United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street Building 201
Richmond, CA 94804

Date: **3/15/2012**

Subject: **Analytical Testing Results - Project R33911**
SDG: 12067A

From: **Brenda Bettencourt, Director**
EPA Region 9 Laboratory
MTS-2

To: **Richard Fetzer**
US EPA Region 3, Eastern Response Branch
3HS31

Attached are the results from the analysis of samples from the **Dimock Residential Groundwater** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this report:

Dissolved Hydrocarbon Gases by GC

DIM0207296

United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12067A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 03/15/12 09:23
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
FB19	1203018-01	Water	03/05/12 09:36	03/07/12 10:00
HW60	1203018-02	Water	03/05/12 12:25	03/07/12 10:00
TB49	1203018-03	Water	03/05/12 07:15	03/07/12 10:00
HW56	1203018-04	Water	03/05/12 16:54	03/07/12 10:00
TB50	1203018-05	Water	03/05/12 10:00	03/07/12 10:00
FB20	1203020-01	Water	03/06/12 14:00	03/08/12 09:50
HW61	1203020-02	Water	03/06/12 15:42	03/08/12 09:50
HW61-P	1203020-03	Water	03/06/12 16:00	03/08/12 09:50
HW61z	1203020-04	Water	03/06/12 15:42	03/08/12 09:50
TB51	1203020-05	Water	03/06/12 07:05	03/08/12 09:50
FB21	1203024-01	Water	03/08/12 13:38	03/09/12 10:15
HW50	1203024-02	Water	03/08/12 15:09	03/09/12 10:15
TB52	1203024-03	Water	03/08/12 10:35	03/09/12 10:15

SDG ID 12067A

Dissolved Hydrocarbon Gases:

The methane result for samples 1203020-03 and 1203020-04 was flagged as estimated since the concentration of this analyte in the sample was less than five time the concentration found in the associated trip and field blanks.

A chromatographic peak was found within the presumed retention time window for propane for sample 1203018-04. Propane is likely present in this sample.

Samples in work order 1203024 (received on 3/9/12) were at received at 8 degees C. This is above the recommended temperature range of 0 to 6 degrees C. No significant impact on the sample results is expected.

Work Order(s)

1203018

1203020

1203024

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 03/15/12 09:23
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1203018-01									**Water - Sampled: 03/05/12 09:36**
Sample ID: FB19									**Dissolved Gases by RSK-175**
Methane		0.6	C1, J	1.2	ug/L	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			118 %	*66.4-153%*		"	"	"	
Lab ID: 1203018-02									**Water - Sampled: 03/05/12 12:25**
Sample ID: HW60									**Dissolved Gases by RSK-175**
Methane	RE1	21,000		210	ug/L	B2C0050	03/09/12	03/09/12	RSK-175/SOP325
Ethane		10		1.2	"	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			115 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		99 %	*66.4-153%*		*B2C0050*	*03/09/12*	*03/09/12*	
Lab ID: 1203018-03									**Water - Sampled: 03/05/12 07:15**
Sample ID: TB49									**Dissolved Gases by RSK-175**
Methane		ND	U	1.2	ug/L	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			113 %	*66.4-153%*		"	"	"	
Lab ID: 1203018-04									**Water - Sampled: 03/05/12 16:54**
Sample ID: HW56									**Dissolved Gases by RSK-175**
Methane	RE1	8,700		77	ug/L	B2C0050	03/09/12	03/09/12	RSK-175/SOP325
Ethane		62		1.2	"	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			114 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		98 %	*66.4-153%*		*B2C0050*	*03/09/12*	*03/09/12*	
Lab ID: 1203018-05									**Water - Sampled: 03/05/12 10:00**
Sample ID: TB50									**Dissolved Gases by RSK-175**
Methane		ND	U	1.2	ug/L	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			117 %	*66.4-153%*		"	"	"	
Lab ID: 1203020-01									**Water - Sampled: 03/06/12 14:00**
Sample ID: FB20									**Dissolved Gases by RSK-175**
Methane		1.2		1.2	ug/L	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12067A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 03/15/12 09:23
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1203020-01									**Water - Sampled: 03/06/12 14:00**
Sample ID: FB20									**Dissolved Gases by RSK-175**
Surrogate: Acetylene			106 %	*66.4-153%*		*B2C0040*	*03/08/12*	*03/08/12*	
Lab ID: 1203020-02									**Water - Sampled: 03/06/12 15:42**
Sample ID: HW61									**Dissolved Gases by RSK-175**
Methane	RE1	ND	U	1.2	ug/L	B2C0050	03/09/12	03/09/12	RSK-175/SOP325
Ethane	RE1	ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene	RE1	ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene	*RE1*		113 %	*66.4-153%*		"	"	"	
Lab ID: 1203020-03									**Water - Sampled: 03/06/12 16:00**
Sample ID: HW61-P									**Dissolved Gases by RSK-175**
Methane		0.9	B1, C1, J	1.2	ug/L	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			113 %	*66.4-153%*		"	"	"	
Lab ID: 1203020-04									**Water - Sampled: 03/06/12 15:42**
Sample ID: HW61z									**Dissolved Gases by RSK-175**
Methane		0.6	B1, C1, J	1.2	ug/L	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			111 %	*66.4-153%*		"	"	"	
Lab ID: 1203020-05									**Water - Sampled: 03/06/12 07:05**
Sample ID: TB51									**Dissolved Gases by RSK-175**
Methane		0.8	C1, J	1.2	ug/L	B2C0040	03/08/12	03/08/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			112 %	*66.4-153%*		"	"	"	
Lab ID: 1203024-01									**Water - Sampled: 03/08/12 13:38**
Sample ID: FB21									**Dissolved Gases by RSK-175**
Methane		ND	U	1.2	ug/L	B2C0050	03/09/12	03/09/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			106 %	*66.4-153%*		"	"	"	
Lab ID: 1203024-02									**Water - Sampled: 03/08/12 15:09**
Sample ID: HW50									**Dissolved Gases by RSK-175**
Methane		0.6	C1, J	1.2	ug/L	B2C0050	03/09/12	03/09/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 03/15/12 09:23
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1203024-02									**Water - Sampled: 03/08/12 15:09**
Sample ID: HW50									**Dissolved Gases by RSK-175**
Ethene		ND	U	1.1	ug/L	B2C0050	03/09/12	03/09/12	RSK-175/SOP325
Surrogate: Acetylene			111 %	*66.4-153%*		"	"	"	
Lab ID: 1203024-03									**Water - Sampled: 03/08/12 10:35**
Sample ID: TB52									**Dissolved Gases by RSK-175**
Methane		ND	U	1.2	ug/L	B2C0050	03/09/12	03/09/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			109 %	*66.4-153%*		"	"	"	

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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B2C0040 - RSK175 - Dissolved HC Gases										**Prepared & Analyzed: 03/08/12**
										Dissolved Gases by RSK-175 - Quality Control
Blank (B2C0040-BLK1)										
Methane	ND	U	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*65.2*			"	*66.5*		98	*66.4-153*		
LCS (B2C0040-BS1)										
Methane	47		1.2	ug/L	44.1		106	70-130		200
Ethane	92.3		1.2	"	83.2		111	77-137		200
Ethene	86.7		1.1	"	78.3		111	78-138		200
Surrogate: Acetylene	*79.0*			"	*72.0*		110	*66.4-153*		
Matrix Spike (B2C0040-MS1)		**Source: 1203018-04**								
Methane	6,490	Q10	1.2	ug/L	44.1	6,510	**NR**	70-130		20
Ethane	146		1.2	"	83.2	61.8	102	70-130		20
Ethene	78.8		1.1	"	78.3	ND	101	70-130		20
Surrogate: Acetylene	*70.4*			"	*72.0*		98	*66.4-153*		
Matrix Spike Dup (B2C0040-MSD1)		**Source: 1203018-04**								
Methane	4,870	Q10	1.2	ug/L	44.1	6,510	**NR**	70-130	**29**	20
Ethane	137		1.2	"	83.2	61.8	90	70-130	7	20
Ethene	83.7		1.1	"	78.3	ND	107	70-130	6	20
Surrogate: Acetylene	*75.4*			"	*72.0*		105	*66.4-153*		
Batch B2C0050 - RSK175 - Dissolved HC Gases										**Prepared & Analyzed: 03/09/12**
										Dissolved Gases by RSK-175 - Quality Control
Blank (B2C0050-BLK1)										
Methane	ND	U	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*80.3*			"	*66.5*		121	*66.4-153*		
LCS (B2C0050-BS1)										
Methane	42.9		1.2	ug/L	44.1		97	70-130		200
Ethane	85.5		1.2	"	83.2		103	77-137		200
Ethene	80.2		1.1	"	78.3		102	78-138		200
Surrogate: Acetylene	*73.6*			"	*72.0*		102	*66.4-153*		

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 03/15/12 09:23
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Qualifiers and Comments

Q10 The analyte concentration in the unfortified sample is significantly greater than the concentration spiked into the matrix spike and matrix spike duplicate. The reported spike recovery is not a meaningful measure of the dataset's analytical accuracy.

J The reported result for this analyte should be considered an estimated value.

C1 The reported concentration for this analyte is below the quantitation limit.

B1 The concentration of this analyte found in this sample was less than five times the concentration found in the associated method blank.

U Not Detected

NR Not Reported

RE1, RE2, etc: Result is from a sample re-analysis.

ICF International / Laboratory Data Consultants
Environmental Services Assistance Team, Region 9
1337 South 46th Street, Building 201, Richmond, CA 94804-4698
Phone: (510) 412-2300 Fax: (510) 412-2304

DATE: March ~~14~~ 13, 2012

TO: Richard Bauer, Chemistry TOM, EPA Region 9, Laboratory Section, MTS-2

FROM: [redacted] Organic Group Leader

SUBJECT: Analytical Results for TDF 01001084

As assigned under EPA Contract No. EP-W-06-041, TDF 01001084, ESAT completed analysis of 13 water samples for the Dimock Residential Groundwater Site project, Case R33911, SDG 12067A, Work Orders 1203018, 1203020, and 1203024 for dissolved gasses following EPA Region 9 Laboratory SOP 325 based on method RSK-175. The draft analytical report and raw data package are attached.

If you have any questions regarding this information please contact me at extension 22390.

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EPA Region 9 Laboratory

DATA PACKAGE

Analysis:	**Dissolved Gasses**
Project Number:	**R33911**
SDG Number:	**12067A**
Work Order:	**1203018, 1203020, and 1203024**
ESAT DCN:	**14623**

Contents

- **Review Forms**
- **Tracking Forms**
- ***Sample Preparation***
- **Data**
  -Initial Calibration Data
  -Sample Data
- ***Miscellaneous Data***
- **Standard Records**
- ***Canister Certification Data***

Sections in italics are included as applicable

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REVIEW FORMS

General Project Management and ESAT Contractor Oversight Review

Project Number: R33911

SDG: 12067A

Analysis: dissolved gasses

Number of Pages: 149

Reviewer: Bauer

- ☑ Review project notes and requirements (including TDF) and verify that correct analytical procedures and any special instructions were followed. Note any significant deviations or omissions in report narrative or return to contractor for correction.
- ☑ Review project memo field for each work order and include information pertinent to data users in report narrative. (Information important only to chemist reviewing the raw data package should be included in data package, but not in the report narrative).
- ☑ Review chain of custody documentation and verify that information in report corresponds correctly. Verify that any sample shipping or handling issues are properly documented and reported.
- ☑ Review analytical report and QC report and verify that qualifier flags for holding times, sample handling, surrogates, blanks, blank spikes, matrix QC, and calibration range have been appropriately applied.
- ☑ Review LIMS Data Entry table for unaddressed outliers.
- ☑ Verify that all major sections of data package are present.

Comments:

Added narrative comments:
- Flagged for TBs & FBs.
- Propane(?) in ~~0~~ 1203018-04
- Temp. for samples received 3/9.

Reviewer Signature [signature] Date 3/14/12

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ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** Dissolved Gasses | **TDF:** 01001084 | **Matrix:** water
DCN: 14623 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12067A

ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

Reviewer:	Package Prep (P): RH	Technical (T):	Final (F):
	Date: 3/12/12	Date: 3/12/12	Date: 3/13/12

P T F N/A (indicates that the item is present and reviewed for accuracy and completeness)

Report Section

- ☑ ☑ ☑ ESAT Cover Memo (original)
- ☑ ☑ ☑ TDF included and requirements met (e.g. project analytes, project QLs, special procedures)
- ☑ ☑ ☑ Draft LIMS Report

Data Package Cover

- ☑ ☑ ☑ Case, SDG, Work Order(s), TDF#-DCN [First numbered page in the data package]

Review Forms

- ☑ ☑ ☑ EPA Review Form and Technical Review Guide included and complete.
- ☑ ☑ ☑ ☐ LIMS memo field; include as applicable.
- ☐ ☐ ☐ ☑ Discrepancy form(s) include as applicable
- ☑ ☐ ☑ ☐ Daily folder review forms are complete and reviewed; QC outliers noted
- ☑ ☐ ☑ ☐ Analysis matrix listing all analytical runs is included, as applicable

Tracking Forms

- ☑ ☑ ☑ Work Orders and Chains of Custody forms included and reviewed.
- ☑ ☑ ☑ Preparation and analyses performed within holding times. Qualify and/or explain deviations in memo field
- ☑ ☐ ☑ ☐ Cooler temperatures recorded on COC are within specification. Qualify and/or explain deviations in memo field 9°C Note 1

Sample Preparation

- ☑ ☑ ☐ ☐ Bench sheets and extraction logs, where applicable
- ☐ ☐ ☐ ☑ Sample cleanup data and records (e.g. GPC logs)
- ☐ ☐ ☐ ☑ Homogenization and Moisture data

Initial Calibration Data

Group ICAL data by instrument and analysis date:

- ☑ ☑ ☐ ☐ All ICALs associated with samples are present, reviewed, and pass SOP criteria. (If failure, discrepancy form must be included)
- ☐ ☐ ☐ ☐ Check for misidentification (e.g. isomers such as dichlorobenzene)

Sample Data

Group data for the following areas in sections by method, instrument, and analysis date.

Continuing Calibrations

- ☑ ☑ ☐ ☐ All CCALs associated with samples are present and meet SOP criteria. If not, discrepancy form included.
- ☑ ☑ ☐ Average RRFs from associated ICAL are correctly transposed to CCAL summary form
- ☑ ☑ ☐ CCAL RRFs and %Ds calculated correctly. Check at least 1 surrogate & 1 target analyte
- ☑ ☑ ☐ Check %Ds and RRFs against SOP criteria

ESAT Region 9 **ICF International**
Case: R33911 **Analysis:** Dissolved Gasses **TDF:** 01001084 **Matrix:** water
DCN: 14623 **Site:** Dimock Residential Groundwater Site **SDG:** 12067A

P T F N/A (indicates that the item is present and reviewed for accuracy and completeness)

Quantitation Limit Standards
☑ ☑ ☐ ☐ Percent recoveries of 60-140% met; outliers noted and flagged

Laboratory Control Samples
☑ ☑ ☑ Percent recoveries met. If not, discrepancy form included unless not required because: _____

Method Blanks
☑ ☐ ☑ Present and no target analyte results > ½ QL; if not, flag data as appropriate

MS/MSD or Duplicate Data
☑ ☐ ☑ ☐ Percent recoveries and RPDs were met; outliers are noted and flagged. Note significant deviations in LIMS memo field

Sample Data
☑ ☑ ☑ ☐ Bench sheet(s) and injection or run logs present for all samples
☐ ☐ ☐ ☑ Internal standards meet SOP criteria
☑ ☑ ☑ ☐ System Monitoring Compound/Surrogate recoveries met; outliers are noted and flagged
☑ ☑ ☐ All non-detects are reported as ND on the quantitation report and explained for QC samples
☑ ☑ ☐ Quantitation results are correctly calculated. Check at least one surrogate or one target analyte
☐ ☐ ☑ Mass spectral data are present for all target analytes
☐ ☐ ☐ ☑ Check for manual integrations (m) identified on quantitation reports. Verify presence of manual integration data, initialed and dated by a supervisor
☑ ☑ ☐ ☐ Compound concentrations exceeding the upper range of the instrument are reported from the dilution run
☑ ☑ Check for carry-over contamination
☑ ☑ ☐ ☐ Dilutions and reruns appropriate.
☐ ☐ ☑ ☑ TICs properly identified; TIC report and data present; proper TIC name used (Organics)
☑ ☑ ☑ ☐ QC outliers are appropriately flagged in LIMS

Miscellaneous Data
☐ ☐ ☐ ☑ Storage blank data present
☐ ☐ ☐ ☐ Other data, as applicable _____

Standards Records
☑ ☑ ☑ ☐ Standards records from LIMS (and logbook pages as needed)

Canister Certification Data (TO 15 only)
☐ ☐ ☐ ☑ Data and supporting QC present

For ESAT Files: ESAT Review form (original) and Cover Memo (copy)

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WORK ORDER NOTES - 1203018

1203018 - US EPA Region 3, Eastern Response
Dimock Residential Groundwater

RSK-175: B2C0040-MS1/MSD1: The methane concentration in the unfortified sample (1203018-04) is significantly greater than the concentration spiked into the MS/MSD. The reported spike recovery is not a meaningful measure of the dataset's analytical accuracy. RH 3/12/12

RSK-175: Sample 1203018-04 reported the presence of propane. ZAR 03/12/12

WORK ORDER NOTES - 1203020

1203020 - US EPA Region 4 - Eastern Region
Dimock Residential Groundwater

RSK-175: Methane result for samples 120302020-03 & 04 was flagged B since the concentration of this analyte in the sample was less than five time the concentration found in the associated tripand field blanks. RH 3/12/12

WORK ORDER NOTES - 1203024

1203024 - US EPA Region 3, Eastern Response
Dimock Residential Groundwater

Samples received at 8 deg C. No impact on data. Reported unqualified. ZAR 03/12/12

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	RSK-175	Analyst Initial	RH	Reviewer Initial	[illegible]	Batch/ Sequence	2010040
Instrument ID	AG6890N-6	Date Analyzed	1/26/12	Date	01/27/12	Chemstation Last Update	1/27/12 11:26:56
Cases	ICAL			SDGs	ICAL		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
✓			Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
✓			Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
✓			QLS (level, frequency, and recovery) (include Chemstation summary)
✓			Method / Extraction / Storage Blanks (frequency and contamination levels)
✓			Surrogate Recoveries
✓			IS Areas (SOP criteria met)
✓			LCS (level, frequency, and recovery) (include Chemstation summary)
✓			MS/MSD
✓			Samples (within calibration range, results calculated correctly)
✓			Manual Integration Verified
	✓	✓	Standard Prep Log (all pages present, legible, peer reviewed, legible)
✓			Sample Prep/Extraction (all pages present, legible, peer reviewed)
✓			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
								Propane and Butane are not calibrated. They are added simply as presumptive retention time markers for informational purposes only.

G:\USER\ESAT\I Organic Group\daily review RSK175.doc

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	Dissolved Gasses	Analyst Initial	RH	Reviewer Initial	[illegible]	Batch/ Sequence	2030020/B2B0040
Instrument ID	AG6890N-6	Date Analyzed	3/8/12	Date	3/12/12	Chemstation Last Update	1/27/12 1:26:56
Cases	R33911			SDGs	12067A		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
✓			Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
	✓	✓	QLS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	Method / Extraction / Storage Blanks (frequency and contamination levels)
	✓	✓	Surrogate Recoveries
✓			IS Areas (SOP criteria met)
	✓	✓	LCS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	MS/MSD
	✓	✓	Samples (within calibration range, results calculated correctly)
✓			Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
	✓	✓	Sample Prep/Extraction (all pages present, legible, peer reviewed)
✓			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion

G:\USER\ESAT\1 Organic Group\supplies & equipment\RFH\daily review_rsk_2_12.doc

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	Dissolved Gasses	Analyst Initial	R/H	Reviewer Initial	[illegible]	Batch/ Sequence	2030026/B2B0050
Instrument ID	AG6890N-6	Date Analyzed	3/9/12	Date	3/12/12	Chemstation Last Update	1/27/12 1:26:56
Cases	R33911			SDGs	12067A		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
✓			Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
	✓	✓	QLS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	Method / Extraction / Storage Blanks (frequency and contamination levels)
	✓	✓	Surrogate Recoveries
✓			IS Areas (SOP criteria met)
	✓	✓	LCS (level, frequency, and recovery) (include Chemstation summary)
✓			MS/MSD
	✓	✓	Samples (within calibration range, results calculated correctly)
✓			Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
	✓	✓	Sample Prep/Extraction (all pages present, legible, peer reviewed)
✓			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
BLK		0.50						Methane > ½QL < QL

G:\USER\ESAT\I Organic Group\supplies & equipment\RFH\daily review_rsk_2_12.doc

USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R33911
SDG: 12067A
Analysis: Dissolved Gasses

Analyst: RH
Reviewer:

Sample ID	Sample Runs		
[redacted]	AG6890N-6	AG6890N-6	AG6890N-6
[redacted]	3/8/2012	3/9/2012	
[redacted]	2030020	2030026	
1203018-01	RPT		
1203018-02	C1 OC		
1203018-02RE1 0.09ML		RPT C1	
1203018-03	RPT		
1203018-04	C1 OC		
1203018-04RE1 0.25ML		RPT C1	
1203018-05	RPT		
1203020-01	RPT		
1203020-02	NU re-ran to check for CO		
1203020-02RE1 16.1ML		RPT	
1203020-03	RPT		
1203020-04	RPT		
1203020-04	RPT		
1203024-01		RPT	
1203024-02		RPT	
1203024-03		RPT	
B2C0040-BLK1	RPT		
B2C0040-BS1	RPT		
B2C0040-MS1 18-04	RPT		
B2C0040-MSD1 18-04	RPT		
B2B0050-BLK1		RPT	
B2B0050-BS1		RPT	

Definitions

RPT	Report
NU	Not Used
OC	Over calibration
OTT	Out of tune time
nX	Dilution, where n is dilution factor
CO	Carry over

00010A

SAMPLE TRACKING FORMS

:00010 B

WORK ORDER

Printed: 3/7/2012 3:08:21PM

1203018

EPA Region 9 Laboratory

Client: US EPA Region 3, Eastern Response Branch **Project Number:** R33911
Project: Dimock Residential Groundwater

Report To:
US EPA Region 3, Eastern Response Branch
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone: (215) 341-6307
Fax: XX

Project Contact
US EPA Region 3, Eastern Response Branch
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone :(215) 341-6307
Fax: XX

Shipping Containers	Description	Temp C	Custody Seals?	Containers Intact?	Labels COC Agree?	Preservation Confirmed?	Received on Ice?	Comments
1Cooler		3	Yes	Yes	Yes	Yes	Yes	
2Cooler		4	Yes	Yes	Yes	Yes	Yes	

Date Due:	03/28/12 15:00 (21 day TAT)	SDG:	12067A
Received By:	Chris Cagurangan	Date Received:	03/07/12 10:00
Logged In By:	Chris Cagurangan	Date Logged In:	03/07/12 10:28

Analysis	Hold Time Expires	Comments
1203018-01 FB19 [Water] Sampled 03/05/12 09:36 Pacific		
Dissolved HC Gases	03/19/12	5 day prelim results
TPH - Purgeable	03/19/12	
1203018-02 HW60 [Water] Sampled 03/05/12 12:25 Pacific		
Dissolved HC Gases	03/19/12	5 day prelim results
TPH - Purgeable	03/19/12	
1203018-03 TB49 [Water] Sampled 03/05/12 07:15 Pacific		
Dissolved HC Gases	03/19/12	5 day prelim results
TPH - Purgeable	03/19/12	
1203018-04 HW56 [Water] Sampled 03/05/12 16:54 Pacific		**LAB QC**
Dissolved HC Gases	03/19/12	5 day prelim results
TPH - Purgeable	03/19/12	
1203018-05 TB50 [Water] Sampled 03/05/12 10:00 Pacific		
Dissolved HC Gases	03/19/12	5 day prelim results
TPH - Purgeable	03/19/12	

Reviewed By _____ Date _____

USEPA CLP Generic COC (LAB COPY)

DateShipped: 3/5/2012
CarrierName: FedEx
AirbillNo: 7933 0175 8109

CHAIN OF CUSTODY RECORD

Case # CT5665

No: 3-030512-152213-0243

Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB19	Aqueous/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19035 (HCl / 40mlGlassVial), 19036 (HCl / 40mlGlassVial), 19054 (HCl / 40mlGlassVial), 19055 (HCl / 40mlGlassVial) (4)	FB19	03/05/2012 09:36	
HW60	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19068 (HCl / 40mlGlassVial), 19069 (HCl / 40mlGlassVial), 19087 (HCl / 40mlGlassVial), 19088 (HCl / 40mlGlassVial) (4)	HW60	03/05/2012 12:25	
TB49	Aq[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19060 (HCl / 40mlGlassVial), 19061 (HCl / 40mlGlassVial), 19062 (HCl / 40mlGlassVial), 19063 (HCl / 40mlGlassVial) (4)	TB49	03/05/2012 07:15	

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: RSK-175=11-Dissolved Gases_Meth Ethe Etha, GRO=11-Gasoline Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
12	[redacted]	3/5/12									
			[redacted]	03/07/12	1000						

3°C custody seals intact [illegible] 03/07/12

USEPA CLP Generic COC (LAB COPY)

DateShipped: 3/6/2012
CarrierName: FedEx
AirbillNo: 7981 3494 1644

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-030612-091805-0248

Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
HW56	Drinking Water/ [redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), RSK-175(7), RSK-175(7), GRO(7), GRO(7), GRO(7), GRO(7)	19102 (HCl / 40mlGlassVial), 19103 (HCl / 40mlGlassVial), 19121 (HCl / 40mlGlassVial), 19122 (HCl / 40mlGlassVial), 19130 (HCl / 40mlGlassVial), 19131 (HCl / 40mlGlassVial), 19132 (HCl / 40mlGlassVial), 19133 (HCl / 40mlGlassVial), 19134 (HCl / 40mlGlassVial), 19135 (HCl / 40mlGlassVial), 19136 (HCl / 40mlGlassVial), 19137 (HCl / 40mlGlassVial) (12)	HW56	03/05/2012 16:54	
TB50	Aqueous/ [redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19094 (HCl / 40mlGlassVial), 19095 (HCl / 40mlGlassVial), 19096 (HCl / 40mlGlassVial), 19097 (HCl / 40mlGlassVial) (4)	TB50	03/05/2012 10:00	

Sample(s) to be used for Lab QC: HW56

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, GRO=11-Gasoline Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
16	[redacted]	3/6/12									
			[redacted]	03/07/12	1003						

4° custody seals intact at 03/07/12

WORK ORDER

Printed: 3/8/2012 12:50:18PM

1203020

EPA Region 9 Laboratory

Client: US EPA Region 3, Eastern Response Branch
Project: Dimock Residential Groundwater
Project Number: R33911

Report To:
US EPA Region 3, Eastern Response Branch
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone: (215) 341-6307
Fax: XX

Project Contact
US EPA Region 3, Eastern Response Branch
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone :(215) 341-6307
Fax: XX

Shipping Containers	Description	Temp C	Custody Seals?	Containers Intact?	Labels COC Agree?	Preservation Confirmed?	Received on Ice?	Comments
1Cooler		3	Yes	Yes	Yes	Yes	Yes	

Date Due:	03/29/12 15:00 (21 day TAT)	SDG:	12067A
Received By:	Jack Berges	Date Received:	03/08/12 09:50
Logged In By:	Jack Berges	Date Logged In:	03/08/12 10:42

Analysis	Hold Time Expires	Comments
1203020-01 FB20 [Water] Sampled 03/06/12 14:00 Pacific		
Dissolved HC Gases	03/20/12	5 day prelim results
TPH - Purgeable	03/20/12	
1203020-02 HW61 [Water] Sampled 03/06/12 15:42 Pacific		
Dissolved HC Gases	03/20/12	5 day prelim results
TPH - Purgeable	03/20/12	
1203020-03 HW61-P [Water] Sampled 03/06/12 16:00 Pacific		
Dissolved HC Gases	03/20/12	5 day prelim results
TPH - Purgeable	03/20/12	
1203020-04 HW61z [Water] Sampled 03/06/12 15:42 Pacific		
Dissolved HC Gases	03/20/12	5 day prelim results
TPH - Purgeable	03/20/12	
1203020-05 TB51 [Water] Sampled 03/06/12 07:05 Pacific		
Dissolved HC Gases	03/20/12	5 day prelim results
TPH - Purgeable	03/20/12	

Reviewed By

Date

USEPA CLP Generic COC (LAB COPY)
DateShipped: 3/7/2012
CarrierName: FedEx
AirbillNo: 7933 1035 7507

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-030712-113036-0254
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB20	Aqueous/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19225 (HCl / 40mlGlassVial), 19226 (HCl / 40mlGlassVial), 19244 (HCl / 40mlGlassVial), 19245 (HCl / 40mlGlassVial) (4)	FB20	03/06/2012 14:00	
HW61	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19155 (HCl / 40mlGlassVial), 19156 (HCl / 40mlGlassVial), 19174 (HCl / 40mlGlassVial), 19175 (HCl / 40mlGlassVial) (4)	HW61	03/06/2012 15:42	
HW61-P	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19207 (HCl / 40mlGlassVial), 19208 (HCl / 40mlGlassVial), 19218 (HCl / 40mlGlassVial), 19219 (HCl / 40mlGlassVial) (4)	HW61-P	03/06/2012 16:00	
HW61z	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19181 (HCl / 40mlGlassVial), 19182 (HCl / 40mlGlassVial), 19200 (HCl / 40mlGlassVial), 19201 (HCl / 40mlGlassVial) (4)	HW61	03/06/2012 15:42	

Special Instructions: COOLER @ 3°C, SEALS INTACT, ON ICE BAB 3/8/12

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, GRO=11-Gasoline Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
16	[redacted]	3/7/12	[redacted]	3/8/12	9:50						

00014

USEPA CLP Generic COC (LAB COPY)
DateShipped: 3/7/2012
CarrierName: FedEx
AirbillNo: 7933 1035 7507

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-030712-113036-0254
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
TB51	Aqueous/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	19147 (HCl / 40mlGlassVial), 19148 (HCl / 40mlGlassVial), 19149 (HCl / 40mlGlassVial), 19150 (HCl / 40mlGlassVial) (4)	TB51 NO SAMPLE CONTAINER 19150 REC'D @ LAB	03/06/2012 07:15	LAB 3/8/12

Special Instructions: COOLER @ 3°C, SEALS INTACT, ON ICE

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, GRO=11-Gasoline Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
4	[redacted]	3/7/12	[redacted] MAA LAB	3/8/12	950						

00015

WORK ORDER

Printed: 3/9/2012 12:53:29PM

1203024

EPA Region 9 Laboratory

Client: US EPA Region 3, Eastern Response Branch
Project: Dimock Residential Groundwater
Project Number: R33911

Report To:
US EPA Region 3, Eastern Response Branch
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone: (215) 341-6307
Fax: XX

