United States Environmental Protection Agency
Region 9 Laboratory

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

Date: 2/2/2012

Subject: Analytical Testing Results - Project R33911
SDG: 12027B

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

DIM0275662

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:** 12027B
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/02/12 12:51
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
FB01	1201031-01	Water	01/23/12 14:42	01/27/12 09:52
FB02	1201031-02	Water	01/24/12 12:11	01/27/12 09:52
HW04	1201031-03	Water	01/24/12 14:33	01/27/12 09:52
HW19	1201031-04	Water	01/23/12 17:47	01/27/12 09:52
HW19-P	1201031-05	Water	01/23/12 19:07	01/27/12 09:52
TB01	1201031-06	Water	01/23/12 12:30	01/27/12 09:52
FB03	1201033-01	Water	01/25/12 10:01	01/28/12 10:05
HW02	1201033-02	Water	01/25/12 12:58	01/28/12 10:05
HW02z	1201033-03	Water	01/25/12 12:59	01/28/12 10:05
HW08a	1201033-04	Water	01/25/12 11:46	01/28/12 10:05

SDG ID 12027B

Work Order(s)

1201031

1201033

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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12027B
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/02/12 12:51
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201031-01									**Water - Sampled: 01/23/12 14:42**
Sample ID: FB01									**Dissolved Gases by RSK-175**
Methane		0.7	B1, C1, J	1.2	ug/L	B2A0067	01/27/12	01/27/12	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: 1201031-02									**Water - Sampled: 01/24/12 12:11**
Sample ID: FB02									**Dissolved Gases by RSK-175**
Methane		1.1	B1, C1, J	1.2	ug/L	B2A0067	01/27/12	01/27/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			111 %	*66.4-153%*		"	"	"	
Lab ID: 1201031-03									**Water - Sampled: 01/24/12 14:33**
Sample ID: HW04									**Dissolved Gases by RSK-175**
Methane	RE1	1,700		13	ug/L	B2A0075	01/30/12	01/30/12	RSK-175/SOP325
Ethane		25		1.2	"	B2A0067	01/27/12	01/27/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			111 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		116 %	*66.4-153%*		*B2A0075*	*01/30/12*	*01/30/12*	
Lab ID: 1201031-04									**Water - Sampled: 01/23/12 17:47**
Sample ID: HW19									**Dissolved Gases by RSK-175**
Methane		2.0	B1, J	1.2	ug/L	B2A0067	01/27/12	01/27/12	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: 1201031-05									**Water - Sampled: 01/23/12 19:07**
Sample ID: HW19-P									**Dissolved Gases by RSK-175**
Methane		1.0	B1, C1, J	1.2	ug/L	B2A0067	01/27/12	01/27/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			111 %	*66.4-153%*		"	"	"	
Lab ID: 1201031-06									**Water - Sampled: 01/23/12 12:30**
Sample ID: TB01									**Dissolved Gases by RSK-175**
Methane		0.9	B1, C1, J	1.2	ug/L	B2A0067	01/27/12	01/27/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			113 %	*66.4-153%*		"	"	"	

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12027B
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/02/12 12:51
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201033-01									**Water - Sampled: 01/25/12 10:01**
Sample ID: FB03									**Dissolved Gases by RSK-175**
Methane		0.8	B1, C1, J	1.2	ug/L	B2A0075	01/30/12	01/30/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			109 %	*66.4-153%*		"	"	"	
Lab ID: 1201033-02									**Water - Sampled: 01/25/12 12:58**
Sample ID: HW02									**Dissolved Gases by RSK-175**
Methane	RE3	18,000		150	ug/L	B2A0075	01/30/12	01/31/12	RSK-175/SOP325
Ethane	RE1	500		13	"	"	"	01/30/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	01/30/12	RSK-175/SOP325
Surrogate: Acetylene			109 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		108 %	*66.4-153%*		"	"	*01/30/12*	
Surrogate: Acetylene	*RE3*		91 %	*66.4-153%*		"	"	*01/31/12*	
Lab ID: 1201033-03									**Water - Sampled: 01/25/12 12:59**
Sample ID: HW02z									**Dissolved Gases by RSK-175**
Methane	RE3	13,000		150	ug/L	B2A0075	01/30/12	01/31/12	RSK-175/SOP325
Ethane	RE1	570		13	"	"	"	01/30/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	01/30/12	RSK-175/SOP325
Surrogate: Acetylene			107 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		112 %	*66.4-153%*		"	"	*01/30/12*	
Surrogate: Acetylene	*RE3*		100 %	*66.4-153%*		"	"	*01/31/12*	
Lab ID: 1201033-04									**Water - Sampled: 01/25/12 11:46**
Sample ID: HW08a									**Dissolved Gases by RSK-175**
Methane	RE2	9,200		130	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane	RE2	350		130	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	B2A0075	01/30/12	01/30/12	RSK-175/SOP325
Surrogate: Acetylene			109 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE2*		94 %	*66.4-153%*		*B2A0080*	*01/31/12*	*01/31/12*	

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/02/12 12:51
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 B2A0067 - RSK175 - Dissolved HC Gases									**Prepared & Analyzed: 01/27/12**	
									Dissolved Gases by RSK-175 - Quality Control	
Blank (B2A0067-BLK1)										
Methane	0.7	C1, J	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*70.9*			"	*66.5*		107	*66.4-153*		
LCS (B2A0067-BS1)										
Methane	39.1		1.2	ug/L	44.1		89	70-130		200
Ethane	77.3		1.2	"	83.2		93	77-137		200
Ethene	73.8		1.1	"	78.3		94	78-138		200
Surrogate: Acetylene	*72.9*			"	*72.0*		101	*66.4-153*		
Batch B2A0075 - RSK175 - Dissolved HC Gases									**Prepared & Analyzed: 01/30/12**	
									Dissolved Gases by RSK-175 - Quality Control	
Blank (B2A0075-BLK1)										
Methane	0.8	C1, J	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*77.7*			"	*66.5*		117	*66.4-153*		
LCS (B2A0075-BS1)										
Methane	39		1.2	ug/L	44.1		88	70-130		200
Ethane	77.5		1.2	"	83.2		93	77-137		200
Ethene	72.5		1.1	"	78.3		93	78-138		200
Surrogate: Acetylene	*66.2*			"	*72.0*		92	*66.4-153*		
Batch B2A0080 - RSK175 - Dissolved HC Gases									**Prepared: 01/31/12 Analyzed: 02/01/12**	
									Dissolved Gases by RSK-175 - Quality Control	
Blank (B2A0080-BLK1)										
Methane	0.7	C1, J	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*77.8*			"	*66.5*		117	*66.4-153*		
LCS (B2A0080-BS1)										
Methane	45.5		1.2	ug/L	44.1		103	70-130		200
Ethane	89.8		1.2	"	83.2		108	77-137		200
Ethene	82.8		1.1	"	78.3		106	78-138		200
Surrogate: Acetylene	*74.5*			"	*72.0*		103	*66.4-153*		

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/02/12 12:51
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 ~~3~~ 2, 2012

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

FROM: Ziyad Rajabi, 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 12027B, Work Orders 1201031 and 1201033 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:	**12027B**
Work Order:	**1201031 and 1201033**
ESAT DCN:	**14460**

Contents

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

Sections in italics are included as applicable

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REVIEW FORMS

General Project Management and ESAT Contractor Oversight Review

Project Number: R33911

SDG: 11027B

Analysis: dissolved gasses

Number of Pages: 189

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: Check prep date time for 1201031-03RE1, batch B2A0075. should be same as rest of batch? FIXED 2/2/12

Reviewer Signature _____ Date 2/2/12

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WORK ORDER NOTES - 1201031

1201031 US EPA Region 3 Eastern Response
Dimock Residential Groundwater

TPH DRO: Small background contamination in the blank. Contamination is < ½ QL. No affect on sample results is anticipated. MS/MSD were not extracted due to insufficient amount of samples. TD 02/01/12

RSK-175: Small amount of methane contamination in the method blanks, < QL.
MS/MSD was not run due to insufficient sample volume. RH 02/01/12

00003A

00011

ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** Dissolved Gasses | **TDF:** 01001084 | **Matrix:** water
DCN: 14460 | **Site:** Dimock Residential Groundwater Site | **SDG:** 11027B

ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

Reviewer:	Package Prep (P): RH	Technical (T):	Final (F):
	Date: 2/1/12	Date: 2/2/12	Date: 2/2/12

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

ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** Dissolved Gasses | **TDF:** 01001084 | **Matrix:** water
DCN: 14460 | **Site:** Dimock Residential Groundwater Site | **SDG:** 11027B

2 R-14 2/1/12

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 storage blank to be included in data package
☑ ☑ ☑ 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)

WORK ORDER NOTES - 1201033

1201033 - US EPA Region 9 Eastern Regional
Dimitri Residential Groundwater

Vials 1201033-04G and 1201033-04H were received in a separate shipment on 1/30/12. These vials have the sample sample designation, collection time and date, and sample tag numbers as sample vials 1201033-04C and 1201033-04D that were received 1/28/12. They were added to this work order. Cooler 2 was added to this work order, and is the same cooler 2 on work order 1201034. - rjb 1/30/12.

TPH DRO: Small background contamination in the blank. Contamination is < ½ QL. No affect on sample results is anticipated. MS/MSD were not extracted due to insufficient amount of samples. TD 02/01/12

RSK-175: Small amount of methane contamination in the method blanks, < QL.
MS/MSD was not run due to insufficient sample volume. RH 02/01/12

Organics Daily Folder Preparation/Technical Review Guide

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

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

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

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

Non-conformance Report

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

G:\USER\ESAT\1 Organic Group\daily review RSK175.doc

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	**Dissolved Gasses**	**Analyst Initial**	RH	**Reviewer Initial**	[illegible]	**Batch/ Sequence**	2010045/B2A0067
Instrument ID	**AG6890N-6**	**Date Analyzed**	1/27/12	**Date**	02/01/12	**Chemstation Last Update**	1/27/12 1:26:56
Cases	**R33911**			**SDGs**	11027B 2 RH 1/31/12		

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

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

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

Non-conformance Report

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

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

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	Dissolved Gasses	Analyst Initial	RH	Reviewer Initial	[illegible]	Batch/ Sequence	2010051/B2A0075
Instrument ID	AG6890N-6	Date Analyzed	1/30/12	Date	2/1/12	Chemstation Last Update	1/27/12 1:26:56
Cases	R33911			SDGs	11027B 2 RH 1/31/12		

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: Autosampler stopped prior to injecting closing CV. Restarted closing OK. [illegible] 2/1/12

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

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	Dissolved Gasses	Analyst Initial	RA	Reviewer Initial	[illegible]	Batch/ Sequence	2010054/B2A0080
Instrument ID	AG6890N-6	Date Analyzed	1/31/12	Date	2/1/12	Chemstation Last Update	1/27/12 1:26:56
Cases	R33911			SDGs	11027B, 12030A		

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

C:\Users\rhopeman\Documents\daily review_rsk_.doc

USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R33911
SDG: 12027B
Analysis: Dissolved Gasses

Analyst: RH
Reviewer:

Sample ID	Sample Runs		
Instrument:	AG6890N-6	AG6890N-6	AG6890N-6
Analysis Date:	1/27/2012	1/30/2012	1/31/2012
Sequence:	2010045	2010051	2010054
1201031-01	RPT		
1201031-02	RPT		
1201031-03	C1 OC		
1201031-03RE1 1.5ML		RPT C01	
1201031-04	RPT		
1201031-05	RPT		
1201031-06	RPT		
B2A0067-BLK1	RPT		
B2A0067-BS1	RPT		
1201033-01	RPT		
1201033-02	C1, 4 OC		
1201033-02RE1 1.5ML		RPT C4, C1 OC	
1201033-02RE2 0.125ML		NU INCONSISTENT DILUTION	
1201033-02RE3 0.125ML		RPT C01	
1201033-03	C1, 4 OC		
1201033-03RE1 1.5ML		RPT C4, C1 OC	
1201033-03RE2 0.125ML		NU INCONSISTENT DILUTION	
1201033-03RE3 0.125ML		RPT C01	
1201033-04	C1, 4 OC		
1201033-04RE1 0.125ML		NU NO SURROGATE	
1201033-04RE2 0.15ML			RPT C1, 4
B2A0075-BLK1		RPT	
B2A0075-BS1		RPT	

Definitions

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

00019

SAMPLE TRACKING FORMS

00012

DIM0275662

DIM0275681

WORK ORDER

Printed: 1/27/2012 1:04:36PM

1201031

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	Default Cooler	3	Yes	Yes	Yes	No	Yes	
2Cooler	Default Cooler	2	Yes	Yes	Yes	No	Yes	

12027B 2/2/12

Date Due:	02/17/12 15:00 (21 day TAT)	SDG:	12027B
Received By:	Richard Bauer	Date Received:	01/27/12 09:52
Logged In By:	Garrett Peterson	Date Logged In:	01/27/12 10:22

Analysis	Hold Time Expires	Comments
1201031-01 FB01 [Water] Sampled 01/23/12 14:42 Pacific		
TPH - Extractable	01/30/12	
Dissolved HC Gases	02/06/12	5 day prelim results
TPH - Purgeable	02/06/12	
1201031-02 FB02 [Water] Sampled 01/24/12 12:11 Pacific		
TPH - Extractable	01/31/12	
TPH - Purgeable	02/07/12	
Dissolved HC Gases	02/07/12	5 day prelim results
1201031-03 HW04 [Water] Sampled 01/24/12 14:33 Pacific		
TPH - Purgeable	02/07/12	
TPH - Extractable	01/31/12	
Dissolved HC Gases	02/07/12	5 day prelim results
1201031-04 HW19 [Water] Sampled 01/23/12 17:47 Pacific		
TPH - Purgeable	02/06/12	
Dissolved HC Gases	02/06/12	5 day prelim results
TPH - Extractable	01/30/12	
1201031-05 HW19-P [Water] Sampled 01/23/12 19:07 Pacific		
TPH - Extractable	01/30/12	
TPH - Purgeable	02/06/12	
Dissolved HC Gases	02/06/12	5 day prelim results

DIM0275662 DIM0275682

1201031

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
1201031-06 TB01 [Water] Sampled 01/23/12 12:30 Pacific		
Dissolved HC Gases	02/06/12	5 day prelim results

Reviewed By

Date

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case	
Client No:	CT5865
SDG No:	

L

		Chain of Custody Record				For Lab Use Only
Date Shipped:	1/26/2012	Relinquished By	(Date / Time)	Sampler Signature: B. Burns for Tom Sedlacek	Received By	(Date / Time)	Lab Contract No:
Carrier Name:	FedEx	1 PB Burns	1/26/12 08:00		Red Ex 841769084279		Unit Price:
Airbill:	8417 6908 4279	2					Transfer To:
Shipped to:	US EPA Region 9 Lab 1337 South 46th Street, Bldg 201 Richmond CA 94804 (510) 412-2389	3					Lab Contract No:
		4 Red EX	→		RJM 1/27/12 0952		Unit Price:

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		FOR LAB USE ONLY Sample Condition On Receipt
FB02	Aqueous/ Tom Sedlacek	L/G	DRO (7)	192 (-NA- / 1000mlAmber), 193 (-NA- / 1000mlAmber) (2)	FB02	S: 1/24/2012	12:11	
HW04	Drinking Water/ Mike Ferrier	L/G	DRO (7)	146 (-NA- / 1000mlAmber), 147 (-NA- / 1000mlAmber) (2)	HW04	S: 1/24/2012	14:33	

Cooler #1

00022

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): B. Burns for Mike Ferrier	Cooler Temperature Upon Receipt: 3°C	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? YES / Shipment Iced? YES
DRO = 11-Diesel Range Organics				

TR Number: 3-043013577-012512-0009

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

F2V51.047 Page 1 of 1

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case	
Client No:	CT5865
BDG No:	

L

		Chain of Custody Record		Sampler Signature: B. Burns for Bryan Berna	For Lab Use Only
Date Shipped:	1/25/2012	Relinquished By	(Date / Time)	Received By	(Date / Time)
Carrier Name:	FedEx	1 B. Burns	1/25/12 16:20	FedEx 7931 5621 5581	Lab Contract No:
Airbill:	7931 5621 5581	2			Unit Price:
Shipped to:	US EPA Region 9 Lab, 1337 South 46th Street, Bldg 201, Richmond CA 94804, (510) 412-2389	3			Transfer To:
		4 FedEx		RMB 1/27/12 0952	Lab Contract No:
					Unit Price:

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	FOR LAB USE ONLY Sample Condition On Receipt
FB01	Aqueous/ Bryan Berna	L/G	DRO (7), GRO (7), RSK-175 (7)	167 (HCl / 40mlGlassVial), 168 (HCl / 40mlGlassVial), 80 (-NA- / 1000mlAmber), 81 (-NA- / 1000mlAmber), 84 (HCl / 40mlGlassVial), 85 (HCl / 40mlGlassVial) (6)	FB01	S: 1/23/2012 14:42	
FB02	Aqueous/ Tom Sedlacek	L/G	GRO (7), RSK-175 (7)	169 (HCl / 40mlGlassVial), 170 (HCl / 40mlGlassVial), 195 (HCl / 40mlGlassVial), 196 (HCl / 40mlGlassVial) (4)	FB02	S: 1/24/2012 12:11	Cooler #2
HW04	Drinking Water/ Mike Ferrier	L/G	GRO (7), RSK-175 (7)	148 (HCl / 40mlGlassVial), 149 (HCl / 40mlGlassVial), 150 (HCl / 40mlGlassVial), 151 (HCl / 40mlGlassVial) (4)	HW04	S: 1/24/2012 14:33	00023
HW19	Drinking Water/ Mike Ferrier	L/G	DRO (7), GRO (7), RSK-175 (7)	100 (-NA- / 1000mlAmber), 101 (HCl / 40mlGlassVial), 102 (HCl / 40mlGlassVial), 171 (HCl / 40mlGlassVial), 172 (HCl / 40mlGlassVial), 99 (-NA- / 1000mlAmber) (6)	HW19	S: 1/23/2012 17:47	
HW19-P	Drinking Water/ Mike Ferrier	L/G	DRO (7), GRO (7), RSK-175 (7)	114 (-NA- / 1000mlAmber), 115 (-NA- / 1000mlAmber), 116 (HCl / 40mlGlassVial), 117 (HCl / 40mlGlassVial), 118 (HCl / 40mlGlassVial), 119 (HCl / 40mlGlassVial) (6)	HW19-P	S: 1/23/2012 19:07	

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): B. Burns for Tom Sedlacek; B. Burns for Mike Ferrier	Cooler Temperature Upon Receipt: 2°C	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Custody Seal Intact? YES	Shipment Iced? YES

DRO = 11-Diesel Range Organics, GRO = 11-Gasoline Range Organics, RSK-175 = 11-Dissolved Gases_Meth,Ethe,Etha

TR Number: 3-043013577-012512-0004

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case
Client No: CT5865
SDG No:
L

Date Shipped:	1/25/2012
Carrier Name:	FedEx
Airbill:	7931 5621 5581
Shipped to:	US EPA Region 9 Lab 1337 South 46th Street, Bldg 201 Richmond CA 94804 (510) 412-2389

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
B Burris	1/25/12 16:20	FedEx 7931 5621 5581	
2			
3			
4 FedEx		RM	1/26/12 0952

Sampler Signature: B Burris

For Lab Use Only
Lab Contract No:
Unit Price:
Transfer To:
Lab Contract No:
Unit Price:

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	FOR LAB USE ONLY Sample Condition On Receipt
TB01	Aqueous/ Brian Burris	L/G	RSK-175 (7)	6 (HCl / 40mlGlassVial), 7 (HCl / 40mlGlassVial) (2)	TB01	S: 1/23/2012 12:30	

cooler #2

Shipment for Case Complete ?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 2°C	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Yes / Shipment Iced? Yes

DRO = 11-Diesel Range Organics, GRO = 11-Gasoline Range Organics, RSK-175 = 11-Dissolved Gases_Meth,Ethe,Etha

TR Number: 3-043013577-012512-0004

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

F2/5.1.04T Page 2 of 2

DIM0275662

DIM0275686

00025

WORK ORDER

Printed: 1/30/2012 11:16:33AM

1201033

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	2	Yes	Yes	Yes	No	Yes	
2 Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	Received 1/30/12 0830

Date Due:	02/18/12 15:00 (21 day TAT)	SDG:	12027B
Received By:	Barbara Bates	Date Received:	01/28/12 10:05
Logged In By:	Richard Bauer	Date Logged In:	01/30/12 08:22

Analysis	Hold Time Expires	Comments
1201033-01 FB03 [Water] Sampled 01/25/12 10:01 Pacific		
Dissolved HC Gases	02/08/12	5 day prelim results
TPH - Extractable	02/01/12	
TPH - Purgeable	02/08/12	
1201033-02 HW02 [Water] Sampled 01/25/12 12:58 Pacific		
Dissolved HC Gases	02/08/12	5 day prelim results
TPH - Extractable	02/01/12	
TPH - Purgeable	02/08/12	
1201033-03 HW02z [Water] Sampled 01/25/12 12:59 Pacific		
Dissolved HC Gases	02/08/12	5 day prelim results
TPH - Extractable	02/01/12	
TPH - Purgeable	02/08/12	
1201033-04 HW08a [Water] Sampled 01/25/12 11:46 Pacific		
Dissolved HC Gases	02/08/12	5 day prelim results
TPH - Extractable	02/01/12	
TPH - Purgeable	02/08/12	

Reviewed By _____ Date _____

00016

DIM0275662

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case
Client No: CT5865
SDG No:
L

Date Shipped:	1/27/2012
Carrier Name:	FedEx
Airbill:	7931 6649 4730
Shipped to:	US EPA Region 9 Lab 1337 South 46th Street, Bldg 201 Richmond CA 94804 (510) 412-2389

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 [signature]	1/27/12 1700	Barbara Bates	1/28/12 1005
2			
3			
4			

Sampler Signature: [signature] for Joel Munson

For Lab Use Only
Lab Contract No:
Unit Price:
Transfer To:
Lab Contract No:
Unit Price:

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	FOR LAB USE ONLY Sample Condition On Receipt
FB03	Aqueous/ Joel Munson	L/G	DRO (7), GRO (7), RSK-175 (7)	254 (-NA- / 1000mlAmber), 255 (-NA- / 1000mlAmber), 256 (HCl / 40mlGlassVial), 257 (HCl / 40mlGlassVial), 258 (HCl / 40mlGlassVial), 259 (HCl / 40mlGlassVial) (6)	FB03	S: 1/25/2012 10:01	
HW02	Drinking Water/ Mike Ferrier	L/G	DRO (7), GRO (7), RSK-175 (7)	324 (-NA- / 1000mlAmber), 325 (-NA- / 1000mlAmber), 326 (HCl / 40mlGlassVial), 327 (HCl / 40mlGlassVial), 328 (HCl / 40mlGlassVial), 329 (HCl / 40mlGlassVial) (6)	HW02	S: 1/25/2012 12:58	
HW02z	Drinking Water/ Mike Ferrier	L/G	DRO (7), GRO (7), RSK-175 (7)	359 (-NA- / 1000mlAmber), 360 (-NA- / 1000mlAmber), 361 (HCl / 40mlGlassVial), 362 (HCl / 40mlGlassVial), 363 (HCl / 40mlGlassVial), 364 (HCl / 40mlGlassVial) (6)	HW02z	S: 1/25/2012 12:59	
HW08a	Drinking Water/ Bryan Berna	L/G	DRO (7), GRO (7), RSK-175 (7)	289 (-NA- / 1000mlAmber), 290 (-NA- / 1000mlAmber), 291 (HCl / 40mlGlassVial), 292 (HCl / 40mlGlassVial), 293 (HCl / 40mlGlassVial), 294 (HCl / 40mlGlassVial) (6)	HW08a	S: 1/25/2012 11:46	

00026

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): [signature] for Mike Ferrier, Bryan Berna	Cooler Temperature Upon Receipt: 2°C	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Custody Seal Intact? Y	Shipment Iced? Y

DRO = 11-Diesel Range Organics, GRO = 11-Gasoline Range Organics, RSK-175 = 11-Dissolved Gases_Meth:Ethe:Etha

TR Number: 3-043013577-012712-0003

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, Attn: Heather Baber, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819, Phone 703/818-4200, Fax 703/818-4602

F2/01.047 Page 1 of 1

DIM0275688

Sample Preparation

DIM0275662 DIM0275689

PREPARATION BENCH SHEET

B2A0067

EPA Region 9 Laboratory

'rinted: 1/27/2012 2:36:35PM

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
1201031-01 E	FB01	01/27/12 13:09	16.1	16.1				100	RFH	2			5 day prelim results
1201031-02 E	FB02	01/27/12 13:09	16.1	16.1				100	RFH	2			5 day prelim results
1201031-03 E	HW04	01/27/12 13:09	16.1	16.1				100	RFH	2			5 day prelim results
1201031-04 E	HW19	01/27/12 13:09	16.1	16.1				100	RFH	2			5 day prelim results
1201031-05 E	HW19-P	01/27/12 13:09	16.1	16.1				100	RFH	2			5 day prelim results
1201031-06 A	TB01	01/27/12 13:09	16.1	16.1				100	RFH	2			5 day prelim results
B2A0067-BLK1	Blank	01/27/12 13:09	16.1	16.1				100	RFH				
B2A0067-BS1	LCS	01/27/12 13:09	16.1	16.1	0L07008		100		RFH				

00028

Reagents

Reagent #	Description

Preparation Reviewed By — Date 2/1/12

PREPARATION BENCH SHEET

B2A0075

EPA Region 9 Laboratory

Printed: 2/2/2012 12:47:07PM

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
1201031-03RE1 F	HW04	01/30/12 14:56	1.5	16.1				100	RFH	2			5 day prelim results
1201033-01 C	FB03	01/30/12 14:56	16.1	16.1				100	RFH	2			5 day prelim results
1201033-02 C	HW02	01/30/12 14:56	16.1	16.1				100	RFH	2			5 day prelim results
1201033-02RE1 C	HW02	01/30/12 14:56	1.5	16.1				100	RFH	2			5 day prelim results
1201033-02RE2 C	HW02	01/30/12 14:56	0.13	16.1				100	RFH	2			5 day prelim results
1201033-02RE3 D	HW02	01/30/12 14:56	0.13	16.1				100	RFH	2			5 day prelim results
1201033-03 C	HW02z	01/30/12 14:56	16.1	16.1				100	RFH	2			5 day prelim results
1201033-03RE1 C	HW02z	01/30/12 14:56	1.5	16.1				100	RFH	2			5 day prelim results
1201033-03RE2 C	HW02z	01/30/12 14:56	0.13	16.1				100	RFH	2			5 day prelim results
1201033-03RE3 D	HW02z	01/30/12 14:56	0.13	16.1				100	RFH	2			5 day prelim results
1201033-04 C	HW08a	01/30/12 14:56	16.1	16.1				100	RFH	2			5 day prelim results
1201033-04RE1 C	HW08a	01/30/12 14:56	0.13	16.1				100	RFH	2			5 day prelim results
B2A0075-BLK1	Blank	01/30/12 14:56	16.1	16.1				100	RFH				
B2A0075-BS1	LCS	01/30/12 14:56	16.1	16.1	0L07008		100		RFH				

Preparation Reviewed By — Date: 2/2/12

PREPARATION BENCH SHEET

B2A0075

EPA Region 9 Laboratory

Printed: 2/2/2012 12:47:07PM

Project: -

Matrix: Water **Analysis:QC** **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

Reagents

Reagent #	Description

Preparation Reviewed By Date

PREPARATION BENCH SHEET

B2A0075

EPA Region 9 Laboratory

Project: -

'rinted: 1/31/2012 3:21:50PM

Matrix: Water **Analysis:QC** **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

Reagents

Reagent #	Description

00036

122021

Preparation Reviewed By 2/1/12 Date

DIM0275662

DIM0275693

PREPARATION BENCH SHEET

B2A0080

EPA Region 9 Laboratory

Printed: 2/2/2012 9:50:45AM

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
1201033-04RE2 C	HW08a	01/31/12 13:57	0.15	16.1				100	RFH	2			5 day prelim results
1201034-01 E	FB04	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-02 E	HW05	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-03 E	HW06	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-04 E	HW12	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-05 E	HW14-P	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-06 E	HW14	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-07 A	TB04	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-08 A	TB05	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-09 E	FB05	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-11 E	HW24-P	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-12 A	TB02	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-13 A	TB03	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-14 A	TB07	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results

00031

Preparation Reviewed By — Date: 2/2/12

PREPARATION BENCH SHEET

B2A0080

EPA Region 9 Laboratory

Project: R33911 - Dimock Residential Groundwater

Printed: 2/2/2012 9:50:45AM

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
1201034-15 E	HW17	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-16 E	HW24	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
1201034-17 A	TB06	01/31/12 13:57	16.1	16.1				100	RFH	2			5 day prelim results
B2A0080-BLK1	Blank	01/31/12 13:57	16.1	16.1				100	RFH				
B2A0080-BS1	LCS	01/31/12 13:57	16.1	16.1	0L07008		100		RFH				

00032

Reagents

Reagent # **Description**

00022A
2/3/12

Preparation Reviewed By 2/2/12 Date

DIM0275662

DIM0275695

INITIAL CALIBRATION

Injection Log

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

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

Compound List Report AG6890N-6

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

Total Cpnds : 4

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

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

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

RESPONSE FACTOR REPORT AG6890N-6

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

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

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

00836

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.

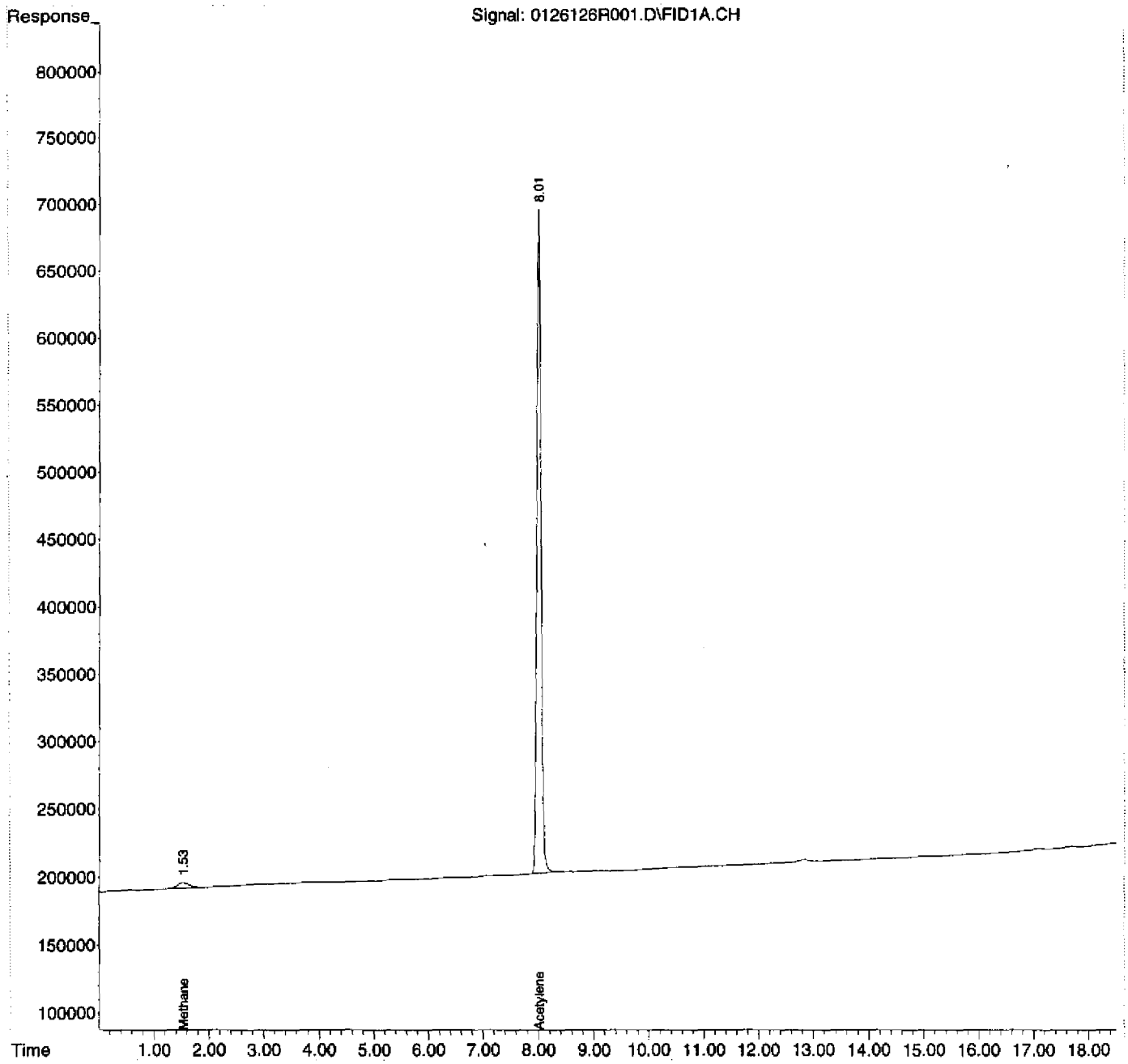
DIM0275662 DIM0275702

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.

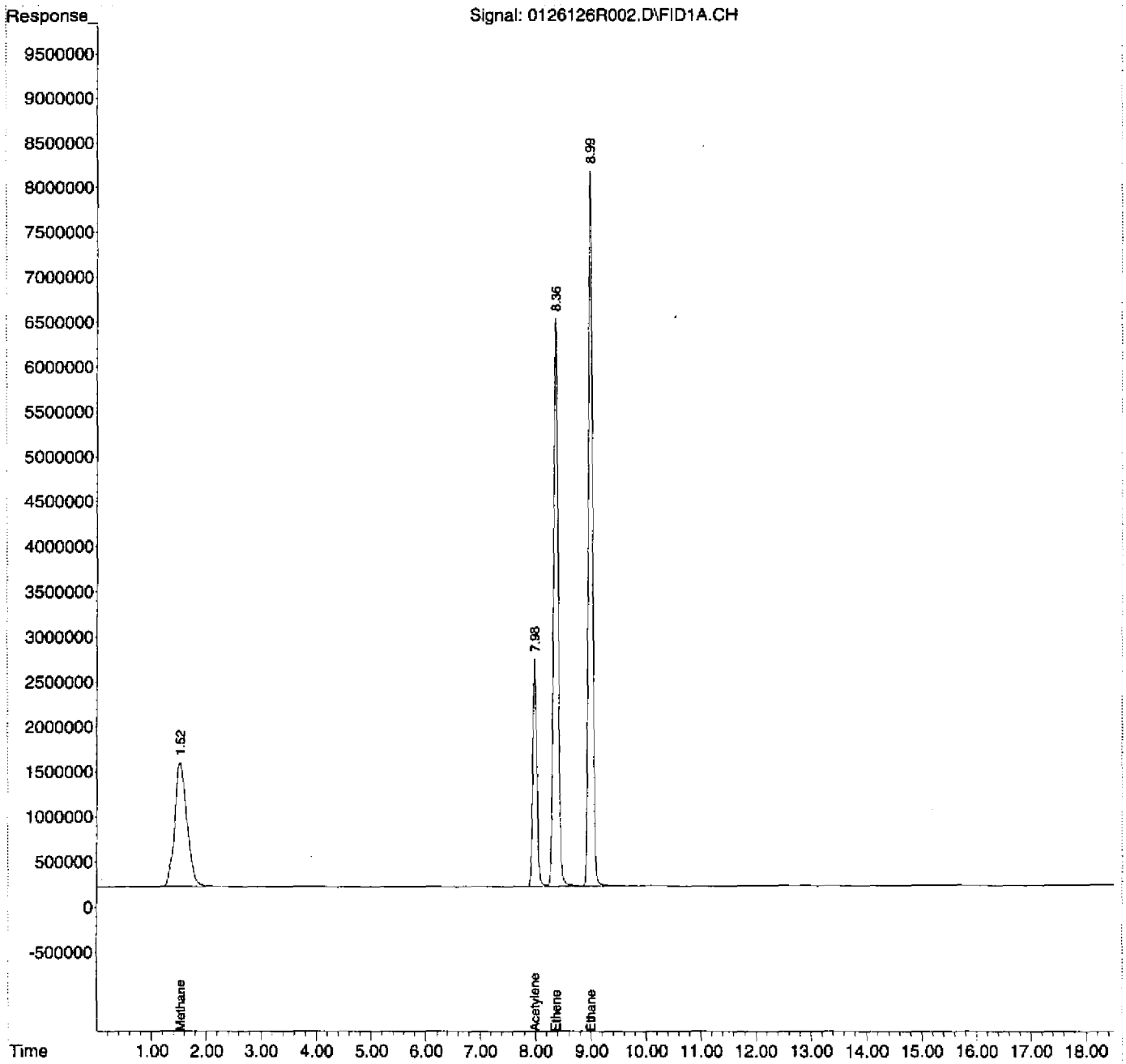
DIM0275662 DIM0275704

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



DIM0275662 DIM0275705

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.

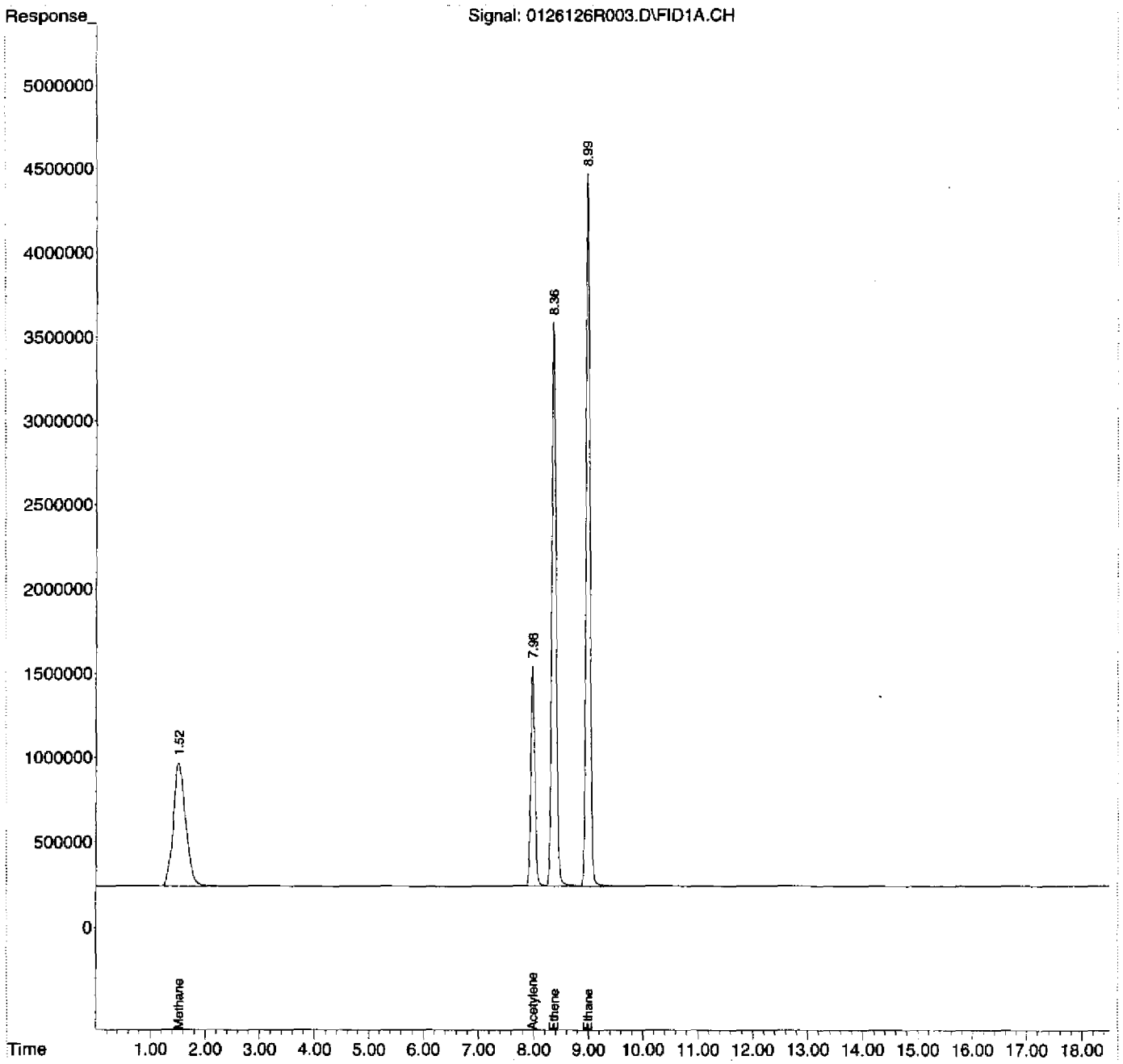
DIM0275662 DIM0275706

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.

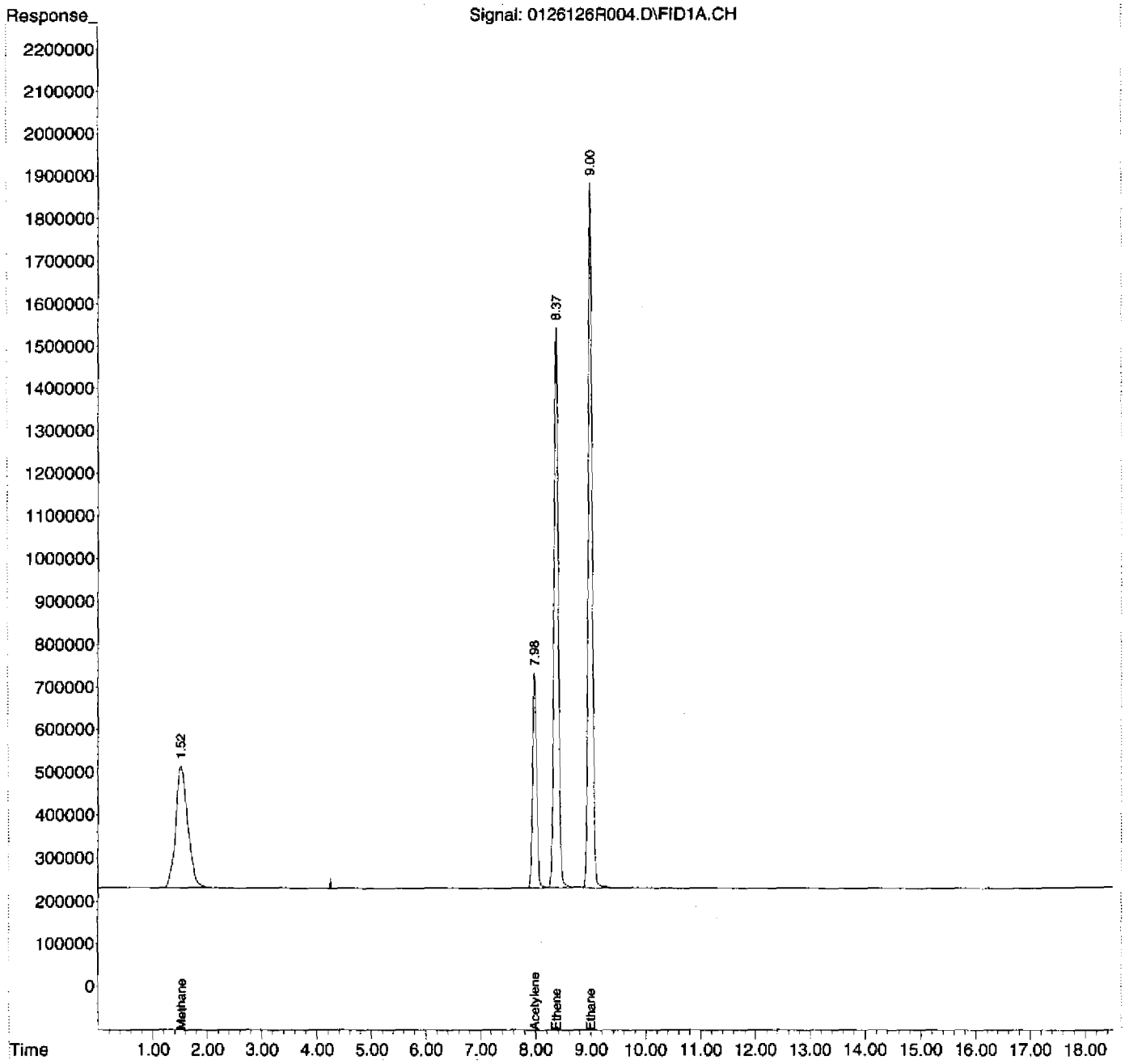
DIM0275662 DIM0275708

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.

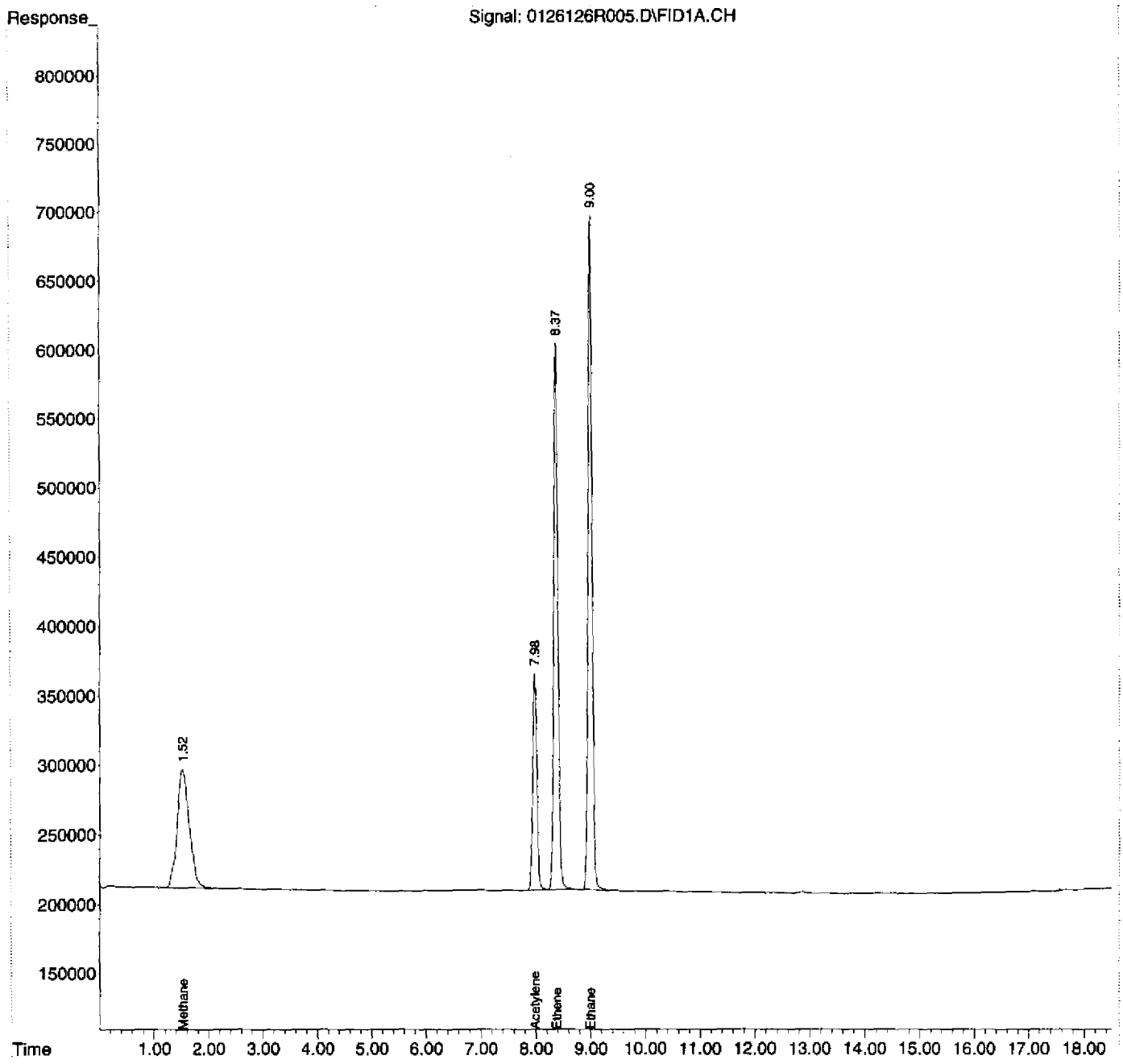
00035A

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.

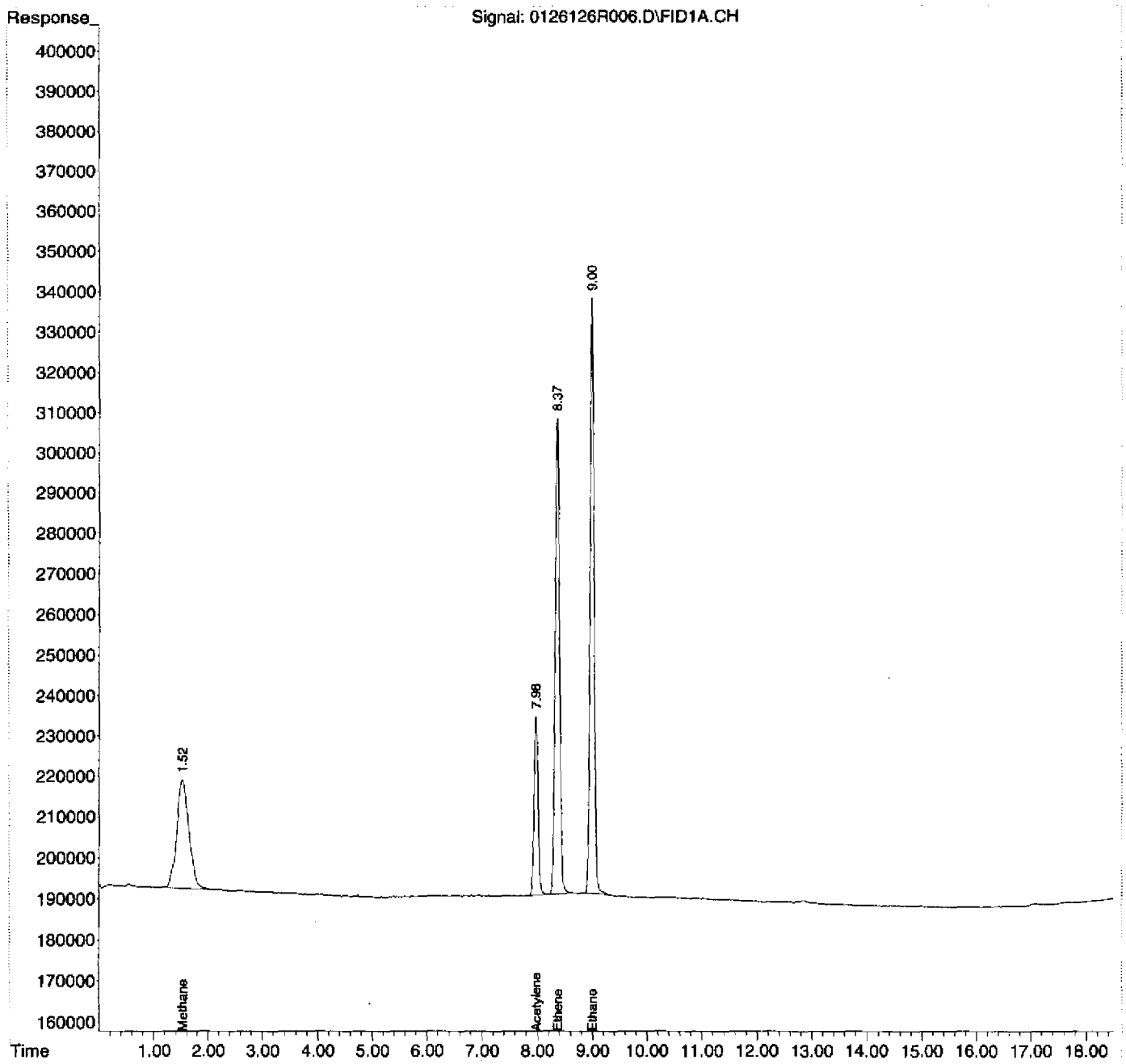
DIM0275662 DIM0275712

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.

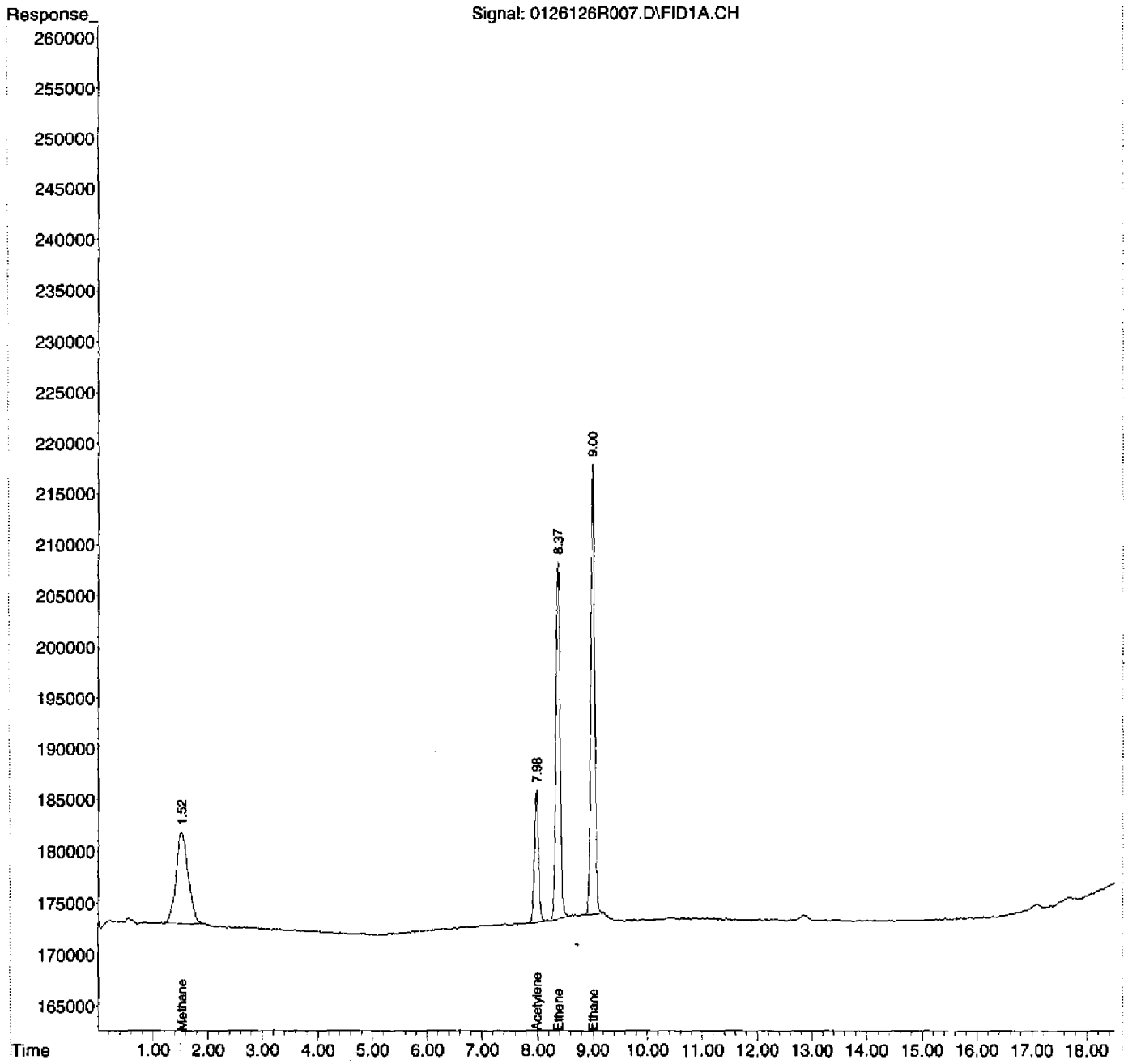
DIM0275662 DIM0275714

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

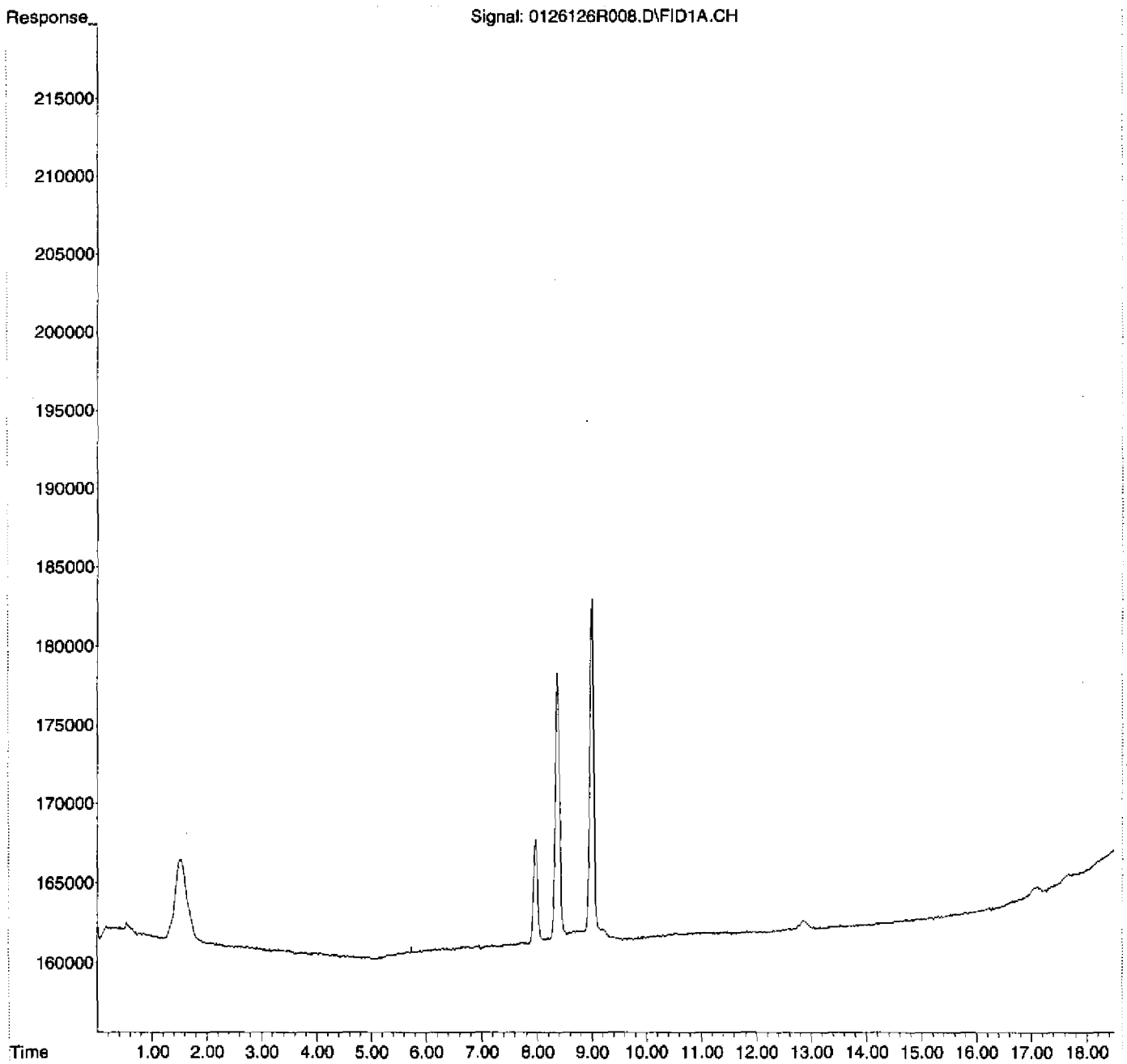
(f)=RT Delta > 1/2 Window (m)=manual int.

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.

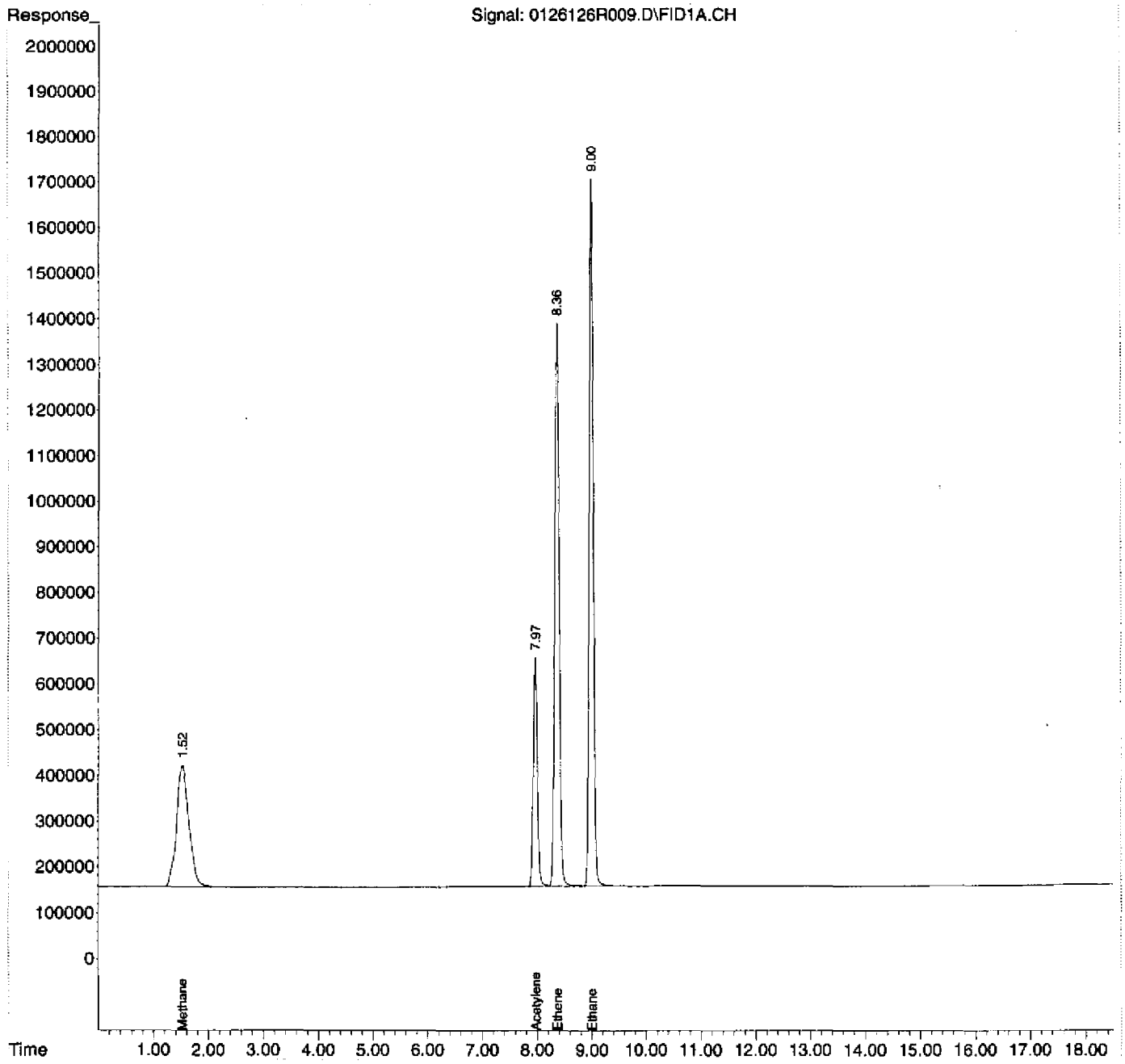
DIM0275662 DIM0275719

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

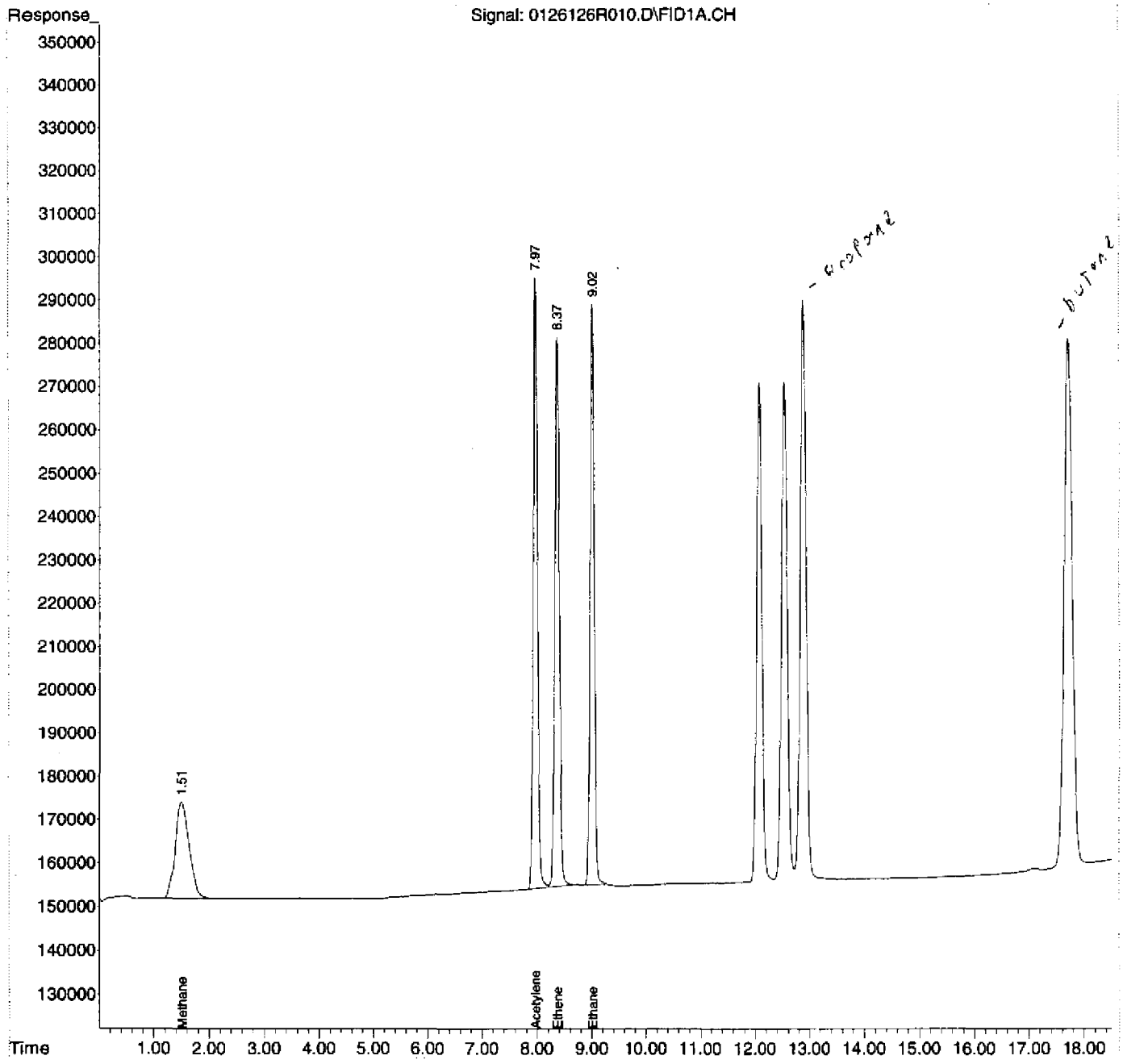
(f)=RT Delta > 1/2 Window (m)=manual int.

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.

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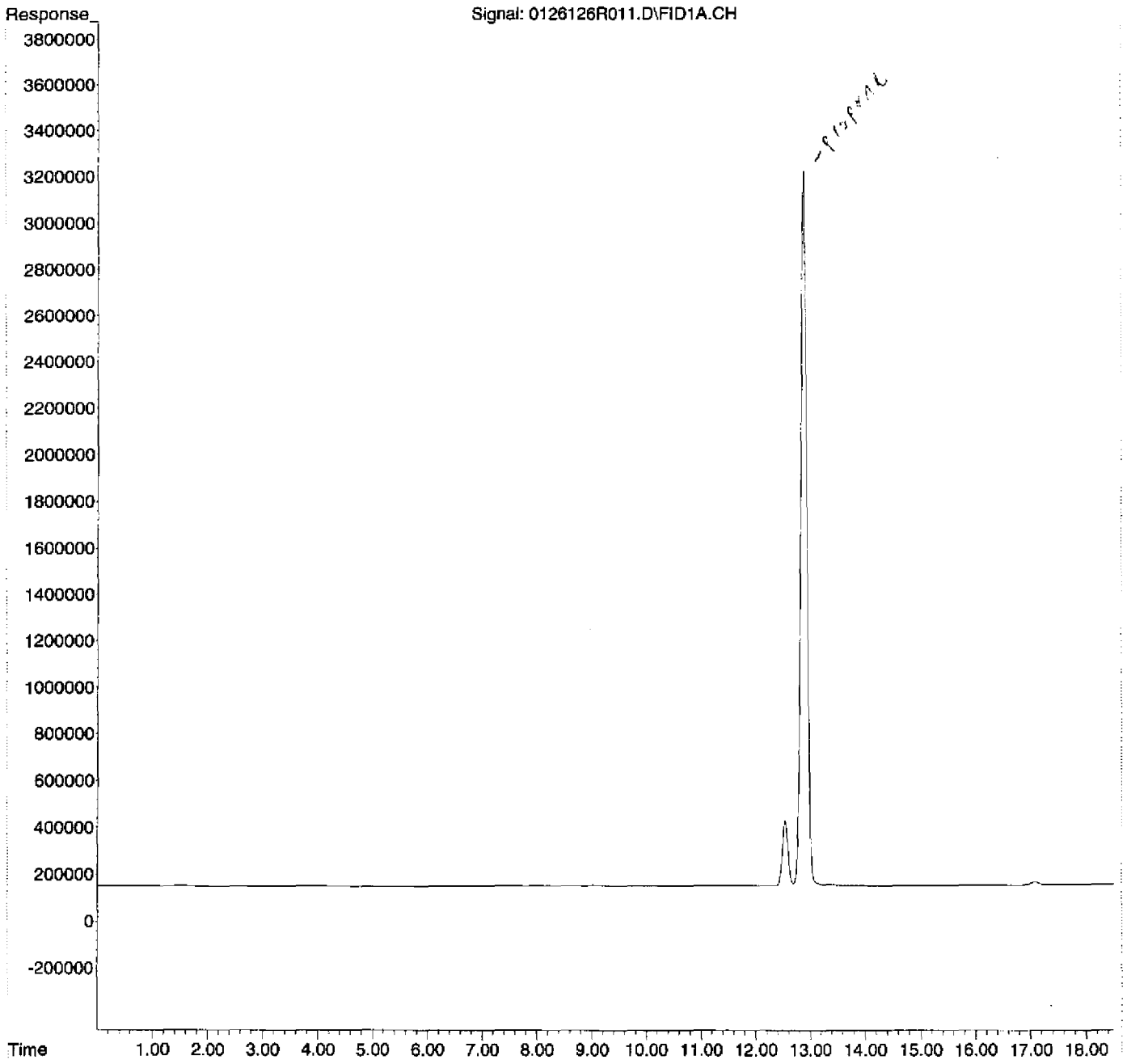
Quantitation Report (Not Reviewed)

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.

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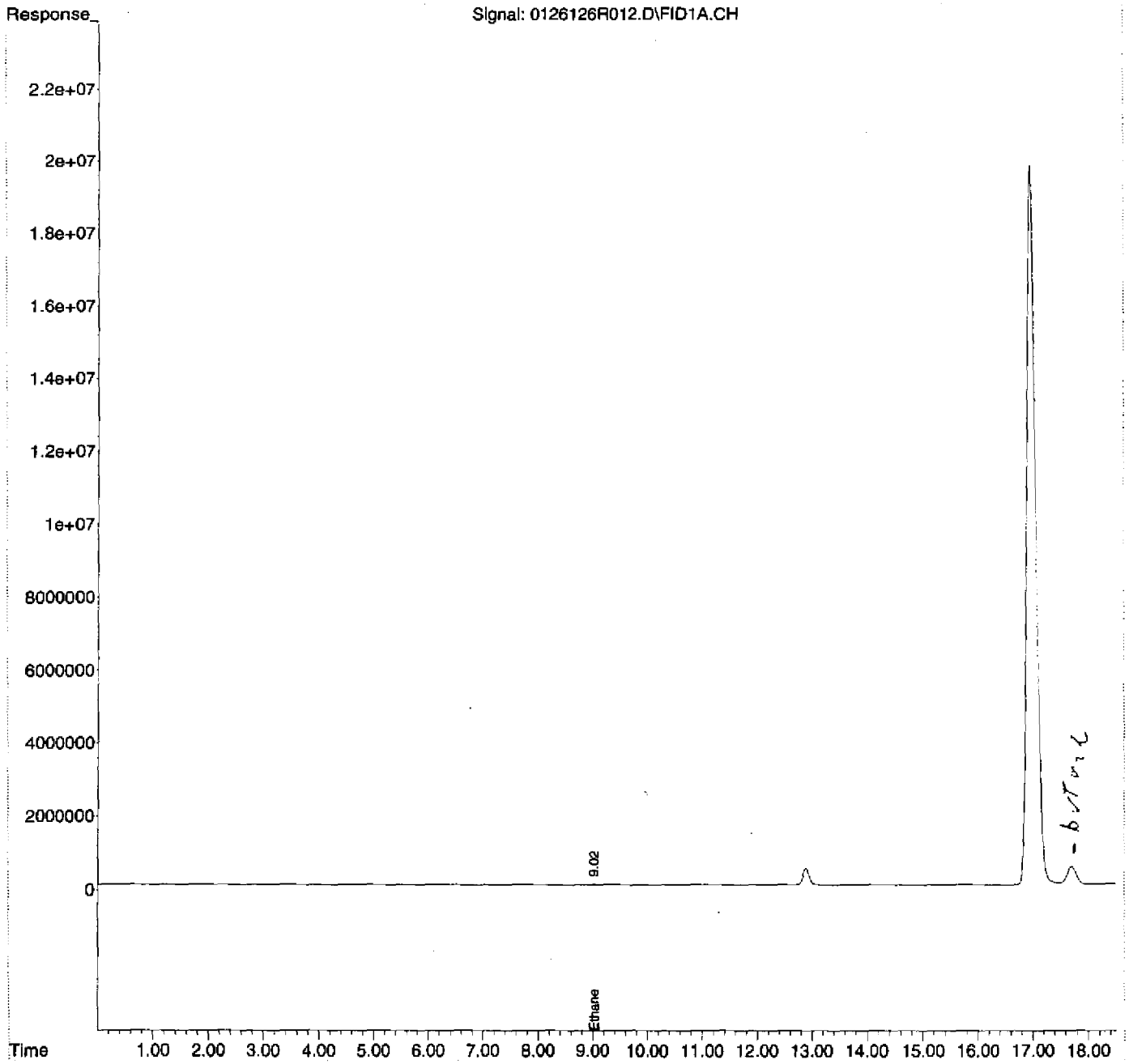
Quantitation Report (Not Reviewed)

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



DIM0275726

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SDG: 12027B

Instrument: AG6890N-6

Analysis Date: 1/27/12

SAMPLE DATA

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

Injection Log

Operator: rh
Directory: D:\MSDCHEM\1\2012\DATA\012712RSK\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	0127126R01.D	0	2010045-CCV1	2A27016	27 Jan 2012 3:06 pm
2	0127126R02.D	0	2010045-LCV1	2A27013	27 Jan 2012 3:34 pm
3	0127126R03.D	0	2010045-LCV2	2A27014	27 Jan 2012 4:10 pm
4	0127126R04.D	0	B2A0067-BLK1		27 Jan 2012 4:38 pm
4	0127126R05.D	0	B2A0067-BLK1		27 Jan 2012 5:14 pm
5	0127126R06.D	0	B2A0067-BS1		27 Jan 2012 5:42 pm
6	0127126R07.D	0	1201031-01	FB01	27 Jan 2012 6:18 pm
7	0127126R08.D	0	1201031-02	FB02	27 Jan 2012 6:45 pm
8 •	0127126R09.D	0	1201031-03	HW04	27 Jan 2012 7:21 pm
9	0127126R10.D	0	1201031-04	HW19	27 Jan 2012 7:48 pm
10	0127126R011.D	0	1201031-05	HW19-P	27 Jan 2012 8:23 pm
11	0127126R012.D	0	1201031-06	TB01	27 Jan 2012 8:49 pm
12	0127126R013.D	0	2010045-CCV2	2A27016	27 Jan 2012 9:16 pm
13	0127126R014.D	0	2010045-CCV3	2A27016	27 Jan 2012 9:50 pm

Response Factor Report AG6890N-6

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

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

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

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

GC QA-QC Check Report

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

File	Sample	Surrogate Recovery %
0127126R01.D	2010045-CCV1	33*
0127126R011.	1201031-05	111
0127126R012.	1201031-06	113
0127126R013.	2010045-CCV2	32*
0127126R014.	2010045-CCV3	35*
0127126R02.D	2010045-LCV1	1*
0127126R03.D	2010045-LCV2	3*
0127126R04.D	B2A0067-BLK1	107
0127126R05.D	B2A0067-BLK1	110
0127126R06.D	B2A0067-BS1	110
0127126R07.D	1201031-01	110
0127126R08.D	1201031-02	111
0127126R09.D	1201031-03	111
0127126R10.D	1201031-04	110

(fail's) - fails 24hr time check * - fails criteria

Created: Tue Jan 31 10:43:11 2012 AG6890N-6

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 3:06 pm
Operator : rh
Sample : 2010045-CCV1
Misc : 2A27016
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 27 15:26:02 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	0.904 E6	11.2	90	0.00
2 S	Acetylene	349.516	358.005 E3	-2.4	97	0.00
3 TM	Ethene	887.936	825.322 E3	7.1	91	0.00
4 TM	Ethane	966.567	881.296 E3	8.8	89	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

$$\frac{358005 - 349516}{358005} \times 100 = 2.4\%$$

DIM0275662 DIM0275731

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 3:06 pm
Operator : rh
Sample : 2010045-CCV1
Misc : 2A27016
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 27 15:26:02 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	7.973	7750806	22.176 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	33.43%#
Target Compounds			
1) TM Methane	1.523	11961681	11.750 ug/L
3) TM Ethene	8.369	19357938	21.801 ug/L
4) TM Ethane	9.001	22015645	22.777 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.

22015645 / 966567 =

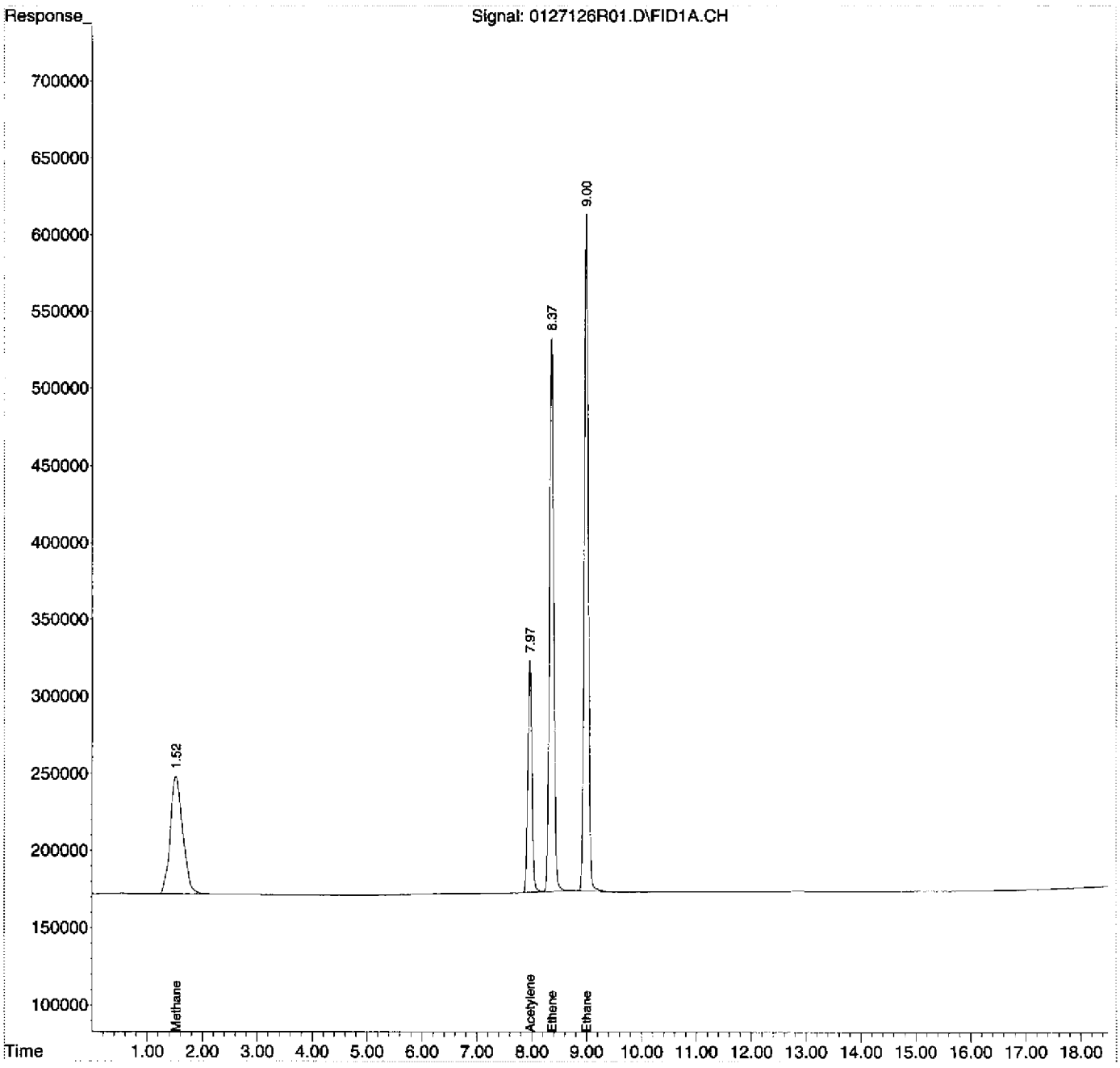
22.777

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 3:06 pm
Operator : rh
Sample : 2010045-CCV1
Misc : 2A27016
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 27 15:26:02 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: 0127126R0
File Name LCV2: 0127126R0
Date Acquired: 01/27/12
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.291	60 - 140	104.9%	pass
Acetylene	2.014	1.816	60 - 140	90.2%	NA
Ethene	1.091	0.916	60 - 140	84.0%	pass
Ethane	1.162	0.989	60 - 140	85.1%	pass

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

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 3:34 pm
Operator : rh
Sample : 2010045-LCV1
Misc : ~~2A27013~~ 2A27014 RH 1/30/12
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 16:35:00 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	7.975	326840	0.935 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.41%#
Target Compounds			
1) TM Methane	1.518	782241	0.768 ug/L
3) TM Ethene	8.368	813275	0.916 ug/L
4) TM Ethane	9.000	956088	0.989 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.

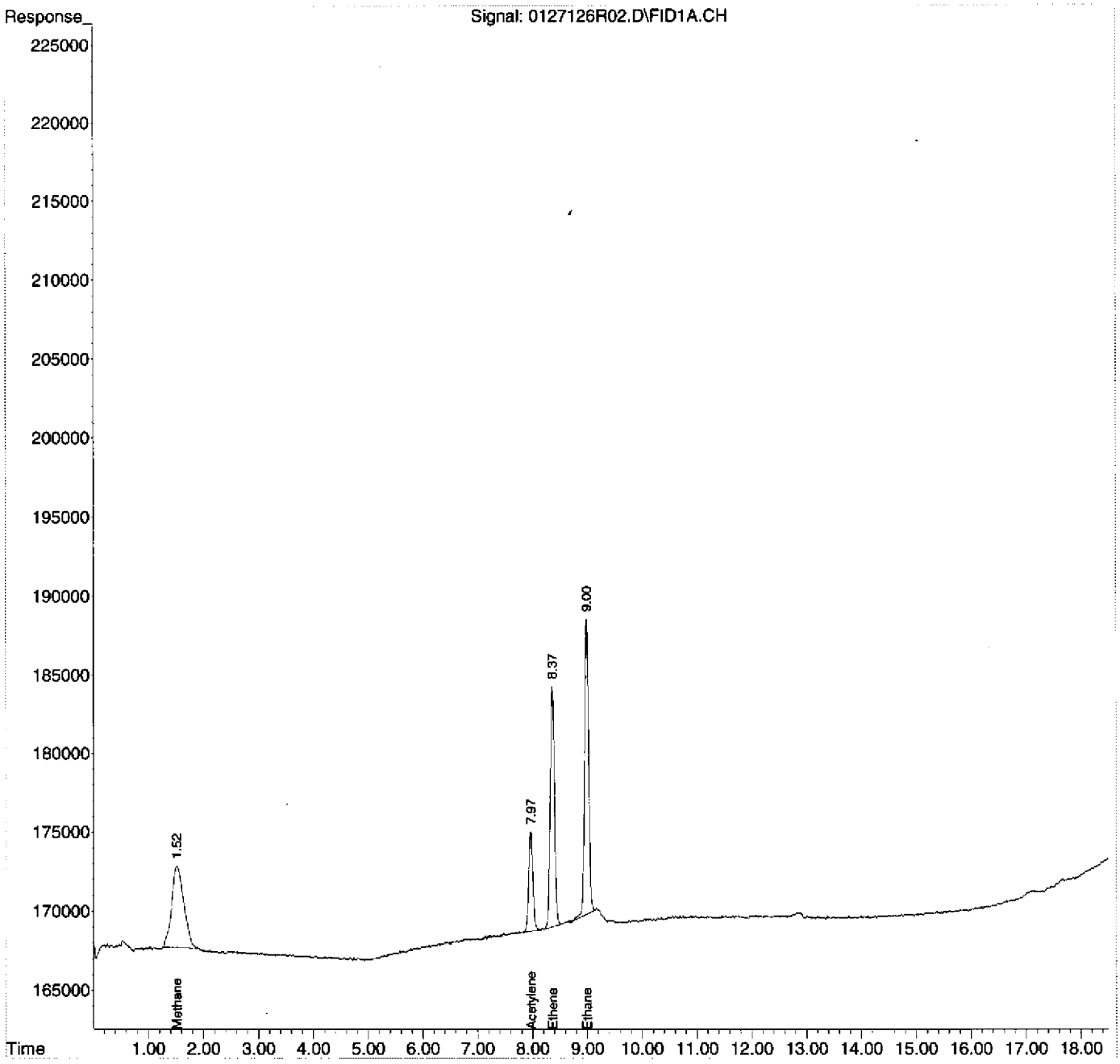
DIM0275662 DIM0275735

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 3:34 pm
Operator : rh
Sample : 2010045-LCV1
Misc : 2A27013
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 16:35:00 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 00073 (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 4:10 pm
Operator : rh
Sample : 2010045-LCV2
Misc : ~~2A27014~~ 2A27015 RH 1/30/12
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 27 16:35:17 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	7.972	634754	1.816 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.74%#
Target Compounds			
1) TM Methane	1.530	1314505	1.291 ug/L
3) TM Ethene	8.369	1720634	1.938 ug/L
4) TM Ethane	9.000	1953789	2.021 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

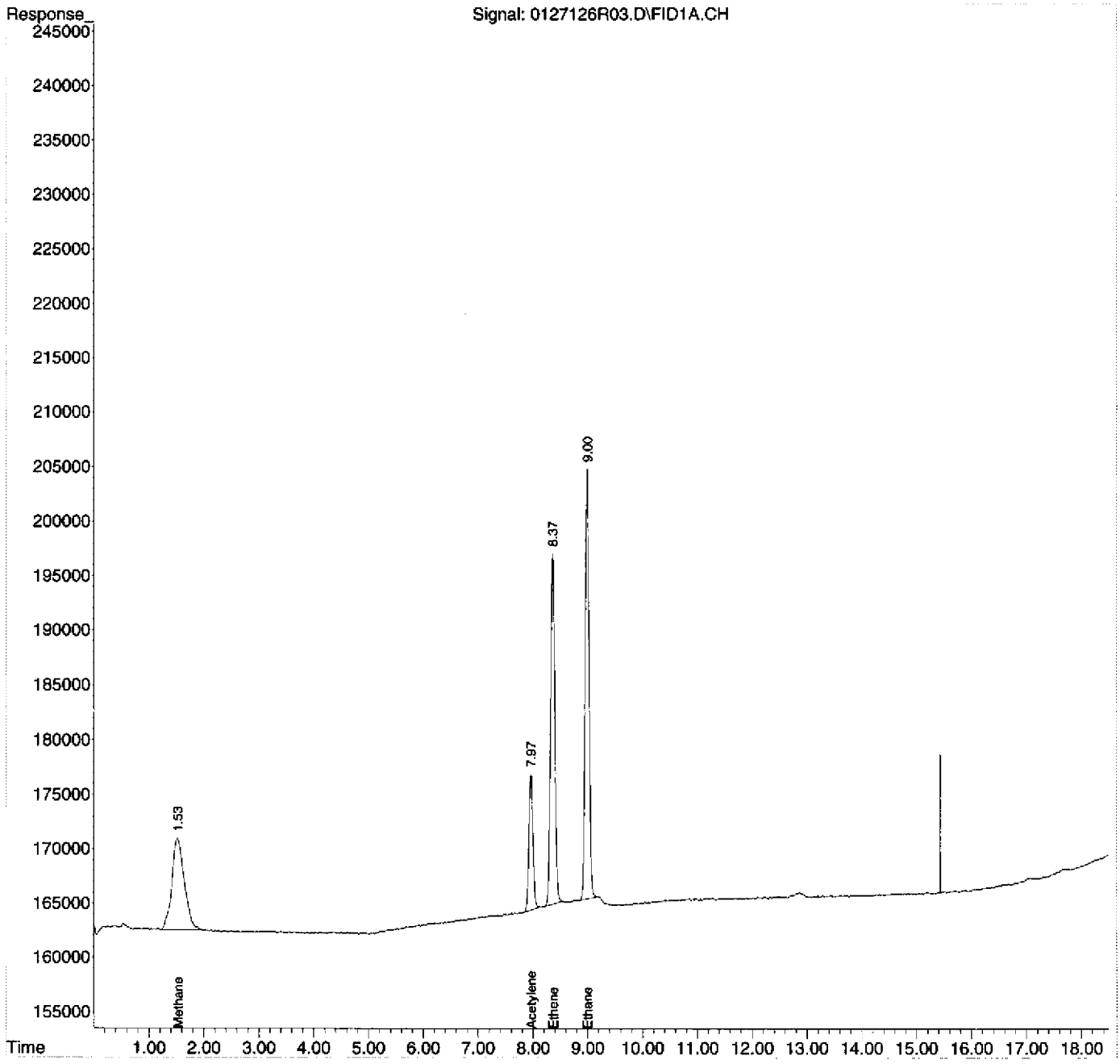
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 4:10 pm
Operator : rh
Sample : 2010045-LCV2
Misc : 2A27014
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 27 16:35:17 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 4:38 pm
Operator : rh
Sample : B2A0067-BLK1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 30 17:12:59 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	24793578	70.937 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	106.95%
Target Compounds			
1) TM Methane	1.523	712809	0.700 ug/L — <91 >½ 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.

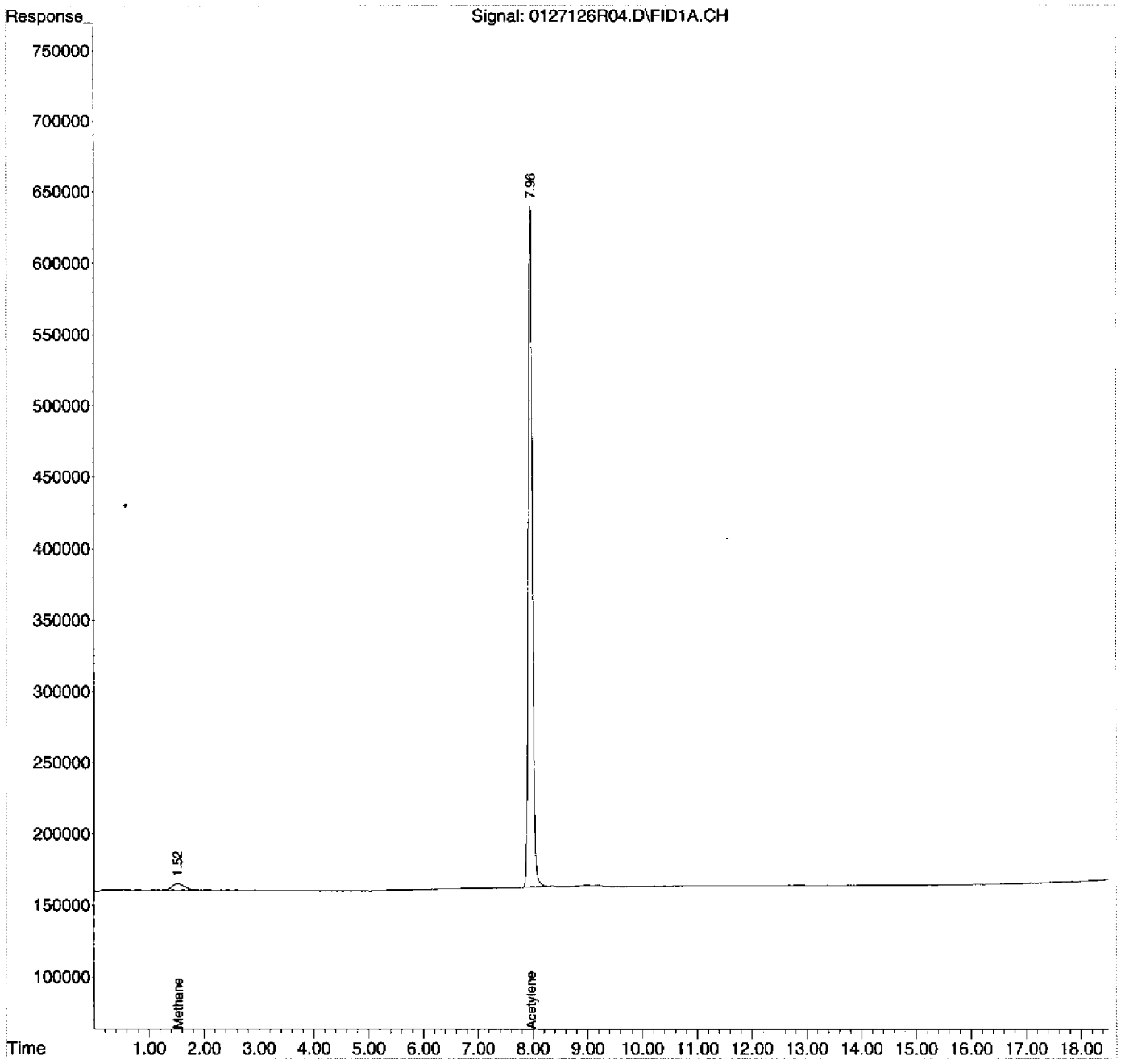
DIM0275662 DIM0275739

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 4:38 pm
Operator : rh
Sample : B2A0067-BLK1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 30 17:12:59 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\012712RSK\
Data File : 0127126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 5:14 pm
Operator : rh
Sample : B2A0067-BLK1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 30 17:13:07 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

NOT Used.

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.965	25457757	72.837 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.81%
Target Compounds			
1) TM Methane	1.512	673701	0.662 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.

7 1/2 gc

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

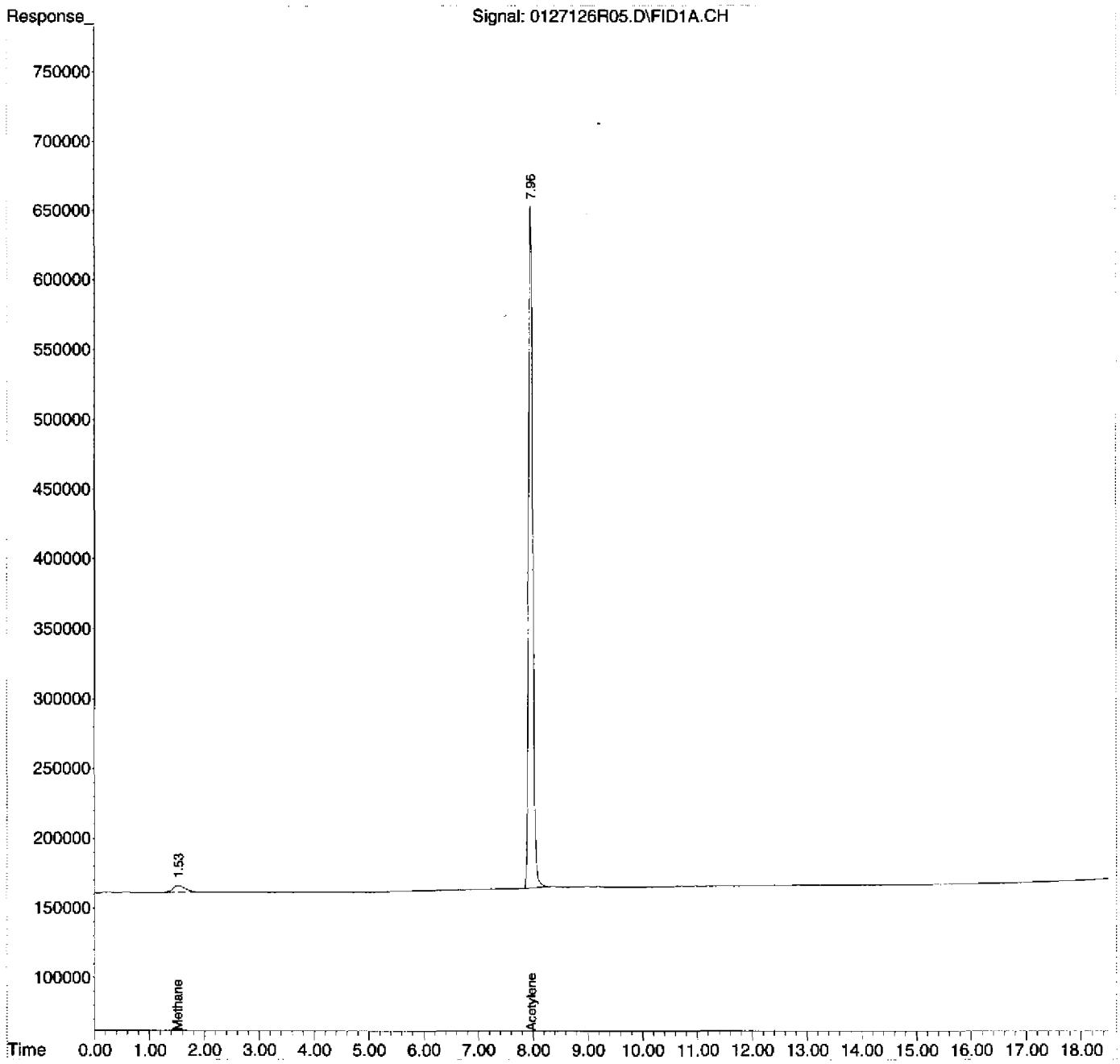
RM
1/30/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 5:14 pm
Operator : rh
Sample : B2A0067-BLK1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 30 17:13:07 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: 0127126R06.D
Date Acquired: 1/27/2012
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	44.099	39.091	70-130	88.6%	pass
Acetylene	72.166	72.859	66.4-153	101.0%	pass
Ethene	78.183	73.785	78-138	94.4%	pass
Ethane	83.269	77.323	77-137	92.9%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 5:42 pm
Operator : rh
Sample : B2A0067-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 17:13:15 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.964	25465549	72.859 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.84%
Target Compounds			
1) TM Methane	1.521	39795795	39.091 ug/L
3) TM Ethene	8.364	65516169	73.785 ug/L
4) TM Ethane	8.998	74738275	77.323 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

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

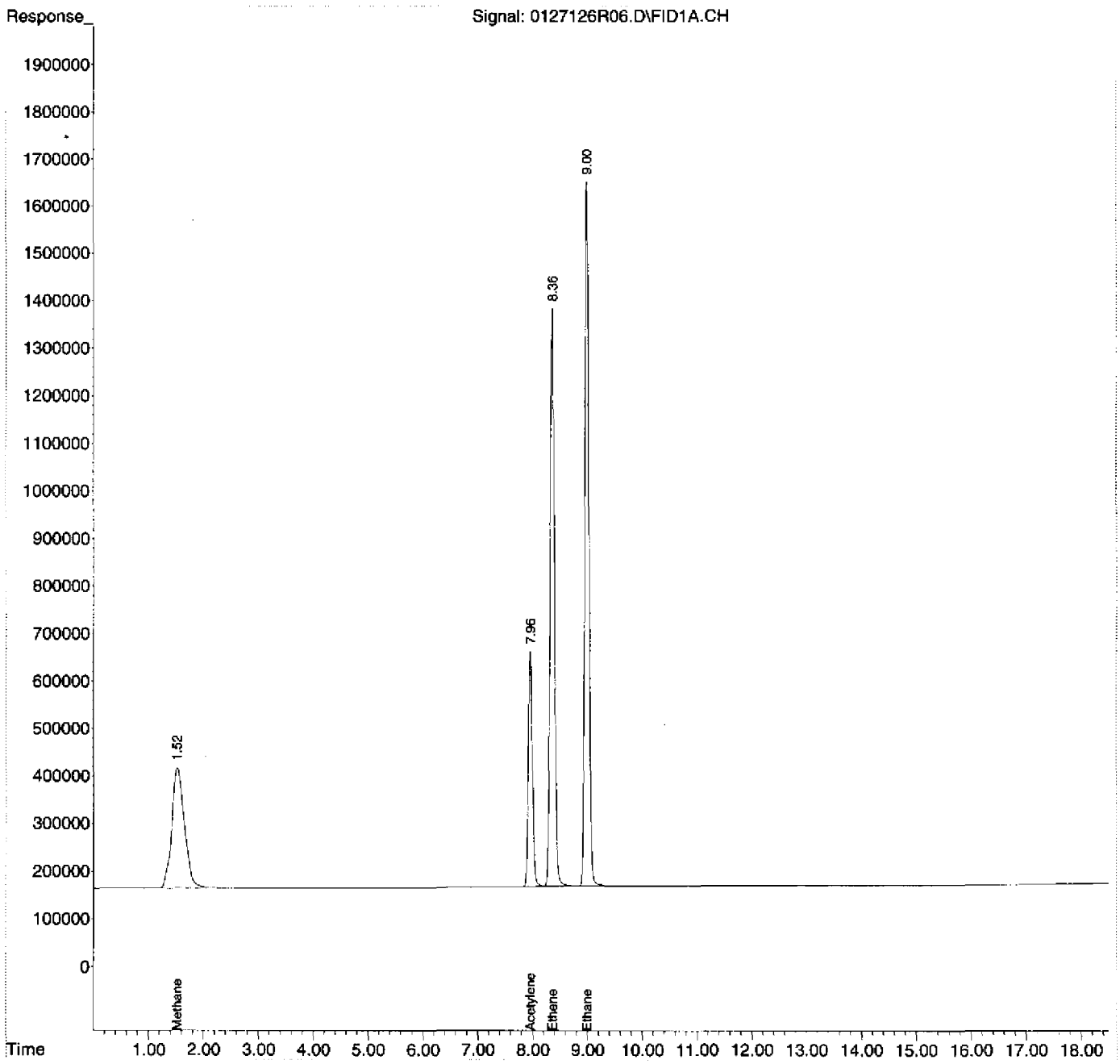
DIM0275662 DIM0275744

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 5:42 pm
Operator : rh
Sample : B2A0067-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 17:13:15 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 6:18 pm
Operator : rh
Sample : 1201031-01
Misc : FB01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 30 17:13:23 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	7.963	25462720	72.851 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.83%
Target Compounds			
1) TM Methane	1.516	678240	0.666 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.

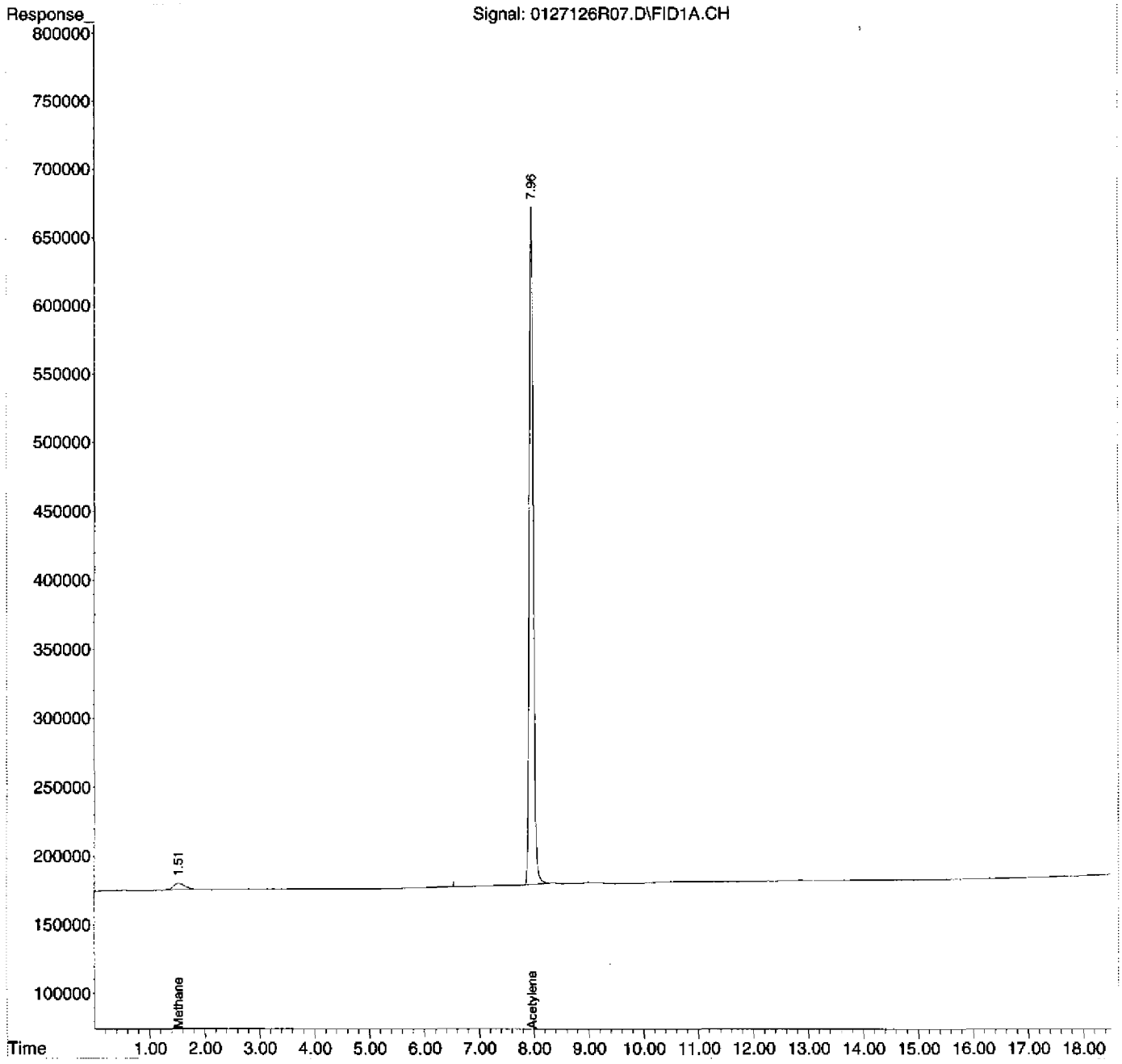
DIM0275662 DIM0275746

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 6:18 pm
Operator : rh
Sample : 1201031-01
Misc : FB01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 30 17:13:23 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 6:45 pm
Operator : rh
Sample : 1201031-02
Misc : FB02
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 30 17:13:31 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	7.964	25713124	73.568 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.91%
Target Compounds			
1) TM Methane	1.509	1113298	1.094 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.

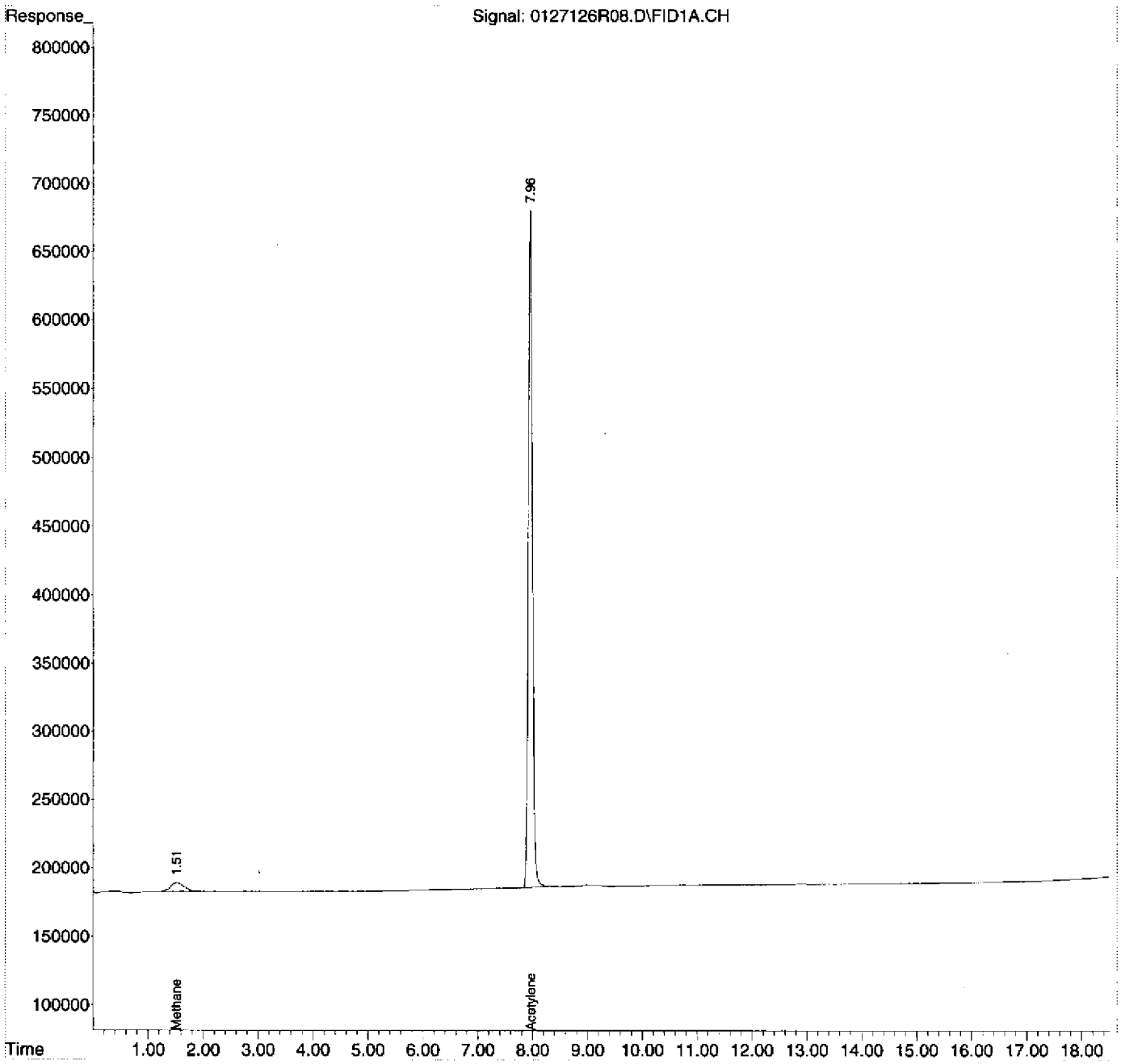
DIM0275662 DIM0275748

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 6:45 pm
Operator : rh
Sample : 1201031-02
Misc : FB02
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 30 17:13:31 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\012712RSK\
Data File : 0127126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 7:21 pm
Operator : rh
Sample : 1201031-03
Misc : HW04
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 17:13:39 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	7.962	25790609	73.789	ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.25%	
Target Compounds				
1) TM Methane	1.517	1121123109	1101.268	ug/L — O.C.
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	9.001	24243559	25.082	ug/L - RPT
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.

RP

a

1.5 ml

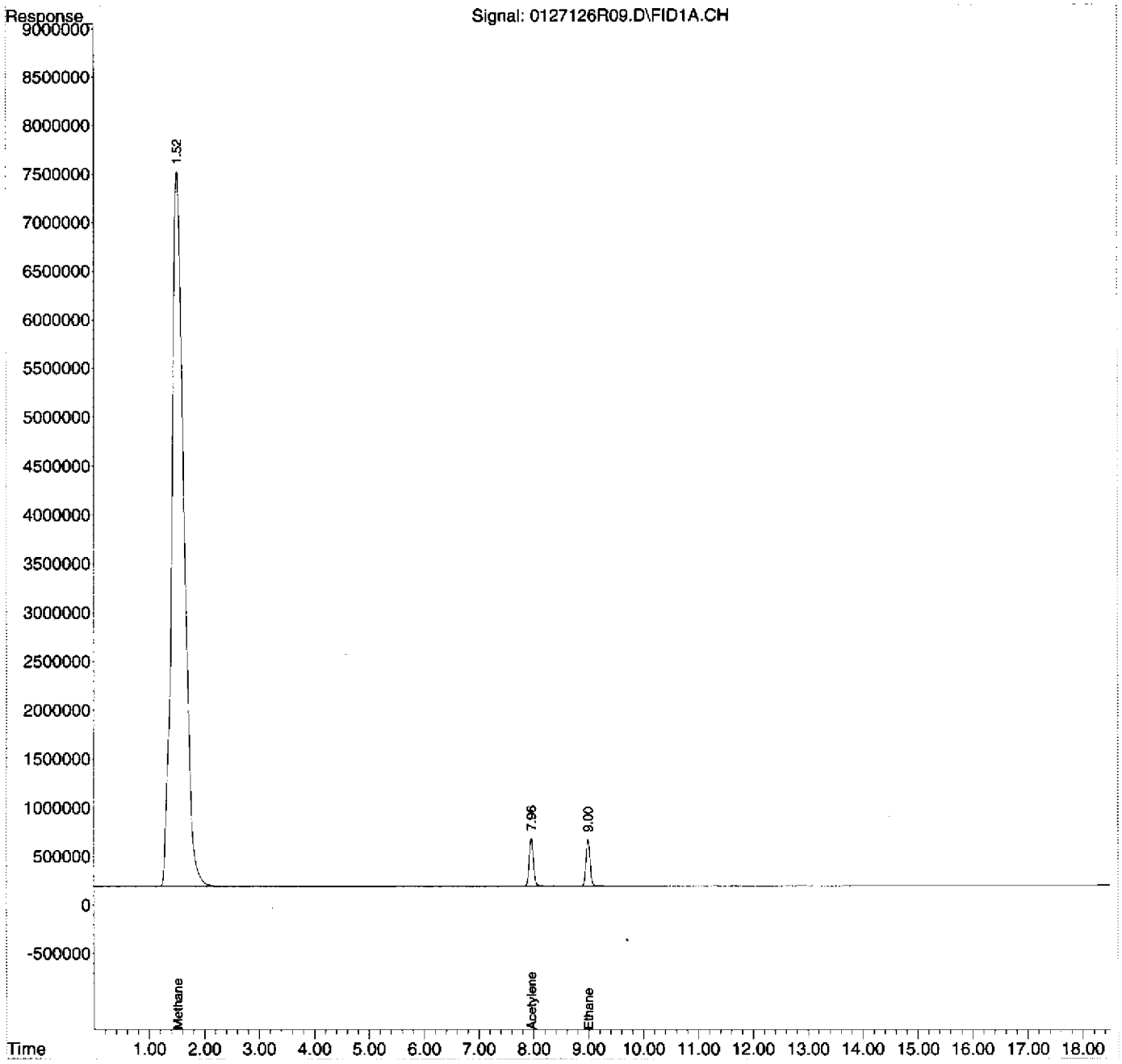
DIM0275662 DIM0275750

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 7:21 pm
Operator : rh
Sample : 1201031-03
Misc : HW04
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 17:13:39 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\012712RSK\
Data File : 0127126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 7:48 pm
Operator : rh
Sample : 1201031-04
Misc : HW19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 17:13:47 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	25565642	73.146 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.28%
Target Compounds			
1) TM Methane	1.523	2033526	1.998 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	13.066	126838	NoCal
6) Qual Butane	0.000	0	N.D.

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

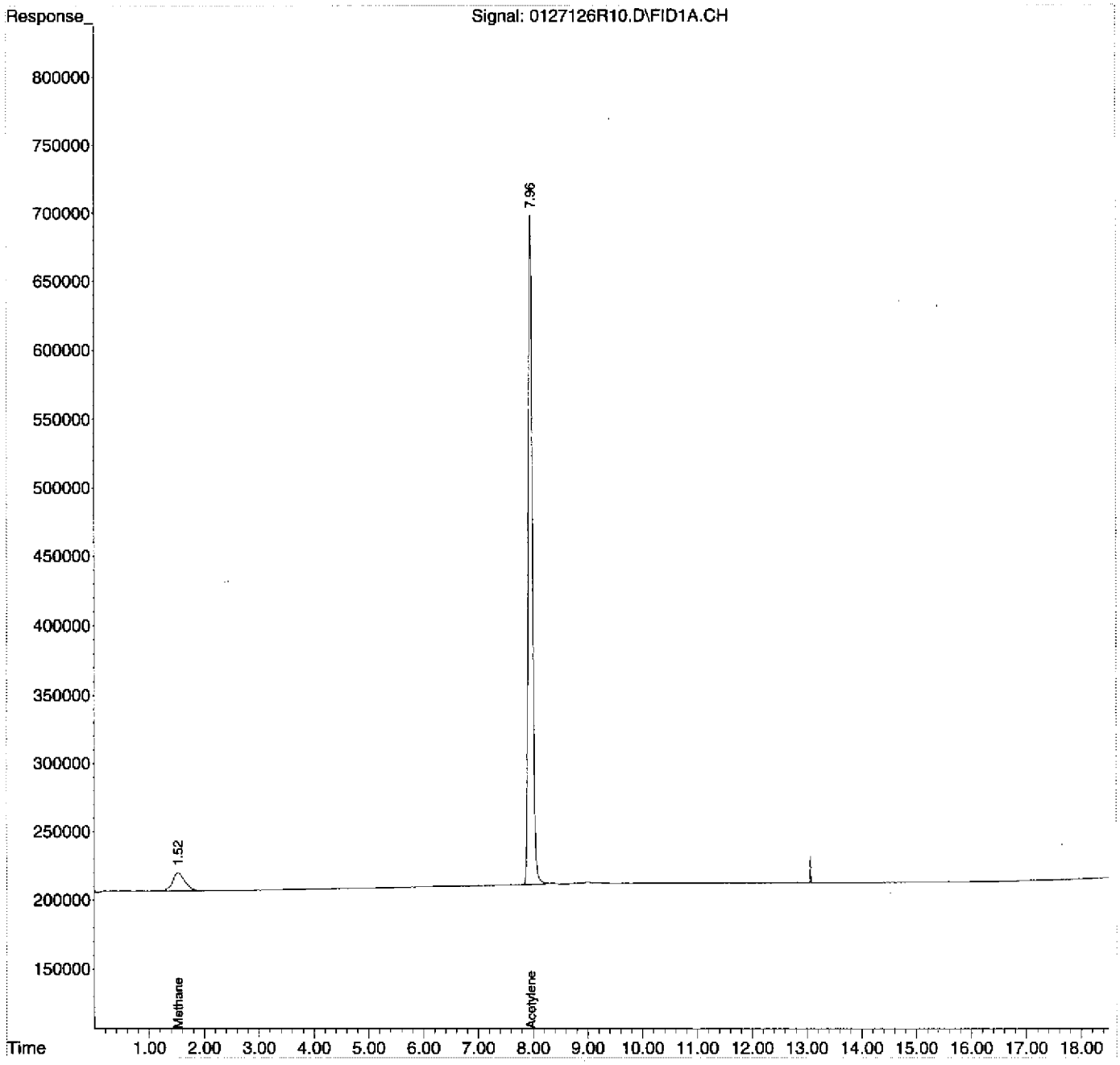
DIM0275662 DIM0275752

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 7:48 pm
Operator : rh
Sample : 1201031-04
Misc : HW19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 17:13:47 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\012712RSK\
Data File : 0127126R011.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 8:23 pm
Operator : rh
Sample : 1201031-05
Misc : HW19-P
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 30 17:12:12 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	7.964	25692527	73.509 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.82%
Target Compounds			
1) TM Methane	1.531	1050406	1.032 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.

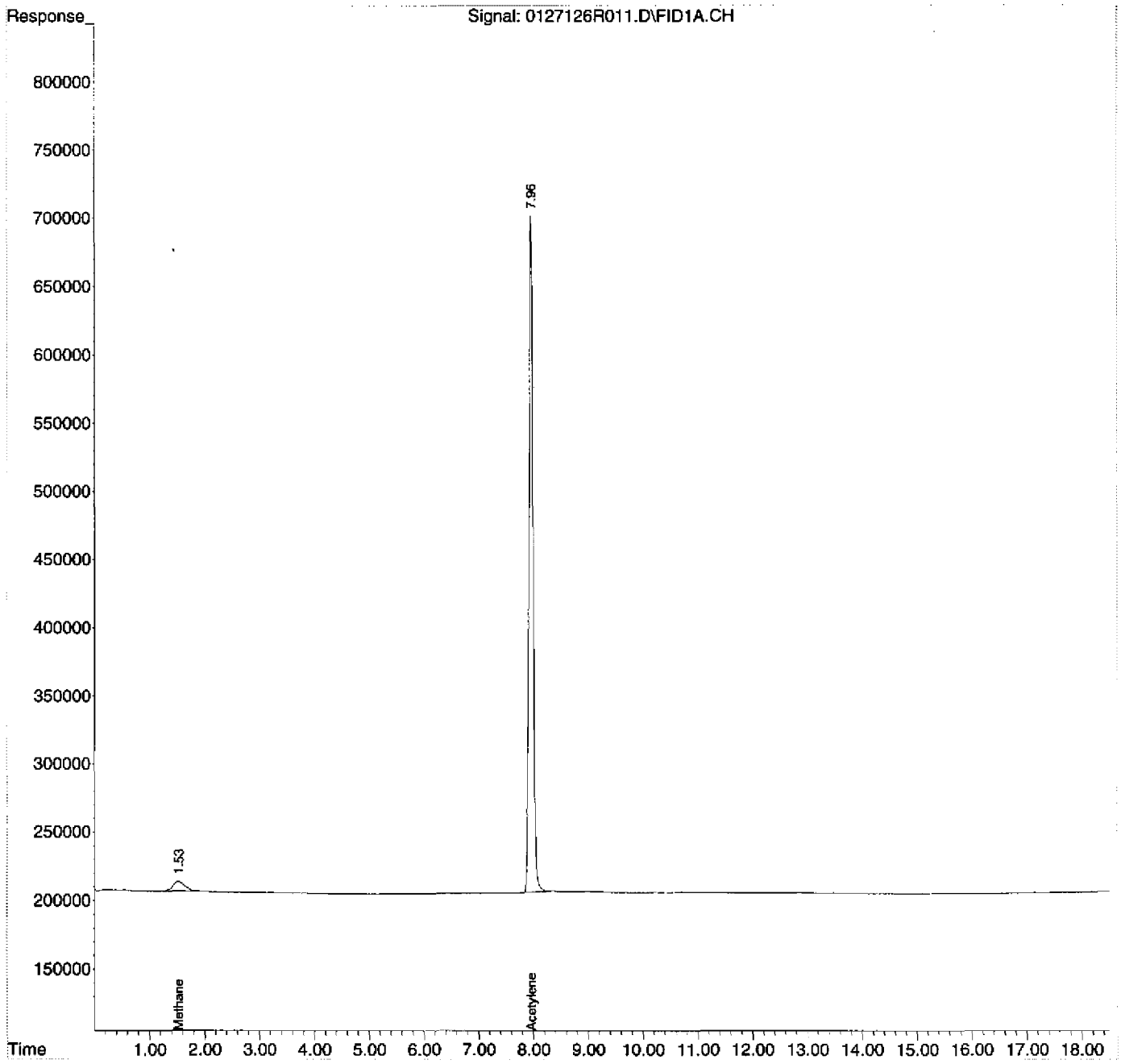
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R011.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 8:23 pm
Operator : rh
Sample : 1201031-05
Misc : HW19-P
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 30 17:12:12 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\012712RSK\
Data File : 0127126R012.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 8:49 pm
Operator : rh
Sample : 1201031-06
Misc : TB01
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 30 17:12:20 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	7.965	26248992	75.101 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	113.22%
Target Compounds			
1) TM Methane	1.535	891244	0.875 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.

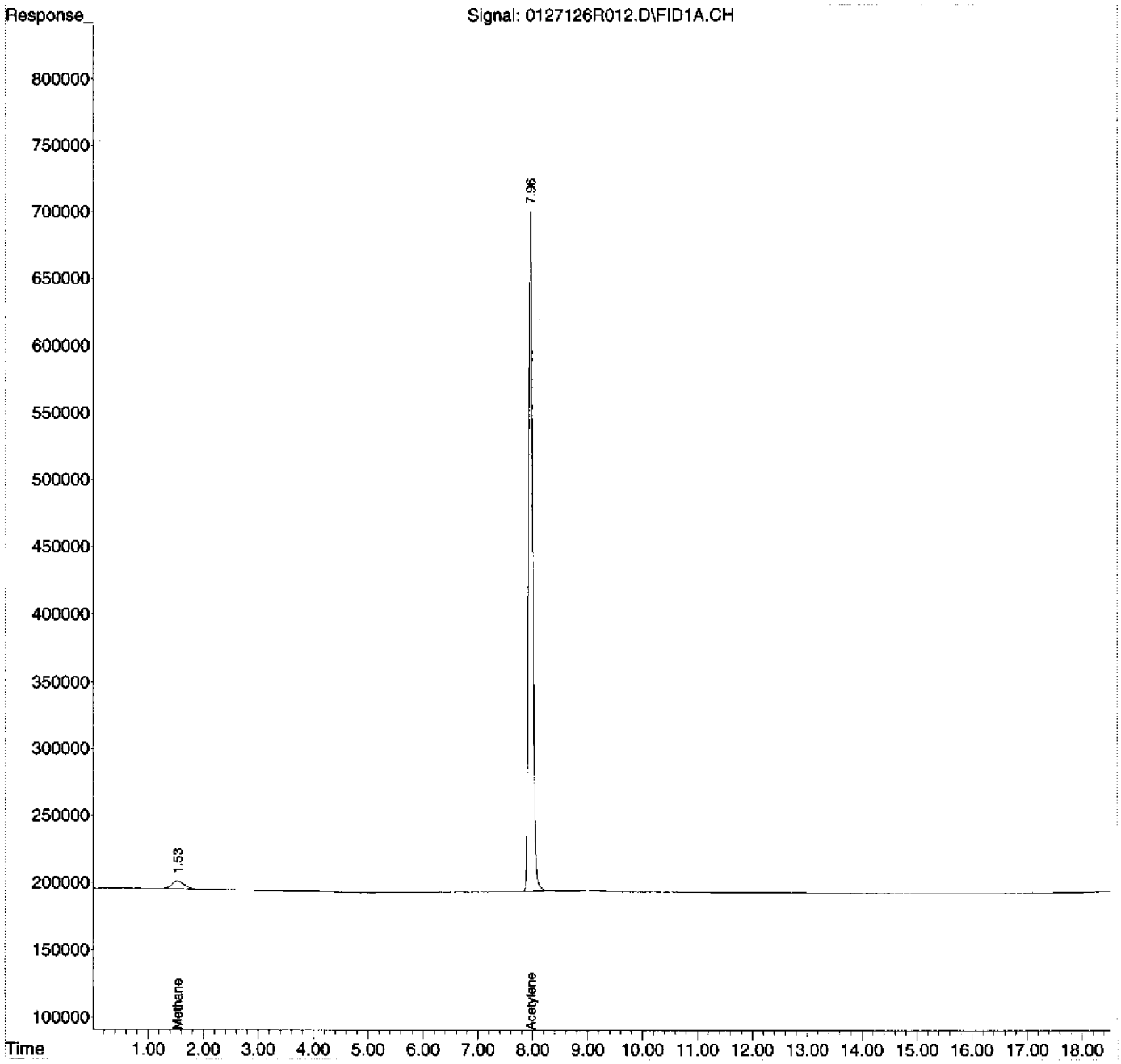
DIM0275662 DIM0275756

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R012.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 8:49 pm
Operator : rh
Sample : 1201031-06
Misc : TB01
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 30 17:12:20 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



Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R013.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 9:16 pm
Operator : rh
Sample : 2010045-CCV2
Misc : 2A27016
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 30 17:12:28 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

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	0.799 E6	21.5#	80	0.00
2	S	Acetylene	349.516	342.573 E3	2.0	92	0.00
3	TM	Ethene	887.936	736.505 E3	17.1	81	0.00
4	TM	Ethane	966.567	777.996 E3	19.5	79	0.00

— fails

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

Not used

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R013.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 9:16 pm
Operator : rh
Sample : 2010045-CCV2
Misc : 2A27016
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 30 17:12:28 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	7.969	7416704	21.220 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	31.99%#
Target Compounds			
1) TM Methane	1.527	10569296	10.382 ug/L
3) TM Ethene	8.367	17274717	19.455 ug/L
4) TM Ethane	9.000	19435120	20.107 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

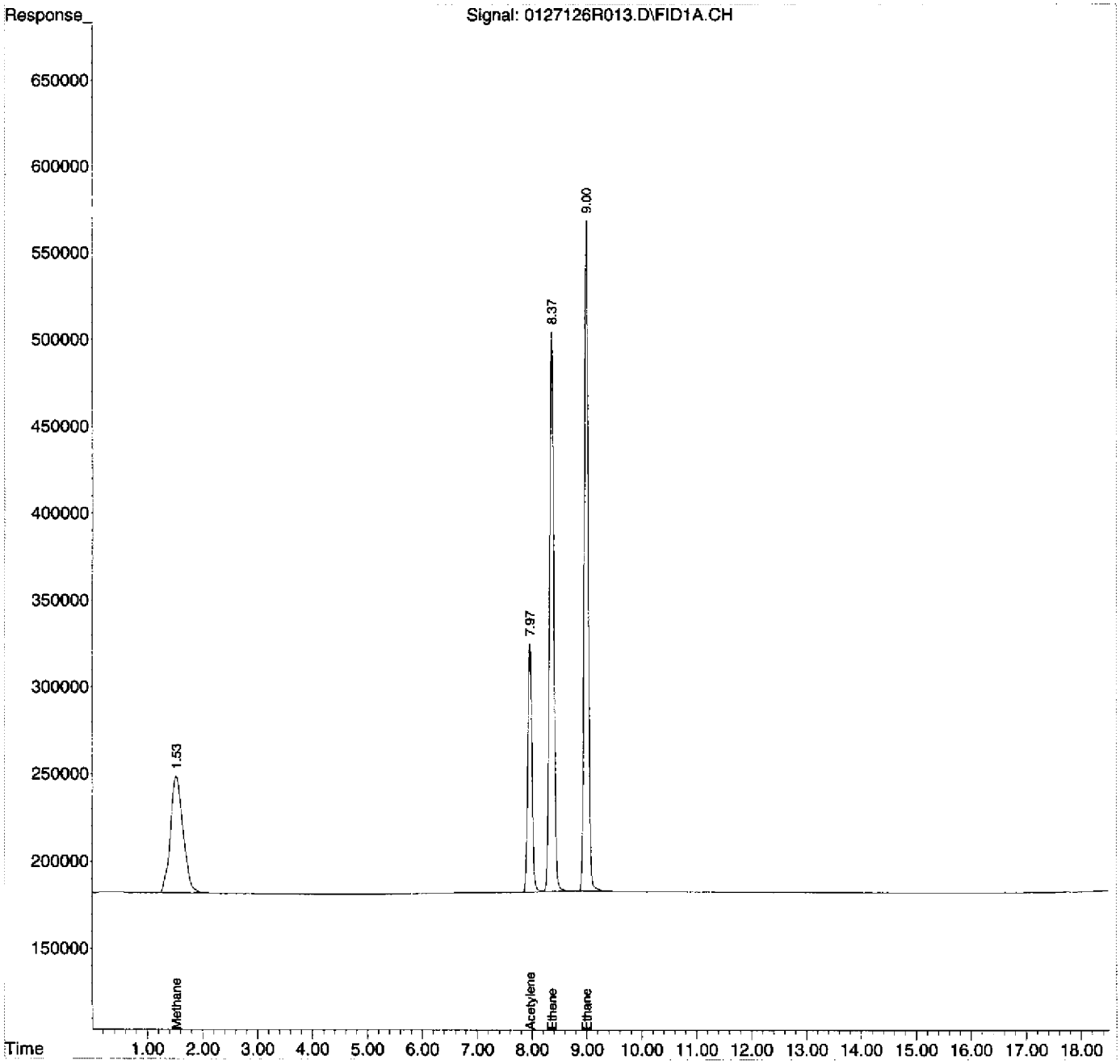
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R013.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 9:16 pm
Operator : rh
Sample : 2010045-CCV2
Misc : 2A27016
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 30 17:12:28 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



Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R014.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 9:50 pm
Operator : rh
Sample : 2010045-CCV3
Misc : 2A27016
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 30 17:12:36 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	TM	Methane	1.018	0.845 E6	17.0	84	0.00
2	S	Acetylene	349.516	370.741 E3	-6.1	100	-0.01
3	TM	Ethene	887.936	808.568 E3	8.9	89	0.00
4	TM	Ethane	966.567	842.743 E3	12.8	86	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\012712RSK\
Data File : 0127126R014.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 9:50 pm
Operator : rh
Sample : 2010045-CCV3
Misc : 2A27016
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 30 17:12:36 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	7.968	8026546	22.965 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	34.62%#
Target Compounds			
1) TM Methane	1.518	11184412	10.986 ug/L
3) TM Ethene	8.367	18964959	21.358 ug/L
4) TM Ethane	9.003	21052561	21.781 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.

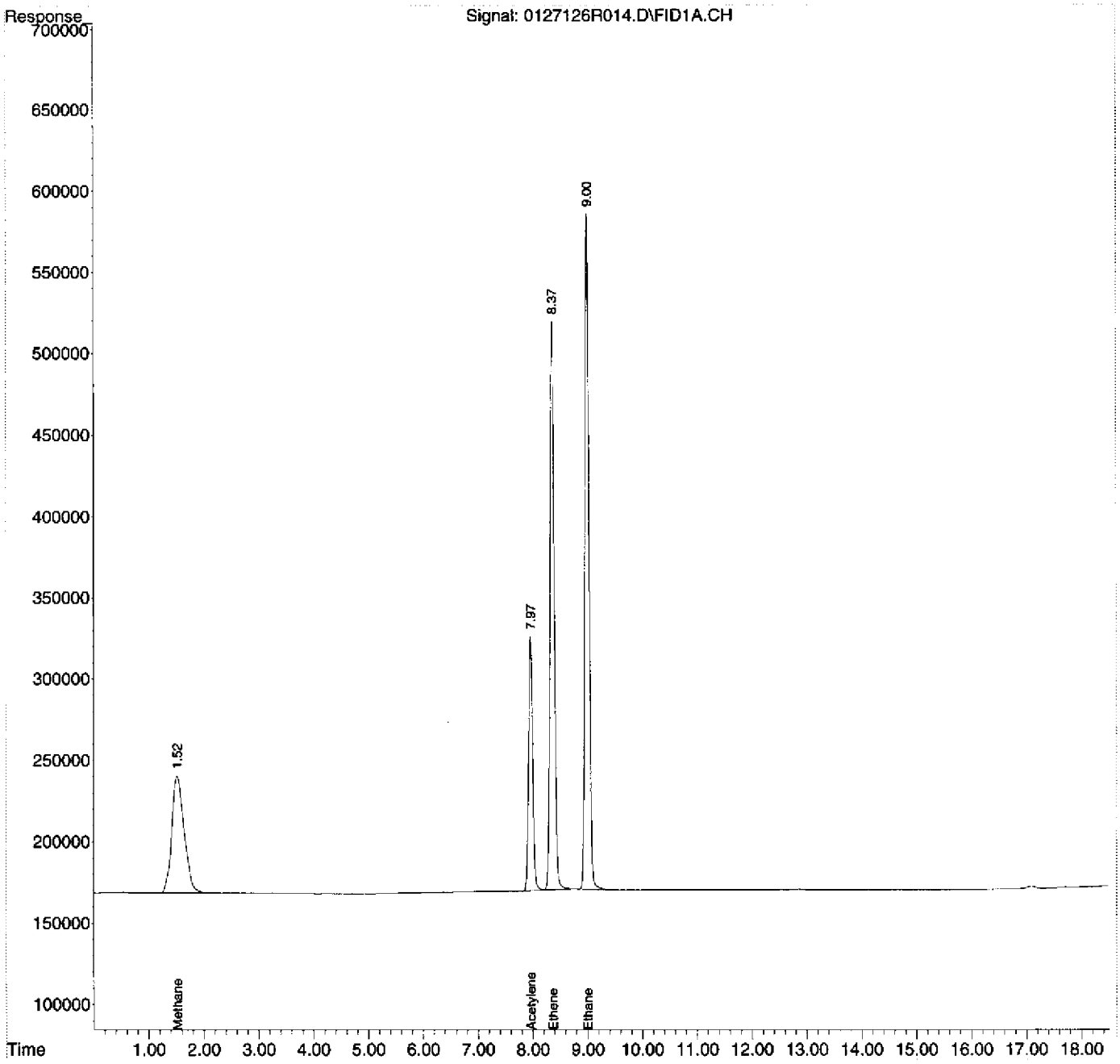
DIM0275662 DIM0275762

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\012712RSK\
Data File : 0127126R014.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 27 Jan 2012 9:50 pm
Operator : rh
Sample : 2010045-CCV3
Misc : 2A27016
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 30 17:12:36 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



SDG: 12027B

Instrument: AG 6890-N-6

Analysis Date: 1/30/12

SAMPLE DATA

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

Injection Log

Operator: rh
Directory: D:\MSDCHEM\1\2012\DATA\013012RSK\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	0130126R01.D	0	2010051-CCV1	2A30007	30 Jan 2012 3:29 pm
2	0130126R02.D	0	2010051-LCV1	2A30005	30 Jan 2012 3:56 pm
3	0130126R03.D	0	2010051-LCV2	2A30005	30 Jan 2012 4:32 pm
4	0130126R04.D	0	1201033-04	HW08a	30 Jan 2012 5:00 pm
5	0130126R05.D	0	1201033-02	HW02	30 Jan 2012 5:35 pm
6	0130126R06.D	0	1201033-03	HW02z	30 Jan 2012 6:03 pm
7	0130126R07.D	0	1201033-02RE1	HW02 1.5ML	30 Jan 2012 6:39 pm
8	0130126R08.D	0	1201033-03RE1	HW02z 1.5ML	30 Jan 2012 7:06 pm
9	0130126R09.D	0	1201033-04RE1	HW08a 0.125ML	30 Jan 2012 7:42 pm
10	0130126R10.D	0	1201031-03RE1	HW04 1.5mL	30 Jan 2012 8:09 pm
11	0130126R11.D	0	1201033-01	FB01	30 Jan 2012 8:44 pm
12	0130126R12.D	0	B2A0075-BLK1	MB	30 Jan 2012 9:11 pm
13	0130126R13.D	0	B2A0075-BS1	LCS	30 Jan 2012 9:46 pm
14	0130126R14.D	0	2010051-CCV2	2A30007 — Autosampler	31 Jan 2012 9:47 am
15	0130126R15.D	0	1201033-02RE2	HW02 0.125ml stopped.	31 Jan 2012 10:30 am
16	0130126R16.D	0	1201033-03RE2	HW02z 0.125ml Re-started	31 Jan 2012 10:57 am
17	0130126R17.D	0	1201033-02RE3	HW02 0.125ml sequence.	31 Jan 2012 11:31 am
18	0130126R18.D	0	1201033-03RE3	HW02z 0.125ml RH	31 Jan 2012 11:59 am
19	0130126R19.D	0	2010051-CCV3	2A30007 2/1/12	31 Jan 2012 12:34 pm
20	0130126R20.D	0	2010051-CCV4	2A30007	31 Jan 2012 1:02 pm

Response Factor Report AG6890N-6

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

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

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

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

DIM0275662 DIM0275766

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 3:29 pm
Operator : rh
Sample : 2010051-CCV1
Misc : 2A30007
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 30 15:48:23 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	1.050 E6	-3.1	105	0.00
2 S	Acetylene	349.516	368.266 E3	-5.4	99	0.00
3 TM	Ethene	887.936	945.283 E3	-6.5	104	0.00
4 TM	Ethane	966.567	1032.295 E3	-6.8	105	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\013012RSK\
Data File : 0130126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 3:29 pm
Operator : rh
Sample : 2010051-CCV1
Misc : 2A30007
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 30 15:48:23 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	7.968	7972965	22.811 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	34.39%#
Target Compounds			
1) TM Methane	1.524	13888087	13.642 ug/L
3) TM Ethene	8.369	22171613	24.970 ug/L
4) TM Ethane	9.002	25787765	26.680 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

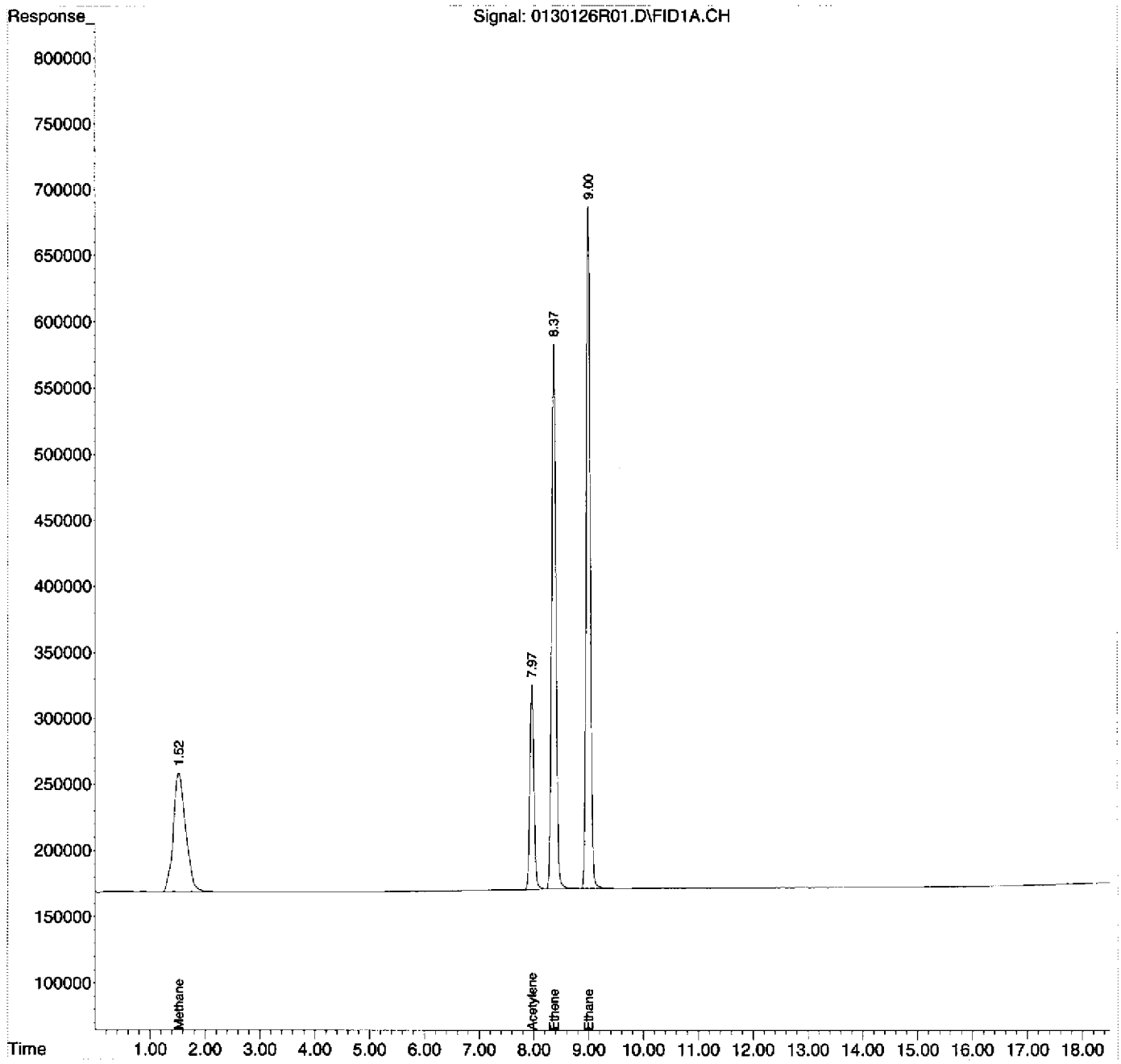
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 3:29 pm
Operator : rh
Sample : 2010051-CCV1
Misc : 2A30007
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 30 15:48:23 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: 0130126R0
File Name LCV2: 0130126R0
Date Acquired: 01/30/12
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.44	60 - 140	117.0%	pass
Acetylene	2.014	1.933	60 - 140	96.0%	NA
Ethene	1.091	1.071	60 - 140	98.2%	pass
Ethane	1.162	1.13	60 - 140	97.3%	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\013012RSK\
Data File : 0130126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 3:56 pm
Operator : rh
Sample : 2010051-LCV1
Misc : 2A30005
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 30 16:39:08 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	7.969	344125	0.985 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.48%#
Target Compounds			
1) TM Methane	1.529	793421	0.779 ug/L
3) TM Ethene	8.370	950585	1.071 ug/L
4) TM Ethane	9.003	1092112	1.130 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

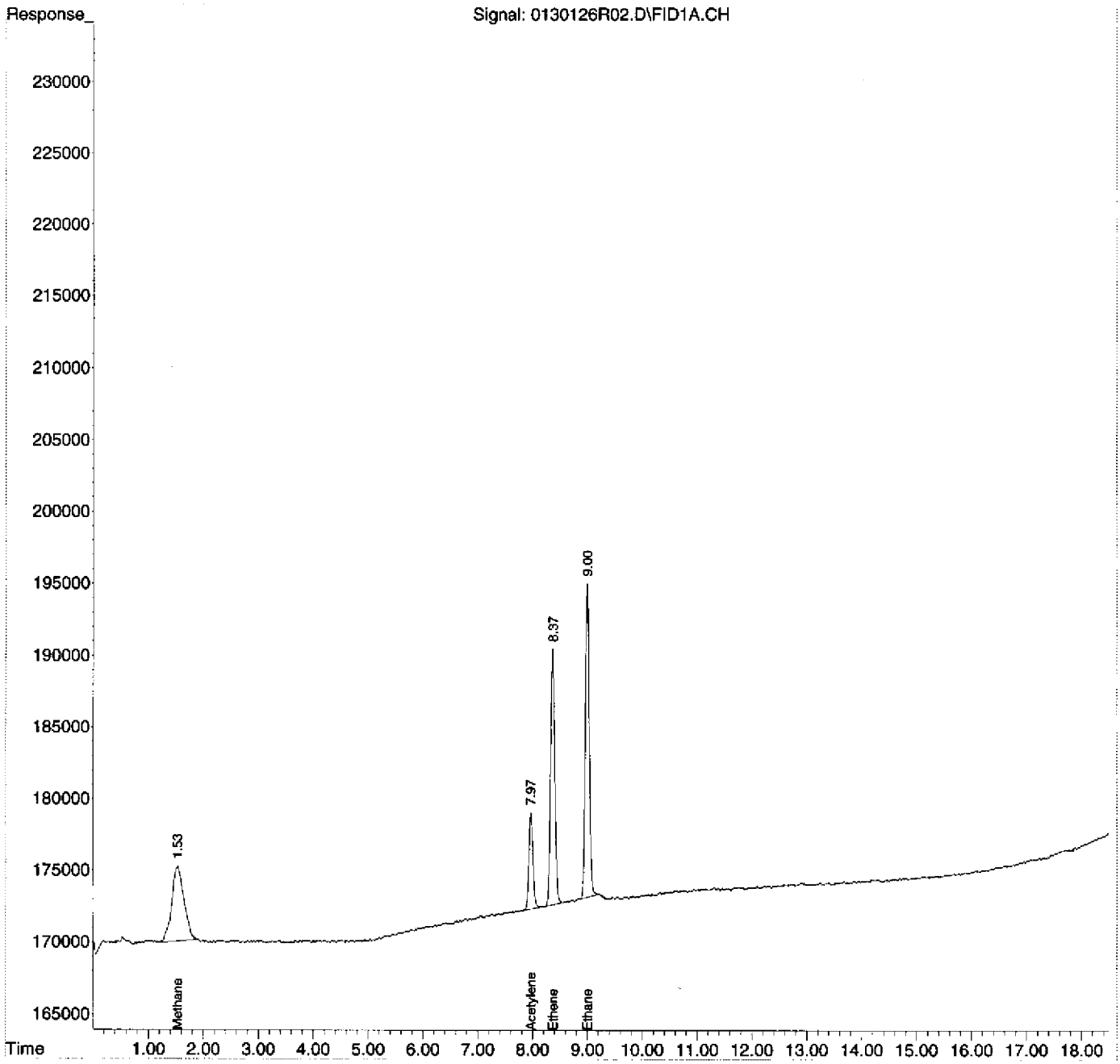
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 3:56 pm
Operator : rh
Sample : 2010051-LCV1
Misc : 2A30005
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 30 16:39:08 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\013012RSK\
Data File : 0130126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 4:32 pm
Operator : rh
Sample : 2010051-LCV2
Misc : 2A30005
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 30 16:52:29 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	7.969	675516	1.933 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.91%#
Target Compounds			
1) TM Methane	1.523	1465536	1.440 ug/L
3) TM Ethene	8.370	1880230	2.118 ug/L
4) TM Ethane	9.002	2179239	2.255 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.

