United States Environmental Protection Agency
Region 9 Laboratory

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

Date: 2/6/2012

Subject: Analytical Testing Results - Project R33911
SDG: 12032A

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

DIM0206336

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:** 12032A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/06/12 15:21
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
HW13	1202001-04	Water	01/30/12 11:23	02/01/12 08:00
HW18-P	1202001-05	Water	01/30/12 11:52	02/01/12 08:00
HW20	1202001-06	Water	01/30/12 16:12	02/01/12 08:00
HW20-P	1202001-07	Water	01/30/12 16:29	02/01/12 08:00
HW25-P	1202001-08	Water	01/30/12 15:32	02/01/12 08:00
EB01	1202001-09	Water	01/28/12 11:26	02/01/12 08:00
FB06	1202001-10	Water	01/30/12 09:30	02/01/12 08:00
HW18	1202001-11	Water	01/30/12 11:27	02/01/12 08:00
TB08	1202001-12	Water	01/28/12 14:22	02/01/12 08:00
TB09	1202001-13	Water	01/30/12 07:15	02/01/12 08:00

SDG ID 12032A

Work Order(s)

1202001

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Region 9 Laboratory
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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12032A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/06/12 15:21
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202001-04									**Water - Sampled: 01/30/12 11:23**
Sample ID: HW13									**Dissolved Gases by RSK-175**
Methane	RE1	1,300		9.7	ug/L	B2B0008	02/02/12	02/02/12	RSK-175/SOP325
Ethane		24		1.2	"	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			112 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		110 %	*66.4-153%*		*B2B0008*	*02/02/12*	*02/02/12*	
Lab ID: 1202001-05									**Water - Sampled: 01/30/12 11:52**
Sample ID: HW18-P									**Dissolved Gases by RSK-175**
Methane		160		1.2	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			108 %	*66.4-153%*		"	"	"	
Lab ID: 1202001-06									**Water - Sampled: 01/30/12 16:12**
Sample ID: HW20									**Dissolved Gases by RSK-175**
Methane		2.6	B1, J	1.2	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			115 %	*66.4-153%*		"	"	"	
Lab ID: 1202001-07									**Water - Sampled: 01/30/12 16:29**
Sample ID: HW20-P									**Dissolved Gases by RSK-175**
Methane		2.1	B1, J	1.2	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			110 %	*66.4-153%*		"	"	"	
Lab ID: 1202001-08									**Water - Sampled: 01/30/12 15:32**
Sample ID: HW25-P									**Dissolved Gases by RSK-175**
Methane	RE1	65,000		640	ug/L	B2B0008	02/02/12	02/02/12	RSK-175/SOP325
Ethane		26		1.2	"	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			102 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		110 %	*66.4-153%*		*B2B0008*	*02/02/12*	*02/02/12*	
Lab ID: 1202001-09									**Water - Sampled: 01/28/12 11:26**
Sample ID: EB01									**Dissolved Gases by RSK-175**
Methane		29		1.2	ug/L	B2B0006	02/01/12	02/01/12	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:** 12032A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/06/12 15:21
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202001-09									**Water - Sampled: 01/28/12 11:26**
Sample ID: EB01									**Dissolved Gases by RSK-175**
Surrogate: Acetylene			111 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1202001-10									**Water - Sampled: 01/30/12 09:30**
Sample ID: FB06									**Dissolved Gases by RSK-175**
Methane		9.5		1.2	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			107 %	*66.4-153%*		"	"	"	
Lab ID: 1202001-11									**Water - Sampled: 01/30/12 11:27**
Sample ID: HW18									**Dissolved Gases by RSK-175**
Methane		190		1.2	ug/L	B2B0006	02/01/12	02/01/12	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: 1202001-12									**Water - Sampled: 01/28/12 14:22**
Sample ID: TB08									**Dissolved Gases by RSK-175**
Methane		3.6		1.2	ug/L	B2B0006	02/01/12	02/02/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			105 %	*66.4-153%*		"	"	"	
Lab ID: 1202001-13									**Water - Sampled: 01/30/12 07:15**
Sample ID: TB09									**Dissolved Gases by RSK-175**
Methane		3.1	B1, J	1.2	ug/L	B2B0006	02/01/12	02/02/12	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%*		"	"	"	

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/06/12 15:21
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B2B0006 - RSK175 - Dissolved HC Gases										**Prepared & Analyzed: 02/01/12**
										Dissolved Gases by RSK-175 - Quality Control
Blank (B2B0006-BLK1)										
Methane	0.7	C1, J	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*72.6*			"	*66.5*		109	*66.4-153*		
LCS (B2B0006-BS1)										
Methane	46.5		1.2	ug/L	44.1		105	70-130		
Ethane	91.5		1.2	"	83.2		110	77-137		
Ethene	85.7		1.1	"	78.3		110	78-138		
Surrogate: Acetylene	*77.9*			"	*72.0*		108	*66.4-153*		
Batch B2B0008 - RSK175 - Dissolved HC Gases										**Prepared & Analyzed: 02/02/12**
										Dissolved Gases by RSK-175 - Quality Control
Blank (B2B0008-BLK1)										
Methane	0.6	C1, J	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*73.7*			"	*66.5*		111	*66.4-153*		
LCS (B2B0008-BS1)										
Methane	42.6		1.2	ug/L	44.1		97	70-130		200
Ethane	84.1		1.2	"	83.2		101	77-137		200
Ethene	79.8		1.1	"	78.3		102	78-138		200
Surrogate: Acetylene	*77.7*			"	*72.0*		108	*66.4-153*		

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/06/12 15:21
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Qualifiers and Comments

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: February 7, 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 ten water samples for the Dimock Residential Groundwater Site project, Case R33911, SDG 12032A, Work Order 1202001 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:	**12032A**
Work Order:	**1202001**
ESAT DCN:	**14477**

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

00009

General Project Management and ESAT Contractor Oversight Review

Project Number: R33911

SDG: 12032A

Analysis: dissolved gasses

Number of Pages: 142

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: OK.

Reviewer Signature RM Date 2/6/12

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JO 2/6/12

000002A

ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** Dissolved Gasses | **TDF:** 01001084 | **Matrix:** water
DCN: 14477 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12032A

ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

Reviewer:	Package Prep (P): R H	Technical (T):	Final (F):
	Date: 2/3/12	Date: 2/4/12	Date: 2/6/12

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

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

00011

ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** Dissolved Gasses | **TDF:** 01001084 | **Matrix:** water
DCN: 14477 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12032A

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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00003A 2/6/12

WORK ORDER NOTES - 1202001

1202001 US EPA Region 9 Eastern Responses
Dimock Residential Groundwater

TPH GRO: The sample 1202001-04 has the single unidentified component. No storage blank for this SDG because all samples were run on day when are received. YNB 02/03/12

RSK-175: Small amount of methane contamination in the method blanks, < QL. MS/MSD was not run due to insufficient sample volume. RH 02/03/12

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.

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Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	Dissolved Gasses	Analyst Initial	RH	Reviewer Initial	[illegible]	Batch/ Sequence	2020003/B2B0006
Instrument ID	AG6890N-6	Date Analyzed	2/1/12	Date	2/2/12	Chemstation Last Update	1/27/12 1:26:56
Cases	R33911			SDGs	12030A / 12032A		

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
BLK1	0201126R04	.683	≤ 0.615					Methane hit ≤ QL but ≥ ½ QL

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Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	Dissolved Gasses	Analyst Initial	RH	Reviewer Initial	ZL	Batch/ Sequence	2020006/B2B0008
Instrument ID	AG6890N-6	Date Analyzed	2/2/12	Date	2/3/12	Chemstation Last Update	1/27/12 1:26:56
Cases	R33911			SDGs	12032A, 12033A		

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
BLK1	0202126R04	.645	≤ 0.615					Methane hit ≤ QL but ≥ ½ QL
ms/msd	0202126R18 ,19							B2B0008-MS1/MSD1, Acetylene (surrogate) was added separately even though it is also present in the spike mixture, in effect double surrogate. The resulting amount is within the calibration range. Recovery is calculated based upon the total amount added, via a "virtual" LIMS spike. ID 2B03005.
								MS/MSD fail Methane recovery low, RPD passes.

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

USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R33911
SDG: 12032A
Analysis: Dissolved Gasses

Analyst: RH
Reviewer:

Sample ID	Sample Runs		
Instrument:	AG6890N-6	AG6890N-6	AG6890N-6
Analysis Date:	2/1/2012	2/1/2012	
Sequence:	2020003	2020003	
1202001-04	C1 OC		
1202001-04RE1 2.0ML		RPT C1	
1202001-05	RPT		
1202001-06	RPT		
1202001-07	RPT		
1202001-08	C1 OC		
1202001-08RE1 0.03ML		RPT C1	
1202001-09	RPT		
1202001-10	RPT		
1202001-11	RPT		
1202001-12	RPT		
1202001-13	RPT		
B2B0006-BLK1	RPT		
B2B0006-BS1	RPT		
B2B0008-BLK1		RPT	
B2B0008-BS1		RPT	

Definitions

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

00017

SAMPLE TRACKING FORMS

:00009

DIM0206336 DIM0206353

WORK ORDER

Printed: 2/1/2012 10:34:02AM

1202001

EPA Region 9 Laboratory

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

Report To:
US EPA Region 3, Eastern Response Branch (3HS31)
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone: (215) 341-6307
Fax: XX

Project Contact
US EPA Region 3, Eastern Response Branch (3HS31)
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	Cooler	3	Yes	Yes	Yes	No	Yes	798007374220
2 Cooler	Cooler	5	Yes	Yes	Yes	No	Yes	793174203598
3 cooler	Cooler	6	Yes	Yes	Yes	No	Yes	7980018178260
4Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	793174361788

Date Due:	02/23/12 15:00 (21 day TAT)	SDG:	12032A
Received By:	Richard Bauer	Date Received:	02/01/12 08:00
Logged In By:	Jack Berges	Date Logged In:	02/01/12 08:29

Analysis	Hold Time Expires	Comments
1202001-01 HW26 [Water] Sampled 01/31/12 10:26 Pacific		
TPH - Extractable	02/07/12	
1202001-02 HW26-P [Water] Sampled 01/31/12 11:37 Pacific		
TPH - Extractable	02/07/12	
1202001-03 HW35 [Water] Sampled 01/31/12 11:49 Pacific		
TPH - Extractable	02/07/12	
1202001-04 HW13 [Water] Sampled 01/30/12 11:23 Pacific		
Dissolved HC Gases	02/13/12	5 day prelim results
TPH - Extractable	02/06/12	
TPH - Purgeable	02/13/12	
1202001-05 HW18-P [Water] Sampled 01/30/12 11:52 Pacific		
TPH - Purgeable	02/13/12	
Dissolved HC Gases	02/13/12	5 day prelim results
TPH - Extractable	02/06/12	

WORK ORDER

Printed: 2/1/2012 10:34:02AM

1202001

EPA Region 9 Laboratory

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

Analysis	Hold Time Expires	Comments

Analysis	Expires	Comments
1202001-06 HW20 [Water] Sampled 01/30/12 16:12 Pacific		
TPH - Extractable	02/06/12	
TPH - Purgeable	02/13/12	
Dissolved HC Gases	02/13/12	5 day prelim results
1202001-07 HW20-P [Water] Sampled 01/30/12 16:29 Pacific		
TPH - Purgeable	02/13/12	
TPH - Extractable	02/06/12	
Dissolved HC Gases	02/13/12	5 day prelim results
1202001-08 HW25-P [Water] Sampled 01/30/12 15:32 Pacific		
Dissolved HC Gases	02/13/12	5 day prelim results
TPH - Purgeable	02/13/12	
TPH - Extractable	02/06/12	
1202001-09 EB01 [Water] Sampled 01/28/12 11:26 Pacific		
TPH - Extractable	02/04/12	
Dissolved HC Gases	02/11/12	5 day prelim results
TPH - Purgeable	02/11/12	
1202001-10 FB06 [Water] Sampled 01/30/12 09:30 Pacific		
TPH - Extractable	02/06/12	
TPH - Purgeable	02/13/12	
Dissolved HC Gases	02/13/12	5 day prelim results
1202001-11 HW18 [Water] Sampled 01/30/12 11:27 Pacific		
TPH - Extractable	02/06/12	
TPH - Purgeable	02/13/12	
Dissolved HC Gases	02/13/12	5 day prelim results
1202001-12 TB08 [Water] Sampled 01/28/12 14:22 Pacific		
Dissolved HC Gases	02/11/12	5 day prelim results
1202001-13 TB09 [Water] Sampled 01/30/12 07:15 Pacific		
Dissolved HC Gases	02/13/12	5 day prelim results

Reviewed By

Date

Cooler #1

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7980 0737 4220

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-013112-155156-0049
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
HW26	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7)	2123 (-NA- / 1000mlAmber), 2124 (-NA- / 1000mlAmber) (2)	HW26	01/31/2012 10:26	
HW26-P	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7)	2158 (-NA- / 1000mlAmber), 2159 (-NA- / 1000mlAmber) (2)	HW26	01/31/2012 11:37	
HW35	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7), DRO(7), DRO(7), DRO(7), DRO(7)	2195 (-NA- / 1000mlAmber), 2196 (-NA- / 1000mlAmber), 2213 (-NA- / 1000mlAmber), 2214 (-NA- / 1000mlAmber), 2215 (-NA- / 1000mlAmber), 2216 (-NA- / 1000mlAmber) (6)	HW35	01/31/2012 11:49	
			Custody seals intact	and temperature blank	received @ 3°C	RJB 2/1/12	

Sample(s) to be used for Lab QC: HW35

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

Analysis Key: DRO=11-Diesel Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
10	[redacted]	1/31/12	Fed Ex				Fed Ex		EPA R9 Lab	2/1/12	0800

00026

00012

Cooler #2

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7931 7420 3598

CHAIN OF CUSTODY RECORD
Site #: A3TA
Case Complete: False

No: 3-013112-100605-0035
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
HW13	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7)	1162 (-NA- / 1000mlAmber), 1163 (-NA- / 1000mlAmber) (2)	HW13	01/30/2012 11:23	
HW18-P	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7)	1234 (-NA- / 1000mlAmber), 1235 (-NA- / 1000mlAmber) (2)	HW18	01/30/2012 11:52	
HW20	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7)	1346 (-NA- / 1000mlAmber), 1347 (-NA- / 1000mlAmber) (2)	HW20	01/30/2012 16:12	
HW20-P	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7)	1311 (-NA- / 1000mlAmber), 1312 (-NA- / 1000mlAmber) (2)	HW20	01/30/2012 16:29	
HW25-P	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7) bottle 1252 Received broken	1252 (-NA- / 1000mlAmber), 1282 (-NA- / 1000mlAmber) (2)	HW25	01/30/2012 15:32	
			Custody Seal intact and temperature @ 5°C upon receipt @ lab.				RJB 2/1/12

00021

Special Instructions:	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
Analysis Key: DRO=11-Diesel Range Organics	

Items/Reason	Relinquished By	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
10	[redacted]	1/31/12	FedEx				FedEx		RJB EPA R9 LAB	2/1/12	0800

00013

Cooler #3

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7980 0181 7826

CHAIN OF CUSTODY RECORD
Site #: A3TA
Case Complete: False

No: 3-013112-081431-0032
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
EB01	Aqueous/ [redacted]	Grab	DRO(7), DRO(7), GRO(7), GRO(7)	879 (-NA- / 1000mlAmber), 880 (-NA- / 1000mlAmber), 883 (HCl / 40mlGlassVial), 884 (HCl / 40mlGlassVial) (4)	EB01	01/28/2012 11:26	
FB06	Aqueous/ [redacted]	Grab	DRO(7), DRO(7), GRO(7), GRO(7)	1125 (-NA- / 1000mlAmber), 1126 (-NA- / 1000mlAmber), 1129 (HCl / 40mlGlassVial), 1130 (HCl / 40mlGlassVial) (4)	FB06	01/30/2012 09:30	
HW18	Drinking Water/ [redacted]	Grab	DRO(7), DRO(7), GRO(7), GRO(7) 1198 Received Broken	1198 (-NA- / 1000mlAmber), 1199 (-NA- / 1000mlAmber), 1202 (HCl / 40mlGlassVial), 1203 (HCl / 40mlGlassVial) (4)	HW18	01/30/2012 11:27	
			Custody Seals intact and temperature blank 6°C upon receipt @ lab.				

Special Instructions:	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
Analysis Key: DRO=11-Diesel Range Organics, 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]	1/31/12	Fed Ex				Fed Ex		EPA R9 Lab	2/1/12	0800

00022

00014

cooler #4

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7931 7436 1788

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-013112-123650-0045
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
EB01	Aqueous/[redacted]	Grab	RSK-175(7), RSK-175(7)	860 (HCl / 40mlGlassVial), 861 (HCl / 40mlGlassVial) (2)	EB01	01/28/2012 11:26	
FB06	Aqueous/[redacted]	Grab	RSK-175(7), RSK-175(7)	1106 (HCl / 40mlGlassVial), 1107 (HCl / 40mlGlassVial) (2)	FB06	01/30/2012 09:30	
HW13	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	1143 (HCl / 40mlGlassVial), 1144 (HCl / 40mlGlassVial), 1166 (HCl / 40mlGlassVial), 1167 (HCl / 40mlGlassVial) (4)	HW13	01/30/2012 11:23	
HW18	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7)	1179 (HCl / 40mlGlassVial), 1180 (HCl / 40mlGlassVial) (2)	HW18	01/30/2012 11:27	
HW18-P	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	1215 (HCl / 40mlGlassVial), 1216 (HCl / 40mlGlassVial), 1238 (HCl / 40mlGlassVial), 1239 (HCl / 40mlGlassVial) (4)	HW18	01/30/2012 11:52	
HW20	Drinking Water/[redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	1327 (HCl / 40mlGlassVial), 1328 (HCl / 40mlGlassVial), 1350 (HCl / 40mlGlassVial), 1351 (HCl / 40mlGlassVial) (4)	HW20	01/30/2012 16:12	

Custody Seals intact and temp blank 3°C upon receipt @ lab. RJB 2/1/12

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
DB 1/31/12 16 18	[redacted]	1/31/12	— FedEx		—		FedEx		RJB EPA R9 Lab	2/1/12	0800

00023

00015

Cooler #4

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7931 7436 1788

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-013112-123650-0045
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
HW20-P	Drinking Water/ [redacted]	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	1292 (HCl / 40mlGlassVial), 1293 (HCl / 40mlGlassVial), 1315 (HCl / 40mlGlassVial), 1316 (HCl / 40mlGlassVial) (4)	HW20	01/30/2012 16:29	
HW25-P	Drinking Water/ [redacted]	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	1253 (HCl / 40mlGlassVial), 1254 (HCl / 40mlGlassVial), 1256 (HCl / 40mlGlassVial), 1257 (HCl / 40mlGlassVial) (4)	HW25	01/30/2012 15:32	
TB08	Aqueous/ [redacted]	Grab	RSK-175(7), RSK-175(7)	2087 (HCl / 40mlGlassVial), 2088 (HCl / 40mlGlassVial) (2)	TB08	01/28/2012 14:22	
TB09	Aqueous/ [redacted]	Grab	RSK-175(7), RSK-175(7)	2093 (HCl / 40mlGlassVial), 2094 (HCl / 40mlGlassVial) (2)	TB09	01/30/2012 07:15	
			Custody seals intact	and temp blank 3°C	upon receipt	@ lab.	
							RJK 2/1/12

00024

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]	1/31/12	Fed Ex				FedEx		EPA R9 Lab	2/1/12	0800

00016

00025

Sample Preparation

:00017

DIM0206336 DIM0206361

PREPARATION BENCH SHEET

B2B0006

EPA Region 9 Laboratory

Printed: 2/2/2012 1:08:16PM

Project: R33911 - Dimock Residential Groundwater

Matrix: Water **Analysis:Dissolved HC Gases** **Prepared using: Volatiles - RSK175** **Surrogate used: 1L13003**

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
1201034-02RE1 E	HW05	02/01/12 10:39	1.25	16.1				100	RFH	2			5 day prelim results
1201034-03RE1 E	HW06	02/01/12 10:39	0.13	16.1				100	RFH	2			small amount of brown sediment
1201034-04RE1 E	HW12	02/01/12 10:39	0.05	16.1				100	RFH	2			5 day prelim results
1201034-04RE2 E	HW12	02/01/12 10:39	0.03	16.1				100	RFH	2			From B2A0080 by RFH on 02/02/12
1201034-06RE1 E	HW14	02/01/12 10:39	0.7	16.1				100	RFH	2			5 day prelim results
1201034-11RE1 E	HW24-P	02/01/12 10:39	4	16.1				100	RFH	2			5 day prelim results
1201034-15RE1 E	HW17	02/01/12 10:39	1	16.1				100	RFH	2			5 day prelim results
1201034-16RE1 E	HW24	02/01/12 10:39	4	16.1				100	RFH	2			5 day prelim results
1202001-04 E	HW13	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-05 E	HW18-P	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-06 E	HW20	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-07 E	HW20-P	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-08 E	HW25-P	02/01/12 10:39	16.1	16.1				100	RFH	2			pea sized head space
1202001-09 E	EB01	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results

00026

00018

Preparation Reviewed By 2/2/12 Date

PREPARATION BENCH SHEET

B2B0006

EPA Region 9 Laboratory

Printed: 2/2/2012 1:08:16PM

Project: R33911 - Dimock Residential Groundwater

Matrix: Water **Analysis: Dissolved HC Gases** **Prepared using: Volatiles - RSK175** **Surrogate used: 1L13003**

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
1202001-10 E	FB06	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-11 E	HW18	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-12 A	TB08	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-13 A	TB09	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
B2B0006-BLK1	Blank	02/01/12 10:39	16.1	16.1				100	RFH				
B2B0006-BS1	LCS	02/01/12 10:39	16.1	16.1	0L07008		100		RFH				

00027

Reagents

Reagent # **Description**

00019

Preparation Reviewed By 2-2-12 Date

PREPARATION BENCH SHEET

B2B0008

EPA Region 9 Laboratory

Printed: 2/3/2012 9:53:37AM

Project: R33911 - Dimock Residential Groundwater

Matrix: Water **Analysis: Dissolved HC Gases** **Prepared using: Volatiles - RSK175** **Surrogate used: 1L13003**

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
1202001-04RE1 F	HW13	02/02/12 09:41	2	16.1				100	RFH	2			5 day prelim results
1202001-08RE1 F	HW25-P	02/02/12 09:41	0.03	16.1				100	RFH	2			pea sized head space
1202005-01 E	HW32	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-02 E	HW32-P	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-03 E	HW33	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-04 E	HW33a-P	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-05 E	HW33b-P	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-06 C	TB12	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-07 E	FB07	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-08 C	HW26-P	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-09 E	HW29	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-10 E	HW29z	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-11 G	HW35	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-12 E	HW52	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results

00028

00020

Preparation Reviewed By

02-03-12
Date

PREPARATION BENCH SHEET

B2B0008

EPA Region 9 Laboratory

Printed: 2/3/2012 9:53:37AM

Project: R33911 - Dimock Residential Groundwater

Matrix: Water **Analysis:Dissolved HC Gases** **Prepared using: Volatiles - RSK175** **Surrogate used: 1L13003**

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
1202005-13 D	TB10	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-14 C	TB11	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-15 C	TB13	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
1202005-16 C	HW26	02/02/12 09:41	16.1	16.1				100	RFH	2			5 day prelim results
B2B0008-BLK1	Blank	02/02/12 09:41	16.1	16.1				100	RFH				
B2B0008-BS1	LCS	02/02/12 09:41	16.1	16.1	0L07008		100		RFH				
B2B0008-MS1	Matrix Spike	02/02/12 09:41	16.1	16.1	2B03005	1202005-11	100		RFH				
B2B0008-MSD1	Matrix Spike Dup	02/02/12 09:41	16.1	16.1	2B03005	1202005-11	100		RFH				

00029

Reagents

Reagent #	Description

00021

Preparation Reviewed By — Date: 02/03/12

00039

INITIAL CALIBRATION

: 00022

DIM0206336 DIM0206366

00031

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%

00033

00025

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 : 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

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

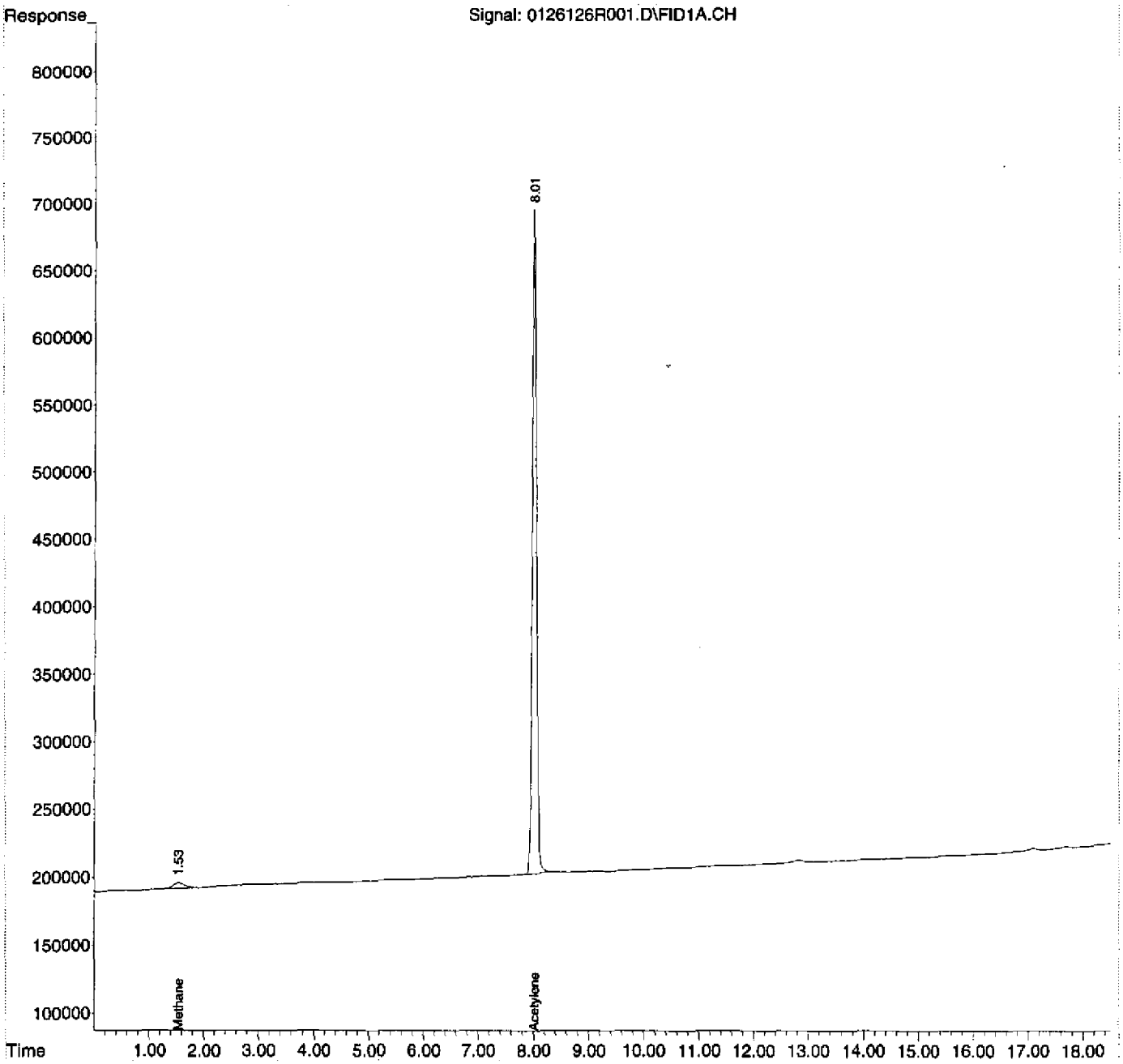
(f)=RT Delta > 1/2 Window (m)=manual int.