Project Contact
US EPA Region 3, Eastern Response Branch
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone :(215) 341-6307
Fax: XX

Shipping Containers	Description	Temp C	Custody Seals?	Containers Intact?	Labels COC Agree?	Preservation Confirmed?	Received on Ice?	Comments
Default Cooler	Default Cooler	8	Yes	Yes	Yes	No	Yes	

Date Due:	03/30/12 15:00 (21 day TAT)	SDG:	12067A
Received By:	Garrett Peterson	Date Received:	03/09/12 10:15
Logged In By:	Garrett Peterson	Date Logged In:	03/09/12 10:25

Analysis	Hold Time Expires	Comments
1203024-01 FB21 [Water] Sampled 03/08/12 13:38 Pacific		
Dissolved HC Gases	03/22/12	5 day prelim results
TPH - Purgeable	03/22/12	
1203024-02 HW50 [Water] Sampled 03/08/12 15:09 Pacific		
Dissolved HC Gases	03/22/12	5 day prelim results
TPH - Purgeable	03/22/12	
1203024-03 TB52 [Water] Sampled 03/08/12 10:35 Pacific		
Dissolved HC Gases	03/22/12	5 day prelim results
TPH - Purgeable	03/22/12	

Reviewed By

Date

USEPA CLP Generic COC (LAB COPY)

DateShipped: 3/8/2012
CarrierName: FedEx
AirbillNo: 7933 1794 4460

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-030812-162436-0257

Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB21	Aqueous/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	18940 (HCl / 40mlGlassVial), 18941 (HCl / 40mlGlassVial), 18962 (HCl / 40mlGlassVial), 18963 (HCl / 40mlGlassVial) (4)	FB21	03/08/2012 13:38	
HW50	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	18980 (HCl / 40mlGlassVial), 18981 (HCl / 40mlGlassVial), 19001 (HCl / 40mlGlassVial), 19002 (HCl / 40mlGlassVial) (4)	HW50	03/08/2012 15:09	
TB52	Aqueous[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	18970 (HCl / 40mlGlassVial), 18971 (HCl / 40mlGlassVial), 18972 (HCl / 40mlGlassVial), 18973 (HCl / 40mlGlassVial) (4)	TB52	03/08/2012 10:35	

Special Instructions: Rec'd @ 8°C, Custody Seals intact

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, GRO=11-Gasoline Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
12	[redacted]	3/8/12									
									[redacted]	3/9/12	1015

00017

Sample Preparation

DIM0207296 DIM0207325

207296

PREPARATION BENCH SHEET

B2C0040

EPA Region 9 Laboratory

Printed: 3/8/2012 12:57:22PM

Project: R33911 - Dimock Residential Groundwater

Matrix: Water **Analysis: Dissolved HC Gases** **Prepared using: Volatiles - RSK175** **Surrogate used: 2B12005**

Lab Number	SampleName	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Prepared By	pH	Weight 1	Weight 2	Extraction Comments
1203018-01 A	FB19	03/08/12 09:11	16.1	16.1				100	RH	2			5 day prelim results
1203018-02 A	HW60	03/08/12 09:11	16.1	16.1				100	RH	2			5 day prelim results
1203018-03 A	TB49	03/08/12 09:11	16.1	16.1				100	RH	2			5 day prelim results
1203018-04 A	HW56	03/08/12 09:11	16.1	16.1				100	RH	2			5 day prelim results
1203018-05 A	TB50	03/08/12 09:11	16.1	16.1				100	RH	2			5 day prelim results
1203020-01 A	FB20	03/08/12 12:11	16.1	16.1				100	RH	2			5 day prelim results
1203020-02 A	HW61	03/08/12 12:11	16.1	16.1				100	RH	2			5 day prelim results
1203020-03 A	HW61-P	03/08/12 12:11	16.1	16.1				100	RH	2			5 day prelim results
1203020-04 A	HW61z	03/08/12 12:11	16.1	16.1				100	RH	2			5 day prelim results
1203020-05 A	TB51	03/08/12 12:11	16.1	16.1				100	RH	2			5 day prelim results
B2C0040-BLK1	Blank	03/08/12 09:11	16.1	16.1				100	RH				
B2C0040-BS1	LCS	03/08/12 09:11	16.1	16.1	0L07008		100		RH				
B2C0040-MS1	Matrix Spike	03/08/12 09:11	16.1	16.1	0L07008	1203018-04	100		RH				
B2C0040-MSD1	Matrix Spike Dup	03/08/12 09:11	16.1	16.1	0L07008	1203018-04	100		RH				

Preparation Reviewed By — Date: 3/12/12

PREPARATION BENCH SHEET

B2C0050

EPA Region 9 Laboratory

Printed: 3/9/2012 1:55:58PM

Project: R33911 - Dimock Residential Groundwater

Matrix: Water **Analysis:Dissolved HC Gases** **Prepared using: Volatiles - RSK175** **Surrogate used: 2B12005**

Lab Number	SampleName	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Prepared By	pH	Weight 1	Weight 2	Extraction Comments
1203018-02RE1 B	HW60	03/09/12 12:00	0.09	16.1				100	RH	2			5 day prelim results
1203018-04RE1 E	HW56	03/09/12 12:00	0.25	16.1				100	RH	2			5 day prelim results
1203020-02RE1 B	HW61	03/09/12 12:00	16.1	16.1				100	RH	2			5 day prelim results
1203024-01 C	FB21	03/09/12 12:00	16.1	16.1				100	RH	2			5 day prelim results
1203024-02 C	HW50	03/09/12 12:00	16.1	16.1				100	RH	2			5 day prelim results
1203024-03 C	TB52	03/09/12 12:00	16.1	16.1				100	RH	2			5 day prelim results
B2C0050-BLK1	Blank	03/09/12 09:00	16.1	16.1				100	RH				
B2C0050-BS1	LCS	03/09/12 09:00	16.1	16.1	0L07008		100	100	RH				
B2C0050-MS1	Matrix Spike	03/09/12 12:00	0.25	16.1	0L07008	203018-04RE	100	100	RH				
B2C0050-MSD1	Matrix Spike Dup	03/09/12 12:00	0.25	16.1	0L07008	203018-04RE	100	100	RH				

Reagents

Reagent #	Description

000020

Preparation Reviewed By: 3-12-12 Date

INITIAL CALIBRATION

Injection Log

Directory: D:\MSDCHEM\1\2012\DATA\012612RSK

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0126126r001.d	1.	2010040-ibl1		Unrecognized:Un
2	2	0126126r002.d	1.	2010040-CAL7		Unrecognized:Un
3	3	0126126r003.d	1.	2010040-CAL6		Unrecognized:Un
4	4	0126126r004.d	1.	2010040-CAL5		Unrecognized:Un
5	5	0126126r005.d	1.	2010040-CAL4		Unrecognized:Un
6	6	0126126r006.d	1.	2010040-CAL3		Unrecognized:Un
7	7	0126126r007.d	1.	2010040-CAL2		Unrecognized:Un
8	8	0126126r008.d	1.	2010040-CAL1		Unrecognized:Un
9	9	0126126r009.d	1.	2010040-SCV1		Unrecognized:Un
10	10	0126126r010.d	1.	DIAG MIXED GAS		26 Jan 2012 22:08
11	11	0126126r011.d	1.	PROPANE		26 Jan 2012 22:35
12	12	0126126r012.d	1.	BUTANE		26 Jan 2012 23:11

Compound List Report AG6890N-6

Method Path : D:\MSDCHEM\1\2012\METHOD\
Method File : 0126126RSK.M
Title :
Last Update : Fri Jan 27 09:53:18 2012
Response Via : Initial Calibration

Total Cpnds : 4

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	T	Methane	1.53	1.000	A	A	R
2	S	Acetylene	7.98	1.000	A	A	R
3	T	Ethene	8.37	1.000	A	A	R
4	T	Ethane	9.00	1.000	A	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

0126126RSK.M Fri Jan 27 10:35:07 2012

RESPONSE FACTOR REPORT AG6890N-6

Method Path: C:\MSDCHEM\1\METHODS
Method File: 020396RWA.M
Title:
Last Update: Fri Jan 27 09:53:18 2012
Response Via: Initial Calibration

Calibration Files:
1 = 0126126R008. 2 = 0126126R007. 3 = 0126126R006 4 = 0126126R005.D
5 = 0126126R004. 6 = 0126126R003. 7 = 0126126R002.D

Compound		1	2	3	4	5	6	7	AVG.	%RSD
1) TM Methane										
	ug/L		1.23	4.10	13.23	44.10	110.25	220.50		
	RF		1.100E+06	1.004E+06	1.003E+06	9.970E+05	1.028E+06	9.768E+05	1.018E+06	4.25%
2) S Acetylene										
	ug/L	1.007	2.01	6.71	21.65	72.17	180.42	360.83		
	RF	322059.5829	3.304E+05	3.380E+05	3.710E+05	3.595E+05	3.697E+05	3.560E+05	3.495E+05	5.56%
3) TM Ethene										
	ug/L	1.09	2.18	7.27	23.46	78.18	195.46	390.92		
	RF	8.210E+05	8.669E+05	8.696E+05	9.069E+05	9.135E+05	9.418E+05	8.959E+05	8.879E+05	4.42%
4) TM Ethane										
	ug/L	1.162	2.324	7.746	24.981	83.269	208.172	416.343		
	RF	8.940E+05	9.414E+05	9.563E+05	9.856E+05	9.942E+05	1.023E+06	9.713E+05	9.666E+05	4.30%

00024

Response Factor Report AG6890N-6

Method Path : D:\MSDCHEM\1\2012\METHOD\
Method File : 0126126RSK.M
Title :
Last Update : Fri Jan 27 11:26:56 2012
Response Via : Initial Calibration

Calibration Files
1 =0126126R008.D 2 =0126126R007.D 3 =0126126R006.D
4 =0126126R005.D 5 =0126126R004.D 6 =0126126R003.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	TM	Methane		1.100	1.004	1.003	0.997	1.028	1.018	E6	4.25
2)	S	Acetylene	3.221	3.304	3.380	3.710	3.595	3.697	3.495	E5	5.56
3)	TM	Ethene	8.210	8.669	8.696	9.069	9.135	9.418	8.879	E5	4.42
4)	TM	Ethane	0.894	0.941	0.956	0.986	0.994	1.023	0.967	E6	4.30
5)	Qual	Propane							0.000		-1.00
6)	Qual	Butane							0.000		-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R00I.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 5:14 pm
Operator : rh
Sample : 2010040-ibl1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 27 10:30:05 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:53:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	8.013	25294373	72.370 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.11%
Target Compounds			
1) TM Methane	1.536	589704	0.579 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L

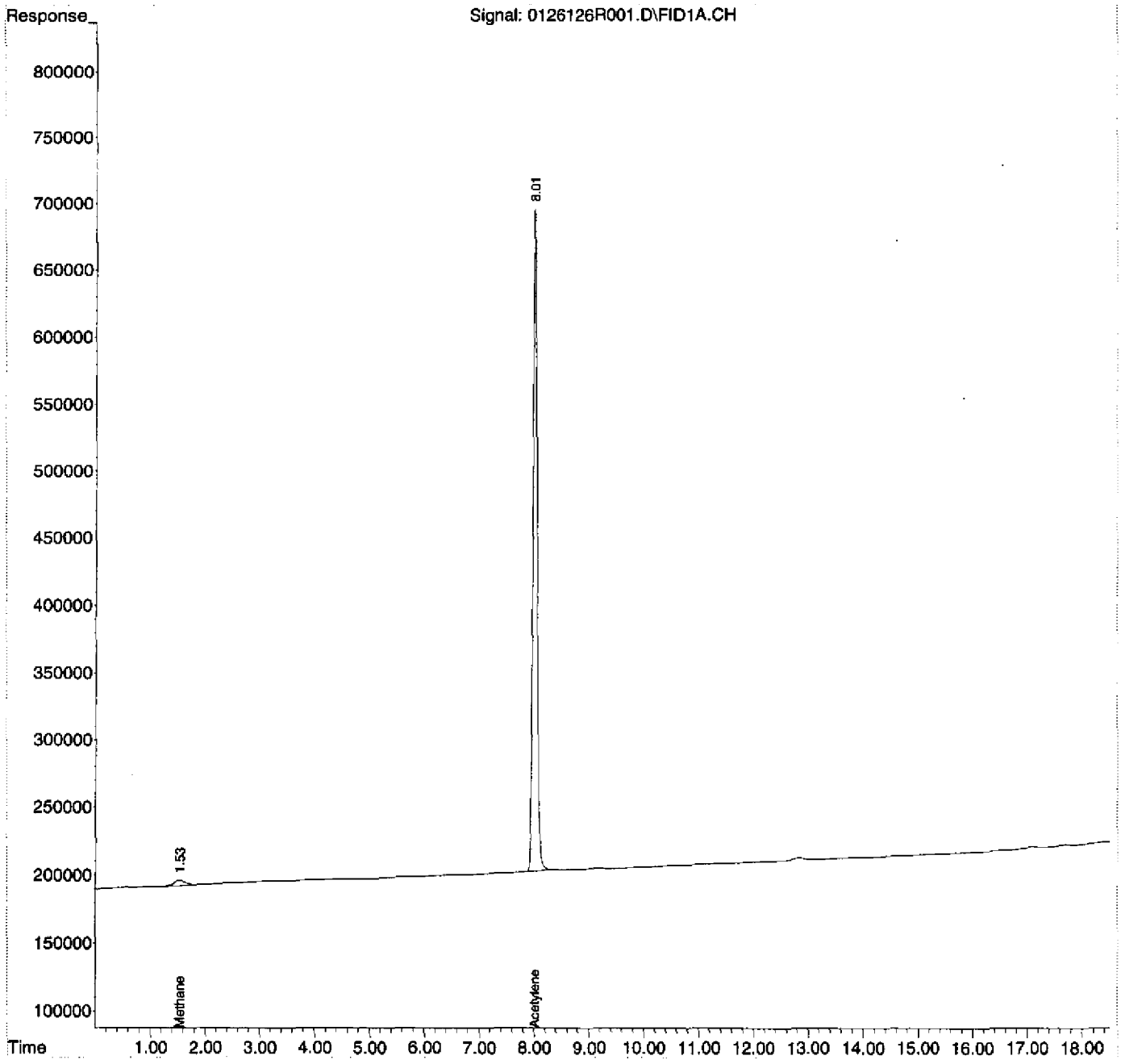
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R001.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 5:14 pm
Operator : rh
Sample : 2010040-ibl1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 27 10:30:05 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:53:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R002.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 5:42 pm
Operator : rh
Sample : 2010040-CAL7
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 09:19:53 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:19:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.985	128462468	365.512 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery = 551.05%#	
Target Compounds			
1) TM Methane	1.519	215382184	215.738 ug/L
3) TM Ethene	8.362	350221237	401.340 ug/L
4) TM Ethane	8.993	404407946	425.684 ug/L

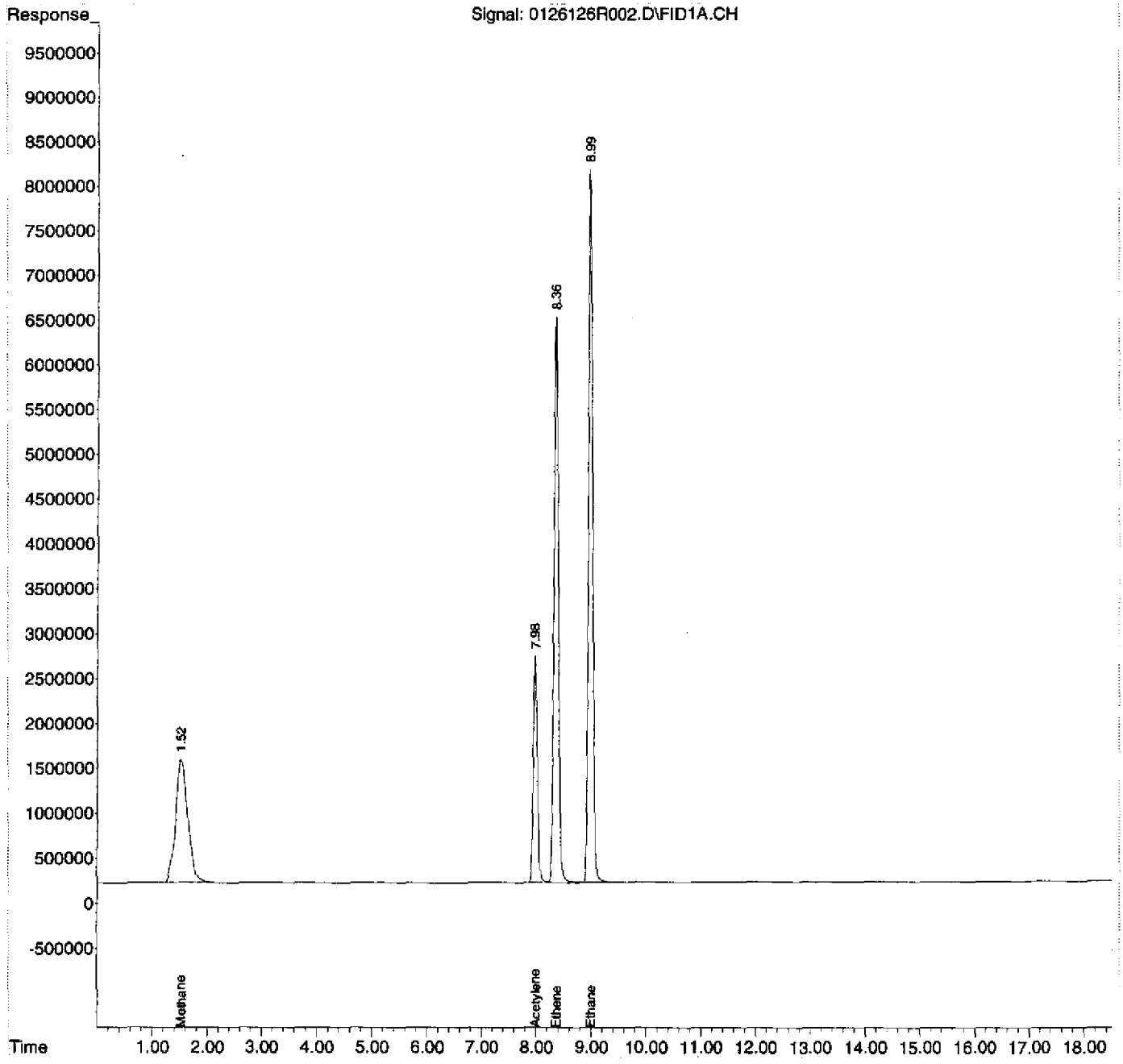
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R002.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 5:42 pm
Operator : rh
Sample : 2010040-CAL7
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 09:19:53 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:19:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R003.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 6:17 pm
Operator : rh
Sample : 2010040-CAL6
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 27 09:19:34 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:19:26 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.982	66702184	194.665 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	293.48%#
Target Compounds			
1) TM Methane	1.521	113285210	116.945 ug/L
3) TM Ethene	8.365	184084316	215.885 ug/L
4) TM Ethane	8.995	212992811	229.807 ug/L

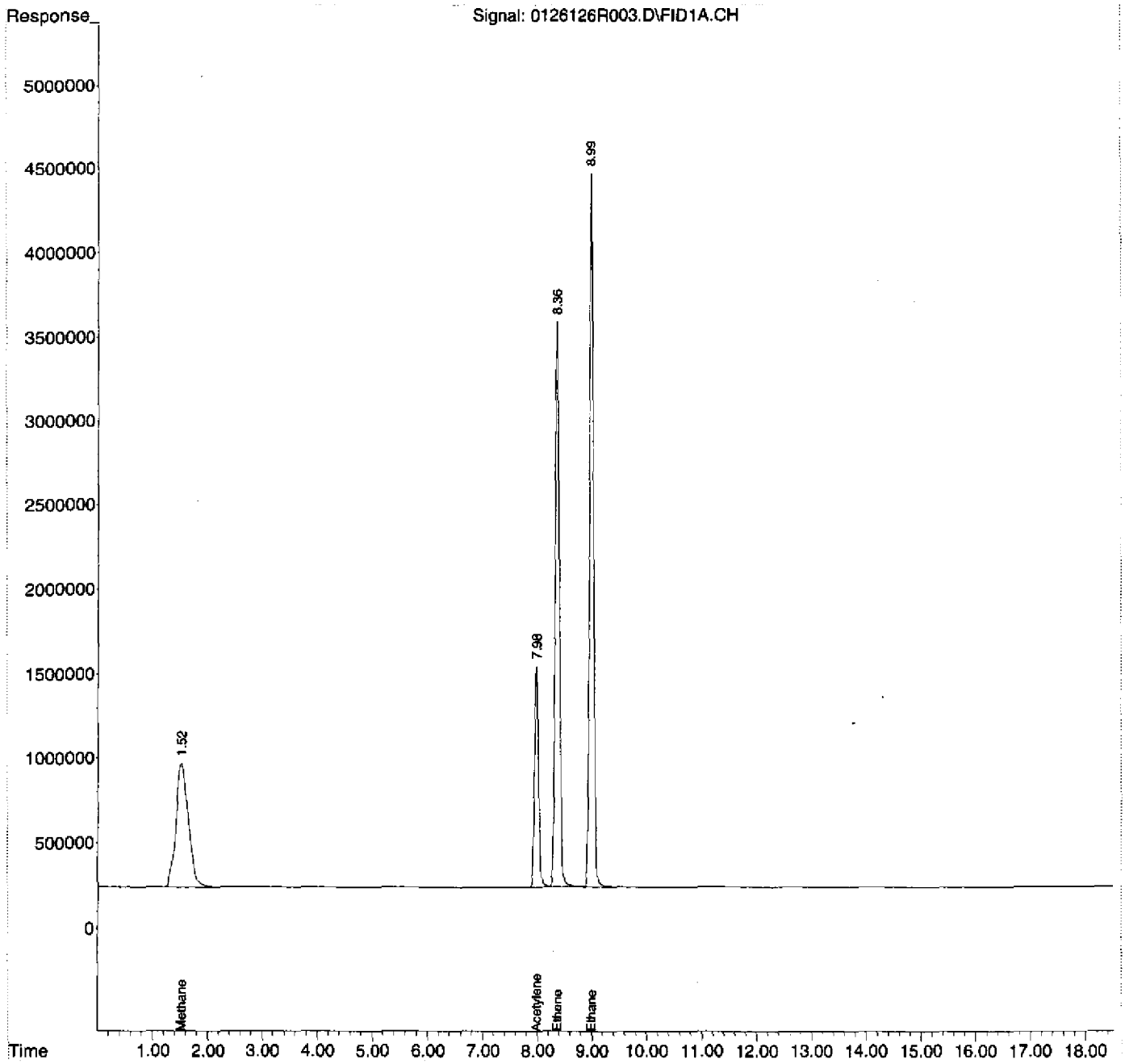
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R003.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 6:17 pm
Operator : rh
Sample : 2010040-CAL6
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 27 09:19:34 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:19:26 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



00031 A

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R004.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 6:50 pm
Operator : rh
Sample : 2010040-CAL5
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 27 09:19:19 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:19:11 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.982	25945224	79.002 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	119.10%
Target Compounds			
1) TM Methane	1.522	43965430	46.859 ug/L
3) TM Ethene	8.368	71418710	86.350 ug/L
4) TM Ethane	8.998	82785070	91.913 ug/L

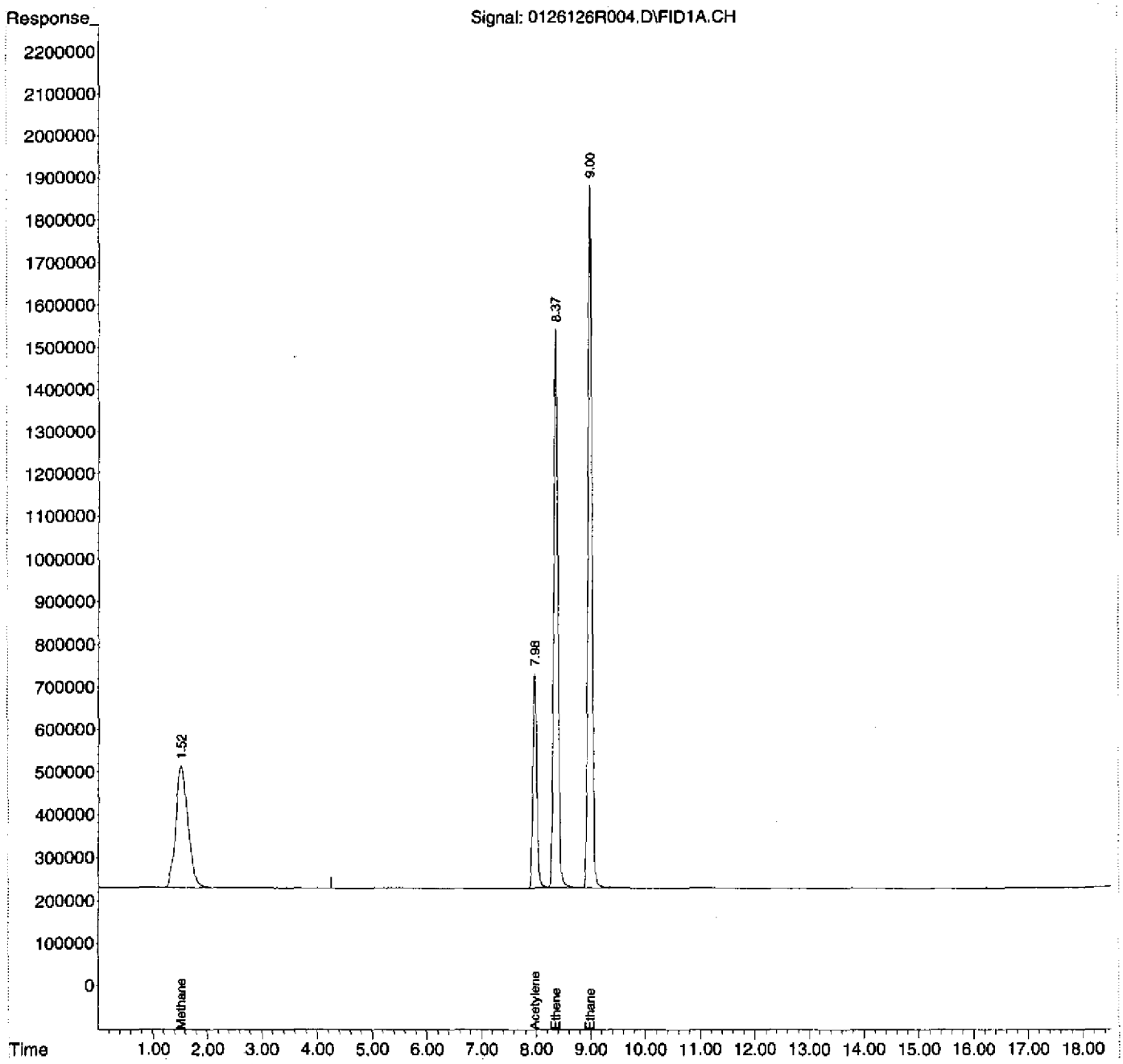
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R004.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 6:50 pm
Operator : rh
Sample : 2010040-CAL5
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 27 09:19:19 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:19:11 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R005.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 7:24 pm
Operator : rh
Sample : 2010040-CAL4
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 27 09:19:01 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:18:54 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.980	8031683	27.257 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	41.09%#
Target Compounds			
1) TM Methane	1.523	13268375	15.122 ug/L
3) TM Ethene	8.368	21272017	27.225 ug/L
4) TM Ethane	8.999	24621194	28.814 ug/L

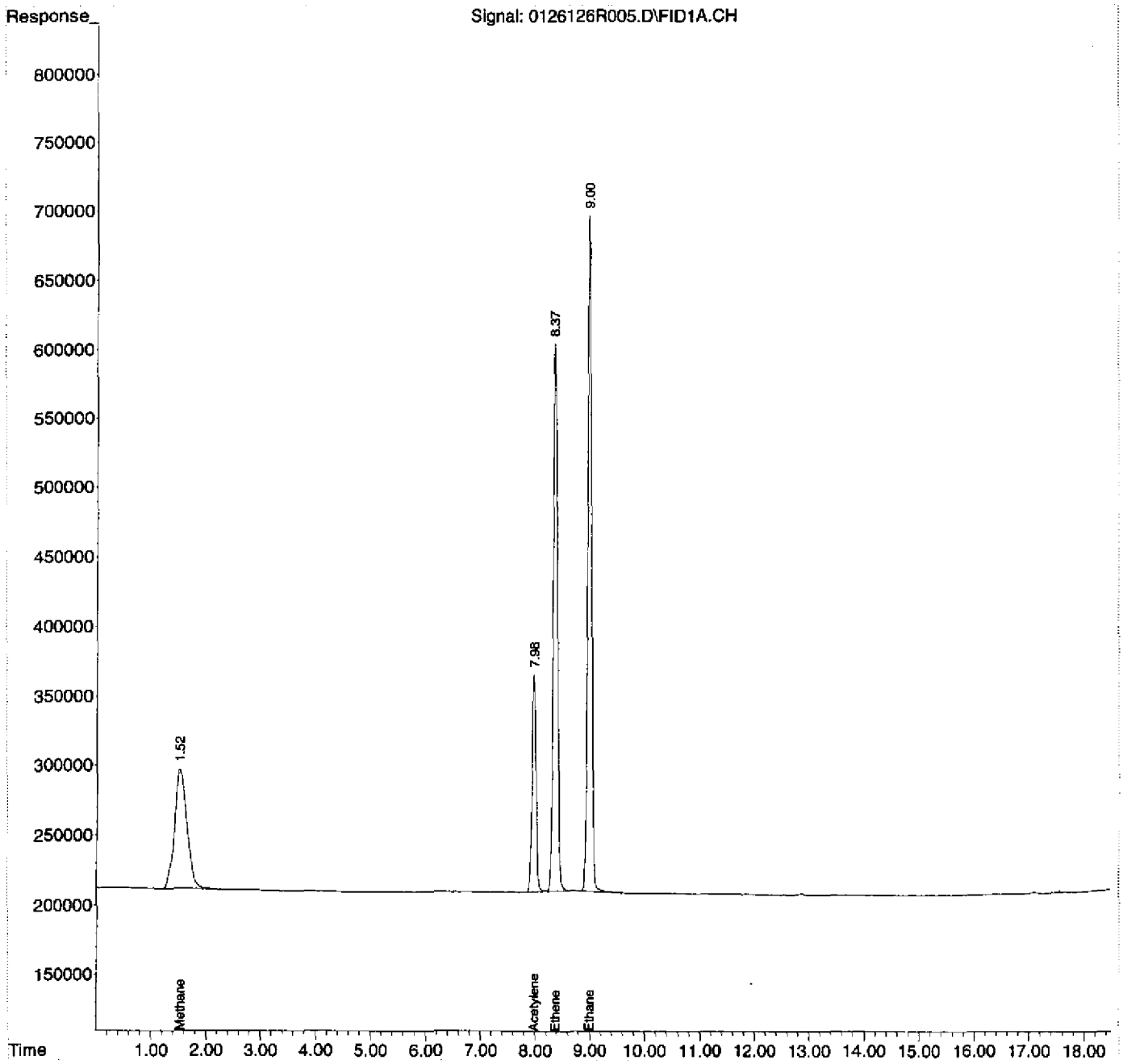
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R005.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 7:24 pm
Operator : rh
Sample : 2010040-CAL4
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 27 09:19:01 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:18:54 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R006.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 7:58 pm
Operator : rh
Sample : 2010040-CAL3
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 27 09:18:44 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:18:36 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.979	2268728	8.271 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	12.47%#
Target Compounds			
1) TM Methane	1.522	4118226	4.869 ug/L
3) TM Ethene	8.369	6324323	8.412 ug/L
4) TM Ethane	9.000	7407829	8.966 ug/L

