

200207912

April 07, 2009

Bob Chesson
Colorado Oil & Gas Conservation Comm.
1120 Lincoln St #801
Denver, CO 80203

Lab Work Order: 09-1992
Client Project ID:

Dear Bob Chesson:

Enclosed are the analytical results for the samples shown in the Laboratory Work Order Summary. The invoice is included with this report or has been mailed to another party as indicated on the chain of custody.

The enclosed data for testing performed at Evergreen Analytical Laboratory (EAL) have been reviewed for quality assurance. A case narrative is included to describe any anomalies associated with the samples or data.

EAL will dispose of all samples 44 days from the sample receipt date. If you want samples returned, please advise us by mail or fax as soon as possible.

A copy of this project report and supporting data will be retained for a period of five years unless we are otherwise advised by you. A document retrieval charge will apply.

Thank you for using the services of Evergreen Analytical. If you have any questions concerning the analytical data, please contact me. Please direct other questions to Client Services.

Sincerely,



Joseph J Egry IV/ Carl Smits
Quality Assurance

WORK ORDER Summary**Evergreen Analytical, Inc.****09-1992****Rpt To:** Bob Chesson**Email To:** Robert.Chesson@state.co.us

3/30/2009 2:22:45 PM

Colorado Oil & Gas Conservation
Comm.

1120 Lincoln St #801

Denver, CO 80203

(303) 894-2100

Client Project ID:**QC Level:** LEVEL I**Comments:** Purchase Order OE PHA 09000000001. Invoice in triplicate 6/30/08 to 6/30/09. PM

Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Test Code	Test Name	Hold	MS	Date Due	Hold Time
09-1992-01A	21000 CO 52	Drinking Water	3/25/09 1045	3/25/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	3/27/09
09-1992-01B	21000 CO 52	Drinking Water	3/25/09 1045	3/25/09	F_W	Fluoride	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	4/22/09
09-1992-01C	21000 CO 52	Drinking Water	3/25/09 1045	3/25/09	200.7_T *	200.7: Total Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	9/21/09
09-1992-01D	21000 CO 52	Drinking Water	3/25/09 1045	3/25/09	200.7_D *	200.7: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	9/21/09
09-1992-01E	21000 CO 52	Drinking Water	3/25/09 1045	3/25/09	CARB/BICARB_W	Carbonate and Bicarbonate	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	4/08/09
09-1992-01F	21000 CO 52	Drinking Water	3/25/09 1045	3/25/09	8021_W *	8021: BTEX, MtBE	<input type="checkbox"/>	<input type="checkbox"/>	3/30/09	4/08/09
09-1992-01G	21000 CO 52	Drinking Water	3/25/09 1045	3/25/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	4/08/09
09-1992-01H	21000 CO 52	Drinking Water	3/25/09 1045	3/25/09	TDS_W	Total Dissolved Solids (TDS)	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	4/01/09

CLIENT INFORMATION

Mail **Original** Report to: Bob Chescon w/COGCC

Attn _____

Address _____

City _____ State _____ Zip _____

Tel # 303-894-2100 Fax # 303-894-2109 E-mail Robe

REPORT ALSO BY ☐ FAX ☐ PDF ☐ EDD FAXED CONFIRMATION OF SAMPLE RECEIPT REQUIRED? ☐ YES

REPORT CHROMATOGRAMS ☐ YES

Mail Invoice to: COGCC

Attn Bob Chesson

Address 1120 Lincoln Street, #801

City Denver State CO Zip 80203

Tel # _____ Fax # _____

Project ID# _____

P.O. _____ Quote 11351

Sampler Chris Roy (Terracon)

NOTE: Identify Known Hazards Below

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME
--------------------------	-----------------	------

Quality Data on Time®



4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(877) 737-4521
e-mail info@evergreenanalytical.com

Report Results by: _____ (Date)*

Standard 2 working weeks ☐UST Analyses per Fee Schedule ☐

* Rush: ☐ less than 24 hrs. 150% ☐ 1-2 work days. 100%


☐ 3 - 5 work days, 50% ☐ 6 - 9 work days, 25%

*Subject to surcharge & exceptions noted in fee schedule.

**For Laboratory
Use Only**

W.O. # 09-1992

B.O.F.#

C/S (O) 

C/S (1) MA, HV

Temp. °C 4.7 / Ice ✓

Scale Present ☒ / ☐ / ☐

Seals Present Y / W / NA
Samples Pres ✓ (N / NA)

Samples Pres. 1 / N / NA
 Heads 1 / M / NA



Headspace Y / N / NA

By 7/

[illegible]

Instructions:	
---------------	--

**** Important Note:** See reverse side hereof for terms and conditions.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	3-25-09/2:00 PM		3-25-09 2:00 PM				

Evergreen Analytical, Inc.

Date: 07-Apr-09

Lab Order: 09-1992

Client Project ID

CASE NARRATIVE

SAMPLE RECEIVING

Sample(s) were hand delivered to the laboratory by the client.

Custody seals were not present.

The temperature of the sample(s) upon arrival was 4.7°C.

Sample(s) were received in good condition, in the proper container, and within holding times.

Sample(s) were preserved properly.

VOC sample(s) were marked as preserved on the bottle labels.

