# Summary Report

Tommy Folsom
Murchison Oil & Gas Inc.
P.O. Box 627
Carlsbad, NM, 88220

30-015-33906

Report Date: May 23, 2007

Work Order: 7052326

Project Number: Moore Fed. Com No.4

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 125075 | N West Side | soil | 2007-05-22 | 08:00 | 2007-05-23 |
| 125076 | N East Side | soil | 2007-05-22 | 08:30 | 2007-05-23 |
| 125077 | N Middle | soil | 2007-05-22 | 09:00 | 2007-05-23 |

**Sample: 125075 - N West Side**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | <50.0 | mg/Kg | 5.00 |

**Sample: 125076 - N East Side**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **63.7** | mg/Kg | 5.00 |

**Sample: 125077 - N Middle**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **89.6** | mg/Kg | 5.00 |

TRACEANALYSIS, INC.

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# Analytical and Quality Control Report

Tommy Folsom
Murchison Oil & Gas Inc.
P.O. Box 627
Carlsbad, NM, 88220

Report Date: May 23, 2007

Work Order: 7052326

Project Number: Moore Fed. Com No.4

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

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 125075 | N West Side | soil | 2007-05-22 | 08:00 | 2007-05-23 |
| 125076 | N East Side | soil | 2007-05-22 | 08:30 | 2007-05-23 |
| 125077 | N Middle | soil | 2007-05-22 | 09:00 | 2007-05-23 |

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.



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 were received by TraceAnalysis, Inc. on 2007-05-23 and assigned to work order 7052326. Samples for work order 7052326 were received intact at a temperature of 22 C.

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

| 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 7052326 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.

# Analytical Report

**Sample: 125075 - N West Side**

| | | | | | |
|---|---|---|---|---|---|
| Analysis: | Chloride (Titration) | Analytical Method: | SM 4500-Cl B | Prep Method: | N/A |
| QC Batch: | 37443 | Date Analyzed: | 2007-05-23 | Analyzed By: | JS |
| Prep Batch: | 32466 | Sample Preparation: | 2007-05-23 | Prepared By: | JS |

| Parameter | Flag | RL Result | Units | Dilution | RL |
|---|---|---|---|---|---|
| Chloride | | <50.0 | mg/Kg | 10 | 5.00 |

**Sample: 125076 - N East Side**

| | | | | | |
|---|---|---|---|---|---|
| Analysis: | Chloride (Titration) | Analytical Method: | SM 4500-Cl B | Prep Method: | N/A |
| QC Batch: | 37443 | Date Analyzed: | 2007-05-23 | Analyzed By: | JS |
| Prep Batch: | 32466 | Sample Preparation: | 2007-05-23 | Prepared By: | JS |

| Parameter | Flag | RL Result | Units | Dilution | RL |
|---|---|---|---|---|---|
| Chloride | | **63.7** | mg/Kg | 10 | 5.00 |

**Sample: 125077 - N Middle**

| | | | | | |
|---|---|---|---|---|---|
| Analysis: | Chloride (Titration) | Analytical Method: | SM 4500-Cl B | Prep Method: | N/A |
| QC Batch: | 37443 | Date Analyzed: | 2007-05-23 | Analyzed By: | JS |
| Prep Batch: | 32466 | Sample Preparation: | 2007-05-23 | Prepared By: | JS |

| Parameter | Flag | RL Result | Units | Dilution | RL |
|---|---|---|---|---|---|
| Chloride | | **89.6** | mg/Kg | 10 | 5.00 |

**Method Blank (1)** QC Batch: 37443

| | | | | | |
|---|---|---|---|---|---|
| QC Batch: | 37443 | Date Analyzed: | 2007-05-23 | Analyzed By: | JS |
| Prep Batch: | 32466 | QC Preparation: | 2007-05-23 | Prepared By: | SM |