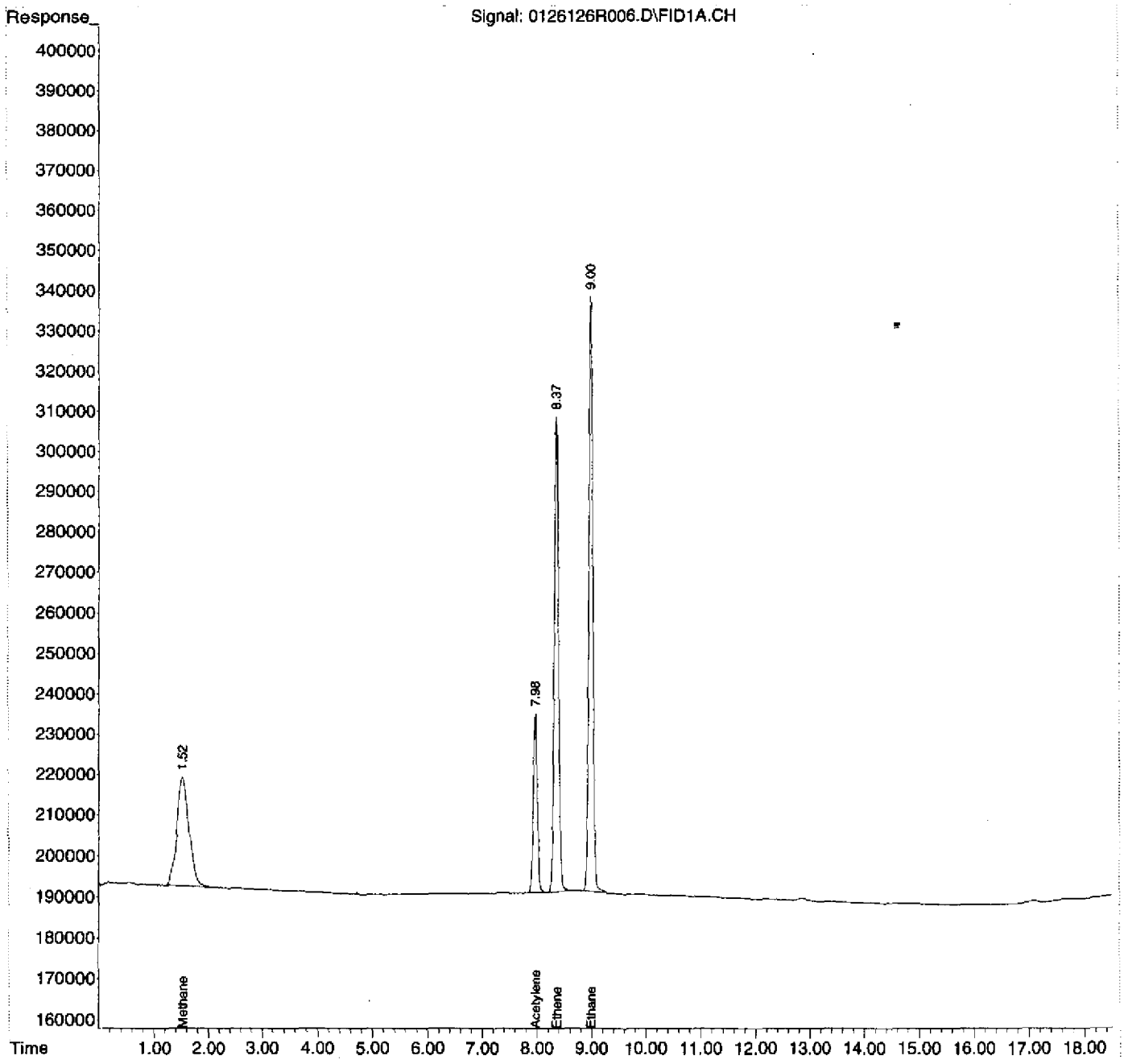
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R006.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 7:58 pm
Operator : rh
Sample : 2010040-CAL3
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 27 09:18:44 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:18:36 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R007.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 8:31 pm
Operator : rh
Sample : 2010040-CAL2
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 09:18:23 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:18:10 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.976	665342	2.426 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	3.66%#
Target Compounds			
1) TM Methane	1.524	1354094	1.657 ug/L
3) TM Ethene	8.368	1891551	2.657 ug/L
4) TM Ethane	9.000	2187768	2.770 ug/L

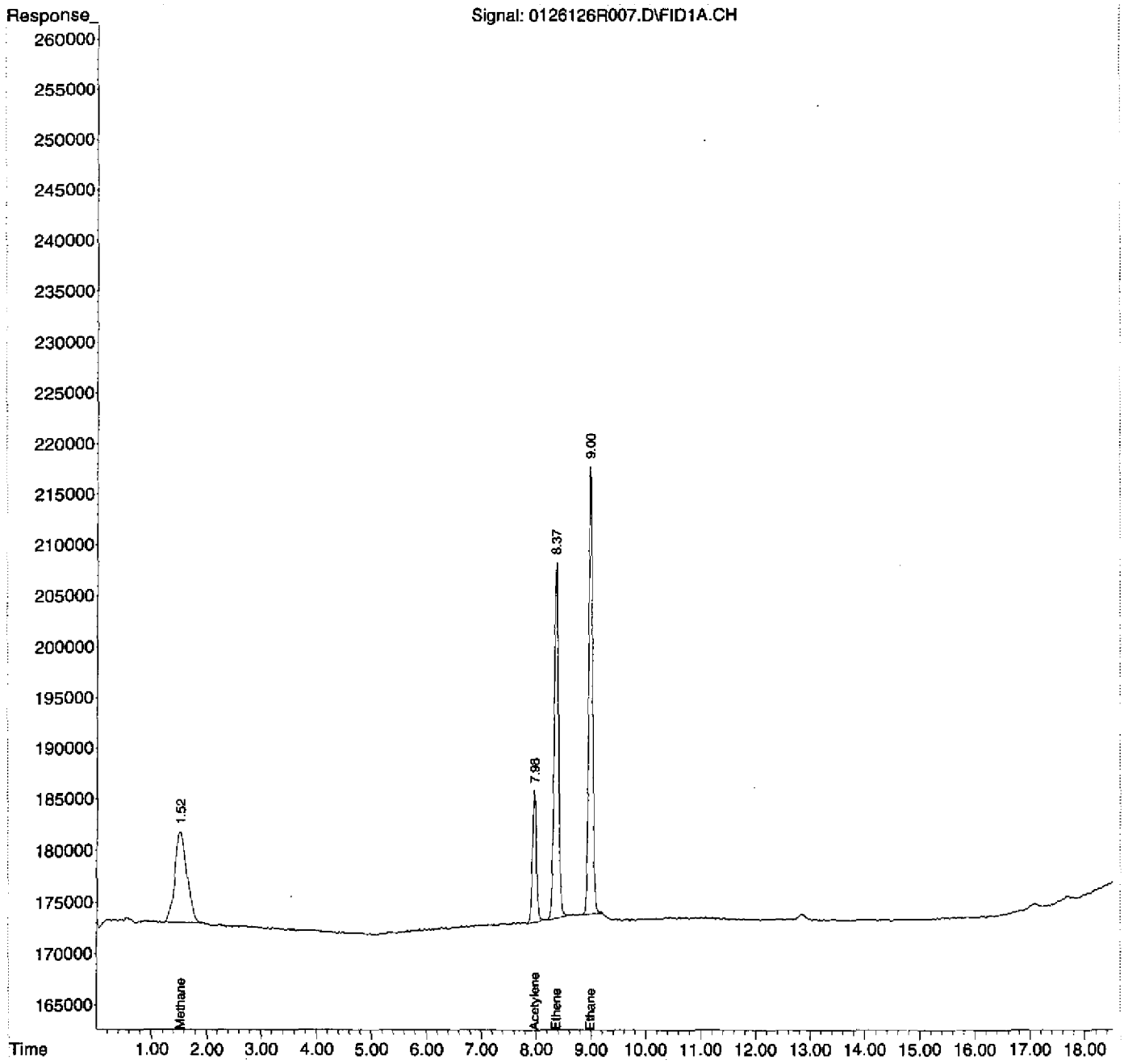
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R007.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 8:31 pm
Operator : rh
Sample : 2010040-CAL2
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 09:18:23 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:18:10 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R008.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 9:04 pm
Operator : rh
Sample : 2010040-CAL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 27 09:17:33 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:16:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S Acetylene	7.976	324314	NoCal	ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	0.00%#	
Target Compounds				
1) TM Methane	1.519	766241	NoCal	ug/L
3) TM Ethene	8.368	895692	NoCal	ug/L
4) TM Ethane	9.000	1038795	NoCal	ug/L

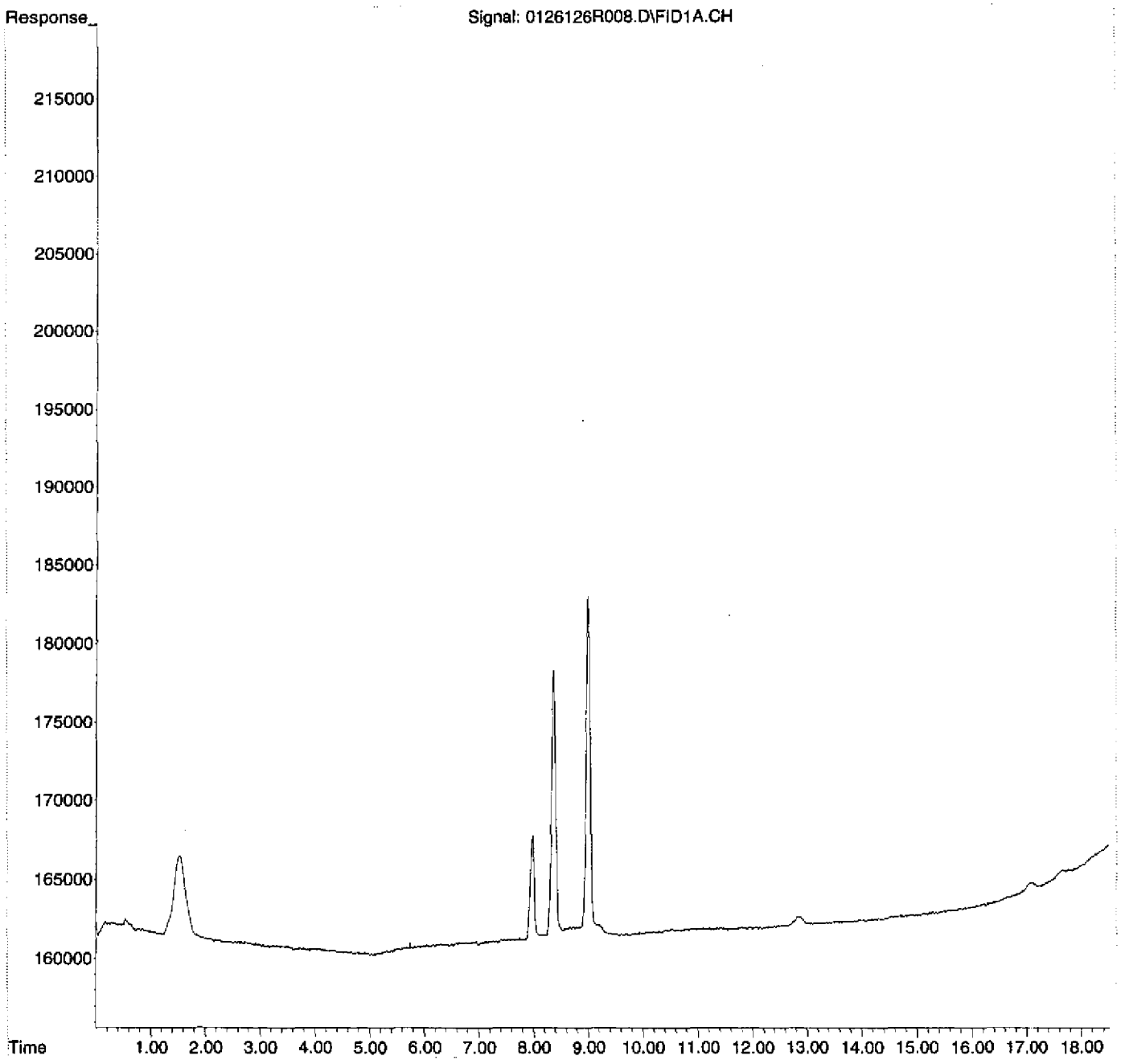
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R008.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 9:04 pm
Operator : rh
Sample : 2010040-CAL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 27 09:17:33 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 09:16:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



SECOND SOURCE CALIBRATION VERIFICATION REPORT

Instrument Name: AG6890N-6
File Name: 0126126R009.D
Date Acquired: 1/26/2012
Operator: rh

Second Source Std: 1H18014

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	43.723	40.910	70 -130	93.6%	pass
Acetylene	70.346	73.371	70 -130	104.3%	pass
Ethene	75.758	75.217	70 -130	99.3%	pass
Ethane	81.169	80.900	70 -130	99.7%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R009.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 9:32 pm
Operator : rh
Sample : 2010040-SCV1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 27 11:29:04 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.968	25644386	73.371 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.62%
Target Compounds			
1) TM Methane	1.521	41647328	40.910 ug/L
3) TM Ethene	8.364	66787780	75.217 ug/L
4) TM Ethane	8.997	78195027	80.900 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

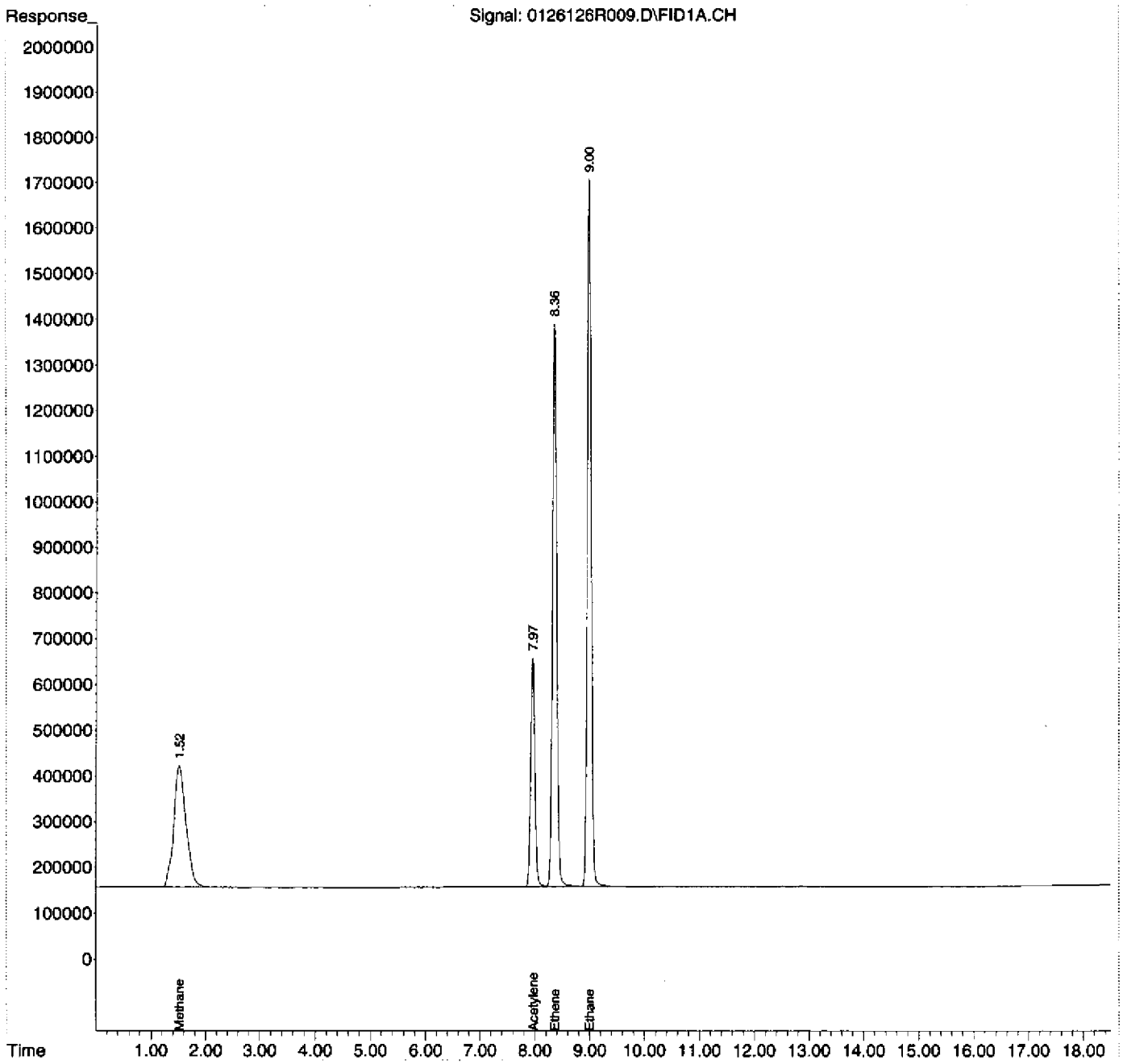
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R009.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 9:32 pm
Operator : rh
Sample : 2010040-SCV1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 27 11:29:04 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
~~Data File : 0126126R010.D~~
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 10:08 pm
Operator : rh
Sample : DIAG MIXED GAS
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 27 11:48:42 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.975	7518601	21.511 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	32.43%#
Target Compounds			
1) TM Methane	1.511	3903857	3.835 ug/L
3) TM Ethene	8.371	6989111	7.871 ug/L
4) TM Ethane	9.020	7037708	7.281 ug/L
5) Qual Propane	12.895	10460329	NoCal
6) Qual Butane	17.725	12892720	NoCal

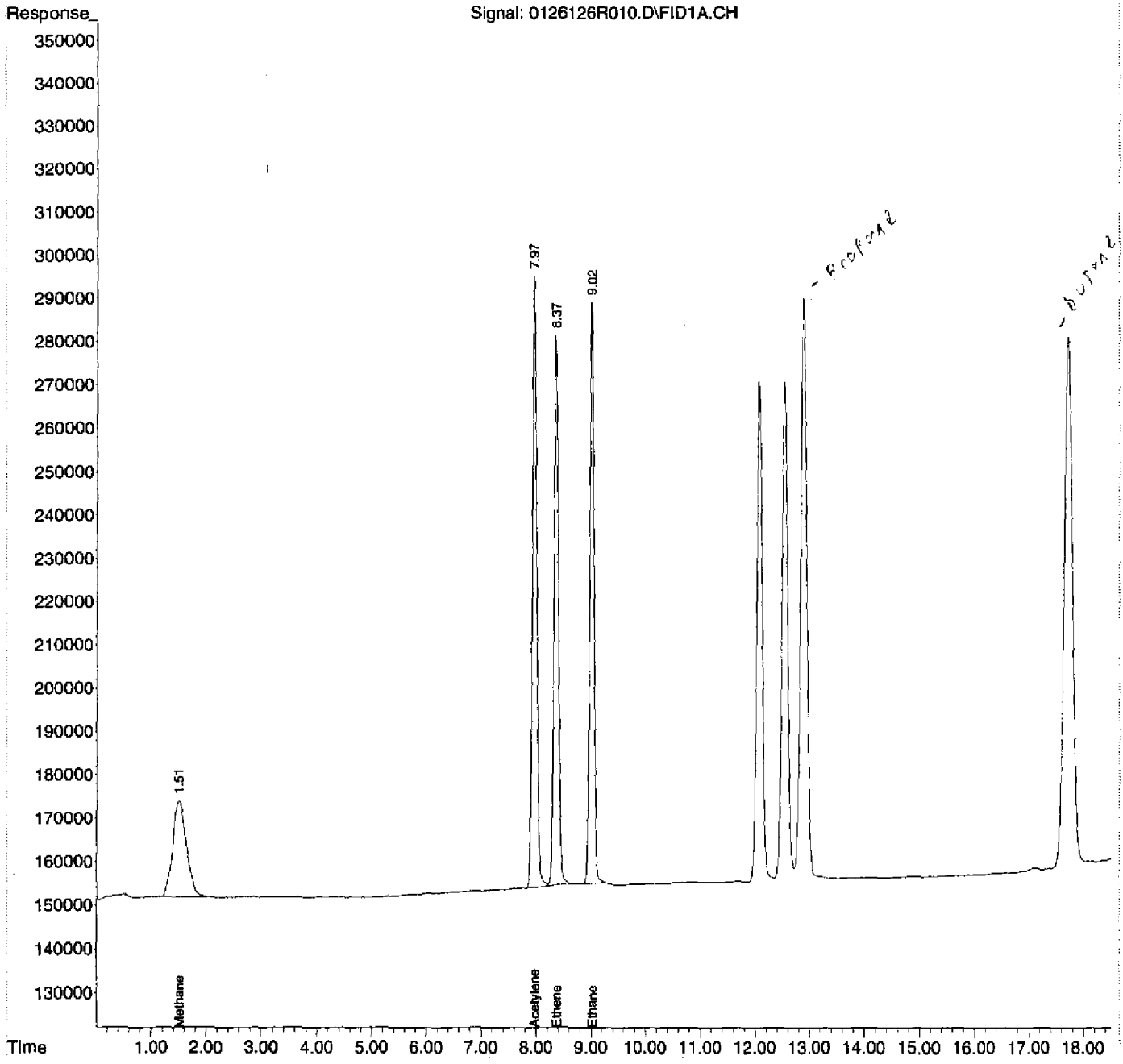
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R010.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 10:08 pm
Operator : rh
Sample : DIAG MIXED GAS
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 27 11:48:42 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
~~Data File : 0126126R011.D~~
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 10:35 pm
Operator : rh
Sample : PROPANE
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 27 11:49:06 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S Acetylene	0.000	0	N.D.	ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 0.00%#				
Target Compounds				
1) TM Methane	0.000	0	N.D.	ug/L
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	0.000	0	N.D.	ug/L
5) Qual Propane	12.883	237365336	NoCal	
6) Qual Butane	0.000	0	N.D.	

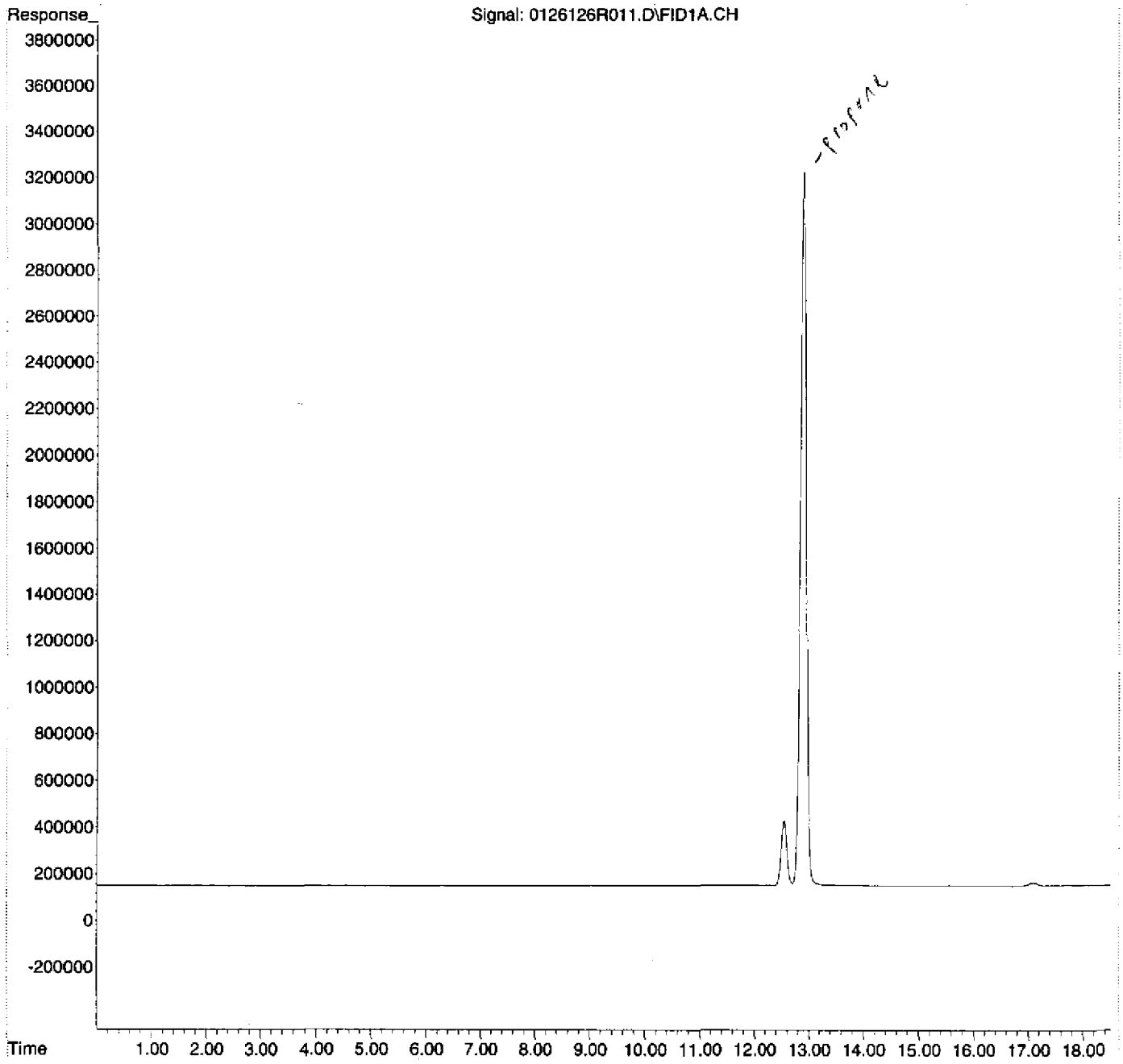
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R011.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 10:35 pm
Operator : rh
Sample : PROPANE
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 27 11:49:06 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
~~Data File : 0126126R012.D~~
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 11:11 pm
Operator : rh
Sample : BUTANE
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 27 11:49:40 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	0.000	0	N.D. ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 0.00%#			
Target Compounds			
1) TM Methane	0.000	0	N.D. ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.023	1000416	1.035 ug/L
5) Qual Propane	12.899	34506244	NoCal
6) Qual Butane	17.710	56367388	NoCal

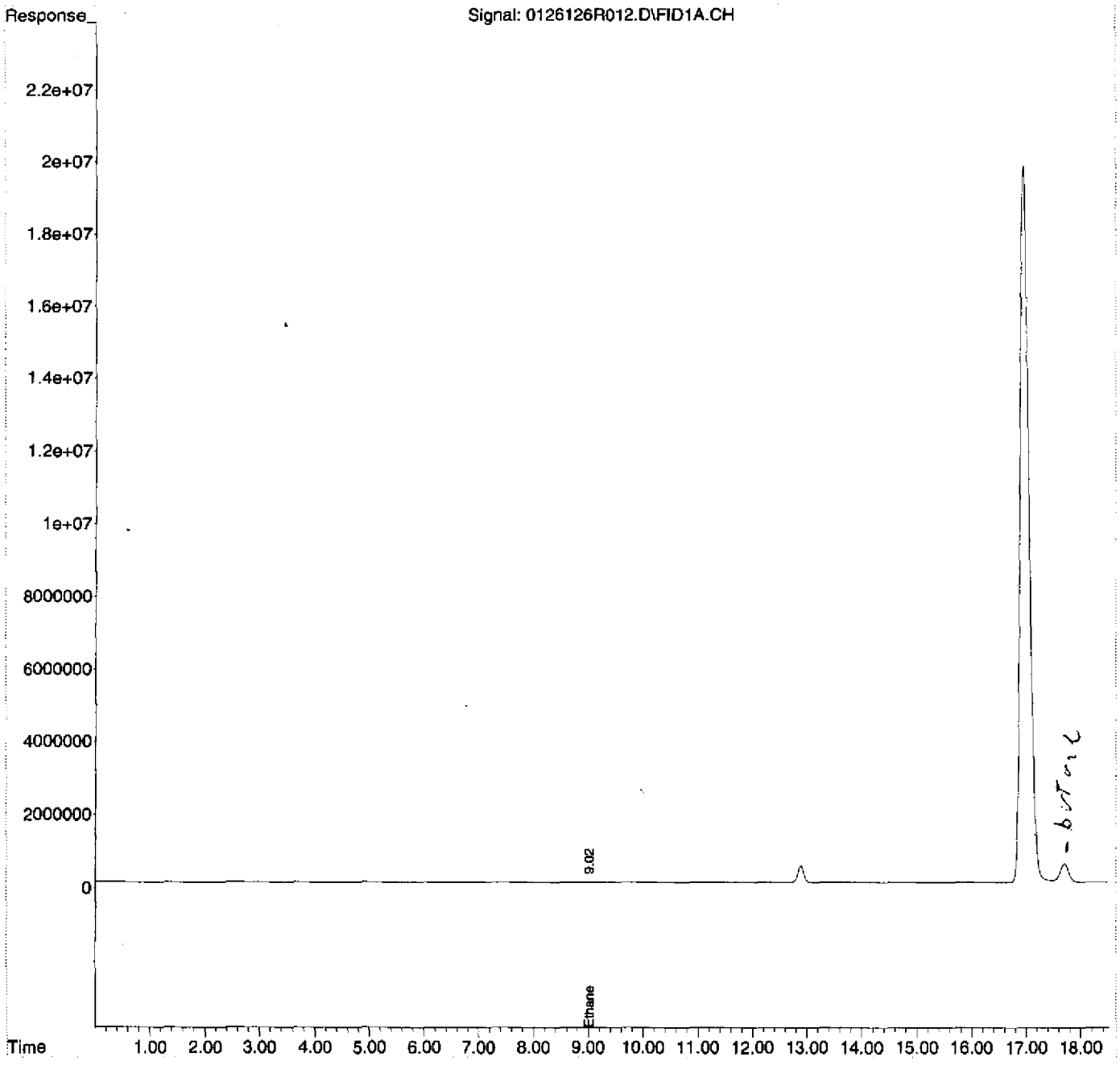
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012612RSK\
Data File : 0126126R012.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 26 Jan 2012 11:11 pm
Operator : rh
Sample : BUTANE
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 27 11:49:40 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