VOC sample(s) were received with no headspace present. JD

QUALITY ASSURANCE (QA)

Analyses performed on samples in this work order by EAL meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. Analyses of discharge samples meet the requirements of 40 CFR Part 136 unless otherwise explained. JE

CLIENT SERVICES

There are no anomalies to report. SG

GENERAL CHEMISTRY

Method E300.0: Sample 21000 CO 52 (09-1992-01) has a high Chloride level and high conductivity levels, which required dilution of the sample to avoid saturating the detector and to separate the Chloride peak and the Nitrite peak. This raised the reporting limit for Nitrite-N, Nitrate-N, and Sulfate. There are no other anomalies to report. BNP/MM/JE

METALS ANALYSIS

Method E200.7: The matrix spike (MS; on another client's sample) recovery for Calcium is outside the QC limits due to the high concentration of Calcium in the sample versus the low concentration of the spike. The Calcium recovery for the laboratory control spike (LCS) is within QC limits, proving the analysis is in control. There are no other anomalies to report. WKH/JE

GAS CHROMATOGRAPHY

Method 8021_W: The MtBE recoveries in the matrix spike and matrix sample duplicate (MS/MSD) are above the QC limits. Since the bias is high and the MtBE in the sample is non detect there is no

Evergreen Analytical, Inc.**Date:** 07-Apr-09**Lab Order:** 09-1992**Client Project ID****CASE NARRATIVE**

further action required. There are no other anomalies to report. JCC/JM/JE

Method RSK-175: A sample duplicate (DUP) was prepared and analyzed instead of a matrix spike duplicate (MSD) due to limited sample. There are no other anomalies to report. VM

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: 21000 CO 52
Client Project ID:
Date Collected: 3/25/09 1045
Date Received: 3/25/09

Lab Work Order: 09-1992
Lab Sample ID: 09-1992-01
Sample Matrix: Drinking Water

ANIONS BY IC

Method: E300.0

Prep Method:

Date Prepared: 3/26/09
Date Analyzed: 3/26/09 1037

Lab File ID: 08
Method Blank: MB 03/26/09

Dilution Factor: 2
Lab Fraction ID: 09-1992-01A


Analytes	CAS Number	Result	LQL	Units
Nitrate-N		U	0.090	mg/L
Nitrite+Nitrate-N		U	0.12	mg/L
Sulfate	7778-80-2	U	1.0	mg/L

Date Prepared: 3/26/09
Date Analyzed: 3/26/09 1242

Lab File ID: 14
Method Blank: MB 03/26/09

Dilution Factor: 5
Lab Fraction ID: 09-1992-01A

Analytes	CAS Number	Result	LQL	Units
Chloride	7647-14-5	130	2.5	mg/L
Nitrite-N		U	0.31	mg/L
Bromide	7647-15-6	1.23	1.0	mg/L


Analyst


Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 3/27/2009

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID 21000 CO 52
Client Project ID
Date Collected: 3/25/09
Date Received: 3/25/09

Lab Work Order 09-1992
Lab Sample ID: 09-1992-01
Sample Matrix: Drinking Water

CARBONATE AND BICARBONATE

Method: SM2320 B

Prep Method:

Date Prepared: 3/31/09
Date Analyzed: 3/31/09

Lab File ID: 147
Method Blank: MBLK 3/31/09

Dilution Factor: 1
Lab Fraction ID: 09-1992-01E

Analytes	CAS Number	Result	LQL	Units
Bicarbonate		794	5.0	mg/L
Carbonate		17.3	5.0	mg/L

FLUORIDE

Method: SM 4500-F C

Prep Method:

Date Prepared: 3/27/09
Date Analyzed: 3/27/09

Lab File ID: 63
Method Blank: MBLK 032709

Dilution Factor: 1
Lab Fraction ID: 09-1992-01B

Analytes	CAS Number	Result	LQL	Units
Fluoride	16984-48-8	3.7	0.20	mg/L

TOTAL DISSOLVED SOLIDS (TDS)

Method: SM 2540C

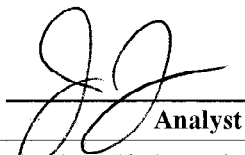
Prep Method:

Date Prepared: 3/31/09
Date Analyzed: 3/31/09

Lab File ID: 4
Method Blank: MBLK 03/31/09

Dilution Factor: 1
Lab Fraction ID: 09-1992-01H

Analytes	CAS Number	Result	LQL	Units
Total Dissolved Solids		969	10.0	mg/L



Analyst



Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 4/2/2009

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: 21000 CO 52
Client Project ID:
Date Collected: 3/25/09
Date Received: 3/25/09

Lab Work Order: 09-1992
Lab Sample ID: 09-1992-01
Sample Matrix: Drinking Water

DISSOLVED METALS

Method: E200.7, Rev. 4.4

Prep Method: E200.7/SW3010A

Date Prepared: 3/30/09
Date Analyzed: 4/2/09

Lab File ID: 040109PM
Method Blank: MB-18612

Dilution Factor: 1
Lab Fraction ID: 09-1992-01D

Analytes	CAS Number	Result	LQL	Units
Calcium	7440-70-2	2.69	0.387	mg/L
Magnesium	7439-95-4	0.908	0.150	mg/L
Potassium	7440-09-7	2.10	0.340	mg/L
Sodium	7440-23-5	419	0.400	mg/L

TOTAL METALS

Method: E200.7, Rev. 4.4

Prep Method: E200.7, Rev. 4.4

Date Prepared: 3/30/09
Date Analyzed: 4/2/09

Lab File ID: 040109DY
Method Blank: MB-18613

Dilution Factor: 1
Lab Fraction ID: 09-1992-01C

Analytes	CAS Number	Result	LQL	Units
Arsenic	7440-38-2	0.0501	0.0500	mg/L
Barium	7440-39-3	0.0731	0.00200	mg/L
Cadmium	7440-43-9	U	0.0100	mg/L
Chromium	7440-47-3	U	0.0100	mg/L
Iron	7439-89-6	0.126	0.0700	mg/L
Lead	7439-92-1	U	0.0730	mg/L
Manganese	7439-96-5	0.0105	0.00500	mg/L
Selenium	7782-49-2	U	0.100	mg/L