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

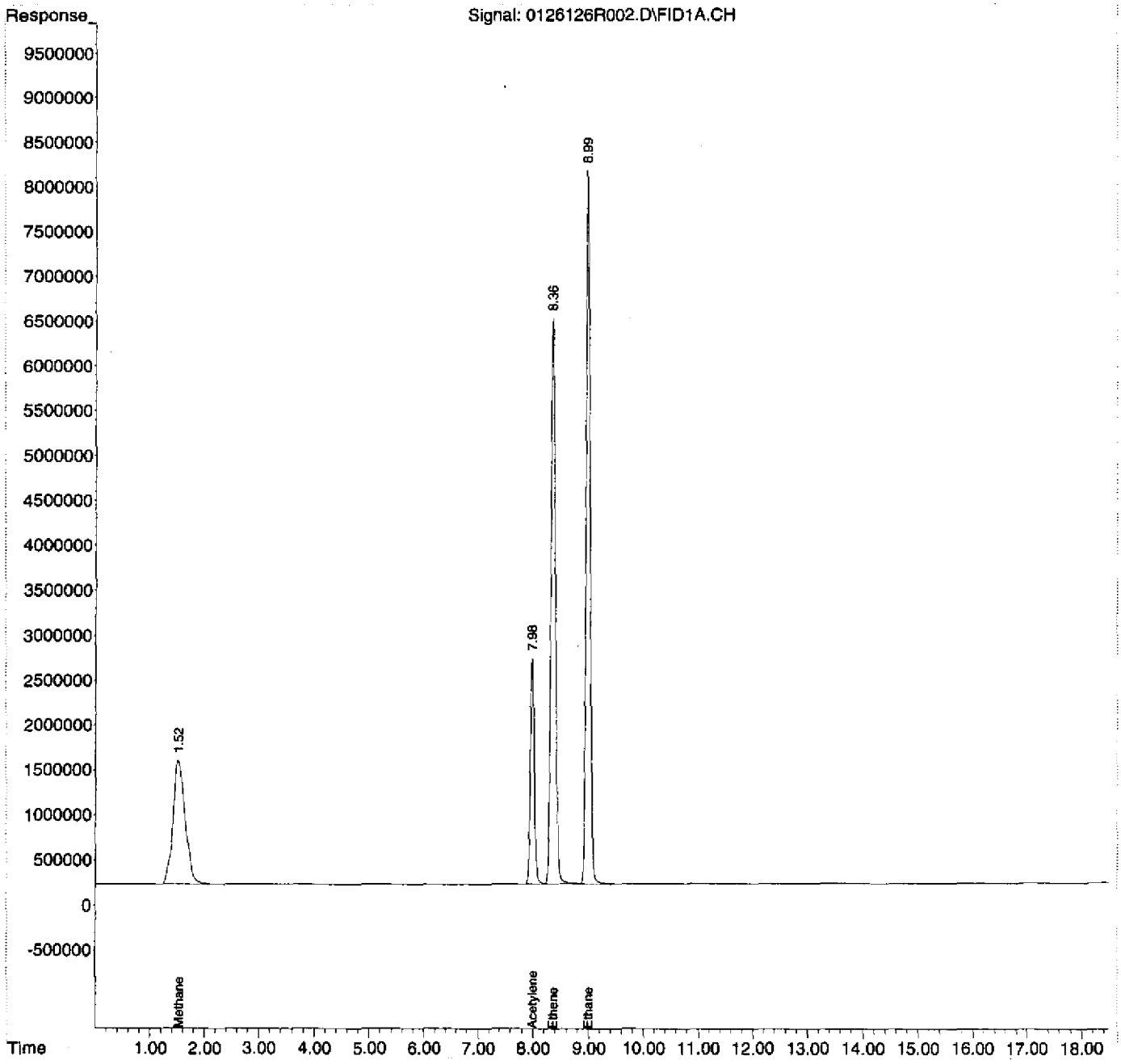
(f)=RT Delta > 1/2 Window (m)=manual int.

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

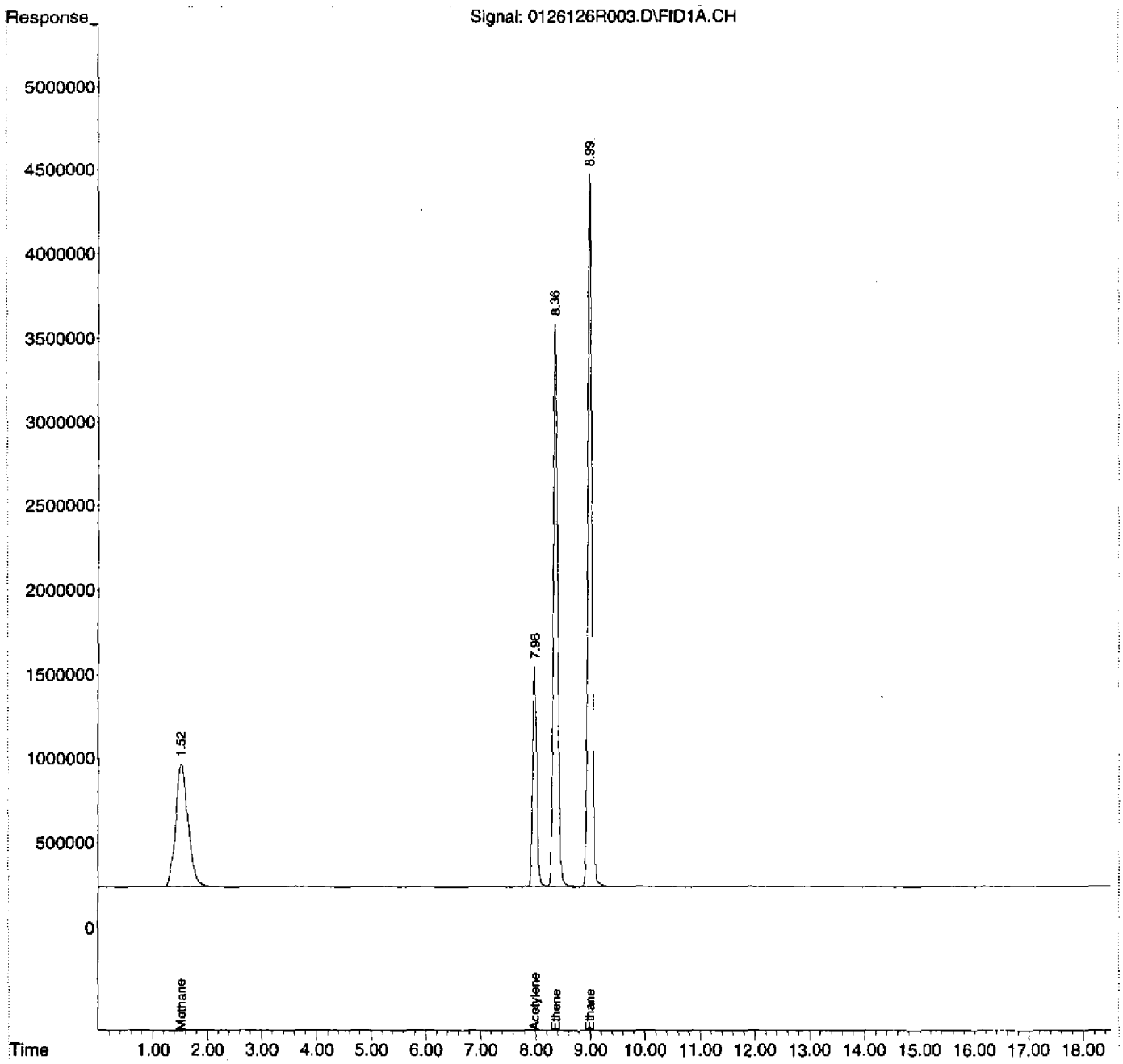
(f)=RT Delta > 1/2 Window (m)=manual int.

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



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

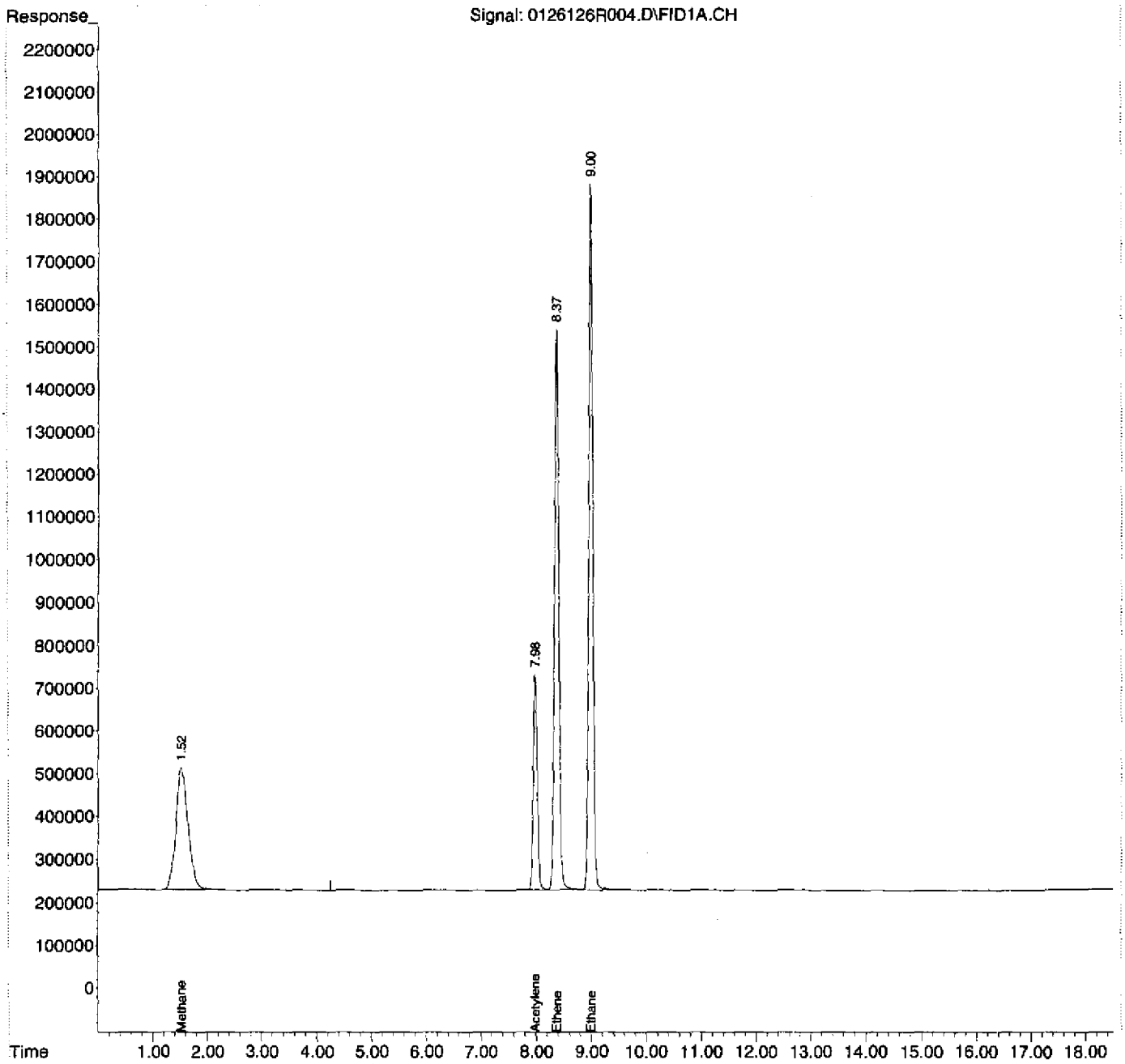
(f)=RT Delta > 1/2 Window (m)=manual int.

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

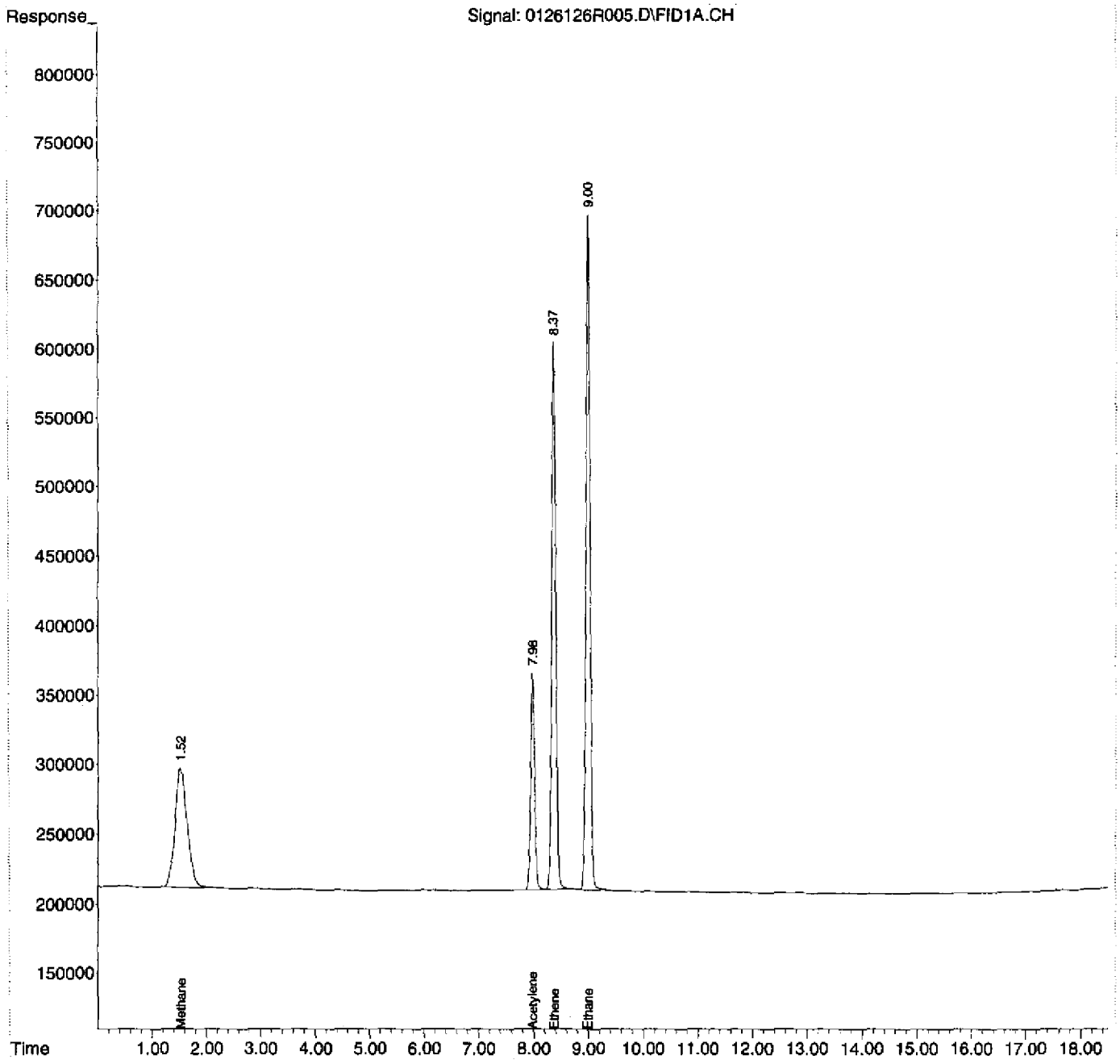
(f)=RT Delta > 1/2 Window (m)=manual int.

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

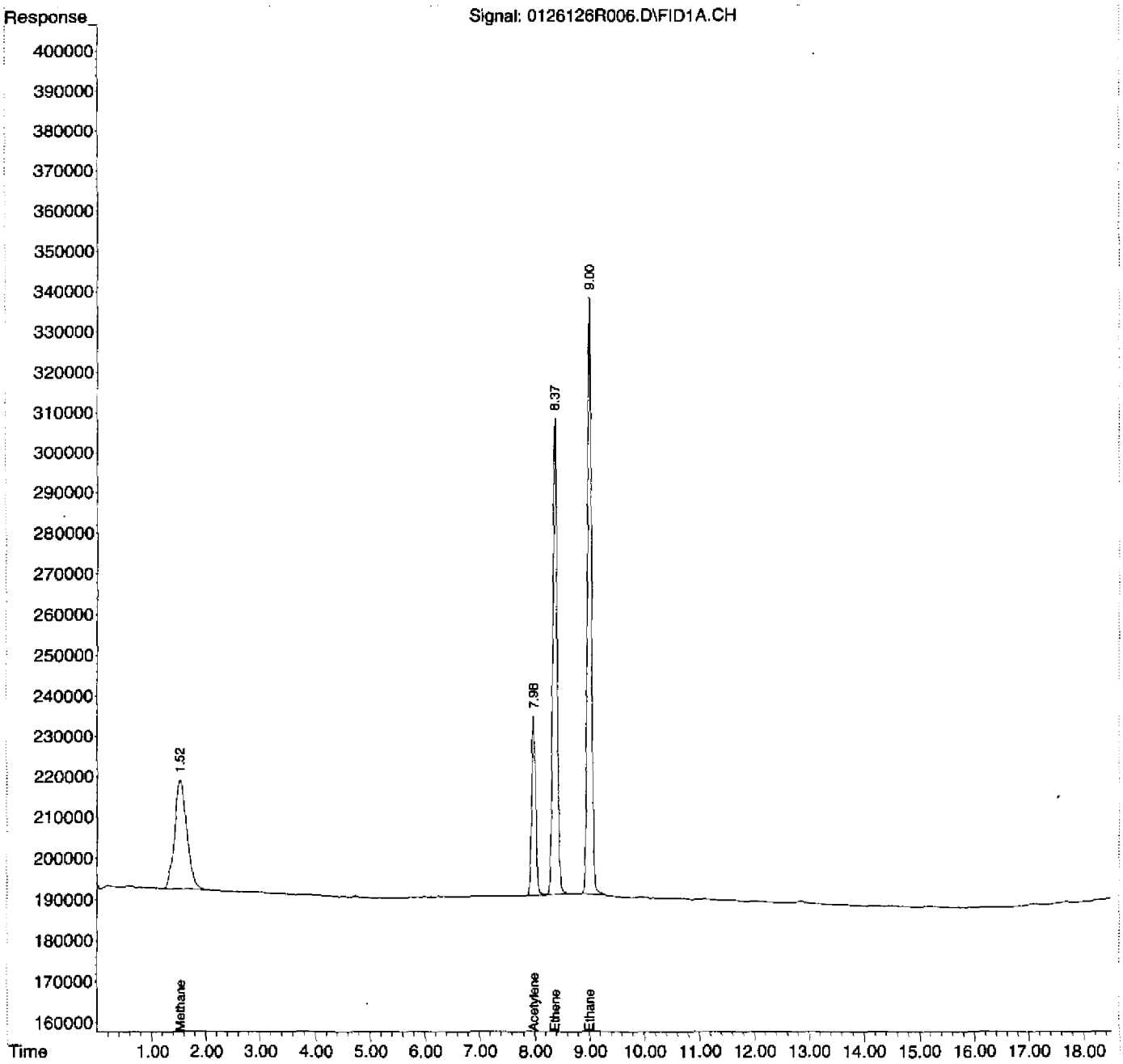
(f)=RT Delta > 1/2 Window (m)=manual int.

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

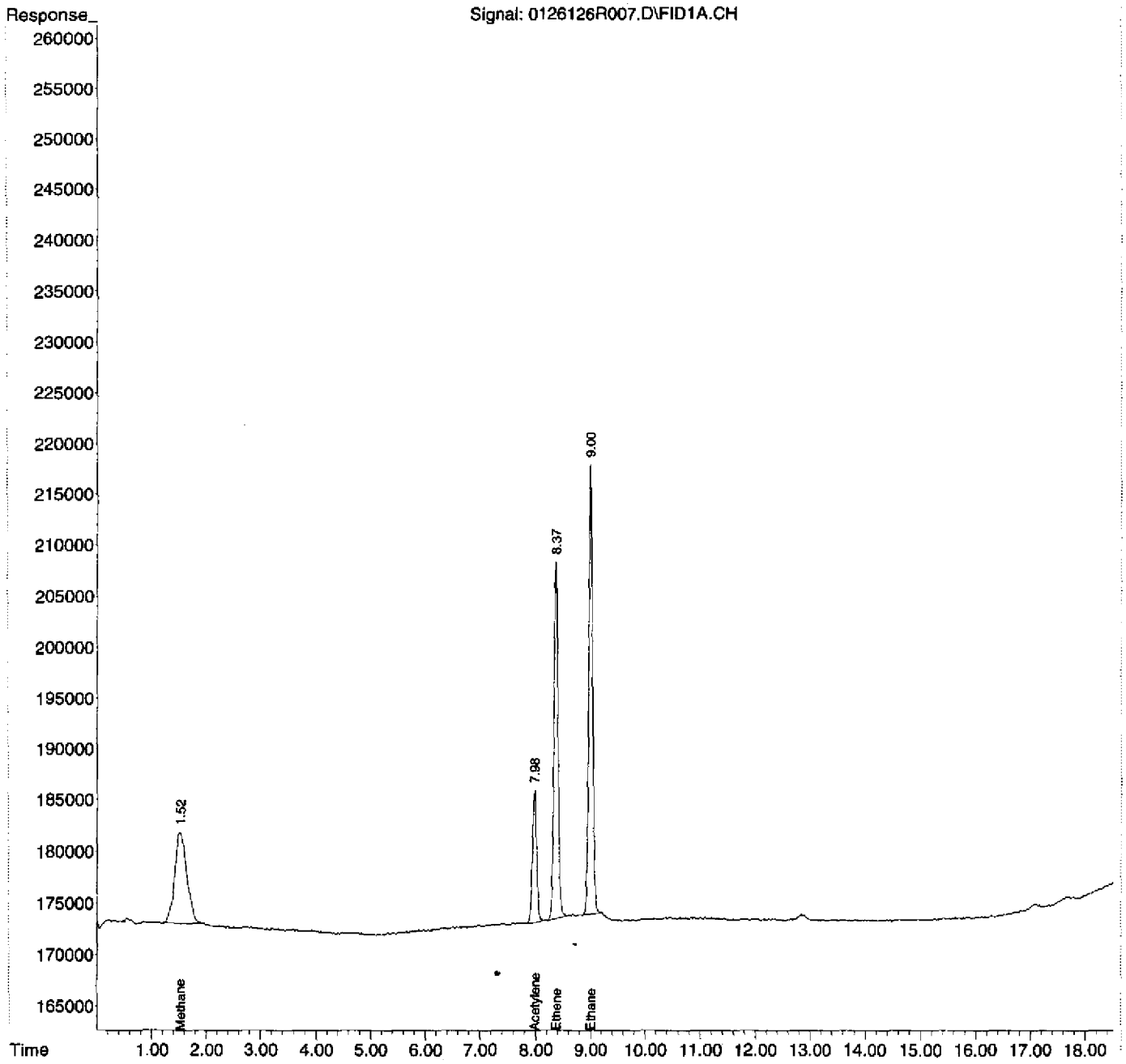
(f)=RT Delta > 1/2 Window (m)=manual int.