SDG: 12067A

Instrument: AG6890N-6

Analysis Date: 3/8/12

SAMPLE DATA

G:\USER\ESAT\1 Organic Group\Forms\DataPackageSeparators.doc

: 00050

Injection Log

Operator: rh
Directory: D:\MSDCHEM\1\2012\DATA\030812RSK\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	0308126R01.D	0	2030020-CCV1	2C08013	08 Mar 2012 12:06 pm
2	0308126R02.D	0	2030020-LCV1	2C08011	08 Mar 2012 12:33 pm
3	0308126R03.D	0	2030020-LCV2	2C08012	08 Mar 2012 1:09 pm
4	0308126R04.D	0	B2C0040-BLK1	MB	08 Mar 2012 1:36 pm
5	0308126R05.D	0	B2C0040-BS1	LCS	08 Mar 2012 2:12 pm
6	0308126R06.D	0	1203018-01	FB19	08 Mar 2012 2:39 pm
7	0308126R07.D	0	1203018-03	TB49	08 Mar 2012 3:15 pm
8	0308126R08.D	0	1203018-05	TB50	08 Mar 2012 3:42 pm
9	0308126R09.D	0	1203020-01	FB20	08 Mar 2012 4:18 pm
10	0308126R10.D	0	1203020-05	TB51	08 Mar 2012 4:46 pm
11	0308126R11.D	0	B2C0040-MS1	MS 18-04	08 Mar 2012 5:22 pm
12	0308126R12.D	0	B2C0040-MSD1	MSD 18-04	08 Mar 2012 5:49 pm
13	0308126R13.D	0	1203018-02	HW60	08 Mar 2012 6:25 pm
14	0308126R14.D	0	1203018-04	HW56-	08 Mar 2012 6:53 pm
15	0308126R15.D	0	1203020-02	HW61	08 Mar 2012 7:29 pm
16	0308126R16.D	0	1203020-03	HW61-P	08 Mar 2012 7:56 pm
17	0308126R17.D	0	1203020-04	HW61Z	08 Mar 2012 8:32 pm
18	0308126R18.D	0	2030020-CCV2	2C08013	08 Mar 2012 8:59 pm
19	0308126R19.D	0	2030020-CCV3	2C08013	08 Mar 2012 9:35 pm

Response Factor Report AG6890N-6

Method Path : D:\MSDCHEM\1\2012\METHOD\
Method File : 0126126RSK.M
Title :
Last Update : Fri Jan 27 11:26:56 2012
Response Via : Initial Calibration

Calibration Files
1 =0126126R008.D 2 =0126126R007.D 3 =0126126R006.D
4 =0126126R005.D 5 =0126126R004.D 6 =0126126R003.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1) TM	Methane		1.100	1.004	1.003	0.997	1.028	1.018 E6	4.25
2) S	Acetylene	3.221	3.304	3.380	3.710	3.595	3.697	3.495 E5	5.56
3) TM	Ethene	8.210	8.669	8.696	9.069	9.135	9.418	8.879 E5	4.42
4) TM	Ethane	0.894	0.941	0.956	0.986	0.994	1.023	0.967 E6	4.30
5) Qual	Propane							0.000	-1.00
6) Qual	Butane							0.000	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

GC QA-QC Check Report

Daily Calibration File : D:\MSDCHEM\1\DATA\2010\120810RSK\120810A02.D
Time Acquired : 08 Dec 2010 11:12 am

File	Sample	Surrogate Recovery %
0308126R01.D	2030020-CCV1	29*
0308126R02.D	2030020-LCV1	1*
0308126R03.D	2030020-LCV2	3*
0308126R04.D	B2C0040-BLK1	98
0308126R05.D	B2C0040-BS1	119
0308126R06.D	1203018-01	118
0308126R07.D	1203018-03	113
0308126R08.D	1203018-05	117
0308126R09.D	1203020-01	106
0308126R10.D	1203020-05	112
0308126R11.D	B2C0040-MS1	106
0308126R12.D	B2C0040-MSD1	114
0308126R13.D	1203018-02	115
0308126R14.D	1203018-04	114
0308126R15.D	1203020-02	111
0308126R16.D	1203020-03	113
0308126R17.D	1203020-04	111
0308126R18.D	2030020-CCV2	36*
0308126R19.D	2030020-CCV3	32*

(fails) - fails 24hr time check * - fails criteria

Created: Fri Mar 09 09:29:47 2012 AG6890N-6

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 12:06 pm
Operator : rh
Sample : 2030020-CCV1
Misc : 2C08013
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 08 12:53:29 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 TM	Methane	1.018	0.911 E6	10.5	91	0.00
2 S	Acetylene	349.516	313.884 E3	10.2	85	-0.02
3 TM	Ethene	887.936	816.981 E3	8.0	90	0.00
4 TM	Ethane	966.567	892.725 E3	7.6	91	0.01

Evaluate Continuing Calibration Report - Not Founds

5 Qual	Propane	0.000	0.000	0.0	0#	-12.89#
6 Qual	Butane	0.000	0.000	0.0	0#	-17.72#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 12:06 pm
Operator : rh
Sample : 2030020-CCV1
Misc : 2C08013
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 08 14:04:51 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.960	6795588	19.443 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	29.31%#
Target Compounds			
1) TM Methane	1.530	12048426	11.835 ug/L
3) TM Ethene	8.370	19162279	21.581 ug/L
4) TM Ethane	9.009	22301170	23.073 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

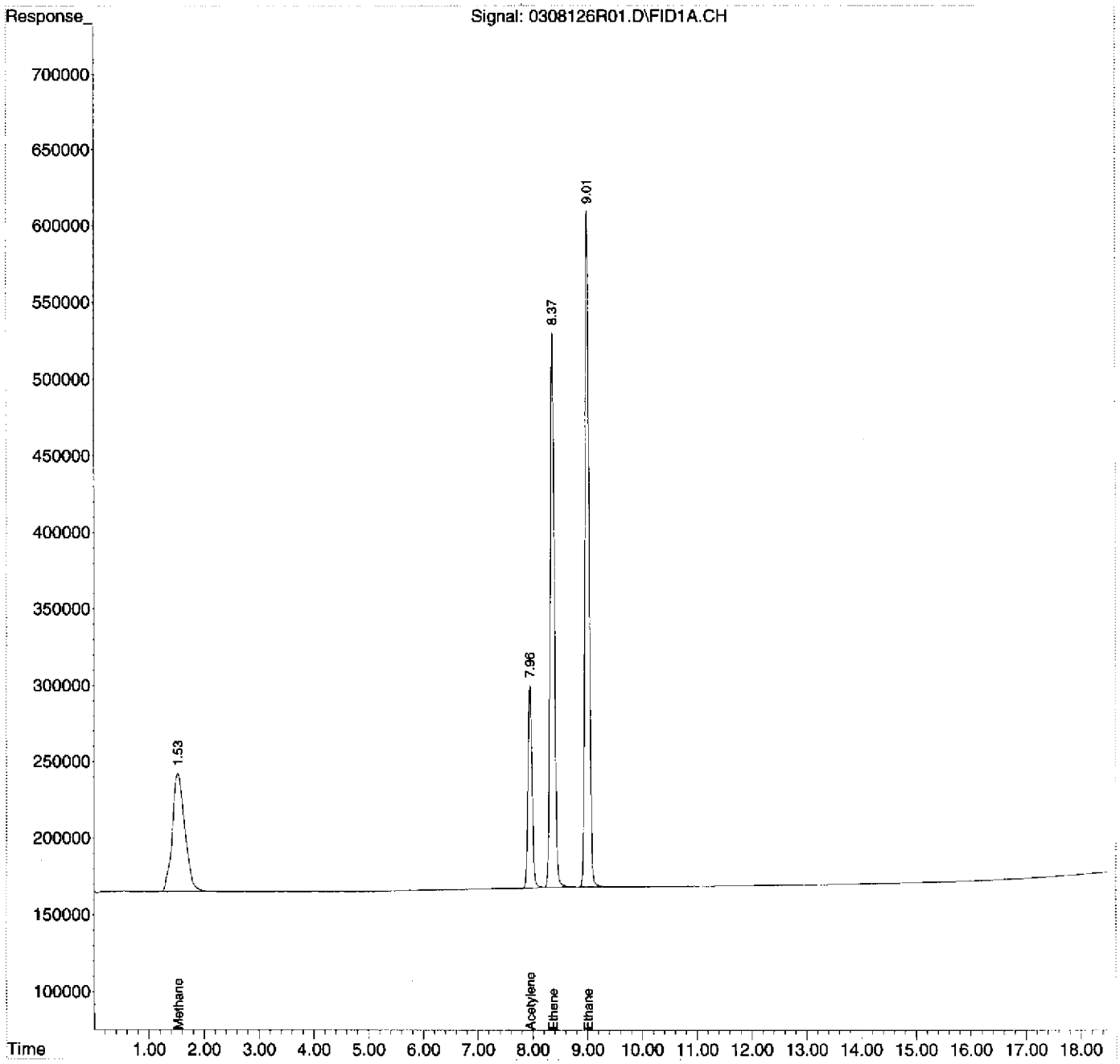
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 12:06 pm
Operator : rh
Sample : 2030020-CCV1
Misc : 2C08013
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 08 14:04:51 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



RSK-175 HC LCV REPORT

Instrument Name: AG6890N-6
File Name LCV1: 0308126R02
File Name LCV2: 0308126R03
Date Acquired: 03/08/12
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.242	60 - 140	100.9%	pass
Acetylene	2.014	1.67	60 - 140	82.9%	NA
Ethene	1.091	0.968	60 - 140	88.7%	pass
Ethane	1.162	1.059	60 - 140	91.1%	pass

Ethene & ethane recovery calculated from LCV1 results
Methane recovery calculated from LCV2 results

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 12:33 pm
Operator : rh
Sample : 2030020-LCV1
Misc : 2C08011
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 14:04:58 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.964	295278	0.845 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.27%#
Target Compounds			
1) TM Methane	1.528	774352	0.761 ug/L
3) TM Ethene	8.372	859677	0.968 ug/L
4) TM Ethane	9.010	1023707	1.059 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

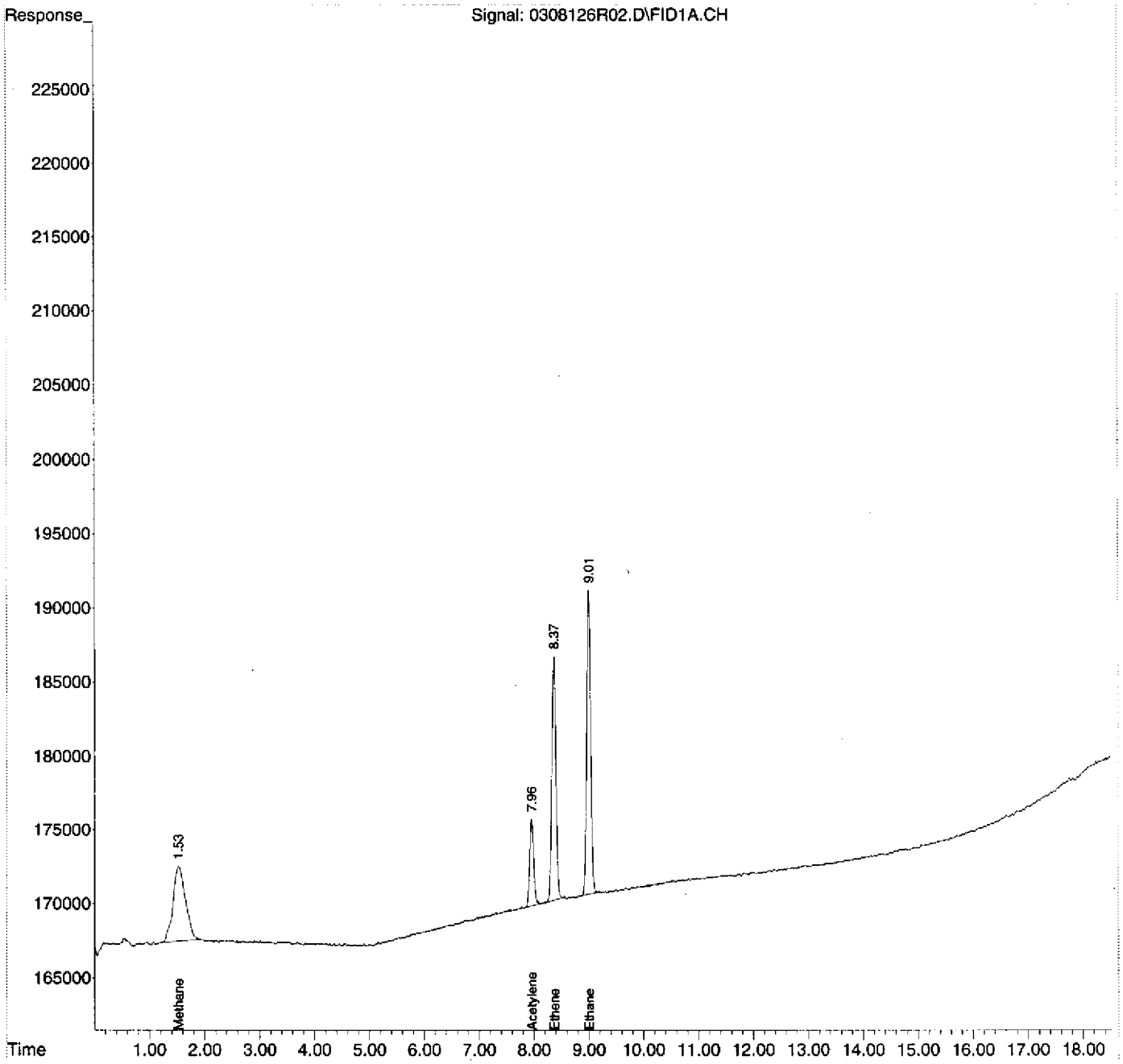
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 12:33 pm
Operator : rh
Sample : 2030020-LCV1
Misc : 2C08011
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 14:04:58 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 1:09 pm
Operator : rh
Sample : 2030020-LCV2
Misc : 2C08012
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 08 14:05:05 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.962	583627	1.670 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.52%#
Target Compounds			
1) TM Methane	1.532	1264492	1.242 ug/L
3) TM Ethene	8.371	1641187	1.848 ug/L
4) TM Ethane	9.009	1924504	1.991 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

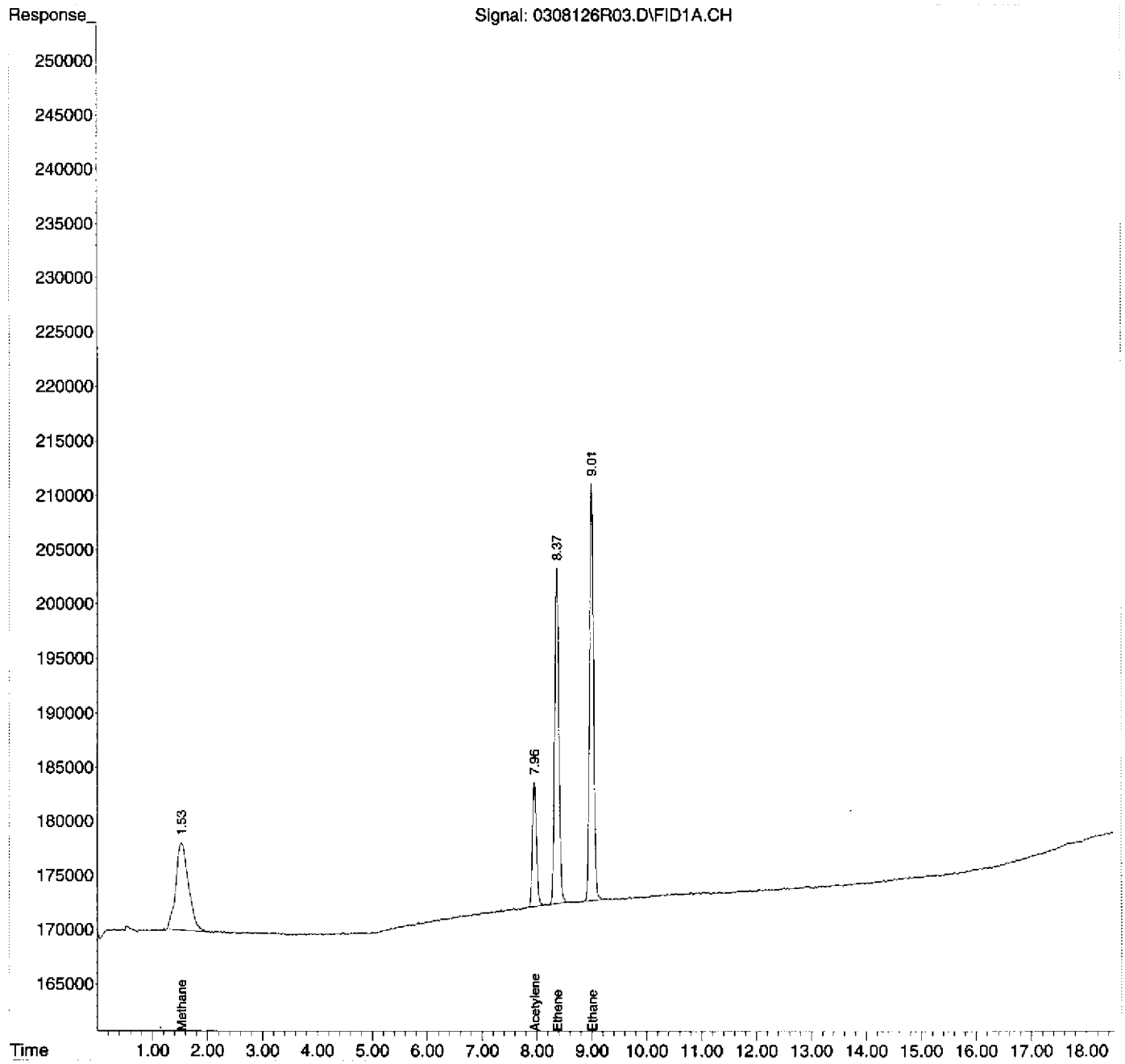
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 1:09 pm
Operator : rh
Sample : 2030020-LCV2
Misc : 2C08012
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 08 14:05:05 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 1:36 pm
Operator : rh
Sample : B2C0040-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 14:05:13 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S Acetylene	7.953	22787446	65.197	ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 98.29%				
Target Compounds				
1) TM Methane	0.000	0	N.D.	ug/L
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	0.000	0	N.D.	ug/L
5) Qual Propane	0.000	0	N.D.	
6) Qual Butane	0.000	0	N.D.	

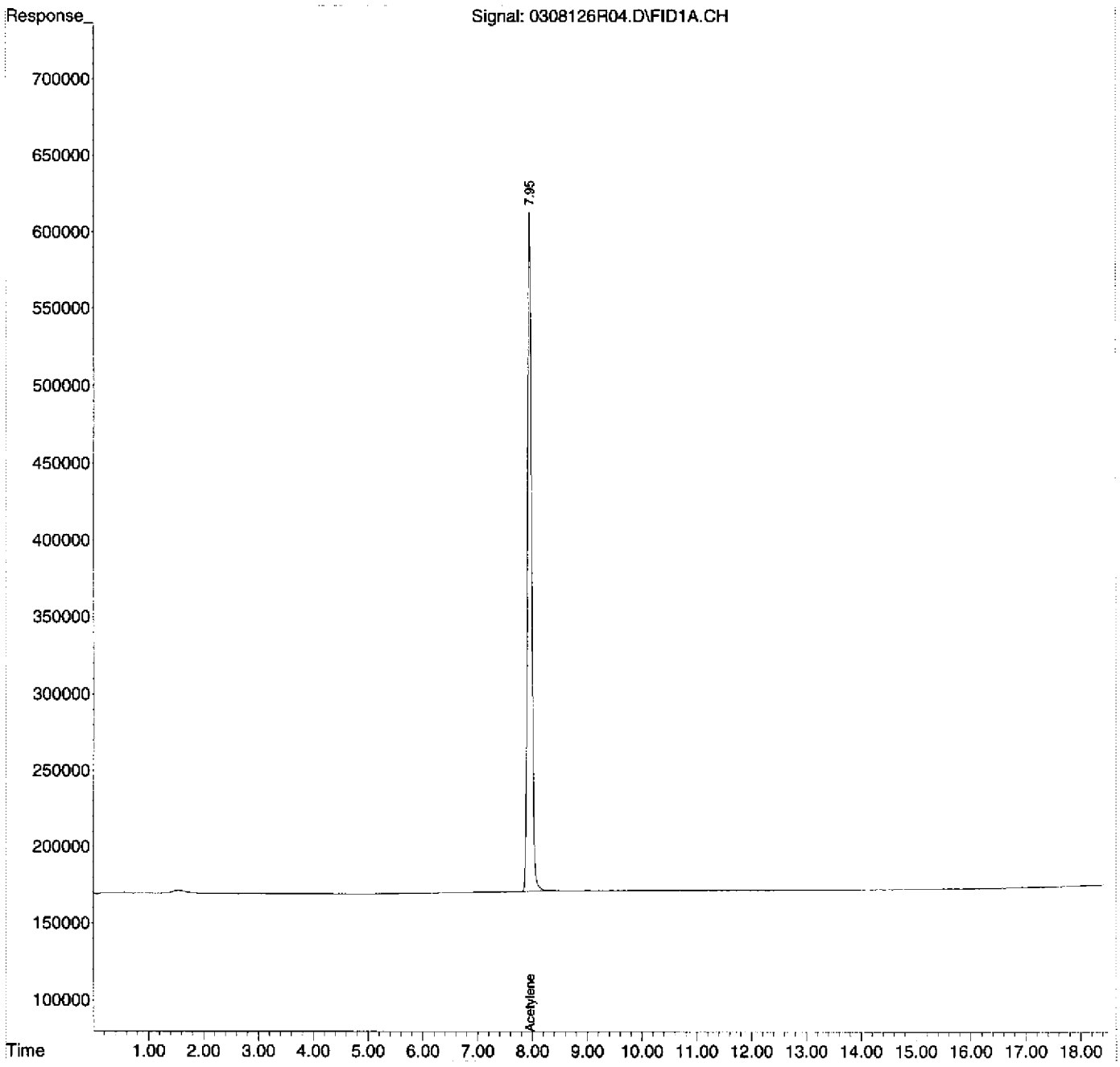
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 1:36 pm
Operator : rh
Sample : B2C0040-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 14:05:13 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



RSK-175 LCSSUMMARY REPORT

Instrument Name: AG6890N-6
File Name: 0308126R05.D
Date Acquired: 3/8/2012
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	44.099	46.961	70-130	106.5%	pass
Acetylene	72.166	79.018	66.4-153	109.5%	pass
Ethene	78.183	86.691	78-138	110.9%	pass
Ethane	83.269	92.323	77-137	110.9%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 2:12 pm
Operator : rh
Sample : B2C0040-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 09:17:28 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.951	27617922	79.018 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	119.13%
Target Compounds			
1) TM Methane	1.534	47807316	46.961 ug/L
3) TM Ethene	8.367	76976127	86.691 ug/L
4) TM Ethane	9.006	89236581	92.323 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

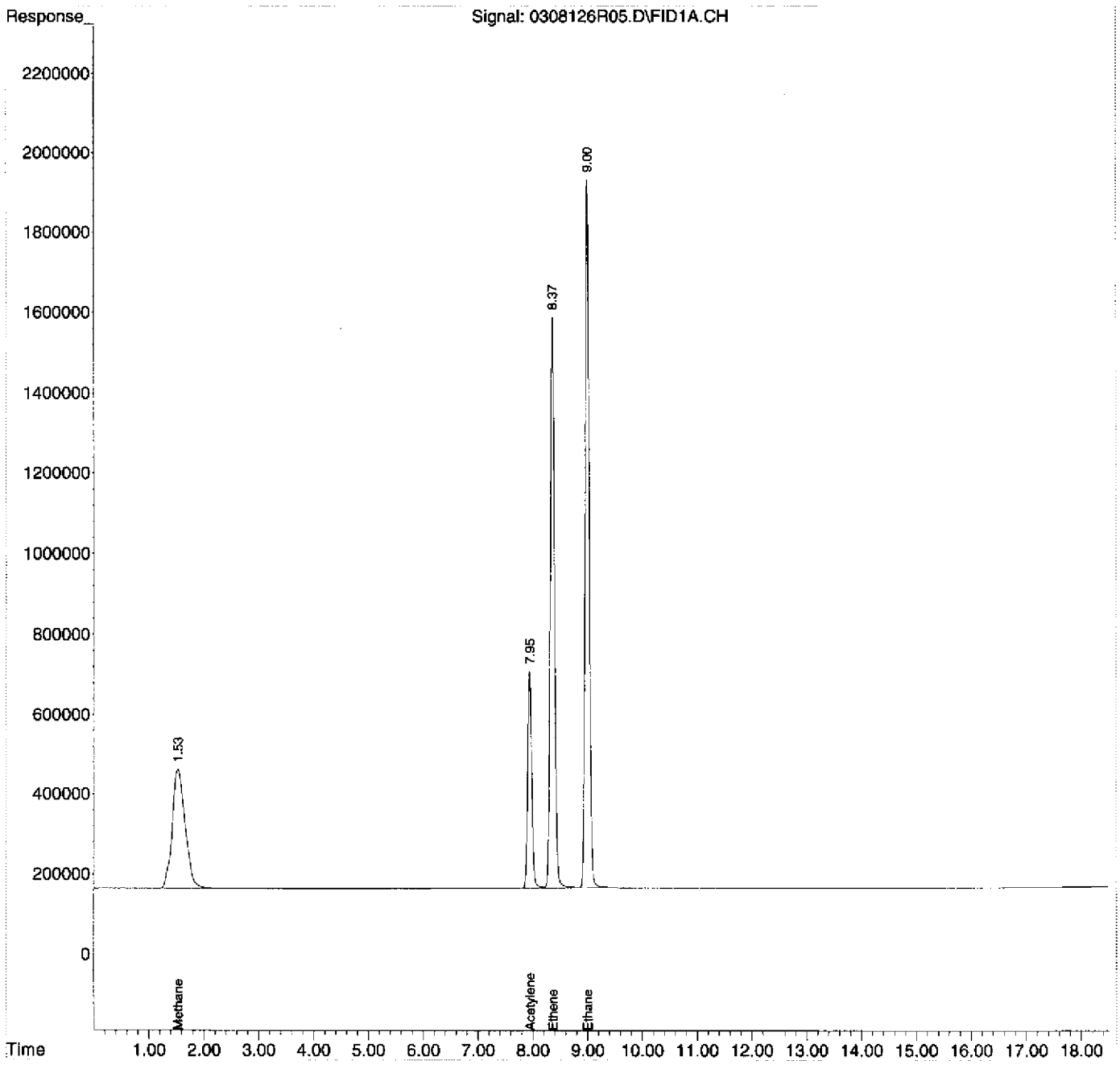
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 2:12 pm
Operator : rh
Sample : B2C0040-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 09:17:28 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 2:39 pm
Operator : rh
Sample : 1203018-01
Misc : FB19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 09:17:36 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.950	27423103	78.460 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	118.29%
Target Compounds			
1) TM Methane	1.527	626380	0.615 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

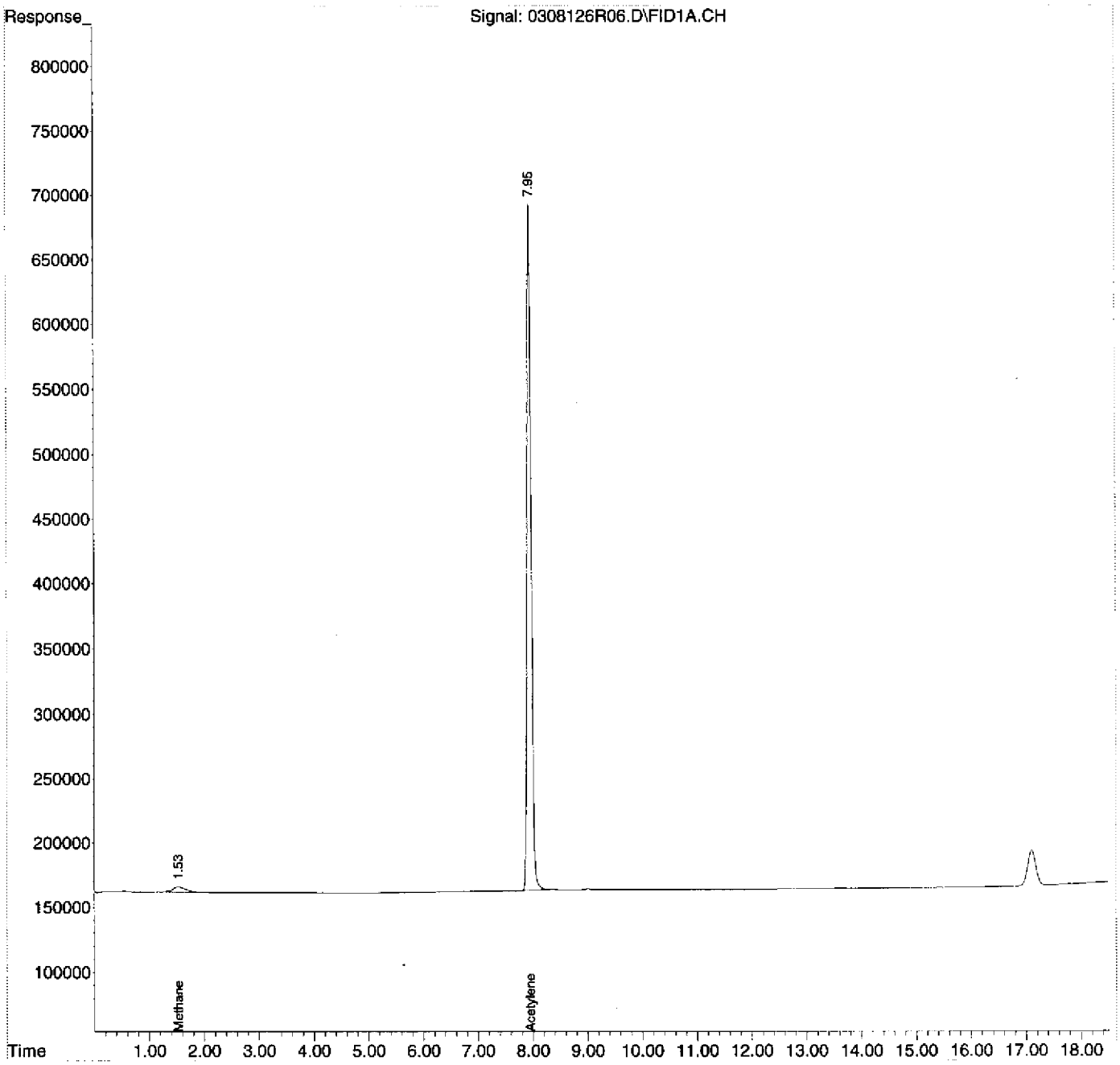
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 2:39 pm
Operator : rh
Sample : 1203018-01
Misc : FB19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 09:17:36 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 3:15 pm
Operator : rh
Sample : 1203018-03
Misc : TB49
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 09:17:44 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S Acetylene	7.949	26210858	74.992	ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 113.06%				
Target Compounds				
1) TM Methane	1.537	375735	<MDL	ug/L
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	0.000	0	N.D.	ug/L
5) Qual Propane	0.000	0	N.D.	
6) Qual Butane	0.000	0	N.D.	

