



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Trace Analysis, Inc.

Certificate of Analysis Number:
07010091

<u>Report To:</u> Trace Analysis, Inc. Nell Green 6701 Aberdeen Avenue Suite 9 Lubbock TX 79424- ph: (806) 794-1296 fax:	<u>Project Name:</u> Trace Analysis <u>Site:</u> Lubbock, Texas <u>Site Address:</u> <u>PO Number:</u> <u>State:</u> Texas <u>State Cert. No.:</u> T104704205-06-TX <u>Date Reported:</u> 1/12/2007
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This Report Contains A Total Of 13 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

1/16/2007

Date



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Case Narrative for:
Trace Analysis, Inc.

Certificate of Analysis Number:
07010091

<p>Report To:</p> <p>Trace Analysis, Inc. Nell Green 6701 Aberdeen Avenue Suite 9 Lubbock TX 79424- ph: (806) 794-1296 fax:</p>	<p>Project Name: Trace Analysis</p> <p>Site: Lubbock, Texas</p> <p>Site Address:</p> <p>PO Number:</p> <p>State: Texas</p> <p>State Cert. No.: T104704205-06-TX</p> <p>Date Reported: 1/12/2007</p>
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Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg/kg-dry " or " ug/kg-dry ").

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Erica Cardenas
 Project Manager



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Report To: Trace Analysis, Inc.
 Nell Green
 6701 Aberdeen Avenue
 Suite 9
 Lubbock
 TX
 79424-
 ph: (806) 794-1296

fax: (806) 794-1298

Fax To:

Project Name: Trace Analysis
Site: Lubbock, Texas
Site Address:

PO Number:
State: Texas
State Cert. No.: T104704205-06-TX
Date Reported: 1/12/2007

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
112846	07010091-01	Water	12/27/2006	1/3/2007 10:00:00 AM		<input type="checkbox"/>
112844	07010091-02	Water	12/27/2006	1/3/2007 10:00:00 AM		<input type="checkbox"/>
112842	07010091-03	Water	12/28/2006	1/3/2007 10:00:00 AM		<input type="checkbox"/>
112840	07010091-04	Water	12/28/2006	1/3/2007 10:00:00 AM		<input type="checkbox"/>
112838	07010091-05	Water	12/28/2006	1/3/2007 10:00:00 AM		<input type="checkbox"/>

Erica Cardenas

1/16/2007

Erica Cardenas
 Project Manager

Date

Joel Grice
 Laboratory Director

Ted Yen
 Quality Assurance Officer



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Client Sample ID: 112846

Collected: 12/27/2006 0:00

SPL Sample ID: 07010091-01

Site: Lubbock, Texas

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE HYDROCARBONS - GLYCOL				MCL	SW8015B	Units: mg/L	
Ethylene Glycol	ND		20	1	01/10/07 14:06	MNR	3623493
Surr: Isobutanol	97.8		% 50-150	1	01/10/07 14:06	MNR	3623493
TOTAL ORGANIC CARBON (NPOC)				MCL	E415.1	Units: mg/L	
Organic Carbon, Total	1.24		1	1	01/04/07 15:30	ESK	3615713

Qualifiers:
 ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution
 MI - Matrix Interference



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Client Sample ID: 112844

Collected: 12/27/2006 0:00

SPL Sample ID: 07010091-02

Site: Lubbock, Texas

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE HYDROCARBONS - GLYCOL				MCL	SW8015B	Units: mg/L	
Ethylene Glycol	ND		20	1	01/10/07 14:29	MNR	3623494
Surr: Isobutanol	111		% 50-150	1	01/10/07 14:29	MNR	3623494
TOTAL ORGANIC CARBON (NPOC)				MCL	E415.1	Units: mg/L	
Organic Carbon, Total	1.04		1	1	01/04/07 15:30	ESK	3615714

Qualifiers:
 ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution
 MI - Matrix Interference



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Client Sample ID: 112842

Collected: 12/28/2006 0:00

SPL Sample ID: 07010091-03

Site: Lubbock, Texas

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE HYDROCARBONS - GLYCOL				MCL	SW8015B	Units: mg/L	
Ethylene Glycol	ND		20	1	01/11/07 17:30	MNR	3625971
Surr: Isobutanol	99.5		% 50-150	1	01/11/07 17:30	MNR	3625971
TOTAL ORGANIC CARBON (NPOC)				MCL	E415.1	Units: mg/L	
Organic Carbon, Total	5.04		1	1	01/04/07 15:30	ESK	3615715

Qualifiers:
 ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution
 MI - Matrix Interference



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Client Sample ID: 112840 Collected: 12/28/2006 0:00 SPL Sample ID: 07010091-04

Site: Lubbock, Texas

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TOTAL ORGANIC CARBON (NPOC)				MCL	E415.1	Units: mg/L	
Organic Carbon, Total	1.02		1	1	01/04/07 15:30	ESK	3615716