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

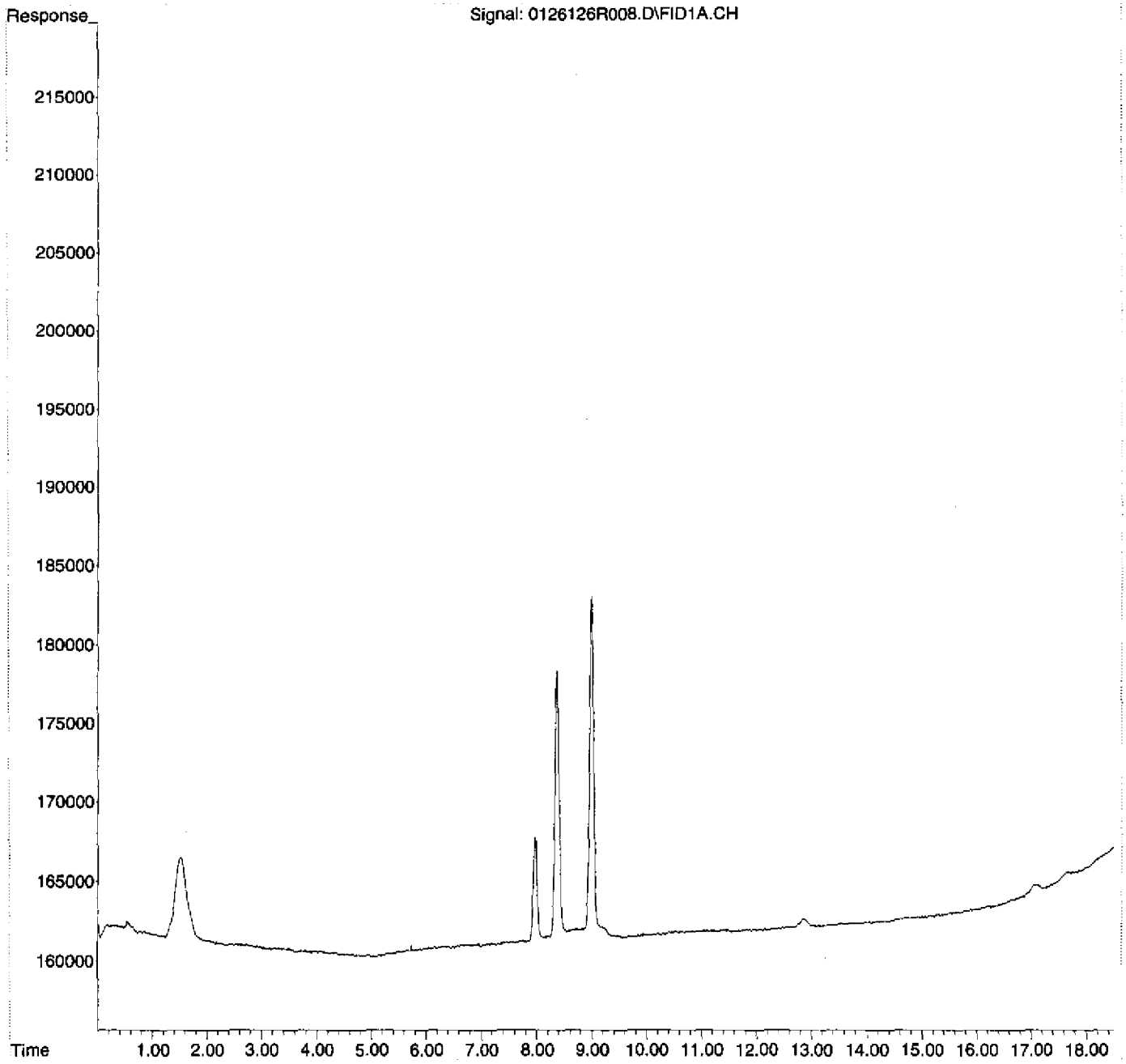
(f)=RT Delta > 1/2 Window (m)=manual int.

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.

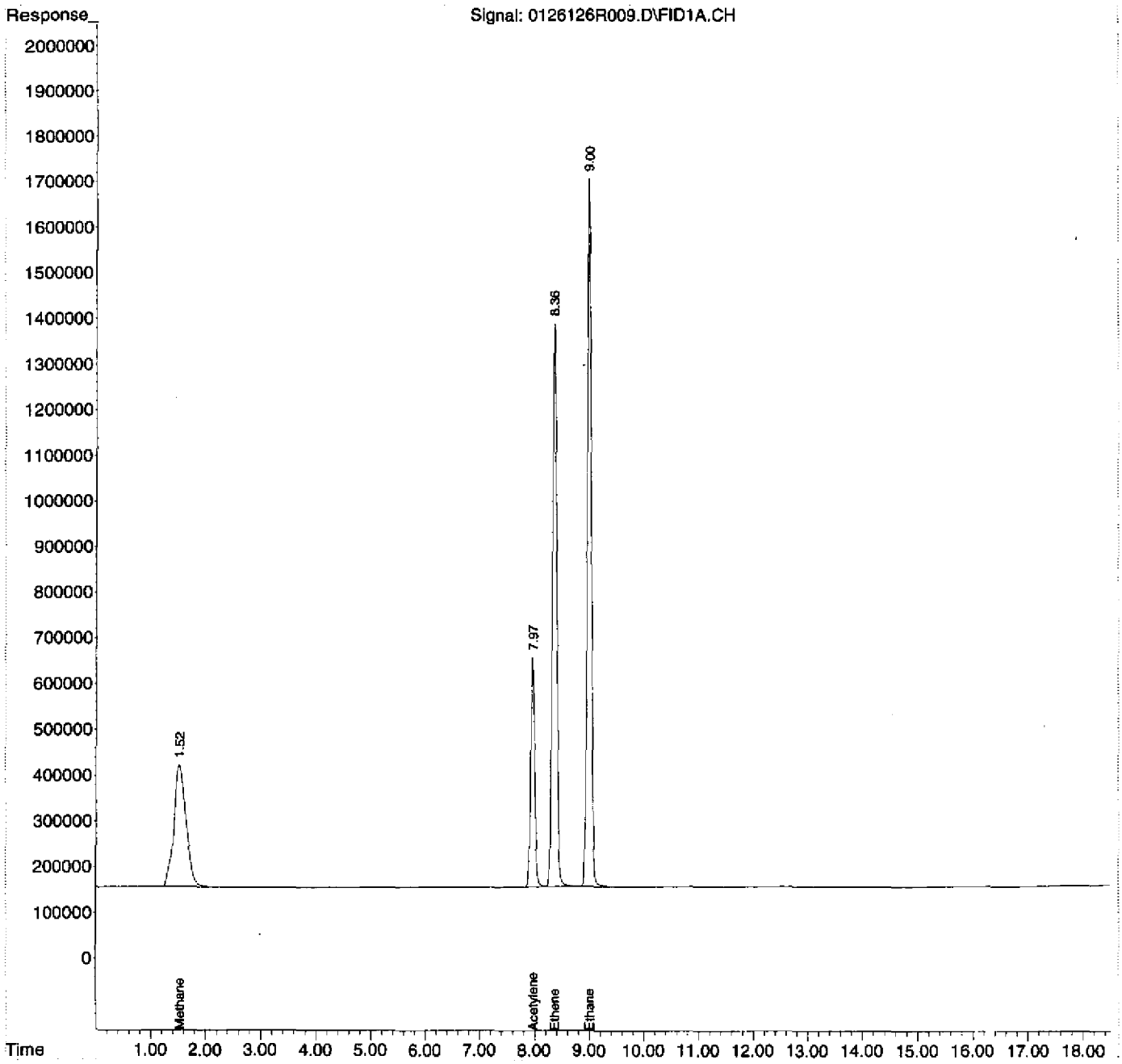
(f)=RT Delta > 1/2 Window (m)=manual int.

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

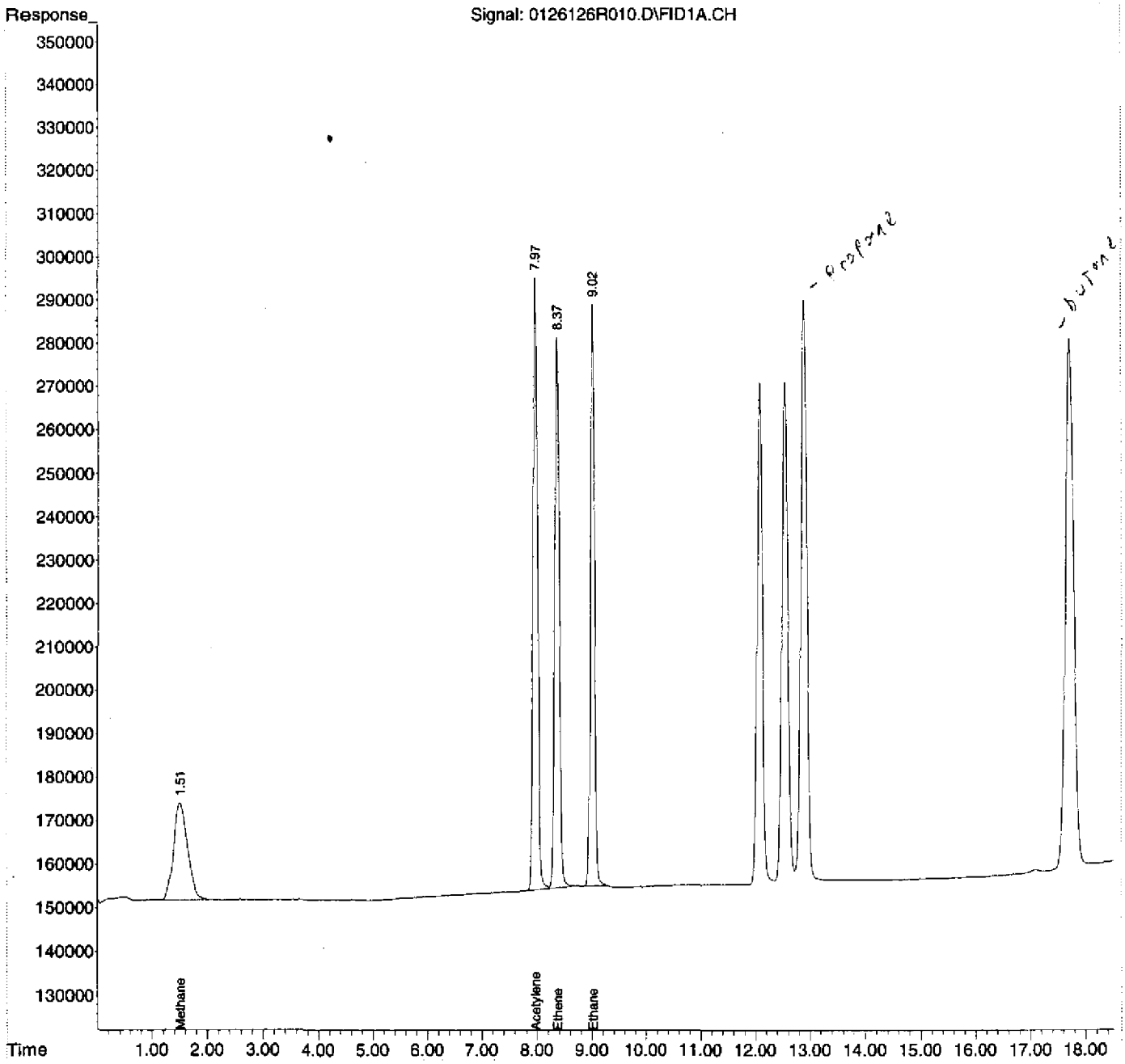
(f)=RT Delta > 1/2 Window (m)=manual int.

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.	

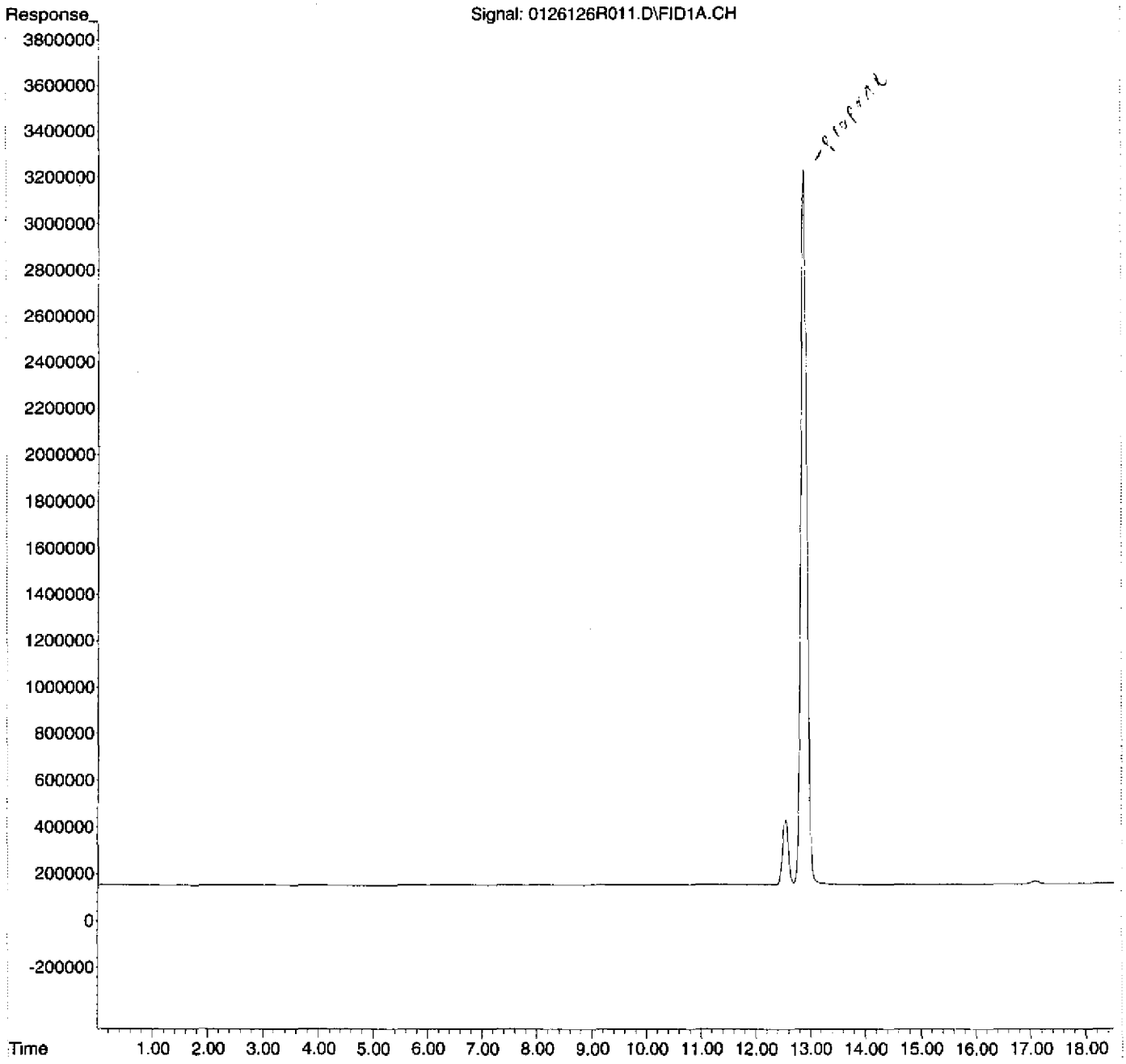
(f)=RT Delta > 1/2 Window (m)=manual int.

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

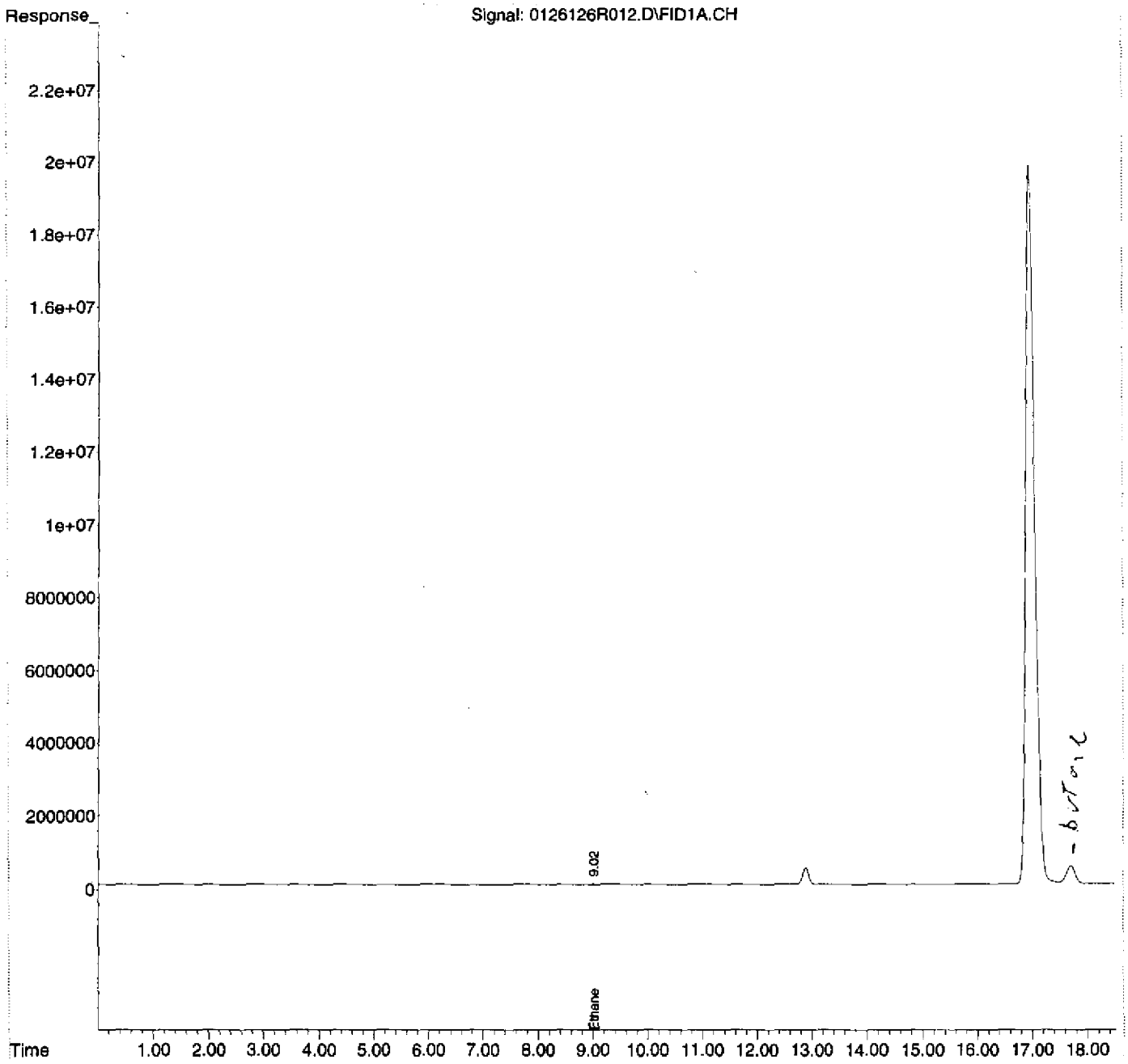
(f)=RT Delta > 1/2 Window (m)=manual int.

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: 12032A

Instrument: AG6890N-6

Analysis Date: 2/1/12

SAMPLE DATA

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

Injection Log

Operator: rh
Directory: D:\MSDCHEM\1\2012\DATA\020112RSK\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	0201126R01.D	0	2020003-CCV1	2B01006	01 Feb 2012 12:11 pm
2	0201126R02.D	0	2020003-LCV1	2B01004	01 Feb 2012 12:39 pm
3	0201126R03.D	0	2020003-LCV2	2B01005	01 Feb 2012 1:15 pm
4	0201126R04.D	0	B2B0006-BLK1	MB	01 Feb 2012 1:48 pm
5	0201126R05.D	0	B2B0006-BS1	LCS	01 Feb 2012 2:22 pm
6	0201126R06.D	0	1201034-02RE1	HW05 1.25ML	01 Feb 2012 2:56 pm
7	0201126R07.D	0	1201034-03RE1	HW06 0.13 ML	01 Feb 2012 3:30 pm
8	0201126R08.D	0	1201034-04RE1	HW12 0.05 ML	01 Feb 2012 4:03 pm
9	0201126R09.D	0	1201034-06RE1	HW14 0.7 ML	01 Feb 2012 4:37 pm
10	0201126R10.D	0	1201034-11RE1	HW24-P 4.0 ML	01 Feb 2012 5:11 pm
11	0201126R11.D	0	1201034-15RE1	HW17 1.0 ML	01 Feb 2012 5:45 pm
12	0201126R12.D	0	1201034-16RE1	HW24 4.0 ML	01 Feb 2012 6:18 pm
13	0201126R13.D	0	1201034-04RE2	HW12 0.03 ML	01 Feb 2012 6:52 pm
14	0201126R14.D	0	1202001-04	HW13	01 Feb 2012 7:25 pm
15	0201126R15.D	0	1202001-05	HW18-P	01 Feb 2012 7:53 pm
16	0201126R16.D	0	1202001-06	HW20	01 Feb 2012 8:29 pm
17	0201126R17.D	0	1202001-07	HW20-P	01 Feb 2012 8:56 pm
18	0201126R18.D	0	1202001-08	HW25-P	01 Feb 2012 9:32 pm
19	0201126R19.D	0	1202001-11	HW18	01 Feb 2012 9:59 pm
20	0201126R20.D	0	2020003-IBL1	IB	01 Feb 2012 10:35 pm
21	0201126R21.D	0	1202001-09	EB01	01 Feb 2012 11:02 pm
22	0201126R22.D	0	1202001-10	FB06	01 Feb 2012 11:38 pm
23	0201126R23.D	0	1202001-12	TB08	02 Feb 2012 12:05 am
24	0201126R24.D	0	1202001-13	TB09	02 Feb 2012 12:40 am
25	0201126R25.D	0	2020003-CCV2	2B01006	02 Feb 2012 1:07 am
26	0201126R26.D	0	2020003-CCV3	2B01006	02 Feb 2012 1:43 am

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 %
0201126R01.D	2020003-CCV1	35*
0201126R02.D	2020003-LCV1	1*
0201126R03.D	2020003-LCV2	3*
0201126R04.D	B2B0006-BLK1	109
0201126R05.D	B2B0006-BS1	117
0201126R06.D	1201034-02RE1	112
0201126R07.D	1201034-03RE1	113
0201126R08.D	1201034-04RE1	112
0201126R09.D	1201034-06RE1	115
0201126R10.D	1201034-11RE1	111
0201126R11.D	1201034-15RE1	113
0201126R12.D	1201034-16RE1	114
0201126R13.D	1201034-04RE2	113
0201126R14.D	1202001-04	112
0201126R15.D	1202001-05	108
0201126R16.D	1202001-06	115
0201126R17.D	1202001-07	110
0201126R18.D	1202001-08	102
0201126R19.D	1202001-11	113
0201126R20.D	2020003-IBL1	112
0201126R21.D	1202001-09	111
0201126R22.D	1202001-10	107
0201126R23.D	1202001-12	105
0201126R24.D	1202001-13	112
0201126R25.D	2020003-CCV2	34*
0201126R26.D	2020003-CCV3	36*

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

Created: Thu Feb 02 09:26:05 2012 AG6890N-6

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 ###

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:11 pm
Operator : rh
Sample : 2020003-CCV1
Misc : 2B01006
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 12:51:44 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

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	1.115 E6	-9.5	111	0.00
2 S	Acetylene	349.516	379.810 E3	-8.7	102	-0.02
3 TM	Ethene	887.936	982.767 E3	-10.7	108	0.00
4 TM	Ethane	966.567	1076.847 E3	-11.4	109	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

$$\frac{1076847 - 966567}{966567} \times 100 =$$

11.40%

RA
2/7/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:11 pm
Operator : rh
Sample : 2020003-CCV1
Misc : 2B01006
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 12:51:44 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	7.963	8222896	23.527 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	35.47%#
Target Compounds			
1) TM Methane	1.525	14747054	14.486 ug/L
3) TM Ethene	8.367	23050796	25.960 ug/L
4) TM Ethane	9.000	26900703	27.831 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.