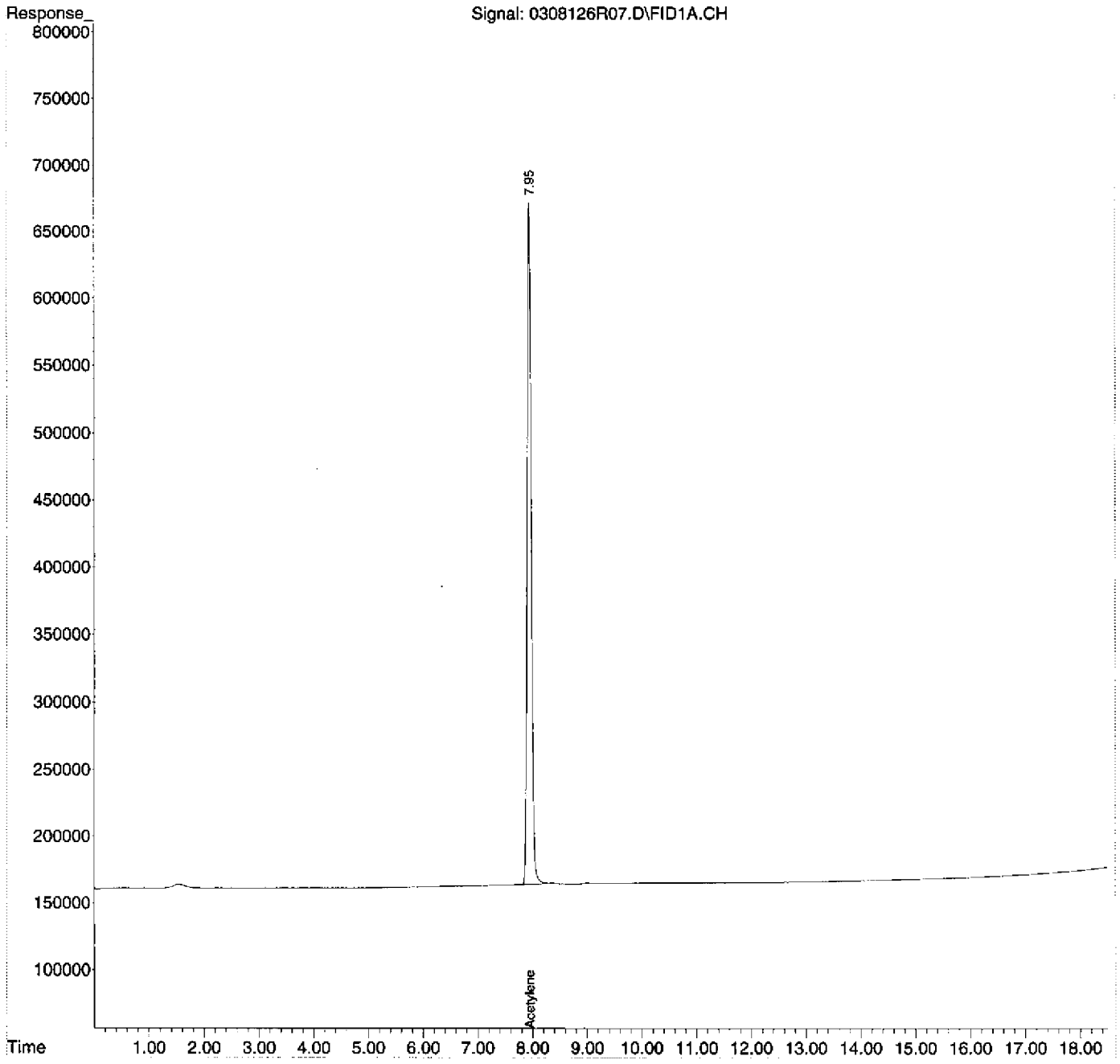
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 3:15 pm
Operator : rh
Sample : 1203018-03
Misc : TB49
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 09:17:44 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 3:42 pm
Operator : rh
Sample : 1203018-05
Misc : TB50
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 09 09:17:52 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S Acetylene	7.949	27229048	77.905	ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 117.45%				
Target Compounds				
1) TM Methane	0.000	0	N.D.	ug/L
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	0.000	0	N.D.	ug/L
5) Qual Propane	0.000	0	N.D.	
6) Qual Butane	0.000	0	N.D.	

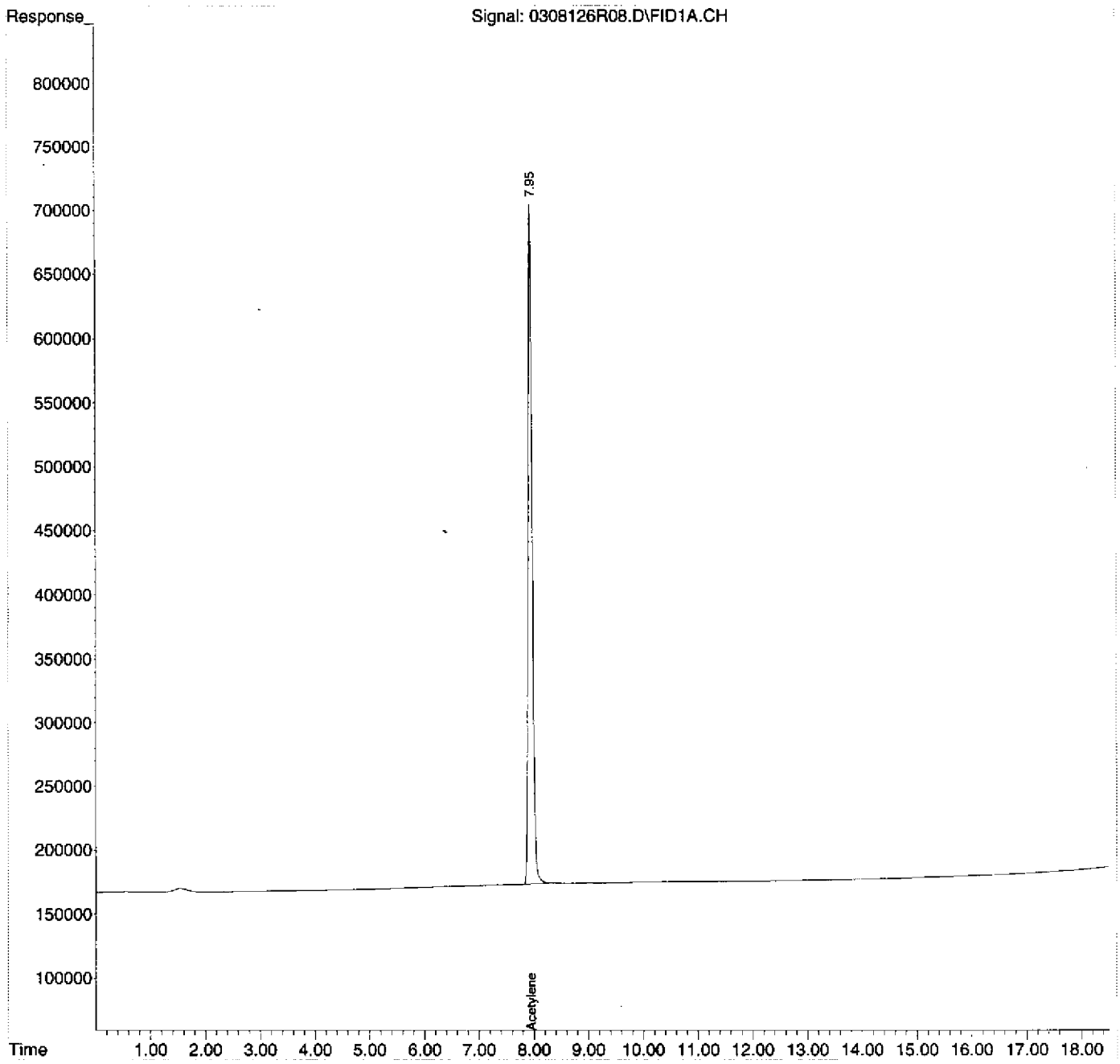
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 3:42 pm
Operator : rh
Sample : 1203018-05
Misc : TB50
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 09 09:17:52 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 4:18 pm
Operator : rh
Sample : 1203020-01
Misc : FB20
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 09:18:00 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.949	24586550	70.345 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	106.05%
Target Compounds			
1) TM Methane	1.530	1171862	1.151 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

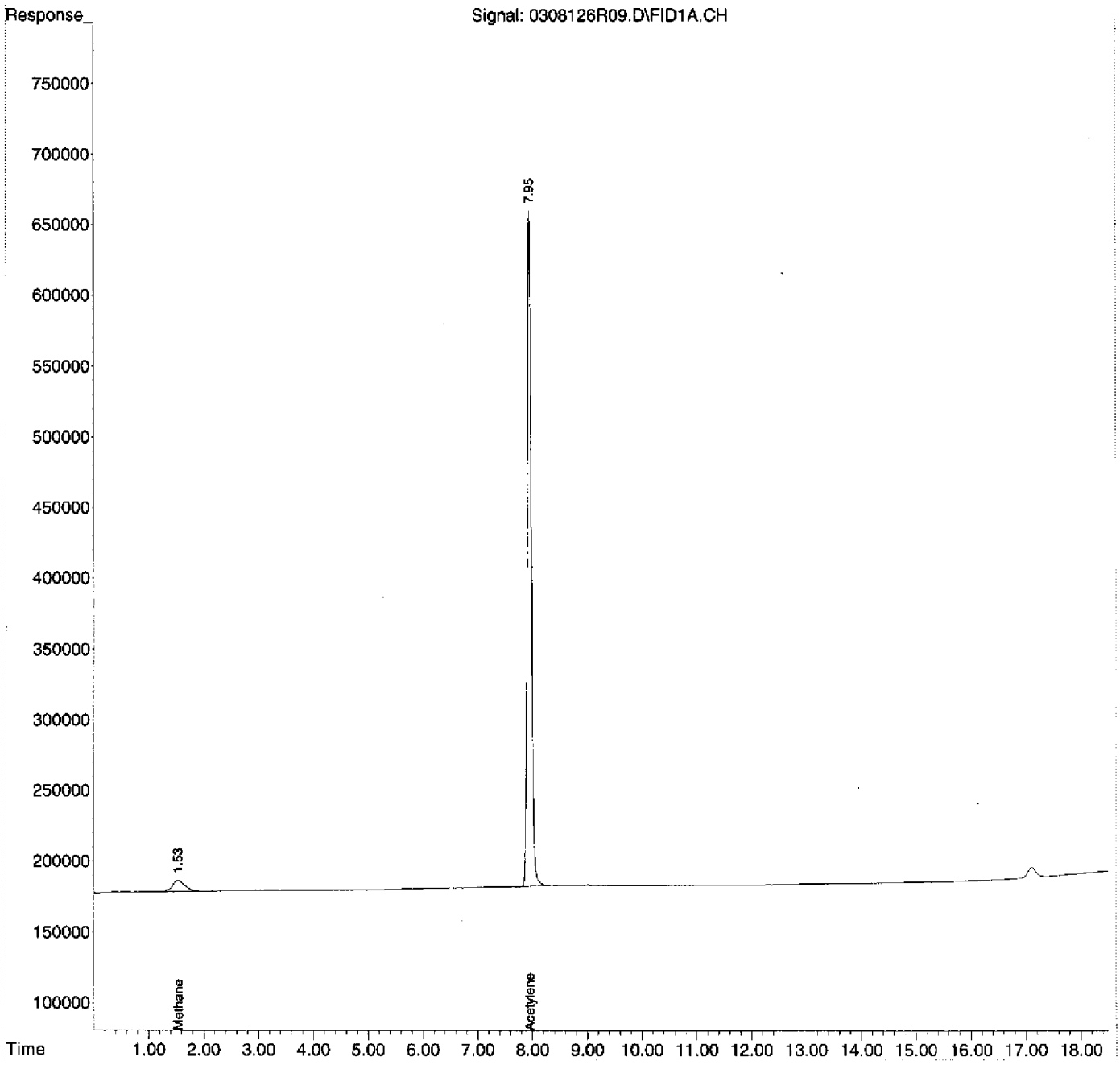
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 4:18 pm
Operator : rh
Sample : 1203020-01
Misc : FB20
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 09:18:00 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 4:46 pm
Operator : rh
Sample : 1203020-05
Misc : TB51
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 09 09:18:08 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.948	25906078	74.120 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.74%
Target Compounds			
1) TM Methane	1.533	856830	0.842 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

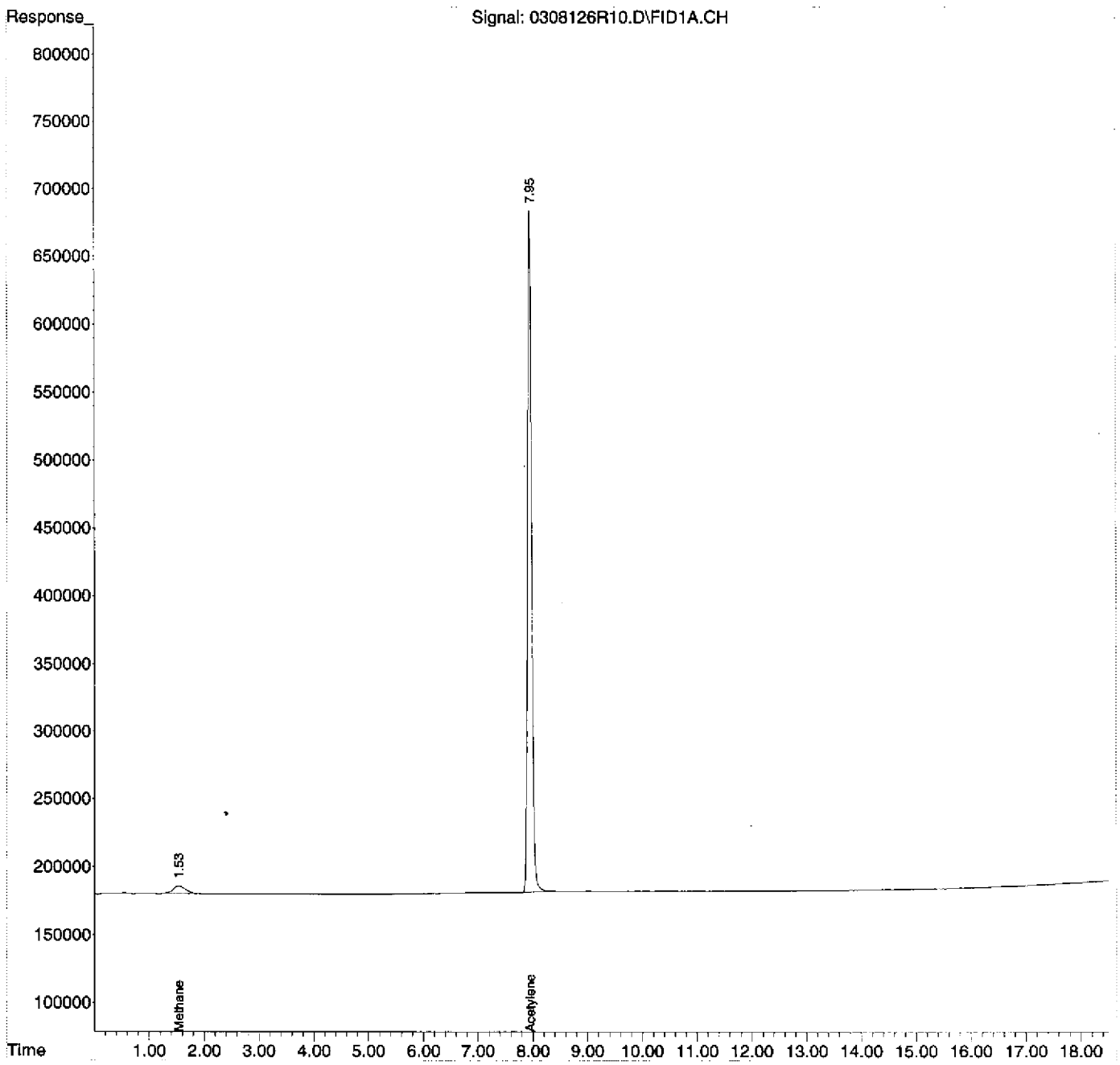
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 4:46 pm
Operator : rh
Sample : 1203020-05
Misc : TB51
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 09 09:18:08 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 5:22 pm
Operator : rh
Sample : B2C0040-MS1
Misc : MS 18-04
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 09 09:18:16 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.947	24618393	70.436 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	106.19%
Target Compounds			
1) TM Methane	1.501	6610823897	6493.747 ug/L
3) TM Ethene	8.364	69933235	78.759 ug/L
4) TM Ethane	9.004	141421901	146.314 ug/L
5) Qual Propane	12.913	323442	NoCal
6) Qual Butane	0.000	0	N.D.

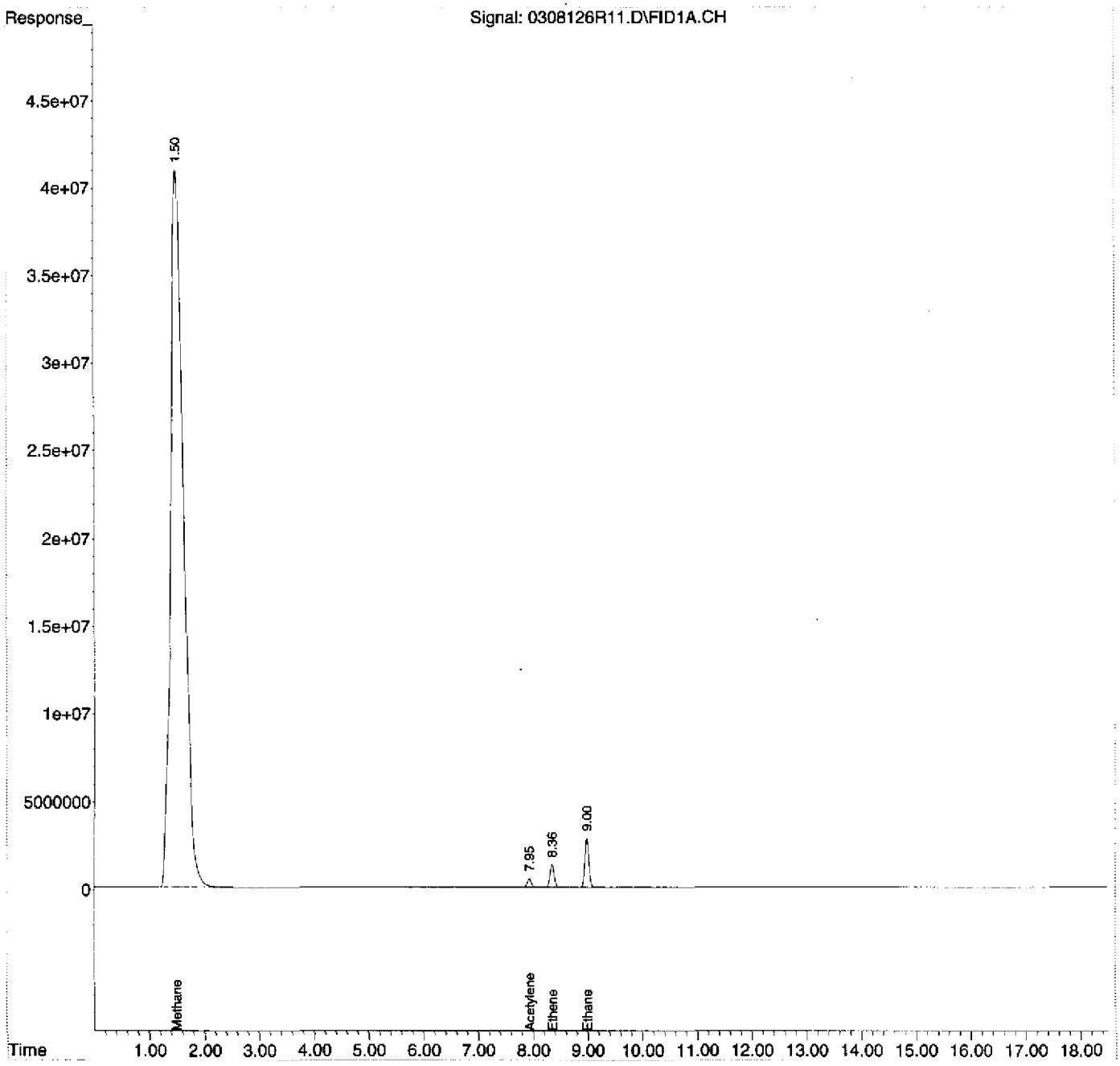
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 5:22 pm
Operator : rh
Sample : B2C0040-MS1
Misc : MS 18-04
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 09 09:18:16 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 5:49 pm
Operator : rh
Sample : B2C0040-MSD1
Misc : MSD 18-04
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 09 09:18:24 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.946	26370386	75.448 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	113.75%
Target Compounds			
1) TM Methane	1.509	4954647496	4866.901 ug/L
3) TM Ethene	8.364	74326964	83.708 ug/L
4) TM Ethane	9.003	132440730	137.022 ug/L
5) Qual Propane	12.909	258281	NoCal
6) Qual Butane	0.000	0	N.D.

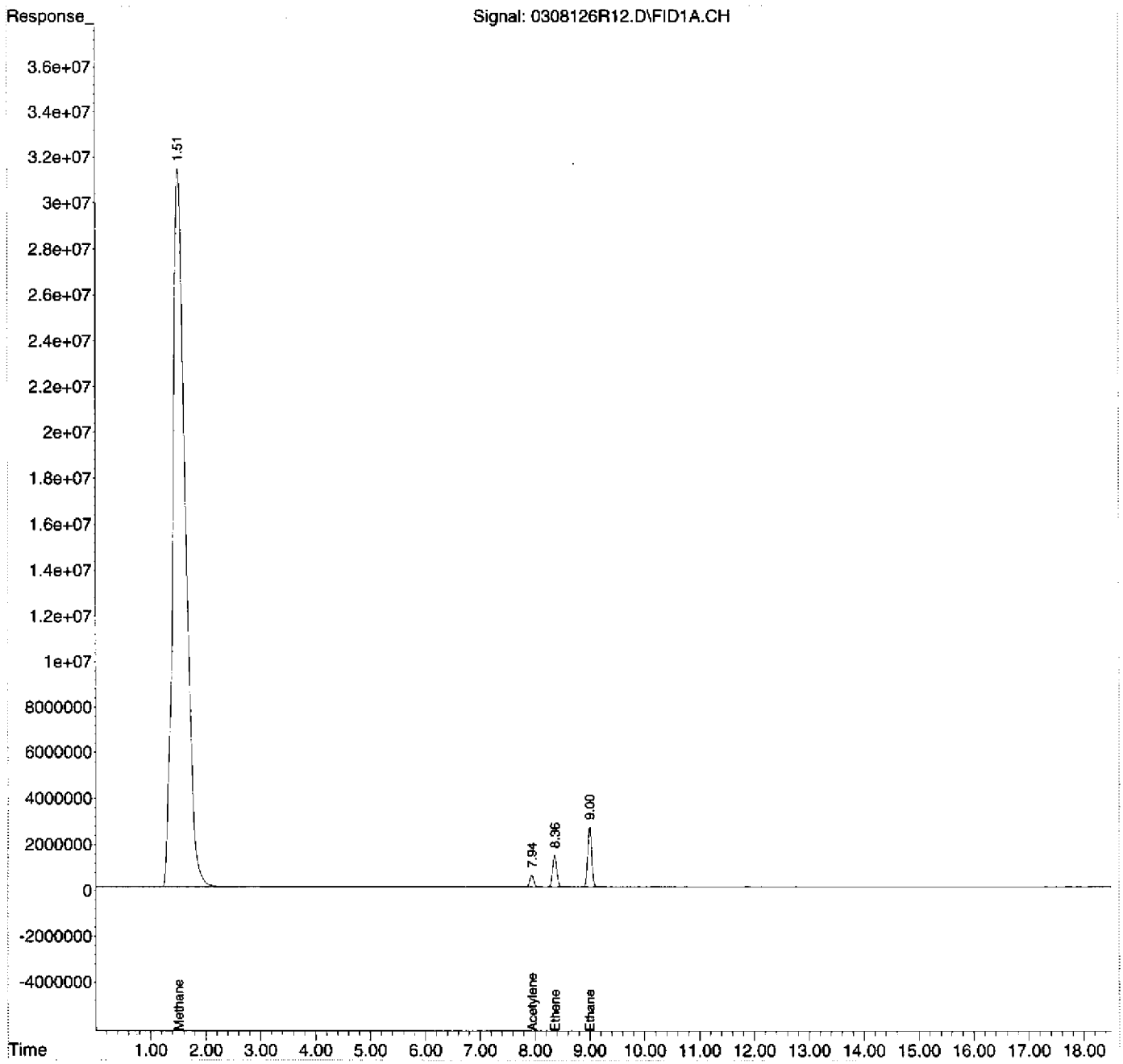
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 5:49 pm
Operator : rh
Sample : B2C0040-MSD1
Misc : MSD 18-04
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 09 09:18:24 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 6:25 pm
Operator : rh
Sample : 1203018-02
Misc : HW60
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 09:18:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.945	26749657	76.533 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	115.38%
Target Compounds			
1) TM Methane	1.461	17878475060	17561.850 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.007	9650971	9.985 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

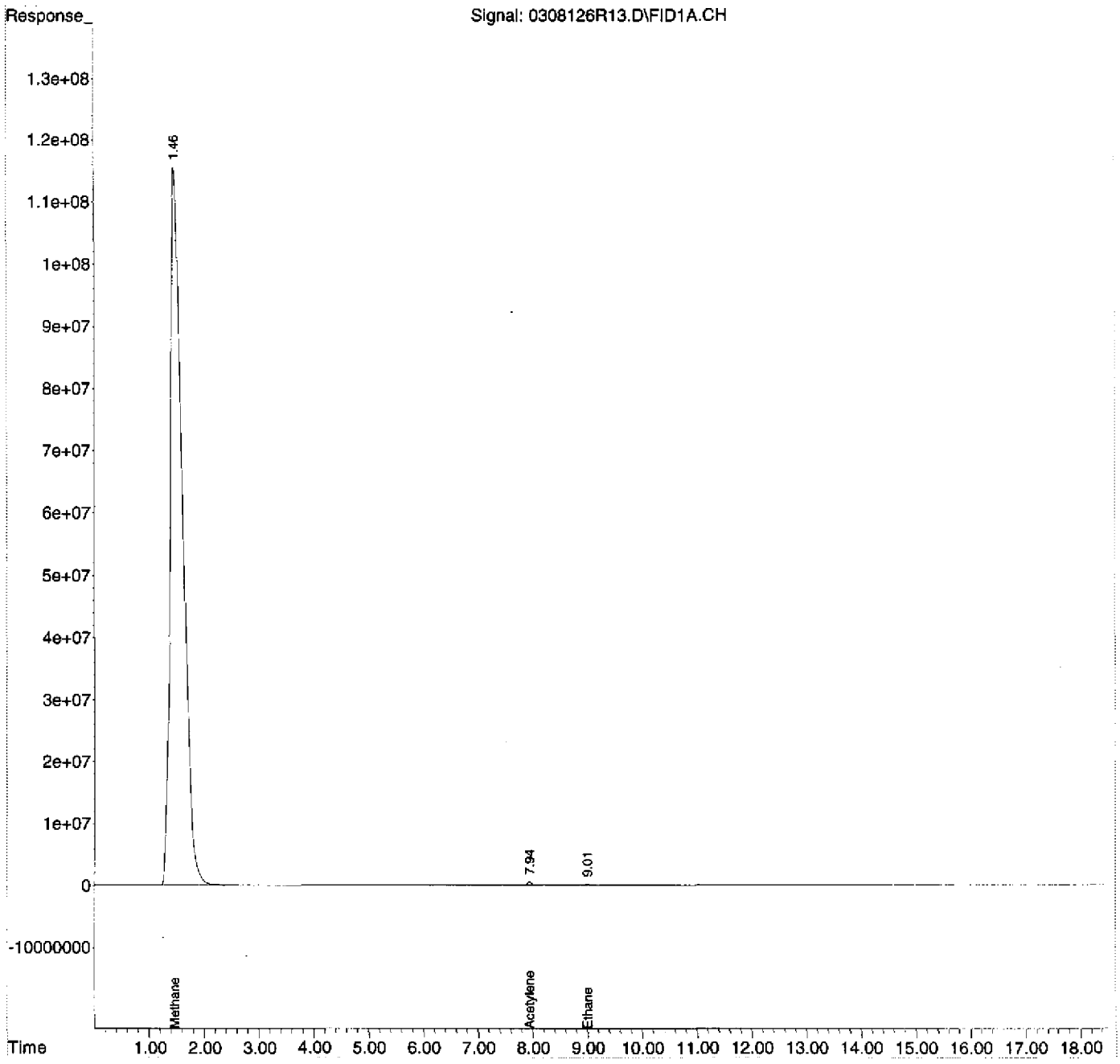
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 6:25 pm
Operator : rh
Sample : 1203018-02
Misc : HW60
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 09:18:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 6:53 pm
Operator : rh
Sample : 1203018-04
Misc : HW56
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 09 09:18:40 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.947	26531799	75.910 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	114.44%
Target Compounds			
1) TM Methane	1.502	6624508771	6507.190 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.007	59710625	61.776 ug/L
5) Qual Propane	12.915	299629	NoCal
6) Qual Butane	0.000	0	N.D.