Analyst



Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 4/6/2009

Evergreen Analytical, Inc.
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
 (303) 425-6021

Client Sample ID: 21000 CO 52
Client Project ID:
Date Collected: 3/25/2009
Date Received: 3/25/2009

Lab Work Order 09-1992
Lab Sample ID: 09-1992-01F
Sample Matrix: Drinking Water

AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5030B

Date Prepared: 3/27/2009

Lab File ID: 032709\TA042

Dilution Factor: 1

Date Analyzed: 3/28/2009

Method Blank: MB2032709-2

Analytes	CAS Number	Result	LQL	Units
Methyl-t-butyl ether	1634-04-4	U	5.0	µg/L
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	65	QC Limits: 60-140	%REC

Jec

Analyst

[Signature]

Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
 E - Extrapolated value. Value exceeds calibration range
 H - Sample analysis exceeded analytical holding time
 J - Indicates an estimated value when the compound is detected, but is below the LQL
 S - Spike Recovery outside accepted limits
 U - Compound analyzed for but not detected
 X - See case narrative
 * - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit
 Surr - Surrogate

Print Date: 3/30/2009

Signal #1 : E:\DATA\032709\TA042.D\FID1A.CH

Vial: 42

Signal #2 : E:\DATA\032709\TA042.D\FID2B.CH

Acq On : 28 Mar 2009 11:36 am

Operator: Jennifer C

Sample : 09-1992-01F

Inst : TVHBTEX2

Misc : ,SAMP,8021_W,TVH_W,1,

Multiplr: 1.00

IntFile Signal #1: TVH1.E

IntFile Signal #2: FB2.E

Quant Time: Mar 30 14:14 2009 Quant Results File: TW20327.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20327.M (Chemstation Integrator)

Title : 8015B/8021B TVH/BTEX

Last Update : Mon Mar 30 12:42:08 2009

Response via : Multiple Level Calibration

DataAcq Meth : TVB2.M

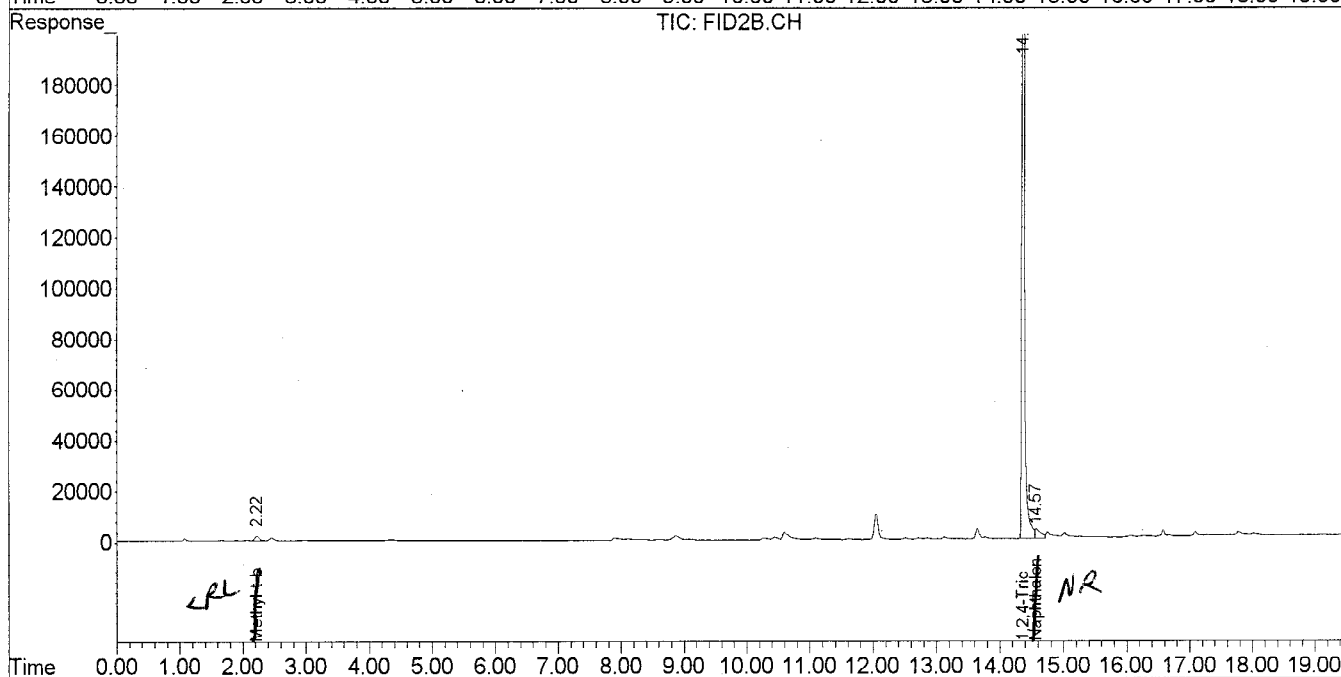
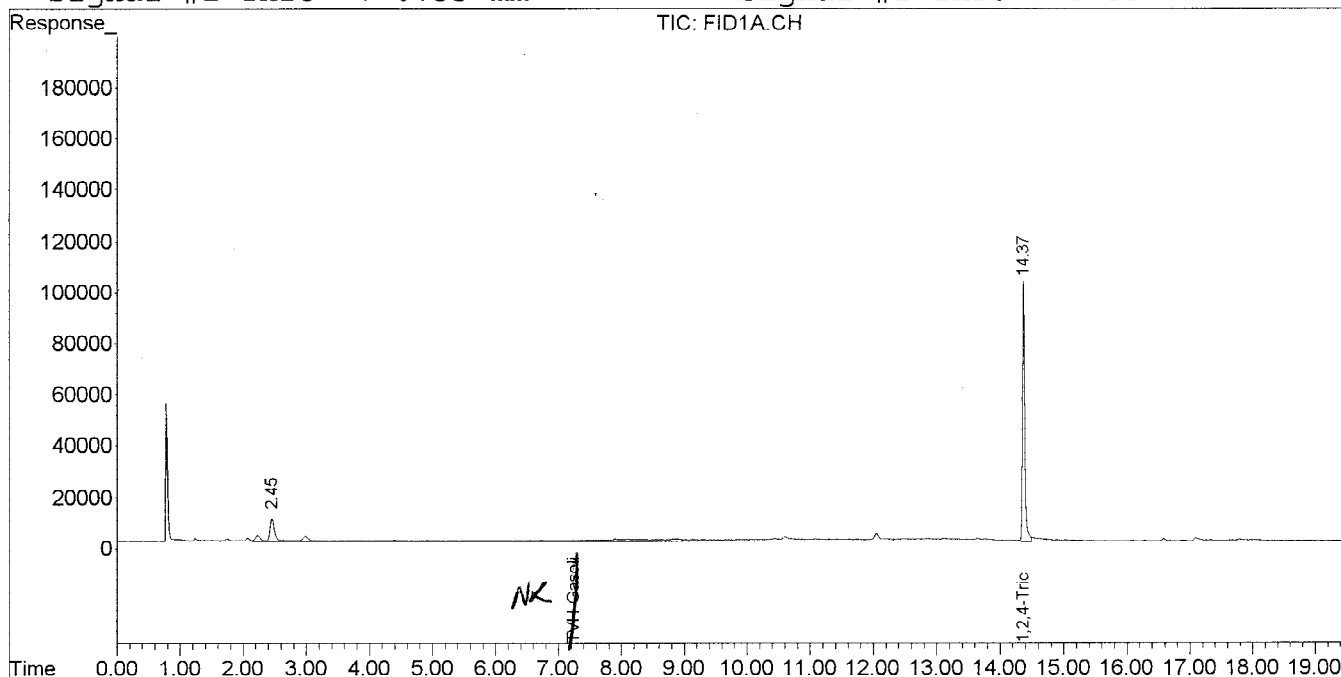
Volume Inj. :