8222896 / 349516 =

23.5265

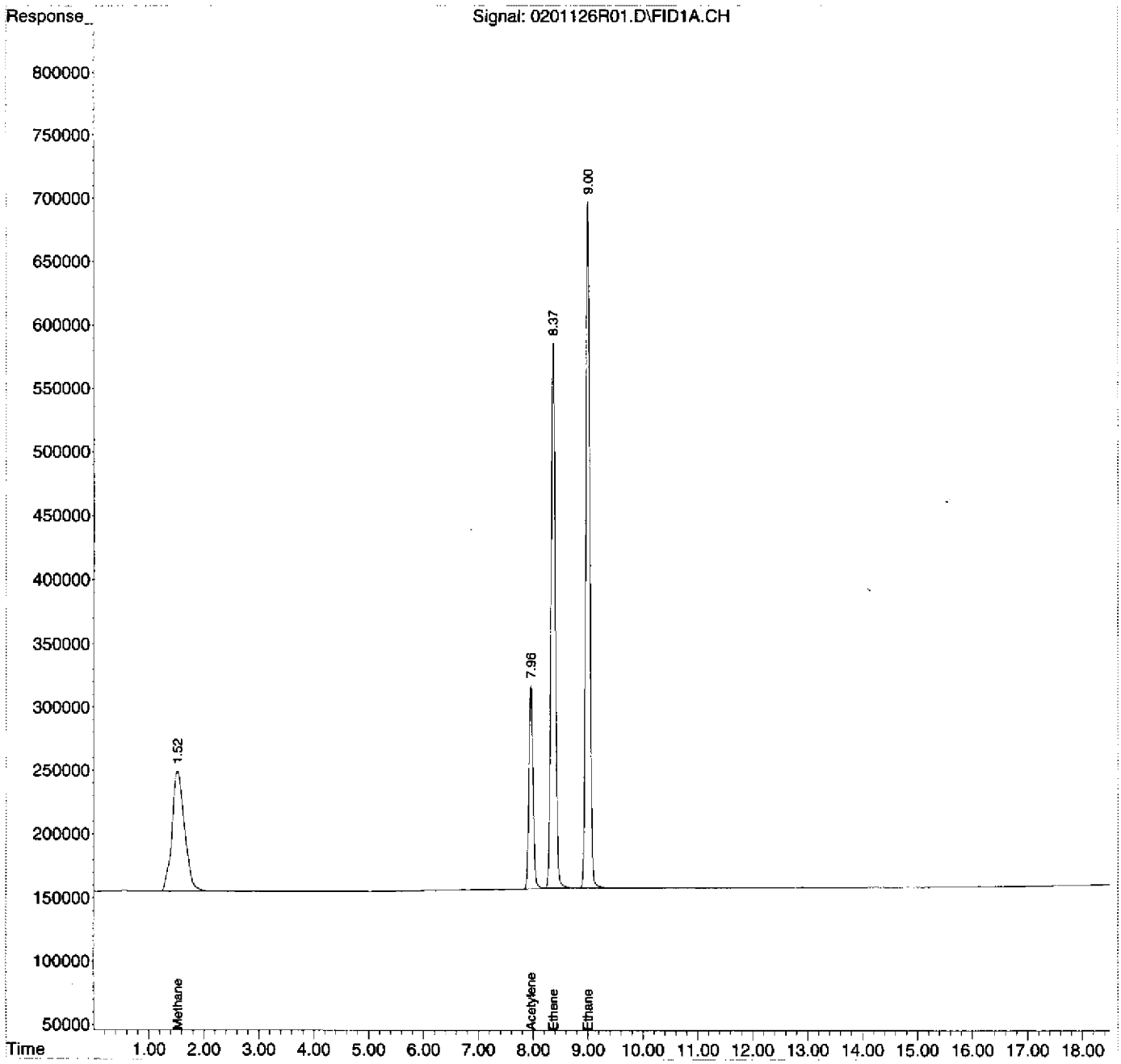
RH
2/3/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:11 pm
Operator : rh
Sample : 2020003-CCV1
Misc : 2B01006
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 12:51:44 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



RSK-175 HC LCV REPORT

Instrument Name: AG6890N-6
File Name LCV1: 0201126R02
File Name LCV2: 0201126R03
Date Acquired: 02/01/12
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.514	60 - 140	123.0%	pass
Acetylene	2.014	1.819	60 - 140	90.3%	NA
Ethene	1.091	1.004	60 - 140	92.0%	pass
Ethane	1.162	1.098	60 - 140	94.5%	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\020112RSK\
Data File : 0201126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:39 pm
Operator : rh
Sample : 2020003-LCV1
Misc : 2B01004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 01 13:13:29 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	7.967	310869	0.889 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.34%#
Target Compounds			
1) TM Methane	1.531	958815	0.942 ug/L
3) TM Ethene	8.368	891059	1.004 ug/L
4) TM Ethane	9.001	1060810	1.098 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

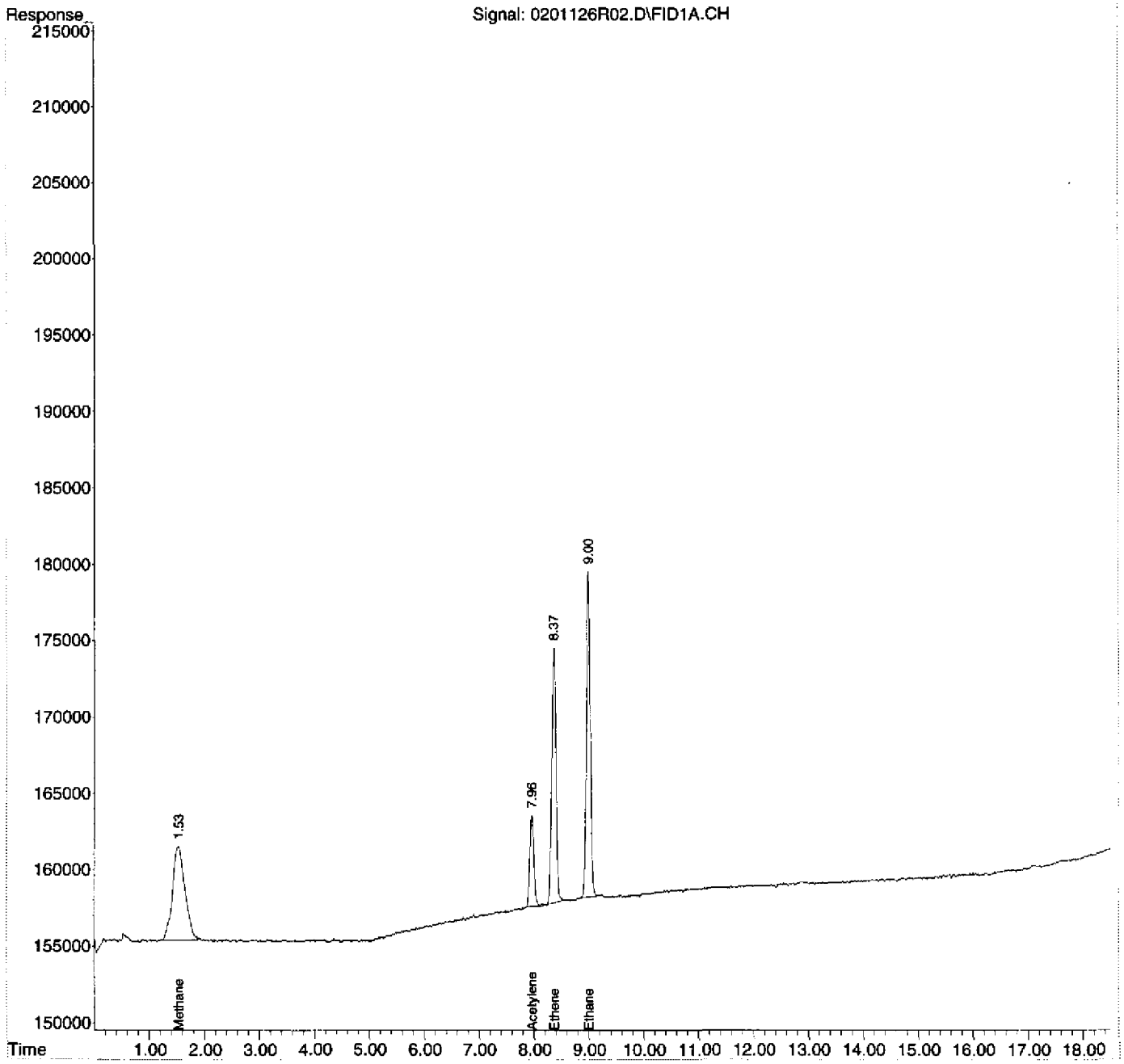
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:39 pm
Operator : rh
Sample : 2020003-LCV1
Misc : 2B01004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 01 13:13:29 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 1:15 pm
Operator : rh
Sample : 2020003-LCV2
Misc : 2B01005
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 01 13:35:22 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	7.967	635891	1.819 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.74%#
Target Compounds			
1) TM Methane	1.526	1541027	1.514 ug/L
3) TM Ethene	8.368	1849459	2.083 ug/L
4) TM Ethane	9.001	2175729	2.251 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

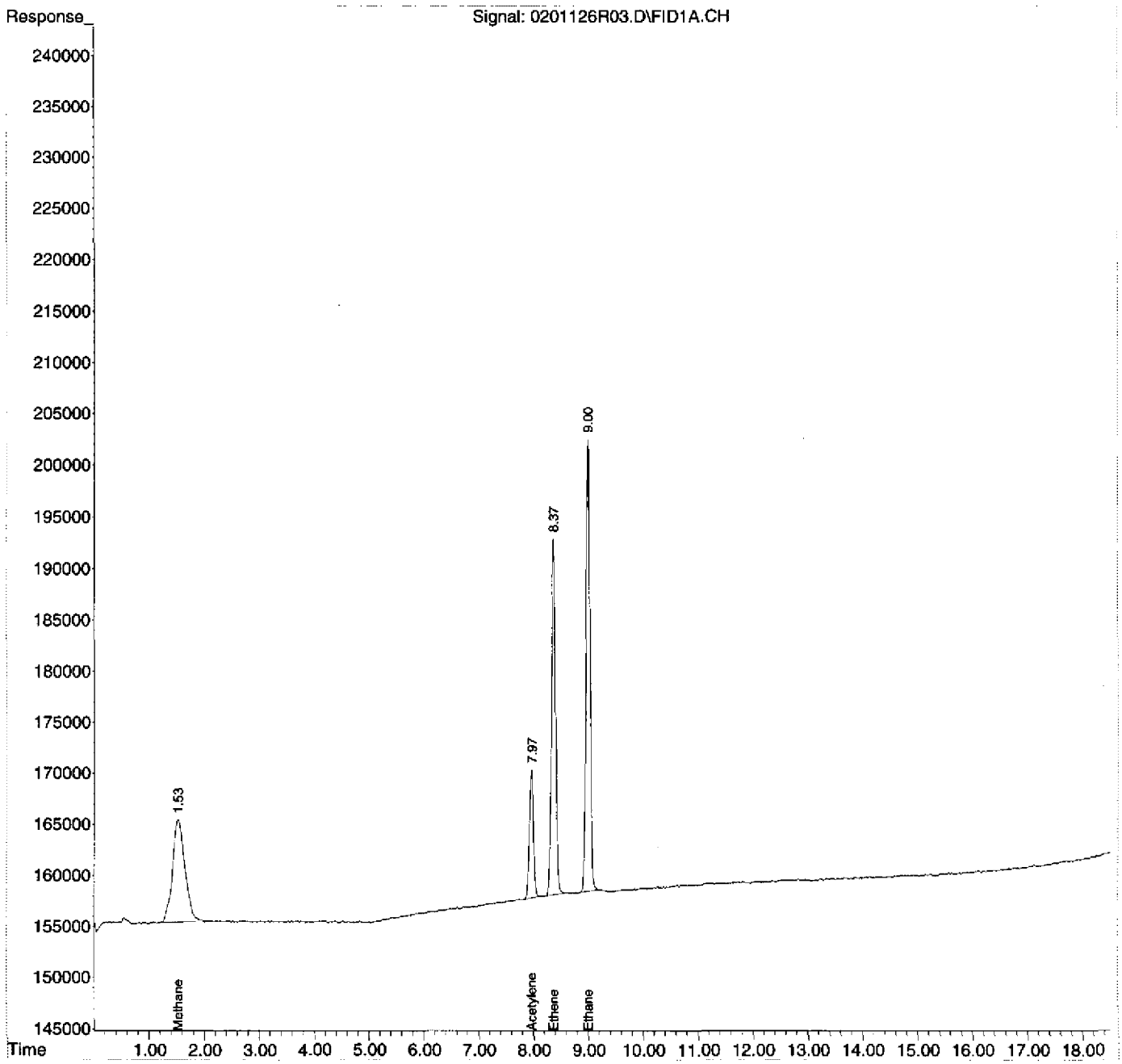
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 1:15 pm
Operator : rh
Sample : 2020003-LCV2
Misc : 2B01005
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 01 13:35:22 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\020112RSK\
Data File : 0201126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 1:48 pm
Operator : rh
Sample : B2B0006-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 01 15:47:53 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	7.958	25373887	72.597 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.45%
Target Compounds			
1) TM Methane	1.527	695560	0.683 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.

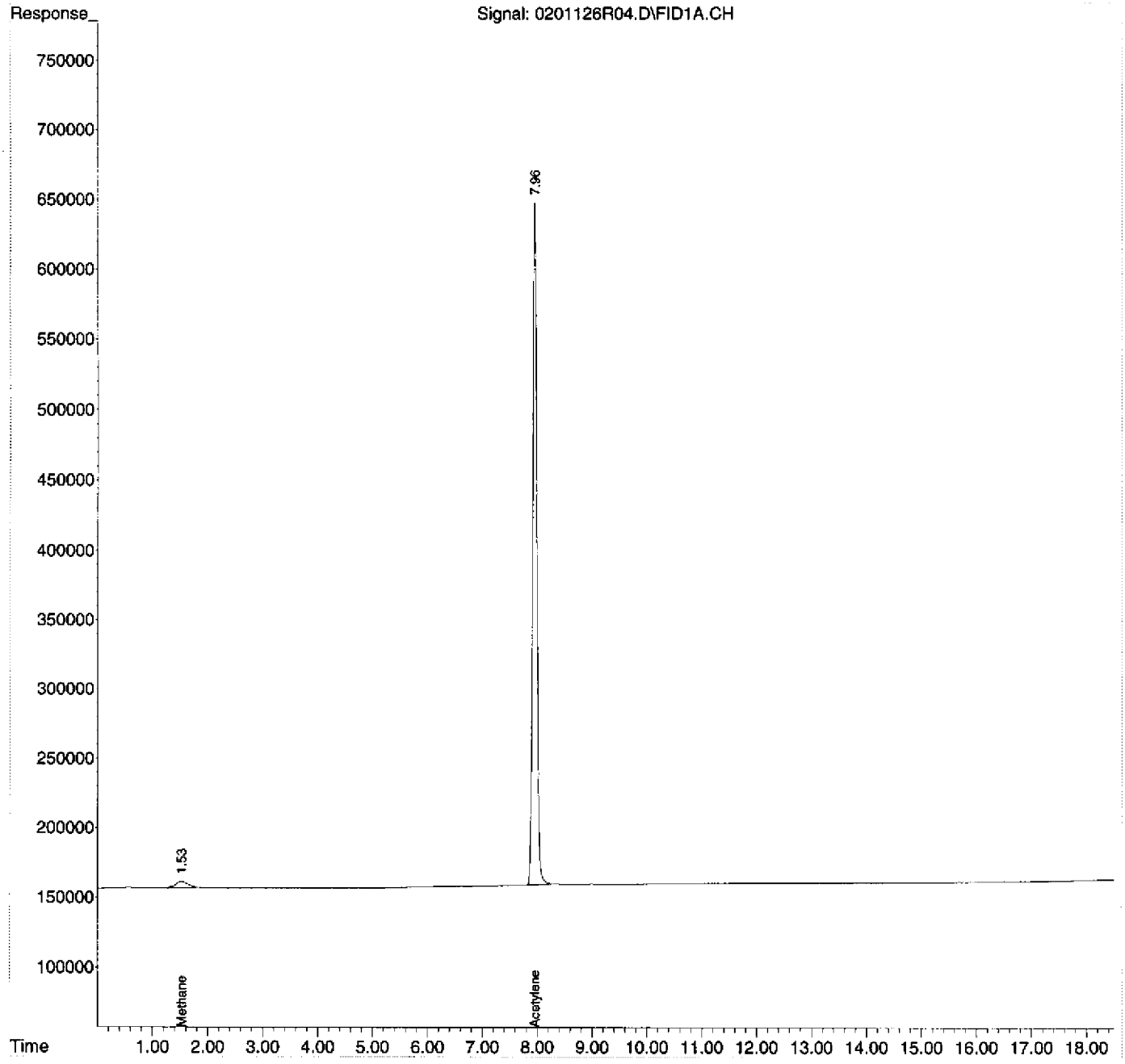
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 1:48 pm
Operator : rh
Sample : B2B0006-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 01 15:47:53 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



RSK-175 LCSSUMMARY REPORT

Instrument Name: AG6890N-6
File Name: 0201126R05.D
Date Acquired: 2/1/2012
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	44.099	46.491	70-130	105.4%	pass
Acetylene	72.166	77.862	66.4-153	107.9%	pass
Ethene	78.183	85.708	78-138	109.6%	pass
Ethane	83.269	91.477	77-137	109.9%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:22 pm
Operator : rh
Sample : B2B0006-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 15:47:39 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	7.958	27214065	77.862 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	117.39%
Target Compounds			
1) TM Methane	1.523	47329011	46.491 ug/L
3) TM Ethene	8.364	76103054	85.708 ug/L
4) TM Ethane	8.997	88418290	91.477 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

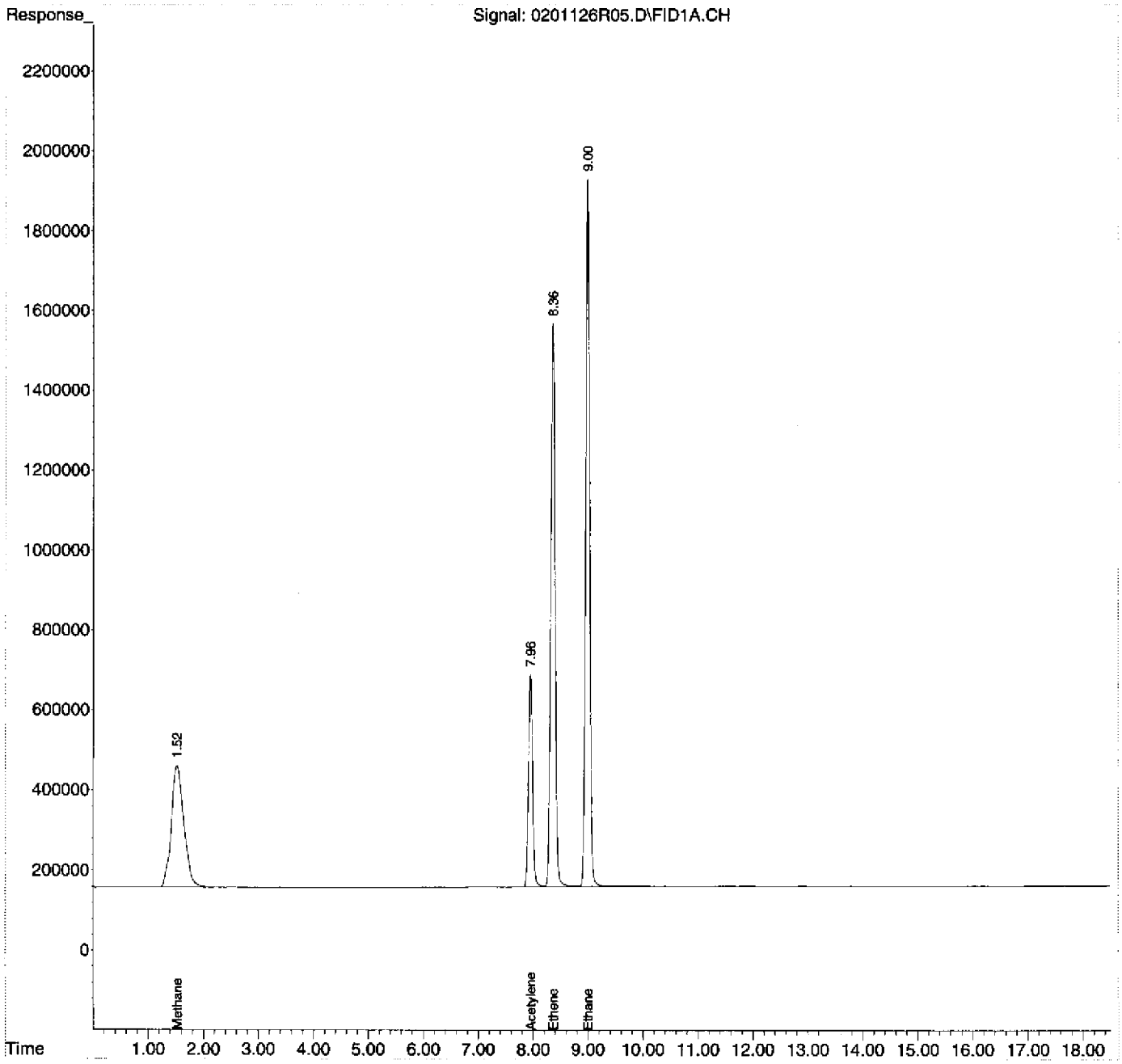
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:22 pm
Operator : rh
Sample : B2B0006-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 15:47:39 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 7:25 pm
Operator : rh
Sample : 1202001-04
Misc : HW13
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 02 08:50:04 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	7.956	26045363	74.518 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	112.34%
Target Compounds			
1) TM Methane	1.517	850129718	835.074 ug/L — o.c.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.000	23443963	24.255 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

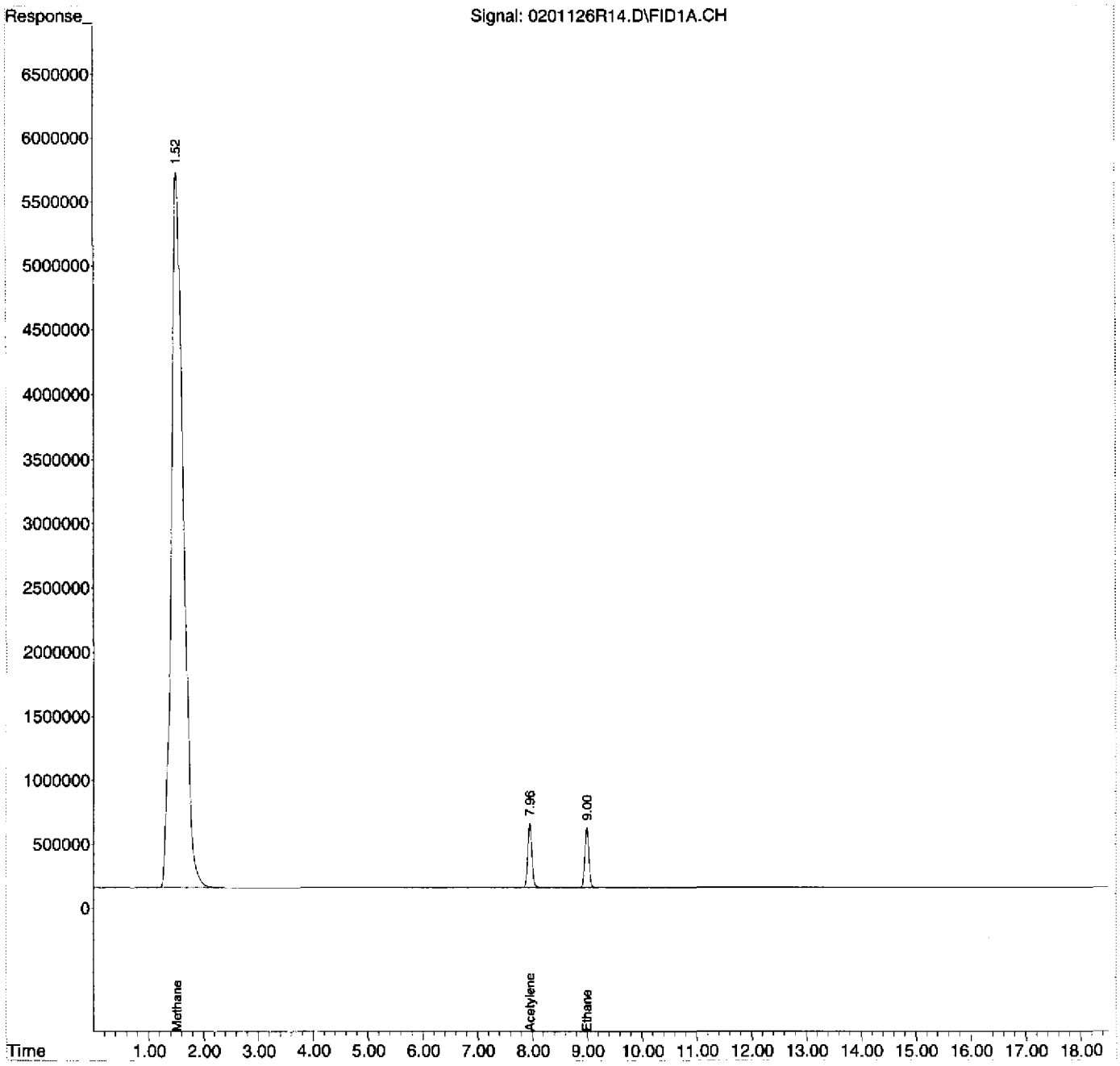
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 7:25 pm
Operator : rh
Sample : 1202001-04
Misc : HW13
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 02 08:50:04 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



0126126RSK.M Thu Feb 02 08:50:09 2012 Page: 2

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R15.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 7:53 pm
Operator : rh
Sample : 1202001-05
Misc : HW18-P
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 02 08:50:12 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	7.957	25095011	71.799 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	108.25%
Target Compounds			
1) TM Methane	1.520	159535686	156.710 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.