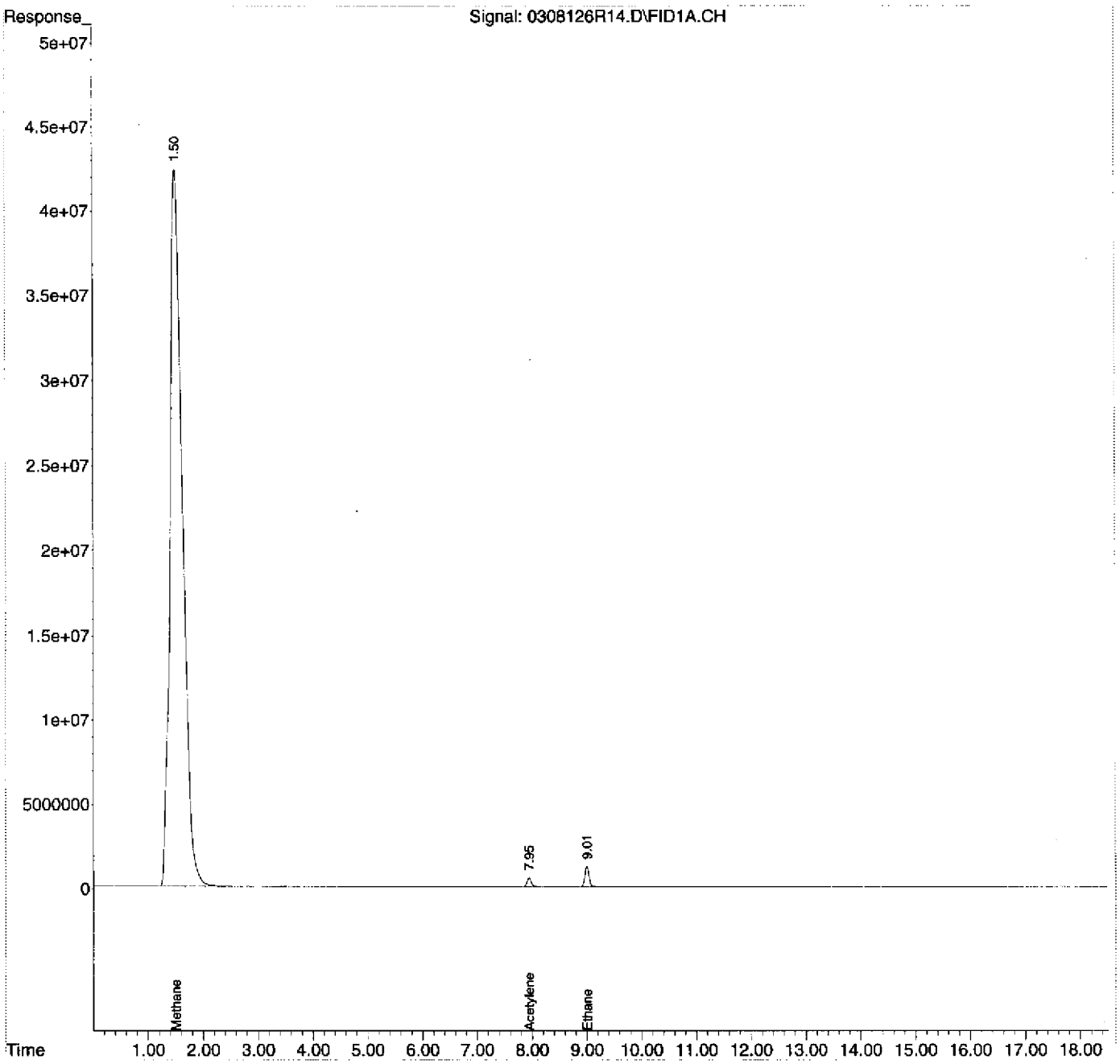
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 6:53 pm
Operator : rh
Sample : 1203018-04
Misc : HW56
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 09 09:18:40 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R15.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 7:29 pm
Operator : rh
Sample : 1203020-02
Misc : HW61
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 09 09:18:48 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.947	25727498	73.609 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.97%
Target Compounds			
1) TM Methane	1.520	1159818	1.139 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

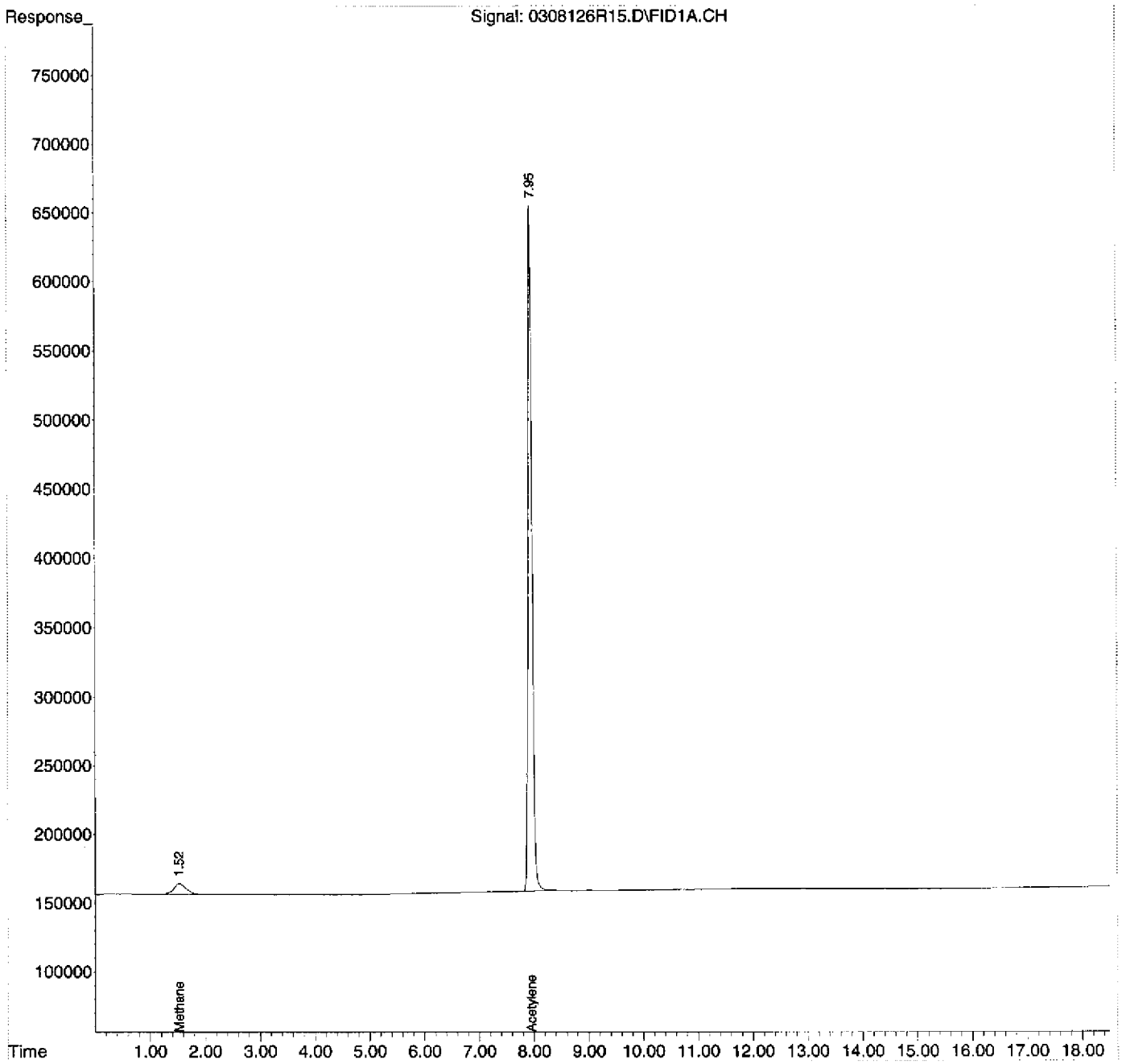
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R15.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 7:29 pm
Operator : rh
Sample : 1203020-02
Misc : HW61
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 09 09:18:48 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R16.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 7:56 pm
Operator : rh
Sample : 1203020-03
Misc : HW61-P
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 09 09:18:56 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.947	26301851	75.252 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	113.45%
Target Compounds			
1) TM Methane	1.540	896149	0.880 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

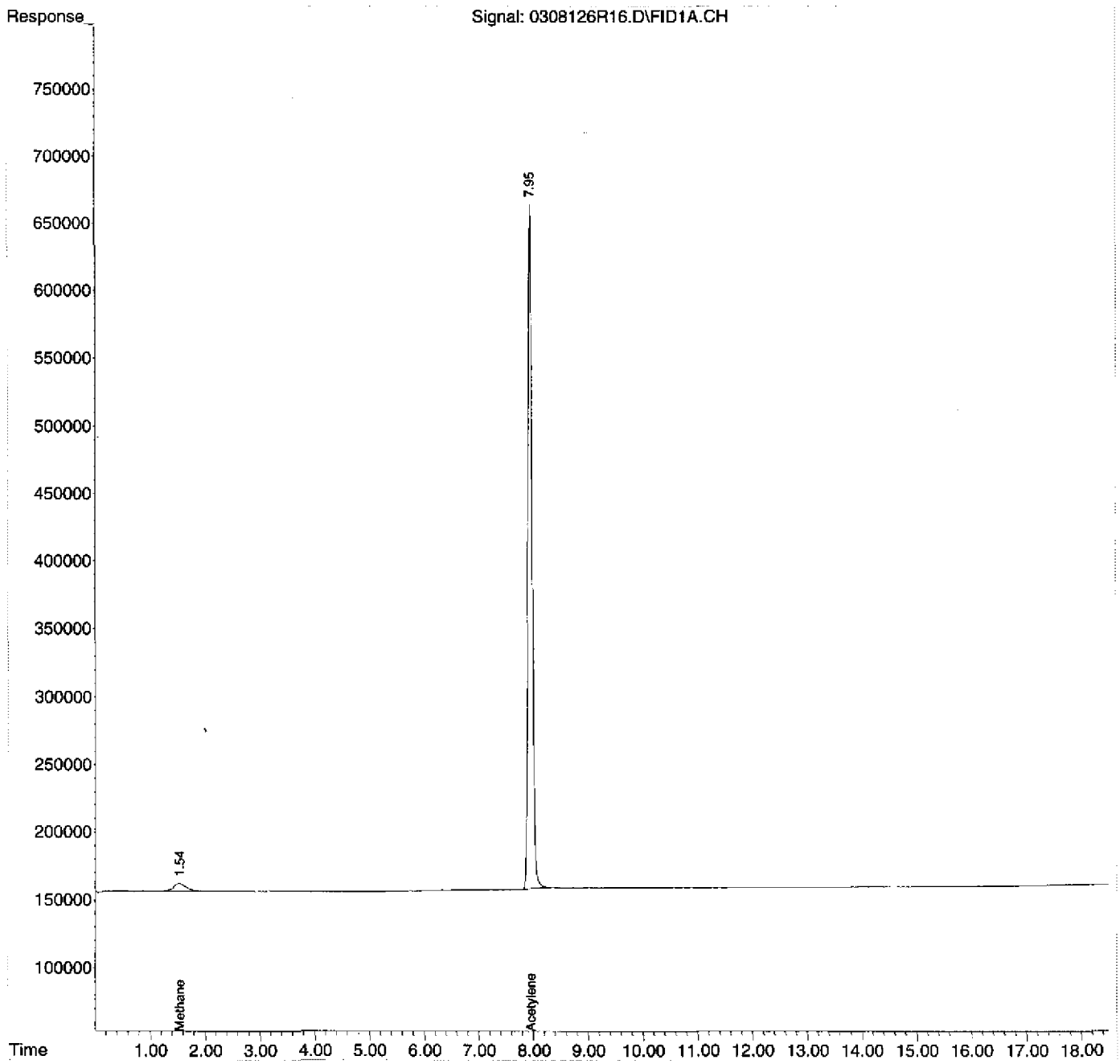
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R16.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 7:56 pm
Operator : rh
Sample : 1203020-03
Misc : HW61-P
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 09 09:18:56 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R17.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 8:32 pm
Operator : rh
Sample : 1203020-04
Misc : HW61Z
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 09 09:19:04 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.946	25720650	73.589 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.94%
Target Compounds			
1) TM Methane	1.529	638299	0.627 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

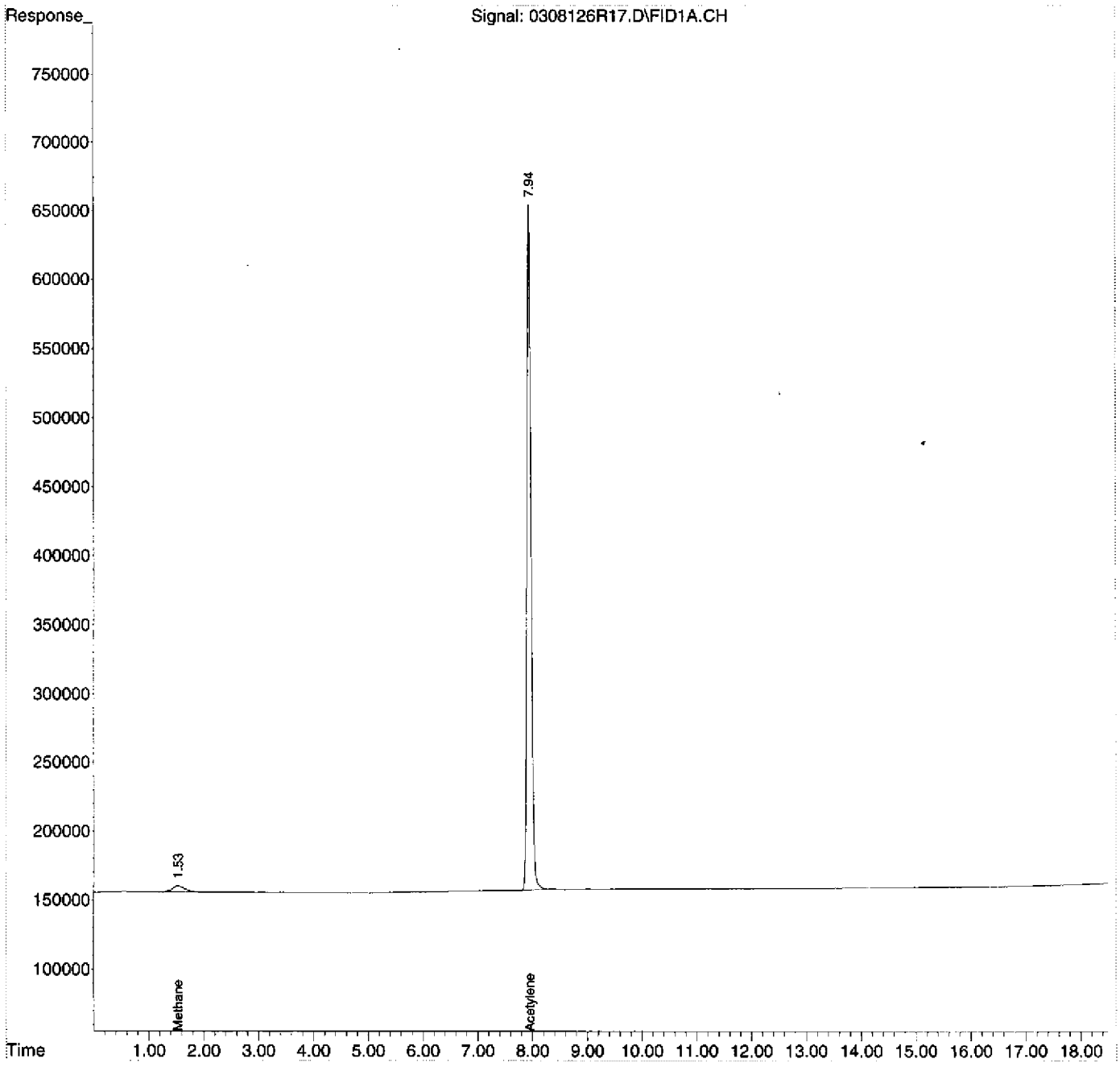
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R17.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 8:32 pm
Operator : rh
Sample : 1203020-04
Misc : HW61Z
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 09 09:19:04 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 8:59 pm
Operator : rh
Sample : 2030020-CCV2
Misc : 2C08013
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 09 09:19:12 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	TM	Methane	1.018	1.091 E6	-7.2	109	0.00
2	S	Acetylene	349.516	381.618 E3	-9.2	103	-0.03
3	TM	Ethene	887.936	986.075 E3	-11.1	109	0.00
4	TM	Ethane	966.567	1079.150 E3	-11.6	109	0.01

Evaluate Continuing Calibration Report - Not Founds

5	QualPropane	0.000	0.000	0.0	0#	-12.89#
6	QualButane	0.000	0.000	0.0	0#	-17.72#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 8:59 pm
Operator : rh
Sample : 2030020-CCV2
Misc : 2C08013
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 09 09:19:12 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.951	8262033	23.638 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	35.64%#
Target Compounds			
1) TM Methane	1.529	14434540	14.179 ug/L
3) TM Ethene	8.367	23128392	26.047 ug/L
4) TM Ethane	9.009	26958248	27.891 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

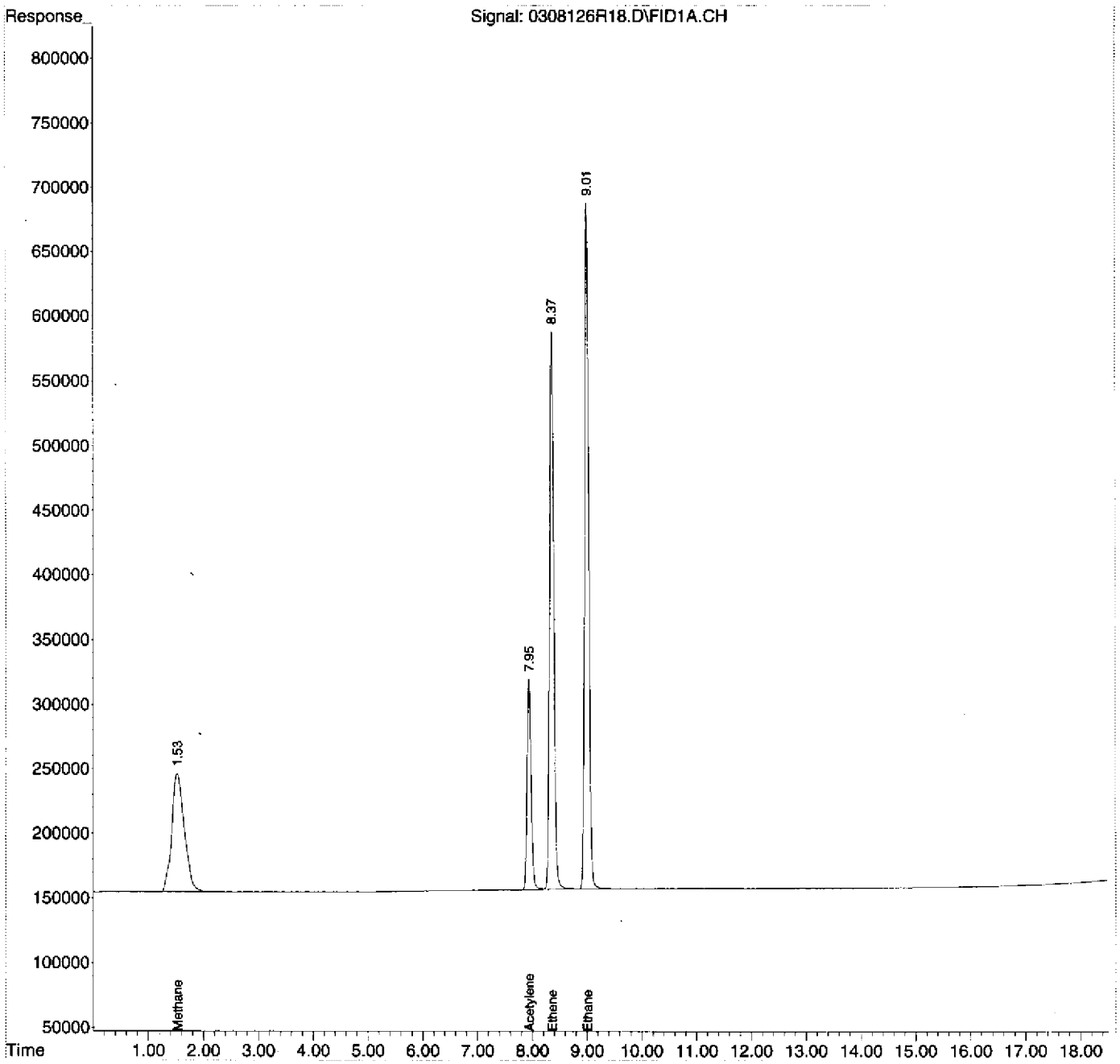
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 8:59 pm
Operator : rh
Sample : 2030020-CCV2
Misc : 2C08013
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 09 09:19:12 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 9:35 pm
Operator : rh
Sample : 2030020-CCV3
Misc : 2C08013
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 09 09:19:20 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.951	7429654	21.257 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	32.05%#
Target Compounds			
1) TM Methane	1.530	12091276	11.877 ug/L
3) TM Ethene	8.368	19492022	21.952 ug/L
4) TM Ethane	9.008	22215318	22.984 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

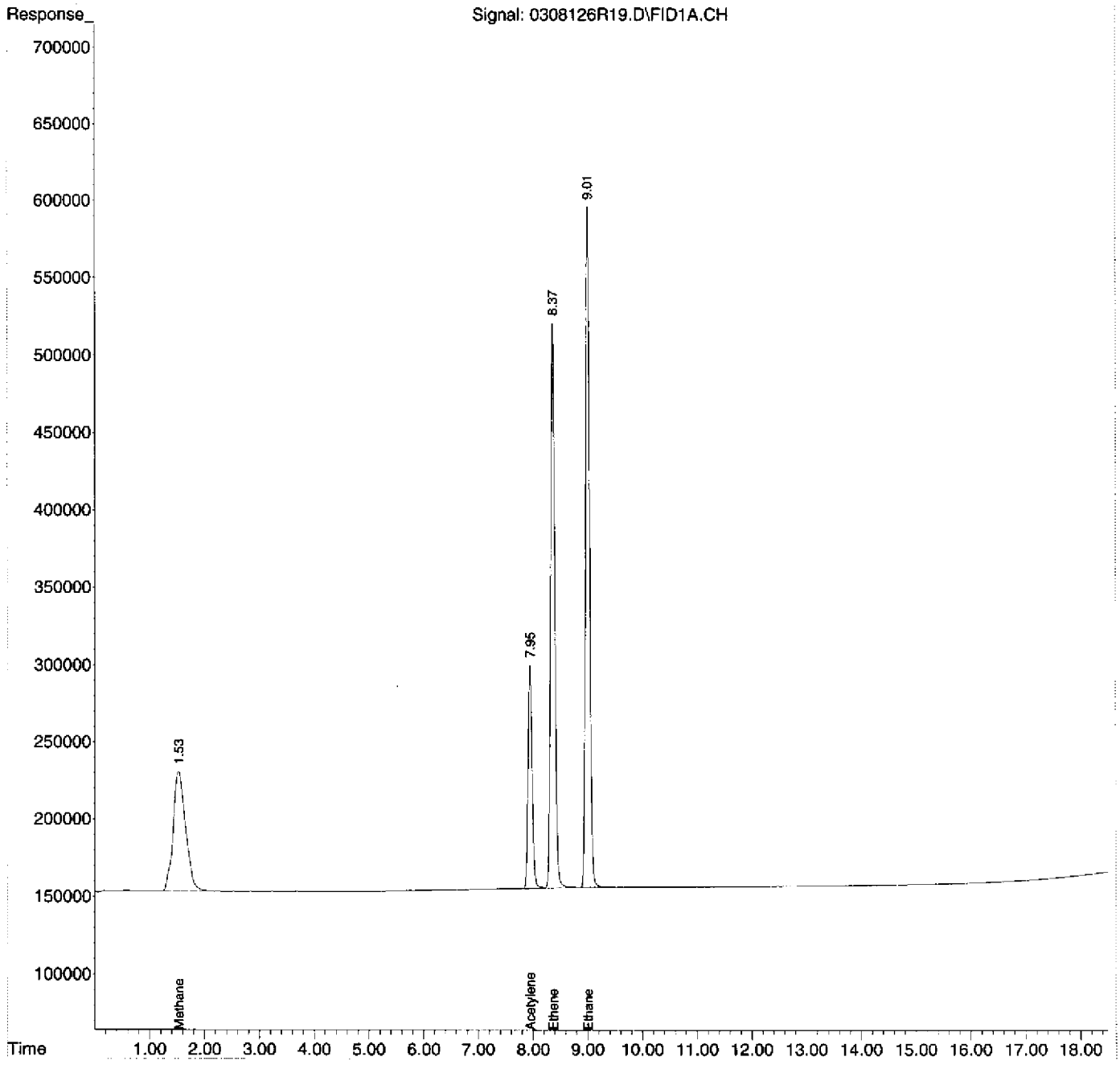
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030812RSK\
Data File : 0308126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Mar 2012 9:35 pm
Operator : rh
Sample : 2030020-CCV3
Misc : 2C08013
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 09 09:19:20 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



SDG: 12067A
Instrument: AG6890N-6
Analysis Date: 3/9/12

SAMPLE DATA

G:\USER\ESAT\1 Organic Group\Forms\DataPackageSeparators.doc

M0207296

Injection Log

Operator: rh
Directory: D:\MSDCHEM\1\2012\DATA\030912RSK\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	0309126R01.D	0	2030026-CCV1	2C09019	09 Mar 2012 9:58 am
2	0309126R02.D	0	2030026-LCV1	2C09017	09 Mar 2012 10:24 am
3	0309126R03.D	0	2030026-LCV2	2C09018	09 Mar 2012 10:51 am
4	0309126R04.D	0	B2C0050-BLK1	MB	09 Mar 2012 11:26 am
5	0309126R05.D	0	B2C0050-BS1	LCS	09 Mar 2012 11:53 am
6	0309126R06.D	0	1203024-02	HW50	09 Mar 2012 1:06 pm
7	0309126R07.D	0	1203024-01	FB21	09 Mar 2012 2:13 pm
8	0309126R08.D	0	1203024-03	TB52	09 Mar 2012 2:40 pm
9	0309126R09.D	0	1203020-02RE1	HW61 16.1ML	09 Mar 2012 3:13 pm
10	0309126R10.D	0	1203018-02RE1	HW60 0.09ML	09 Mar 2012 3:41 pm
11	0309126R11.D	0	1203018-04RE1	HW56 0.25ML	09 Mar 2012 4:17 pm
12	0309126R12.D	0	2030026-CCV2	2C09019	09 Mar 2012 4:44 pm

Response Factor Report AG6890N-6

Method Path : D:\MSDCHEM\1\2012\METHOD\
Method File : 0126126RSK.M
Title :
Last Update : Fri Jan 27 11:26:56 2012
Response Via : Initial Calibration

Calibration Files
1 =0126126R008.D 2 =0126126R007.D 3 =0126126R006.D
4 =0126126R005.D 5 =0126126R004.D 6 =0126126R003.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1) TM	Methane		1.100	1.004	1.003	0.997	1.028	1.018 E6	4.25
2) S	Acetylene	3.221	3.304	3.380	3.710	3.595	3.697	3.495 E5	5.56
3) TM	Ethene	8.210	8.669	8.696	9.069	9.135	9.418	8.879 E5	4.42
4) TM	Ethane	0.894	0.941	0.956	0.986	0.994	1.023	0.967 E6	4.30
5) Qual	Propane							0.000	-1.00
6) Qual	Butane							0.000	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

GC QA-QC Check Report

Daily Calibration File : D:\MSDCHEM\1\DATA\2010\120810RSK\120810A02.D
Time Acquired : 08 Dec 2010 11:12 am

File	Sample	Surrogate Recovery %
0309126R01.D	2030026-CCV1	37*
0309126R02.D	2030026-LCV1	1*
0309126R03.D	2030026-LCV2	3*
0309126R04.D	B2C0050-BLK1	121
0309126R05.D	B2C0050-BS1	111
0309126R06.D	1203024-02	112
0309126R07.D	1203024-01	107
0309126R08.D	1203024-03	110
0309126R09.D	1203020-02RE1	113
0309126R10.D	1203018-02RE1	99
0309126R11.D	1203018-04RE1	98
0309126R12.D	2030026-CCV2	36*

(fails) - fails 24hr time check * - fails criteria

Created: Mon Mar 12 09:27:14 2012 AG6890N-6

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 9:58 am
Operator : rh
Sample : 2030026-CCV1
Misc : 2C09019
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 12 09:23:18 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 TM	Methane	1.018	1.151 E6	-13.1	115	0.00
2 S	Acetylene	349.516	391.216 E3	-11.9	105	-0.04
3 TM	Ethene	887.936	1025.820 E3	-15.5	113	0.00
4 TM	Ethane	966.567	1122.702 E3	-16.2	114	0.00

Evaluate Continuing Calibration Report - Not Founds

5 Qual	Propane	0.000	0.000	0.0	0#	-12.89#
6 Qual	Butane	0.000	0.000	0.0	0#	-17.72#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 9:58 am
Operator : rh
Sample : 2030026-CCV1
Misc : 2C09019
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 12 09:23:18 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.936	8469821	24.233 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	36.53%#
Target Compounds			
1) TM Methane	1.527	15233127	14.963 ug/L
3) TM Ethene	8.365	24060604	27.097 ug/L
4) TM Ethane	9.007	28046219	29.016 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

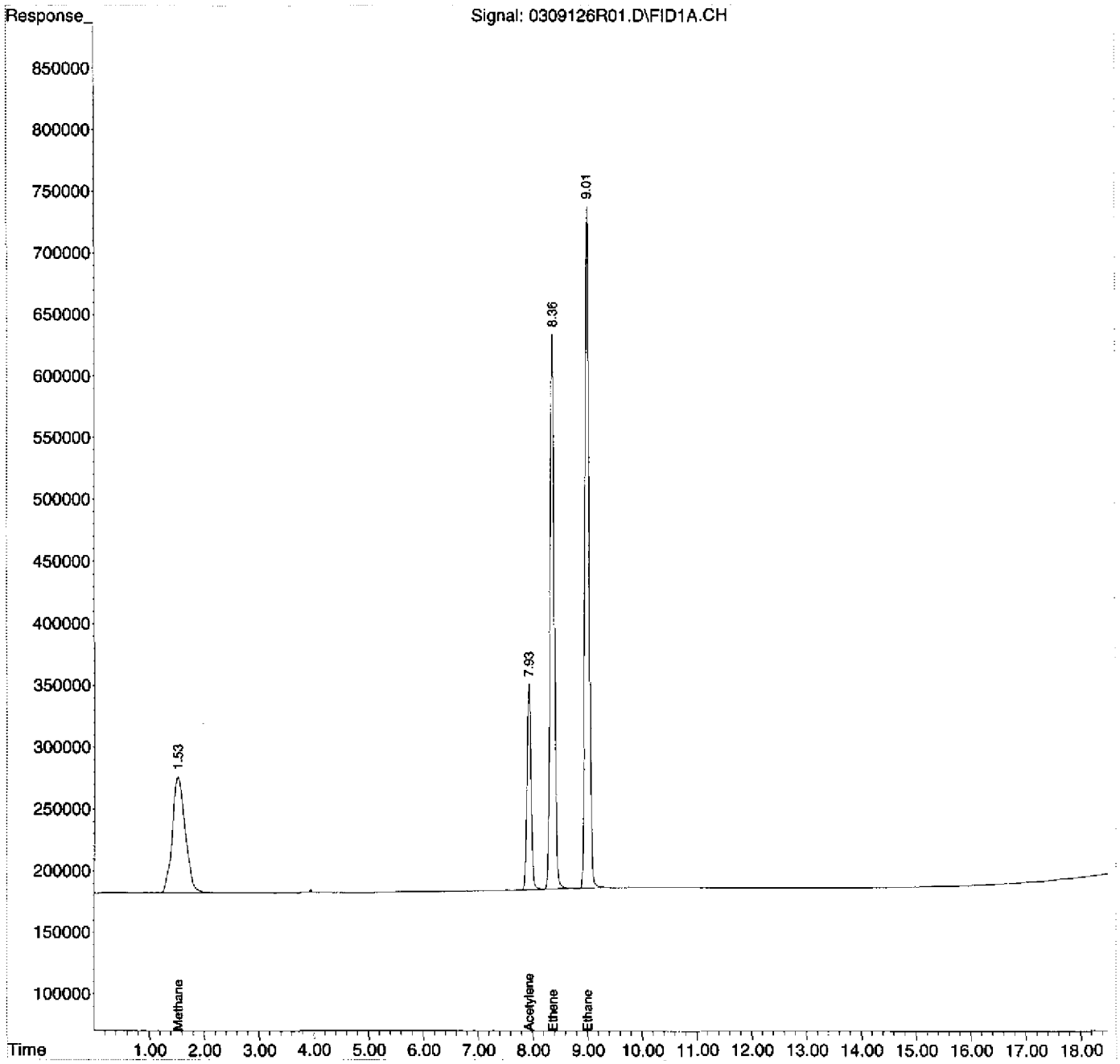
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 9:58 am
Operator : rh
Sample : 2030026-CCV1
Misc : 2C09019
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 12 09:23:18 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



