  |   |
| Relinquishe     | d by: Date: Time:                               | Rec        | ceived   | /by:                                    | _     | $\int_{-\infty}^{\infty}$ |             |                | Date                           | :           | -[1   | me:          |       | 1             | ict_                |                  | ) /             | N_                      |                | -                | [      |                | Dry '                  | Weig             | ght B        | asis         | Req              | vired |   |  |   |
| Relinguishe     | d by: Date: Time:                               | l Bor      | roived   | at i                                    | abora | tory h                    | N/ ·        |                | Data                           |             | Ťi    | ma.          |       |               |                     | ace<br>4         |                 |                         | N.             | -                | [      |                | TRR                    | PR               | ерог         | t Rec        | quire            | d     |   |  |   |
| Keimquisne      | u by. Date; time:                               | Ker        |          | eived at Laboratory by: Date: Time:<br> |       |                           |             |                | 00                             | 1 .         | 1000  | Revi         |       | - 6           | L                   |                  | Ĺ               |                         |                |                  |        | cial F<br>edec |                        | rting            |              |              |                  |       |   |  |   |
| Submittal of    | samples constitutes agreement to To             | erms ar    |          |   |       |                           | rever       |                |                                |             |       |              |       | Car           | rier #              | ŧ                | Ć               | ur                      | ryi            | 'n               |        |                |                        |                  |              |              |                  |       | × | <br>   |   |

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Report Date: February 6, 2007 Wagon Wheel 13 St Fed #2

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