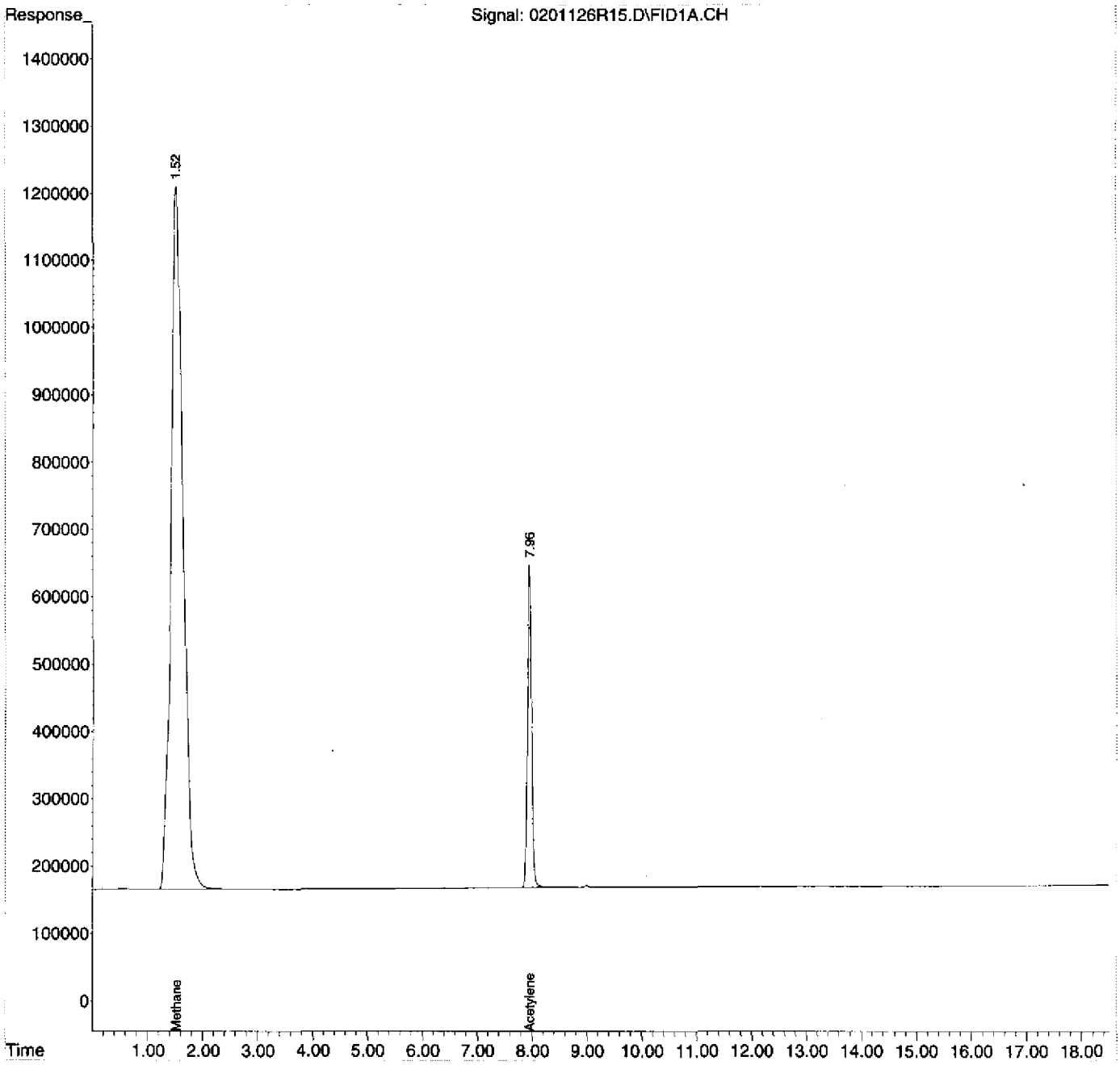
00069 B 2/6/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R15.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 7:53 pm
Operator : rh
Sample : 1202001-05
Misc : HW18-P
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 02 08:50:12 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\020112RSK\
Data File : 0201126R16.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 8:29 pm
Operator : rh
Sample : 1202001-06
Misc : HW20
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 02 08:50:20 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	7.957	26711924	76.425 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	115.22%
Target Compounds			
1) TM Methane	1.523	2681291	2.634 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.

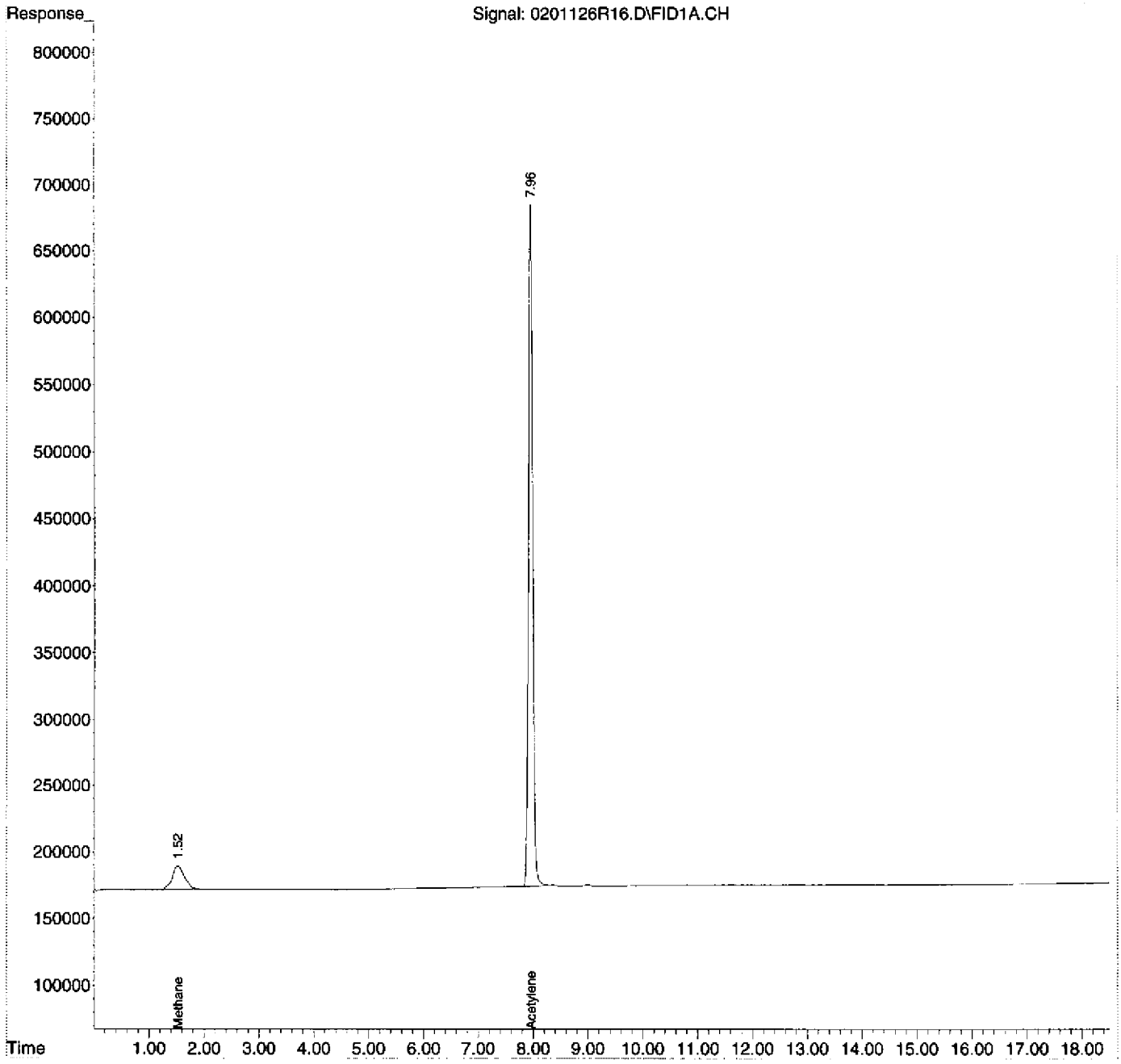
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R16.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 8:29 pm
Operator : rh
Sample : 1202001-06
Misc : HW20
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 02 08:50:20 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R17.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 8:56 pm
Operator : rh
Sample : 1202001-07
Misc : HW20-P
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 02 08:50:28 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	7.957	25567628	73.152 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.28%
Target Compounds			
1) TM Methane	1.518	2094025	2.057 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.

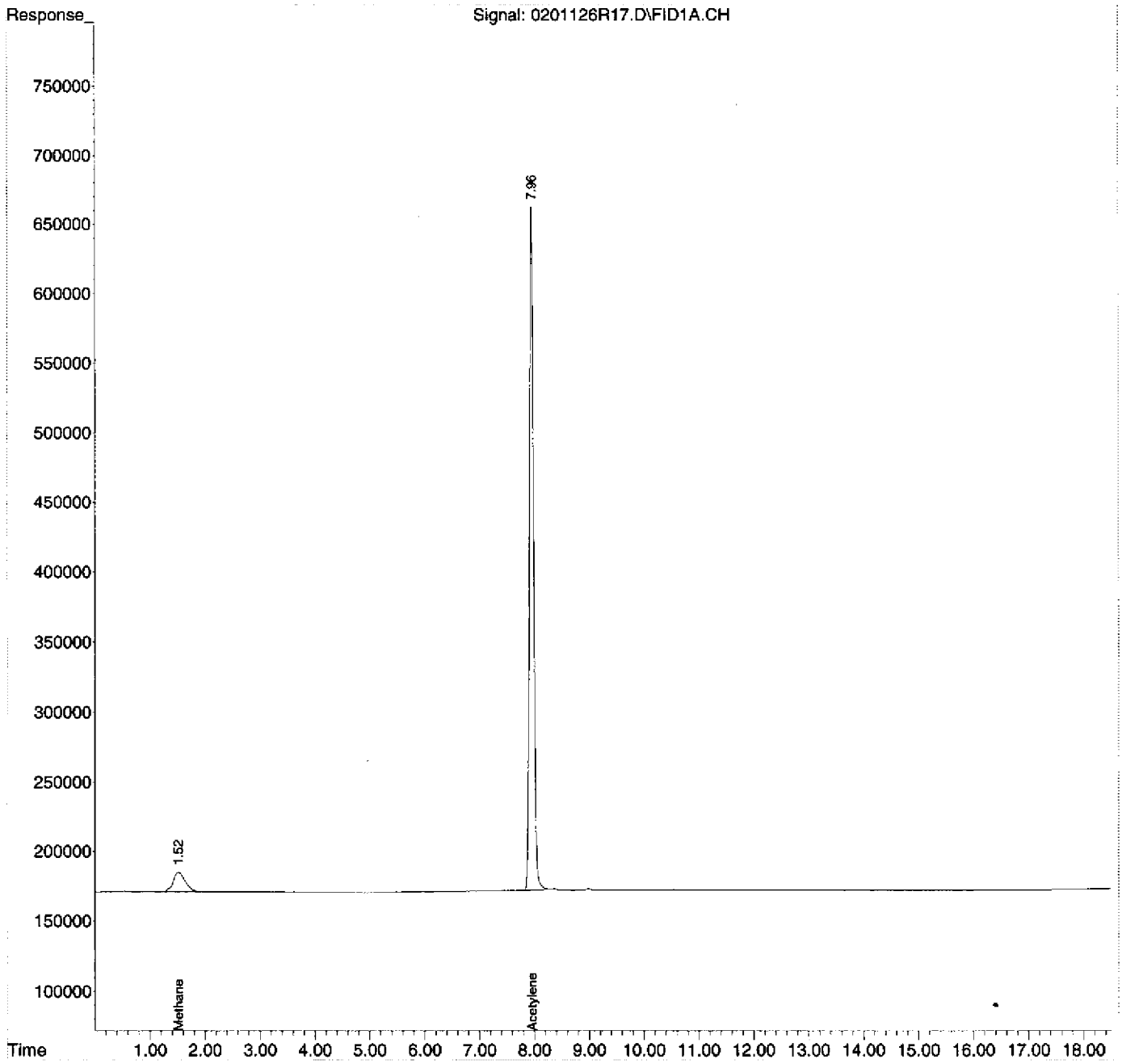
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R17.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 8:56 pm
Operator : rh
Sample : 1202001-07
Misc : HW20-P
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 02 08:50:28 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\020112RSK\
Data File : 0201126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 9:32 pm
Operator : rh
Sample : 1202001-08
Misc : HW25-P
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 02 08:50:36 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	7.955	23656665	67.684 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	102.04%
Target Compounds			
1) TM Methane	1.411	31757974549	31195.545 ug/L ~ 0.0
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	8.999	24731268	25.587 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

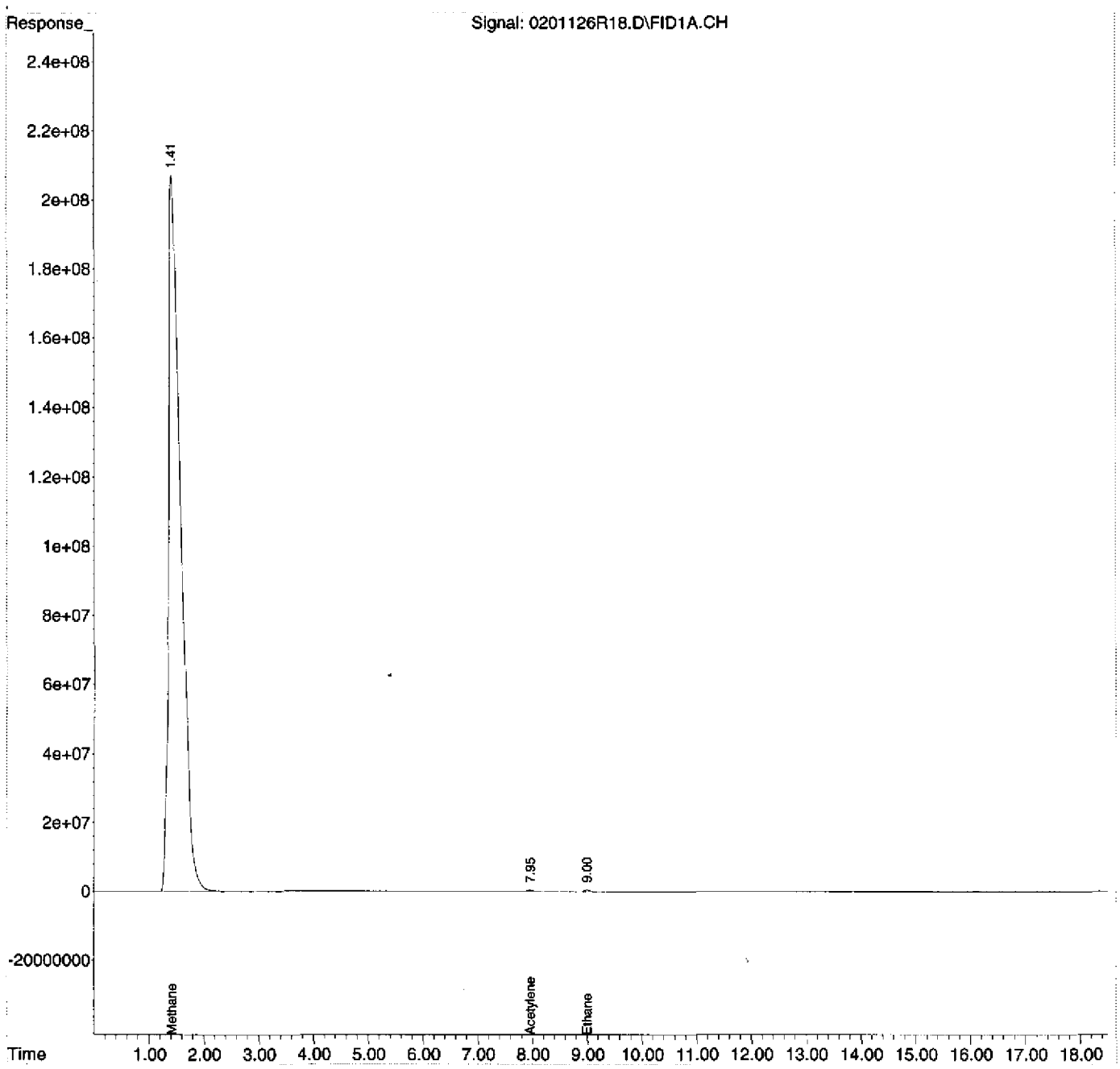
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 9:32 pm
Operator : rh
Sample : 1202001-08
Misc : HW25-P
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 02 08:50:36 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\020112RSK\
Data File : 0201126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 9:59 pm
Operator : rh
Sample : 1202001-11
Misc : HW18
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 02 08:50:44 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	7.956	26099706	74.674 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	112.58%
Target Compounds			
1) TM Methane	1.521	193108091	189.688 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.

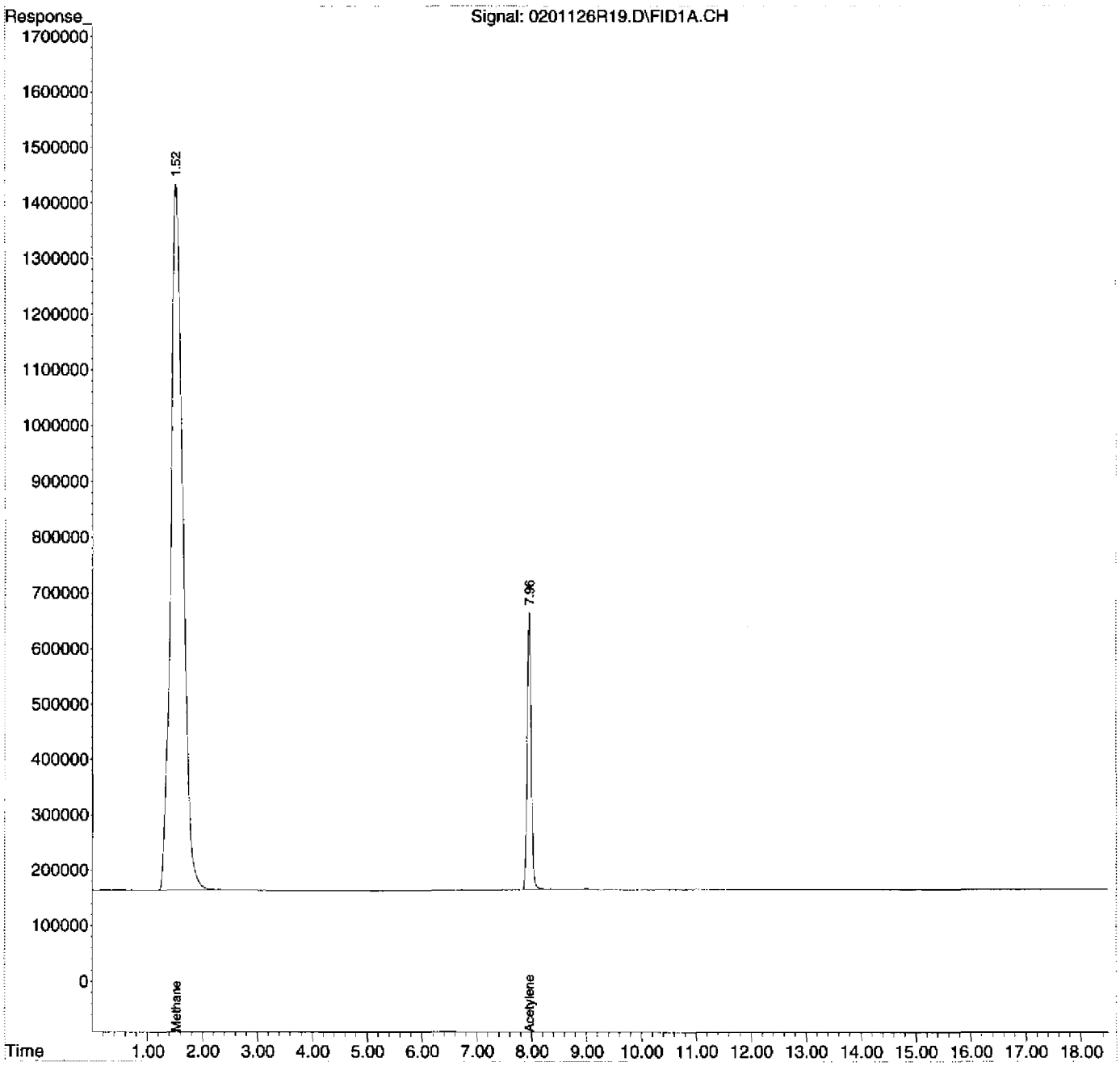
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 9:59 pm
Operator : rh
Sample : 1202001-11
Misc : HW18
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 02 08:50:44 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\020112RSK\
Data File : 0201126R20.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 10:35 pm
Operator : rh
Sample : 2020003-IBL1
Misc : IB
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 02 08:50:52 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	7.959	25915203	74.146 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.78%
Target Compounds			
1) TM Methane	1.528	1087932	1.069 ug/L < RL
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.

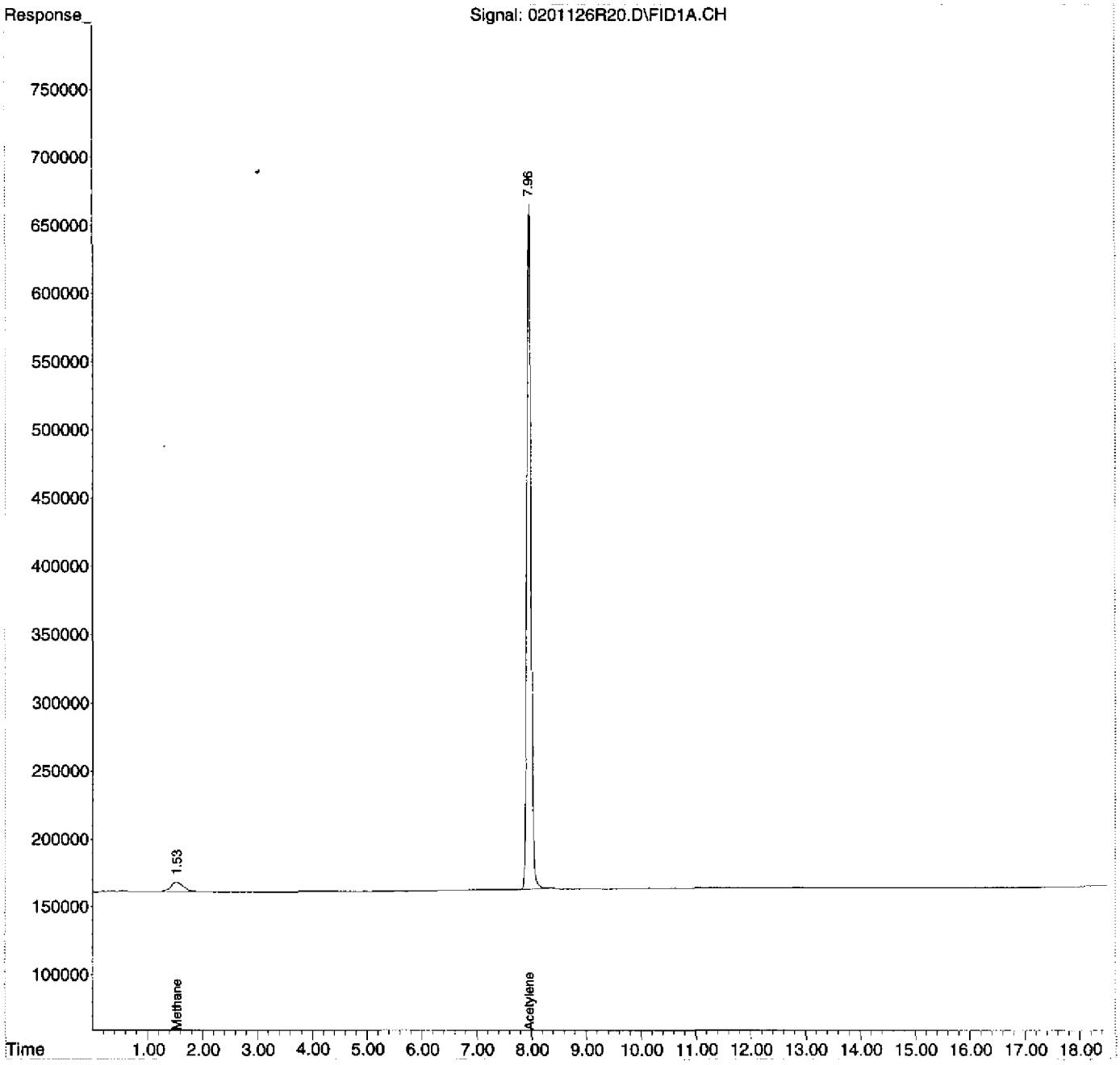
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R20.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 10:35 pm
Operator : rh
Sample : 2020003-IBL1
Misc : IB
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 02 08:50:52 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\020112RSK\
Data File : 0201126R21.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 11:02 pm
Operator : rh
Sample : 1202001-09
Misc : EB01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 02 08:51:00 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	7.959	25842681	73.938 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.47%
Target Compounds			
1) TM Methane	1.524	29632149	29.107 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.

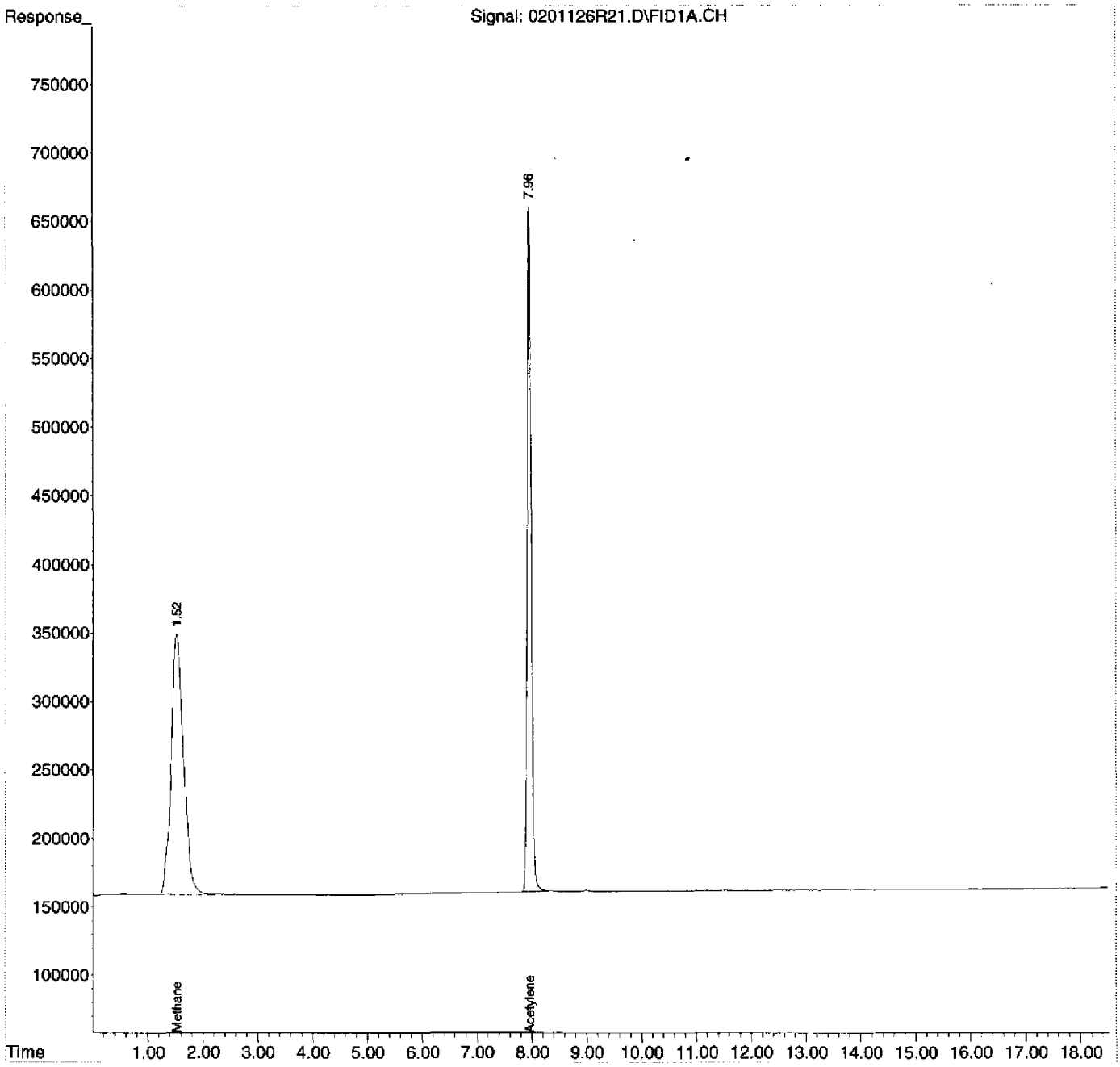
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R21.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 11:02 pm
Operator : rh
Sample : 1202001-09
Misc : EB01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 02 08:51:00 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\020112RSK\
Data File : 0201126R22.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 11:38 pm
Operator : rh
Sample : 1202001-10
Misc : FB06
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 02 08:51:08 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	7.958	24835714	71.057 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	107.13%
Target Compounds			
1) TM Methane	1.523	9704285	9.532 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.

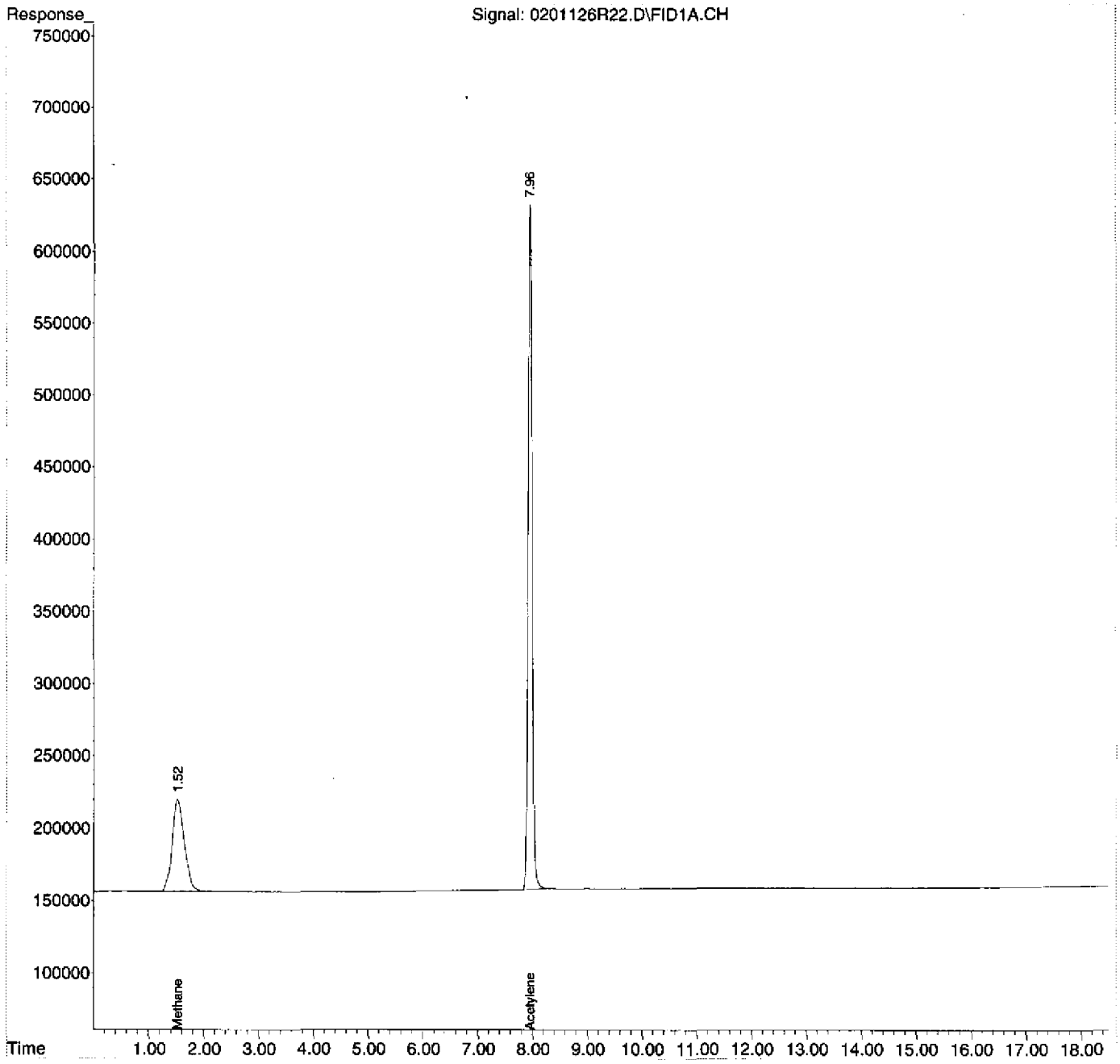
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R22.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 11:38 pm
Operator : rh
Sample : 1202001-10
Misc : FB06
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 02 08:51:08 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\020112RSK\
Data File : 0201126R23.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 12:05 am
Operator : rh
Sample : 1202001-12
Misc : TB08
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 02 08:51:16 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	7.957	24453535	69.964 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	105.48%
Target Compounds			
1) TM Methane	1.525	3658164	3.593 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.

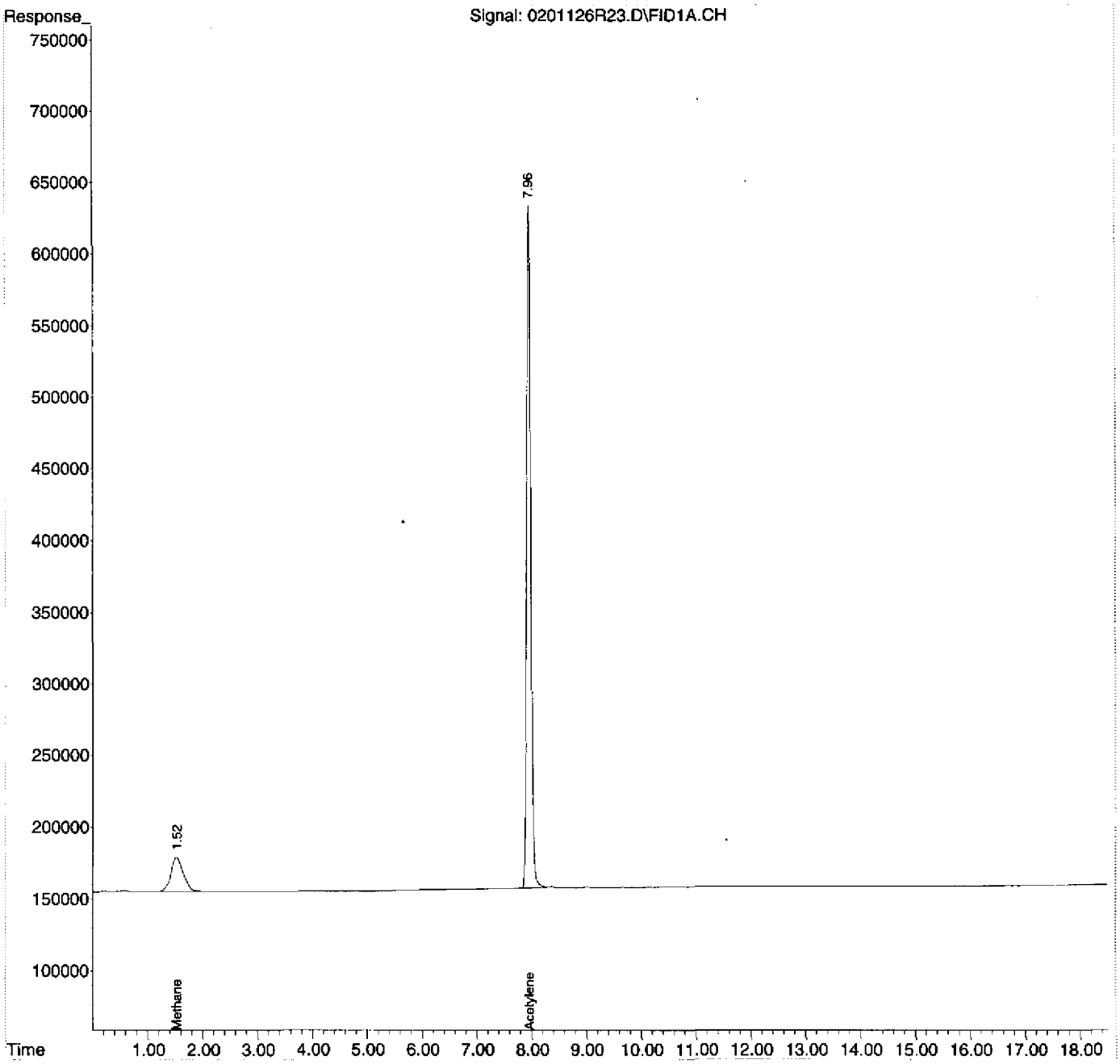
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R23.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 12:05 am
Operator : rh
Sample : 1202001-12
Misc : TB08
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 02 08:51:16 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\020112RSK\
Data File : 0201126R24.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 12:40 am
Operator : rh
Sample : 1202001-13
Misc : TB09
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 02 08:51:24 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	7.958	26046684	74.522 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	112.35%
Target Compounds			
1) TM Methane	1.523	3134581	3.079 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.

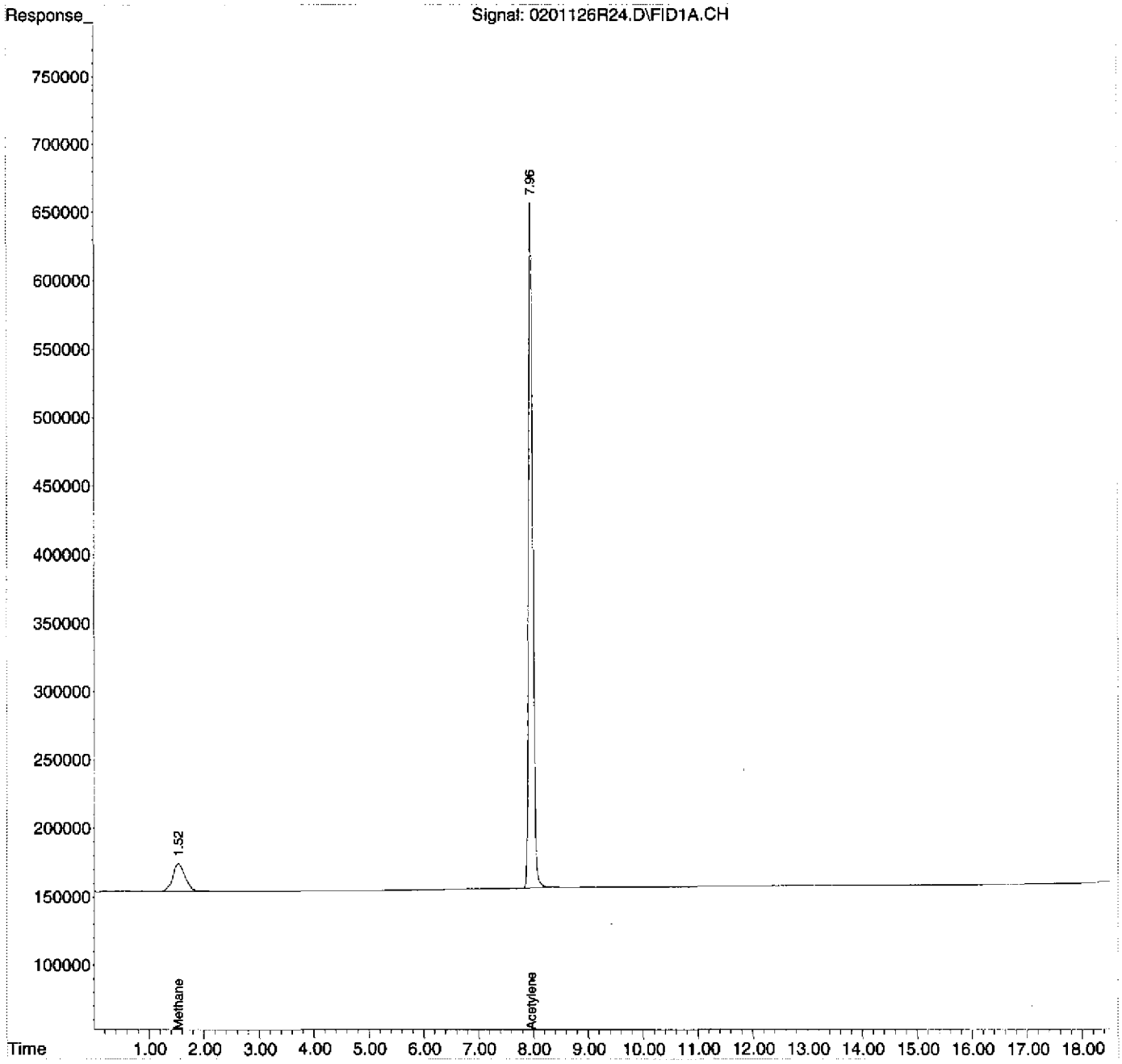
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R24.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 12:40 am
Operator : rh
Sample : 1202001-13
Misc : TB09
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 02 08:51:24 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



Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R25.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:07 am
Operator : rh
Sample : 2020003-CCV2
Misc : 2B01006
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 02 08:51:32 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

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	0.978 E6	3.9	97	0.00
2 S	Acetylene	349.516	368.108 E3	-5.3	99	-0.02
3 TM	Ethene	887.936	884.268 E3	0.4	98	0.00
4 TM	Ethane	966.567	958.706 E3	0.8	97	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\020112RSK\
Data File : 0201126R25.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:07 am
Operator : rh
Sample : 2020003-CCV2
Misc : 2B01006
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 02 08:51:32 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	7.961	7969530	22.802 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	34.38%#
Target Compounds			
1) TM Methane	1.523	12936510	12.707 ug/L
3) TM Ethene	8.366	20740502	23.358 ug/L
4) TM Ethane	9.002	23949429	24.778 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

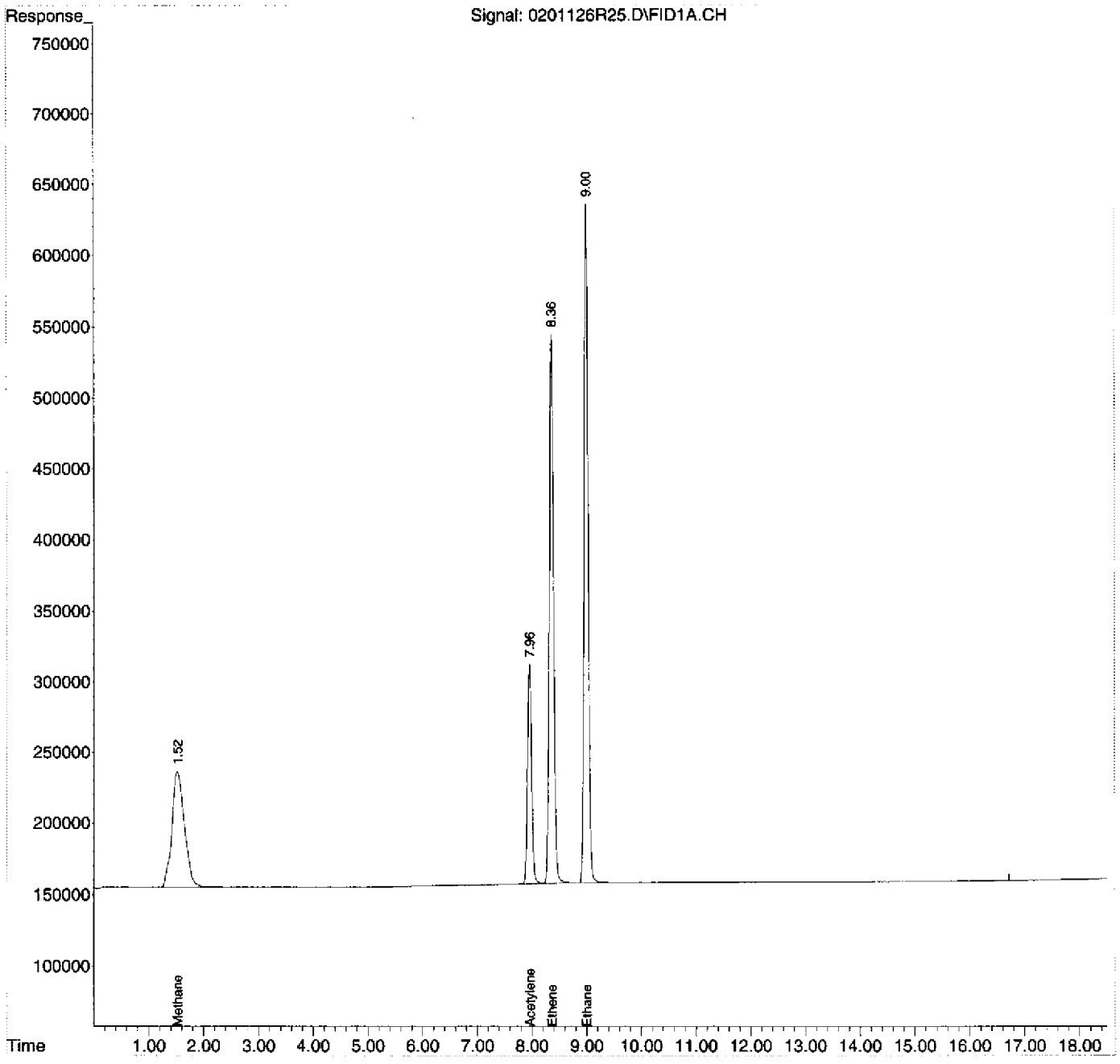
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R25.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:07 am
Operator : rh
Sample : 2020003-CCV2
Misc : 2B01006
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 02 08:51:32 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



0126126RSK.M Thu Feb 02 08:51:37 2012 Page: 2

JT 2/6/12

00090 A

DIM0206336 DIM0206438

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R26.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:43 am
Operator : rh
Sample : 2020003-CCV3
Misc : 2B01006
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 02 08:51:40 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	7.960	8266871	23.652 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	35.66%#
Target Compounds			
1) TM Methane	1.524	14502316	14.245 ug/L
3) TM Ethene	8.367	23010669	25.915 ug/L
4) TM Ethane	9.003	26838016	27.766 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

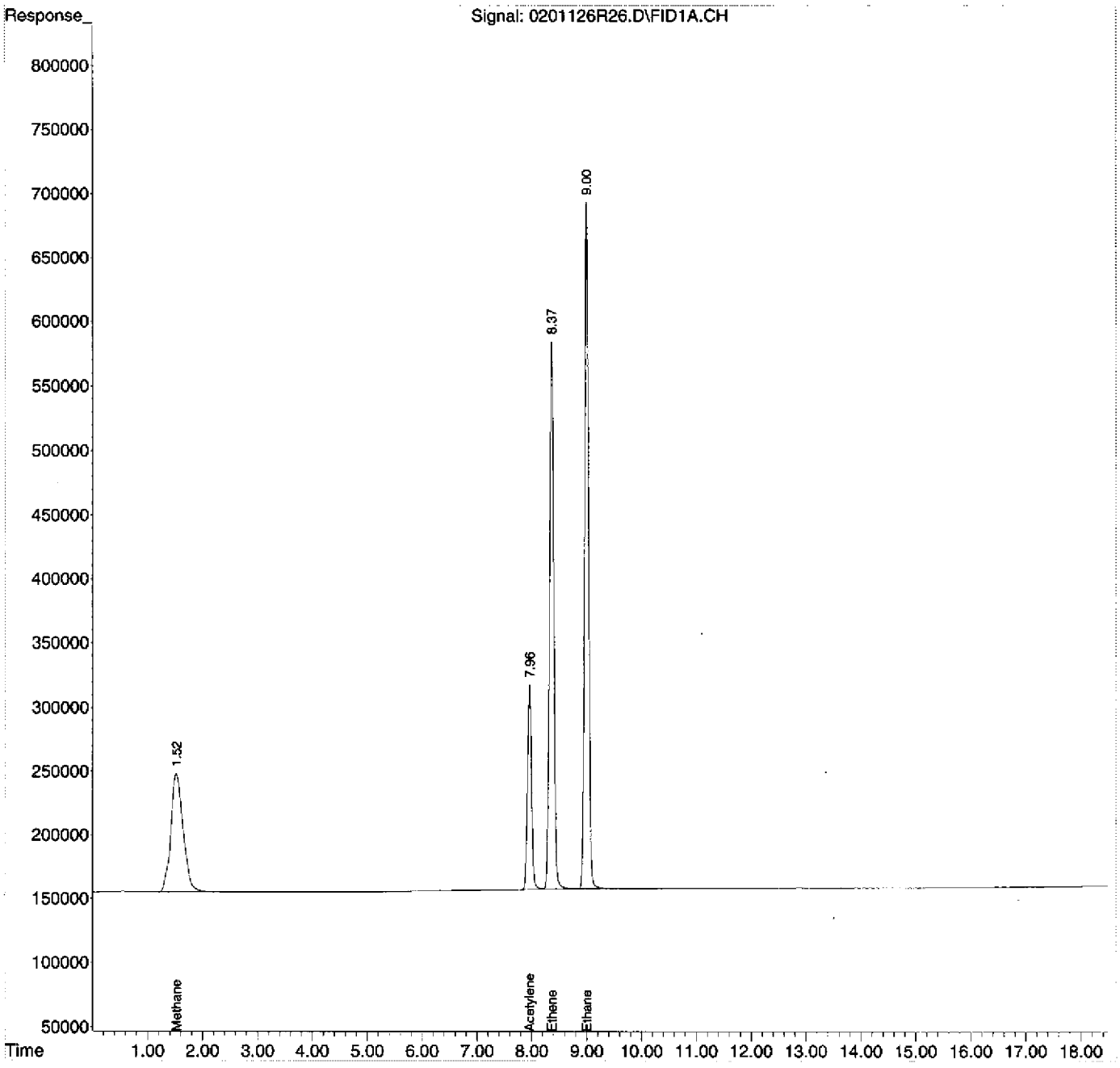
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R26.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:43 am
Operator : rh
Sample : 2020003-CCV3
Misc : 2B01006
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 02 08:51:40 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



0126126RSK.M Thu Feb 02 08:51:45 2012

Page: 2

00091 A 2/6/12

00104

SDG: 12032A

Instrument: AG6890N-6

Analysis Date: 2/2/12

SAMPLE DATA

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

Injection Log

Operator: rh
Directory: D:\MSDCHEM\1\2012\DATA\020212RSK\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	0202126R01.D	0	2020006-CCV1	2B02005	02 Feb 2012 10:49 am
2	0202126R02.D	0	2020006-LCV1	2B02003	02 Feb 2012 11:17 am
3	0202126R03.D	0	2020006-LCV2	2B02004	02 Feb 2012 11:44 am
4	0202126R04.D	0	B2B0008-BLK1	MB	02 Feb 2012 12:20 pm
5	0202126R05.D	0	B2B0008-BS1	LCS	02 Feb 2012 12:47 pm
6	0202126R06.D	0	1202001-04RE1	HW13 2.0 ML	02 Feb 2012 1:23 pm
7	0202126R07.D	0	1202001-08RE1	HW25-P 0.03 ML	02 Feb 2012 1:51 pm
8	0202126R08.D	0	STORAGE BLANK	SB	02 Feb 2012 2:27 pm
9	0202126R09.D	0	1202005-01	HW32	02 Feb 2012 2:55 pm
10	0202126R10.D	0	1202005-02	HW32-P	02 Feb 2012 3:31 pm
11	0202126R11.D	0	1202005-03	HW33	02 Feb 2012 3:59 pm
12	0202126R12.D	0	1202005-04	HW33a-P	02 Feb 2012 4:36 pm
13	0202126R13.D	0	1202005-05	HW33B-P	02 Feb 2012 5:09 pm
14	0202126R14.D	0	1202005-08	HW26-P	02 Feb 2012 5:43 pm
15	0202126R15.D	0	1202005-09	HW29	02 Feb 2012 6:17 pm
16	0202126R16.D	0	1202005-10	HW29Z	02 Feb 2012 6:51 pm
17	0202126R17.D	0	1202005-11	HW35	02 Feb 2012 7:25 pm
18	0202126R18.D	0	B2B0008-MS1	MS 05-11	02 Feb 2012 7:53 pm
19	0202126R19.D	0	B2B0008-MSD1	MSD 05-11	02 Feb 2012 8:29 pm
20	0202126R20.D	0	1202005-12	HW52	02 Feb 2012 8:56 pm
21	0202126R21.D	0	1202005-16	HW26	02 Feb 2012 9:32 pm
22	0202126R22.D	0	2020006-IBL1	IB	02 Feb 2012 9:59 pm
23	0202126R23.D	0	1202005-06	TB12	02 Feb 2012 10:34 pm
24	0202126R24.D	0	1202005-07	FB07	02 Feb 2012 11:01 pm
25	0202126R25.D	0	1202005-13	TB10	02 Feb 2012 11:36 pm
26	0202126R26.D	0	1202005-14	TB11	03 Feb 2012 12:03 am
27	0202126R27.D	0	1202005-15	TB13	03 Feb 2012 12:38 am
28	0202126R28.D	0	2020006-CCV2	2B02005	03 Feb 2012 1:05 am
29	0202126R29.D	0	2020006-CCV3	2B02005	03 Feb 2012 1:40 am

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 %
0202126R01.D	2020006-CCV1	34*
0202126R02.D	2020006-LCV1	1*
0202126R03.D	2020006-LCV2	3*
0202126R04.D	B2B0008-BLK1	111
0202126R05.D	B2B0008-BS1	117
0202126R06.D	1202001-04RE1	110
0202126R07.D	1202001-08RE1	110
0202126R08.D	STORAGE BLANK	110
0202126R09.D	1202005-01	112
0202126R10.D	1202005-02	111
0202126R11.D	1202005-03	109
0202126R12.D	1202005-04	110
0202126R13.D	1202005-05	110
0202126R14.D	1202005-08	106
0202126R15.D	1202005-09	102
0202126R16.D	1202005-10	102
0202126R17.D	1202005-11	112
0202126R18.D	B2B0008-MS1	213*
0202126R19.D	B2B0008-MSD1	215*
0202126R20.D	1202005-12	105
0202126R21.D	1202005-16	99
0202126R22.D	2020006-IBL1	110
0202126R23.D	1202005-06	110
0202126R24.D	1202005-07	111
0202126R25.D	1202005-13	113
0202126R26.D	1202005-14	111
0202126R27.D	1202005-15	113
0202126R28.D	2020006-CCV2	34*
0202126R29.D	2020006-CCV3	33*

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 ###

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 10:49 am
Operator : rh
Sample : 2020006-CCV1
Misc : 2B02005
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 02 17:05:23 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	1.057 E6	-3.8	105	0.00
2 S	Acetylene	349.516	369.220 E3	-5.6	100	-0.03
3 TM	Ethene	887.936	948.470 E3	-6.8	105	0.00
4 TM	Ethane	966.567	1048.168 E3	-8.4	106	0.00

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\020212RSK\
Data File : 0202126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 10:49 am
Operator : rh
Sample : 2020006-CCV1
Misc : 2B02005
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 02 17:05:23 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	7993623	22.871 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	34.48%#
Target Compounds			
1) TM Methane	1.524	13982728	13.735 ug/L
3) TM Ethene	8.365	22246357	25.054 ug/L
4) TM Ethane	9.000	26184295	27.090 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

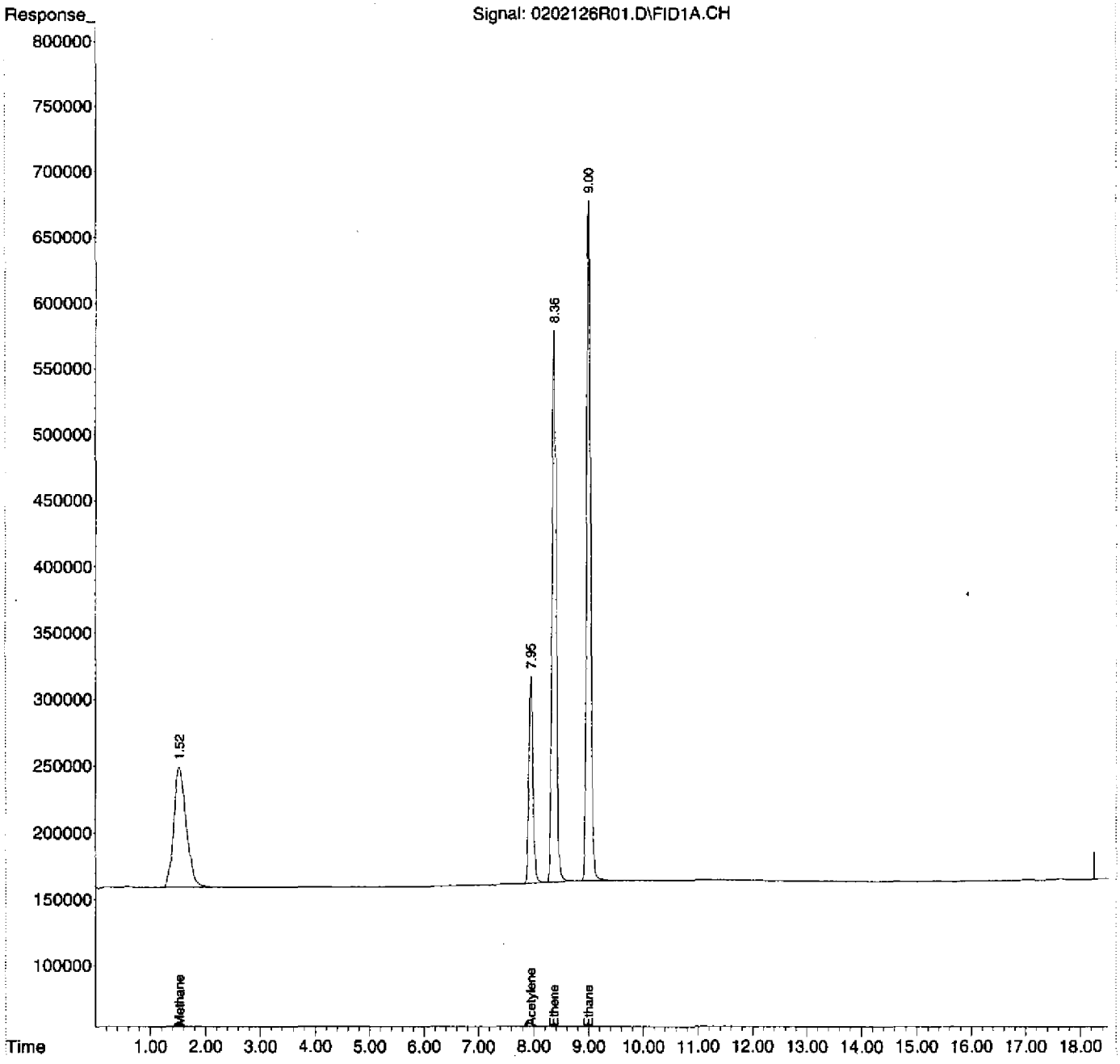
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 10:49 am
Operator : rh
Sample : 2020006-CCV1
Misc : 2B02005
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 02 17:05:23 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: 0202126R02
File Name LCV2: 0202126R03
Date Acquired: 02/02/12
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.38	60 - 140	112.1%	pass
Acetylene	2.014	1.777	60 - 140	88.2%	NA
Ethene	1.091	0.907	60 - 140	83.1%	pass
Ethane	1.162	0.978	60 - 140	84.2%	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\020212RSK\
Data File : 0202126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 11:17 am
Operator : rh
Sample : 2020006-LCV1
Misc : 2B02003
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 02 17:05:31 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	7.966	301990	0.864 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.30%#
Target Compounds			
1) TM Methane	1.514	823907	0.809 ug/L
3) TM Ethene	8.369	805499	0.907 ug/L
4) TM Ethane	9.004	944979	0.978 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

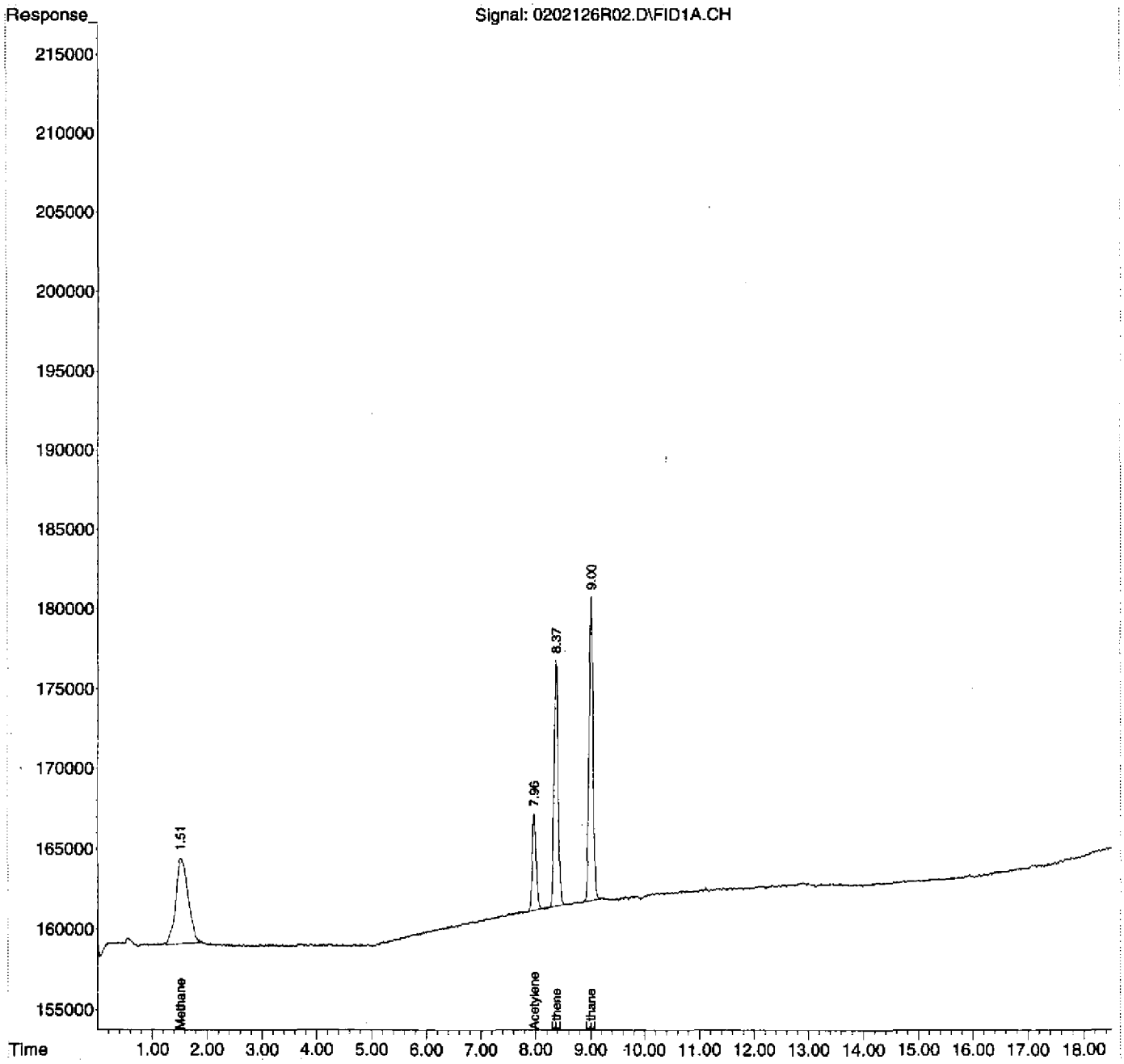
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 11:17,am
Operator : rh
Sample : 2020006-LCV1
Misc : 2B02003
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 02 17:05:31 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\020212RSK\
Data File : 0202126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 11:44 am
Operator : rh
Sample : 2020006-LCV2
Misc : 2B02004
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 02 17:05:39 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	7.967	621204	1.777 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.68%#
Target Compounds			
1) TM Methane	1.533	1404885	1.380 ug/L
3) TM Ethene	8.368	1689461	1.903 ug/L
4) TM Ethane	9.002	1949368	2.017 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

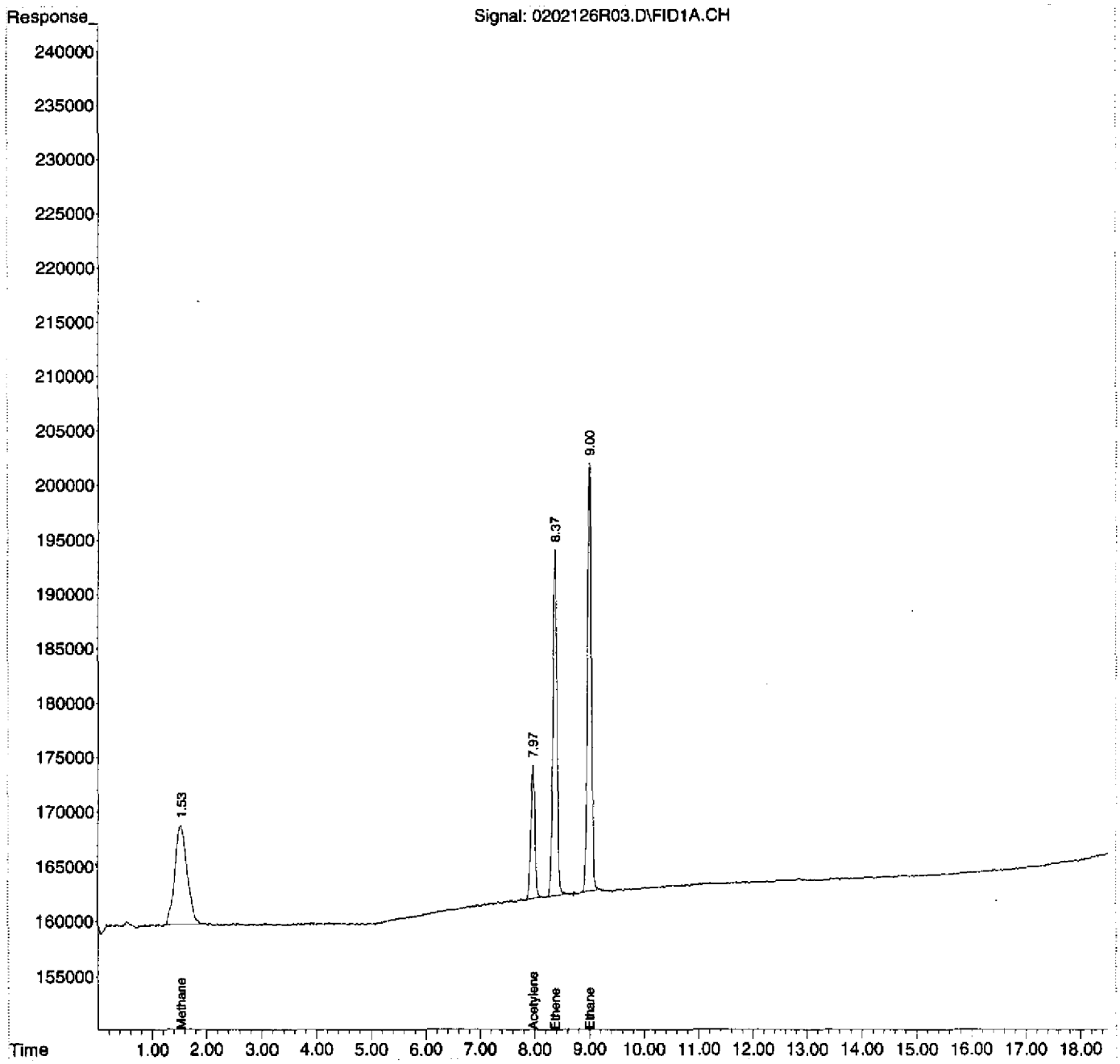
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 11:44 am
Operator : rh
Sample : 2020006-LCV2
Misc : 2B02004
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 02 17:05:39 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 12:20 pm
Operator : rh
Sample : B2B0008-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 02 17:05:46 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	7.960	25759861	73.702 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.11%
Target Compounds			
1) TM Methane	1.538	656348	0.645 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.

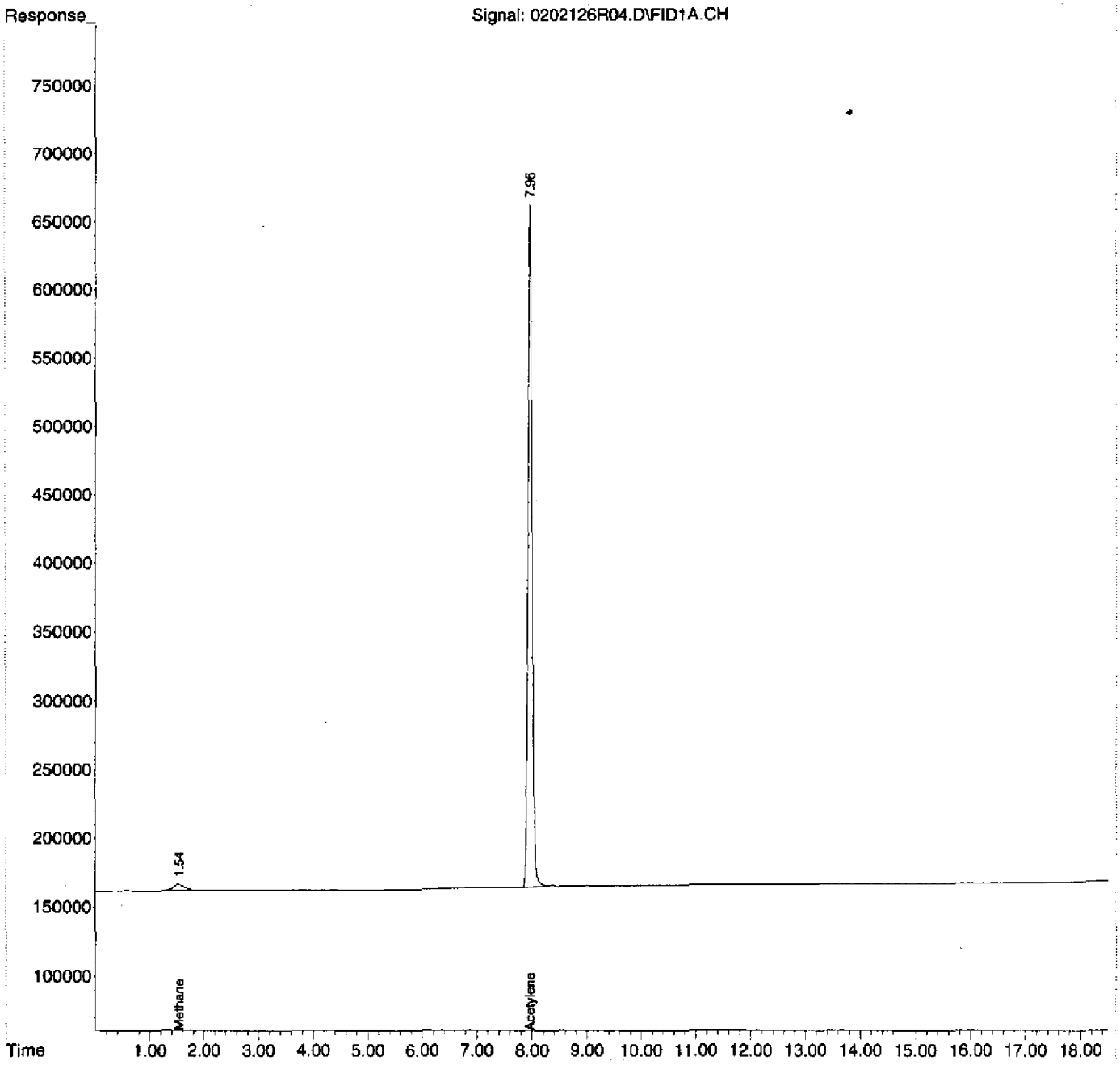
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 12:20 pm
Operator : rh
Sample : B2B0008-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 02 17:05:46 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



RSK-175 LCSSUMMARY REPORT

Instrument Name: AG6890N-6
File Name: 0202126R05.D
Date Acquired: 2/2/2012
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	44.099	42.646	70-130	96.7%	pass
Acetylene	72.166	77.746	66.4-153	107.7%	pass
Ethene	78.183	79.806	78-138	102.1%	pass
Ethane	83.269	84.072	77-137	101.0%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 12:47 pm
Operator : rh
Sample : B2B0008-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 02 17:05:53 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	7.958	27173431	77.746 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	117.21%
Target Compounds			
1) TM Methane	1.524	43415042	42.646 ug/L
3) TM Ethene	8.365	70862641	79.806 ug/L
4) TM Ethane	9.000	81261325	84.072 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

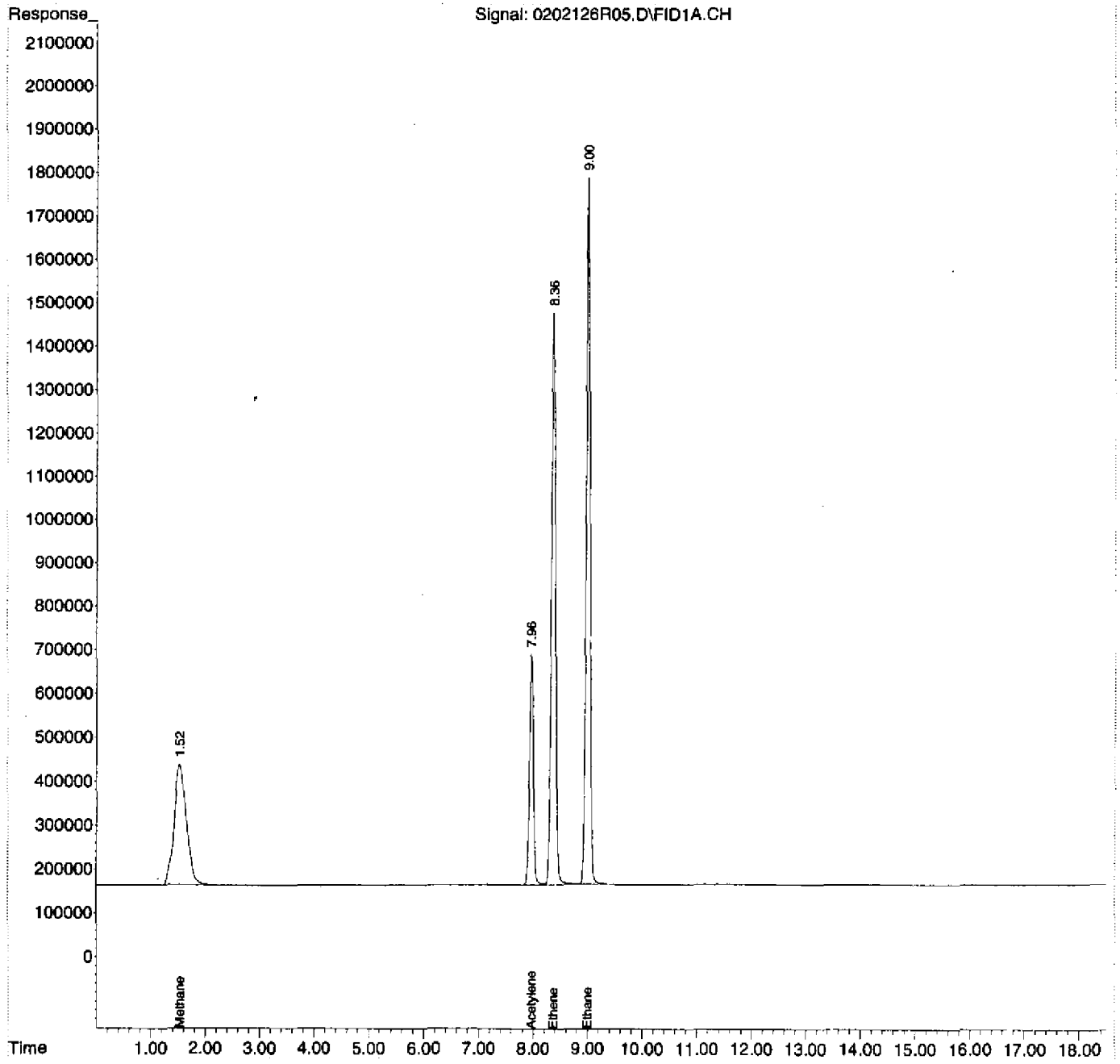
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 12:47 pm
Operator : rh
Sample : B2B0008-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 02 17:05:53 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\020212RSK\
Data File : 0202126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:23 pm
Operator : rh
Sample : 1202001-04RE1
Misc : HW13 2.0 ML
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 02 17:06:01 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	7.959	25437434	72.779 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.72%
Target Compounds			
1) TM Methane	1.524	162811759	159.928 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.002	4251222	4.398 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

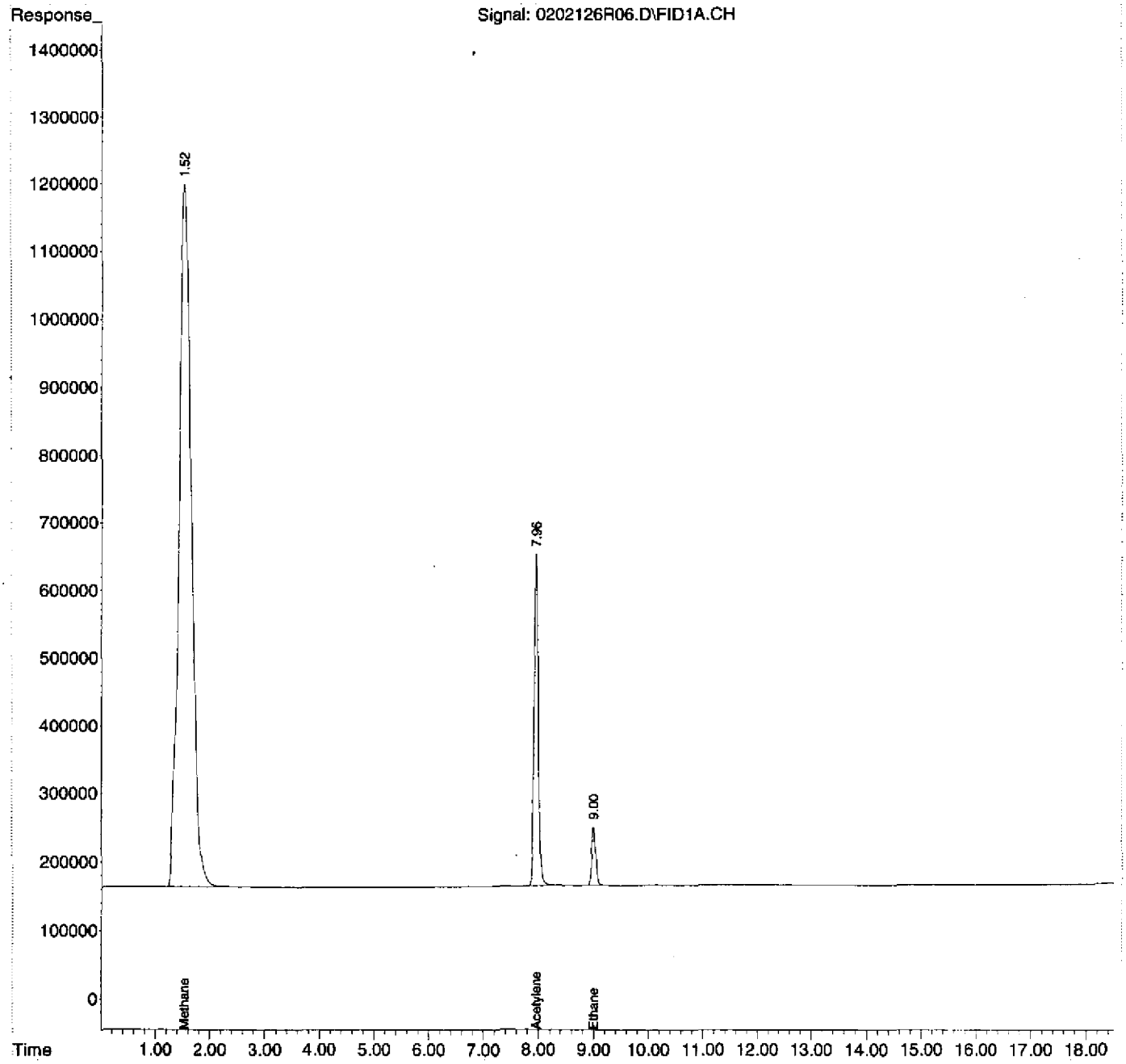
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:23 pm
Operator : rh
Sample : 1202001-04RE1
Misc : HW13 2.0 ML
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 02 17:06:01 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)

00123

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:51 pm
Operator : rh
Sample : 1202001-08RE1
Misc : HW25-P 0.03 ML
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 02 17:06:09 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	7.959	25459317	72.842 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.82%
Target Compounds			
1) TM Methane	1.526	122755265	120.581 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.

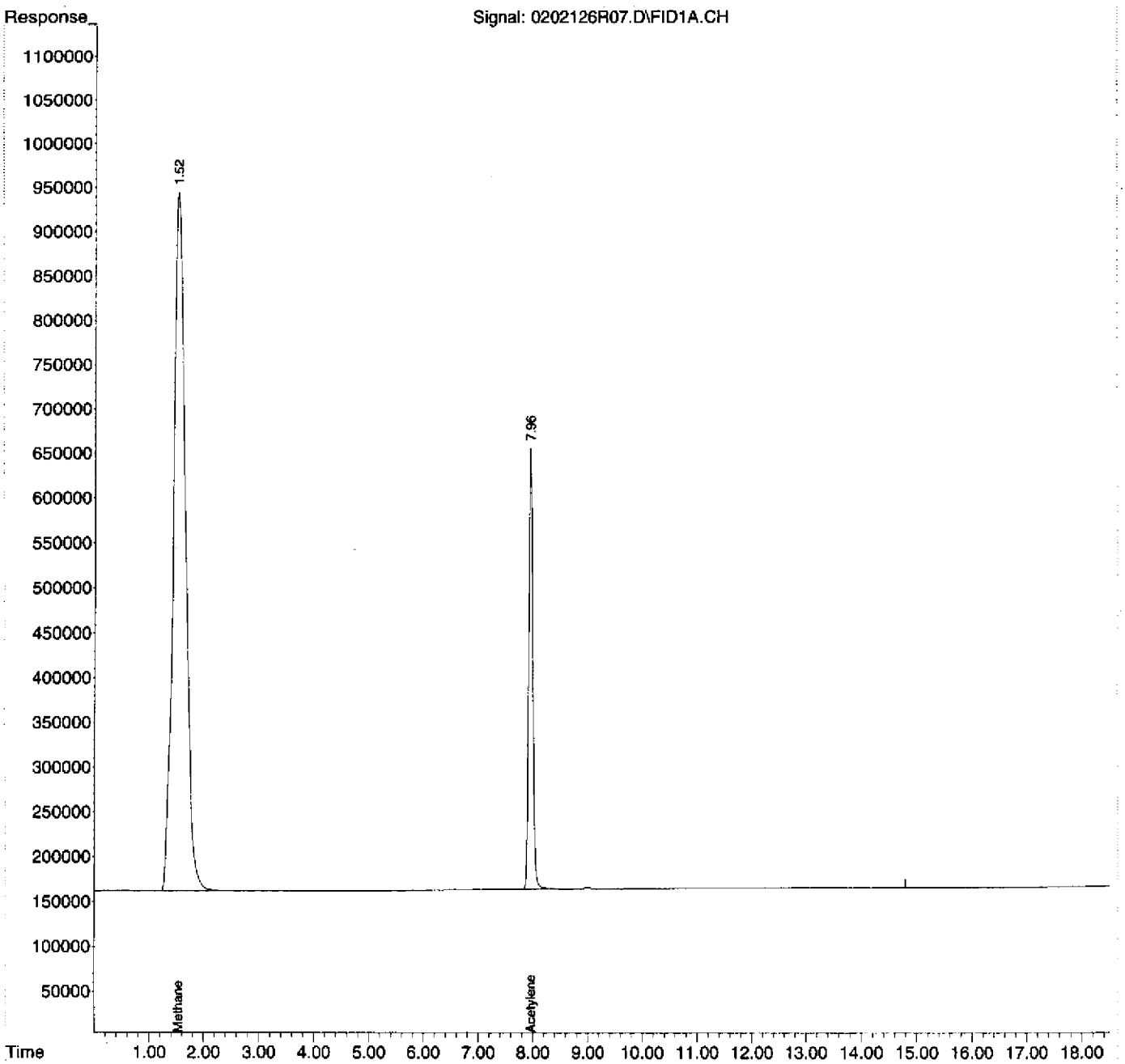
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:51 pm
Operator : rh
Sample : 1202001-08RE1
Misc : HW25-P 0.03 ML
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 02 17:06:09 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\020212RSK\
Data File : 0202126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 2:27 pm
Operator : rh
Sample : STORAGE BLANK
Misc : SB
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 02 17:06:17 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	7.958	25452392	72.822 ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 109.79%			
Target Compounds			
1) TM Methane	1.525	904778	0.889 ug/L <91
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.

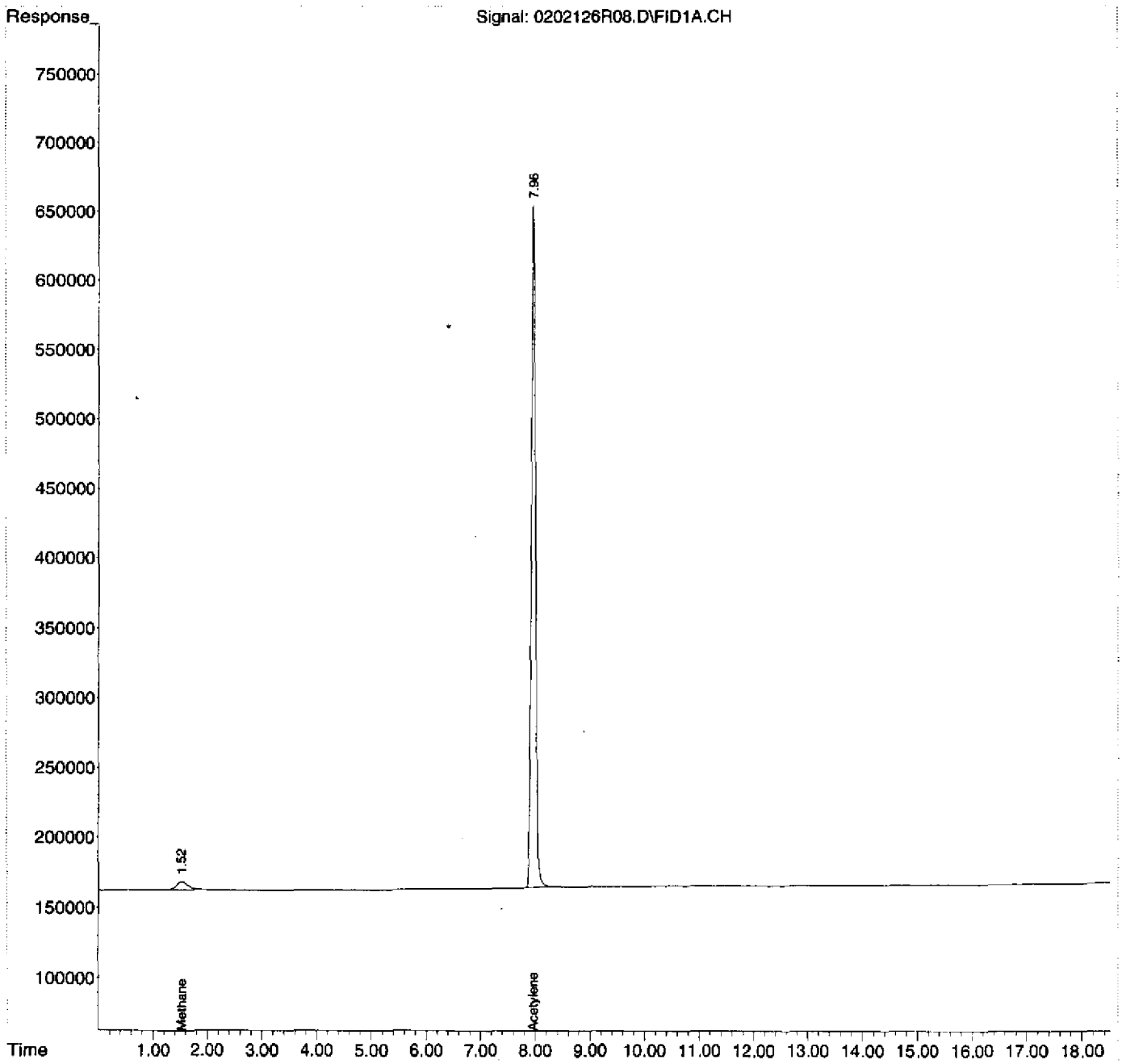
Storage blank
from 12/20/11
RA

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 2:27 pm
Operator : rh
Sample : STORAGE BLANK
Misc : SB
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 02 17:06:17 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\020212RSK\
Data File : 0202126R28.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 03 Feb 2012 1:05 am
Operator : rh
Sample : 2020006-CCV2
Misc : 2B02005
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 03 09:03:56 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

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	0.964 E6	5.3	96	0.00
2	S	Acetylene	349.516	362.701 E3	-3.8	98	-0.01
3	TM	Ethene	887.936	870.210 E3	2.0	96	0.00
4	TM	Ethane	966.567	940.788 E3	2.7	95	0.00

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\020212RSK\
Data File : 0202126R28.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 03 Feb 2012 1:05 am
Operator : rh
Sample : 2020006-CCV2
Misc : 2B02005
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 03 09:03:56 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	7.964	7852486	22.467 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	33.87%#
Target Compounds			
1) TM Methane	1.525	12752875	12.527 ug/L
3) TM Ethene	8.368	20410779	22.987 ug/L
4) TM Ethane	9.005	23501819	24.315 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

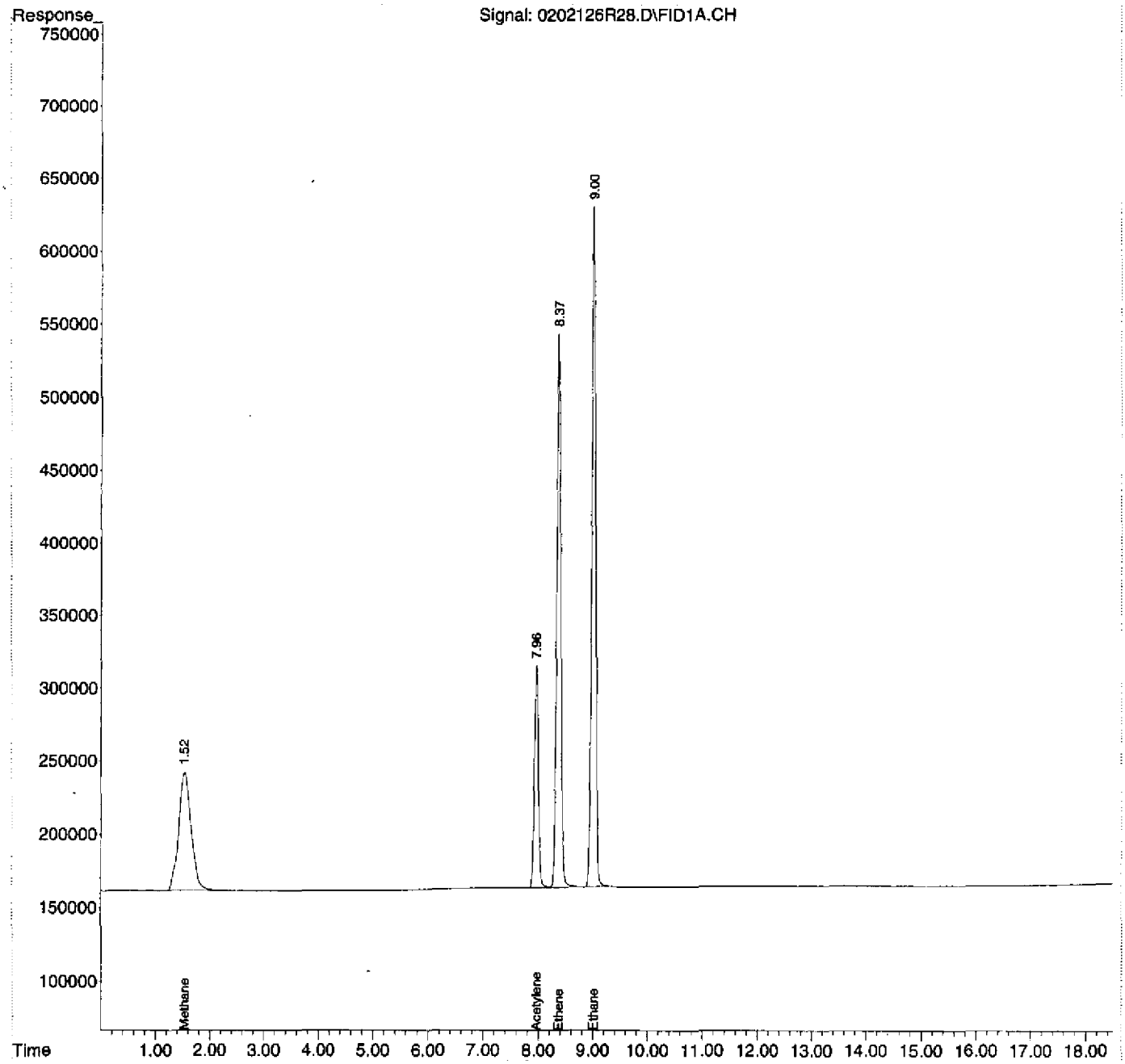
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R28.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 03 Feb 2012 1:05 am
Operator : rh
Sample : 2020006-CCV2
Misc : 2B02005
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 03 09:03:56 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\020212RSK\
Data File : 0202126R29.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 03 Feb 2012 1:40 am
Operator : rh
Sample : 2020006-CCV3
Misc : 2B02005
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 03 09:04:04 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	7.963	7738231	22.140 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	33.38%#
Target Compounds			
1) TM Methane	1.526	13611120	13.370 ug/L
3) TM Ethene	8.369	21456673	24.165 ug/L
4) TM Ethane	9.005	25153399	26.023 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.

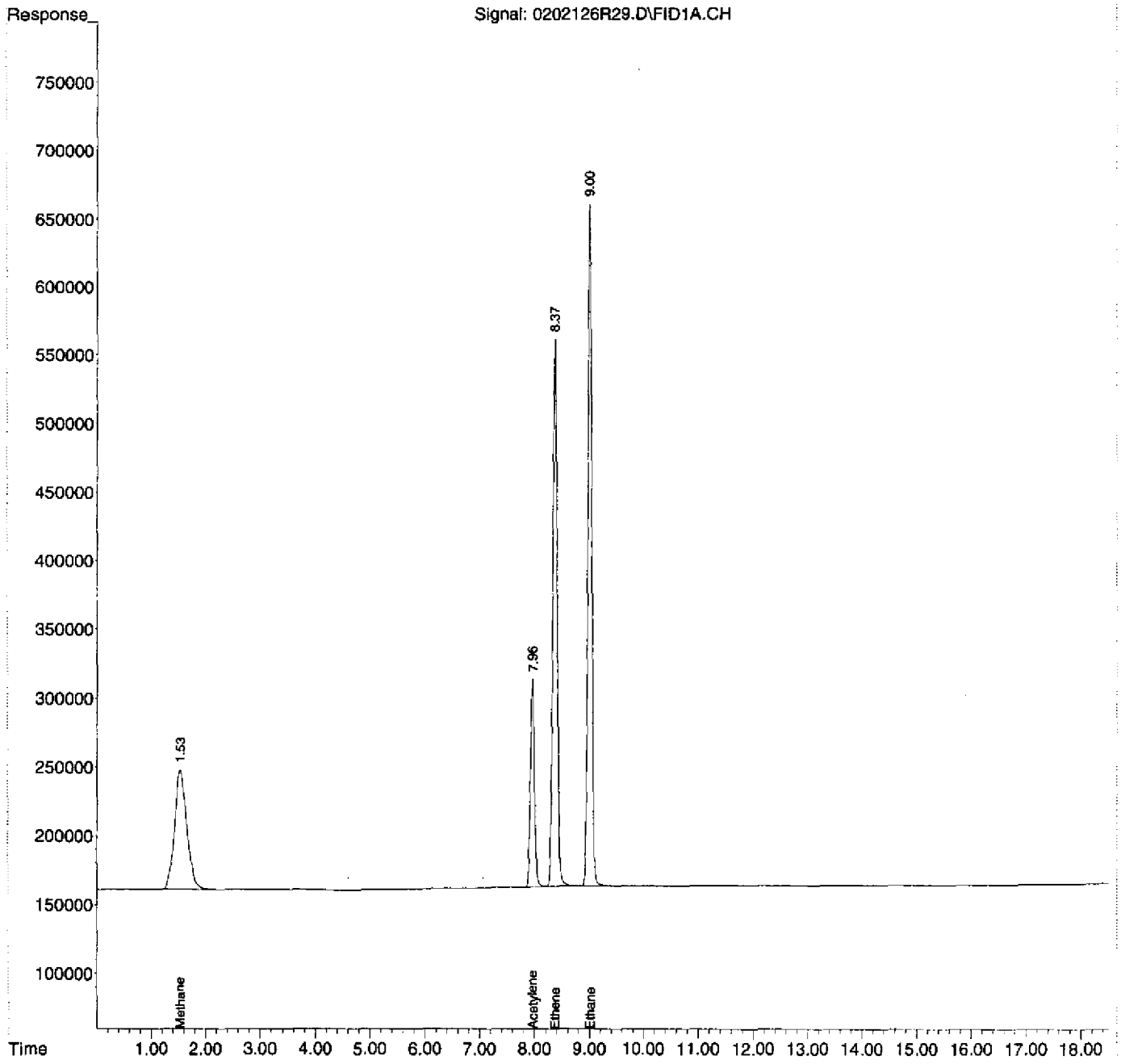
Not evaluated
RH
2/3/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020212RSK\
Data File : 0202126R29.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 03 Feb 2012 1:40 am
Operator : rh
Sample : 2020006-CCV3
Misc : 2B02005
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 03 09:04:04 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



00132

Standard Records

:00120

DIM0206336 DIM0206469

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

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

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 SCV

MANUFACTURED DATE: 25Oct2010 SCOTTY SIZE: 4

APPROVED BY: [redacted]

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

Analytical Standard Record

EPA Region 9 Laboratory

1L13003

Description:	RSK-175 Surrogate	**Expires:**	09/12/13
Standard Type:	Surrogate Spike	**Prepared:**	12/13/11
Solvent:	Helium	**Prepared By:**	** Vendor **
Final Volume (mls):	10000	**Department:**	Volatiles
Vials:	1	**Last Edit:**	12/13/11 10:16 by TD
Vendor:	Matheson	**Lot Numbe**	109-14-04897

Grace Cat # G0413, Item Nu: GMT10303TK AU003115

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

8813E

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

Ref Po# 4501822881

MICROSOL 10 LITER DISPOSABLE

LOT NUMBER: 109-14-06128-I1

COMPONENT	CONCENTRATION
Acetylene	0.92 %
Helium	Balance

ITEM NUMBER: GMT10303TK

CGA: N/A

PSIG: 160 PSIG

FILL DATE: 9/12/11

EXPIRATION DATE: 09/12/13

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], Chemist

9/14/2011
DATE

1L13003
Expires 09/12/13
Preparer ** Vendor ** 12 13 11
RSK-175 Surrogate

00126

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

2B01003

Description:	RSK-175 HC PDS 020112	**Expires:**	02/03/12
Standard Type:	Reference Material	**Prepared:**	02/01/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/01/12 10:46 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

2B01004

Description:	RSK-175 LCV1	**Expires:**	02/03/12
Standard Type:	Other Solution	**Prepared:**	02/01/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/01/12 10:46 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)
2B01003	RSK-175 HC PDS 020112	02/01/12	[redacted]	02/03/12	02/01/12 10:46 by RFH	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2B01006

Description:	RSK-175 CCV	**Expires:**	02/03/12
Standard Type:	Other Solution	**Prepared:**	02/01/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/01/12 10:47 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

2B02002

Description:	RSK-175 HC PDS 020212	**Expires:**	02/04/12
Standard Type:	Reference Material	**Prepared:**	02/02/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/12 10:03 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

2B02003

Description:	RSK-175 LCV1	**Expires:**	02/04/12
Standard Type:	Other Solution	**Prepared:**	02/02/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/12 10:04 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)
2B02002	RSK-175 HC PDS 020212	02/02/12	[redacted]	02/04/12	02/02/12 10:03 by RFH	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2B02004

Description:	RSK-175 LCV2	**Expires:**	02/04/12
Standard Type:	Other Solution	**Prepared:**	02/02/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/12 10:05 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)
2B02002	RSK-175 HC PDS 020212	02/02/12	[redacted]	02/04/12	02/02/12 10:03 by RFH	0.06

Analytical Standard Record

EPA Region 9 Laboratory

2B02005

Description:	RSK-175 CCV	**Expires:**	02/04/12
Standard Type:	Other Solution	**Prepared:**	02/02/12
Solvent:	N2	**Prepared By:**	[redacted]
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/12 10:05 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