RSK-175 HC LCV REPORT

Instrument Name: AG6890N-6
File Name LCV1: 0309126R02
File Name LCV2: 0309126R03
Date Acquired: 03/09/12
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.384	60 - 140	112.5%	pass
Acetylene	2.014	1.893	60 - 140	94.0%	NA
Ethene	1.091	1.048	60 - 140	96.1%	pass
Ethane	1.162	1.14	60 - 140	98.1%	pass

Ethene & ethane recovery calculated from LCV1 results
Methane recovery calculated from LCV2 results

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 10:24 am
Operator : rh
Sample : 2030026-LCV1
Misc : 2C09017
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 09:23:25 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.956	319726	0.915 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.38%#
Target Compounds			
1) TM Methane	1.539	911559	0.895 ug/L
3) TM Ethene	8.371	930263	1.048 ug/L
4) TM Ethane	9.012	1101878	1.140 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

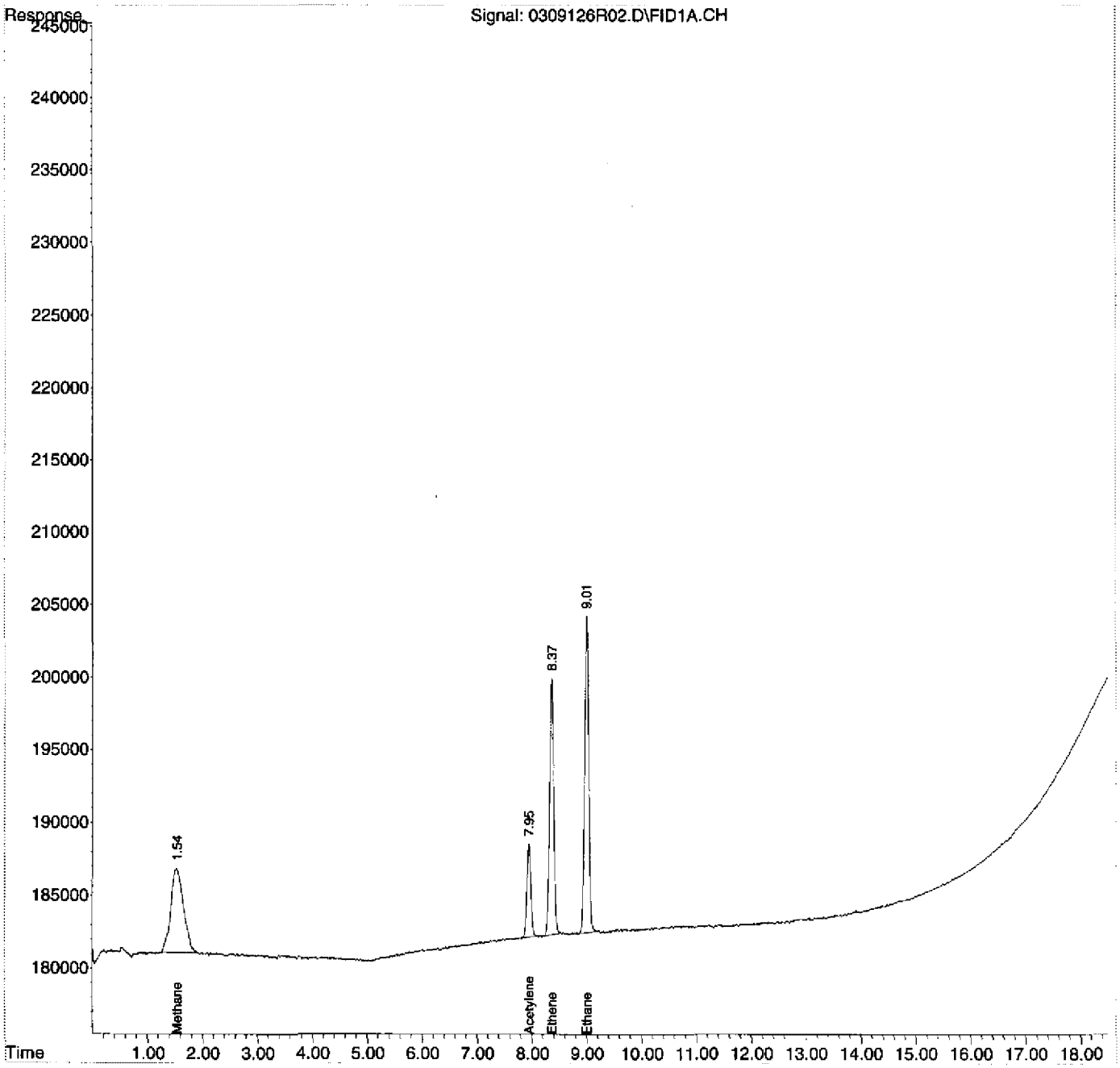
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 10:24 am
Operator : rh
Sample : 2030026-LCV1
Misc : 2C09017
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 09:23:25 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 10:51 am
Operator : rh
Sample : 2030026-LCV2
Misc : 2C09018
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 09:23:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.956	661678	1.893 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.85%#
Target Compounds			
1) TM Methane	1.531	1408748	1.384 ug/L
3) TM Ethene	8.371	1870029	2.106 ug/L
4) TM Ethane	9.011	2185525	2.261 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

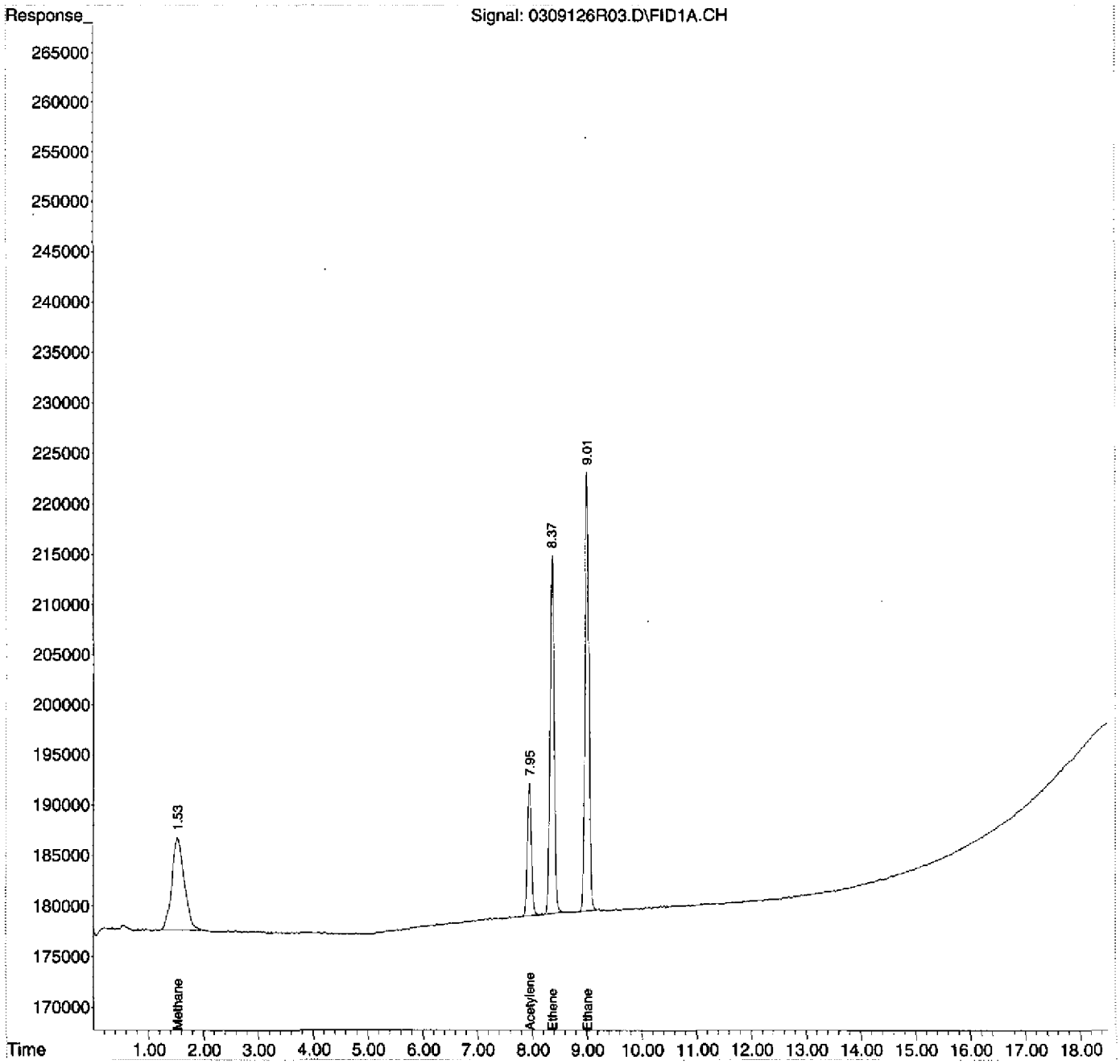
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 10:51 am
Operator : rh
Sample : 2030026-LCV2
Misc : 2C09018
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 09:23:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 11:26 am
Operator : rh
Sample : B2C0050-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 12 09:23:39 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.949	28078857	80.336 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	121.12%
Target Compounds			
1) TM Methane	1.526	512273	0.503 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

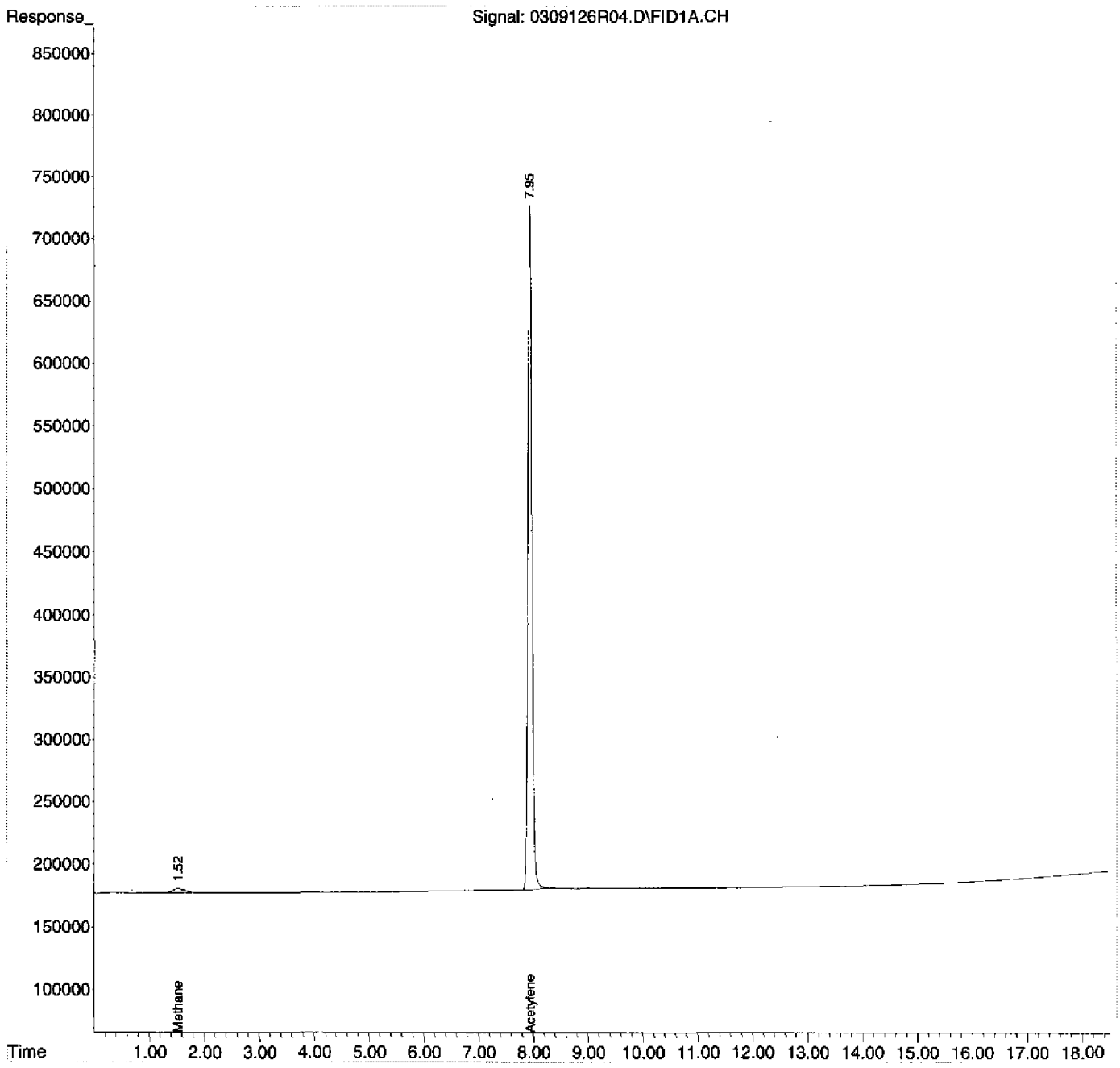
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 11:26 am
Operator : rh
Sample : B2C0050-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 12 09:23:39 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



RSK-175 LCSSUMMARY REPORT

Instrument Name: AG6890N-6
File Name: 0309126R05.D
Date Acquired: 3/9/2012
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	44.099	42.857	70-130	97.2%	pass
Acetylene	72.166	73.595	66.4-153	102.0%	pass
Ethene	78.183	80.172	78-138	102.5%	pass
Ethane	83.269	85.468	77-137	102.6%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 11:53 am
Operator : rh
Sample : B2C0050-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 09:23:46 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.948	25722796	73.595 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.95%
Target Compounds			
1) TM Methane	1.531	43629582	42.857 ug/L
3) TM Ethene	8.366	71187582	80.172 ug/L
4) TM Ethane	9.007	82610725	85.468 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

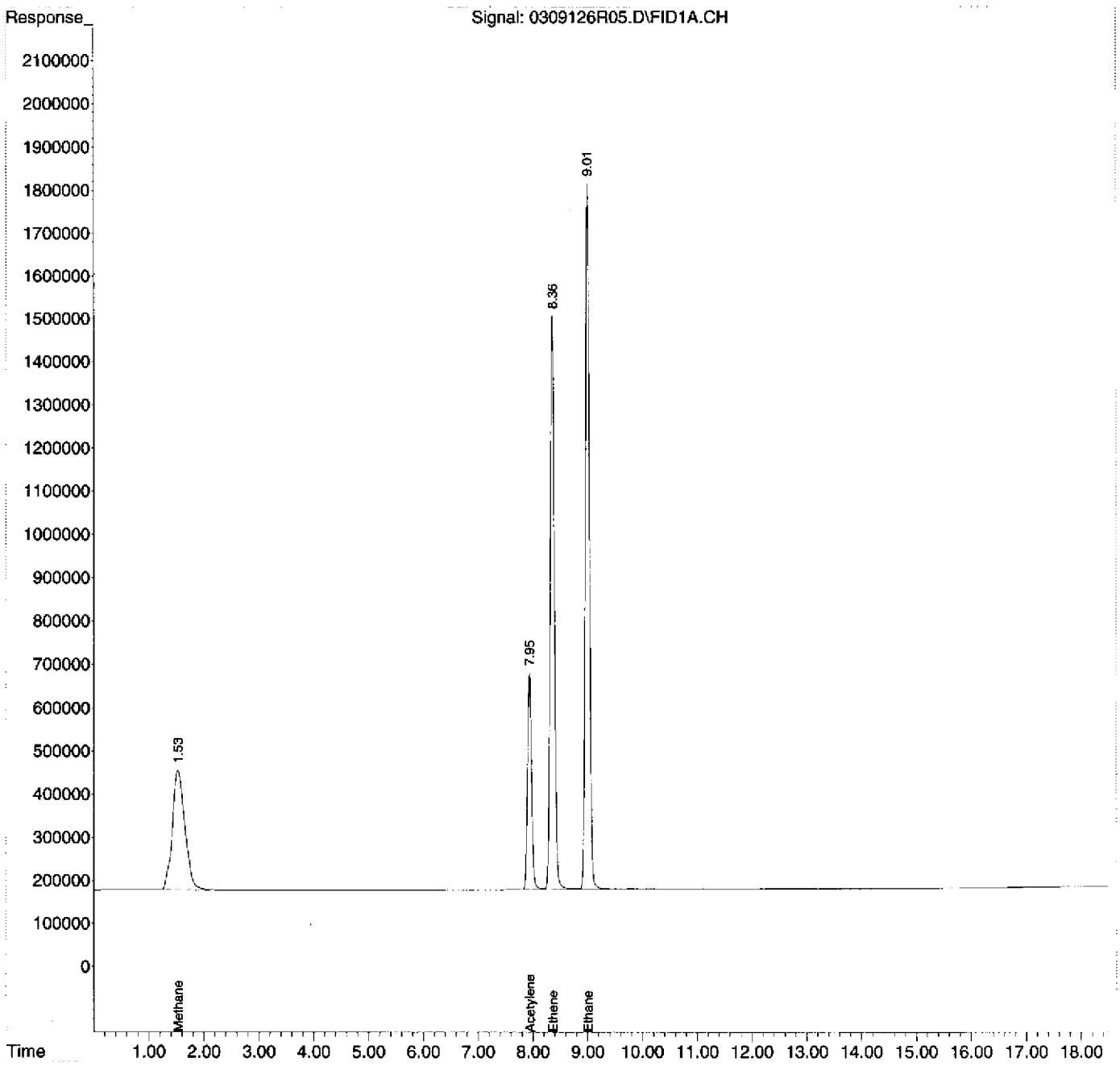
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 11:53 am
Operator : rh
Sample : B2C0050-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 09:23:46 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 1:06 pm
Operator : rh
Sample : 1203024-02
Misc : HW50
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 12 09:23:53 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.942	25889943	74.074 ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 111.67%			
Target Compounds			
1) TM Methane	1.540	581424	0.571 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

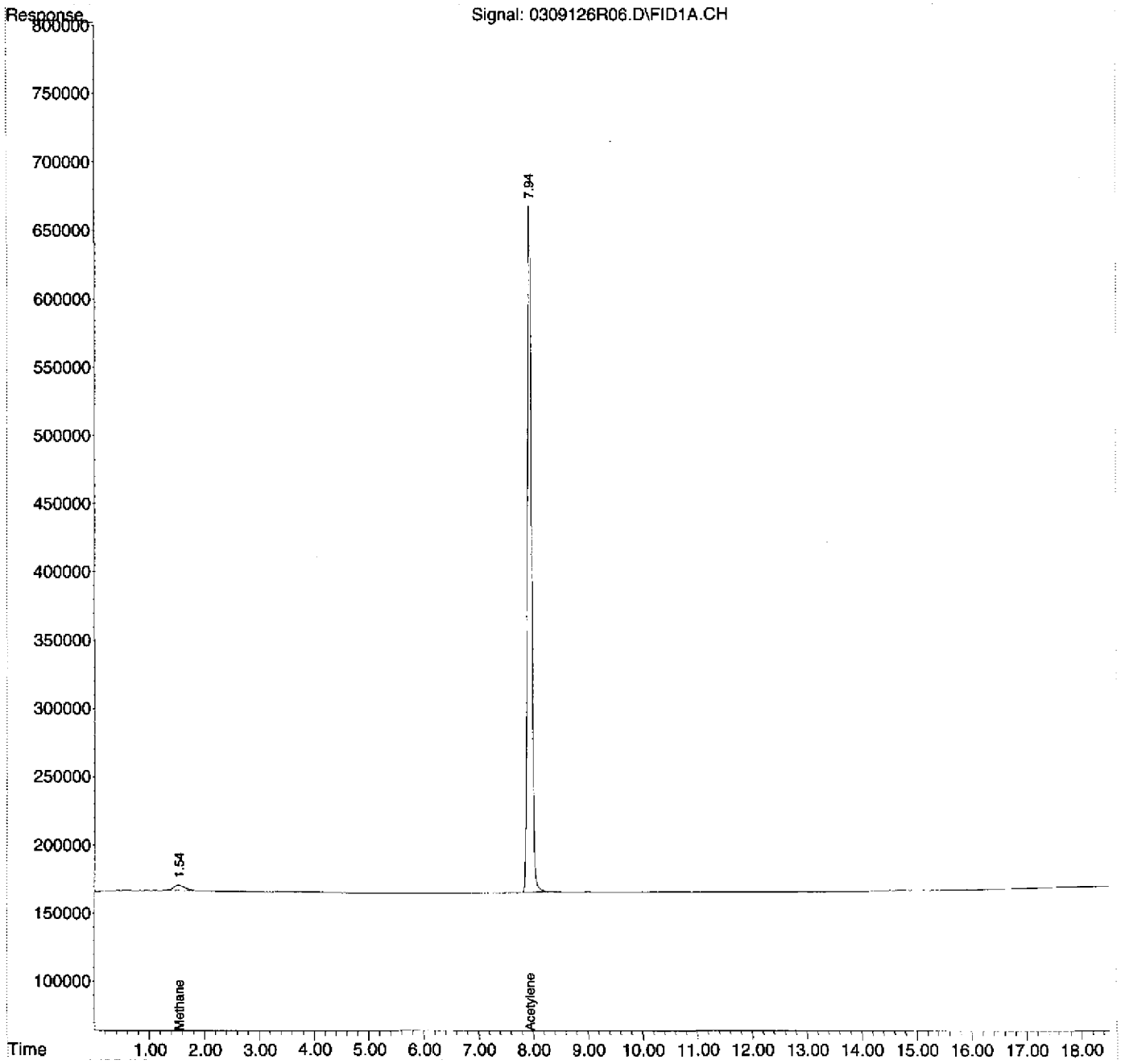
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 1:06 pm
Operator : rh
Sample : 1203024-02
Misc : HW50
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 12 09:23:53 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 2:13 pm
Operator : rh
Sample : 1203024-01
Misc : FB21
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 09:24:00 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S Acetylene	7.945	24690575	70.642	ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 106.50%				
Target Compounds				
1) TM Methane	0.000	0	N.D.	ug/L
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	0.000	0	N.D.	ug/L
5) Qual Propane	0.000	0	N.D.	
6) Qual Butane	0.000	0	N.D.	

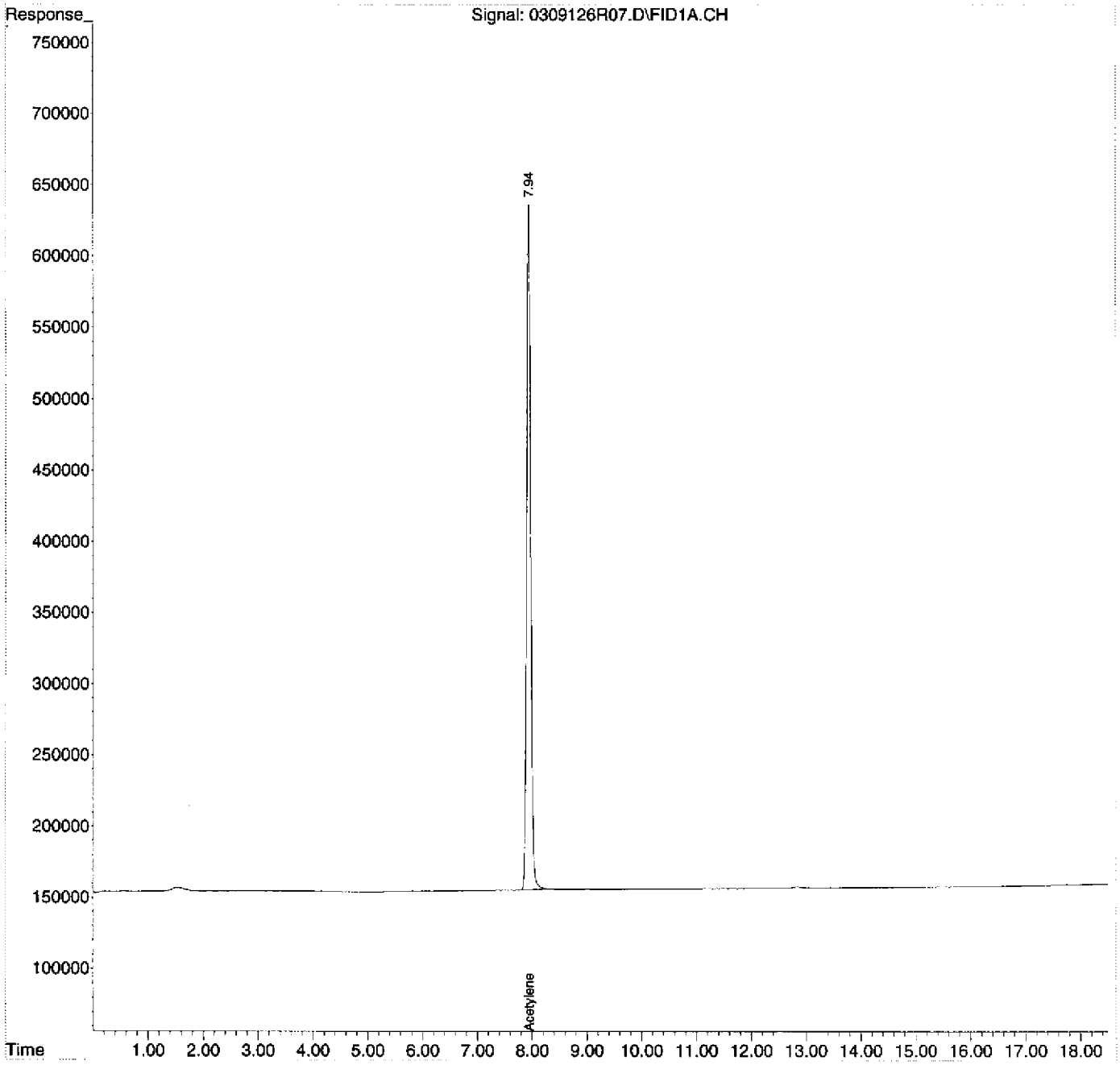
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 2:13 pm
Operator : rh
Sample : 1203024-01
Misc : FB21
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 09:24:00 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 2:40 pm
Operator : rh
Sample : 1203024-03
Misc : TB52
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 12 09:24:08 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S Acetylene	7.948	25392000	72.649	ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 109.53%				
Target Compounds				
1) TM Methane	0.000	0	N.D.	ug/L
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	0.000	0	N.D.	ug/L
5) Qual Propane	0.000	0	N.D.	
6) Qual Butane	0.000	0	N.D.	

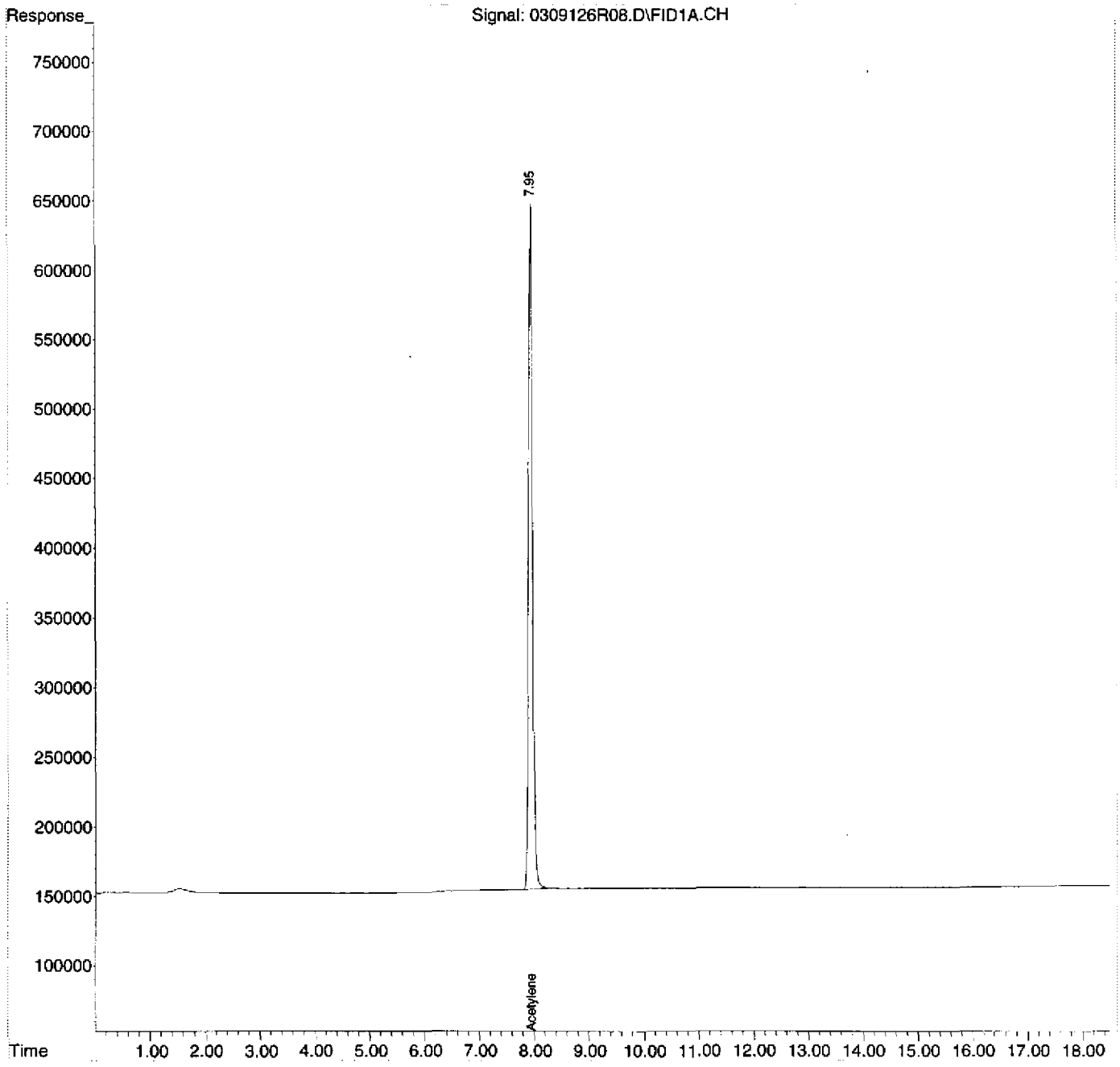
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 2:40 pm
Operator : rh
Sample : 1203024-03
Misc : TB52
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 12 09:24:08 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 3:13 pm
Operator : rh
Sample : 1203020-02RE1
Misc : HW61 16.1ML
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 12 09:24:15 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.947	26304328	75.259 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	113.46%
Target Compounds			
1) TM Methane	1.539	430395	0.423 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

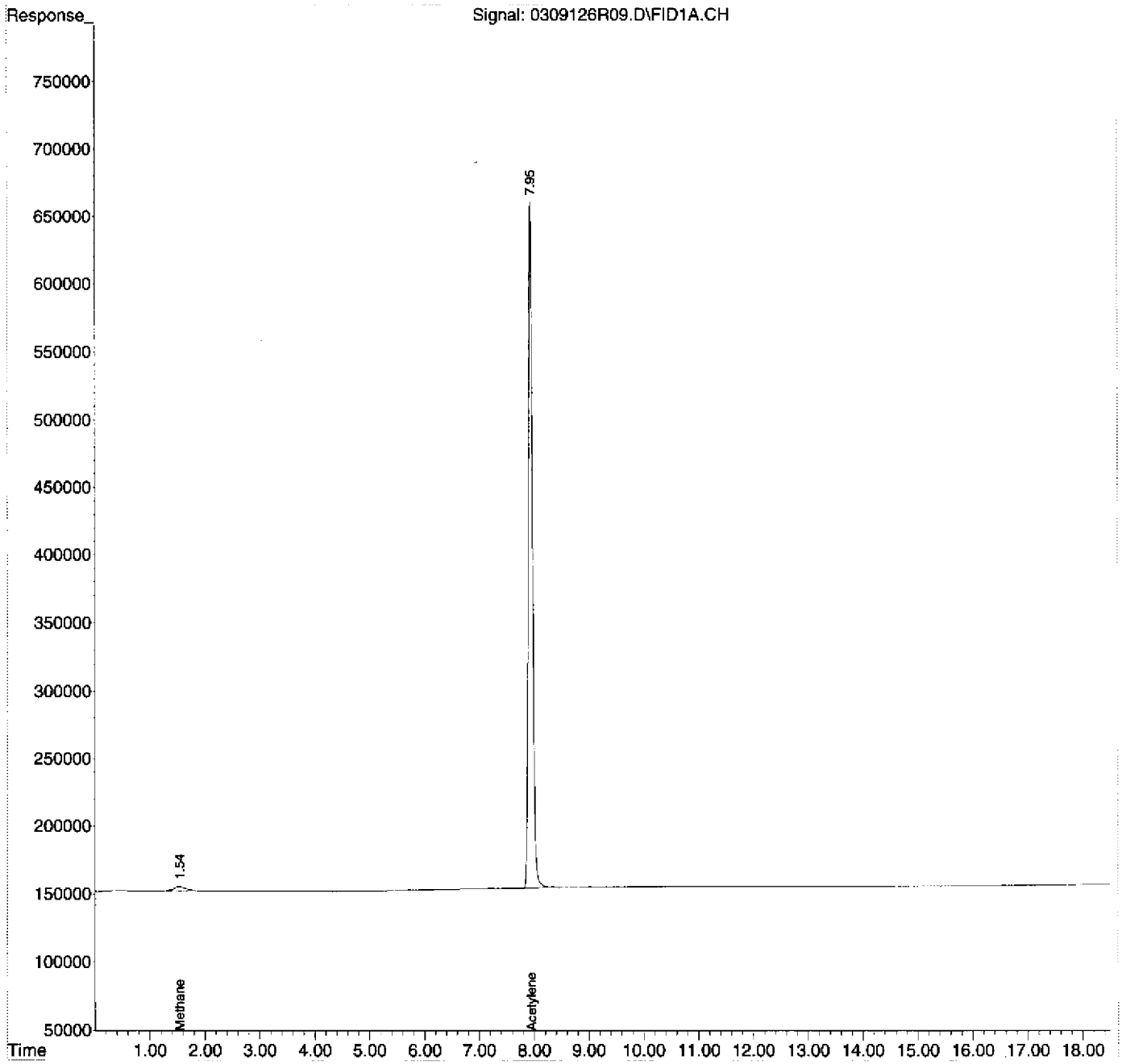
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 3:13 pm
Operator : rh
Sample : 1203020-02RE1
Misc : HW61 16.1ML
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 12 09:24:15 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 3:41 pm
Operator : rh
Sample : 1203018-02RE1
Misc : HW60 0.09ML
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 12 09:24:22 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.949	22894718	65.504 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	98.75%
Target Compounds			
1) TM Methane	1.530	117260881	115.184 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

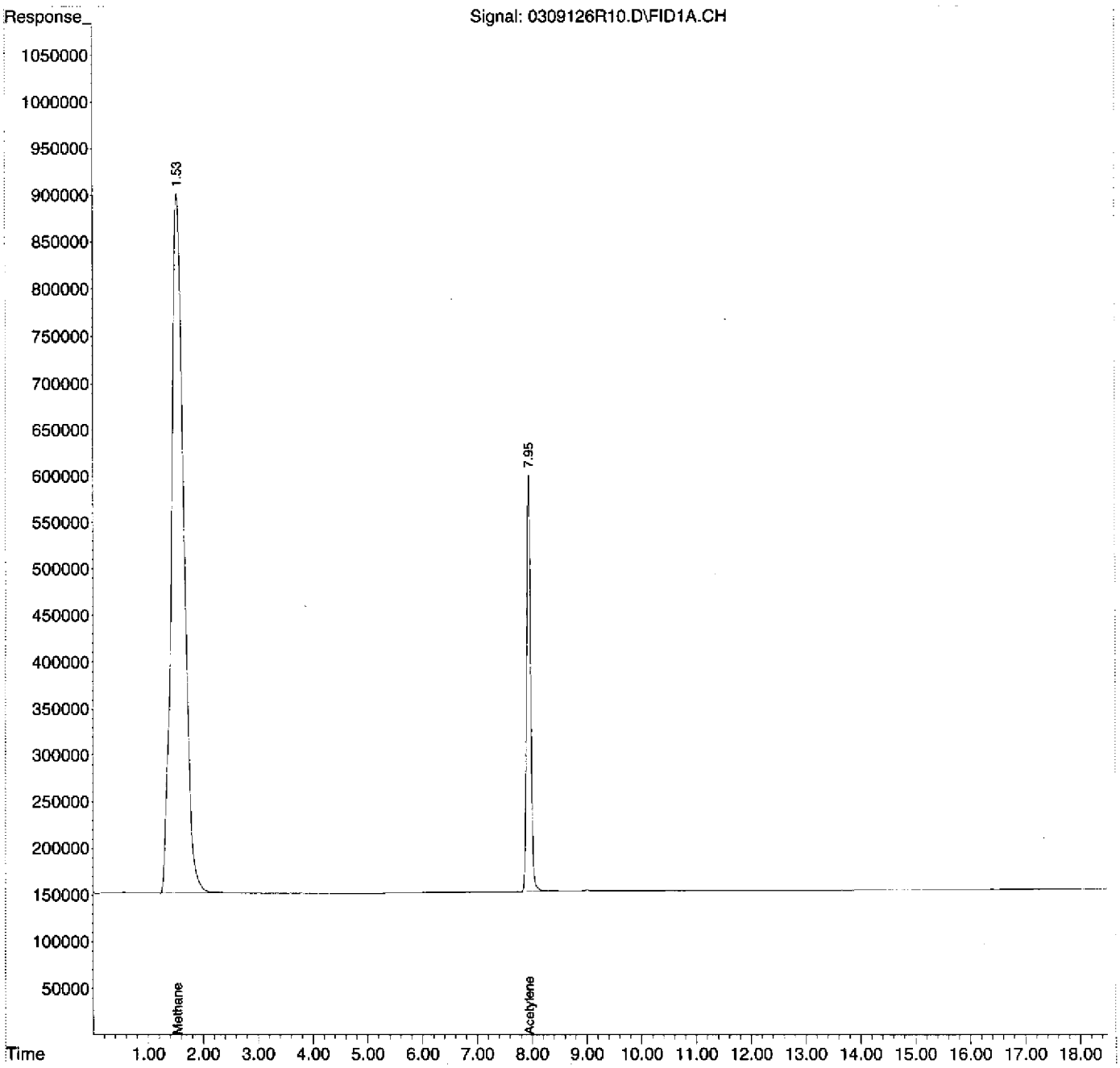
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 3:41 pm
Operator : rh
Sample : 1203018-02RE1
Misc : HW60 0.09ML
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 12 09:24:22 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 4:17 pm
Operator : rh
Sample : 1203018-04RE1
Misc : HW56 0.25ML
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 12 09:24:29 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.947	22731410	65.037 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	98.05%
Target Compounds			
1) TM Methane	1.530	136913035	134.488 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.001	1193258	1.235 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

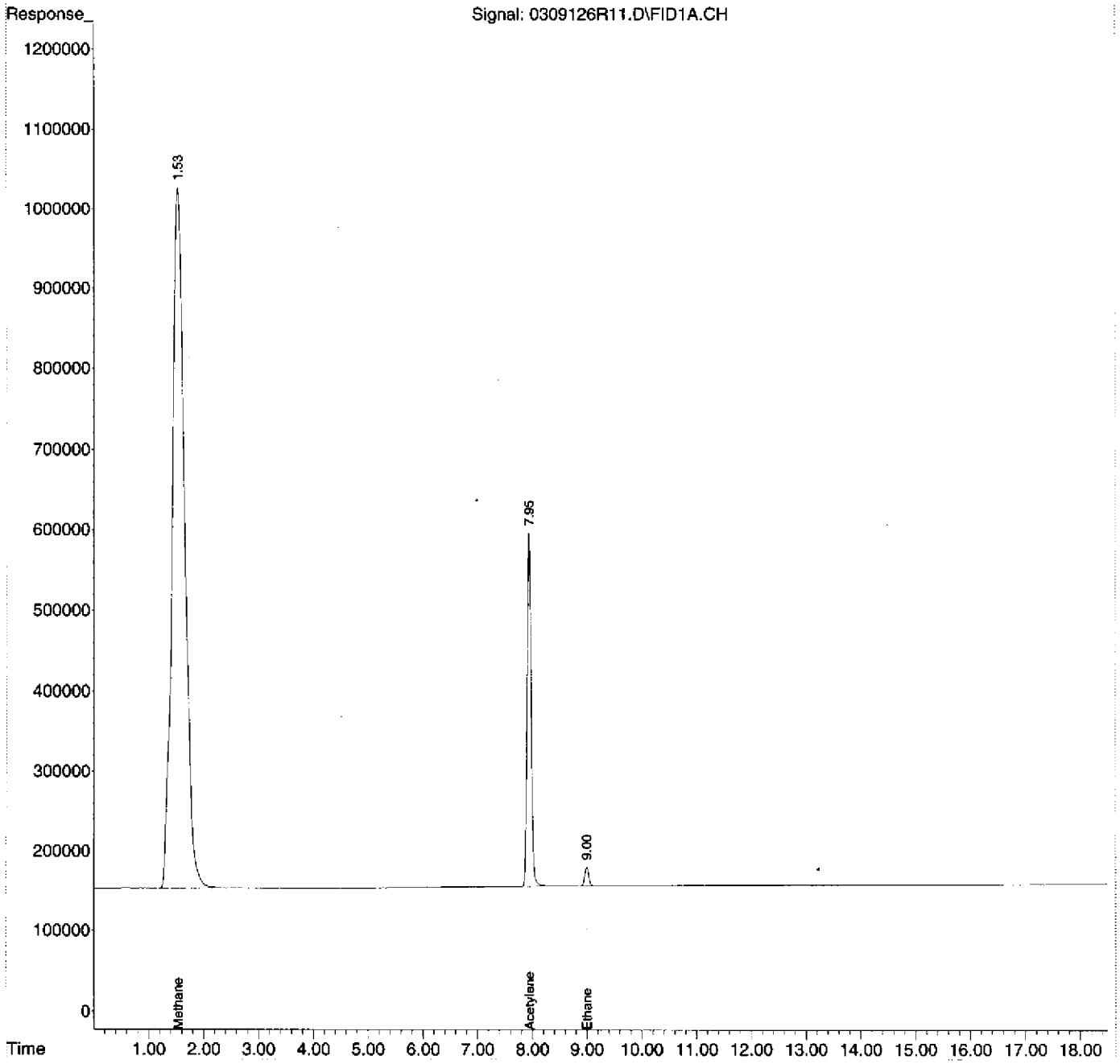
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 4:17 pm
Operator : rh
Sample : 1203018-04RE1
Misc : HW56 0.25ML
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 12 09:24:29 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 4:44 pm
Operator : rh
Sample : 2030026-CCV2
Misc : 2C09019
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 12 09:24:36 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 TM	Methane	1.018	1.088 E6	-6.9	109	0.00
2 S	Acetylene	349.516	389.572 E3	-11.5	105	-0.03
3 TM	Ethene	887.936	976.683 E3	-10.0	108	0.00
4 TM	Ethane	966.567	1063.453 E3	-10.0	108	0.01

Evaluate Continuing Calibration Report - Not Founds

5 Qual	Propane	0.000	0.000	0.0	0#	-12.89#
6 Qual	Butane	0.000	0.000	0.0	0#	-17.72#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 4:44 pm
Operator : rh
Sample : 2030026-CCV2
Misc : 2C09019
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 12 09:24:36 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.948	8434233	24.131 ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 36.38%#			
Target Compounds			
1) TM Methane	1.532	14398605	14.144 ug/L
3) TM Ethene	8.368	22908090	25.799 ug/L
4) TM Ethane	9.009	26566125	27.485 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

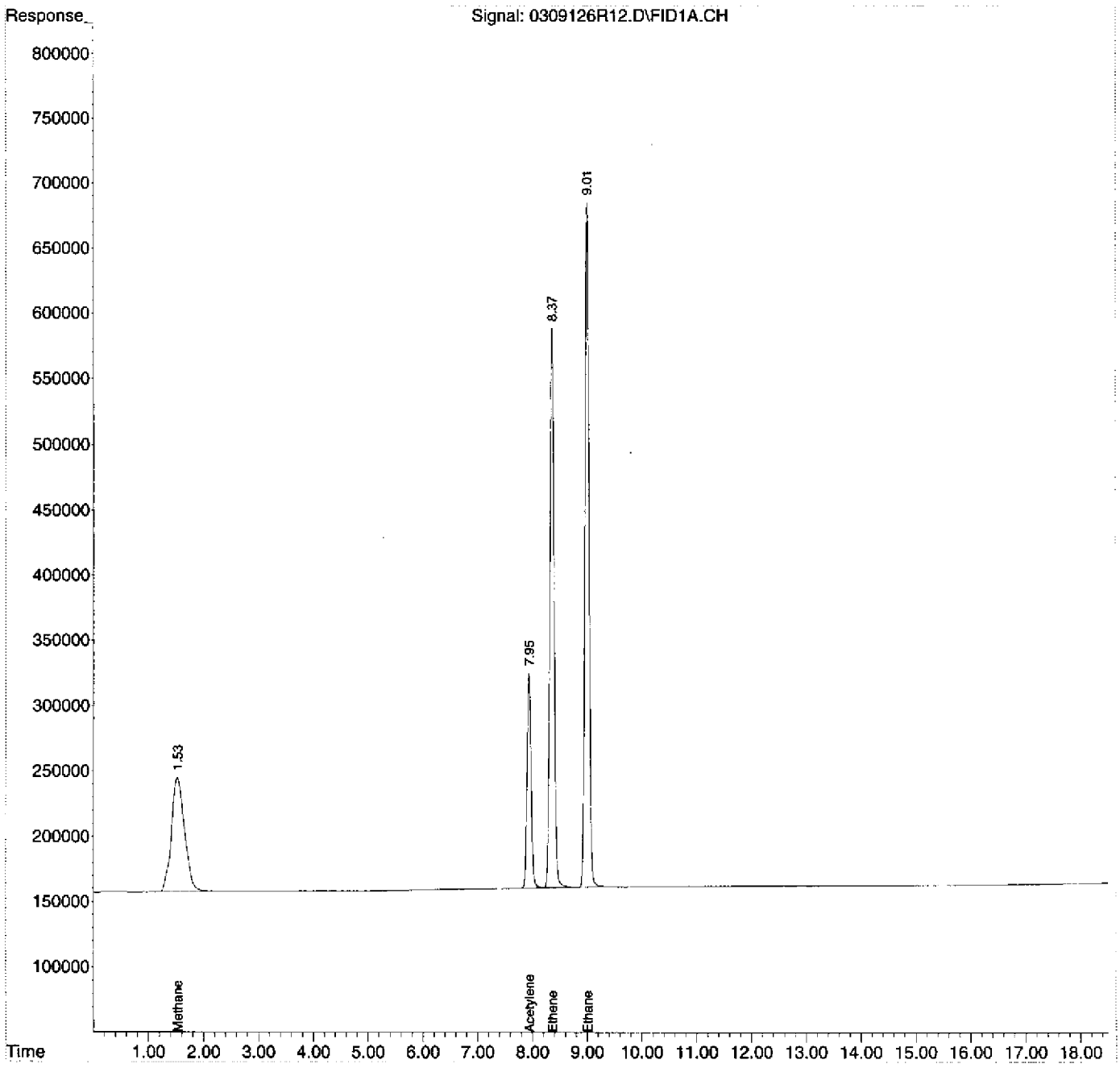
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\030912RSK\
Data File : 0309126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Mar 2012 4:44 pm
Operator : rh
Sample : 2030026-CCV2
Misc : 2C09019
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 12 09:24:36 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm



Standard Records

:00127

DIM0207296 DIM0207440

MATHESON TRI-GAS INC
1650 Enterprise Pkwy
Twinsburg, OH 44087
1-215-648-4000

CERTIFICATE OF ANALYSIS

Alltech Associates
2051 Waukegan Road
Deerfield, Il 60015

0L07008

Ref Po# 4501647701

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14 LITER DISPOSABLE

LOT NUMBER: 109-06-03881

AU003098

COMPONENT	CONCENTRATION
Carbon Monoxide	1.003 %
Carbon Dioxide	0.999 %
Methane	0.994 %
Ethylene	1.007 %
Ethane	1.001 %
Acetylene	1.001 %
Nitrogen	Balance

ITEM NUMBER: GMT10402TC

CGA: 160

PSIG: 240

FILL DATE: 9/2/10

EXPIRATION DATE: 09/02/12

Above are the results of the analysis you requested, as reported by our laboratory. Results are in mole percent, unless otherwise indicated. Mixture accuracy is ± 2%. NIST traceable by weights or gaseous standards.

[redacted]

[redacted], Plant Manager

9/10/2010
DATE

00128

Analytical Standard Record

EPA Region 9 Laboratory

0L07008

Description:	RSK-175 HC Calibration Mix, Stock	**Expires:**	09/02/12
Standard Type:	Reference Material	**Prepared:**	09/02/10
Solvent:	Nitrogen	**Prepared By:**	** Vendor **
Final Volume (mls):	48000	**Department:**	Volatiles
Vials:	1	**Last Edit:**	12/07/10 10:27 by EM
Vendor:	Matheson	**Lot Numbe**	109-06-03881

Vendor: Matheson Tri-Gas GMT 10402TC, Lot # 109-06-03881, bar code AU003098

Analyte	CAS Number	Concentration (ppm)	SRM Control Limits
Methane	74-82-8	7.1	0-200
Ethene	74-85-1	12.6	0-200
Ethane	74-84-0	13.4	0-200
Carbon dioxide	124-38-9	19.6	0-200
Acetylene	74-86-2	11.6	0-200

Analytical Standard Record

EPA Region 9 Laboratory

1H18014

Description:	RSK-175 HYDROCARBON SCV	**Expires:**	10/24/12
Standard Type:	Analyte Spike	**Prepared:**	08/18/11
Solvent:	Nitrogen	**Prepared By:**	[redacted]
Final Volume (mls):	4000	**Department:**	Volatiles
Vials:	1	**Last Edit:**	09/06/11 11:42 by YNB
Vendor:	Scott Specialty Gases	**Lot Numbe**	904001E

Supelco Cat # 501662, Scott Item # 01-04-216 --4, Inventory # AU001071

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	7.21
Ethene	74-85-1	12.5
Ethane	74-84-0	13.4
Carbon dioxide	124-38-9	19.6
Acetylene	74-86-2	12

AIR LIQUIDE Air Liquide America Specialty Gases LLC Scott

Shipped From:
6141 EASTON ROAD, BLDG 1 PO BOX 310
PLUMSTEADVILLE PA 18949-0310
Phone: 800-331-4953 Fax: 215-766-7226

CERTIFICATE OF ANALYSIS

SUPELCO
PO#P405616
SUPELCO PARK
595 NORTH HARRISON ROAD
BELLEFONTE PA 16823-0048

PROJECT #: 01-36433-003
PO#: P405616
ITEM #: 0104216 4
CUST ITEM #: 501662
DATE: 25Oct2010

ANALYTICAL ACCURACY: +/-2%
PRODUCT EXPIRATION: 24Oct2012

SCOTT LOT#: 029501E

COMPONENT	REQUESTED GAS CONC MOLES		ANALYSIS (MOLES)	
ACETYLENE	1.	%	1.00	%
CARBON DIOXIDE	1.	%	1.00	%
CARBON MONOXIDE	1.	%	1.01	%
ETHANE	1.	%	1.00	%
ETHYLENE	1.	%	1.00	%
METHANE	1.	%	1.01	%
NITROGEN		BALANCE		BALANCE

1H18014
Expires 10/24/12
Preparer: Tatyana Dadiomov 08 18 11

RSK-175 HYDROCARBON SCY

MANUFACTURED DATE: 25Oct2010 SCOTTY SIZE: 4

APPROVED BY [redacted]

00131

Analytical Standard Record

EPA Region 9 Laboratory

2A27003

Description:	RSK-175 HC PDS 012612	**Expires:**	01/28/12
Standard Type:	Reference Material	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 10:40 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)	SRM Control Limits
Methane	74-82-8	0.33	0-200
Ethene	74-85-1	0.586	0-200
Ethane	74-84-0	0.623	0-200
Carbon dioxide	124-38-9	0.912	0-200
Acetylene	74-86-2	0.54	0-200

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	1

Analytical Standard Record

EPA Region 9 Laboratory

2A27004

Description:	RSK-175 ICAL Level 1 012612	**Expires:**	01/28/12
Standard Type:	Other Solution	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 10:43 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.000615
Ethene	74-85-1	0.00109
Ethane	74-84-0	0.00116
Carbon dioxide	124-38-9	0.0017
Acetylene	74-86-2	0.00101

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A27003	RSK-175 HC PDS 012612	01/26/12	[redacted]	01/28/12	01/27/12 10:40 by RFH	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2A27005

Description:	RSK-175 ICAL Level 2 012612	**Expires:**	01/28/12
Standard Type:	Other Solution	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 15:38 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.00123
Ethene	74-85-1	0.00218
Ethane	74-84-0	0.00232
Carbon dioxide	124-38-9	0.0034
Acetylene	74-86-2	0.00201

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A27003	RSK-175 HC PDS 012612	01/26/12	[redacted]	01/28/12	01/27/12 10:40 by RFH	0.06

Analytical Standard Record

EPA Region 9 Laboratory

2A27006

Description:	RSK-175 ICAL Level 3 012612	**Expires:**	01/28/12
Standard Type:	Other Solution	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 10:49 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.0041
Ethene	74-85-1	0.00728
Ethane	74-84-0	0.00774
Carbon dioxide	124-38-9	0.0113
Acetylene	74-86-2	0.00671

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A27003	RSK-175 HC PDS 012612	01/26/12	[redacted]	01/28/12	01/27/12 10:40 by RFH	0.2

Analytical Standard Record

EPA Region 9 Laboratory

2A27007

Description:	RSK-175 ICAL Level 4 012612	**Expires:**	01/28/12
Standard Type:	Other Solution	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 10:48 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.0132
Ethene	74-85-1	0.0235
Ethane	74-84-0	0.025
Carbon dioxide	124-38-9	0.0365
Acetylene	74-86-2	0.0216

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2A27008

Description:	RSK-175 ICAL Level 5 012612	**Expires:**	01/28/12
Standard Type:	Other Solution	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 10:51 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.0441
Ethene	74-85-1	0.0783
Ethane	74-84-0	0.0832
Carbon dioxide	124-38-9	0.122
Acetylene	74-86-2	0.072

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A27009

Description:	RSK-175 ICAL Level 6 012612	**Expires:**	01/28/12
Standard Type:	Other Solution	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 10:51 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.11
Ethene	74-85-1	0.196
Ethane	74-84-0	0.208
Carbon dioxide	124-38-9	0.304
Acetylene	74-86-2	0.18

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A27010

Description:	RSK-175 ICAL Level 7 012612	**Expires:**	01/28/12
Standard Type:	Other Solution	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 10:52 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.22
Ethene	74-85-1	0.391
Ethane	74-84-0	0.416
Carbon dioxide	124-38-9	0.609
Acetylene	74-86-2	0.36

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	0.5

Analytical Standard Record

EPA Region 9 Laboratory

2A27011

Description:	RSK-175 SCV 012612	**Expires:**	01/28/12
Standard Type:	Other Solution	**Prepared:**	01/26/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 10:59 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.0448
Ethene	74-85-1	0.0776
Ethane	74-84-0	0.0832
Carbon dioxide	124-38-9	0.122
Acetylene	74-86-2	0.0721

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1H18014	RSK-175 HYDROCARBON SCV	08/18/11	[redacted]	10/24/12	01/27/12 10:56 by RFH	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2B12005

Description:	RSK-175 Surrogate	**Expires:**	10/19/13
Standard Type:	Surrogate Spike	**Prepared:**	02/12/12
Solvent:	Helium	**Prepared By:**	[redacted]
Final Volume (mls):	10000	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/12/12 12:33 by RFH
Vendor:	Matheson	**Lot Numbe**	109-14-06393-15

Grace Cat # G0413, Item Nu: GMT10303TK AU004095

Analyte	CAS Number	Concentration (ppm)
Acetylene	74-86-2	10.7

Analytical Standard Record

EPA Region 9 Laboratory

2C08010

Description:	RSK-175 HC PDS 030812	**Expires:**	03/10/12
Standard Type:	Reference Material	**Prepared:**	03/08/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/08/12 09:12 by RH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)	SRM Control Limits
Methane	74-82-8	0.33	0-200
Ethene	74-85-1	0.586	0-200
Ethane	74-84-0	0.623	0-200
Carbon dioxide	124-38-9	0.912	0-200
Acetylene	74-86-2	0.54	0-200

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	1

Analytical Standard Record

EPA Region 9 Laboratory

2C08011

Description:	RSK-175 LCV1	**Expires:**	03/10/12
Standard Type:	Other Solution	**Prepared:**	03/08/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/08/12 09:14 by RH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.000615
Ethene	74-85-1	0.00109
Ethane	74-84-0	0.00116
Carbon dioxide	124-38-9	0.0017
Acetylene	74-86-2	0.00101

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2C08010	RSK-175 HC PDS 030812	03/08/12	[redacted]	03/10/12	03/08/12 09:12 by RH	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2C08012

Description:	RSK-175 LCV2	**Expires:**	03/10/12
Standard Type:	Other Solution	**Prepared:**	03/08/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/08/12 09:14 by RH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.00123
Ethene	74-85-1	0.00218
Ethane	74-84-0	0.00232
Carbon dioxide	124-38-9	0.0034
Acetylene	74-86-2	0.00201

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2C08010	RSK-175 HC PDS 030812	03/08/12	[redacted]	03/10/12	03/08/12 09:12 by RH	0.06

Analytical Standard Record

EPA Region 9 Laboratory

2C08013

Description:	RSK-175 CCV	**Expires:**	03/10/12
Standard Type:	Other Solution	**Prepared:**	03/08/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/08/12 09:14 by RH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.0132
Ethene	74-85-1	0.0235
Ethane	74-84-0	0.025
Carbon dioxide	124-38-9	0.0365
Acetylene	74-86-2	0.0216

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2C09016

Description:	RSK-175 HC PDS 030912	**Expires:**	03/11/12
Standard Type:	Reference Material	**Prepared:**	03/09/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/09/12 09:38 by RH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)	SRM Control Limits
Methane	74-82-8	0.33	0-200
Ethene	74-85-1	0.586	0-200
Ethane	74-84-0	0.623	0-200
Carbon dioxide	124-38-9	0.912	0-200
Acetylene	74-86-2	0.54	0-200

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	1

Analytical Standard Record

EPA Region 9 Laboratory

2C09017

Description:	RSK-175 LCV1	**Expires:**	03/11/12
Standard Type:	Other Solution	**Prepared:**	03/09/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/09/12 09:39 by RH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.000615
Ethene	74-85-1	0.00109
Ethane	74-84-0	0.00116
Carbon dioxide	124-38-9	0.0017
Acetylene	74-86-2	0.00101

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2C09016	RSK-175 HC PDS 030912	03/09/12	[redacted]	03/11/12	03/09/12 09:38 by RH	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2C09018

Description:	RSK-175 LCV2	**Expires:**	03/11/12
Standard Type:	Other Solution	**Prepared:**	03/09/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/09/12 09:40 by RH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.00123
Ethene	74-85-1	0.00218
Ethane	74-84-0	0.00232
Carbon dioxide	124-38-9	0.0034
Acetylene	74-86-2	0.00201

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2C09016	RSK-175 HC PDS 030912	03/09/12	[redacted]	03/11/12	03/09/12 09:38 by RH	0.06

Analytical Standard Record

EPA Region 9 Laboratory

2C09019

Description:	RSK-175 CCV	**Expires:**	03/11/12
Standard Type:	Other Solution	**Prepared:**	03/09/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/09/12 09:40 by RH
Vendor:	*Prepared*	**Lot Numbe**	N/A

Analyte	CAS Number	Concentration (ppm)
Methane	74-82-8	0.0132
Ethene	74-85-1	0.0235
Ethane	74-84-0	0.025
Carbon dioxide	124-38-9	0.0365
Acetylene	74-86-2	0.0216

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0L07008	RSK-175 HC Calibration Mix, Stock	09/02/10	** Vendor **	09/02/12	12/07/10 10:27 by EM	0.03