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

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

| | | | | | |
|---|---|---|---|---|---|
| QC Batch: | 37443 | Date Analyzed: | 2007-05-23 | Analyzed By: | JS |
| Prep Batch: | 32466 | QC Preparation: | 2007-05-23 | Prepared By: | SM |

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

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

| Param | LCSD Result | Units | Dil. | Spike Amount | Matrix Result | Rec. | Rec. Limit | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 102 | mg/Kg | 1 | 100 | <3.25 | 102 | 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: 125081

QC Batch: 37443 Date Analyzed: 2007-05-23 Analyzed By: JS
Prep Batch: 32466 QC Preparation: 2007-05-23 Prepared By: SM

| Param | MS Result | Units | Dil. | Spike Amount | Matrix Result | Rec. | Rec. Limit |
|---|---|---|---|---|---|---|---|
| Chloride [1] | 5130 | mg/Kg | 200 | 20000 | 4540 | 3 | 84.6 - 117 |

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

| Param | MSD Result | Units | Dil. | Spike Amount | Matrix Result | Rec. | Rec. Limit | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride [2] | 4940 | mg/Kg | 200 | 20000 | 4540 | 2 | 84.6 - 117 | 4 | 20 |

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

**Standard (ICV-1)**

QC Batch: 37443 Date Analyzed: 2007-05-23 Analyzed By: JS

| Param | Flag | Units | ICVs True Conc. | ICVs Found Conc. | ICVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|
| Chloride | | mg/Kg | 100 | 99.1 | 99 | 85 - 115 | 2007-05-23 |

**Standard (CCV-1)**

QC Batch: 37443 Date Analyzed: 2007-05-23 Analyzed By: JS

| Param | Flag | Units | CCVs True Conc. | CCVs Found Conc. | CCVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|
| Chloride | | mg/Kg | 100 | 101 | 101 | 85 - 115 | 2007-05-23 |

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

LAB Order ID # 7052326 Page 1 of 1

# TraceAnalysis, Inc.

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Company Name: Murchison Oil & Gas, Inc. Phone #: 505-706-0667

Address: (Street, City, Zip) Carlsbad, NM 88220 Fax #:

Contact Person: Tommy Folsom E-mail: tfolsom@valornet.com

Invoice to: (If different from above)

Project #: Mare Fed. Com #4 Project Name:

Project Location (including state): Sampler Signature:

**ANALYSIS REQUEST (Circle or Specify Method No.)**

| LAB # (LAB USE ONLY) | FIELD CODE | # CONTAINERS | Volume / Amount | MATRIX: WATER | SOIL | AIR | SLUDGE | PRESERVATIVE METHOD: HCl | $HNO_3$ | $H_2SO_4$ | NaOH | ICE | NONE | SAMPLING: DATE | TIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All pad north face area Composite. | | | | | | | | | | | | | | |
| 125075 | N west side | 1 | | | X | | | | | | | | X | 5/22 | 0800 |
| 76 | West side | 1 | | | X | | | | | | | | X | | 0830 |
| 77 | N middle | 1 | | | X | | | | | | | | X | | 0900 |

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

Dril Qlz

Email sample results to:
tfolsom@valornet.com
mike.bratcher@state.nm.us
cmurchison@mac.com

| Relinquished by: | Date: | Time: | Received by: | Date: | Time: |
|---|---|---|---|---|---|
| Rhett Sindler | 5/22/07 | 1310 | | | |
| Relinquished by: | Date: | Time: | Received by: | Date: | Time: |
| Relinquished by: | Date: | Time: | Received at Laboratory by: Glenna Pirtle | Date: 5-23-07 | Time: 11:05 |

**LAB USE ONLY**

Intact Y / N

Headspace Y / N

Temp 23°C

Log-in-Review AM

**REMARKS:**

24 hr.

☐ Dry Weight Basis Required

☐ TRRP Report Required

☐ Check If Special Reporting Limits Are Needed

Carrier # BEO CLJ 304059 0995

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

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