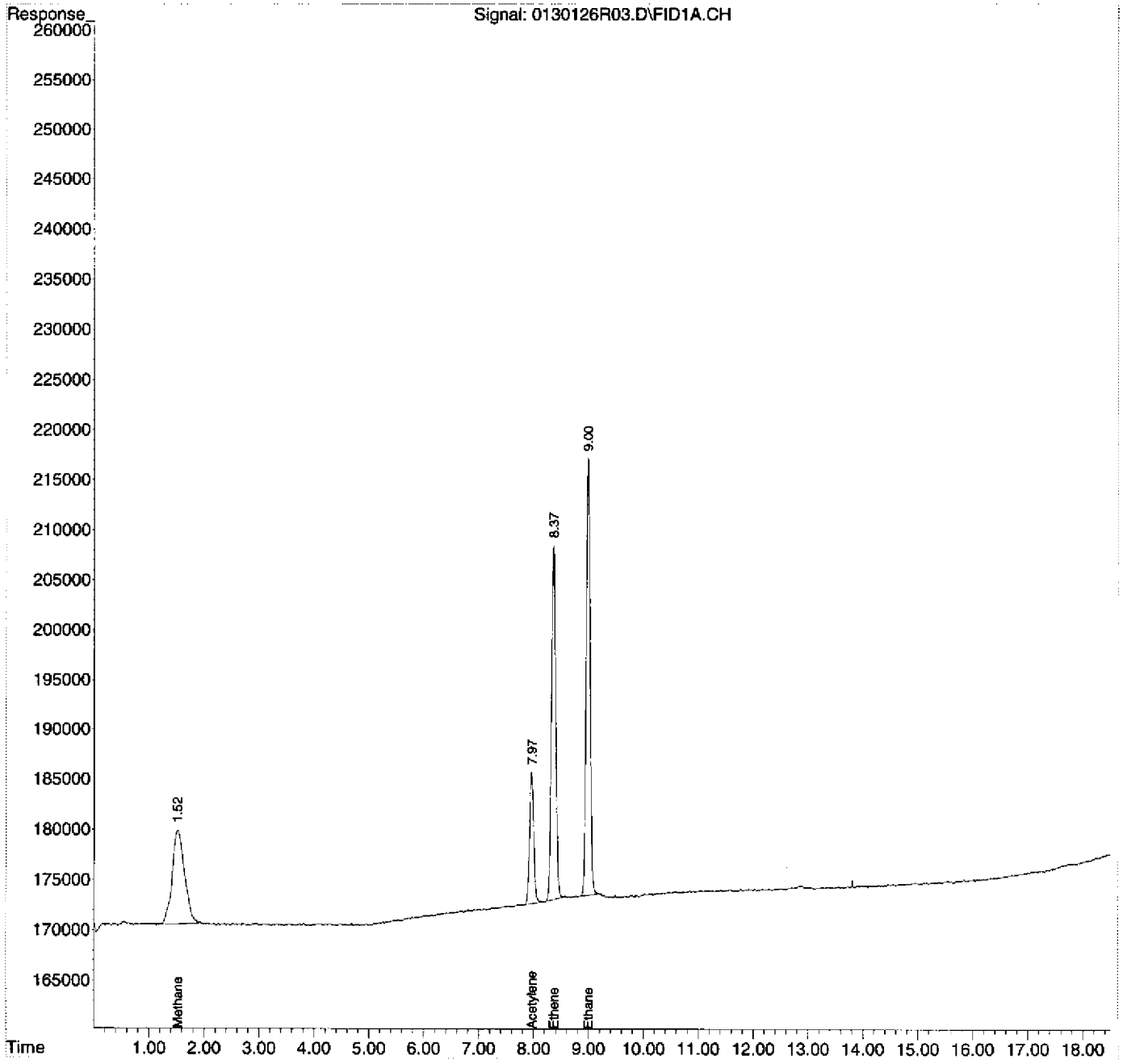
DIM0275662 DIM0275773

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 4:32 pm
Operator : rh
Sample : 2010051-LCV2
Misc : 2A30005
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 30 16:52:29 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



0126126RSK.M Tue Jan 31 14:18:16 2012

00097 A

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 5:00 pm
Operator : rh
Sample : 1201033-04
Misc : HW08a
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 31 09:41:22 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	7.963	25392875	72.652 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.53%
Target Compounds			
1) TM Methane	1.473	13410662377	13173.161 ug/L ~ D.C.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	8.991	351224146	363.373 ug/L ~ D.C.
5) Qual Propane	12.896	473976	NoCal
6) Qual Butane	0.000	0	N.D.

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

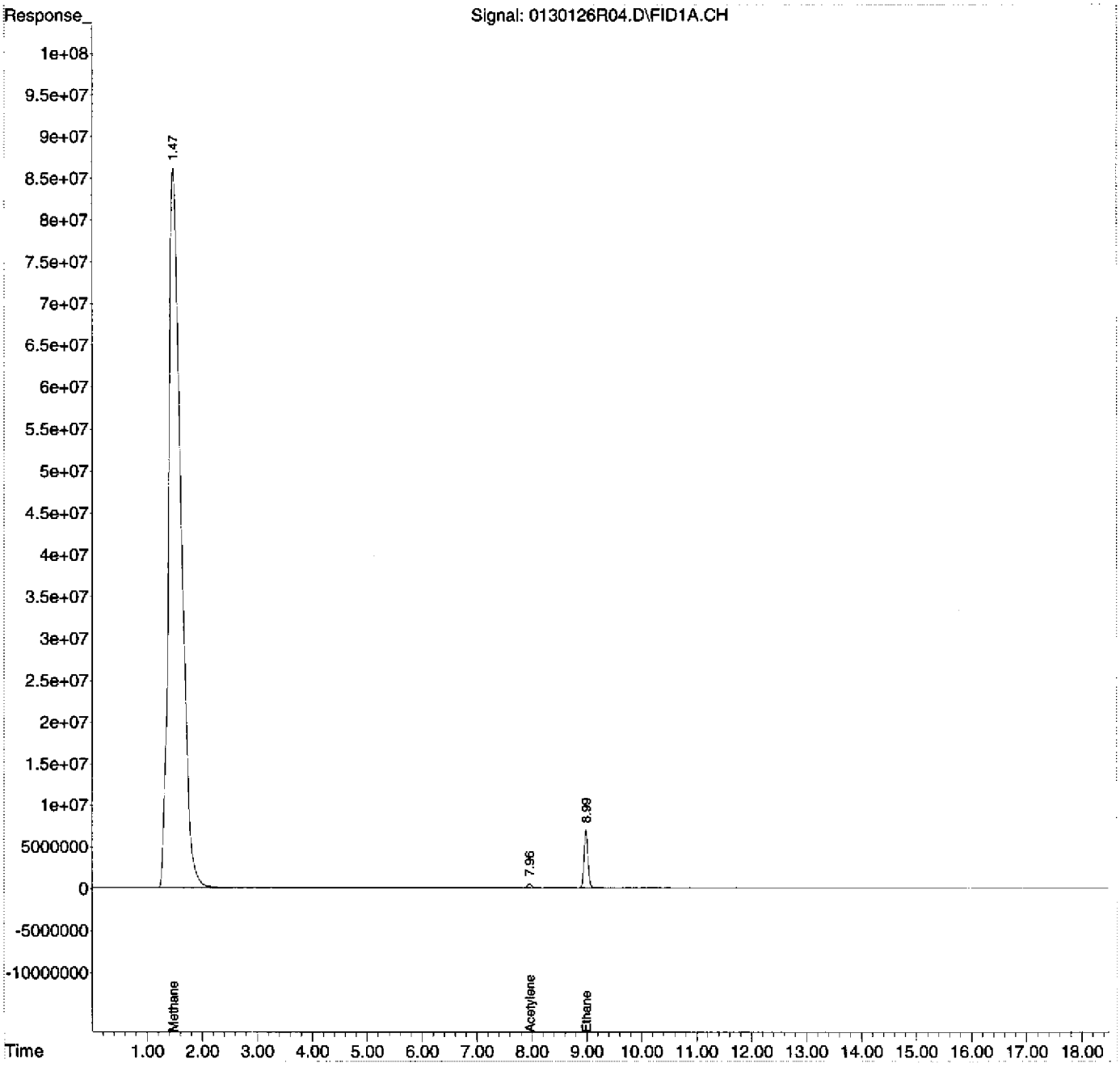
DIM0275662 DIM0275775

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 5:00 pm
Operator : rh
Sample : 1201033-04
Misc : HW08a
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 31 09:41:22 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\013012RSK\
Data File : 0130126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 5:35 pm
Operator : rh
Sample : 1201033-02
Misc : HW02
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 31 09:41:30 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.962	25282756	72.336 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.05%
Target Compounds			
1) TM Methane	1.472	13434878808	13196.949 ug/L — 0.0
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	8.986	469542490	485.784 ug/L - 0.0
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.

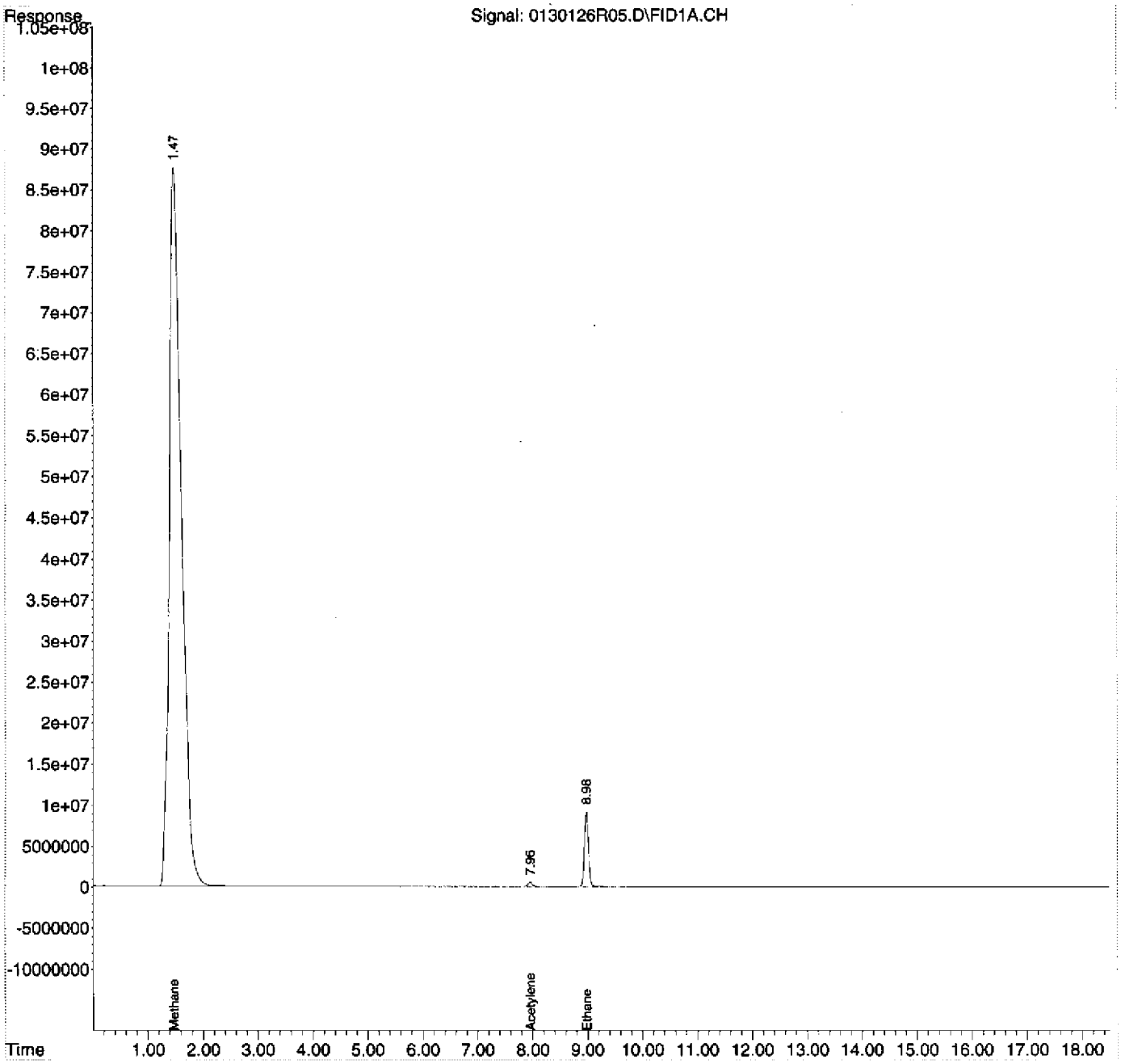
DIM0275662 DIM0275777

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 5:35 pm
Operator : rh
Sample : 1201033-02
Misc : HW02
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 31 09:41:30 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\013012RSK\
Data File : 0130126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 6:03 pm
Operator : rh
Sample : 1201033-03
Misc : HW02z
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 31 09:41:37 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.962	24881026	71.187 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	107.32%
Target Compounds			
1) TM Methane	1.464	15530529282	15255.486 ug/L -0.0.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	8.985	533749377	552.211 ug/L -0.1.
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

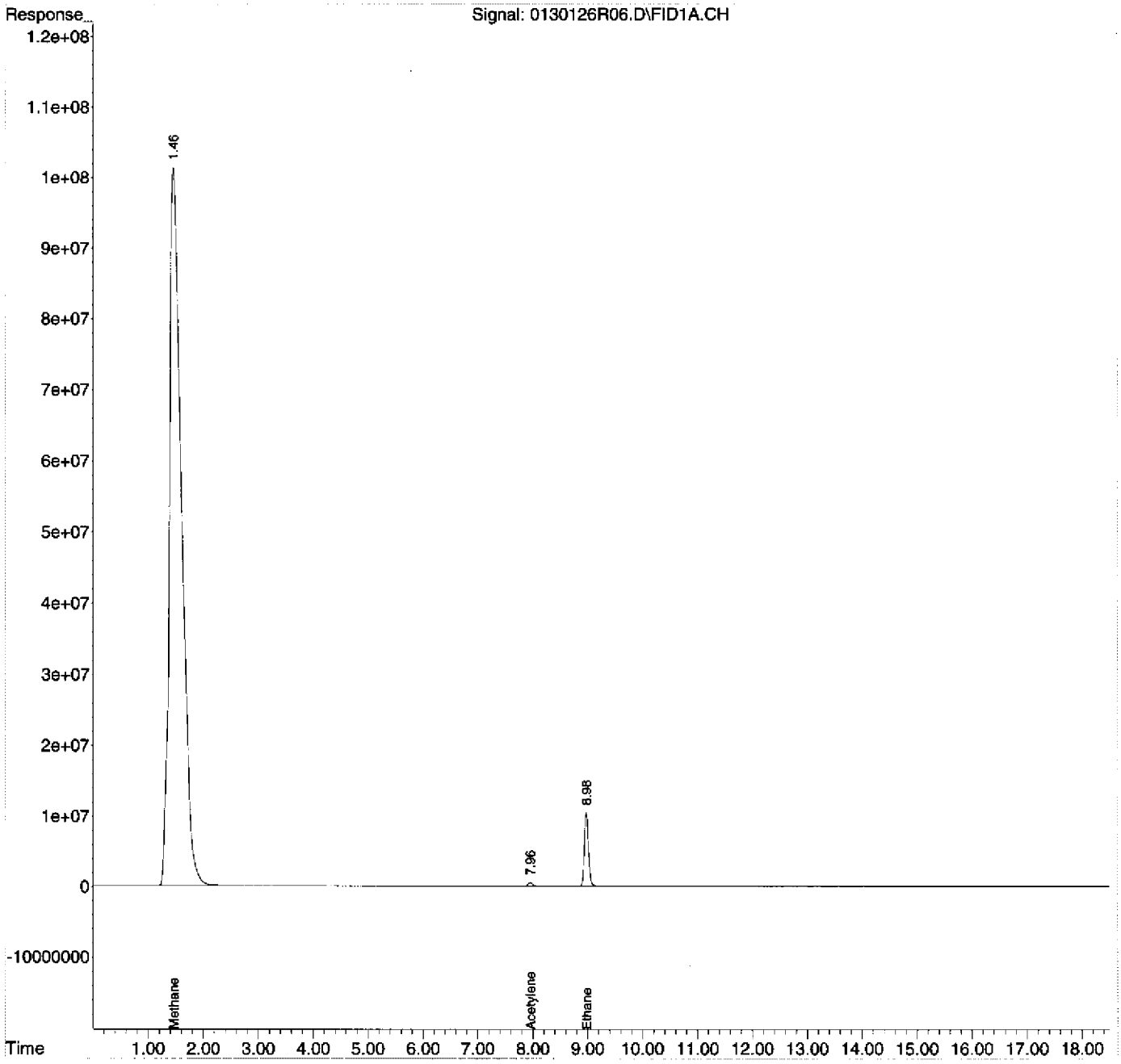
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 6:03 pm
Operator : rh
Sample : 1201033-03
Misc : HW02z
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 31 09:41:37 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\013012RSK\
Data File : 0130126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 6:39 pm
Operator : rh
Sample : 1201033-02RE1
Misc : HW02 1.5ML
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 09:41:45 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.962	25144369	71.941 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	108.46%
Target Compounds			
1) TM Methane	1.520	1304230373	1281.133 ug/L — O.C.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	8.998	44626330	46.170 ug/L — RPT.
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.

RF @
0.125 ml

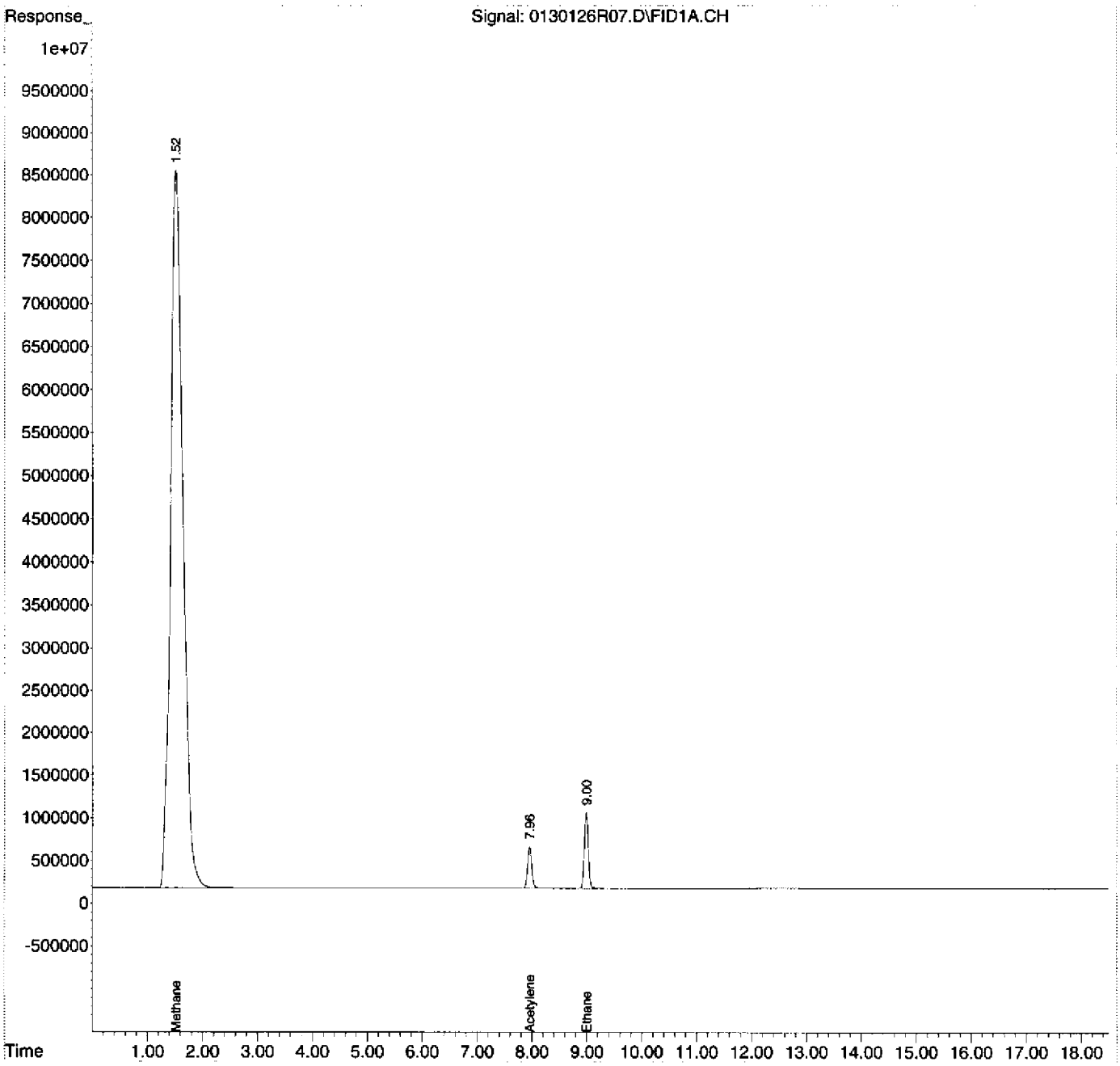
DIM0275662 DIM0275781

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 6:39 pm
Operator : rh
Sample : 1201033-02RE1
Misc : HW02 1.5ML
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 09:41:45 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\013012RSK\
Data File : 0130126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 7:06 pm
Operator : rh
Sample : 1201033-03RE1
Misc : HW02z 1.5ML
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 09:41:52 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	7.963	25984116	74.343 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	112.08%
Target Compounds			
1) TM Methane	1.518	1527486565	1500.435 ug/L c.c.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.001	51202662	52.974 ug/L RPD.
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.

RP @

0.125 ml

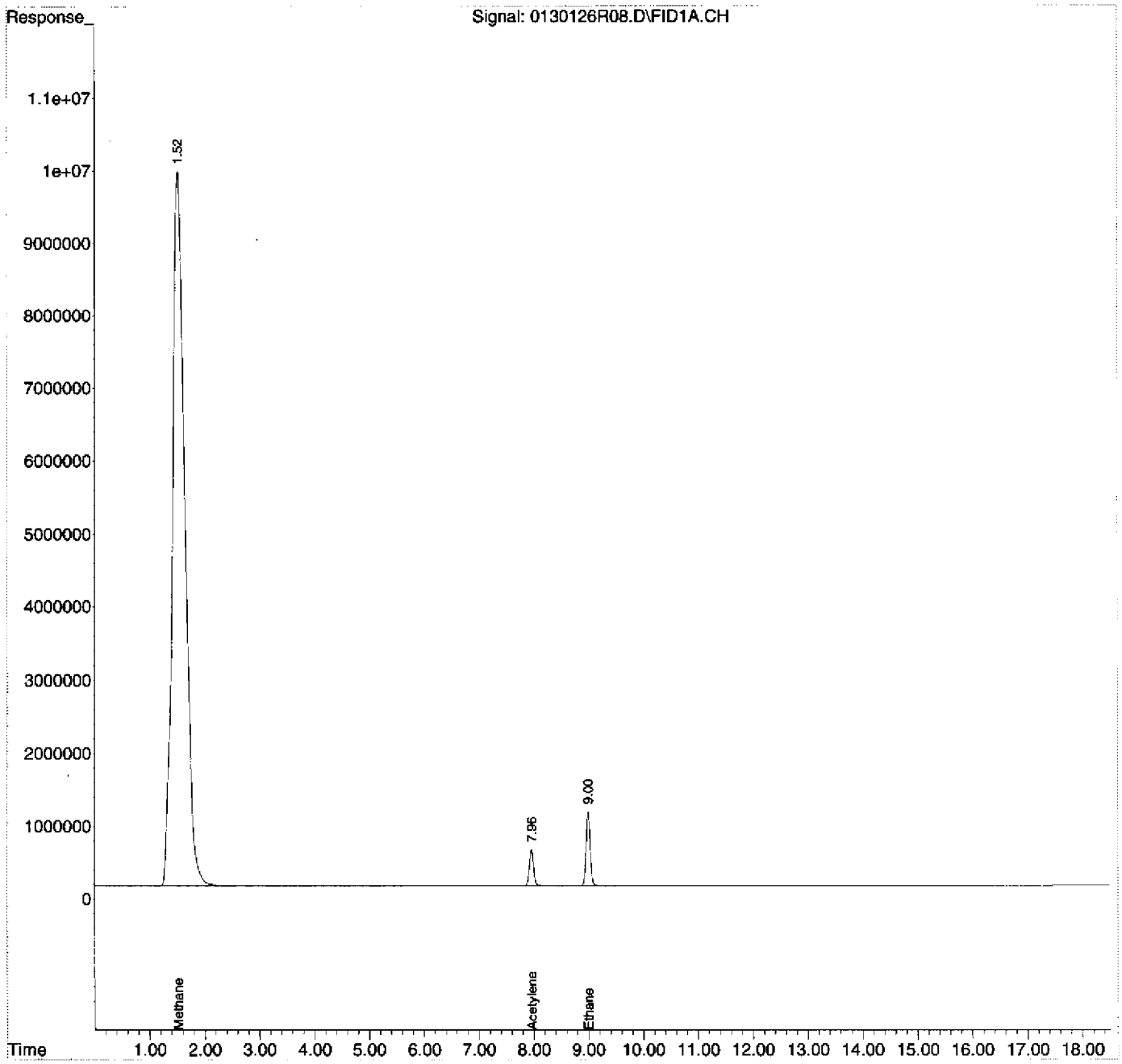
DIM0275662 DIM0275783

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 7:06 pm
Operator : rh
Sample : 1201033-03RE1
Misc : HW02z 1.5ML
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 09:41:52 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 00121 (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 7:42 pm
Operator : rh
Sample : 1201033-04RE1
Misc : HW08a 0.125ML
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 09:41:59 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	1.524	78340404	76.953	ug/L - RPT.
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	9.001	2074132	2.146	ug/L - RPT.
5) Qual Propane	0.000	0	N.D.	
6) Qual Butane	0.000	0	N.D.	

forgot to add surrogate
RH
1/31/12

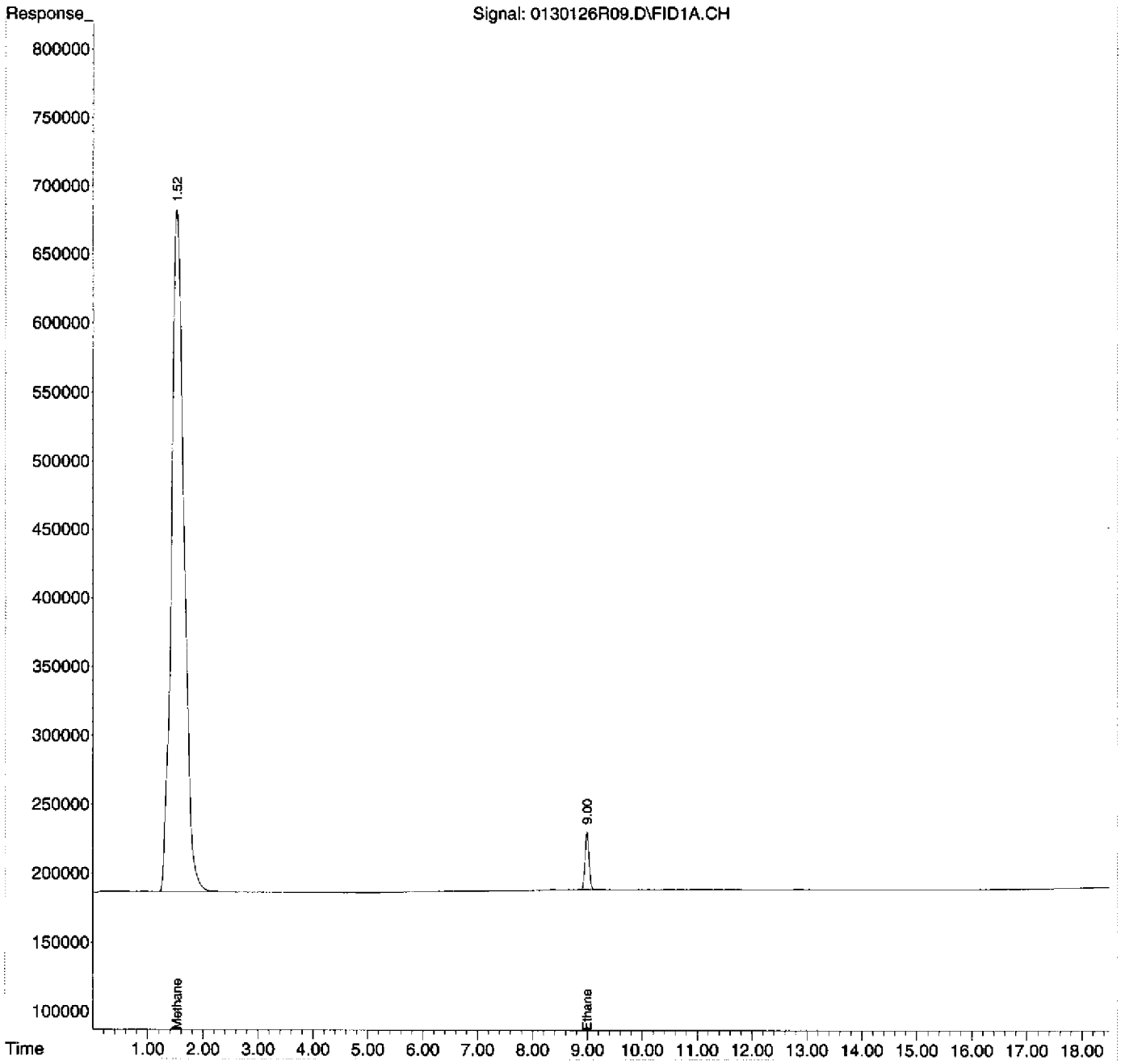
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 7:42 pm
Operator : rh
Sample : 1201033-04RE1
Misc : HW08a 0.125ML
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 09:41:59 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\013012RSK\
Data File : 0130126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 8:09 pm
Operator : rh
Sample : 1201031-03RE1
Misc : HW04 1.5mL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 09:42:06 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	7.963	26969238	77.162 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	116.33%
Target Compounds			
1) TM Methane	1.524	159111348	156.294 ug/L ~2 pt.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.004	3352862	3.469 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.

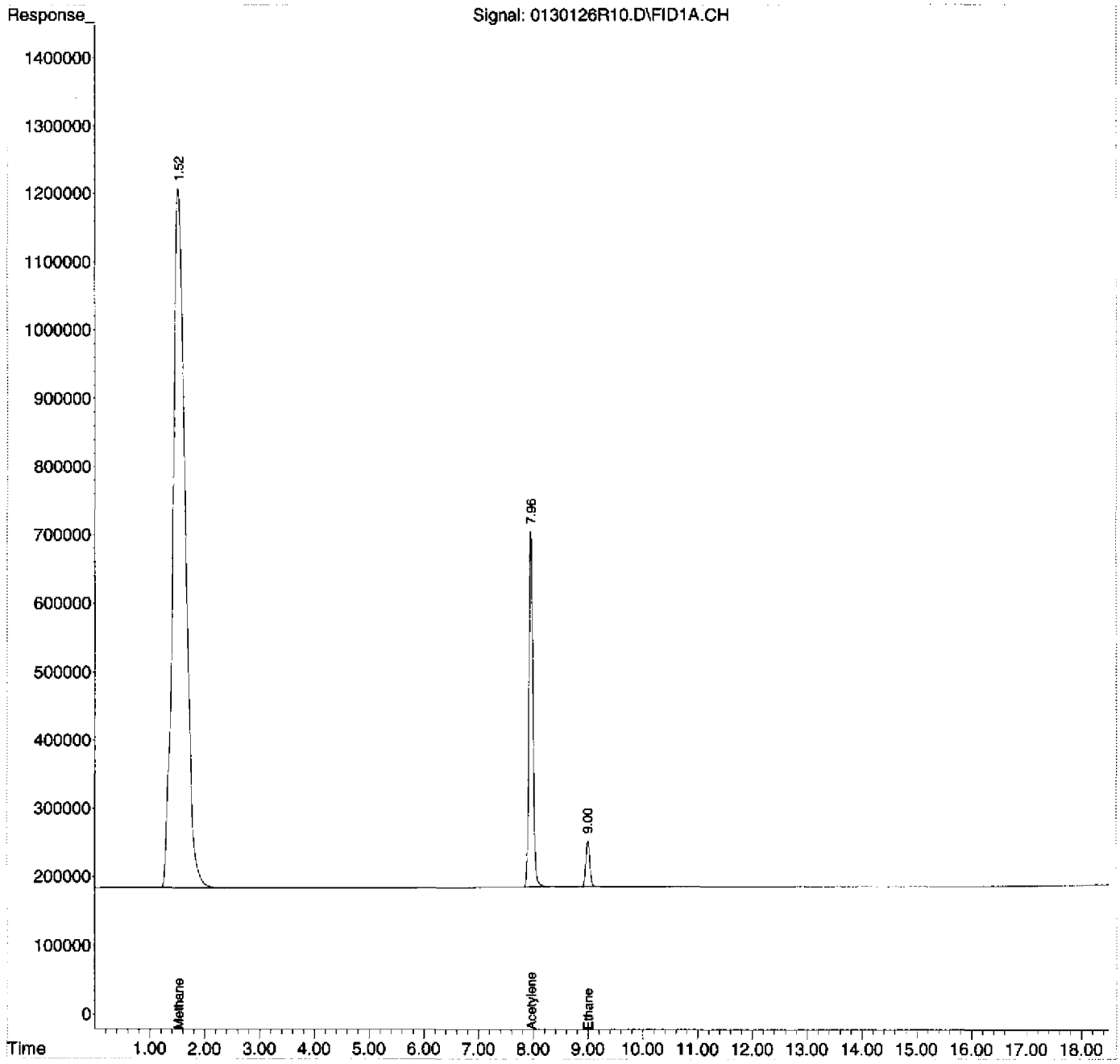
DIM0275662 DIM0275787

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 8:09 pm
Operator : rh
Sample : 1201031-03RE1
Misc : HW04 1.5mL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 09:42:06 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\013012RSK\
Data File : 0130126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 8:44 pm
Operator : rh
Sample : 1201033-01
Misc : FB01
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 09:42:13 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.963	25226925	72.177 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	108.82%
Target Compounds			
1) TM Methane	1.536	837963	0.823 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.

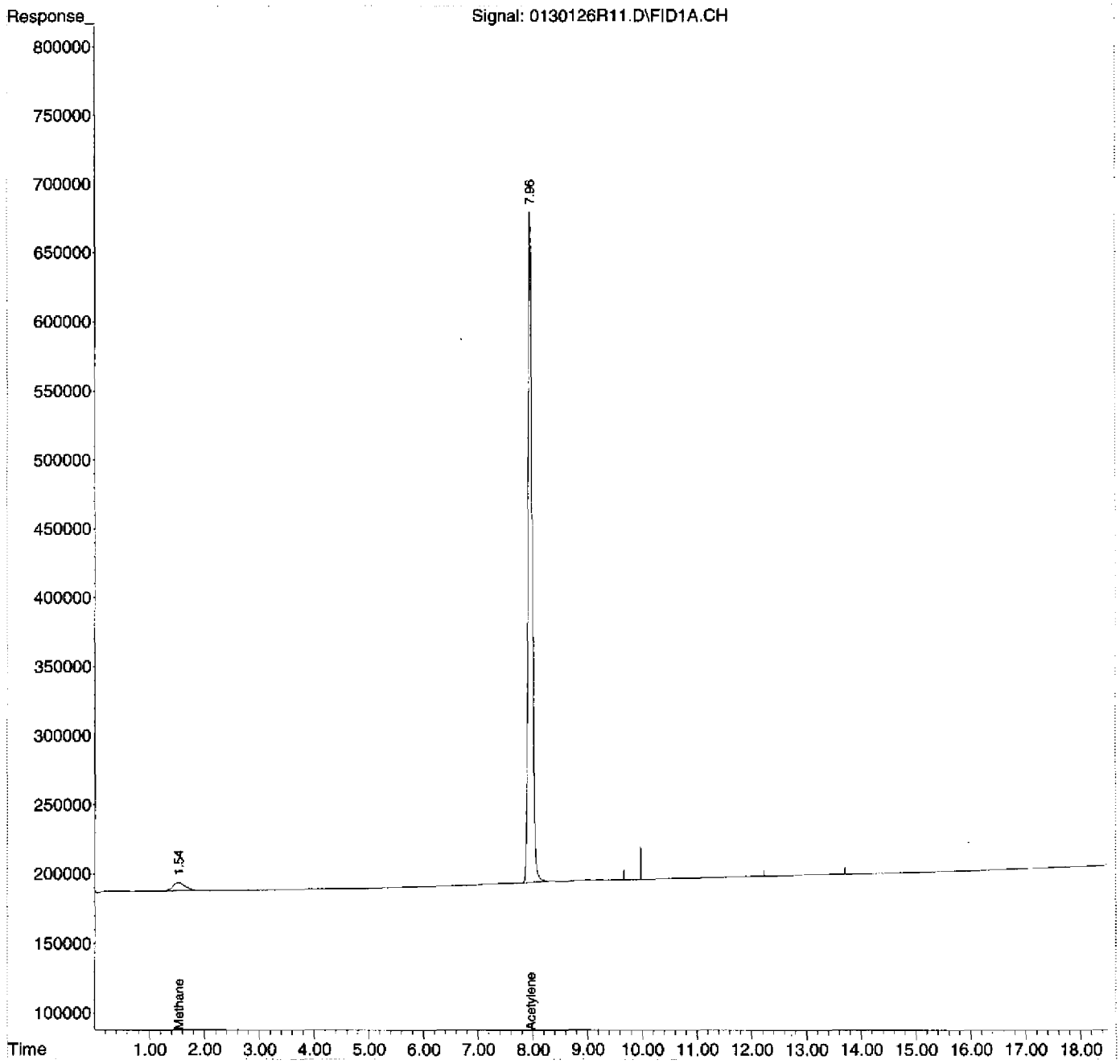
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 8:44 pm
Operator : rh
Sample : 1201033-01
Misc : FB01
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 09:42:13 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



0126126RSK.M Tue Jan 31 09:42:18 2012

Page: 2

2/3/12

001124

DIM0275662

DIM0275790

Quantitation Report (QT Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 9:11 pm
Operator : rh
Sample : B2A0075-BLK1
Misc : MB
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 12:55:34 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	27167148	77.728 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	117.18%
Target Compounds			
1) TM Methane	1.575	827468	0.813 ug/L m
3) TM Ethene	8.829f	18494	<MDL ug/L
4) TM Ethane	8.829	18494	<MDL 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.

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other:

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: RA Date: 1/31/12

Manual integration(s) reviewed by:

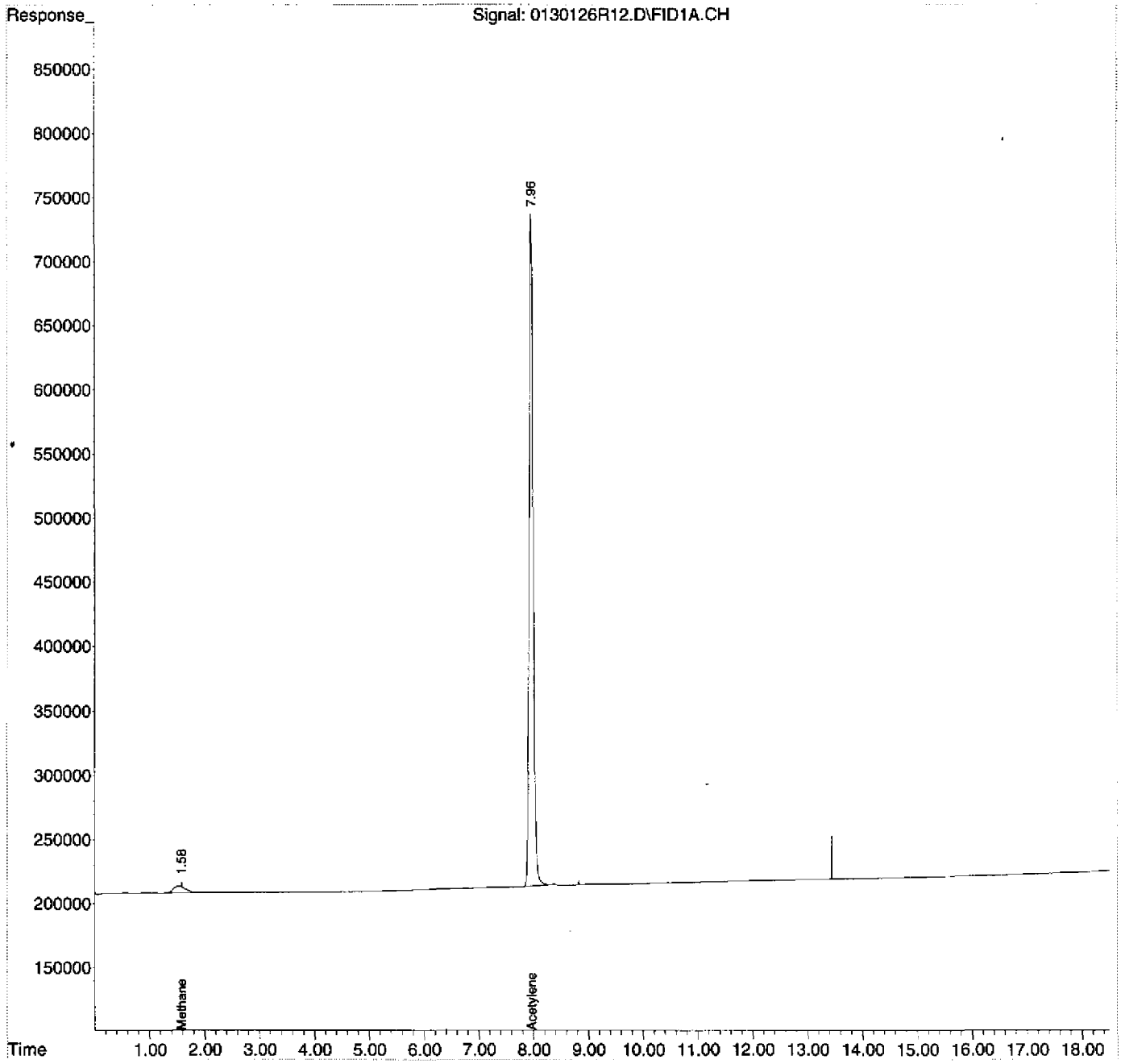
Reviewer: [illegible] Date: 2/1/12

Quantitation Report (QT Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 9:11 pm
Operator : rh
Sample : B2A0075-BLK1
Misc : MB
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 12:55:34 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

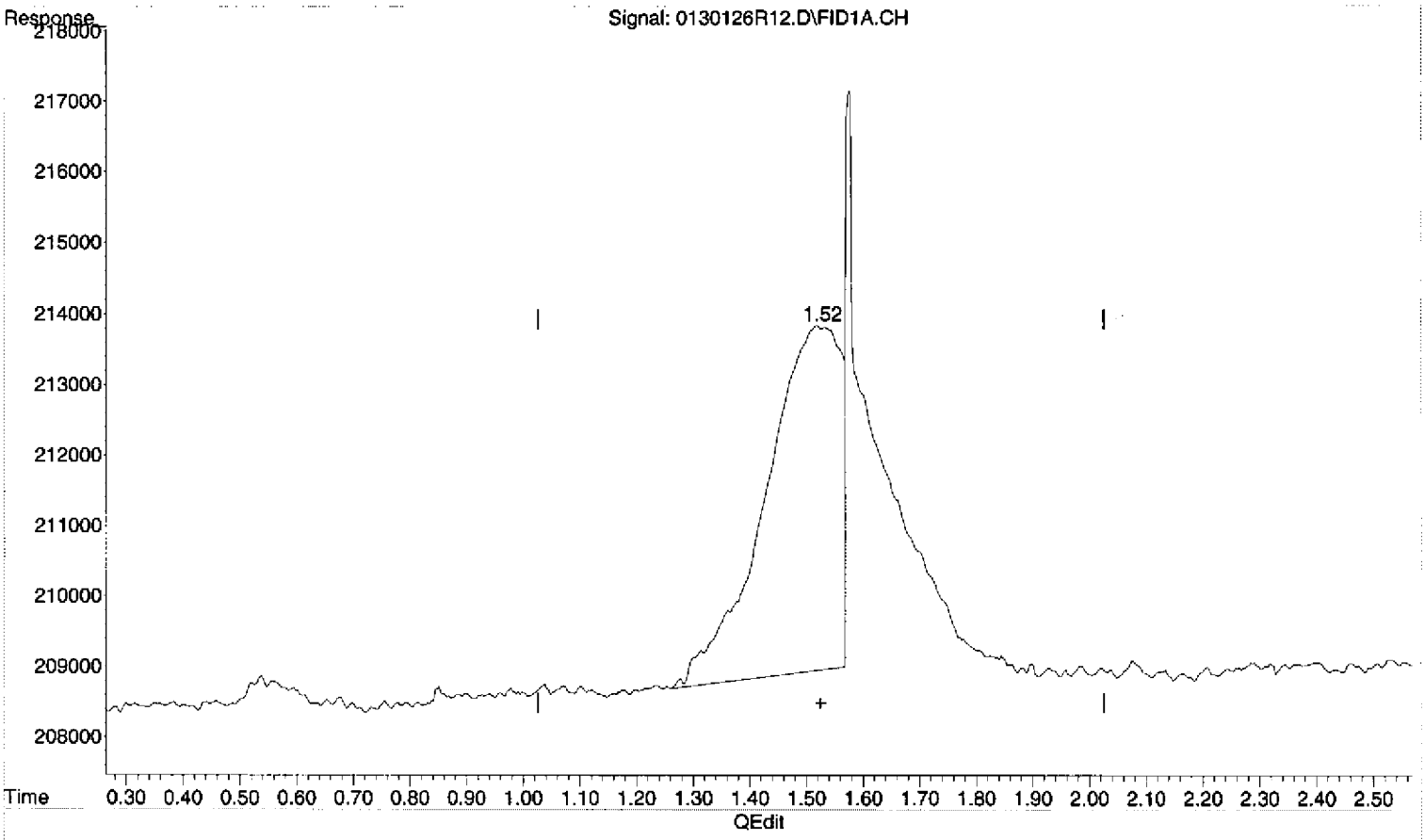


Quantitation Report (Qedit)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 9:11 pm
Operator : rh
Sample : B2A0075-BLK1
Misc : MB
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 09:42:20 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



(1) Methane (TM)

1.52min 0.434ug/L

response 441694

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☑ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

Reviewer: _____ Date: _____

(+) = Expected Retention Time

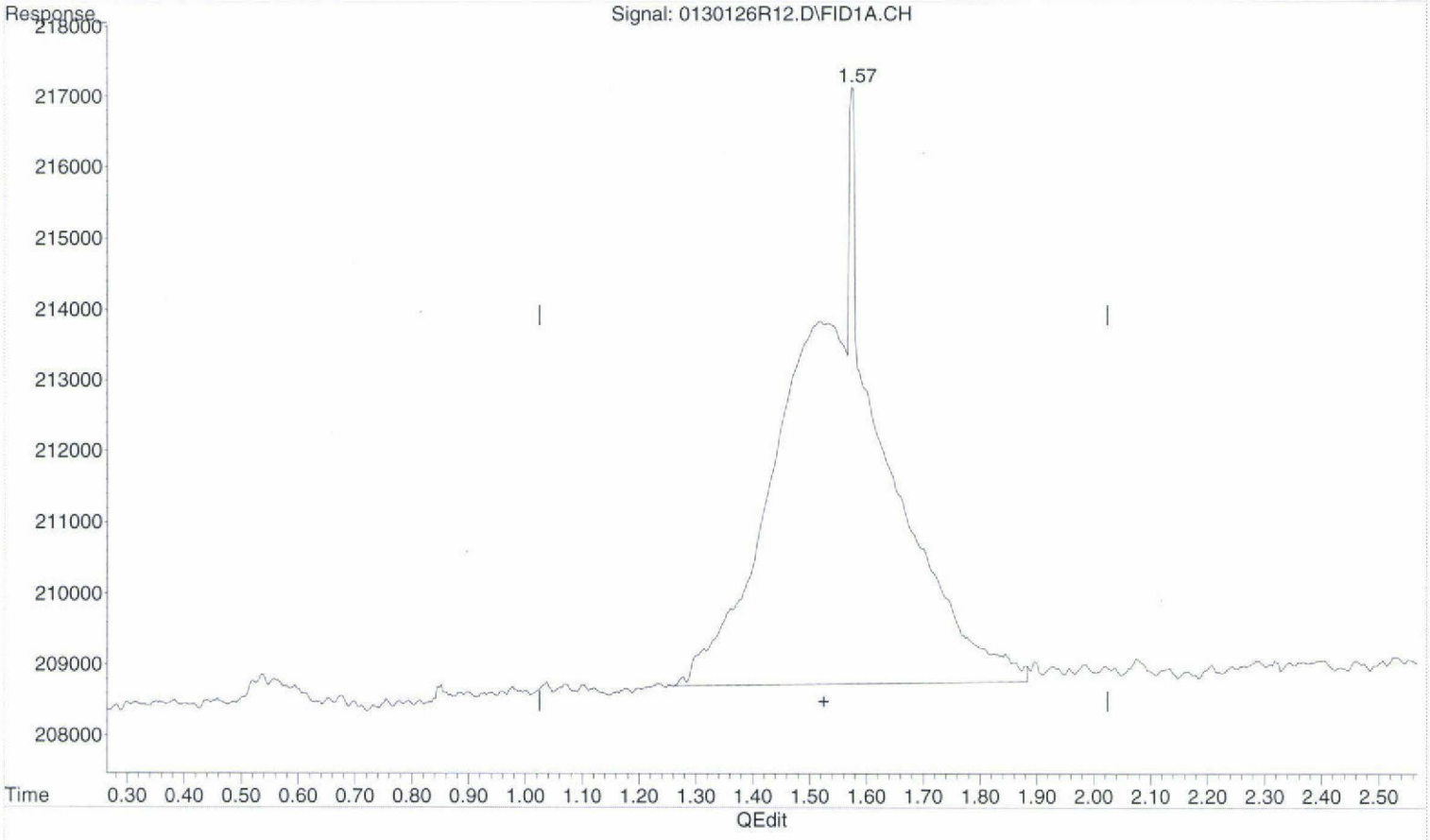
0126126RSK.M Tue Jan 31 12:55:30 2012

Quantitation Report (Qedit)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 9:11 pm
Operator : rh
Sample : B2A0075-BLK1
Misc : MB
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 09:42:20 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



(1) Methane (TM)

1.57min 0.813ug/L m

response 827468

MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: RH	Date: 1/31/12
Manual integration(s) reviewed by:	
Reviewer: [illegible]	Date: 2/1/12

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 9:11 pm
Operator : rh
Sample : B2A0075-BLK1
Misc : MB
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 09:42:20 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	7.964	27167148	77.728 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	117.18%
Target Compounds			
1) TM Methane	1.520	441694	0.434 ug/L
3) TM Ethene	8.829f	18494	<MDL ug/L
4) TM Ethane	8.829	18494	<MDL 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.

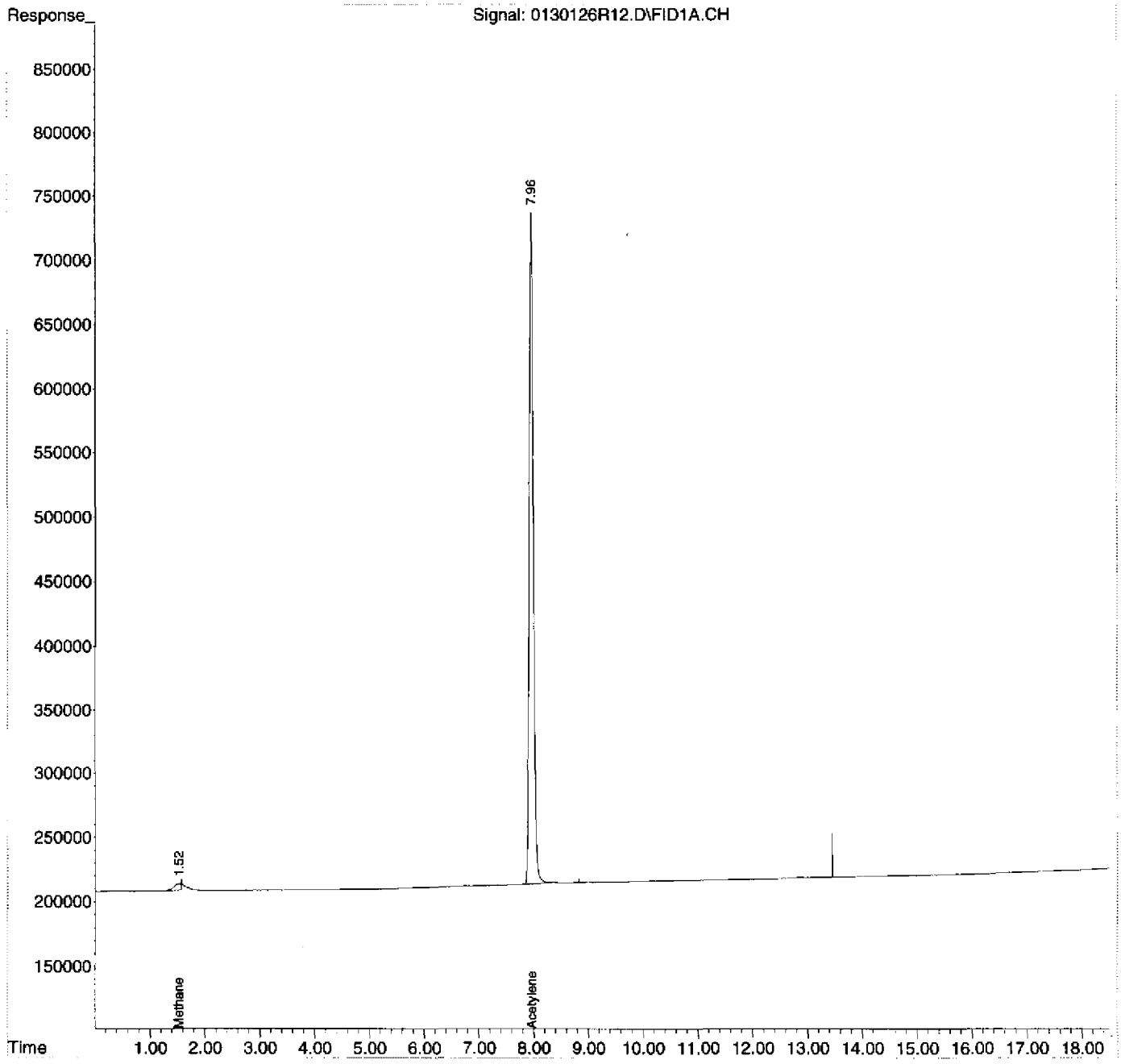
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 9:11 pm
Operator : rh
Sample : B2A0075-BLK1
Misc : MB
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 09:42:20 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



RSK-175 LCSSUMMARY REPORT

Instrument Name: AG6890N-6
File Name: 0130126R13.D
Date Acquired: 1/30/2012
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	44.099	38.989	70-130	88.4%	pass
Acetylene	72.166	66.156	66.4-153	91.7%	pass
Ethene	78.183	72.534	78-138	92.8%	pass
Ethane	83.269	77.536	77-137	93.1%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 9:46 pm
Operator : rh
Sample : B2A0075-BS1
Misc : LCS
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 09:42:27 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	23122408	66.156 ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 99.74%			
Target Compounds			
1) TM Methane	1.526	39691780	38.989 ug/L
3) TM Ethene	8.366	64405634	72.534 ug/L
4) TM Ethane	8.999	74943799	77.536 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.

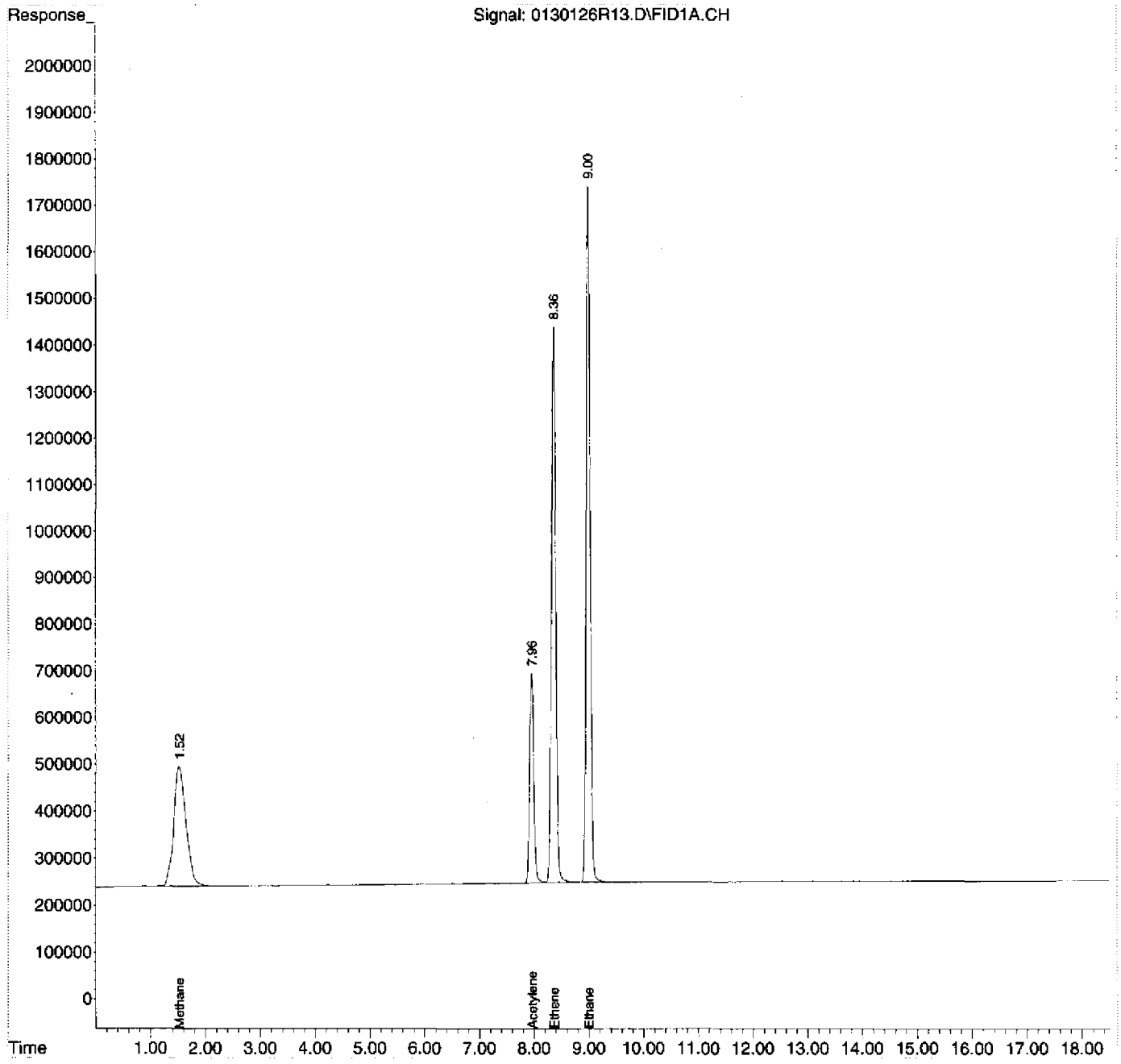
DIM0275662 DIM0275801

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 30 Jan 2012 9:46 pm
Operator : rh
Sample : B2A0075-BS1
Misc : LCS
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 09:42:27 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\013012RSK\
Data File : 0130126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 9:47 am
Operator : rh
Sample : 2010051-CCV2
Misc : 2A30007
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:06:25 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

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	1.045 E6	-2.7	104	0.00
2 S	Acetylene	349.516	365.921 E3	-4.7	99	-0.03
3 TM	Ethene	887.936	938.463 E3	-5.7	103	0.00
4 TM	Ethane	966.567	1029.887 E3	-6.6	104	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

DIM0275662 DIM0275803

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 9:47 am
Operator : rh
Sample : 2010051-CCV2
Misc : 2A30007
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:06:25 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.951	7922179	22.666 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	34.17%#
Target Compounds			
1) TM Methane	1.524	13825515	13.581 ug/L
3) TM Ethene	8.364	22011647	24.790 ug/L
4) TM Ethane	9.000	25727605	26.617 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

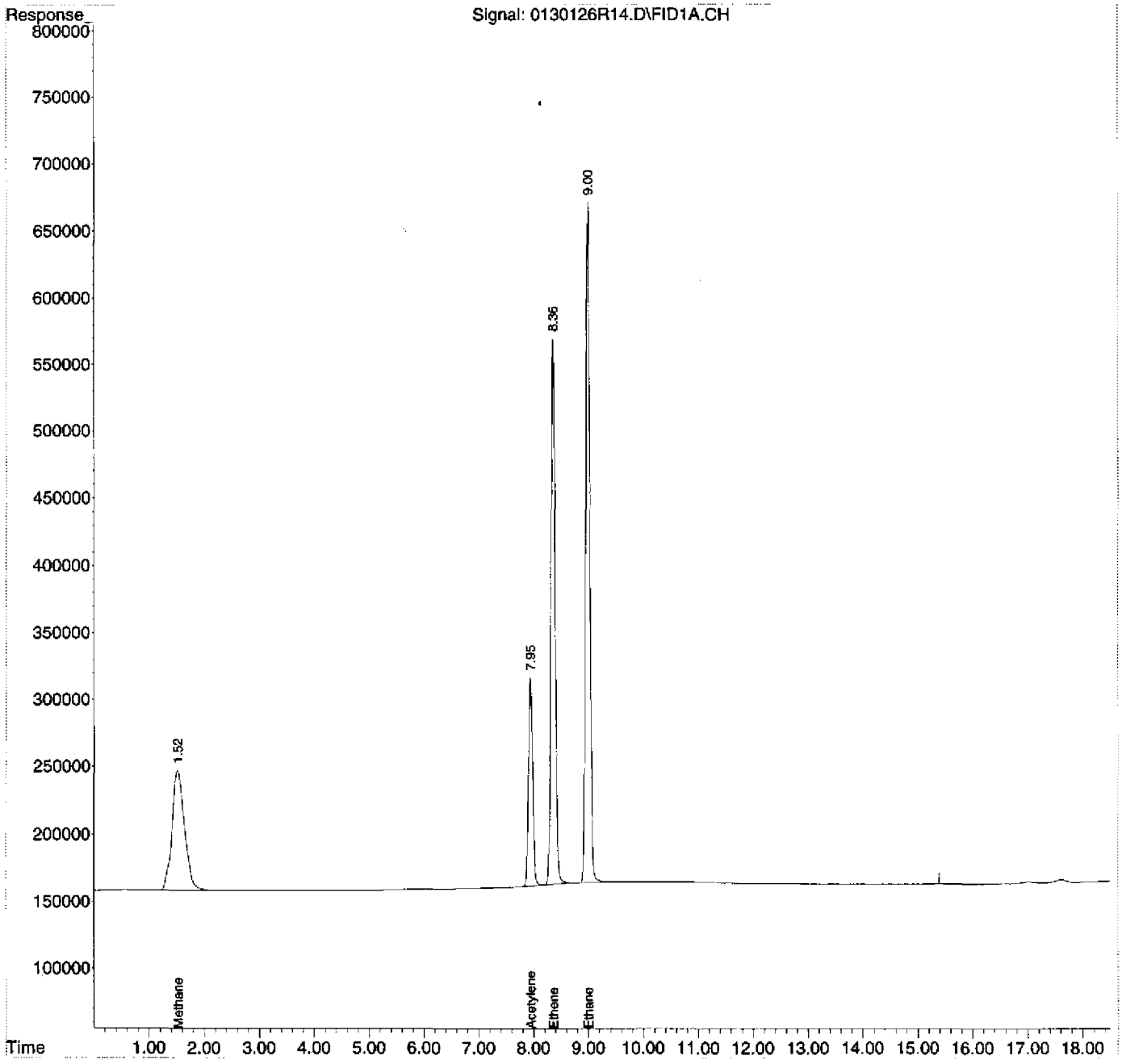
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 9:47 am
Operator : rh
Sample : 2010051-CCV2
Misc : 2A30007
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:06:25 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R15.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 10:30 am
Operator : rh
Sample : 1201033-02RE2
Misc : HW02 0.125ml
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 31 10:59:41 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.962	24320391	69.583 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	104.90%
Target Compounds			
1) TM Methane	1.523	12806420	12.580 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.005	519364	0.537 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.

made from a sample vial
that had ≈ 20 ml of head
space that sat overnight.
Possible cause?

RH 2/1/12

Inconsistent
dilution
RH
1/31/12

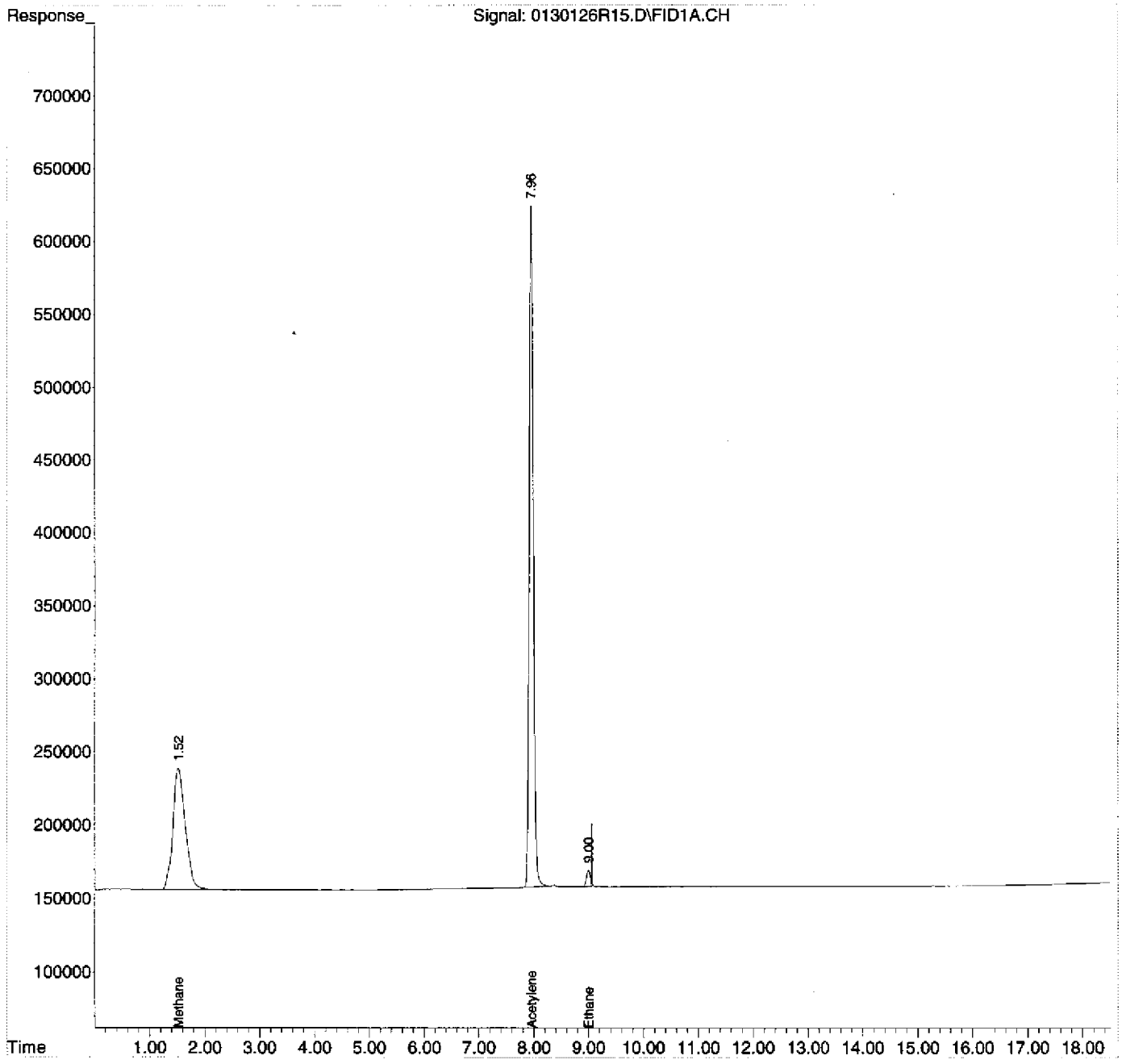
DIM0275662 DIM0275806

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R15.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 10:30 am
Operator : rh
Sample : 1201033-02RE2
Misc : HW02 0.125ml
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 31 10:59:41 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\013012RSK\
Data File : 0130126R16.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 10:57 am
Operator : rh
Sample : 1201033-03RE2
Misc : HW02z 0.125ml
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 31 11:16:33 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	25588435	73.211 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.37%
Target Compounds			
1) TM Methane	1.524	17050706	16.749 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.005	758516	0.785 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 Used

Sample aliquot taken from a vial with ≈ 20 ml of headspace that had sat over night. Possible cause of inconsistent dilution?
RH 2/1/12

Inconsistent dilution
RH 1/31/12

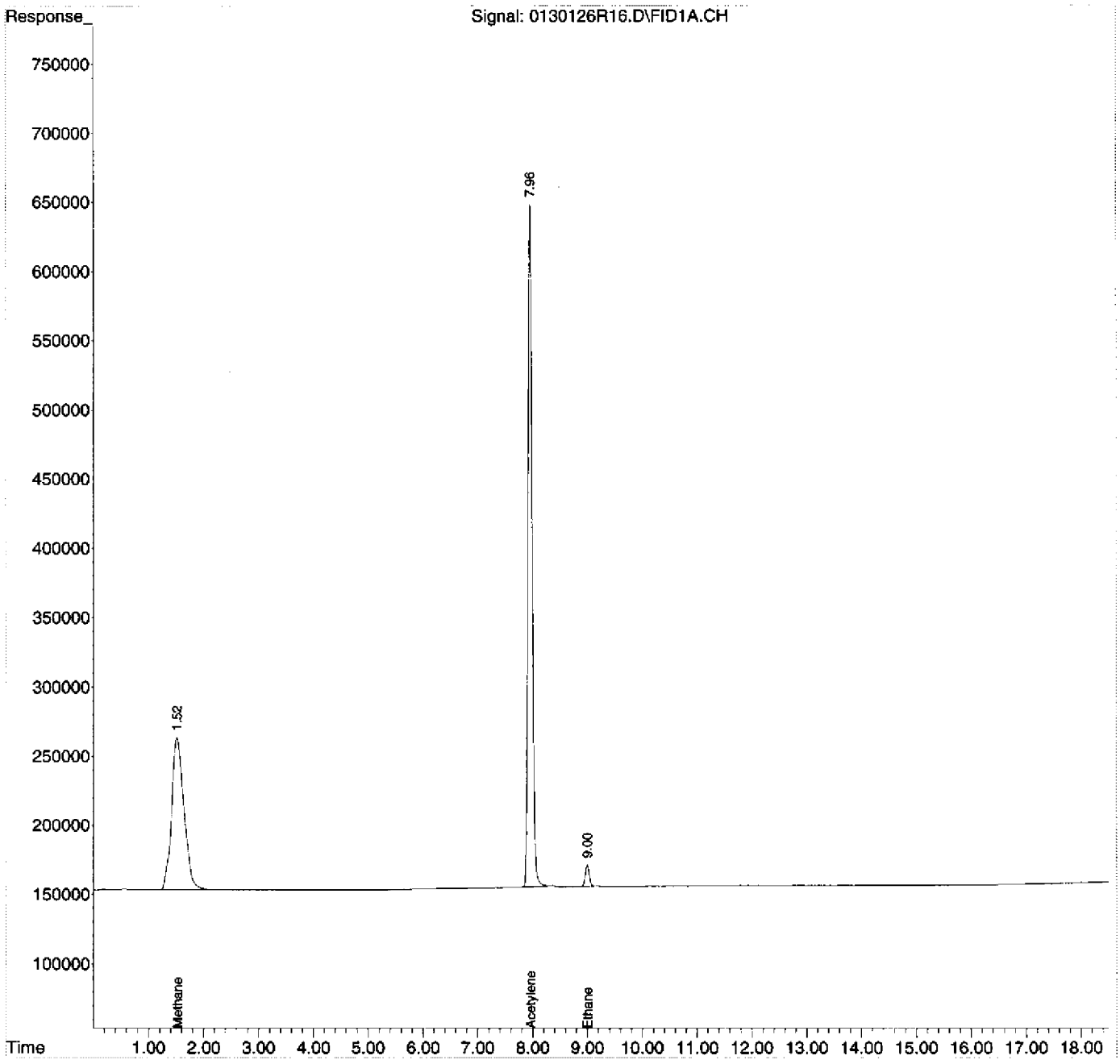
DIM0275662 DIM0275808

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R16.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 10:57 am
Operator : rh
Sample : 1201033-03RE2
Misc : HW02z 0.125ml
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 31 11:16:33 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



DIM0275662 DIM0275809

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R17.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 11:31 am
Operator : rh
Sample : 1201033-02RE3
Misc : HW02 0.125ml
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 31 12:03:19 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	7.965	21225956	60.730 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	91.56%
Target Compounds			
1) TM Methane	1.524	151742145	149.055 ug/L — report.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.004	4978993	5.151 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.

made from fresh vial
with no headspace.
RH
2/1/12

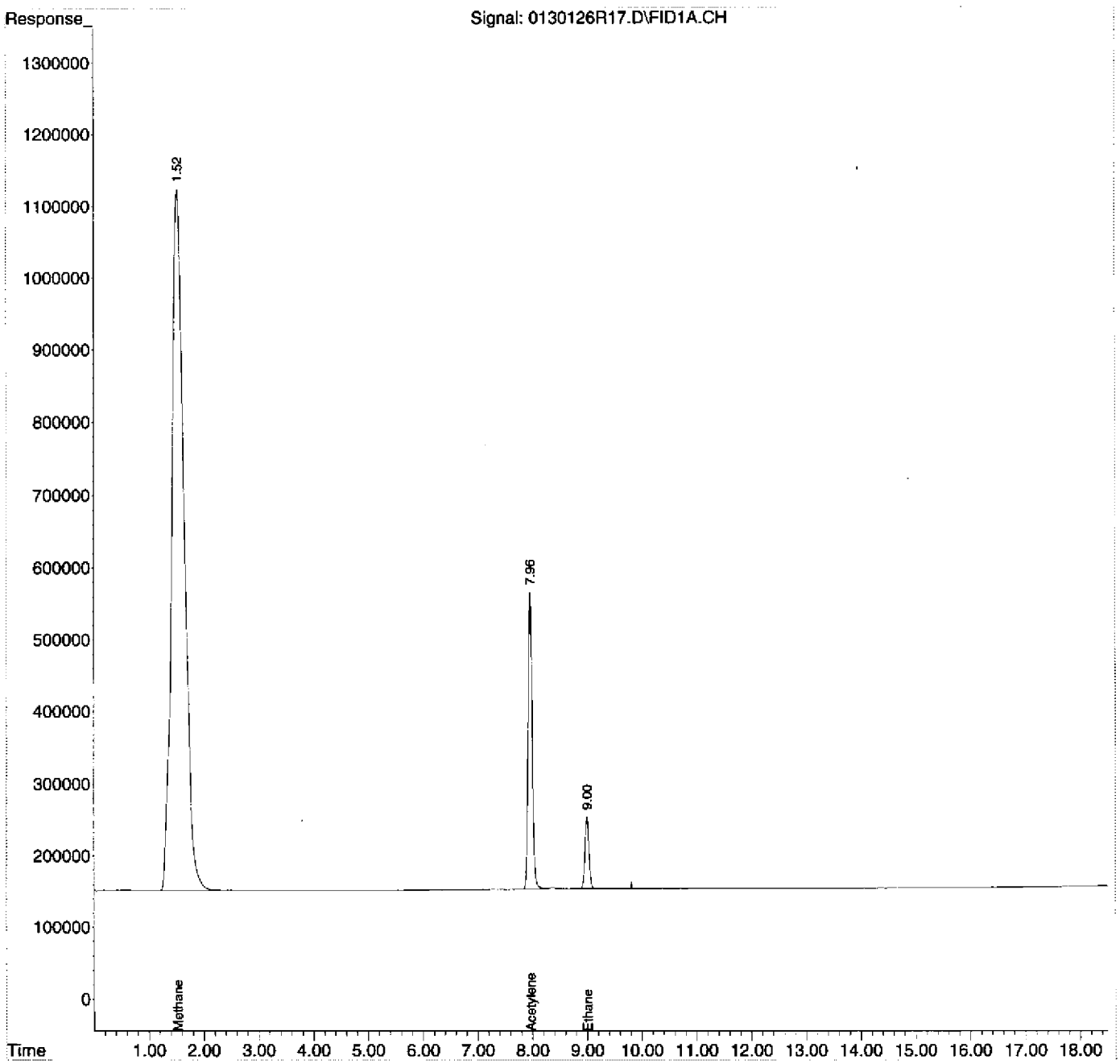
DIM0275662 DIM0275810

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R17.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 11:31 am
Operator : rh
Sample : 1201033-02RE3
Misc : HW02 0.125ml
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 31 12:03:19 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



DIM0275662 DIM0275811

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 11:59 am
Operator : rh
Sample : 1201033-03RE3
Misc : HW02z 0.125ml
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 31 12:29:14 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	23185861	66.337 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	100.01%
Target Compounds			
1) TM Methane	1.523	105763126	103.890 ug/L -RPH
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.003	3458089	3.578 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.

made from fresh
sample vial with
no headspace.

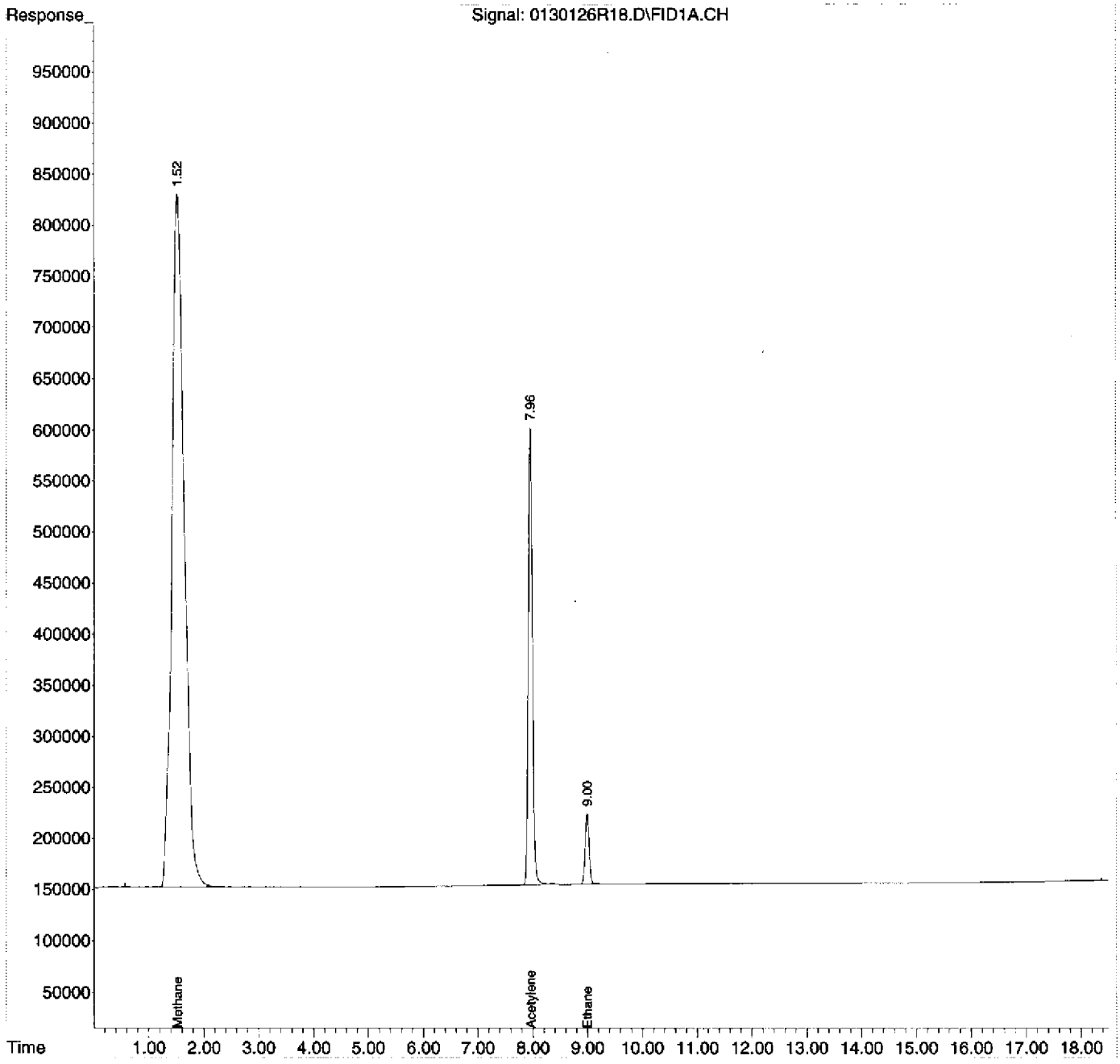
RH
2/1/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 11:59 am
Operator : rh
Sample : 1201033-03RE3
Misc : HW02z 0.125ml
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 31 12:29:14 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



DIM0275662 DIM0275813

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 12:34 pm
Operator : rh
Sample : 2010051-CCV3
Misc : 2A30007
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 31 12:54:47 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	0.946 E6	7.1	94	0.00
2 S	Acetylene	349.516	356.413 E3	-2.0	96	-0.01
3 TM	Ethene	887.936	858.159 E3	3.4	95	0.00
4 TM	Ethane	966.567	921.742 E3	4.6	94	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\013012RSK\
Data File : 0130126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 12:34 pm
Operator : rh
Sample : 2010051-CCV3
Misc : 2A30007
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 31 12:54:47 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	7716350	22.077 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	33.28%#
Target Compounds			
1) TM Methane	1.525	12509139	12.288 ug/L
3) TM Ethene	8.369	20128127	22.668 ug/L
4) TM Ethane	9.002	23026042	23.822 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

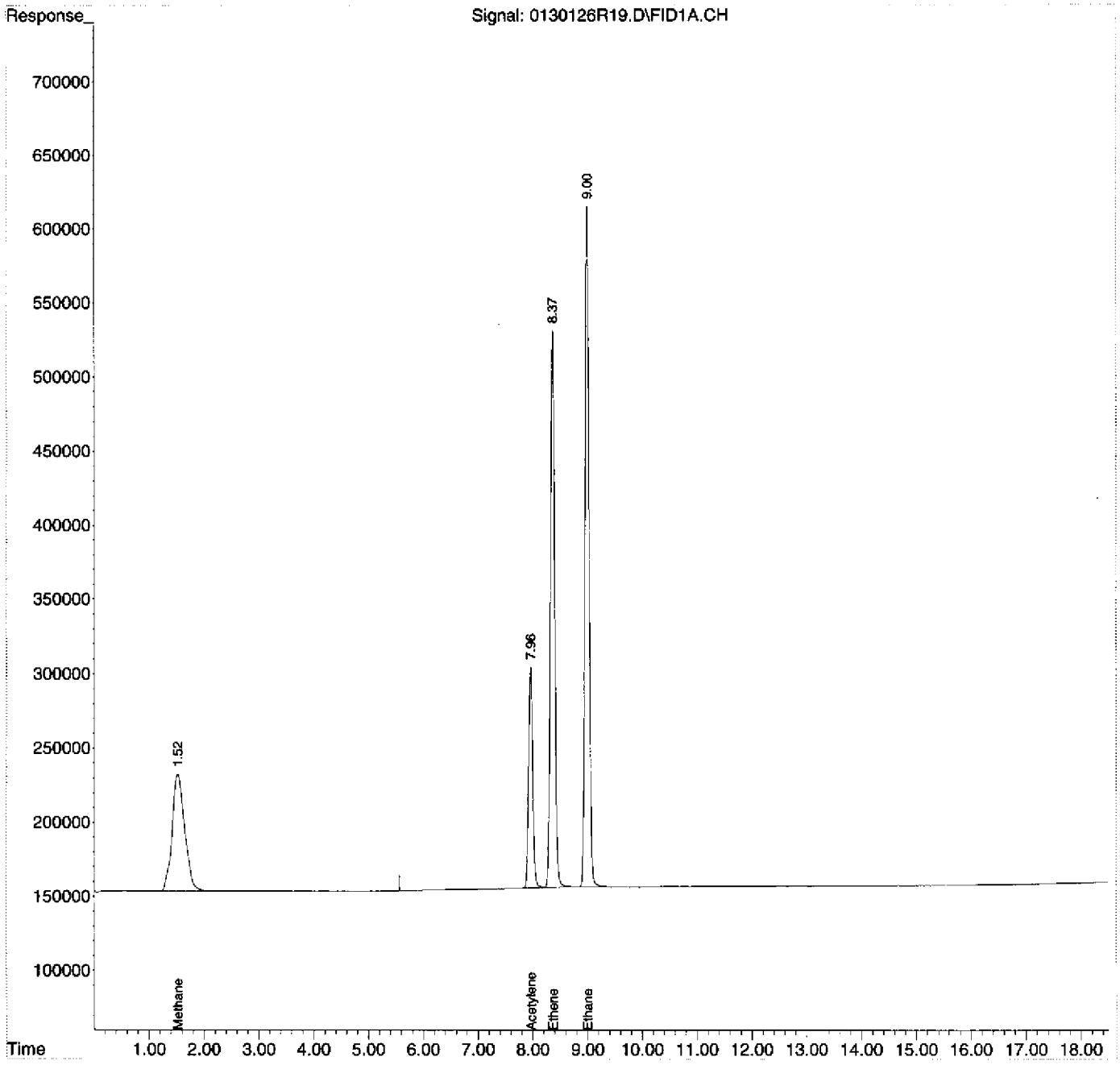
(f)=RT Delta > 1/2 Window (m)=manual int.

DIM0275662 DIM0275815

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 12:34 pm
Operator : rh
Sample : 2010051-CCV3
Misc : 2A30007
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 31 12:54:47 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\013012RSK\
Data File : 0130126R20.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 1:02 pm
Operator : rh
Sample : 2010051-CCV4
Misc : 2A30007
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 31 13:43:13 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.966	7755772	22.190 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	33.45%#
Target Compounds			
1) TM Methane	1.527	12569090	12.346 ug/L
3) TM Ethene	8.368	20246797	22.802 ug/L
4) TM Ethane	9.001	23141136	23.942 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.

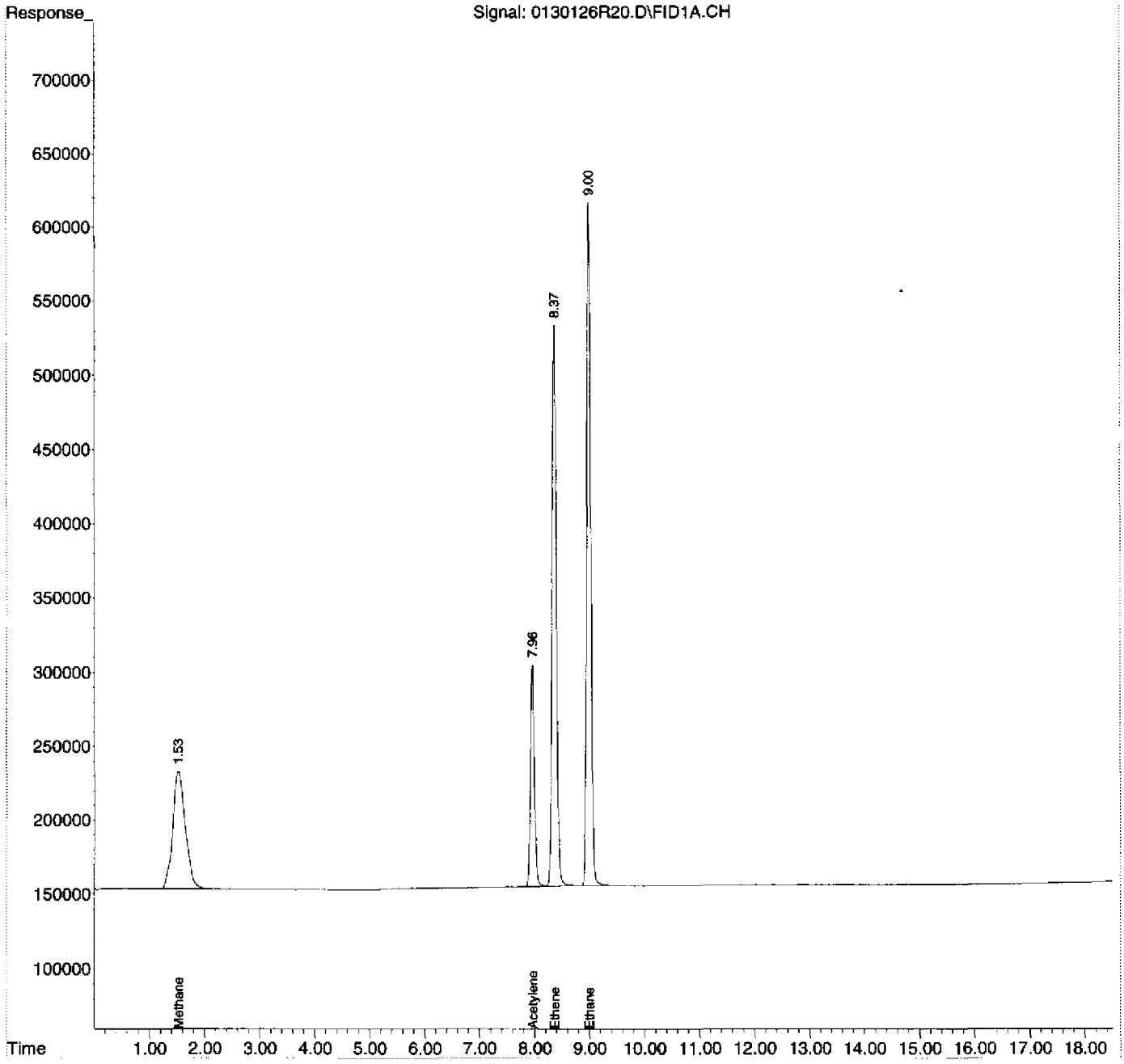
00151

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013012RSK\
Data File : 0130126R20.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 1:02 pm
Operator : rh
Sample : 2010051-CCV4
Misc : 2A30007
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 31 13:43:13 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



JR
00132 RA 2/3/12

SDG: 12027B

Instrument: AG6890N-6

Analysis Date: 1/31/12

SAMPLE DATA

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

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 %
0131126R01.D	2010054-CCV1	33*
0131126R02.D	2010054-LCV1	1*
0131126R03.D	2010054-LCV2	3*
0131126R04.D	1201034-05	114
0131126R05.D	1201034-01	111
0131126R06.D	1201034-02	104
0131126R07.D	1201034-03	103
0131126R08.D	1201034-04	102
0131126R09.D	1201034-06	115
0131126R10.D	1201034-07	117
0131126R11.D	1201034-08	115
0131126R12.D	1201033-04RE2	94
0131126R13.D	2010054-CCV2	31*
0131126R14.D	2010054-CCV3	31*
0131126R15.D	1201034-09	116
0131126R16.D	1201034-11	114
0131126R17.D	1201034-12	109
0131126R18.D	1201034-13	111
0131126R19.D	1201034-14	96
0131126R20.D	1201034-15	106
0131126R21.D	1201034-16	105
0131126R22.D	1201034-17	115
0131126R23.D	B2A0080-BLK1	117
0131126R24.D	B2A0080-BS1	112
0131126R25.D	2010054-CCV4	32*
0131126R26.D	2010054-CCV5	30*

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

Created: Wed Feb 01 13:41:37 2012 AG6890N-6

Injection Log

Operator: rh
Directory: D:\MSDCHEM\1\2012\DATA\013112RSK\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	0131126R01.D	0	2010054-CCV1	2A31017	31 Jan 2012 2:21 pm
2	0131126R02.D	0	2010054-LCV1	2A31015	31 Jan 2012 2:48 pm
3	0131126R03.D	0	2010054-LCV2	2A31016	31 Jan 2012 3:22 pm
4	0131126R04.D	0	1201034-05	HW14-P	31 Jan 2012 3:50 pm
5	0131126R05.D	0	1201034-01	FB04	31 Jan 2012 4:26 pm
6	0131126R06.D	0	1201034-02	HW05	31 Jan 2012 4:54 pm
7	0131126R07.D	0	1201034-03	HW06	31 Jan 2012 5:30 pm
8	0131126R08.D	0	1201034-04	HW12	31 Jan 2012 5:58 pm
9	0131126R09.D	0	1201034-06	HW14	31 Jan 2012 6:34 pm
10	0131126R10.D	0	1201034-07	TB04	31 Jan 2012 7:02 pm
11	0131126R11.D	0	1201034-08	TB05	31 Jan 2012 7:37 pm
12	0131126R12.D	0	1201033-04RE2	HW08a 0.15ml	31 Jan 2012 8:05 pm
13	0131126R13.D	0	2010054-CCV2	2A31017	31 Jan 2012 8:40 pm
14	0131126R14.D	0	2010054-CCV3	2A31017	31 Jan 2012 9:08 pm
15	0131126R15.D	0	1201034-09	FB05	31 Jan 2012 9:43 pm
16	0131126R16.D	0	1201034-11	HW24-P	31 Jan 2012 10:11 pm
17	0131126R17.D	0	1201034-12	TB02	31 Jan 2012 10:46 pm
18	0131126R18.D	0	1201034-13	TB03	31 Jan 2012 11:13 pm
19	0131126R19.D	0	1201034-14	TB07	31 Jan 2012 11:49 pm
20	0131126R20.D	0	1201034-15	HW17	01 Feb 2012 12:16 am
21	0131126R21.D	0	1201034-16	HW24	01 Feb 2012 12:51 am
22	0131126R22.D	0	1201034-17	TB06	01 Feb 2012 1:18 am
23	0131126R23.D	0	B2A0080-BLK1	MB	01 Feb 2012 1:54 am
24	0131126R24.D	0	B2A0080-BS1	LCS	01 Feb 2012 2:21 am
25	0131126R25.D	0	2010054-CCV4	2A31017	01 Feb 2012 2:56 am
26	0131126R26.D	0	2010054-CCV5	2A31017	01 Feb 2012 3:23 am

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\013112RSK\
Data File : 0131126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 2:21 pm
Operator : rh
Sample : 2010054-CCV1
Misc : 2A31017
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 31 15:09:57 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	0.853 E6	16.2	85	0.00
2	S	Acetylene	349.516	349.601 E3	-0.0	94	-0.02
3	TM	Ethene	887.936	786.505 E3	11.4	87	0.00
4	TM	Ethane	966.567	828.709 E3	14.3	84	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\013112RSK\
Data File : 0131126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 2:21 pm
Operator : rh
Sample : 2010054-CCV1
Misc : 2A31017
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 31 15:09:57 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	7568863	21.655 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	32.65%#
Target Compounds			
1) TM Methane	1.526	11288444	11.089 ug/L
3) TM Ethene	8.368	18447464	20.776 ug/L
4) TM Ethane	9.002	20701988	21.418 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

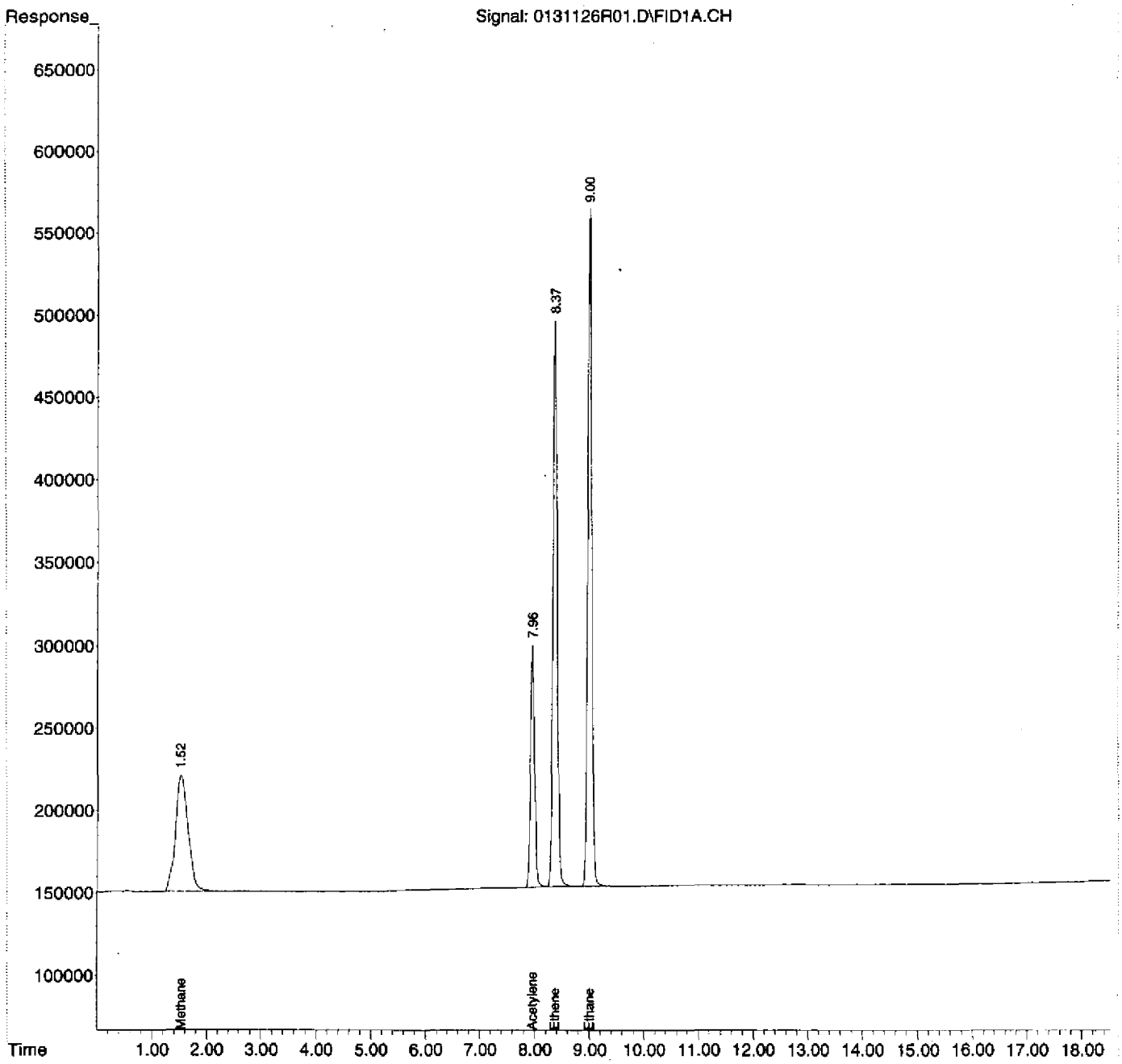
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 2:21 pm
Operator : rh
Sample : 2010054-CCV1
Misc : 2A31017
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 31 15:09:57 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: 0131126R0
File Name LCV2: 0131126R0
Date Acquired: 01/31/12
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.349	60 - 140	109.6%	pass
Acetylene	2.014	1.838	60 - 140	91.3%	NA
Ethene	1.091	0.976	60 - 140	89.5%	pass
Ethane	1.162	1	60 - 140	86.1%	pass

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

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 2:48 pm
Operator : rh
Sample : 2010054-LCV1
Misc : 2A31015
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 31 15:10:24 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	7.971	327497	0.937 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.41%#
Target Compounds			
1) TM Methane	1.532	891540	0.876 ug/L
3) TM Ethene	8.369	866782	0.976 ug/L
4) TM Ethane	9.004	966834	1.000 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.

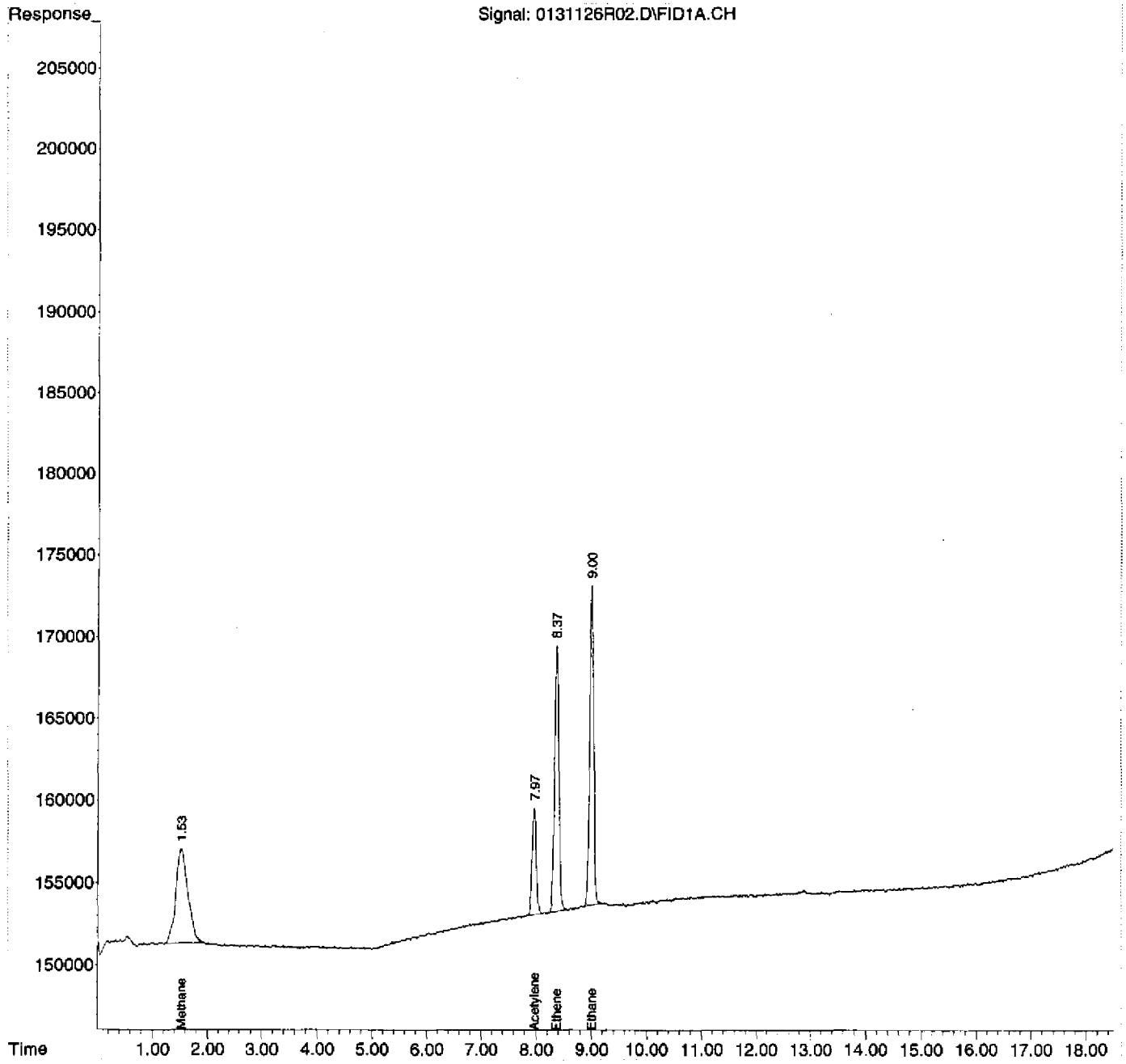
DIM0275662 DIM0275827

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 2:48 pm
Operator : rh
Sample : 2010054-LCV1
Misc : 2A31015
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 31 15:10:24 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 3:22 pm
Operator : rh
Sample : 2010054-LCV2
Misc : 2A31016
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 31 16:00:33 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	7.969	642499	1.838 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.77%#
Target Compounds			
1) TM Methane	1.521	1373618	1.349 ug/L
3) TM Ethene	8.370	1717708	1.934 ug/L
4) TM Ethane	9.002	1940433	2.008 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

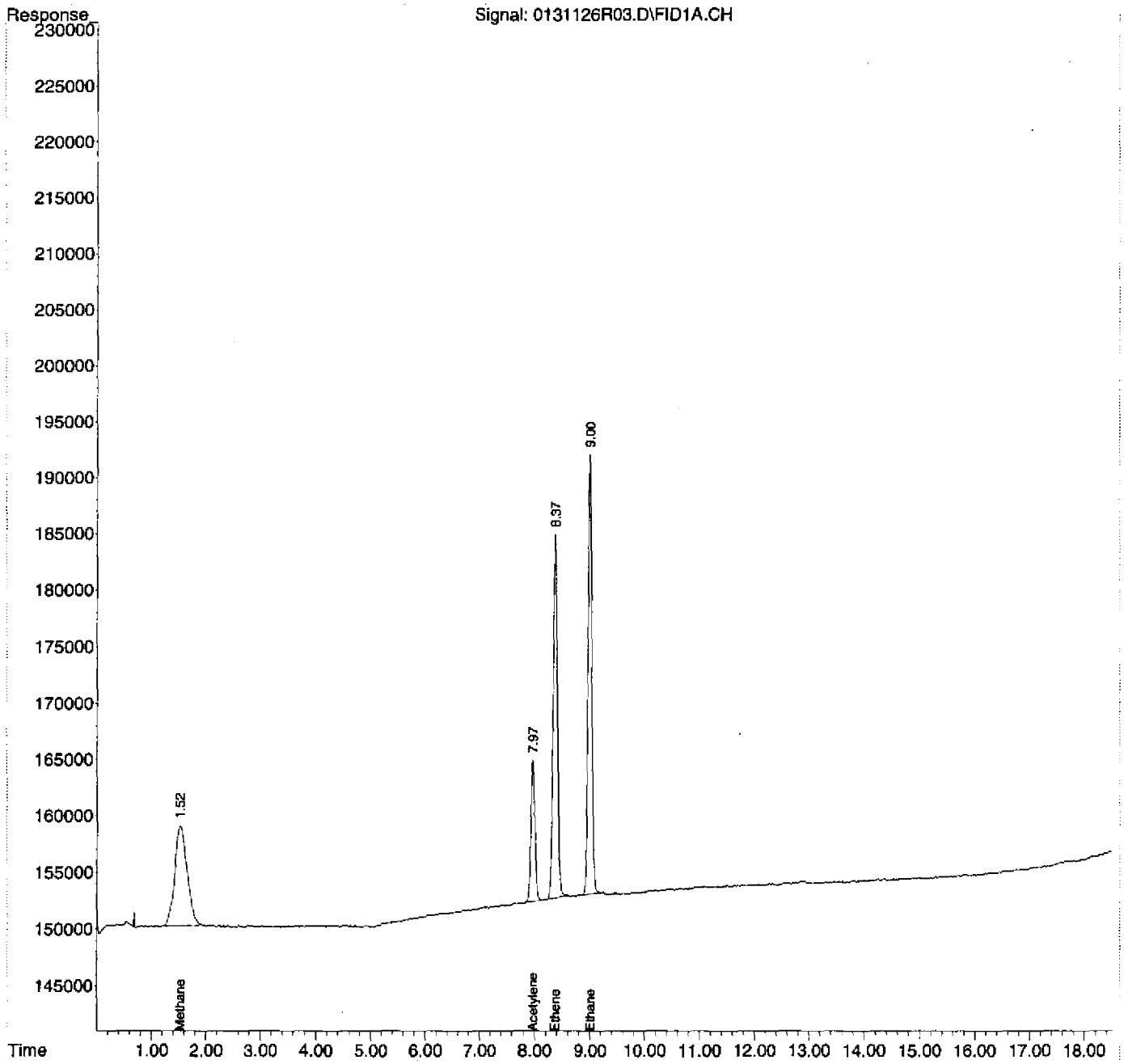
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 3:22 pm
Operator : rh
Sample : 2010054-LCV2
Misc : 2A31016
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 31 16:00:33 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\013112RSK\
Data File : 0131126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 8:05 pm
Operator : rh
Sample : 1201033-04RE2
Misc : HW08a 0.15ml
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 01 09:21:18 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.964	21744341	62.213 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	93.79%
Target Compounds			
1) TM Methane	1.525	87063313	85.521 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.005	3155847	3.265 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.

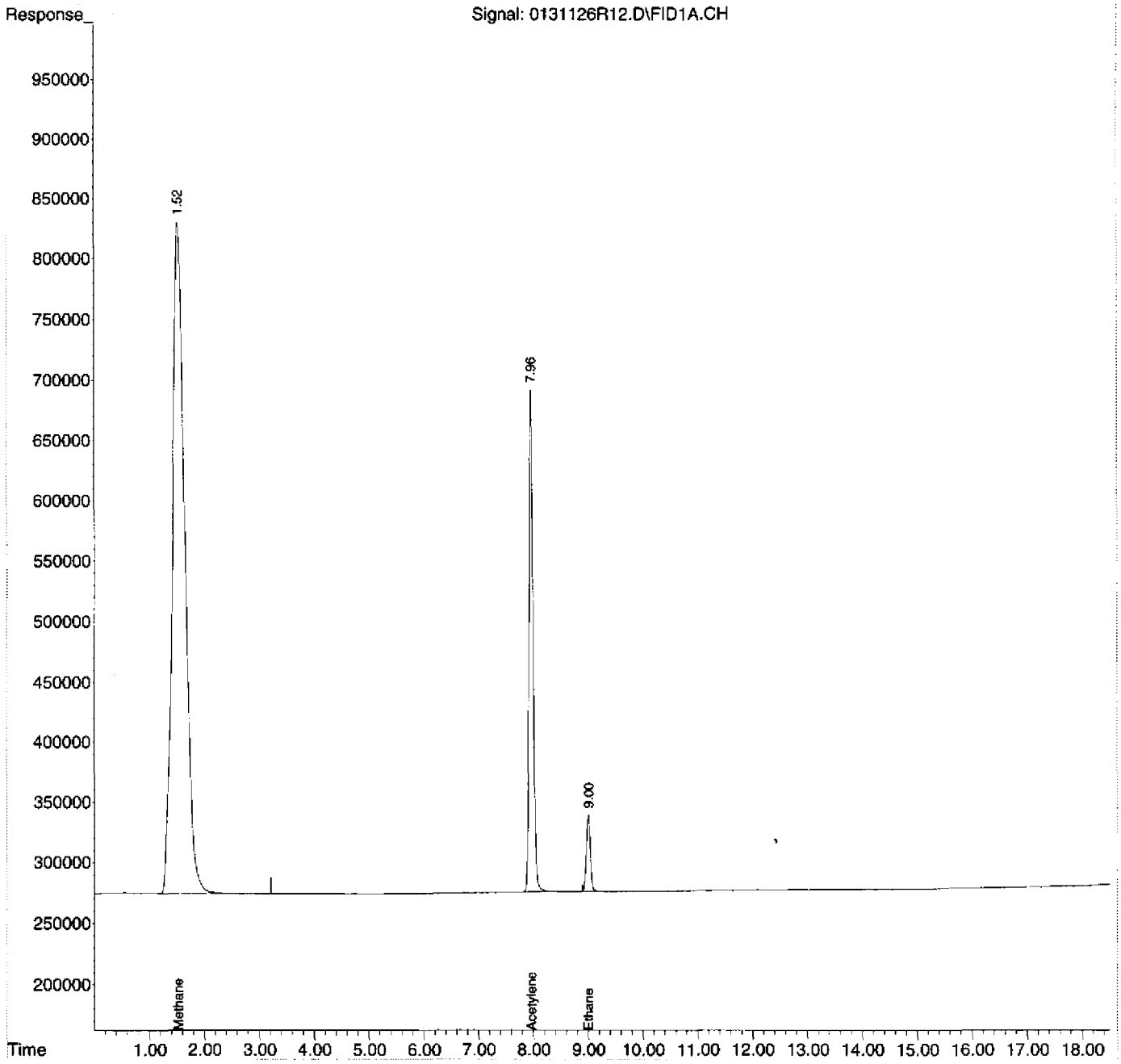
DIM0275662 DIM0275831

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 8:05 pm
Operator : rh
Sample : 1201033-04RE2
Misc : HW08a 0.15ml
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 01 09:21:18 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 8:40 pm
Operator : rh
Sample : 2010054-CCV2
Misc : 2A31017
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 01 09:17:39 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

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	0.776 E6	23.8#	77	0.00
2 S	Acetylene	349.516	334.195 E3	4.4	90	-0.01
3 TM	Ethene	887.936	718.481 E3	19.1	79	0.00
4 TM	Ethane	966.567	746.790 E3	22.7#	76	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

not used for RK 2/1/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 8:40 pm
Operator : rh
Sample : 2010054-CCV2
Misc : 2A31017
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 01 09:17:39 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	7235321	20.701 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	31.21%#
Target Compounds			
1) TM Methane	1.528	10270093	10.088 ug/L
3) TM Ethene	8.370	16851973	18.979 ug/L
4) TM Ethane	9.004	18655549	19.301 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

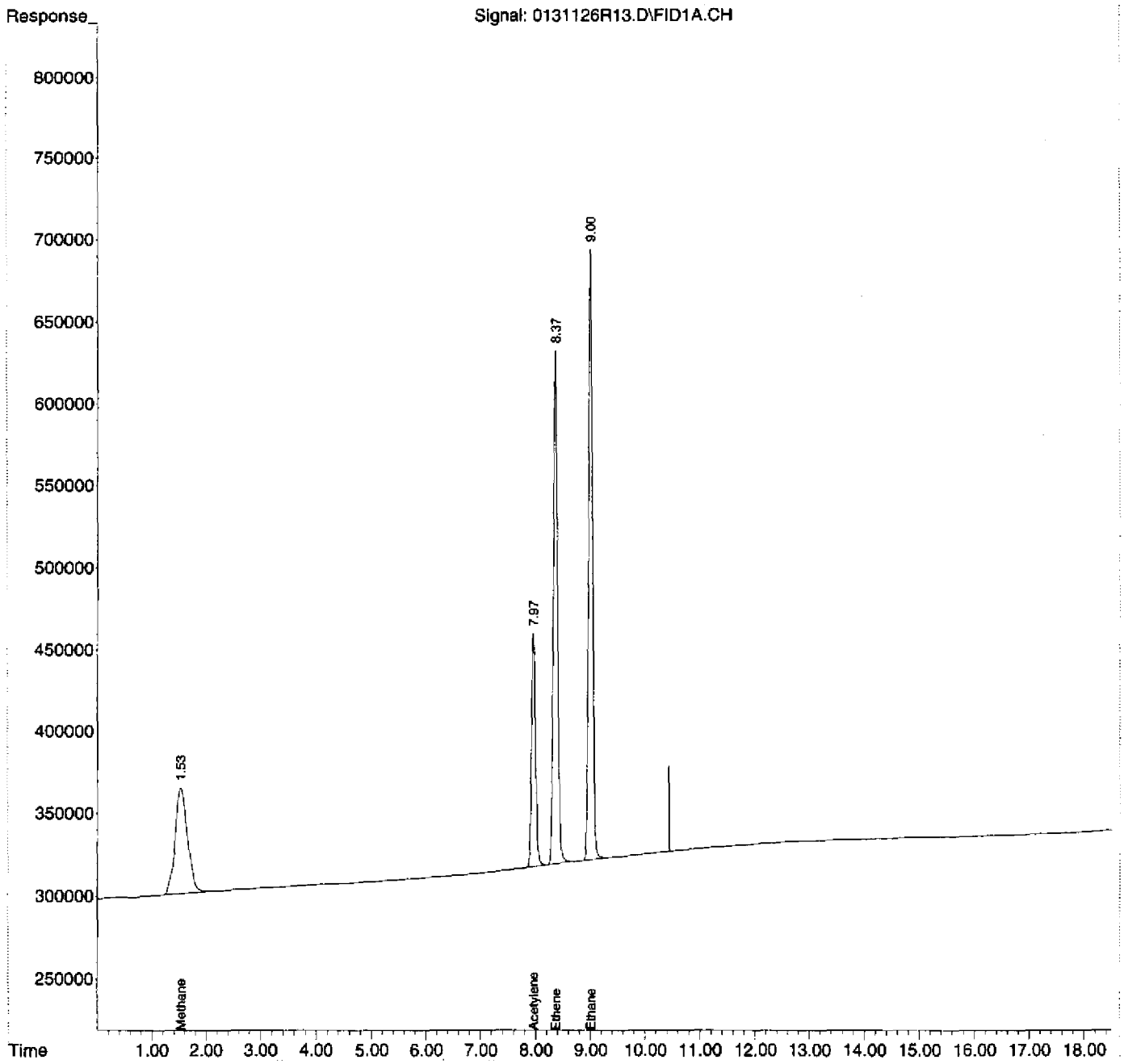
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 8:40 pm
Operator : rh
Sample : 2010054-CCV2
Misc : 2A31017
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 01 09:17:39 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



Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 9:08 pm
Operator : rh
Sample : 2010054-CCV3
Misc : 2A31017
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 01 09:21:26 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	0.982 E6	3.5	98	0.00
2 S	Acetylene	349.516	330.581 E3	5.4	89	-0.01
3 TM	Ethene	887.936	866.560 E3	2.4	96	0.00
4 TM	Ethane	966.567	956.996 E3	1.0	97	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

DIM0275662 DIM0275836

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 9:08 pm
Operator : rh
Sample : 2010054-CCV3
Misc : 2A31017
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 01 09:21:26 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	7157084	20.477 ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 30.87%#			
Target Compounds			
1) TM Methane	1.527	12997484	12.767 ug/L
3) TM Ethene	8.368	20325165	22.890 ug/L
4) TM Ethane	9.003	23906708	24.734 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.

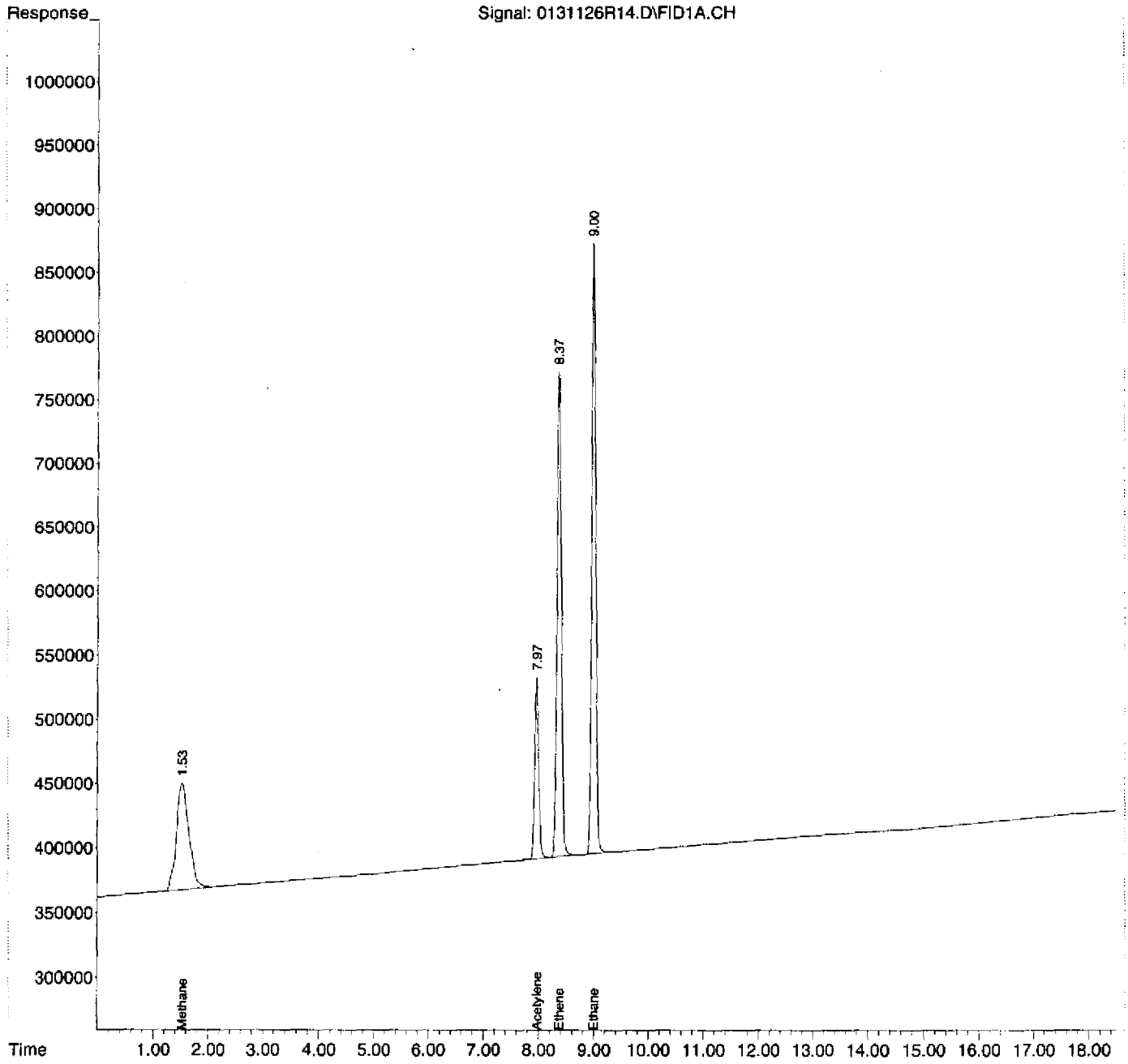
DIM0275662 DIM0275837

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R14.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 9:08 pm
Operator : rh
Sample : 2010054-CCV3
Misc : 2A31017
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 01 09:21:26 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\013112RSK\
Data File : 0131126R23.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 1:54 am
Operator : rh
Sample : B2A0080-BLK1
Misc : MB
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 01 09:22:37 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	27178882	77.761 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	117.23%
Target Compounds			
1) TM Methane	1.518	735618	0.723 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.

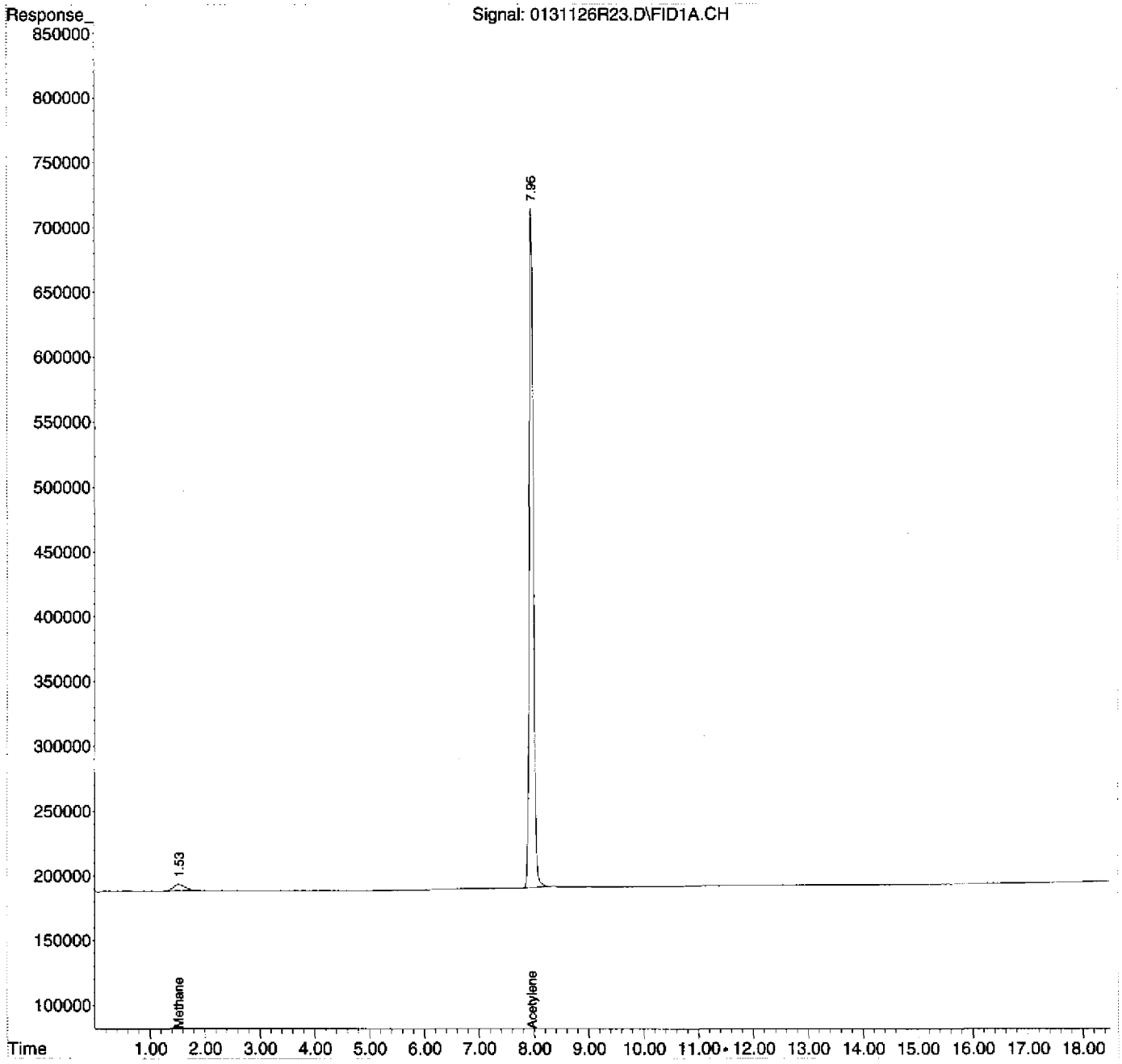
DIM0275662 DIM0275839

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R23.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 1:54 am
Operator : rh
Sample : B2A0080-BLK1
Misc : MB
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 01 09:22:37 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: 0131126R24.D
Date Acquired: 2/1/2012
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	44.099	45.547	70-130	103.3%	pass
Acetylene	72.166	74.497	66.4-153	103.2%	pass
Ethene	78.183	82.827	78-138	105.9%	pass
Ethane	83.269	89.790	77-137	107.8%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R24.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:21 am
Operator : rh
Sample : B2A0080-BS1
Misc : LCS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 01 09:22:45 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.962	26037884	74.497 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	112.31%
Target Compounds			
1) TM Methane	1.523	46367679	45.547 ug/L
3) TM Ethene	8.365	73545245	82.827 ug/L
4) TM Ethane	9.002	86788378	89.790 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.

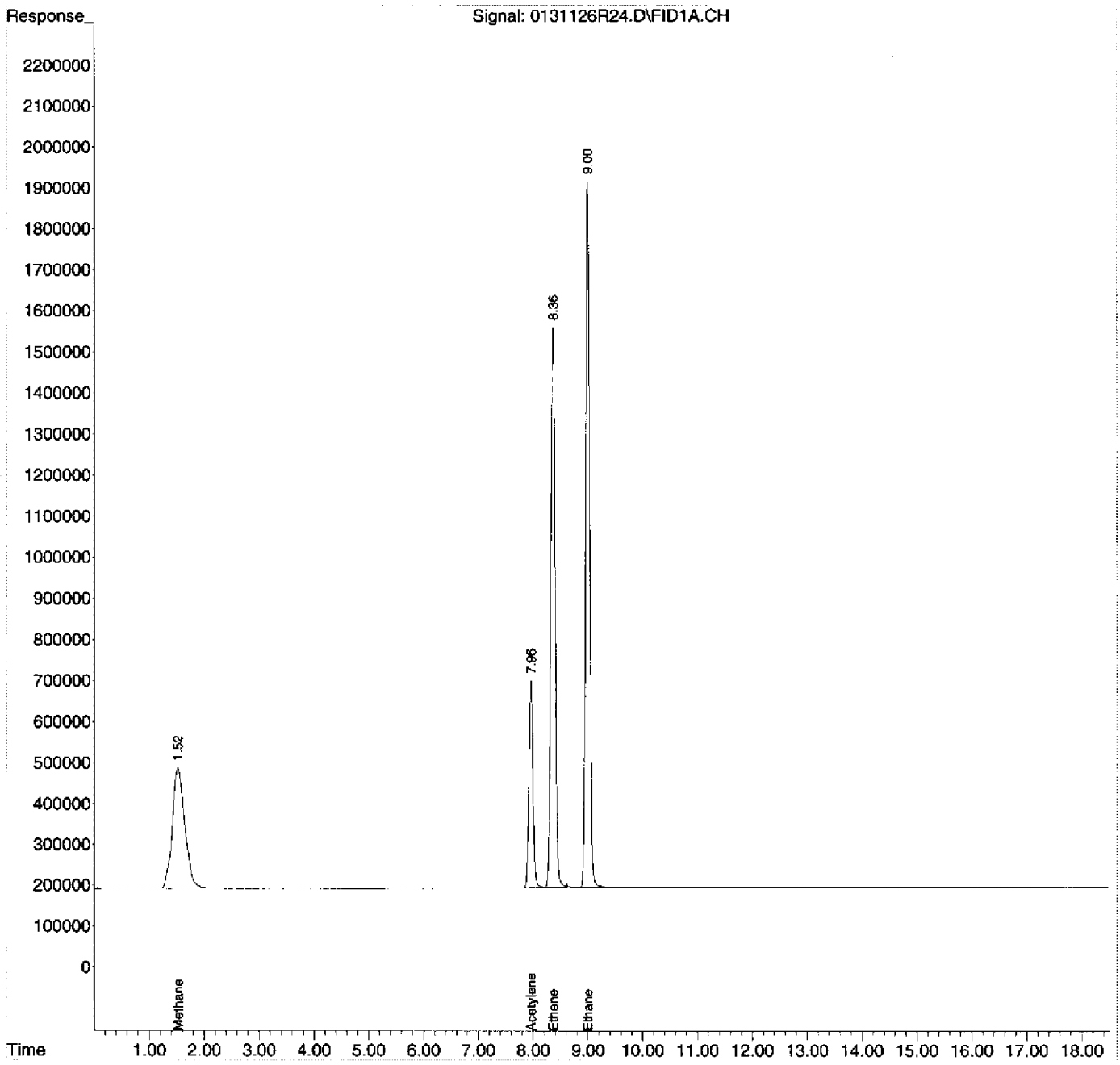
DIM0275662 DIM0275842

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R24.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:21 am
Operator : rh
Sample : B2A0080-BS1
Misc : LCS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 01 09:22:45 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



DIM0275662 DIM0275843

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R25.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:56 am
Operator : rh
Sample : 2010054-CCV4
Misc : 2A31017
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 01 09:22:53 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

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	1.036 E6	-1.8	103	0.00
2 S	Acetylene	349.516	347.376 E3	0.6	94	-0.01
3 TM	Ethene	887.936	916.011 E3	-3.2	101	0.00
4 TM	Ethane	966.567	1018.216 E3	-5.3	103	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

DIM0275662 DIM0275844

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R25.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:56 am
Operator : rh
Sample : 2010054-CCV4
Misc : 2A31017
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 01 09:22:53 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	7.966	7520699	21.517 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	32.44%#
Target Compounds			
1) TM Methane	1.523	13710940	13.468 ug/L
3) TM Ethene	8.368	21485041	24.197 ug/L
4) TM Ethane	9.004	25436066	26.316 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.

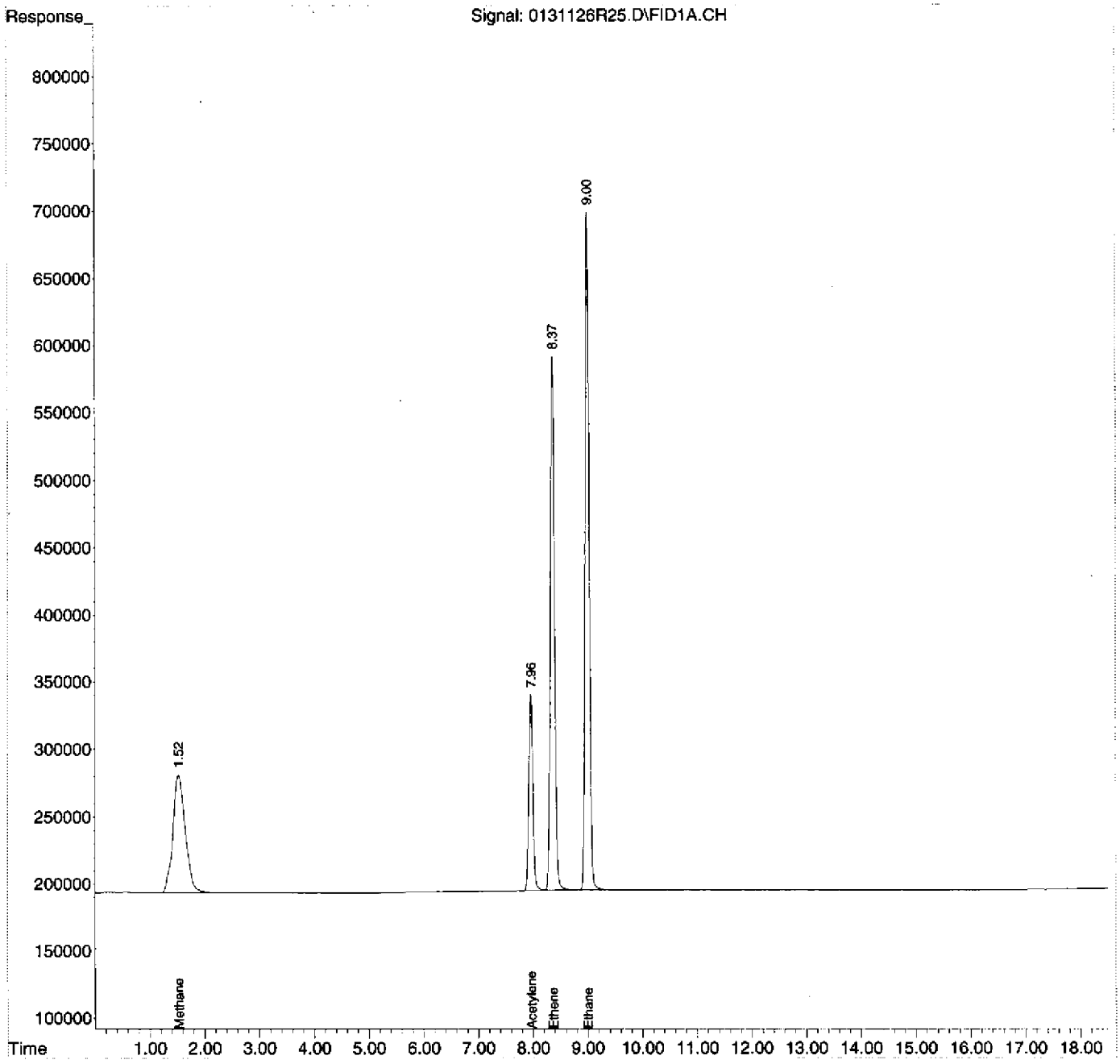
DIM0275662 DIM0275845

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R25.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:56 am
Operator : rh
Sample : 2010054-CCV4
Misc : 2A31017
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 01 09:22:53 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\013112RSK\
Data File : 0131126R26.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 3:23 am
Operator : rh
Sample : 2010054-CCV5
Misc : 2A31017
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 01 09:23:01 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	7.968	6916804	19.790 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	29.84%#
Target Compounds			
1) TM Methane	1.518	11339030	11.138 ug/L
3) TM Ethene	8.368	18287973	20.596 ug/L
4) TM Ethane	9.004	21112424	21.843 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.

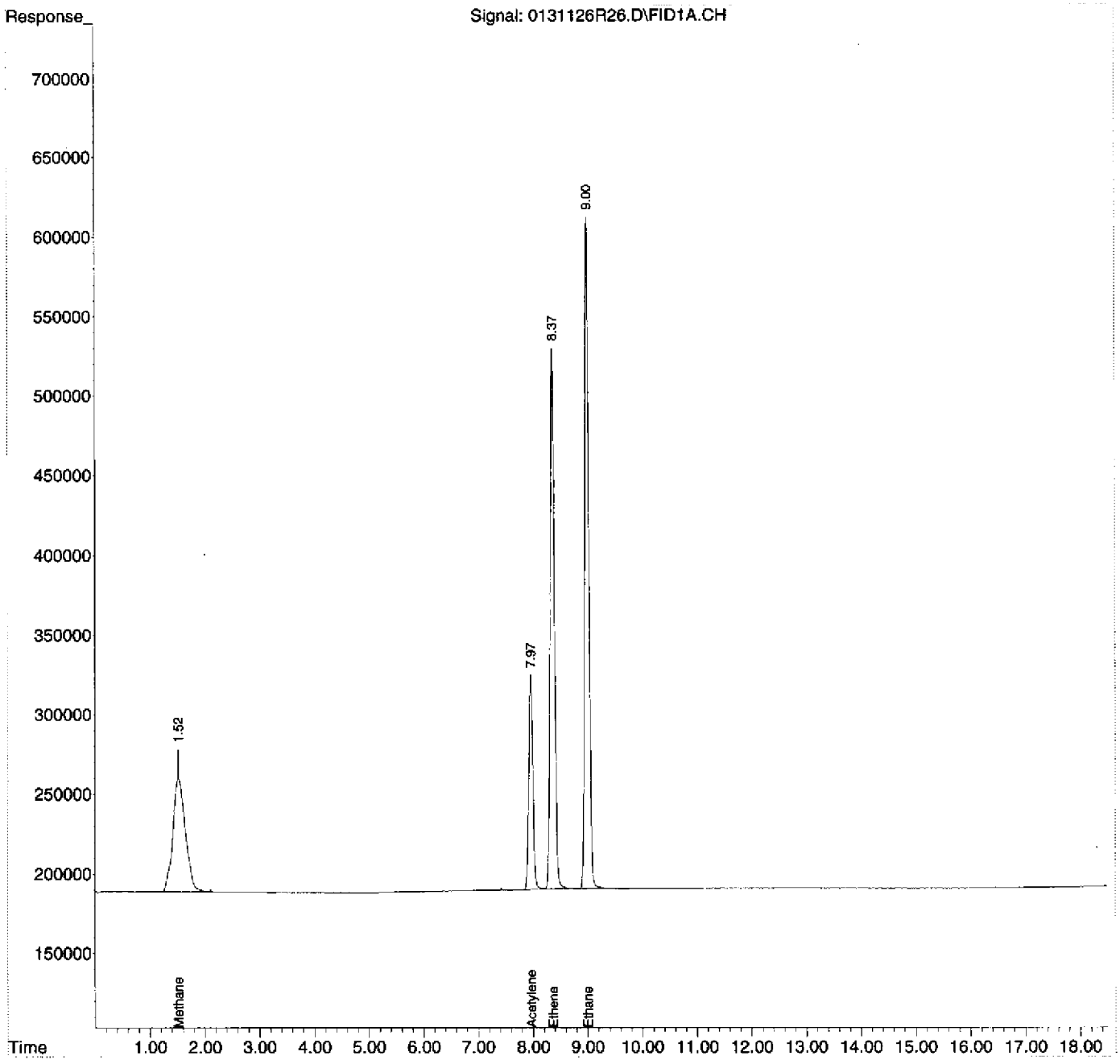
Not evaluated
RV
2/1/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R26.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 3:23 am
Operator : rh
Sample : 2010054-CCV5
Misc : 2A31017
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 01 09:23:01 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



0126126RSK.M Wed Feb 01 09:23:06 2012

Page: 2

2/3/12

00161A

DIM0275662

DIM0275848

00182

Standard Records

00162

DIM0275662 DIM0275849

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

14 LITER DISPOSABLE

LOT NUMBER: 109-06-03881

A4003098

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.

Thomas J Purdon

Thomas Purdon, 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: JAKE SENKOW

00186

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:**	Tatyana Dadiomov
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

00186

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# 4501812553

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14 LITER DISPOSABLE

LOT NUMBER: 109-16-05957

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 psig

FILL DATE: 8/18/11

EXPIRATION DATE: 08/18/13

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.

Dave Drew, Chemist

8/19/2011
DATE

IL13002

Analytical Standard Record

EPA Region 9 Laboratory

1L13002

Description:	RSK-175 HC Calibration Mix, Stock	**Expires:**	08/18/13
Standard Type:	Reference Material	**Prepared:**	12/13/11
Solvent:	Nitrogen	**Prepared By:**	** Vendor **
Final Volume (mls):	48000	**Department:**	Volatiles
Vials:	1	**Last Edit:**	12/13/11 09:24 by TD
Vendor:	Matheson	**Lot Numbe**	109-06-03881

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

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

Analytical Standard Record

EPA Region 9 Laboratory

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

00198

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.

Dave Drew, Chemist

9/14/2011
DATE

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

00179

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:**	Bob Hopeman
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:**	Bob Hopeman
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	Bob Hopeman	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:**	Bob Hopeman
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	Bob Hopeman	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:**	Bob Hopeman
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	Bob Hopeman	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:**	Bob Hopeman
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:**	Bob Hopeman
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:**	Bob Hopeman
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:**	Bob Hopeman
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:**	Bob Hopeman
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	Tatyana Dadiomov	10/24/12	01/27/12 10:56 by RFH	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A27013

Description:	RSK-175 HC PDS 012712	**Expires:**	01/29/12
Standard Type:	Reference Material	**Prepared:**	01/27/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 14:46 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

2A27014

Description:	RSK-175 LCV1	**Expires:**	01/29/12
Standard Type:	Other Solution	**Prepared:**	01/27/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 14:48 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)
2A27013	RSK-175 HC PDS 012712	01/27/12	Bob Hopeman	01/29/12	01/27/12 14:46 by RFH	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2A27015

Description:	RSK-175 LCV2	**Expires:**	01/29/12
Standard Type:	Other Solution	**Prepared:**	01/27/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 14:50 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)
2A27013	RSK-175 HC PDS 012712	01/27/12	Bob Hopeman	01/29/12	01/27/12 14:46 by RFH	0.06

Analytical Standard Record

EPA Region 9 Laboratory

2A27016

Description:	RSK-175 CCV	**Expires:**	01/29/12
Standard Type:	Other Solution	**Prepared:**	01/27/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/27/12 16:19 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

00182 2/3/12

Analytical Standard Record

EPA Region 9 Laboratory

2A30004

Description:	RSK-175 HC PDS 013012	**Expires:**	02/01/12
Standard Type:	Reference Material	**Prepared:**	01/30/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/30/12 14:54 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

2A30005

Description:	RSK-175 LCV1	**Expires:**	02/01/12
Standard Type:	Other Solution	**Prepared:**	01/30/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/30/12 14:55 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)
2A30004	RSK-175 HC PDS 013012	01/30/12	Bob Hopeman	02/01/12	01/30/12 14:54 by RFH	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2A30006

Description:	RSK-175 LCV2	**Expires:**	02/01/12
Standard Type:	Other Solution	**Prepared:**	01/30/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/30/12 14:56 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)
2A30004	RSK-175 HC PDS 013012	01/30/12	Bob Hopeman	02/01/12	01/30/12 14:54 by RFH	0.06

Analytical Standard Record

EPA Region 9 Laboratory

2A30007

Description:	RSK-175 CCV	**Expires:**	02/01/12
Standard Type:	Other Solution	**Prepared:**	01/30/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/30/12 14:56 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

2A31014

Description:	RSK-175 HC PDS 013112	**Expires:**	02/02/12
Standard Type:	Reference Material	**Prepared:**	01/31/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/31/12 13:45 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

2A31015

Description:	RSK-175 LCV1	**Expires:**	02/02/12
Standard Type:	Other Solution	**Prepared:**	01/31/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/31/12 13:47 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)
2A31014	RSK-175 HC PDS 013112	01/31/12	Bob Hopeman	02/02/12	01/31/12 13:45 by RFH	0.03

00215

Analytical Standard Record

EPA Region 9 Laboratory

2A31016

Description:	RSK-175 LCV2	**Expires:**	02/02/12
Standard Type:	Other Solution	**Prepared:**	01/31/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/31/12 13:47 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)
2A31014	RSK-175 HC PDS 013112	01/31/12	Bob Hopeman	02/02/12	01/31/12 13:45 by RFH	0.06

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JR

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Analytical Standard Record

EPA Region 9 Laboratory

2A31017

Description:	RSK-175 CCV	**Expires:**	02/02/12
Standard Type:	Other Solution	**Prepared:**	01/31/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	01/31/12 13:47 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