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference



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Client Sample ID: 112838 Collected: 12/28/2006 0:00 SPL Sample ID: 07010091-05

Site: Lubbock, Texas

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TOTAL ORGANIC CARBON (NPOC)				MCL	E415.1	Units: mg/L	
Organic Carbon, Total	1.08		1	1	01/04/07 15:30	ESK	3615717

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 TNTC - Too numerous to count

Quality Control Documentation



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
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Trace Analysis, Inc.
Trace Analysis

Analysis: Semivolatile Hydrocarbons - Glycol
Method: SW8015B

WorkOrder: 07010091
Lab Batch ID: R189261

Method Blank

Samples in Analytical Batch:

RunID: HP_T_070110A-3623491 Units: mg/L
Analysis Date: 01/10/2007 13:19 Analyst: MNR

Lab Sample ID Client Sample ID
07010091-01B 112846
07010091-02B 112844

Table with 3 columns: Analyte, Result, Rep Limit. Rows: Ethylene Glycol (ND, 10), Surr: Isobutanol (65.4, 50-150)

Laboratory Control Sample (LCS)

RunID: HP_T_070110A-3623490 Units: mg/L
Analysis Date: 01/10/2007 12:56 Analyst: MNR

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Ethylene Glycol (400, 347, 86.7, 61, 135)

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 07010329-01
RunID: HP_T_070110A-3623496 Units: mg/L
Analysis Date: 01/10/2007 15:16 Analyst: MNR

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Row: Ethylene Glycol (ND, 200, 186, 93.0, 200, 193, 96.7, 3.90, 20, 25, 151)

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

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Trace Analysis, Inc.
Trace Analysis

Analysis: Semivolatile Hydrocarbons - Glycol
Method: SW8015B

WorkOrder: 07010091
Lab Batch ID: R189408

Method Blank

Samples in Analytical Batch:

RunID: HP_T_070111C-3625970 Units: mg/L
Analysis Date: 01/11/2007 16:43 Analyst: MNR

Lab Sample ID: 07010091-03B
Client Sample ID: 112842

Table with 3 columns: Analyte, Result, Rep Limit. Rows: Ethylene Glycol (ND, 10), Surr: Isobutanol (61.0, 50-150)

Laboratory Control Sample (LCS)

RunID: HP_T_070111C-3625969 Units: mg/L
Analysis Date: 01/11/2007 16:19 Analyst: MNR

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Ethylene Glycol (400, 347, 86.7, 61, 135)

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 07010091-03
RunID: HP_T_070111C-3625972 Units: mg/L
Analysis Date: 01/11/2007 17:53 Analyst: MNR

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Row: Ethylene Glycol (ND, 200, 178, 89.1, 200, 177, 88.5, 0.703, 20, 25, 151)

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

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Quality Control Report

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Trace Analysis, Inc.
Trace Analysis

Analysis: Total Organic Carbon (NPOC)
Method: E415.1

WorkOrder: 07010091
Lab Batch ID: R188798

Method Blank

Samples in Analytical Batch:

RunID: TOC1_070104C-3615699 Units: mg/L
Analysis Date: 01/04/2007 15:30 Analyst: ESK

Table with 2 columns: Lab Sample ID, Client Sample ID. Rows include 07010091-01A through 07010091-05A.

Table with 3 columns: Analyte, Result, Rep Limit. Row: Organic Carbon, Total, ND, 1.0

Laboratory Control Sample (LCS)

RunID: TOC1_070104C-3615702 Units: mg/L
Analysis Date: 01/04/2007 15:30 Analyst: ESK

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Organic Carbon, Total, 4.000, 4.121, 103.0, 84, 116

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 07010091-05
RunID: TOC1_070104C-3615718 Units: mg/L
Analysis Date: 01/04/2007 15:30 Analyst: ESK

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Row: Organic Carbon, Total, 1.078, 2, 2.989, 95.55, 2, 2.949, 93.55, 1.347, 20, 73, 125

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

*Sample Receipt Checklist
And
Chain of Custody*



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Sample Receipt Checklist

Workorder:	07010091	Received By:	AE
Date and Time Received:	1/3/2007 10:00:00 AM	Carrier name:	UPS
Temperature:	2.5°C	Chilled by:	Water Ice

1. Shipping container/cooler in good condition? Yes No Not Present
2. Custody seals intact on shipping container/cooler? Yes No Not Present
3. Custody seals intact on sample bottles? Yes No Not Present
4. Chain of custody present? Yes No
5. Chain of custody signed when relinquished and received? Yes No
6. Chain of custody agrees with sample labels? Yes No
7. Samples in proper container/bottle? Yes No
8. Sample containers intact? Yes No
9. Sufficient sample volume for indicated test? Yes No
10. All samples received within holding time? Yes No
11. Container/Temp Blank temperature in compliance? Yes No
12. Water - VOA vials have zero headspace? Yes No VOA Vials Not Present
13. Water - Preservation checked upon receipt (except VOA*)? Yes No Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:

