United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street Building 201
Richmond, CA 94804

2/10/12

Subject: **Analytical Testing Results - Project R33911**
SDG: 12030A

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

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

Revised Report

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

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

Revised Report

Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/10/12 13:01
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
FB04	1201034-01	Water	01/26/12 09:13	01/30/12 09:23
HW05	1201034-02	Water	01/26/12 11:35	01/30/12 09:23
HW06	1201034-03	Water	01/26/12 15:30	01/30/12 09:23
HW12	1201034-04	Water	01/26/12 13:23	01/30/12 09:23
HW14-P	1201034-05	Water	01/26/12 19:15	01/30/12 09:23
HW14	1201034-06	Water	01/26/12 17:13	01/30/12 09:23
TB04	1201034-07	Water	01/26/12 08:31	01/30/12 09:23
TB05	1201034-08	Water	01/26/12 08:34	01/30/12 09:23
FB05	1201034-09	Water	01/27/12 09:40	01/30/12 09:23
HW01	1201034-10	Water	01/25/12 16:31	01/30/12 09:23
HW24-P	1201034-11	Water	01/27/12 13:18	01/30/12 09:23
TB02	1201034-12	Water	01/25/12 07:55	01/30/12 09:23
TB03	1201034-13	Water	01/25/12 08:00	01/30/12 09:23
TB07	1201034-14	Water	01/25/12 08:00	01/30/12 09:23
HW17	1201034-15	Water	01/27/12 11:40	01/30/12 09:23
HW24	1201034-16	Water	01/27/12 12:09	01/30/12 09:23
TB06	1201034-17	Water	01/27/12 08:05	01/30/12 09:23

SDG ID 12030A

This is a revised report. This report replaces report 1201034 FINAL 02 03 12 1518. The chains of custody associated with these samples did not include a request for dissolved methane, ethane and ethene (RSK-175) for sample HW01and samples vials for RSK-175 were not provided for this sample. At the request of the project team, the spare HCl preserved VOA vial from the TPH-purgeable hydrocarbons was used to perform RSK-175 analysis on 2/8/12. This revise report includes results sample HW01.

Samples 1201034-12 and -13: Sample tag info and COC info disagreed. Used tag info for log in.

RSK-175: A small amount of methane contamination (0.7 ug/L) was found in the method blanks. The amount found was less than the quantitation limit. Samples with concentrations less than 5 times the amount in the blank were flagged as estimated. MS/MSD was not run due to insufficient sample volume.

Work Order(s)

1201034

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Revised Report

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/10/12 13:01
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-01									**Water - Sampled: 01/26/12 09:13**
Sample ID: FB04									**Dissolved Gases by RSK-175**
Methane		2.1	B1, J	1.2	ug/L	B2A0080	01/31/12	01/31/12	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: 1201034-02									**Water - Sampled: 01/26/12 11:35**
Sample ID: HW05									**Dissolved Gases by RSK-175**
Methane	RE1	2,000		15	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		11		1.2	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			104 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		111 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-03									**Water - Sampled: 01/26/12 15:30**
Sample ID: HW06									**Dissolved Gases by RSK-175**
Methane	RE1	23,000		150	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane	RE1	820		150	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Surrogate: Acetylene			103 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		113 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-04									**Water - Sampled: 01/26/12 13:23**
Sample ID: HW12									**Dissolved Gases by RSK-175**
Methane	RE2	52,000		640	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane	RE1	2,000		390	"	"	"	02/01/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Surrogate: Acetylene			102 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		111 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Surrogate: Acetylene	*RE2*		113 %	*66.4-153%*		"	"	*02/01/12*	
Lab ID: 1201034-05									**Water - Sampled: 01/26/12 19:15**
Sample ID: HW14-P									**Dissolved Gases by RSK-175**
Methane		49		1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		1.5		1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			114 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-06									**Water - Sampled: 01/26/12 17:13**
Sample ID: HW14									**Dissolved Gases by RSK-175**
Methane	RE1	3,800		28	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		29		1.2	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325

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Revised Report

Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/10/12 13:01
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-06									**Water - Sampled: 01/26/12 17:13**
Sample ID: HW14									**Dissolved Gases by RSK-175**
Ethene		ND	U	1.1	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Surrogate: Acetylene			115 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		115 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-07									**Water - Sampled: 01/26/12 08:31**
Sample ID: TB04									**Dissolved Gases by RSK-175**
Methane		8.8		1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			117 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-08									**Water - Sampled: 01/26/12 08:34**
Sample ID: TB05									**Dissolved Gases by RSK-175**
Methane		5.0		1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			115 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-09									**Water - Sampled: 01/27/12 09:40**
Sample ID: FB05									**Dissolved Gases by RSK-175**
Methane		3.7		1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			115 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-10									**Water - Sampled: 01/25/12 16:31**
Sample ID: HW01									**Dissolved Gases by RSK-175**
Methane		12,000	C2, J	1.2	ug/L	B2B0032	02/08/12	02/08/12	RSK-175/SOP325
Ethane		350		1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			113 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-11									**Water - Sampled: 01/27/12 13:18**
Sample ID: HW24-P									**Dissolved Gases by RSK-175**
Methane	RE1	630		4.8	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			114 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		111 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-12									**Water - Sampled: 01/25/12 07:55**

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/10/12 13:01
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-12									**Water - Sampled: 01/25/12 07:55**
Sample ID: TB02									**Dissolved Gases by RSK-175**
Methane		3.5	B1, J	1.2	ug/L	B2A0080	01/31/12	01/31/12	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: 1201034-13									**Water - Sampled: 01/25/12 08:00**
Sample ID: TB03									**Dissolved Gases by RSK-175**
Methane		2.3	B1, J	1.2	ug/L	B2A0080	01/31/12	01/31/12	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: 1201034-14									**Water - Sampled: 01/25/12 08:00**
Sample ID: TB07									**Dissolved Gases by RSK-175**
Methane		2.2	B1, J	1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			96 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-15									**Water - Sampled: 01/27/12 11:40**
Sample ID: HW17									**Dissolved Gases by RSK-175**
Methane	RE1	3,300		19	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		40		1.2	"	B2A0080	01/31/12	02/01/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			106 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		113 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-16									**Water - Sampled: 01/27/12 12:09**
Sample ID: HW24									**Dissolved Gases by RSK-175**
Methane	RE1	740		4.8	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	B2A0080	01/31/12	02/01/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			105 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		114 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-17									**Water - Sampled: 01/27/12 08:05**
Sample ID: TB06									**Dissolved Gases by RSK-175**
Methane		2.7	B1, J	1.2	ug/L	B2A0080	01/31/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/10/12 13:01
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-17									**Water - Sampled: 01/27/12 08:05**
Sample ID: TB06									**Dissolved Gases by RSK-175**
Surrogate: Acetylene			114 %	*66.4-153%*		*B2A0080*	*01/31/12*	*02/01/12*	

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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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		
Ethane	89.8		1.2	"	83.2		108	77-137		
Ethene	82.8		1.1	"	78.3		106	78-138		
Surrogate: Acetylene	*74.5*			"	*72.0*		103	*66.4-153*		
Batch B2B0006 - RSK175 - Dissolved HC Gases									**Prepared & Analyzed: 02/01/12**	
									Dissolved Gases by RSK-175 - Quality Control	
Blank (B2B0006-BLK1)										
Methane	0.7	C1, J	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*72.6*			"	*66.5*		109	*66.4-153*		
LCS (B2B0006-BS1)										
Methane	46.5		1.2	ug/L	44.1		105	70-130		
Ethane	91.5		1.2	"	83.2		110	77-137		
Ethene	85.7		1.1	"	78.3		110	78-138		
Surrogate: Acetylene	*77.9*			"	*72.0*		108	*66.4-153*		
Batch B2B0032 - RSK175 - Dissolved HC Gases									**Prepared & Analyzed: 02/08/12**	
									Dissolved Gases by RSK-175 - Quality Control	
Blank (B2B0032-BLK1)										
Methane	0.9	C1, J	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*78.5*			"	*66.5*		118	*66.4-153*		
LCS (B2B0032-BS1)										
Methane	47.7		1.2	ug/L	44.1		108	70-130		200
Ethane	93.9		1.2	"	83.2		113	77-137		200
Ethene	88		1.1	"	78.3		112	78-138		200
Surrogate: Acetylene	*79.2*			"	*72.0*		110	*66.4-153*		

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Qualifiers and Comments

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

C2 The reported concentration for this analyte is above the calibration range of the instrument.

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.

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Region 9 Laboratory

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Date: 2/3/2012

Subject: Analytical Testing Results - Project R33911
SDG: 12030A

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.

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Dissolved Hydrocarbon Gases by GC

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:18
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
FB04	1201034-01	Water	01/26/12 09:13	01/30/12 09:23
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HW06	1201034-03	Water	01/26/12 15:30	01/30/12 09:23
HW12	1201034-04	Water	01/26/12 13:23	01/30/12 09:23
HW14-P	1201034-05	Water	01/26/12 19:15	01/30/12 09:23
HW14	1201034-06	Water	01/26/12 17:13	01/30/12 09:23
TB04	1201034-07	Water	01/26/12 08:31	01/30/12 09:23
TB05	1201034-08	Water	01/26/12 08:34	01/30/12 09:23
FB05	1201034-09	Water	01/27/12 09:40	01/30/12 09:23
HW24-P	1201034-11	Water	01/27/12 13:18	01/30/12 09:23
TB02	1201034-12	Water	01/25/12 07:55	01/30/12 09:23
TB03	1201034-13	Water	01/25/12 08:00	01/30/12 09:23
TB07	1201034-14	Water	01/25/12 08:00	01/30/12 09:23
HW17	1201034-15	Water	01/27/12 11:40	01/30/12 09:23
HW24	1201034-16	Water	01/27/12 12:09	01/30/12 09:23
TB06	1201034-17	Water	01/27/12 08:05	01/30/12 09:23

SDG ID 12030A
Samples 1201034-12 and -13: Sample tag info and COC info disagreed. Used tag info for log in.

RSK-175: A small amount of methane contamination (0.7 ug/L) was found in the method blanks. The amount found was less than the quantitation limit. Samples with concentrations less than 5 times the amount in the blank were flagged as estimated. MS/MSD was not run due to insufficient sample volume.

Work Order(s)

1201034

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:18
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Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-01									**Water - Sampled: 01/26/12 09:13**
Sample ID: FB04									**Dissolved Gases by RSK-175**
Methane		2.1	B1, J	1.2	ug/L	B2A0080	01/31/12	01/31/12	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: 1201034-02									**Water - Sampled: 01/26/12 11:35**
Sample ID: HW05									**Dissolved Gases by RSK-175**
Methane	RE1	2,000		15	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		11		1.2	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			104 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		111 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-03									**Water - Sampled: 01/26/12 15:30**
Sample ID: HW06									**Dissolved Gases by RSK-175**
Methane	RE1	23,000		150	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane	RE1	820		150	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Surrogate: Acetylene			103 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		113 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-04									**Water - Sampled: 01/26/12 13:23**
Sample ID: HW12									**Dissolved Gases by RSK-175**
Methane	RE2	52,000		640	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane	RE1	2,000		390	"	"	"	02/01/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Surrogate: Acetylene			102 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		111 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Surrogate: Acetylene	*RE2*		113 %	*66.4-153%*		"	"	*02/01/12*	
Lab ID: 1201034-05									**Water - Sampled: 01/26/12 19:15**
Sample ID: HW14-P									**Dissolved Gases by RSK-175**
Methane		49		1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		1.5		1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			114 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-06									**Water - Sampled: 01/26/12 17:13**
Sample ID: HW14									**Dissolved Gases by RSK-175**
Methane	RE1	3,800		28	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		29		1.2	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325

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:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:18
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-06									**Water - Sampled: 01/26/12 17:13**
Sample ID: HW14									**Dissolved Gases by RSK-175**
Ethene		ND	U	1.1	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Surrogate: Acetylene			115 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		115 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-07									**Water - Sampled: 01/26/12 08:31**
Sample ID: TB04									**Dissolved Gases by RSK-175**
Methane		8.8		1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			117 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-08									**Water - Sampled: 01/26/12 08:34**
Sample ID: TB05									**Dissolved Gases by RSK-175**
Methane		5.0		1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			115 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-09									**Water - Sampled: 01/27/12 09:40**
Sample ID: FB05									**Dissolved Gases by RSK-175**
Methane		3.7		1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			115 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-11									**Water - Sampled: 01/27/12 13:18**
Sample ID: HW24-P									**Dissolved Gases by RSK-175**
Methane	RE1	630		4.8	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			114 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		111 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-12									**Water - Sampled: 01/25/12 07:55**
Sample ID: TB02									**Dissolved Gases by RSK-175**
Methane		3.5	B1, J	1.2	ug/L	B2A0080	01/31/12	01/31/12	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: 1201034-13									**Water - Sampled: 01/25/12 08:00**

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:18
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-13									**Water - Sampled: 01/25/12 08:00**
Sample ID: TB03									**Dissolved Gases by RSK-175**
Methane		2.3	B1, J	1.2	ug/L	B2A0080	01/31/12	01/31/12	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: 1201034-14									**Water - Sampled: 01/25/12 08:00**
Sample ID: TB07									**Dissolved Gases by RSK-175**
Methane		2.2	B1, J	1.2	ug/L	B2A0080	01/31/12	01/31/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			96 %	*66.4-153%*		"	"	"	
Lab ID: 1201034-15									**Water - Sampled: 01/27/12 11:40**
Sample ID: HW17									**Dissolved Gases by RSK-175**
Methane	RE1	3,300		19	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		40		1.2	"	B2A0080	01/31/12	02/01/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene	*RE1*		113 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Surrogate: Acetylene			106 %	*66.4-153%*		*B2A0080*	*01/31/12*	*02/01/12*	
Lab ID: 1201034-16									**Water - Sampled: 01/27/12 12:09**
Sample ID: HW24									**Dissolved Gases by RSK-175**
Methane	RE1	740		4.8	ug/L	B2B0006	02/01/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	B2A0080	01/31/12	02/01/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			105 %	*66.4-153%*		"	"	"	
Surrogate: Acetylene	*RE1*		114 %	*66.4-153%*		*B2B0006*	*02/01/12*	*02/01/12*	
Lab ID: 1201034-17									**Water - Sampled: 01/27/12 08:05**
Sample ID: TB06									**Dissolved Gases by RSK-175**
Methane		2.7	B1, J	1.2	ug/L	B2A0080	01/31/12	02/01/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			114 %	*66.4-153%*		"	"	"	

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:18
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 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		
Ethane	89.8		1.2	"	83.2		108	77-137		
Ethene	82.8		1.1	"	78.3		106	78-138		
Surrogate: Acetylene	*74.5*			"	*72.0*		103	*66.4-153*		
Batch B2B0006 - RSK175 - Dissolved HC Gases									**Prepared & Analyzed: 02/01/12**	
									Dissolved Gases by RSK-175 - Quality Control	
Blank (B2B0006-BLK1)										
Methane	0.7	C1, J	1.2	ug/L						
Ethane	ND	U	1.2	"						
Ethene	ND	U	1.1	"						
Surrogate: Acetylene	*72.6*			"	*66.5*		109	*66.4-153*		
LCS (B2B0006-BS1)										
Methane	46.5		1.2	ug/L	44.1		105	70-130		
Ethane	91.5		1.2	"	83.2		110	77-137		
Ethene	85.7		1.1	"	78.3		110	78-138		
Surrogate: Acetylene	*77.9*			"	*72.0*		108	*66.4-153*		

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:18
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.

00812

ICF INTERNATIONAL

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 ~~14~~ 10, 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 17 water samples for the Dimock Residential Groundwater Site project, Case R33911, SDG 12030A, Work Order 1201034 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.

G:\USER\ESAT\# LAB DATA Deliverables\R33911\12030A-DissGasses-14469.docx

EPA Region 9 Laboratory

DATA PACKAGE

Analysis:	**Dissolved Gasses**
Project Number:	**R33911**
SDG Number:	**12030A**
Work Order:	**1201034**
ESAT DCN:	**14469**

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: 12030A

Analysis: dissolved gasses Number of Pages: ~~125~~ 197 RPB 2/10/12

Reviewer: J. BERGES + R. Baker

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

Comments: OK

At client request sample HW01 added for RSK-175 (not originally requested). Revised report created and raw data added to this package. RPB 2/10/12

Reviewer Signature [signature] Date 2/3/12 RPB 2/10/12

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ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** Dissolved Gasses | **TDF:** 01001084 | **Matrix:** water
DCN: 14469 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12030A

ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

Reviewer:	Package Prep (P): RH	Technical (T):	Final (F):
	Date: 2/2/12	Date: 2/3/12	Date: 2/3/12

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: 14469 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12030A

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

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

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

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

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

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

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

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

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

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

WORK ORDER NOTES - 1201034

1201034 - US EPA Region 3, Eastern Response
Dimock Residential Groundwater

Save Cancel

Samples 1201034-12 and -13: Sample tag info and COC info disagreed. Used tag info for log in. - 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 02/02/12

TPH DRO: A review of the blank contamination issue revealed that the methylene chloride used for the extraction was certified for BNA analysis and not TPH-DRO. Since the contamination in the blank and associated samples was <½ QL, samples were ND, and the BS recovery was acceptable, No affect on sample results is anticipated. ZAR 2/2/12

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

RSK-175: Method blank was analyzed at the end of sequence for batch B2A0080. SOP recommends analyzing blank at start of sequence. No adverse impact is anticipated on data quality. ZAR 02/03/12

RSK-175 Sample 1201034-10 added analysis on the day the sample hold was expiring. Sample was run at a 1X dilution, within hold time, but is reported with an over calibration range Methane hit. Sample was not re-run at a dilution because there are no more non-headspace vials and the sample is now past holding time. RH 2/10/12

2/10
00006

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	**RSK-175**	**Analyst Initial**	RH	**Reviewer Initial**	ZK	**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.

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

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Organics Daily Folder Preparation/Technical Review Guide

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

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

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

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

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
BLK1	0201126R04	.683	≤ 0.615					Methane hit ≤ QL but ≥ ½ QL

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Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	Dissolved Gasses	Analyst Initial	RH	Reviewer Initial	SL	Batch/ Sequence	2020026/B2B0032
Instrument ID	AG6890N-6	Date Analyzed	2/9/12	Date	2/9/12	Chemstation Last Update	1/27/12 1:26:56
Cases	R33911		RH 2/9/12	SDGs	12030A, 12033A, 12038C, 12039A		

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

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

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

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
BLK1	0208126R04	.921	≤ 0.615					Methane hit ≤ QL but ≥ ½ QL
								Check for carry-over:
								1202005-11PE1 & 1202020-12.
								SL, 2/9/12.

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ZR 2/10

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00823

USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R33911
SDG: 12030A
Analysis: Dissolved Gasses
Analyst: RH
Reviewer:

Sample ID	Sample Runs		
Instrument:	AG6890N-6	AG6890N-6	AG6890N-6
Analysis Date:	1/31/2012	2/1/2012	2/8/2012
Sequence:	2010054	2020003	2020026
1201034-01	RPT		
1201034-02	C1 OC		
1201034-02RE1 1.25ML		RPT C1	
1201034-03	C1,4 OC		
1201034-03RE1 0.13ML		RPT C1,4	
1201034-04	C1,4 OC		
1201034-04RE1 0.05ML		C1 OC / RPT C4	
1201034-04RE2 0.03ML		RPT C1	
1201034-05	RPT		
1201034-06	C1 OC		
1201034-06RE1 0.7 ML		RPT C1	
1201034-07	RPT		
1201034-08	RPT		
1201034-09	RPT		
1201034-10			RPT C1 OC
1201034-11	C1 OC		
1201034-11RE1 4.0 ML		RPT C1	
1201034-12	RPT		
1201034-13	RPT		
1201034-14	RPT		
1201034-15	C1 OC		
1201034-15RE1 1.0 ML		RPT C1	
1201034-16	C1 OC		
1201034-16RE1 4.0 ML		RPT C1	
1201034-17	RPT		
B2A0080-BLK1	RPT		
B2A0080-BS1	RPT		
B2B0006-BLK1		RPT	
B2B0006-BS1		RPT	

Definitions

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

ZA 2/10

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SAMPLE TRACKING FORMS

.: 00011

DIM0065936

DIM0065976

WORK ORDER

Printed: 1/30/2012 11:16:40AM

1201034

EPA Region 9 Laboratory

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

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

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

Shipping Containers	Description	Temp C	Custody Seals?	Containers Intact?	Labels COC Agree?	Preservation Confirmed?	Received on Ice?	Comments
1Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	797998076136
2 Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	793167711039
3 cooler	Cooler	1	Yes	Yes	Yes	No	Yes	797998076180
4Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	797998076191

Date Due:	03/01/12 15:00 (21 day TAT)	SDG:	12030A
Received By:	Richard Bauer	Date Received:	01/30/12 09:23
Logged In By:	Richard Bauer	Date Logged In:	01/30/12 09:23

Analysis	Hold Time Expires	Comments
1201034-01 FB04 [Water] Sampled 01/26/12 09:13 Pacific		
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-02 HW05 [Water] Sampled 01/26/12 11:35 Pacific		
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-03 HW06 [Water] Sampled 01/26/12 15:30 Pacific		
Dissolved HC Gases	02/09/12	5 day prelim results
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
1201034-04 HW12 [Water] Sampled 01/26/12 13:23 Pacific		
TPH - Extractable	02/02/12	
Dissolved HC Gases	02/09/12	5 day prelim results
TPH - Purgeable	02/09/12	

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WORK ORDER

Printed: 1/30/2012 11:16:40AM

1201034

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
1201034-05 HW14-P [Water] Sampled 01/26/12 19:15 Pacific		
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-06 HW14 [Water] Sampled 01/26/12 17:13 Pacific		
Dissolved HC Gases	02/09/12	5 day prelim results
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
1201034-07 TB04 [Water] Sampled 01/26/12 08:31 Pacific		
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-08 TB05 [Water] Sampled 01/26/12 08:34 Pacific		
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-09 FB05 [Water] Sampled 01/27/12 09:40 Pacific		
TPH - Extractable	02/03/12	
Dissolved HC Gases	02/10/12	5 day prelim results
TPH - Purgeable	02/10/12	
1201034-10 HW01 [Water] Sampled 01/25/12 16:31 Pacific		
TPH - Purgeable	02/08/12	
TPH - Extractable	02/01/12	
1201034-11 HW24-P [Water] Sampled 01/27/12 13:18 Pacific		
TPH - Purgeable	02/10/12	
Dissolved HC Gases	02/10/12	5 day prelim results
TPH - Extractable	02/03/12	
1201034-12 TB02 [Water] Sampled 01/25/12 07:55 Pacific		**COC & tags disagee - used info on tags for login**
Dissolved HC Gases	02/08/12	5 day prelim results
1201034-13 TB03 [Water] Sampled 01/25/12 08:00 Pacific		**COC & tags disagee - used info on tags for login**
Dissolved HC Gases	02/08/12	5 day prelim results

- Added RK 2/10/12

WORK ORDER

Printed: 1/30/2012 11:16:40AM

1201034

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
1201034-14 TB07 [Water] Sampled 01/25/12 08:00 Pacific		
Dissolved HC Gases	02/08/12	5 day prelim results
1201034-15 HW17 [Water] Sampled 01/27/12 11:40 Pacific		
TPH - Extractable	02/03/12	
TPH - Purgeable	02/10/12	
Dissolved HC Gases	02/10/12	5 day prelim results
1201034-16 HW24 [Water] Sampled 01/27/12 12:09 Pacific		
TPH - Purgeable	02/10/12	
TPH - Extractable	02/03/12	
Dissolved HC Gases	02/10/12	5 day prelim results
1201034-17 TB06 [Water] Sampled 01/27/12 08:05 Pacific		
Dissolved HC Gases	02/10/12	5 day prelim results

Reviewed By

Date

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/28/2012
CarrierName: FedEx
AirbillNo: 7979 9807 6136

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

No: 3-012812-114228-0015
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB04	Aqueous/ Ex. 4 - CBI	Grab	DRO(7), DRO(7)	631 (-NA- / 1000mlAmber), 661 (-NA- / 1000mlAmber) (2)	FB04	01/26/2012 09:13	
HW05	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), DRO(7)	662 (-NA- / 1000mlAmber), 692 (-NA- / 1000mlAmber) (2)	HW05	01/26/2012 11:35	
HW06	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), DRO(7)	505 (-NA- / 1000mlAmber), 535 (-NA- / 1000mlAmber) (2)	HW06	01/26/2012 15:30	
HW12	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), DRO(7)	600 (-NA- / 1000mlAmber), 630 (-NA- / 1000mlAmber) (2)	HW12	01/26/2012 13:23	
HW14-P	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), DRO(7)	567 (-NA- / 1000mlAmber), 597 (-NA- / 1000mlAmber) (2)	HW14-P	01/26/2012 19:15	

Special Instructions: Cooler #1 Rec'd @ 3°C
Custody Seals OK

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

Analysis Key: DRO=11-Diesel Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
10	Ex. 4 - CBI	1/28/12									
			Ex. 4 - CBI	1/30/12	8:30						

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USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/28/2012
CarrierName: FedEx
AirbillNo: 7931 6771 1039

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

No: 3-012812-143039-0019
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Included on workorder 120103 3

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB05	Aqueous/ Ex. 4 - CBI	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	709 (-NA- / 1000mlAmber), 710 (HCl / 40mlGlassVial), 711 (HCl / 40mlGlassVial), 713 (HCl / 40mlGlassVial), 714 (HCl / 40mlGlassVial), 739 (-NA- / 1000mlAmber) (6)	FB05 Vial broken upon receipt.	01/27/2012 09:40	No tags on containers 1/30/12
HW01	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), DRO(7), GRO(7), GRO(7)	918 (-NA- / 1000mlAmber), 919 (-NA- / 1000mlAmber), 920 (-NA- / 40mlGlassVial), 921 (-NA- / 40mlGlassVial) (4)	HW01	01/25/2012 18:31	
HW08a	Drinking Water/ Ex. 4 - CBI	Grab	RSK-175(7), RSK-175(7)	934 (-NA- / 40mlGlassVial), 935 (-NA- / 40mlGlassVial) (2)	HW08a	01/25/2012 11:48	
HW24-P	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	805 (-NA- / 1000mlAmber), 806 (HCl / 40mlGlassVial), 807 (HCl / 40mlGlassVial), 809 (HCl / 40mlGlassVial), 810 (HCl / 40mlGlassVial), 835 (-NA- / 1000mlAmber) (6)	HW24	01/27/2012 13:18	No tags
TB02	Aqueous/ Ex. 4 - CBI Ex. 4 - CBI	Grab	RSK-175(7), RSK-175(7)	223 ~~926~~ (HCl / 40mlGlassVial), 224 ~~927~~ (HCl / 40mlGlassVial) (2)	TB02	01/27/2012 08:07 1/25/12 07:55	Labels and COC disagree
TB03	Aqueous/ Ex. 4 - CBI Ex. 4 - CBI	Grab	RSK-175(7), RSK-175(7)	229 ~~932~~ (HCl / 40mlGlassVial), 230 ~~933~~ (HCl / 40mlGlassVial) (2)	TB03	01/25/2012 08:00	Tag #5 disagree RJB 1/30/12

Special Instructions: Cooler # 2, 3°C Custody Seals OK

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

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

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
22	Ex. 4 - CBI	1/28/12	Fed Ex								
			Ex. 4 - CBI	1/30/12	8:50						

00029

00016

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/26/2012
CarrierName: FedEx
AirbillNo: 7931 6771 1039

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

No: 3-012812-143039-0019
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
TB07	Aqueous/ Scout Dellamia	Grab	RSK-175(7), RSK-175(7)	707 (HCl / 40mlGlassVial), 708 (HCl / 40mlGlassVial) (2)	TB07	01/27/2012 08:07	No tags

Special Instructions: Cooler #2, Rec'd @ 3°C
Custody Seals OK

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

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

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
2	Ex. 4 - CBI	1/28/12	Fed Ex								
			Ex. 4 - CBI	1/30/12	8:30						

00039

00017

Cooler #3

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/26/2012
CarrierName: FedEx
AirbillNo: 7979 9807 6180

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

No: 3-012812-115257-0016
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB04	Aqueous/ Ex. 4 - CBI	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	632 (HCl / 40mlGlassVial), 633 (HCl / 40mlGlassVial), 635 (HCl / 40mlGlassVial), 636 (HCl / 40mlGlassVial) (4)	FB04	01/26/2012 09:13	
HW05	Drinking Water/ Ex. 4 - CBI	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	663 (HCl / 40mlGlassVial), 664 (HCl / 40mlGlassVial), 666 (HCl / 40mlGlassVial), 667 (HCl / 40mlGlassVial) (4)	HW05	01/26/2012 11:35	
HW06	Drinking Water/ Ex. 4 - CBI	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	506 (HCl / 40mlGlassVial), 507 (HCl / 40mlGlassVial), 509 (HCl / 40mlGlassVial), 510 (HCl / 40mlGlassVial) (4)	HW06	01/26/2012 15:30	
HW12	Drinking Water/ Ex. 4 - CBI	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	601 (HCl / 40mlGlassVial), 602 (HCl / 40mlGlassVial), 604 (HCl / 40mlGlassVial), 605 (HCl / 40mlGlassVial) (4)	HW12	01/26/2012 13:23	
HW14	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	536 (-NA- / 1000mlAmber), 537 (HCl / 40mlGlassVial), 538 (HCl / 40mlGlassVial), 540 (HCl / 40mlGlassVial), 541 (HCl / 40mlGlassVial), 566 (-NA- / 1000mlAmber) (6)	HW14	01/26/2012 17:13	

00831

Special Instructions: Cooler #3 - custody seals intact. received @ 1°C

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

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

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
22	Ex. 4 - CBI	1/29/12	FedEx	7979	9807	6180	→		RM EPA R9 LAB	1/30/12	0830

00016

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/26/2012
CarrierName: FedEx
AirbillNo: 7979 9807 6180

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

cooler #3

No: 3-012812-115257-0016
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
HW14-P	Drinking Water/ Ex. 4 - CBI	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	568 (HCl / 40mlGlassVial), 569 (HCl / 40mlGlassVial), 571 (HCl / 40mlGlassVial), 572 (HCl / 40mlGlassVial) (4)	HW14-P	01/26/2012 19:15	
TB04	Aqueous/ Ex. 4 - CBI Ex. 4 - CBI	Grab	RSK-175(7), RSK-175(7)	497 (HCl / 40mlGlassVial), 498 (HCl / 40mlGlassVial) (2)	TB04	01/26/2012 06:31	
TB05	Aqueous/ Ex. 4 - CBI Ex. 4 - CBI	Grab	RSK-175(7), RSK-175(7)	503 (HCl / 40mlGlassVial), 504 (HCl / 40mlGlassVial) (2)	TB05	01/26/2012 08:34	

Special Instructions: cooler #3 - custody seals intact received @ 1°C

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

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

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
8	Ex. 4 - CBI	1/28/12	Fed Ex	7979	9807	6180 →		→	Ex. 4 - CBI EPA R9 LAB	1/30/12	0830

00032

00015

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/28/2012
CarrierName: FedEx
AirbillNo: 7979 9607 6191

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

No: 3-012812-113023-0014
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
HW17	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	741 (-NA- / 1000mlAmber), 742 (HCl / 40mlGlassVial), 743 (HCl / 40mlGlassVial), 745 (HCl / 40mlGlassVial), 746 (HCl / 40mlGlassVial), 771 (-NA- / 1000mlAmber) (6)	HW17	01/27/2012 11:40	No tags on containers
HW24	Drinking Water/ Ex. 4 - CBI	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	774 (-NA- / 1000mlAmber), 775 (HCl / 40mlGlassVial), 776 (HCl / 40mlGlassVial), 778 (HCl / 40mlGlassVial), 779 (HCl / 40mlGlassVial), 804 (-NA- / 1000mlAmber) (6)	HW24	01/27/2012 12:09	No tags on containers
TB06	Aqueous/ Ex. 4 - CBI	Grab	RSK-175(7), RSK-175(7)	701 (HCl / 40mlGlassVial), 702 (HCl / 40mlGlassVial) (2)	TB06	01/27/2012 08:05	No tags

Special Instructions: Cooler # 4, Rec'd @ 3°C Custody Seals OK

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

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

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
14	Ex. 4 - CBI	1/28/12	Fed Ex								
			Ex. 4 - CBI	1/30/12	8:30						

00033

00020

00034

Sample Preparation

:00021

DIM0065936 DIM0065986

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

00035

00022

Preparation Reviewed By — Date: 2/2/12

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
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				

0003E

Reagents

Reagent # **Description**

00023

Preparation Reviewed By 2/2/12 Date

PREPARATION BENCH SHEET

B2B0006

EPA Region 9 Laboratory

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

Project: R33911 - Dimock Residential Groundwater

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

Lab Number	SampleName	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Prepared By	pH	Weight 1	Weight 2	Extraction Comments
1201034-02RE1 E	HW05	02/01/12 10:39	1.25	16.1				100	RFH	2			5 day prelim results
1201034-03RE1 E	HW06	02/01/12 10:39	0.13	16.1				100	RFH	2			small amount of brown sediment
1201034-04RE1 E	HW12	02/01/12 10:39	0.05	16.1				100	RFH	2			5 day prelim results
1201034-04RE2 E	HW12	02/01/12 10:39	0.03	16.1				100	RFH	2			From B2A0080 by RFH on 02/02/12
1201034-06RE1 E	HW14	02/01/12 10:39	0.7	16.1				100	RFH	2			5 day prelim results
1201034-11RE1 E	HW24-P	02/01/12 10:39	4	16.1				100	RFH	2			5 day prelim results
1201034-15RE1 E	HW17	02/01/12 10:39	1	16.1				100	RFH	2			5 day prelim results
1201034-16RE1 E	HW24	02/01/12 10:39	4	16.1				100	RFH	2			5 day prelim results
1202001-04 E	HW13	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-05 E	HW18-P	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-06 E	HW20	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-07 E	HW20-P	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-08 E	HW25-P	02/01/12 10:39	16.1	16.1				100	RFH	2			pea sized head space
1202001-09 E	EB01	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results

00837

Preparation Reviewed By — Date 2/3/12

PREPARATION BENCH SHEET

B2B0006

EPA Region 9 Laboratory

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

Project: R33911 - Dimock Residential Groundwater

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

Lab Number	SampleName	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Prepared By	pH	Weight 1	Weight 2	Extraction Comments
1202001-10 E	FB06	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-11 E	HW18	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-12 A	TB08	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
1202001-13 A	TB09	02/01/12 10:39	16.1	16.1				100	RFH	2			5 day prelim results
B2B0006-BLK1	Blank	02/01/12 10:39	16.1	16.1				100	RFH				
B2B0006-BS1	LCS	02/01/12 10:39	16.1	16.1	OL07008		100		RFH				

00038

Reagents

Reagent # **Description**

00025

Preparation Reviewed By 2-2-12 Date

PREPARATION BENCH SHEET

B2B0032

EPA Region 9 Laboratory

Project: R33911 - Dimock Residential Groundwater

inted: 2/10/2012 10:11:53AM

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
1201034-10 C	HW01	02/08/12 09:35	16.1	16.1				100	JV				5 day prelim results
1202005-11RE1 G	HW35	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202017-01 E	EB02	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202017-02 M	HW45	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202017-03 E	HW45-P	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202017-04 C	TB24	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202017-05 B	HW43	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202017-06 C	HW43-P	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202017-07 C	TB23	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-03 E	HW31	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-04 E	HW31-P	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-05 E	HW31z	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-06 C	TB25	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-07 E	FB11	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results

00039

TD 02-10-12

Preparation Reviewed By Date

PREPARATION BENCH SHEET

B2B0032

EPA Region 9 Laboratory

Project: R33911 - Dimock Residential Groundwater

inted: 2/10/2012 10:11:53AM

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
1202020-08 E	HW30	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-09 E	HW30-P	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-10 C	TB26	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-11 E	HW15a	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-12 E	HW15a-P	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
1202020-13 D	TB28	02/08/12 09:35	16.1	16.1				100	RFH	2			5 day prelim results
B2B0032-BLK1	Blank	02/08/12 09:35	16.1	16.1				100	RFH				
B2B0032-BS1	LCS	02/08/12 09:35	16.1	16.1	0L07008		100		RFH				
B2B0032-MS1	Matrix Spike	02/08/12 09:35	16.1	16.1	0L07008	1202017-02	100		RFH				
B2B0032-MSD1	Matrix Spike Dup	02/08/12 09:35	16.1	16.1	0L07008	1202017-02	100		RFH				

Reagents

Reagent # **Description**

TD 02-10-12

Preparation Reviewed By Date

DIM0065992

DIM0065936

00041

INITIAL CALIBRATION

: 00026

DIM0065936 DIM0065993

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%

00044

00029

Response Factor Report AG6890N-6

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

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

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

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

Quantitation Report (Not Reviewed)

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

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

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

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

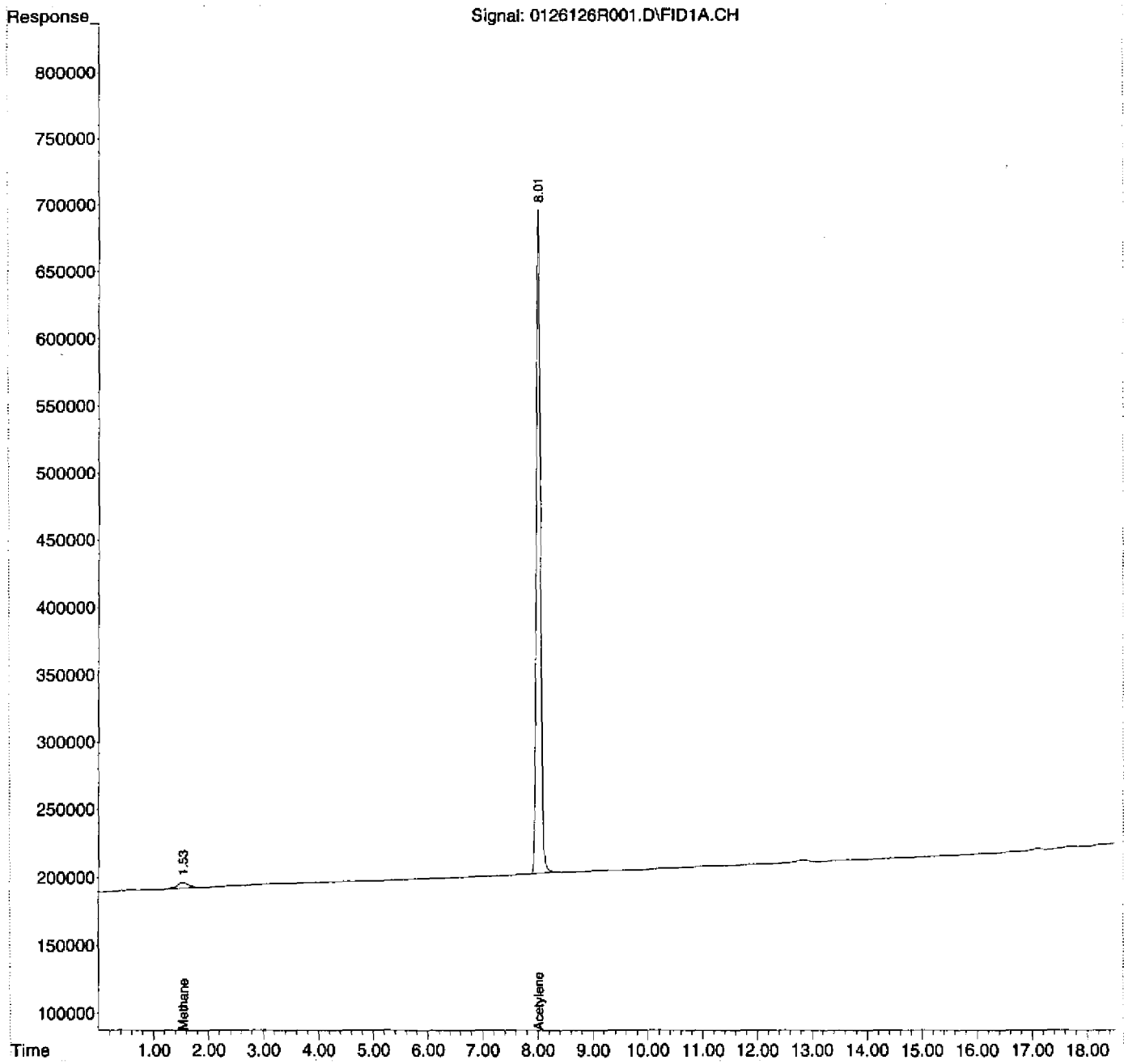
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



Quantitation Report (Not Reviewed)

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

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

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

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

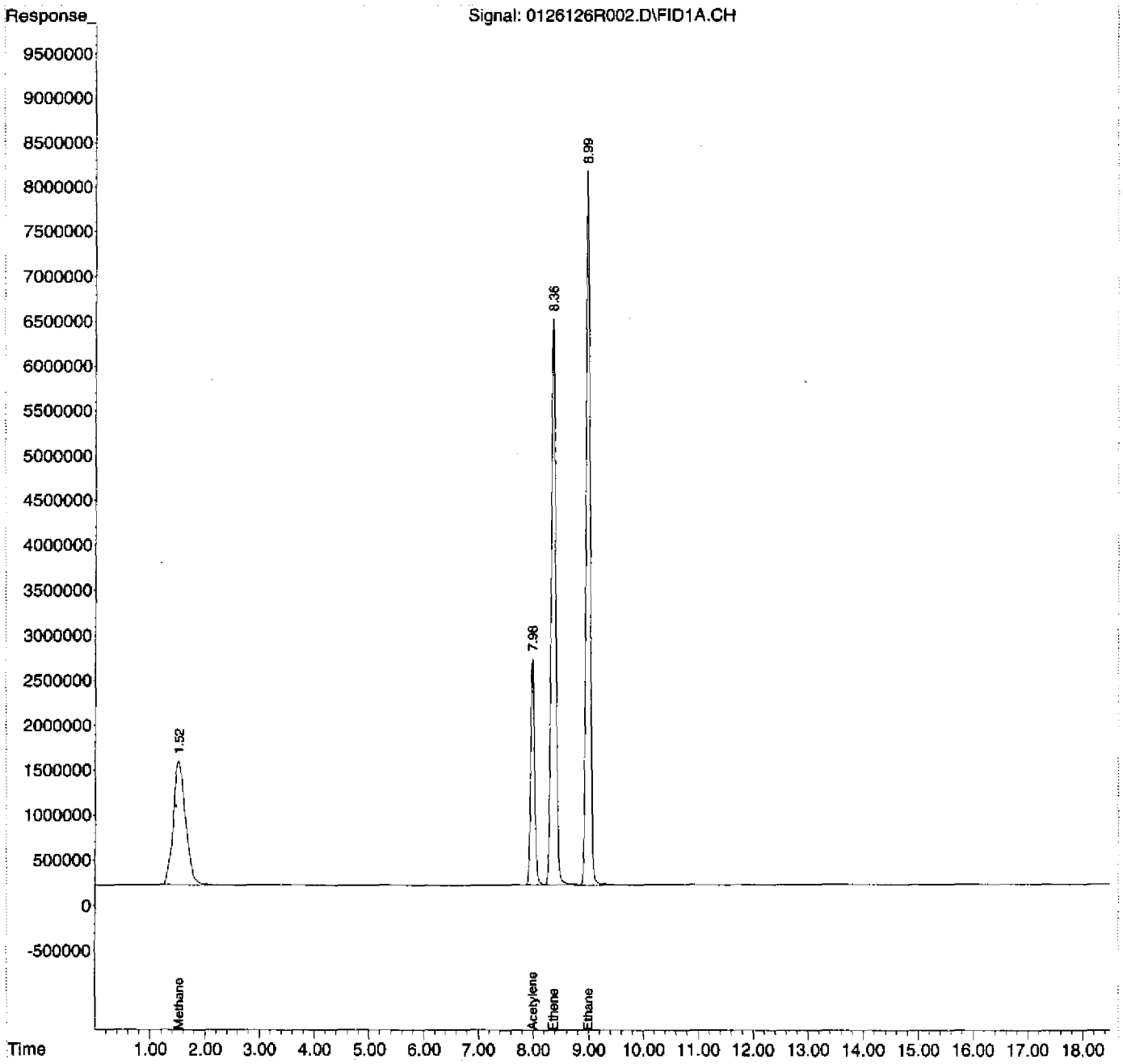
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



DIM0065936 DIM0066002

Quantitation Report (Not Reviewed)

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

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

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

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

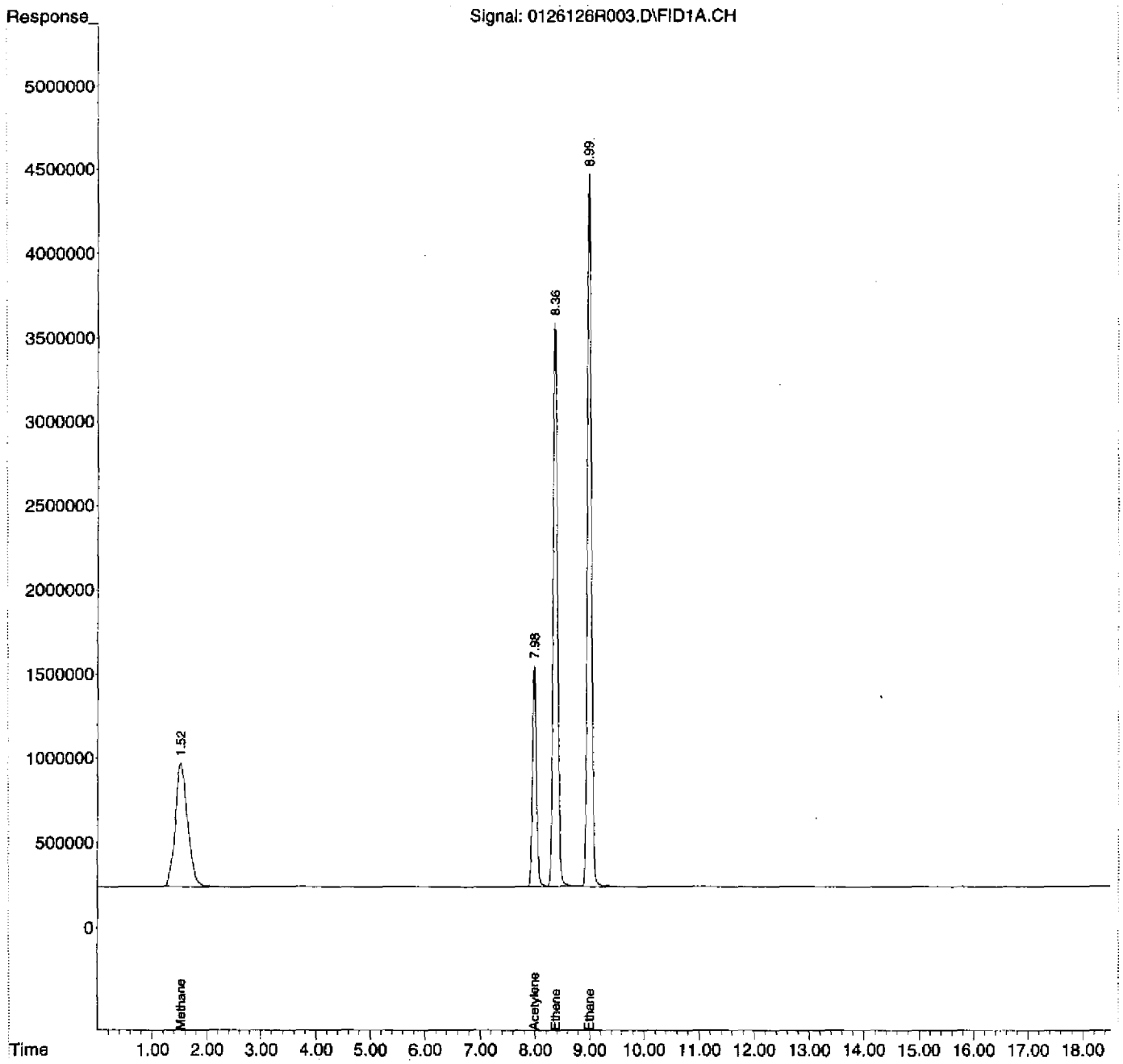
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



Quantitation Report (Not Reviewed)

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

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

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

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

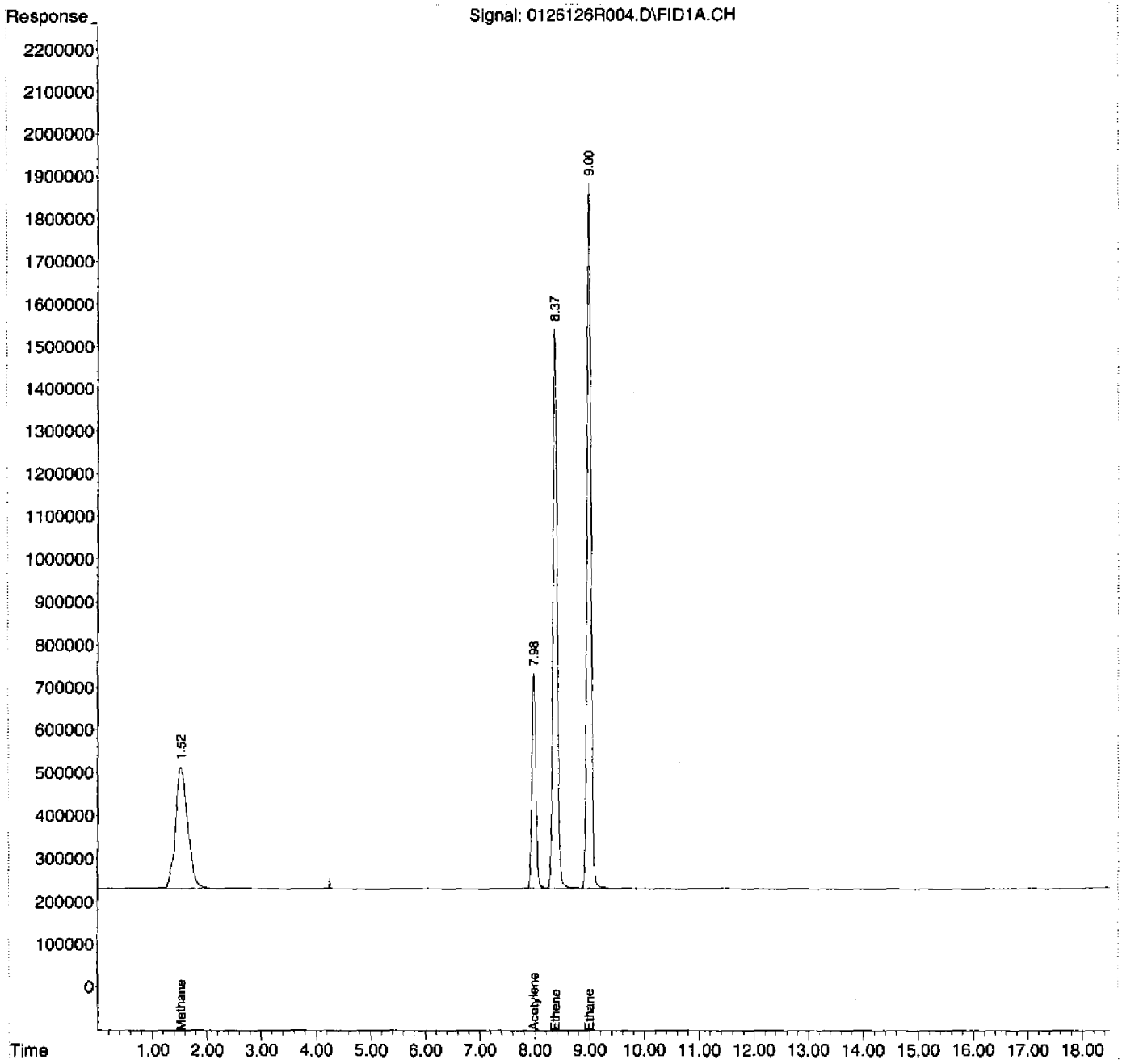
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



DIM0066006
DIM0065936

Quantitation Report (Not Reviewed)

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

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

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

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

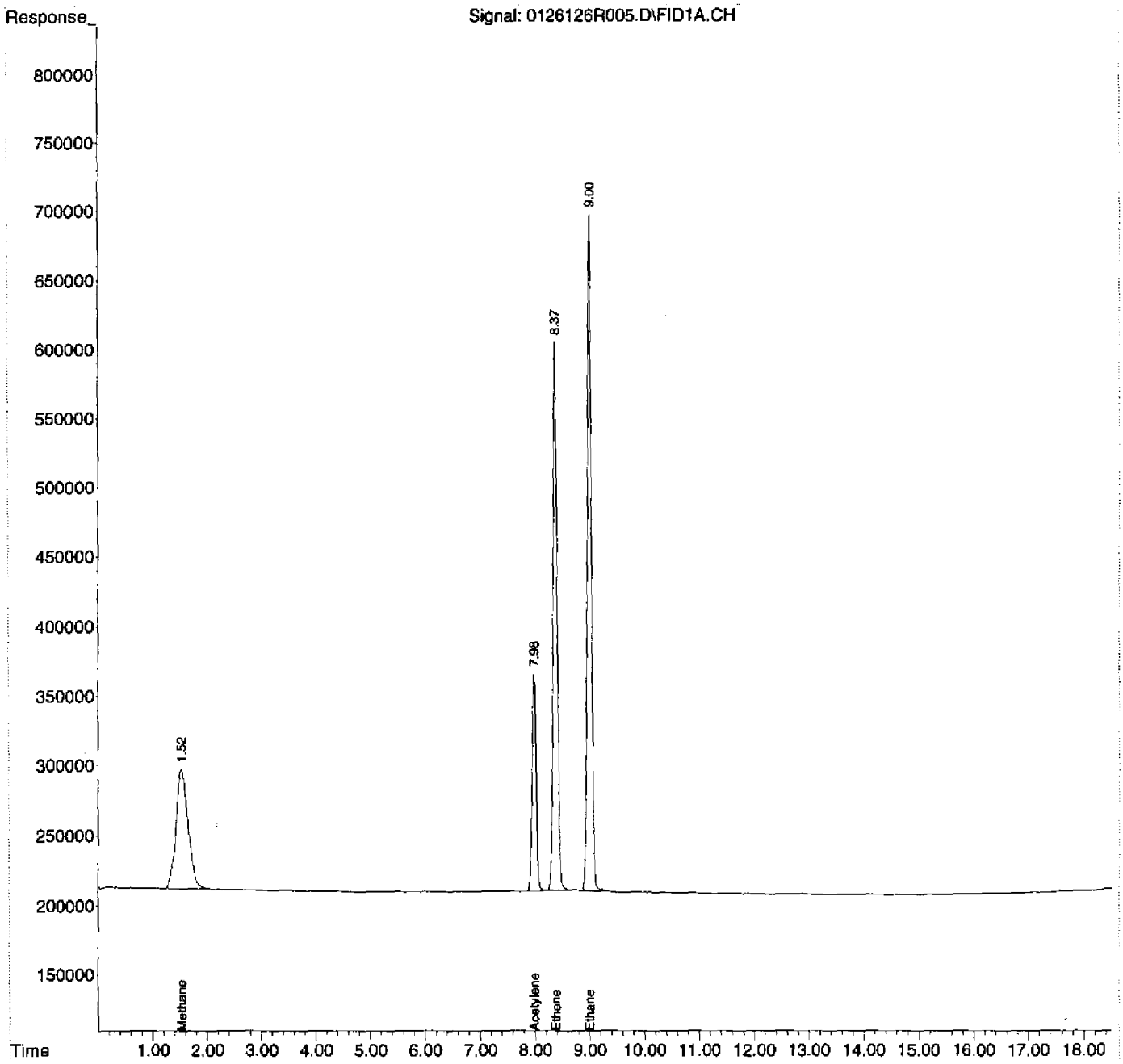
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



Quantitation Report (Not Reviewed)

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

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

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

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

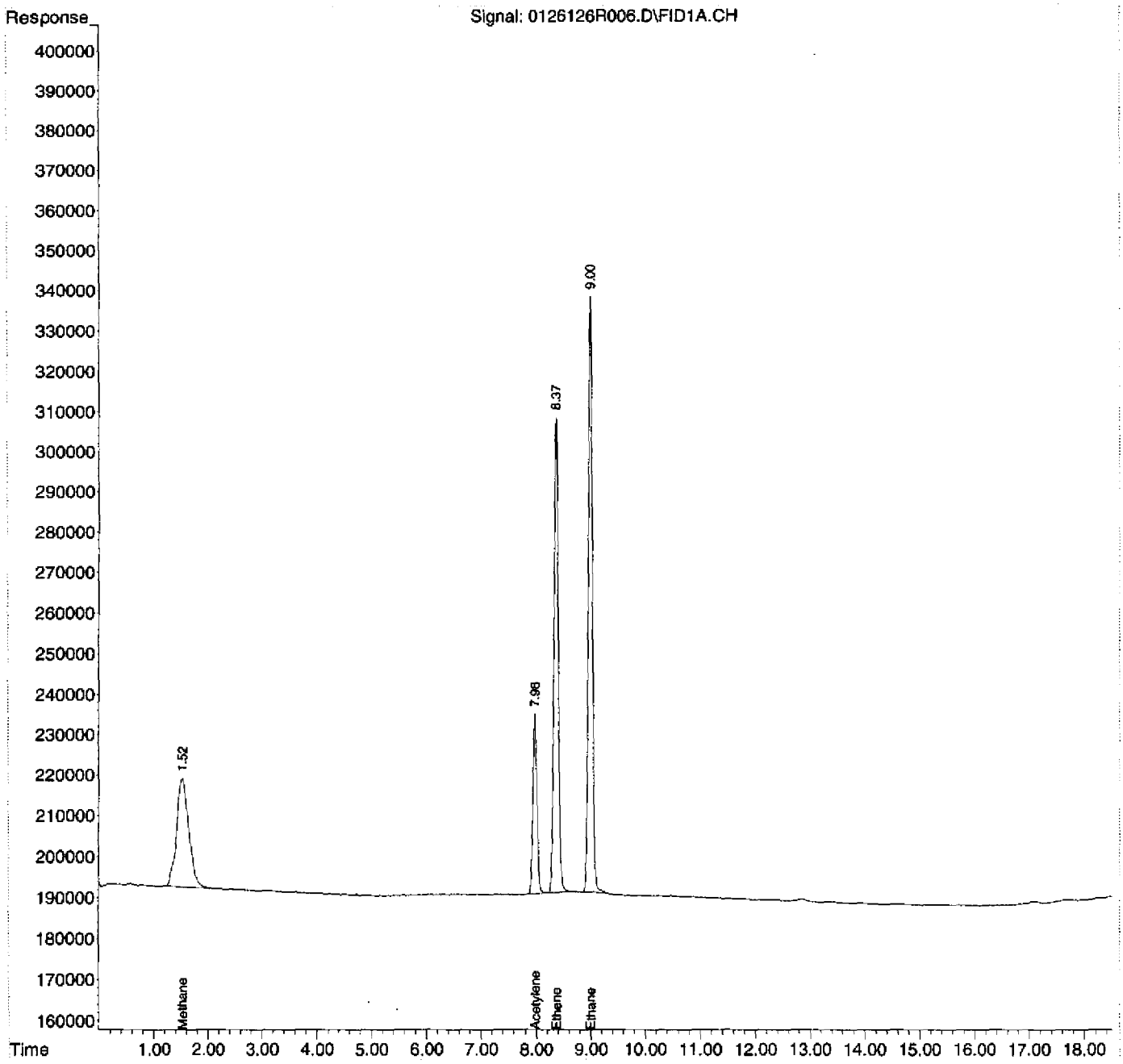
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



Quantitation Report (Not Reviewed)

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

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

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

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

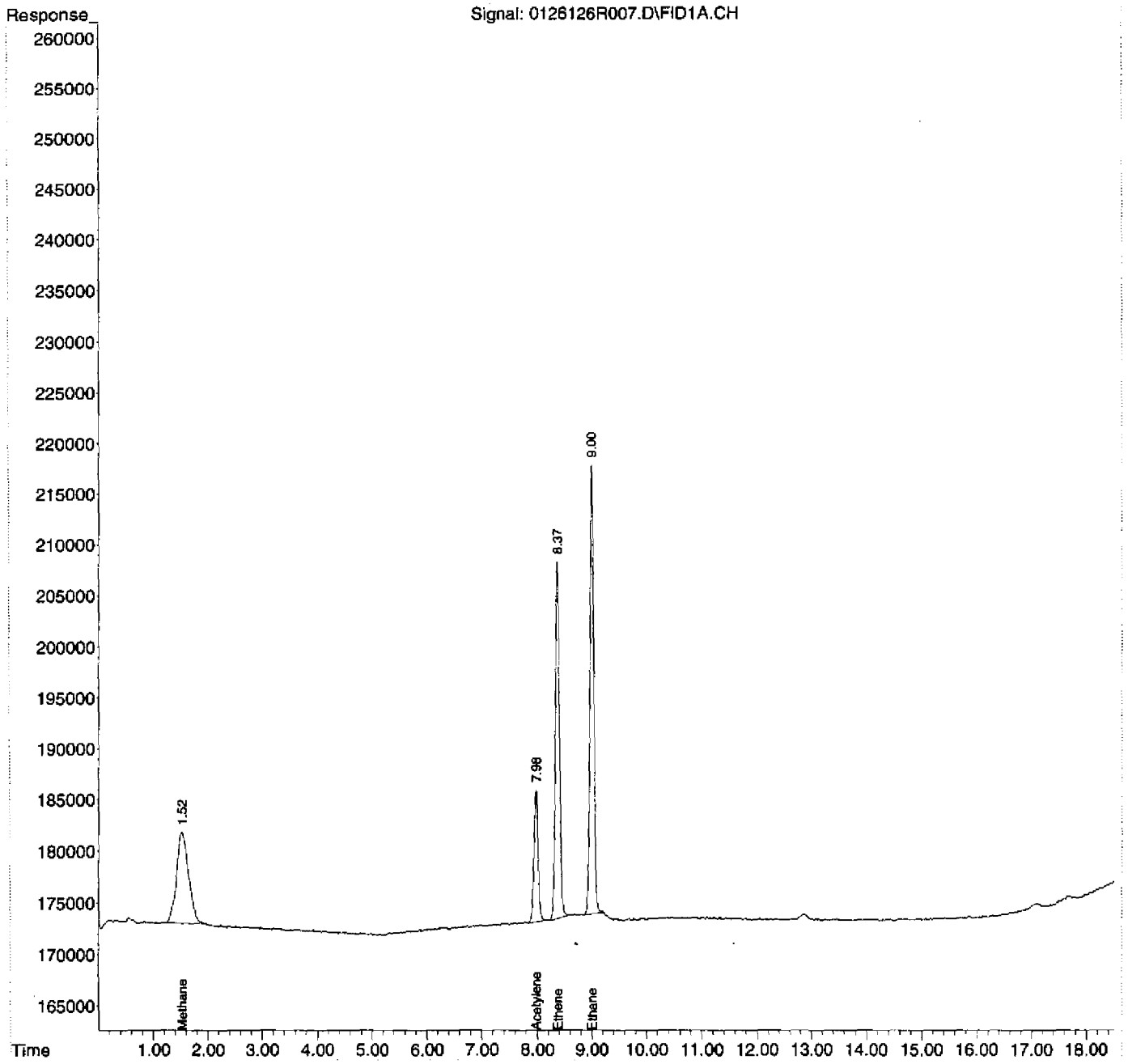
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



Quantitation Report (Not Reviewed)

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

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

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

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

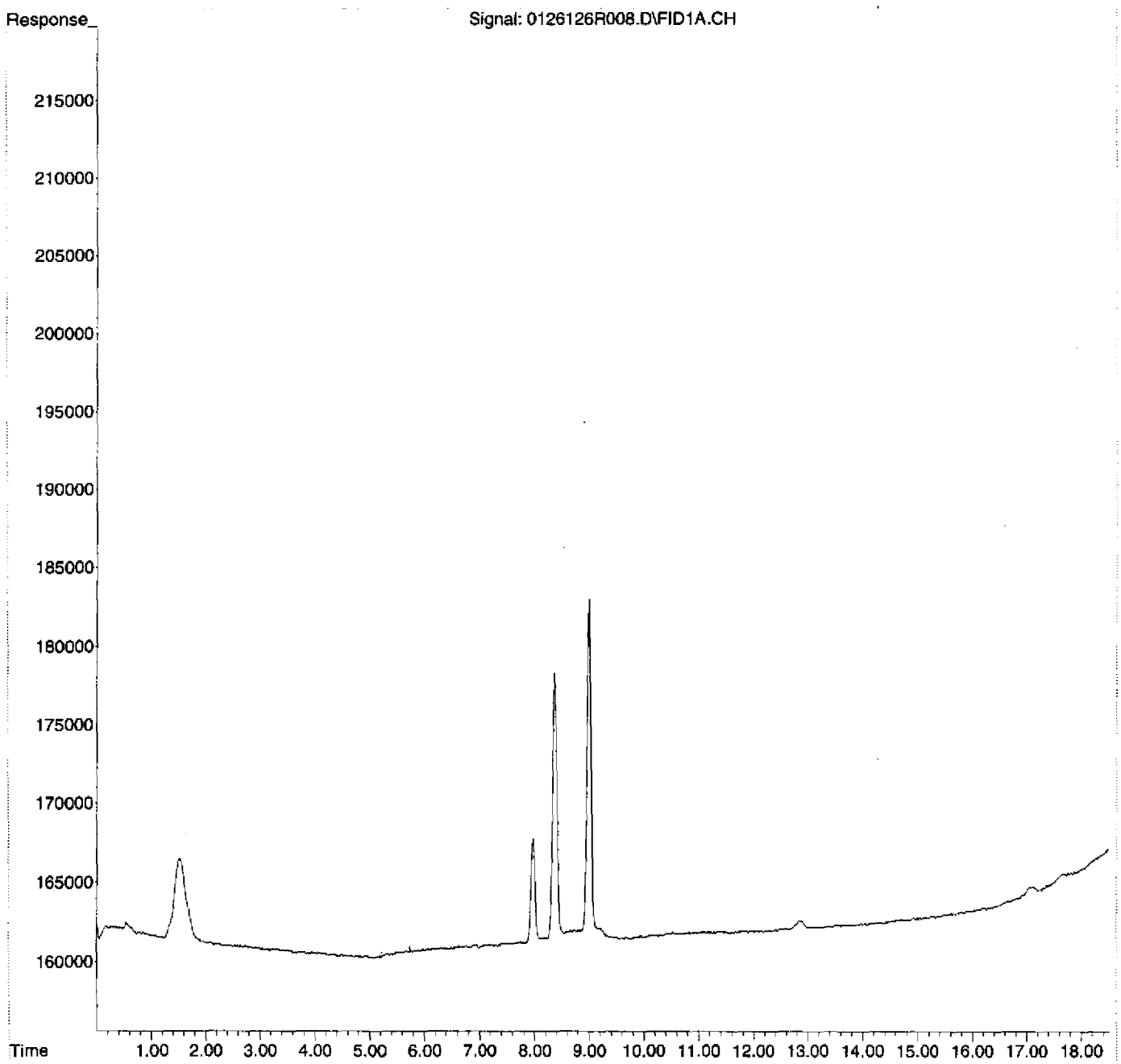
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



SECOND SOURCE CALIBRATION VERIFICATION REPORT

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

Second Source Std: 1H18014

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

Quantitation Report (Not Reviewed)

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

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

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

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

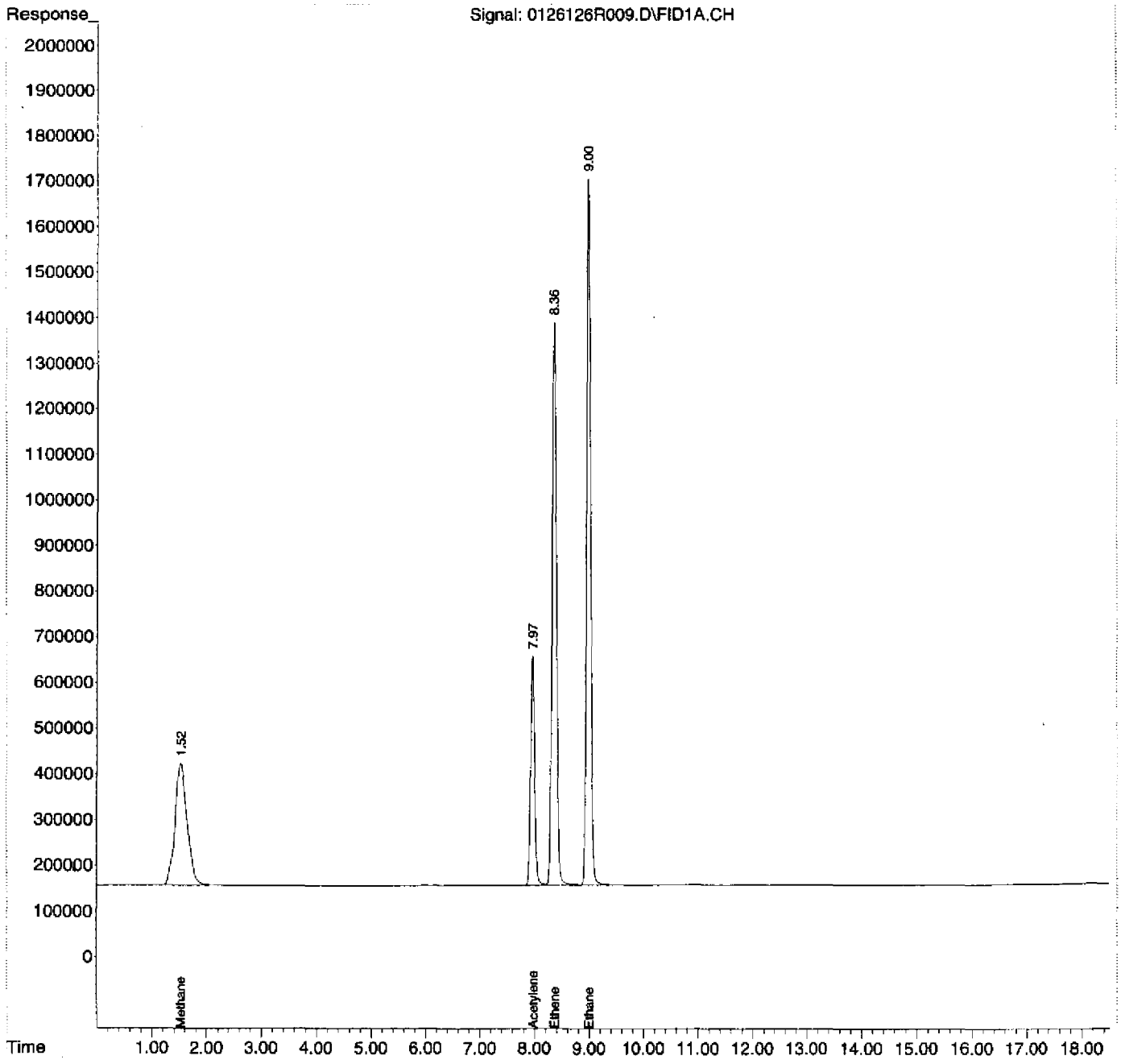
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



Quantitation Report (Not Reviewed)

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

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

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

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

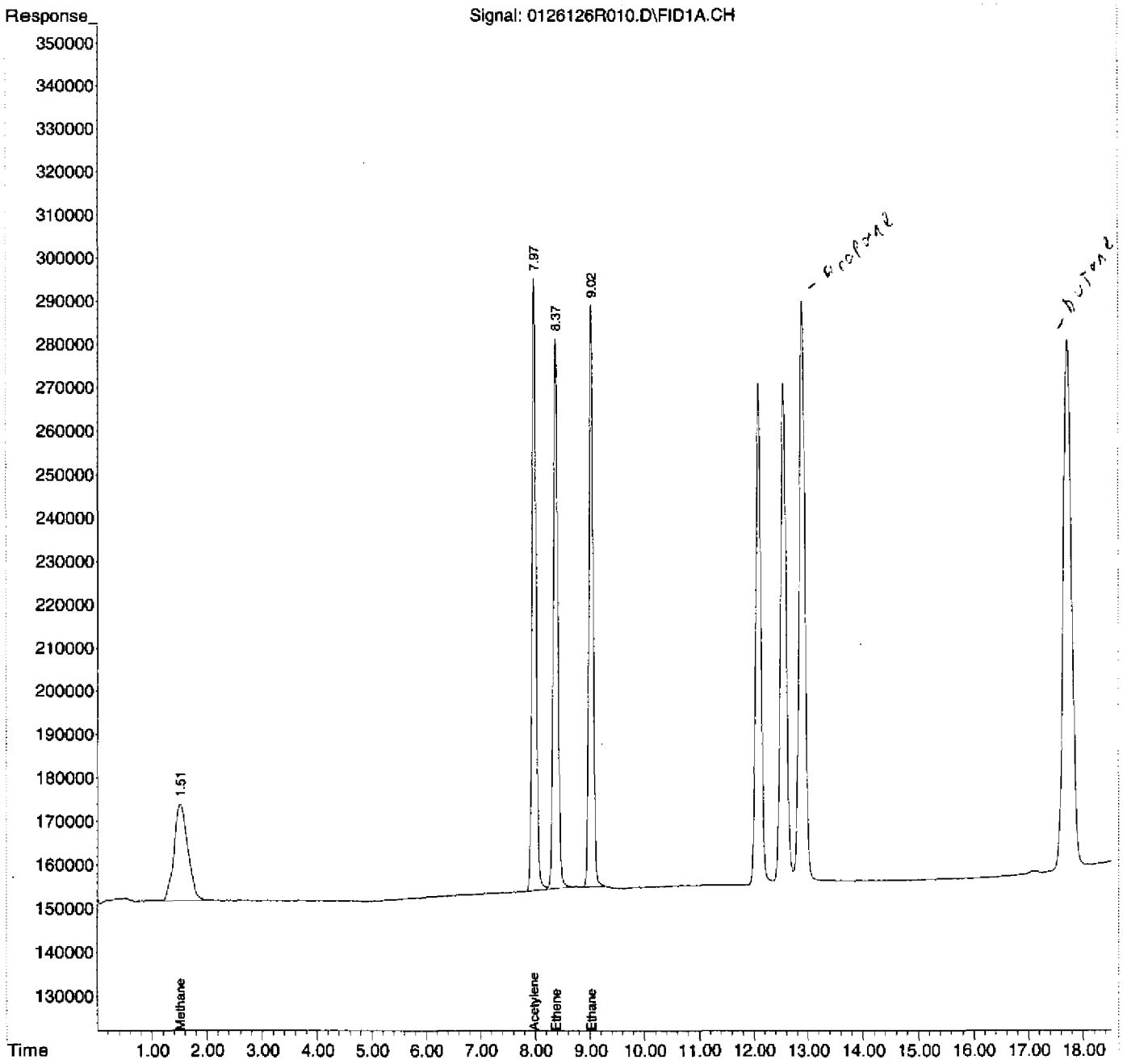
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



Quantitation Report (Not Reviewed)

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

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

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

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

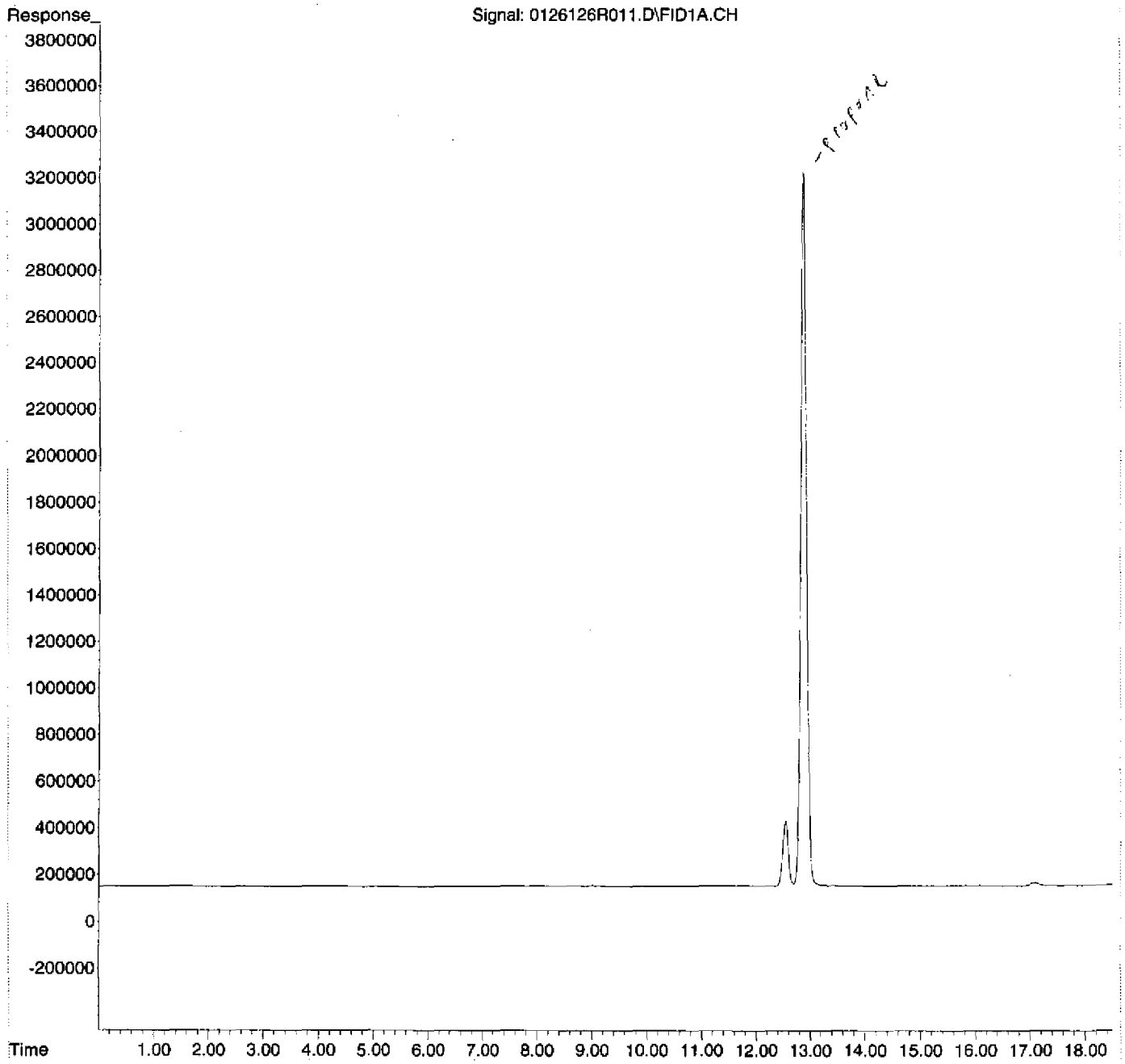
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



Quantitation Report (Not Reviewed)

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

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

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

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

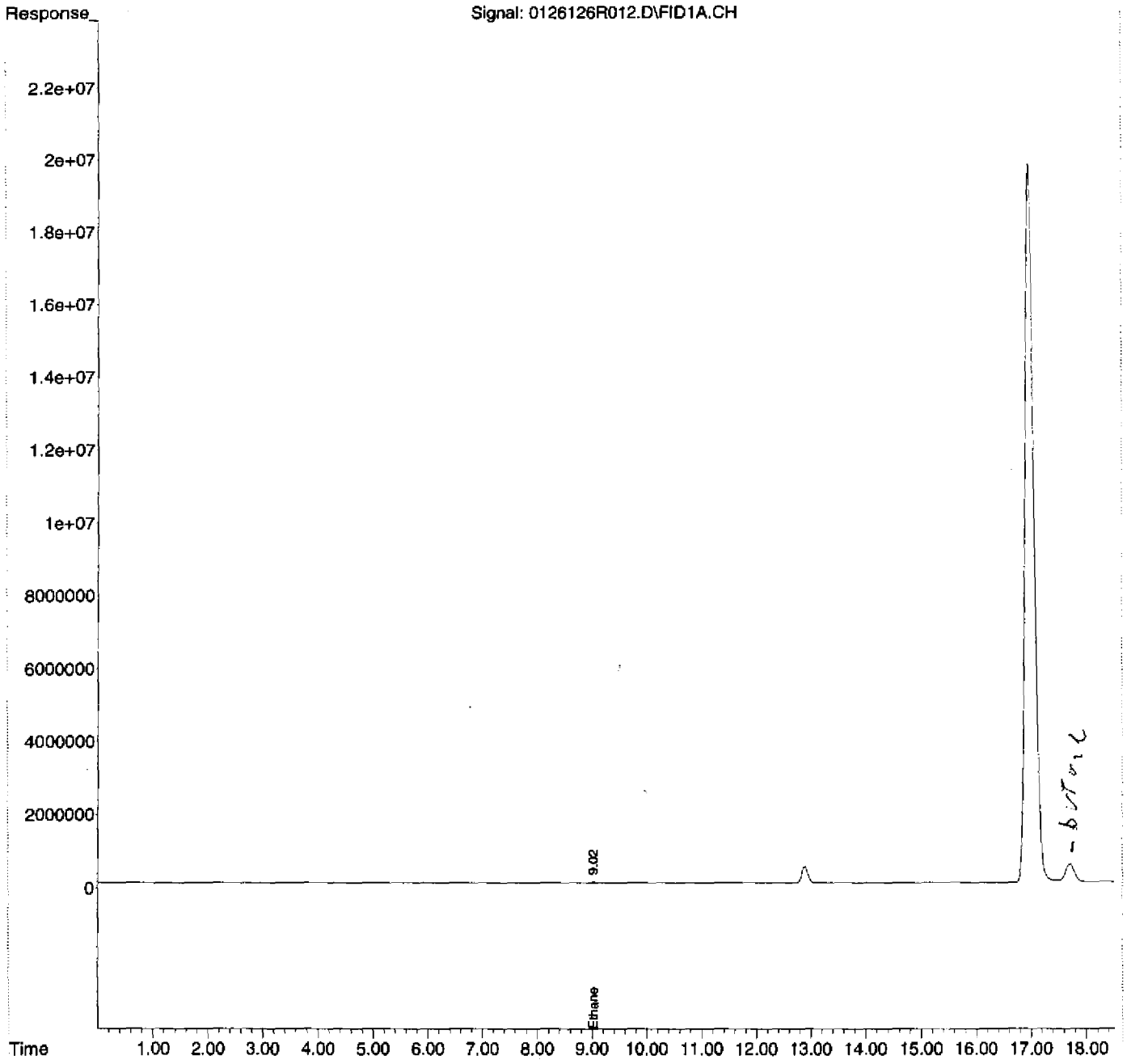
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

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

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



00071

SDG: 12030A

Instrument: AG 6890N-6

Analysis Date: 1/31/12

SAMPLE DATA

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

00056

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

GC QA-QC Check Report

00073

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

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

$$\frac{828709 - 966567}{966567} = \times 100 = 14.26\%$$

RL
2/2/12

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.

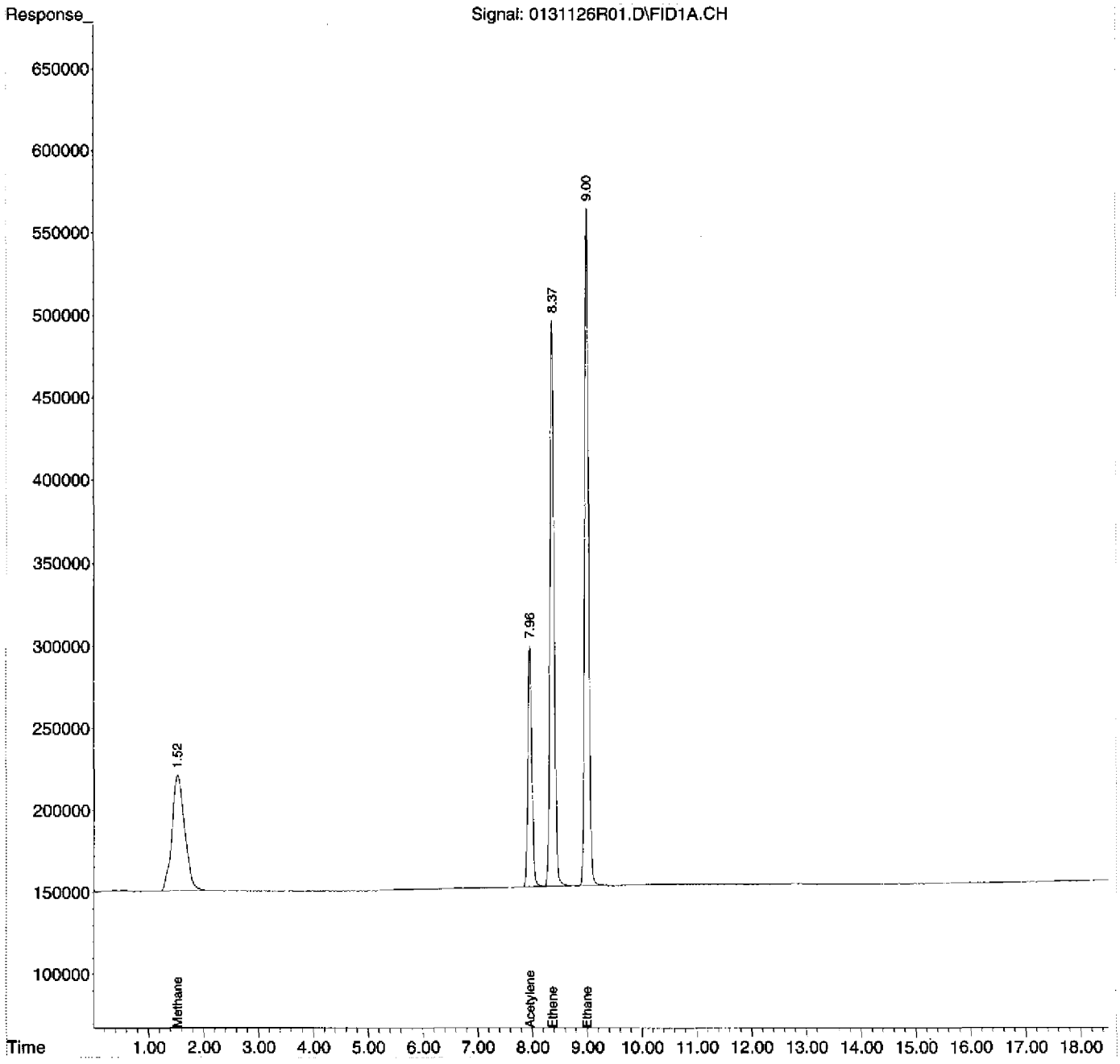
11288444 / 1018000 = 11.0888

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.

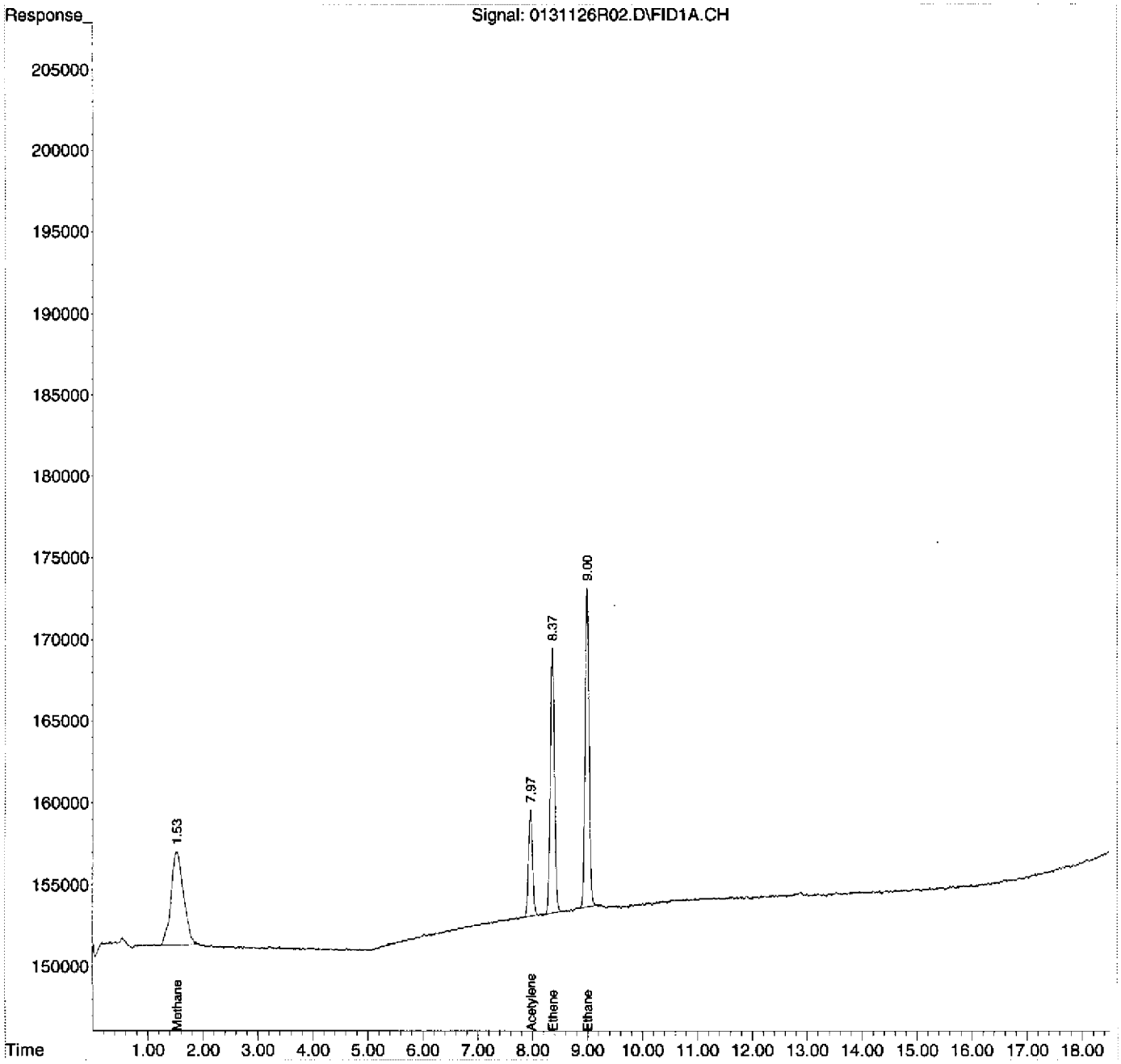
(f)=RT Delta > 1/2 Window (m)=manual int.

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.

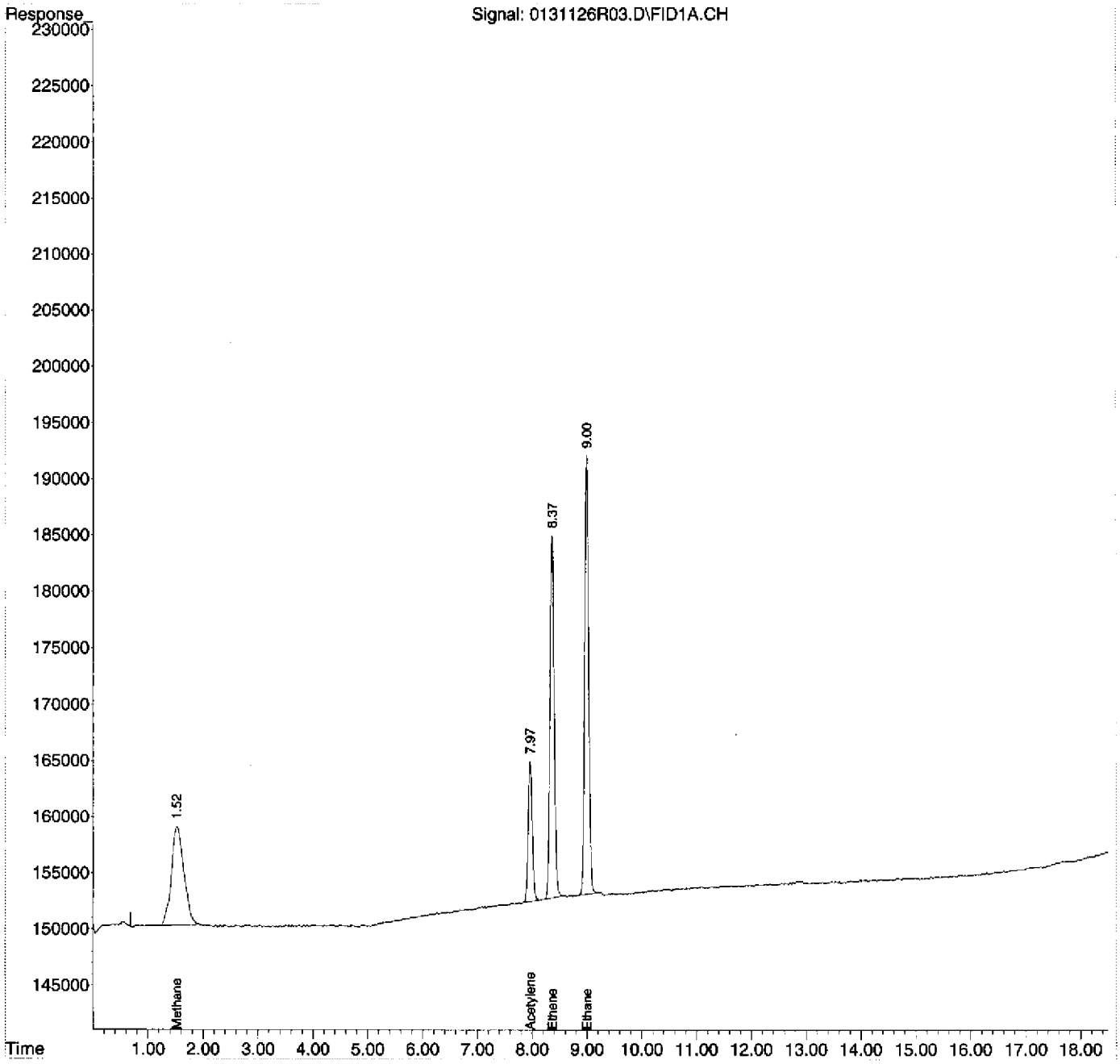
(f)=RT Delta > 1/2 Window (m)=manual int.

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 : 0131126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 3:50 pm
Operator : rh
Sample : 1201034-05
Misc : HW14-P
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 01 09:20:16 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.962	26425083	75.605 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	113.98%
Target Compounds			
1) TM Methane	1.526	49768880	48.887 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.003	1429804	1.479 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

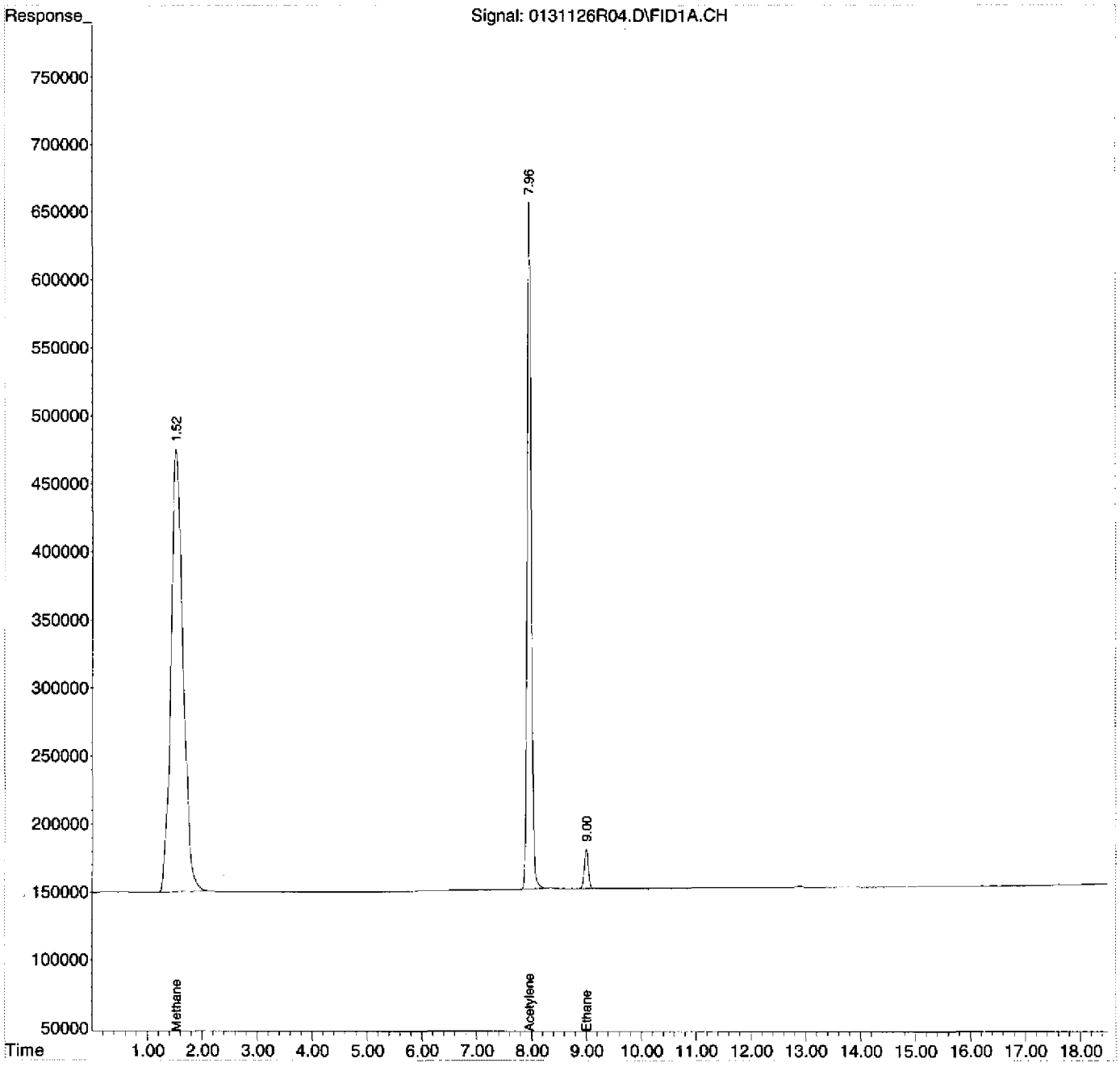
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 3:50 pm
Operator : rh
Sample : 1201034-05
Misc : HW14-P
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 01 09:20:16 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 4:26 pm
Operator : rh
Sample : 1201034-01
Misc : FB04
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 09:20:23 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	25759338	73.700 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.11%
Target Compounds			
1) TM Methane	1.528	2183339	2.145 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.

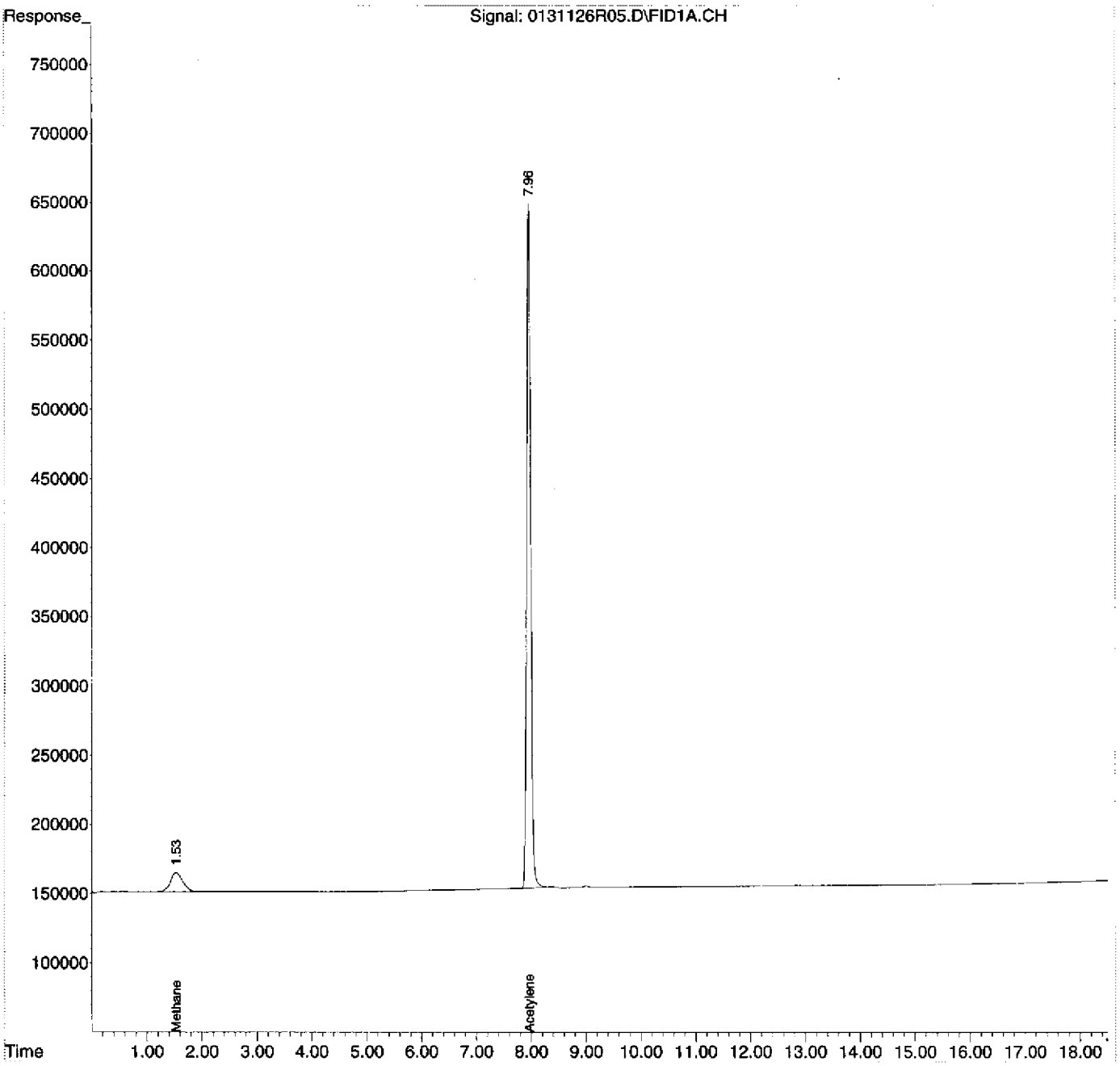
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 4:26 pm
Operator : rh
Sample : 1201034-01
Misc : FB04
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 09:20:23 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\013112RSK\
Data File : 0131126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 4:54 pm
Operator : rh
Sample : 1201034-02
Misc : HW05
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 01 09:20:30 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	24181331	69.185 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	104.30%
Target Compounds			
1) TM Methane	1.518	1345603417	1321.773 ug/L - O.C.
3) TM Ethene	0.000	0	N.D. ug/L > RPT.
4) TM Ethane	9.003	10325160	10.682 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

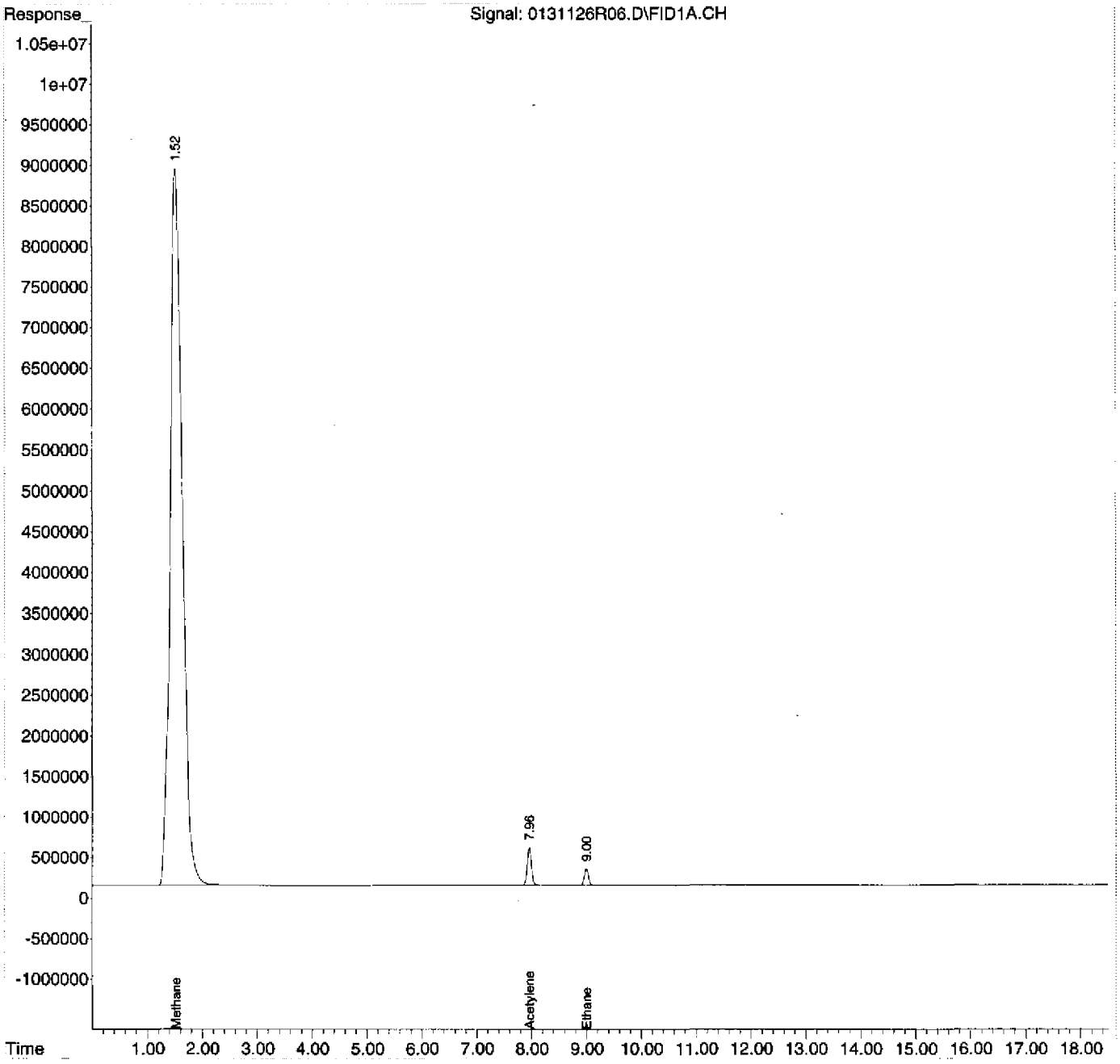
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 4:54 pm
Operator : rh
Sample : 1201034-02
Misc : HW05
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 01 09:20:30 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\013112RSK\
Data File : 0131126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 5:30 pm
Operator : rh
Sample : 1201034-03
Misc : HW06
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 01 09:20:38 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.961	23839288	68.207 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	102.83%
Target Compounds			
1) TM Methane	1.467	14609636159	14350.901 ug/L — O.C.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	8.986	522388792	540.458 ug/L — O.C.
5) Qual Propane	12.899	6539405	NoCal
6) Qual Butane	0.000	0	N.D.

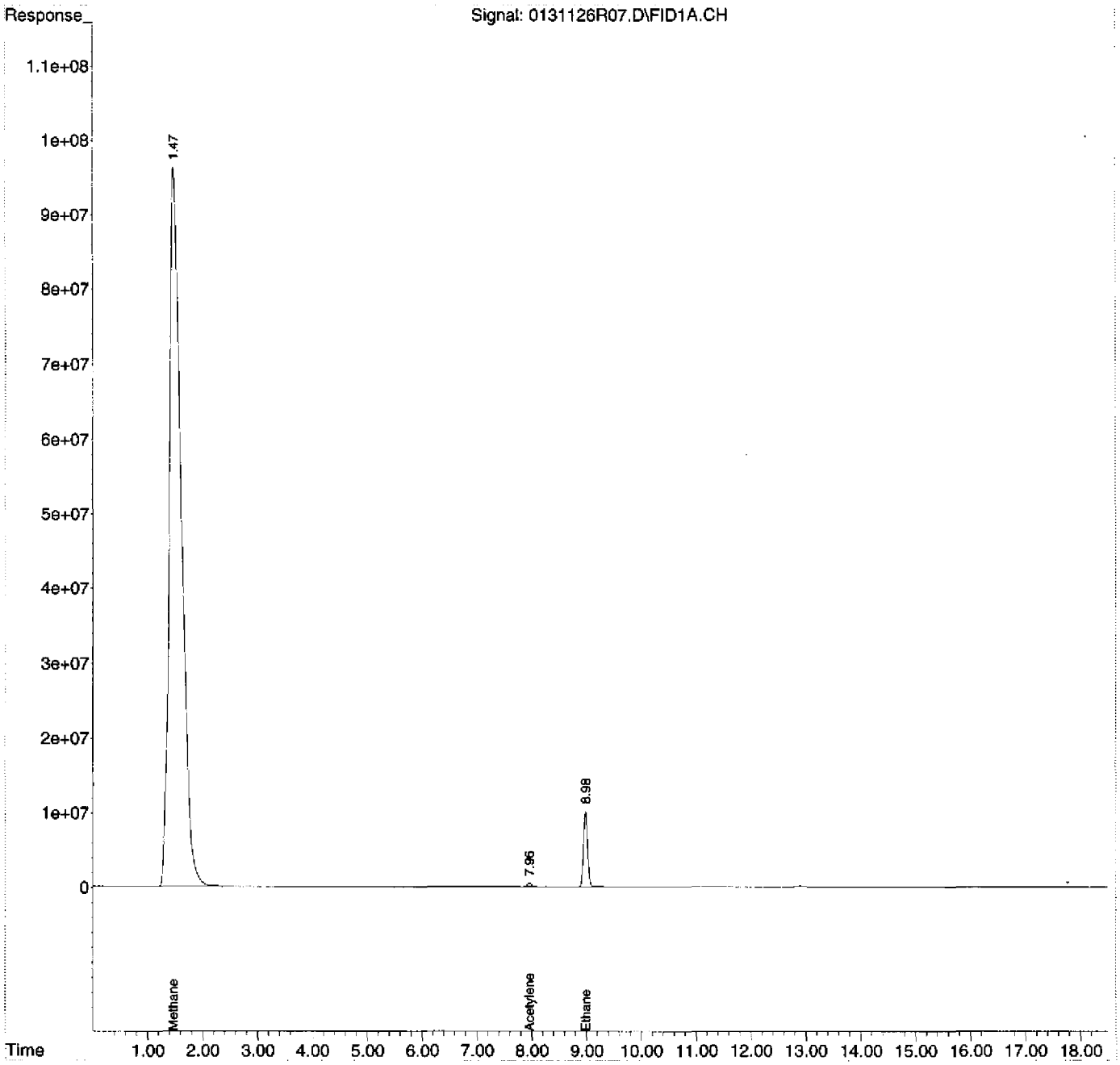
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 5:30 pm
Operator : rh
Sample : 1201034-03
Misc : HW06
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 01 09:20:38 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 : 0131126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 5:58 pm
Operator : rh
Sample : 1201034-04
Misc : HW12
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 01 09:20:46 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.961	23592027	67.499 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	101.76%
Target Compounds			
1) TM Methane	1.410	33558064694	32963.756 ug/L -o.c.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	8.973	1002379528	1037.051 ug/L -o.c.
5) Qual Propane	12.895	35627522	NoCal
6) Qual Butane	17.723	2417798	NoCal

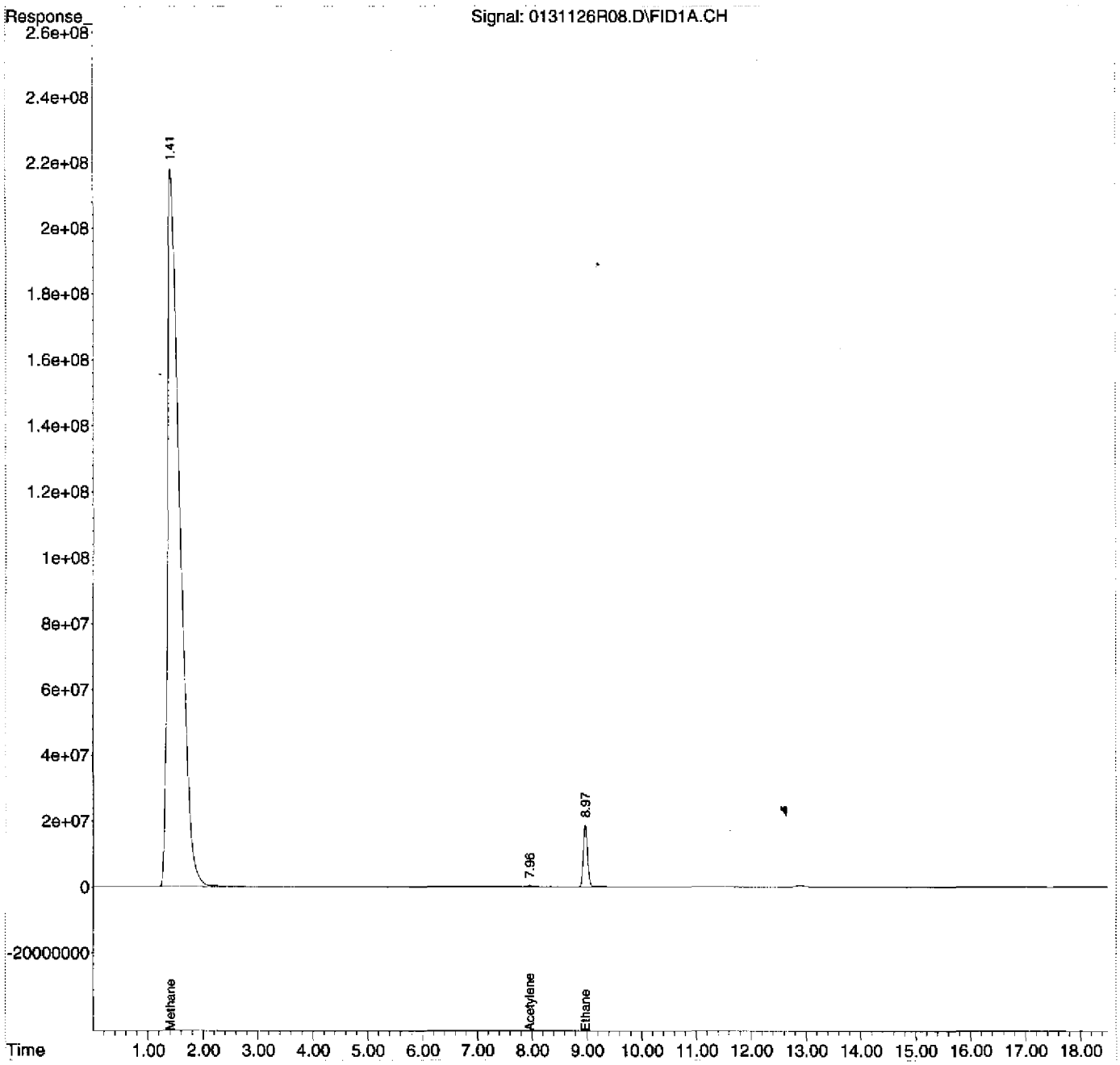
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 5:58 pm
Operator : rh
Sample : 1201034-04
Misc : HW12
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 01 09:20:46 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 6:34 pm
Operator : rh
Sample : 1201034-06
Misc : HW14
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 01 09:20:54 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.961	26759559	76.562 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	115.43%
Target Compounds			
1) TM Methane	1.515	2318431143	2277.372 ug/L - o.c.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.003	28112442	29.085 ug/L - e.pY.
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

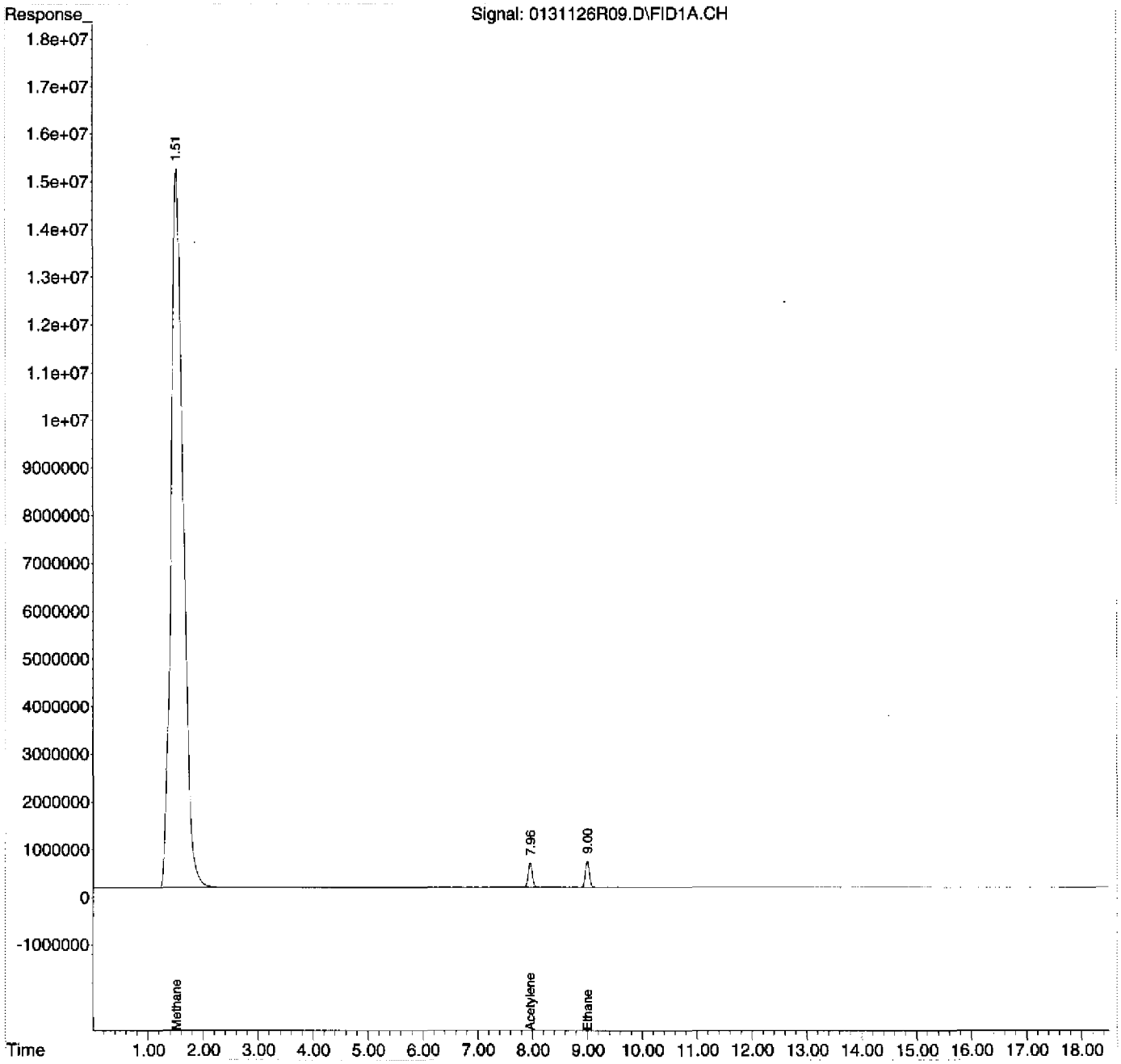
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 6:34 pm
Operator : rh
Sample : 1201034-06
Misc : HW14
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 01 09:20:54 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 : 0131126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 7:02 pm
Operator : rh
Sample : 1201034-07
Misc : TB04
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 01 09:21:02 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	7.963	27193213	77.802 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	117.30%
Target Compounds			
1) TM Methane	1.525	8961705	8.803 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.004	229197	<MDL ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

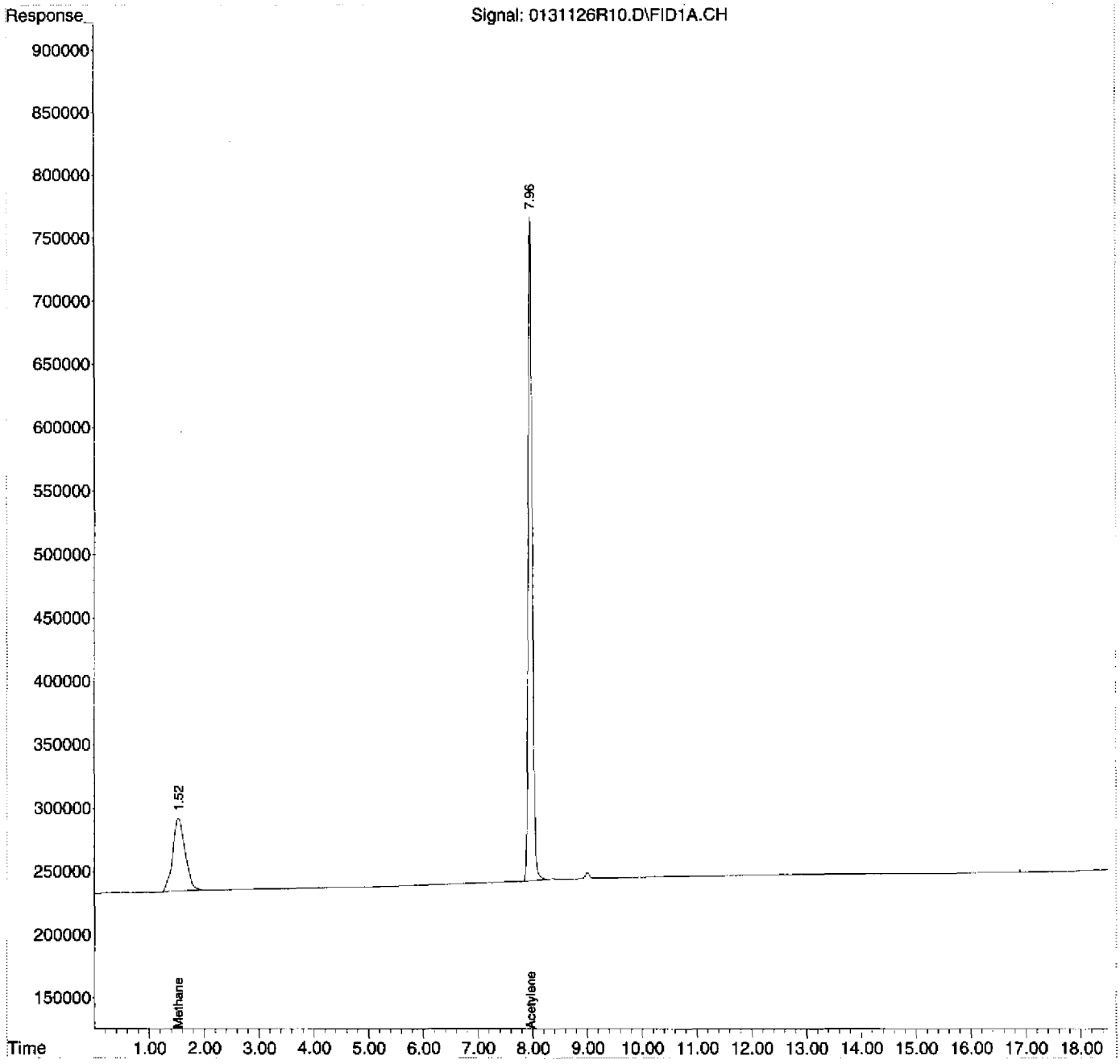
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 7:02 pm
Operator : rh
Sample : 1201034-07
Misc : TB04
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 01 09:21:02 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 7:37 pm
Operator : rh
Sample : 1201034-08
Misc : TB05
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 01 09:21:10 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	26698785	76.388 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	115.16%
Target Compounds			
1) TM Methane	1.523	5102864	5.012 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.007	148729	<MDL ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

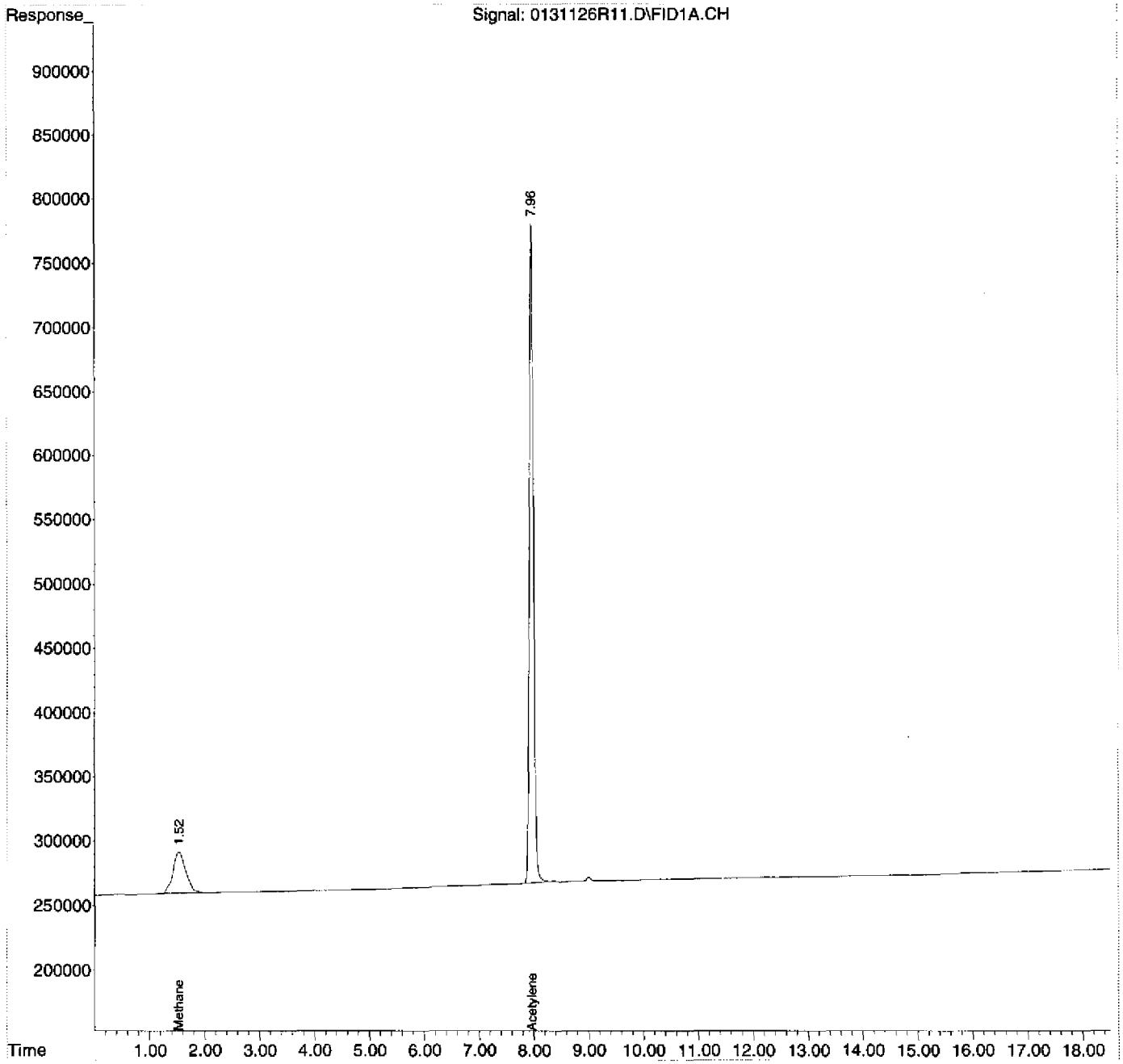
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 7:37 pm
Operator : rh
Sample : 1201034-08
Misc : TB05
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 01 09:21:10 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 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

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.

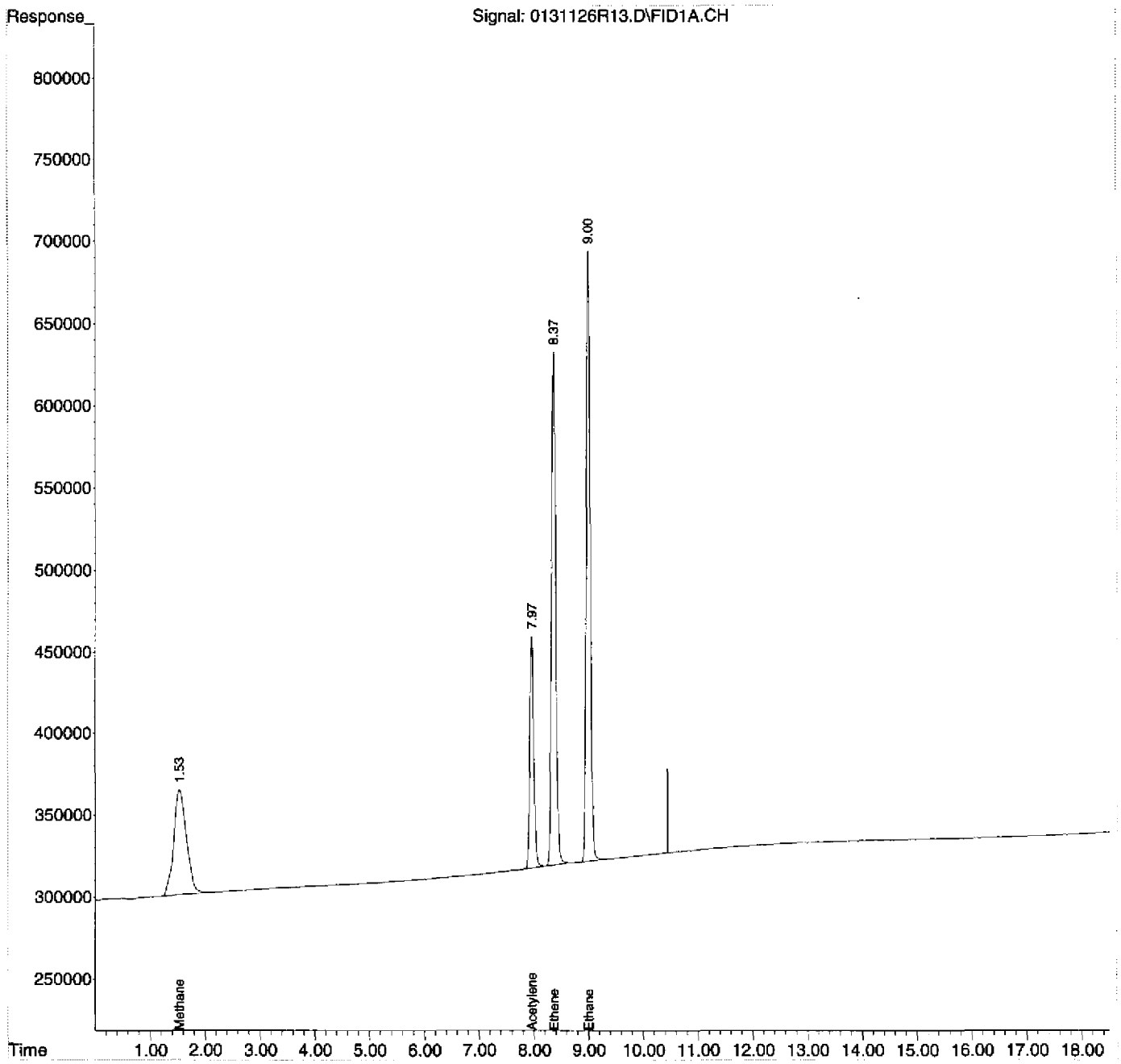
(f)=RT Delta > 1/2 Window (m)=manual int.

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 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 : 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.

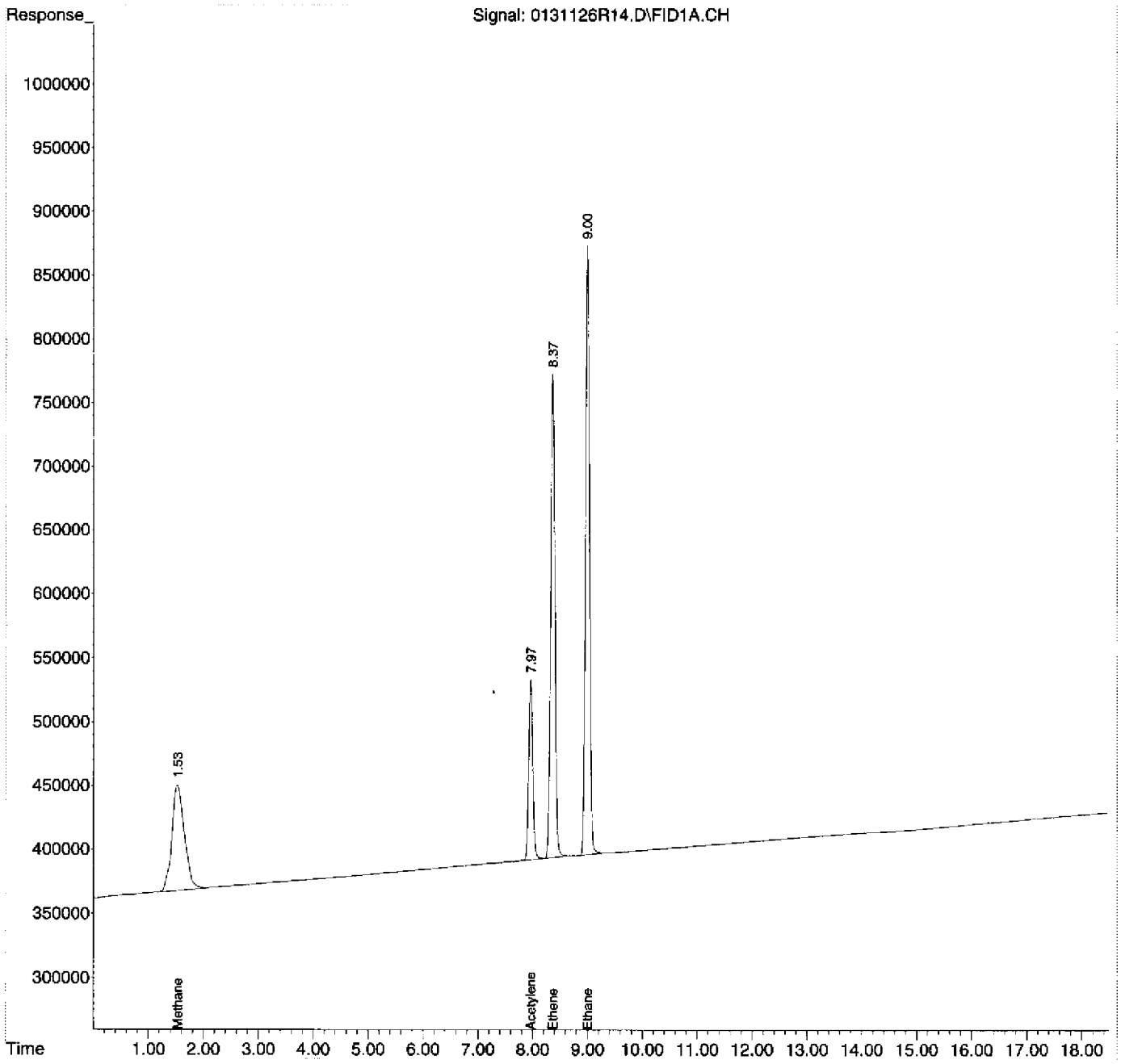
(f)=RT Delta > 1/2 Window (m)=manual int.

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 : 0131126R15.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 9:43 pm
Operator : rh
Sample : 1201034-09
Misc : FB05
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 01 09:21:34 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	26803297	76.687 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	115.61%
Target Compounds			
1) TM Methane	1.519	3750598	3.684 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.

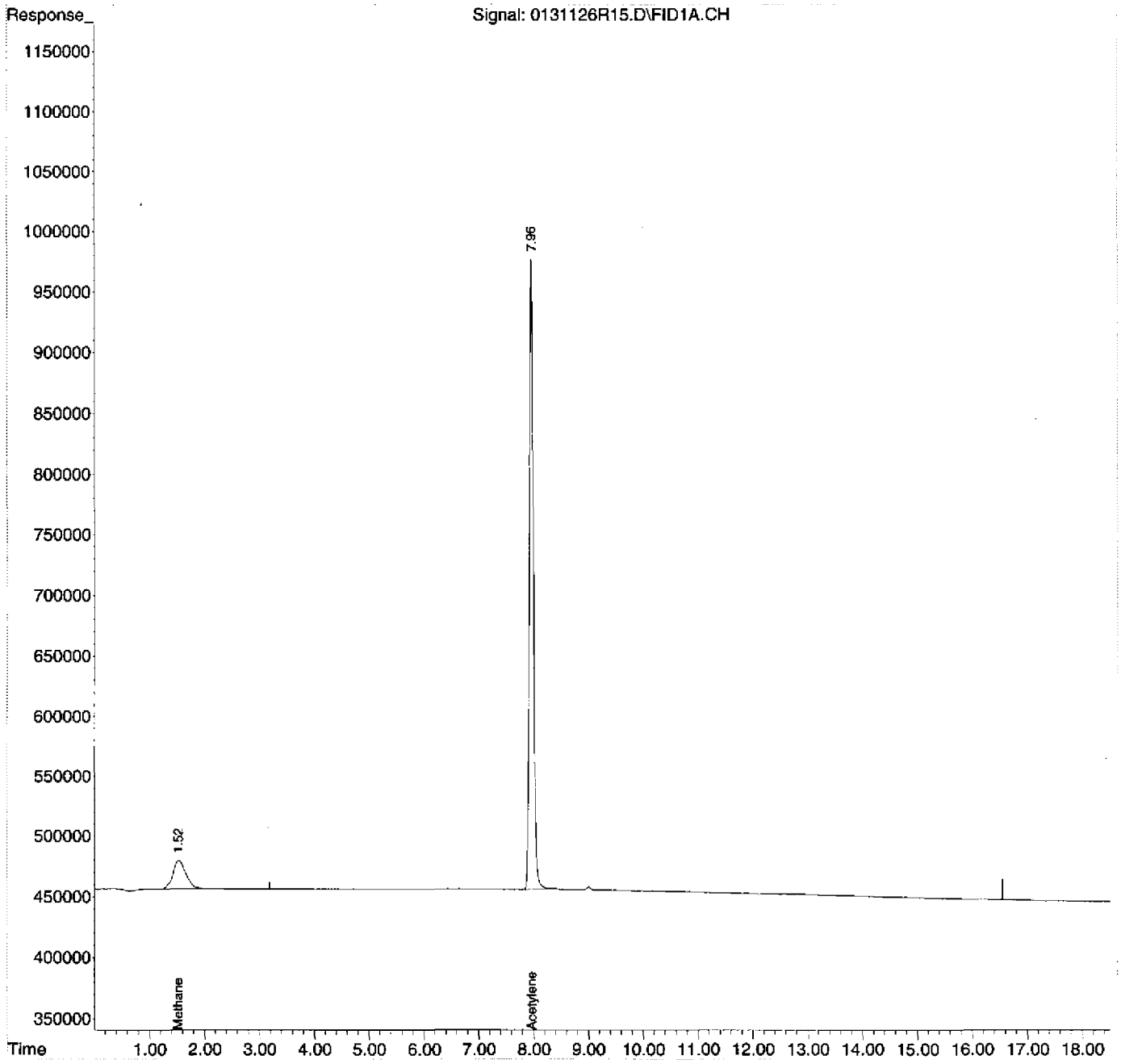
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R15.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 9:43 pm
Operator : rh
Sample : 1201034-09
Misc : FB05
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 01 09:21:34 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 (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R16.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 10:11 pm
Operator : rh
Sample : 1201034-11
Misc : HW24-P
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 01 09:21:42 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	7.963	26384427	75.488 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	113.81%
Target Compounds			
1) TM Methane	1.524	413397018	406.076 ug/L — 0,Cv
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.

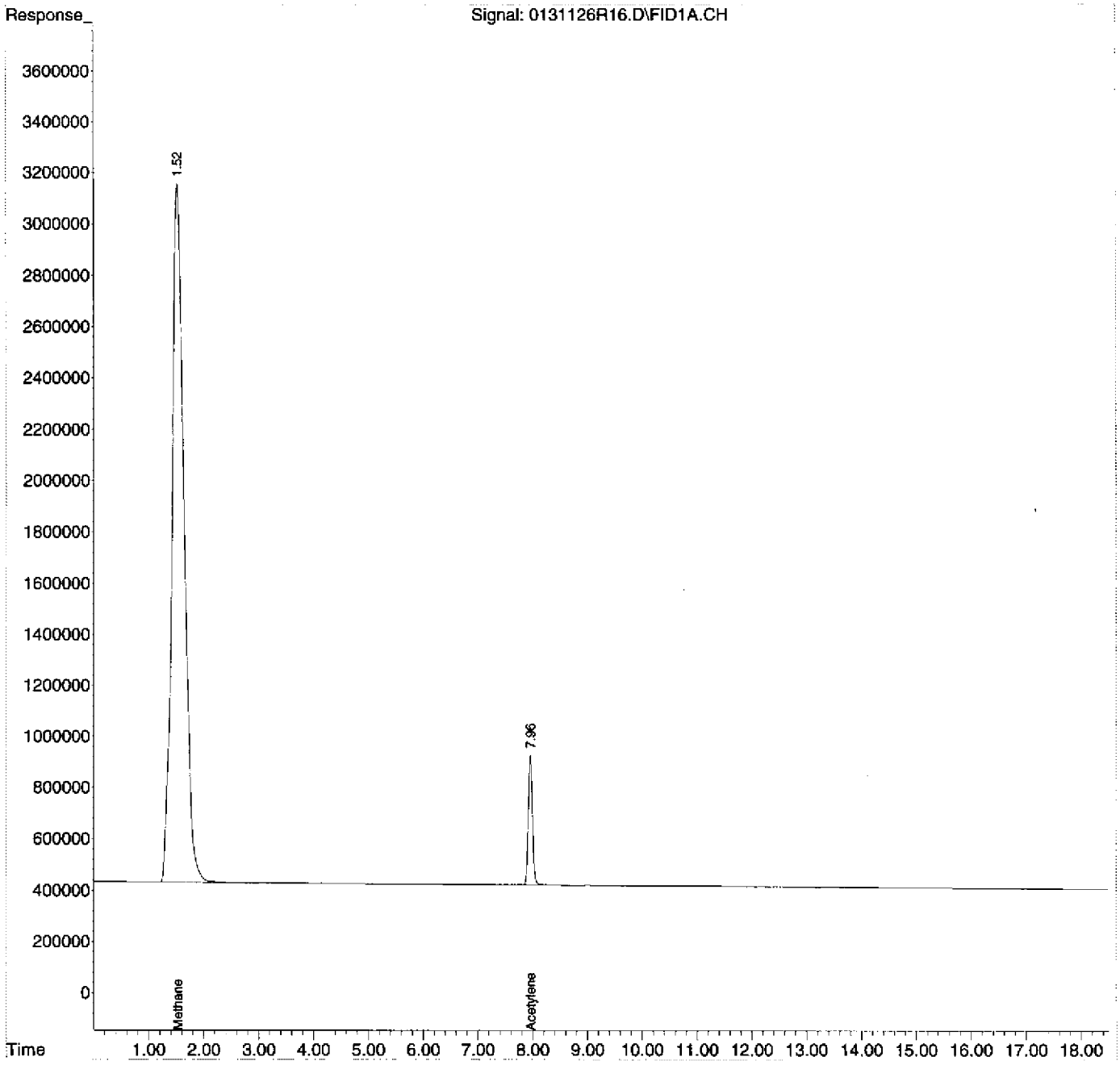
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R16.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 10:11 pm
Operator : rh
Sample : 1201034-11
Misc : HW24-P
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 01 09:21:42 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\013112RSK\
Data File : 0131126R17.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 10:46 pm
Operator : rh
Sample : 1201034-12
Misc : TB02
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 09:21:50 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	25377689	72.608 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.46%
Target Compounds			
1) TM Methane	1.526	3532644	3.470 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.

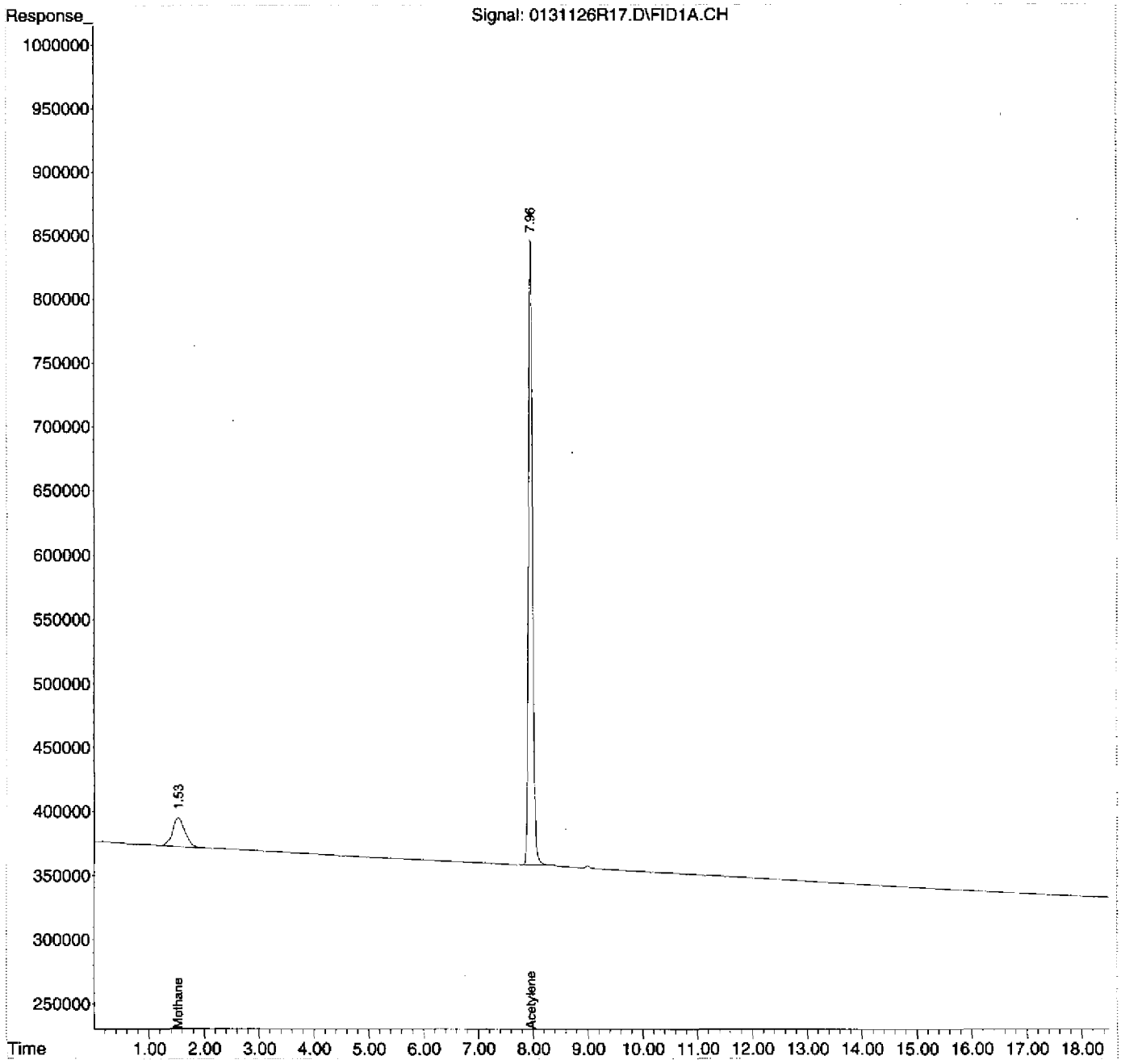
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R17.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 10:46 pm
Operator : rh
Sample : 1201034-12
Misc : TB02
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 09:21:50 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 : 0131126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 11:13 pm
Operator : rh
Sample : 1201034-13
Misc : TB03
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 01 09:21:58 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.963	25798803	73.813 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.28%
Target Compounds			
1) TM Methane	1.527	2292163	2.252 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.