Signal #1 Phase : DB-624

Signal #2 Phase: DB-624

Signal #1 Info : 0.53 mm

Signal #2 Info : 0.53 mm



Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Project ID

Lab Order: 09-1992

Units: mg/L

RSKSOP-175M Headspace**Methane**

Method: RSKSOP175M

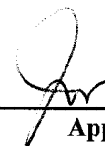
Prep Method: RSKSOP175M

Lab ID	Client ID	Matrix	Date Received	Collection Date	Date Prepared	Date Analyzed	Results	LQL	DF
09-1992-01G	21000 CO 52	Drinking Water	3/25/09	3/25/09	3/30/09	3/30/09	10	0.040	50

Comments:

VM

Analyst



Approved

Qualifiers: J - Indicates an estimated value when the compound is detected, but is below the LQL
H - Sample analysis exceeded analytical holding time
U - Compound analyzed for but not detected
X - See case narrative
*-Value exceeds Maximum Contamination Level(MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: DF - Dilution Factor
LQL - Lower Quantitation Limit

Print Date: 3/30/2009

Data File : F:\DATA\033009\FB029.D

Vial: 29

Acq On : 30 Mar 2009 2:58 pm

Operator: Virginia Meyer

Sample : 09-1992-01G

Inst : FID4

Misc : SAMP, MEEP_W, 50, 10uL

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 30 16:01 2009 Quant Results File: GAS0324.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0324.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Tue Mar 24 10:10:57 2009

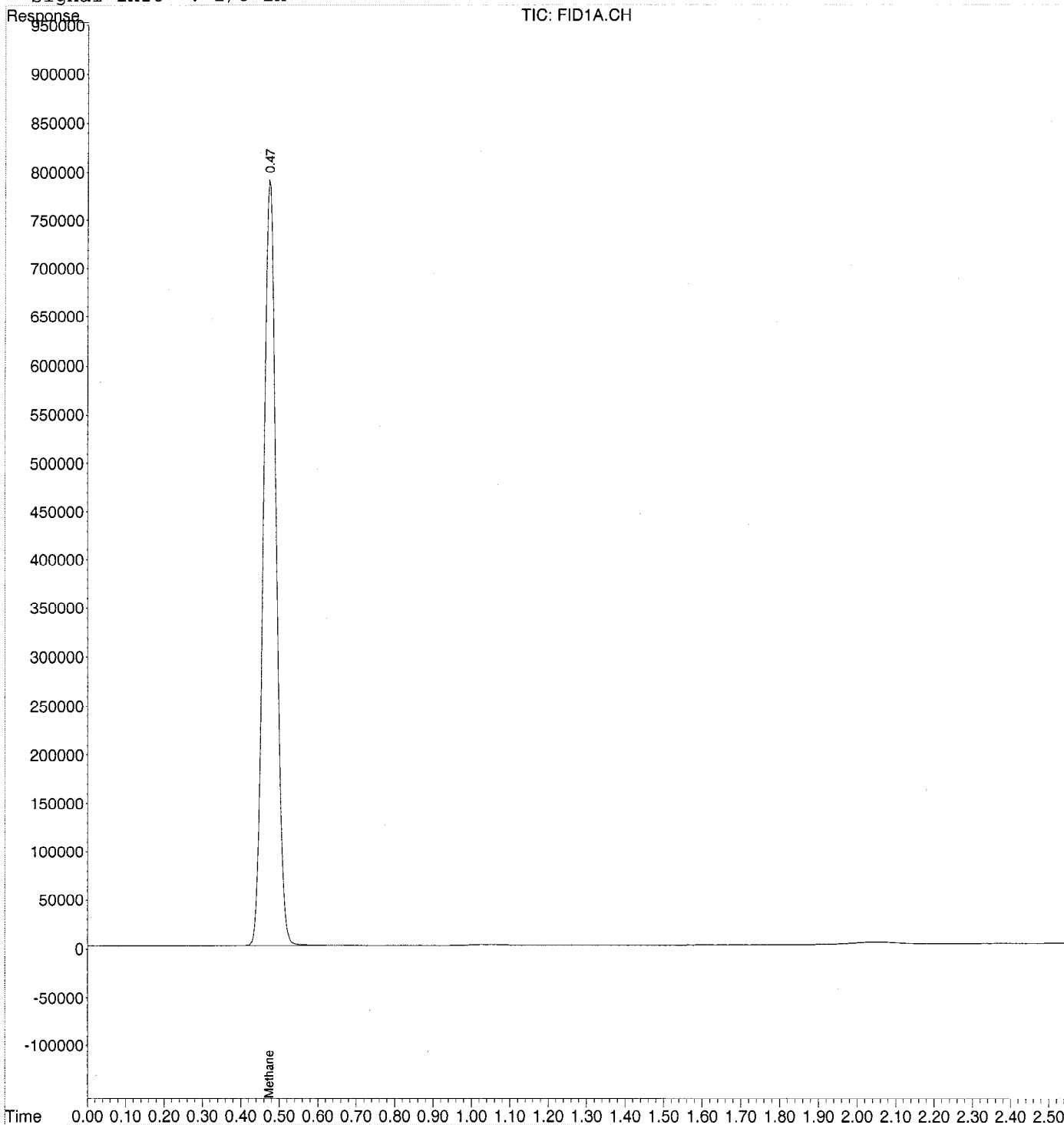
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in



QUALITY ASSURANCE REPORTS

METHOD BLANKS (MB)

LABORATORY CONTROL SPIKES (LCS)

MATRIX SPIKES (MS/MSD)*

DUPLICATES (DUP)*

- **For Metals or Wet Chemistry analyses: only included if requested.**

Work Order: 09-1992

Client Project ID:

ANALYTICAL QC SUMMARY REPORT

BatchID: R46117

Sample ID: MB 03/26/09	SampType: MBLK	TestCode: anions_w	Run ID: IC-2000_090326A	Prep Date: 3/26/2009	Units: mg/L						
	Batch ID: R46117	TestNo: E300.0	FileID: 06	Analysis Date: 3/26/2009	SeqNo: 818977						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0	0.50									
Nitrite-N	0	0.0040									
Bromide	0	0.050									
Nitrate-N	0	0.010									
Nitrite+Nitrate-N	0	0.010									
Sulfate	0	0.50									

Sample ID: LCS #ALLT218076	SampType: LCS	TestCode: anions_w	Run ID: IC-2000_090326A	Prep Date: 3/26/2009	Units: mg/L						
	Batch ID: R46117	TestNo: E300.0	FileID: 05	Analysis Date: 3/26/2009	SeqNo: 818976						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	18.09	2.5	20	0	90.4	90	110	0	0		
Nitrite-N	6.034	0.020	6.09	0	99.1	90	110	0	0		
Bromide	19.85	0.25	20	0	99.2	90	110	0	0		
Nitrate-N	4.369	0.050	4.518	0	96.7	90	110	0	0		
Nitrite+Nitrate-N	10.4	0.050	10.61	0	98	90	110	0	0		
Sulfate	28.2	2.5	30	0	94	90	110	0	0		

Qualifiers:

U - Not detected at or above the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside acceptance limits
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
B - Analyte detected in the associated Method Blank
H - Prep or analytical holding time exceeded
X - See case narrative

Work Order: 09-1992

Client Project ID

ANALYTICAL QC SUMMARY REPORT

TestCode: CARB/BICARB_W

Sample ID: MBLK 3/31/09		SampType: MBLK		TestCode: CARB/BICAR		Run ID: ALK_090331C		Prep Date: 3/31/2009		Units: mg/L	
		Batch ID: R46187		TestNo: SM2320 B		FileID: 145		Analysis Date: 3/31/2009		SeqNo: 820058	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bicarbonate	U	5.0									
Carbonate	U	5.0									

Sample ID: LCS		SampType: LCS		TestCode: CARB/BICAR		Run ID: ALK_090331C		Prep Date: 3/31/2009		Units: mg/L	
		Batch ID: R46187		TestNo: SM2320 B		FileID: 146		Analysis Date: 3/31/2009		SeqNo: 820059	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bicarbonate	99.42	5.0	100	0	99.4	90	110	0	0		

Qualifiers:

U - Not detected at or above the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside acceptance limits
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
B - Analyte detected in the associated Method Blank
H - Prep or analytical holding time exceeded
X - See case narrative

Work Order: 09-1992

Client Project ID

ANALYTICAL QC SUMMARY REPORT

TestCode: F_W

Sample ID: MBLK 032709	SampType: MBLK	TestCode: F_W	Run ID: F_090327A	Prep Date: 3/27/2009	Units: mg/L						
	Batch ID: R46111	TestNo: SM 4500-F C	FileID: 47	Analysis Date: 3/27/2009	SeqNo: 818858						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Fluoride	U	0.20									
----------	---	------	--	--	--	--	--	--	--	--	--

Sample ID: MBLK 032709	SampType: MBLK	TestCode: F_W	Run ID: F_090327A	Prep Date: 3/27/2009	Units: mg/L						
	Batch ID: R46111	TestNo: SM 4500-F C	FileID: 47	Analysis Date: 3/27/2009	SeqNo: 818883						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Fluoride	U	0.20									
----------	---	------	--	--	--	--	--	--	--	--	--

Sample ID: LCS	SampType: LCS	TestCode: F_W	Run ID: F_090327A	Prep Date: 3/27/2009	Units: mg/L						
	Batch ID: R46111	TestNo: SM 4500-F C	FileID: 48	Analysis Date: 3/27/2009	SeqNo: 818859						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Fluoride	9.7	0.20	10	0	97	95	105	0	0		
----------	-----	------	----	---	----	----	-----	---	---	--	--

Sample ID: LCS	SampType: LCS	TestCode: F_W	Run ID: F_090327A	Prep Date: 3/27/2009	Units: mg/L						
	Batch ID: R46111	TestNo: SM 4500-F C	FileID: 48	Analysis Date: 3/27/2009	SeqNo: 818884						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Fluoride	10.4	0.20	10	0	104	95	105	0	0		
----------	------	------	----	---	-----	----	-----	---	---	--	--

Qualifiers:

U - Not detected at or above the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside acceptance limits
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
B - Analyte detected in the associated Method Blank
H - Prep or analytical holding time exceeded
X - See case narrative

Work Order: 09-1992

Client Project ID

ANALYTICAL QC SUMMARY REPORT

TestCode: TDS_W

Sample ID: MBLK 03/31/09	SampType: MBLK	TestCode: TDS_W	Run ID: ANALYTICAL BALANCE_090401A	Prep Date: 3/31/2009	Units: mg/L						
	Batch ID: R46223	TestNo: SM 2540C	FileID: 1	Analysis Date: 3/31/2009	SeqNo: 820475						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids	U	10.0
------------------------	---	------

Sample ID: LCS	SampType: LCS	TestCode: TDS_W	Run ID: ANALYTICAL BALANCE_090401A	Prep Date: 3/31/2009	Units: mg/L						
	Batch ID: R46223	TestNo: SM 2540C	FileID: 2	Analysis Date: 3/31/2009	SeqNo: 820476						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids	406	10.0	400	0	102	90	110	0	0
------------------------	-----	------	-----	---	-----	----	-----	---	---

Qualifiers:

- U - Not detected at or above the Reporting Limit
- J - Analyte detected below quantitation limits
- S - Spike Recovery outside acceptance limits
- E - Extrapolated value, value exceeds calibration range.

- R - RPD outside acceptance limits
- B - Analyte detected in the associated Method Blank
- H - Prep or analytical holding time exceeded
- X - See case narrative

Work Order: 09-1992

Client Project ID:

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.7_T

Sample ID	MB-18613	SampType:	MBLK	TestCode:	200.7_T	Run ID:	ICP-OPTIMA 5300 DV_090401B	Prep Date:	3/30/2009	Units:	mg/L	
		Batch ID:	18613	TestNo:	E200.7, Rev.	FileID:	040109DY	Analysis Date:	4/1/2009	SeqNo:	820621	
Analyte		Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		U	0.0500									
Barium		U	0.00200									
Cadmium		U	0.0100									
Chromium		U	0.0100									
Iron		U	0.0700									
Lead		U	0.0730									
Manganese		U	0.00500									
Selenium		U	0.100									

Sample ID LCS-18613	SampType: LCS	TestCode: 200.7_T	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L						
	Batch ID: 18613	TestNo: E200.7, Rev.	FileID: 040109DY	Analysis Date: 4/1/2009	SeqNo: 820622						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	2.075	0.0500	2	0	104	85	115	0	0		
Barium	5.306	0.00200	5	0	106	85	115	0	0		
Cadmium	0.2158	0.0100	0.2	0	108	85	115	0	0		
Chromium	2.117	0.0100	2	0	106	85	115	0	0		
Iron	5.47	0.0700	5	0	109	85	115	0	0		
Lead	2.215	0.0730	2	0	111	85	115	0	0		
Manganese	2.026	0.00500	2	0	101	85	115	0	0		
Selenium	2.142	0.100	2	0	107	85	115	0	0		

Sample ID 09-1704-01EMS	SampType: MS	TestCode: 200.7_T		Run ID: ICP-OPTIMA 5300 DV_090401B			Prep Date: 3/30/2009		Units: mg/L		
	Batch ID: 18613	TestNo: E200.7, Rev.		FileID: 040109DY			Analysis Date: 4/1/2009		SeqNo: 820624		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.908	0.0500	2	0	95.4	75	125	0	0		
Barium	4.98	0.00200	5	0.07159	98.2	75	125	0	0		
Cadmium	0.1939	0.0100	0.2	0	97	75	125	0	0		
Chromium	1.96	0.0100	2	0.0138	97.3	75	125	0	0		

Qualifiers:

- U - Not detected at or above the Reporting Limit
- J - Analyte detected below quantitation limits
- S - Spike Recovery outside acceptance limits
- E - Extrapolated value, value exceeds calibration range.

- R - RPD outside acceptance limits
- B - Analyte detected in the associated Method Blank
- H - Prep or analytical holding time exceeded
- X - See case narrative

Work Order: 09-1992

Client Project ID:

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.7_T

Sample ID 09-1704-01EMS	SampType: MS	TestCode: 200.7_T	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L						
	Batch ID: 18613	TestNo: E200.7, Rev.	FileID: 040109DY	Analysis Date: 4/1/2009	SeqNo: 820624						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	15.83	0.0700	5	11.85	79.7	75	125	0	0		
Lead	2.025	0.0730	2	0.02019	101	75	125	0	0		
Manganese	2.07	0.00500	2	0.2301	92	75	125	0	0		
Selenium	1.919	0.100	2	0	95.9	75	125	0	0		

Sample ID 09-1704-01EMSD	SampType: MSD	TestCode: 200.7_T	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L						
	Batch ID: 18613	TestNo: E200.7, Rev.	FileID: 040109DY	Analysis Date: 4/1/2009	SeqNo: 820625						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.98	0.0500	2	0	99	75	125	1.908	3.70	20	
Barium	5.077	0.00200	5	0.07159	100	75	125	4.98	1.93	20	
Cadmium	0.198	0.0100	0.2	0	99	75	125	0.1939	2.09	20	
Chromium	1.975	0.0100	2	0.0138	98.1	75	125	1.96	0.796	20	
Iron	16.67	0.0700	5	11.85	96.5	75	125	15.83	5.16	20	
Lead	2.076	0.0730	2	0.02019	104	75	125	2.025	2.49	20	
Manganese	2.086	0.00500	2	0.2301	92.8	75	125	2.07	0.769	20	
Selenium	1.964	0.100	2	0	98.2	75	125	1.919	2.31	20	

Qualifiers:

U - Not detected at or above the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside acceptance limits
 E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
 B - Analyte detected in the associated Method Blank
 H - Prep or analytical holding time exceeded
 X - See case narrative

Evergreen Analytical, Inc.

Date: 07-Apr-09

Work Order: 09-1992

Client Project ID:

ANALYTICAL QC SUMMARY REPORT

BatchID: 18612

Sample ID	MB-18612	SampType: MBLK	TestCode: 200.7_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L					
		Batch ID: 18612	TestNo: E200.7, Rev.	FileID: 040109DY	Analysis Date: 4/2/2009	SeqNo: 820723					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	U	0.387									
Magnesium	U	0.150									
Potassium	U	0.340									
Sodium	U	0.400									

Sample ID	LCS-18612	SampType: LCS	TestCode: 200.7_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L					
		Batch ID: 18612	TestNo: E200.7, Rev.	FileID: 040109DY	Analysis Date: 4/2/2009	SeqNo: 820724					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	10.59	0.387	10	0	106	85	115	0	0		
Magnesium	10.54	0.150	10	0	105	85	115	0	0		
Potassium	10.37	0.340	10	0.152	104	85	115	0	0		
Sodium	10.5	0.400	10	0	105	85	115	0	0		

Sample ID	09-1839-01CMS	SampType: MS	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L					
		Batch ID: 18612	TestNo: SW6010B	FileID: 040109DY	Analysis Date: 4/1/2009	SeqNo: 820677					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	71.35	0.48	12.5	54.92	131	75	125	0	0		S
Magnesium	34.27	0.19	12.5	19.67	117	75	125	0	0		
Potassium	16.41	0.43	12.5	3.017	107	75	125	0	0		
Sodium	73.23	0.50	12.5	57.87	123	75	125	0	0		

Sample ID	09-1839-01CMSD	SampType: MSD	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L					
		Batch ID: 18612	TestNo: SW6010B	FileID: 040109DY	Analysis Date: 4/1/2009	SeqNo: 820678					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	69.99	0.48	12.5	54.92	121	75	125	71.35	1.92	20	
Magnesium	33.89	0.19	12.5	19.67	114	75	125	34.27	1.12	20	

Qualifiers:

- U - Not detected at or above the Reporting Limit
- J - Analyte detected below quantitation limits
- S - Spike Recovery outside acceptance limits
- E - Extrapolated value, value exceeds calibration range.

- R - RPD outside acceptance limits
- B - Analyte detected in the associated Method Blank
- H - Prep or analytical holding time exceeded
- X - See case narrative

Work Order: 09-1992

Client Project ID:

ANALYTICAL QC SUMMARY REPORT

BatchID: 18612

Sample ID 09-1839-01CMSD	SampType: MSD	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L						
	Batch ID: 18612	TestNo: SW6010B	FileID: 040109DY	Analysis Date: 4/1/2009	SeqNo: 820678						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	16.38	0.43	12.5	3.017	107	75	125	16.41	0.234	20	
Sodium	72.98	0.50	12.5	57.87	121	75	125	73.23	0.340	20	

Qualifiers:

U - Not detected at or above the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside acceptance limits
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
B - Analyte detected in the associated Method Blank
H - Prep or analytical holding time exceeded
X - See case narrative

Work Order: 09-1992

Client Project ID:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_W

Sample ID: MB2032709-2	SampType: MBLK	TestCode: 8021_W	Run ID: TVHBTEX2_090327A	Prep Date: 3/27/2009	Units: µg/L
	Batch ID: R46129-2	TestNo: SW8021B	FileID: 032709\TA034	Analysis Date: 3/28/2009	SeqNo: 819397

Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl-t-butyl ether	U	5.0									
Benzene	U	1.0									
Toluene	U	2.0									
Ethylbenzene	U	2.0									
m,p-Xylene	U	2.0									
o-Xylene	U	2.0									
Surr: 1,2,4-Trichlorobenzene (S)	60.46	0	100	0	60.5	60	140	0	0		

Sample ID: LCS2032709-2	SampType: LCS	TestCode: 8021_W	Run ID: TVHBTEX2_090327A	Prep Date: 3/27/2009	Units: µg/L
	Batch ID: R46129-2	TestNo: SW8021B	FileID: 032709\TA035	Analysis Date: 3/28/2009	SeqNo: 819398

Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl-t-butyl ether	38.22	5.0	31.2	0	122	70	130	0	0		
Benzene	25.65	1.0	25.5	0	101	70	130	0	0		
Toluene	177.6	2.0	183.6	0	96.8	70	130	0	0		
Ethylbenzene	38.98	2.0	36.8	0	106	70	130	0	0		
m,p-Xylene	143.3	2.0	136.3	0	105	70	130	0	0		
o-Xylene	60.4	2.0	57.2	0	106	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	108.7	0	100	0	109	60	140	0	0		

Sample ID: 09-1997-01AMS	SampType: MS	TestCode: 8021_W	Run ID: TVHBTEX2_090327A	Prep Date: 3/27/2009	Units: µg/L
	Batch ID: R46129-2	TestNo: SW8021B	FileID: 032709\TA037	Analysis Date: 3/28/2009	SeqNo: 819400

Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl-t-butyl ether	46.21	5.0	31.2	0	148	65	132	0	0		S
Benzene	25.45	1.0	25.5	0	99.8	70	130	0	0		
Toluene	178.2	2.0	183.6	0	97	70	130	0	0		
Ethylbenzene	39.46	2.0	36.8	0	107	62	130	0	0		
m,p-Xylene	146	2.0	136.3	0	107	70	134	0	0		

Qualifiers:

U - Not detected at or above the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside acceptance limits
 E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
 B - Analyte detected in the associated Method Blank
 H - Prep or analytical holding time exceeded
 X - See case narrative

Work Order: 09-1992

Client Project ID:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_W

Sample ID: 09-1997-01AMS	SampType: MS	TestCode: 8021_W	Run ID: TVHBTEX2_090327A	Prep Date: 3/27/2009	Units: µg/L						
	Batch ID: R46129-2	TestNo: SW8021B	FileID: 032709\TA037	Analysis Date: 3/28/2009	SeqNo: 819400						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	61.2	2.0	57.2	0	107	63	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	112.6	0	100	0	113	60	140	0	0		

Sample ID: 09-1997-01AMSD	SampType: MSD	TestCode: 8021_W	Run ID: TVHBTEX2_090327A	Prep Date: 3/27/2009	Units: µg/L						
	Batch ID: R46129-2	TestNo: SW8021B	FileID: 032709\TA038	Analysis Date: 3/28/2009	SeqNo: 819401						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl-t-butyl ether	55.6	5.0	31.2	0	178	65	132	46.21	18.4	30	S
Benzene	24.6	1.0	25.5	0	96.5	70	130	25.45	3.43	30	
Toluene	174.5	2.0	183.6	0	95	70	130	178.2	2.07	30	
Ethylbenzene	38.78	2.0	36.8	0	105	62	130	39.46	1.75	30	
m,p-Xylene	143.4	2.0	136.3	0	105	70	134	146	1.76	30	
o-Xylene	60.88	2.0	57.2	0	106	63	130	61.2	0.516	30	
Surr: 1,2,4-Trichlorobenzene (S)	108.8	0	100	0	109	60	140	0	0	0	

Qualifiers:

U - Not detected at or above the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside acceptance limits
 E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
 B - Analyte detected in the associated Method Blank
 H - Prep or analytical holding time exceeded
 X - See case narrative

Evergreen Analytical, Inc.

Date: 30-Mar-09

Work Order: 09-1992

Client Project ID:

ANALYTICAL QC SUMMARY REPORT

TestCode: MEEP_W

Sample ID: GB033009	SampType: MBLK	TestCode: MEEP_W	Run ID: FID4_090330A	Prep Date: 3/30/2009	Units: mg/L						
	Batch ID: GAS033009	TestNo: RSKSOP175	FileID: FB004	Analysis Date: 3/30/2009	SeqNo: 819502						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: LCS033009		SampType: LCS	TestCode: MEEP_W	Run ID: FID4_090330A	Prep Date: 3/30/2009				Units: mg/L		
		Batch ID: GAS033009	TestNo: RSKSOP175	FileID: FB005	Analysis Date: 3/30/2009				SeqNo: 819503		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	0.6046	0.0080	0.5094	0	119	70	130	0	0		

Sample ID: LCSD033009	SampType: LCSD	TestCode: MEEP_W	Run ID: FID4_090330A	Prep Date: 3/30/2009	Units: mg/L						
	Batch ID: GAS033009	TestNo: RSKSOP175	FileID: FB006	Analysis Date: 3/30/2009	SeqNo: 819504						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	0.606	0.0080	0.5094	0	119	70	130	0.6046	0.219	30	

Sample ID: 09-2029-01BMS	SampType: MS	TestCode: MEEP_W	Run ID: FID4_090330A	Prep Date: 3/30/2009	Units: mg/L						
	Batch ID: GAS033009	TestNo: RSKSOP175	FileID: FB031	Analysis Date: 3/30/2009	SeqNo: 819501						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	0.582	0.0080	0.5094	0.002177	114	70	130	0	0		

Sample ID: 09-1962-01BDUP	SampType: DUP	TestCode: MEEP_W	Run ID: FID4_090330A	Prep Date: 3/30/2009	Units: mg/L						
	Batch ID: GAS033009	TestNo: RSKSOP175	FileID: FB032	Analysis Date: 3/30/2009	SeqNo: 819493						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	4.537	0.016	0	0	0	0	0	4.447	2.00	30	

Qualifiers:

U - Not detected at or above the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside acceptance limits
 E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
 B - Analyte detected in the associated Method Blank
 H - Prep or analytical holding time exceeded
 X - See case narrative