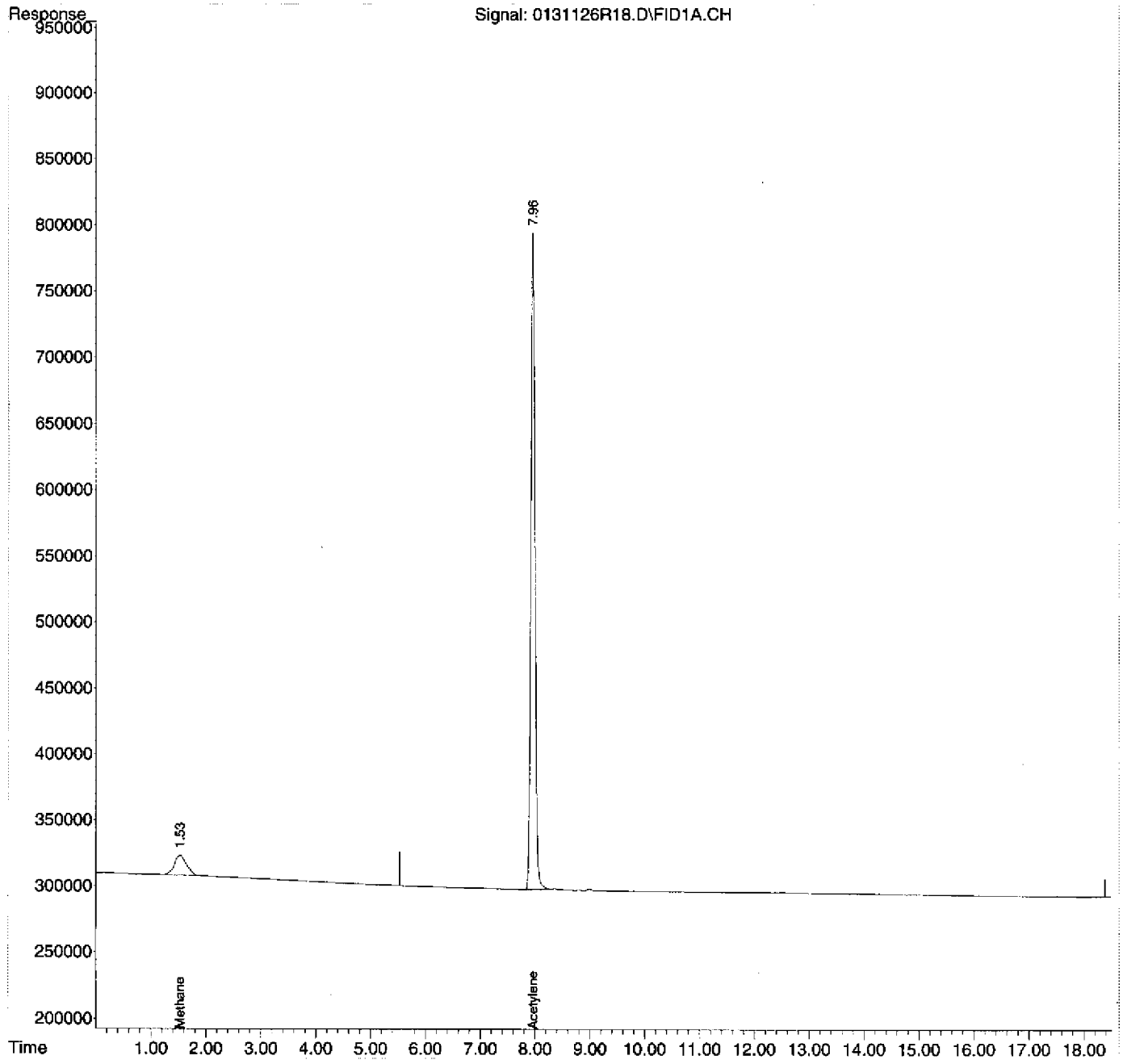
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R18.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 11:13 pm
Operator : rh
Sample : 1201034-13
Misc : TB03
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 01 09:21:58 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 11:49 pm
Operator : rh
Sample : 1201034-14
Misc : TB07
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 01 09:22:06 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	7.961	22244122	63.643 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	95.95%
Target Compounds			
1) TM Methane	1.523	2254872	2.215 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.

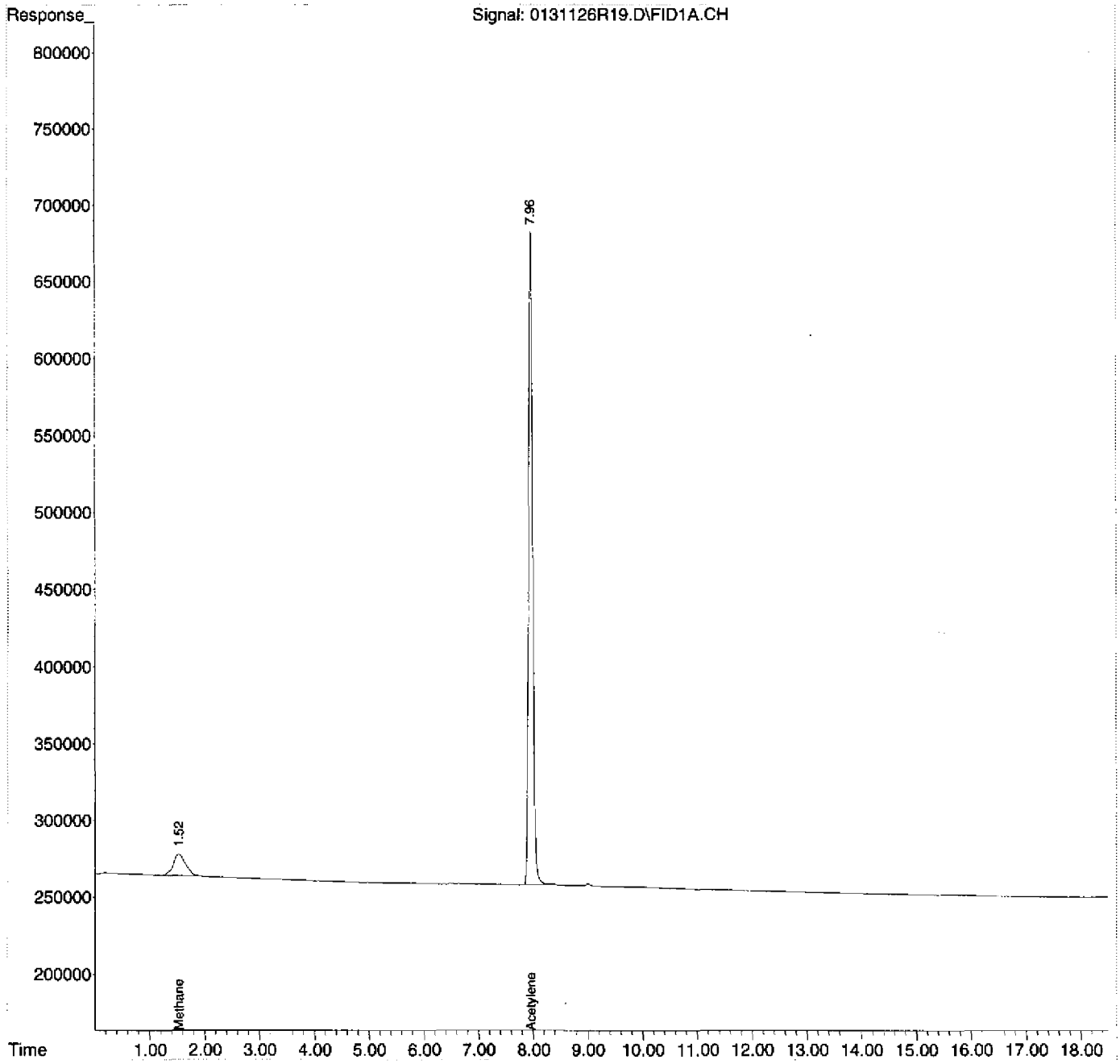
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R19.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 31 Jan 2012 11:49 pm
Operator : rh
Sample : 1201034-14
Misc : TB07
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 01 09:22:06 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\013112RSK\
Data File : 0131126R20.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:16 am
Operator : rh
Sample : 1201034-15
Misc : HW17
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 01 09:22:14 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	7.962	24628325	70.464 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	106.23%
Target Compounds			
1) TM Methane	1.518	1919660482	1885.664 ug/L — o.c.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.003	38857486	40.202 ug/L
5) Qual Propane	12.895	427072	NoCal
6) Qual Butane	0.000	0	N.D.

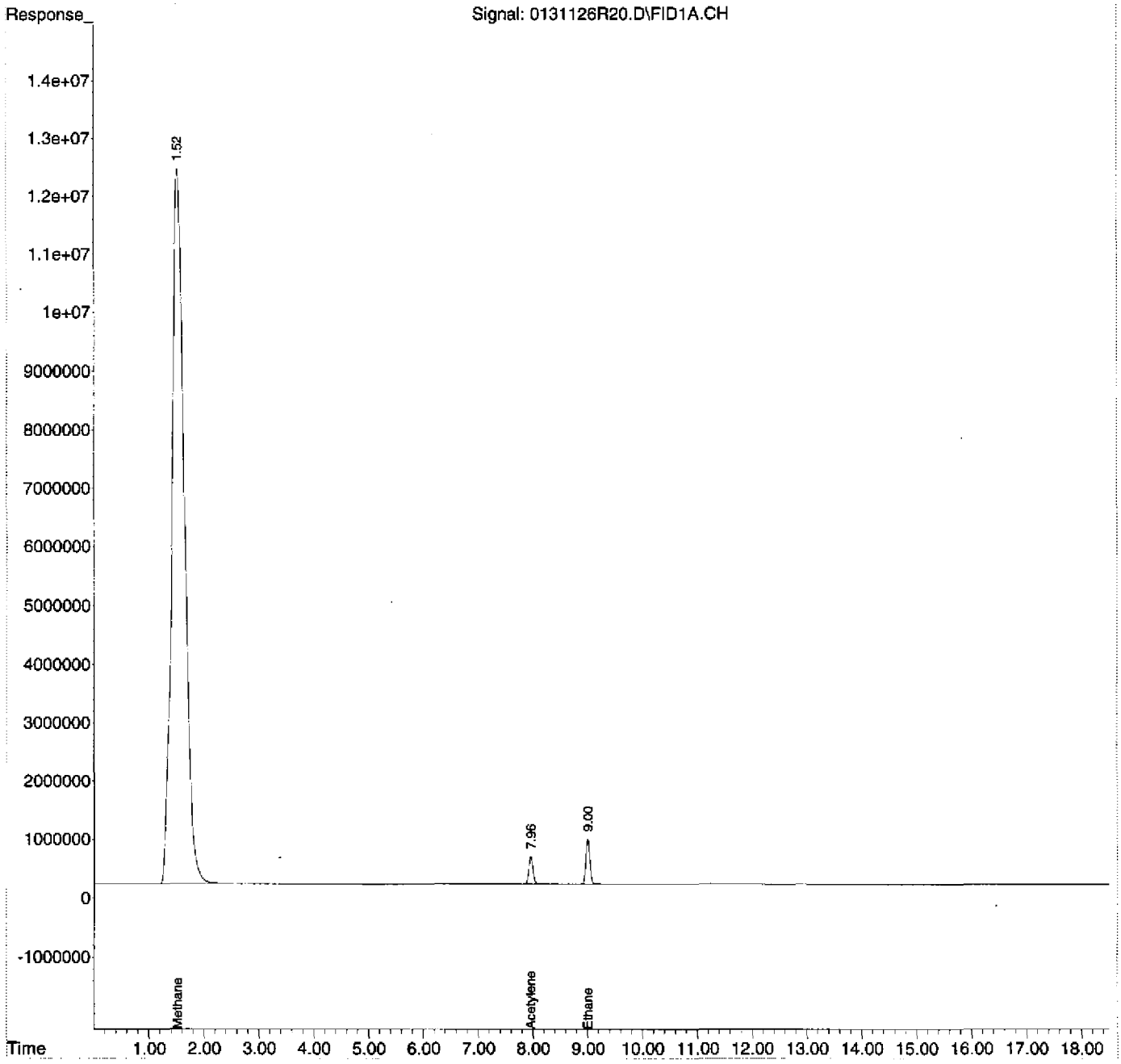
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R20.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:16 am
Operator : rh
Sample : 1201034-15
Misc : HW17
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 01 09:22:14 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R21.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:51 am
Operator : rh
Sample : 1201034-16
Misc : HW24
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 01 09:22:22 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	7.961	24293230	69.505 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	104.79%
Target Compounds			
1) TM Methane	1.519	506127526	497.164 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.

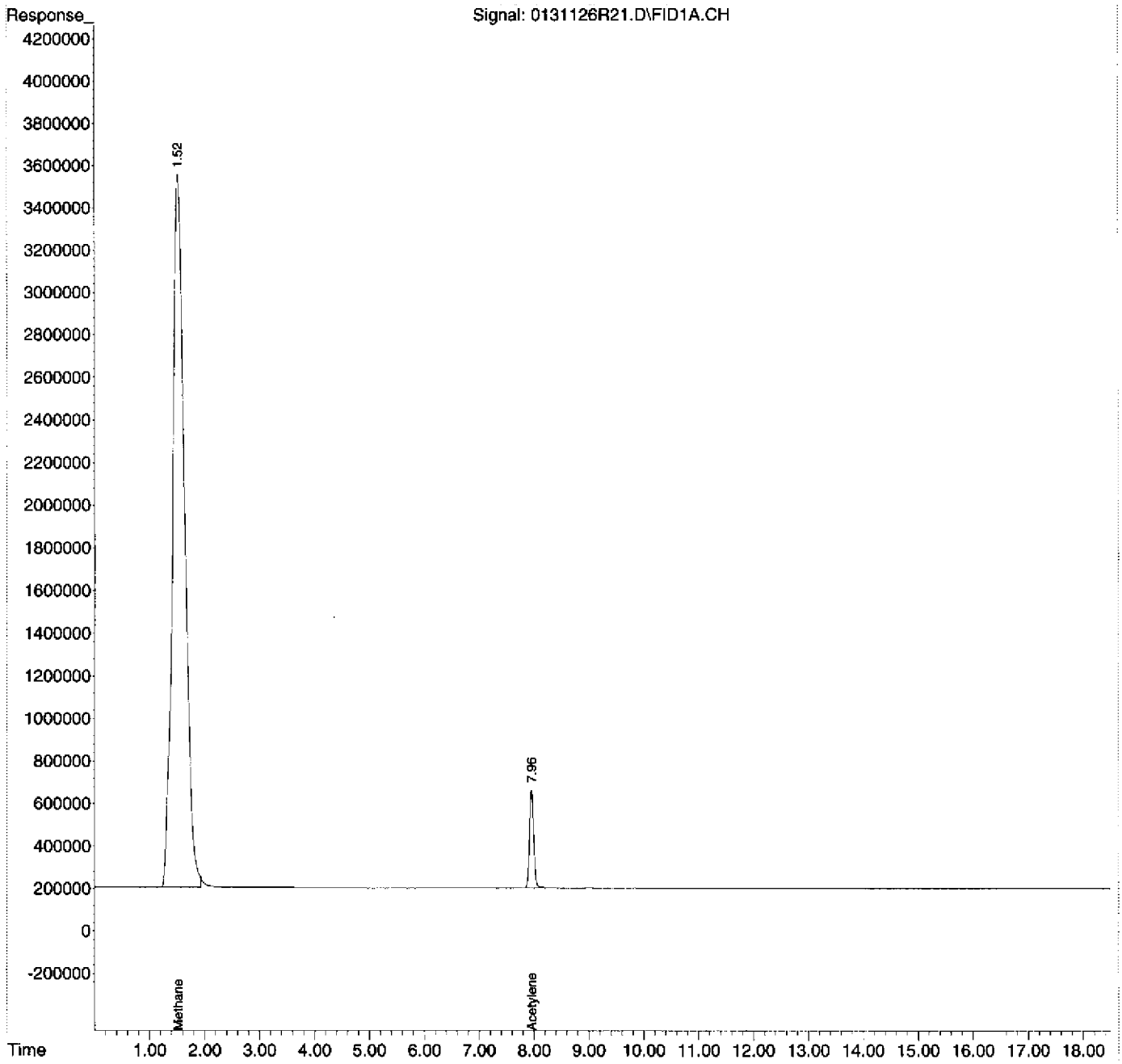
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R21.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:51 am
Operator : rh
Sample : 1201034-16
Misc : HW24
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 01 09:22:22 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\013112RSK\
Data File : 0131126R22.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 1:18 am
Operator : rh
Sample : 1201034-17
Misc : TB06
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 01 09:22:29 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	7.963	26589273	76.075 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	114.69%
Target Compounds			
1) TM Methane	1.522	2760247	2.711 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.

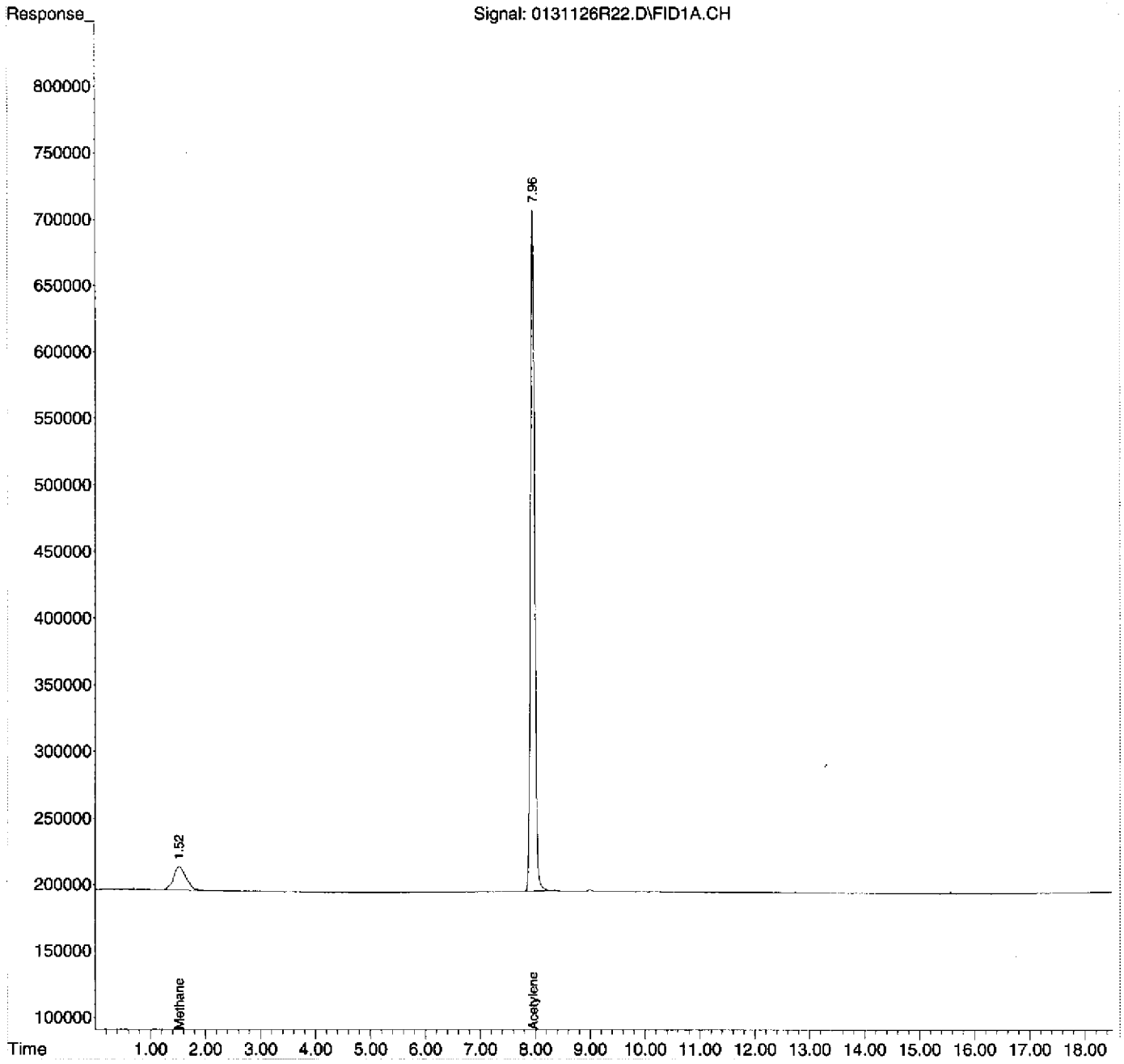
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\013112RSK\
Data File : 0131126R22.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 1:18 am
Operator : rh
Sample : 1201034-17
Misc : TB06
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 01 09:22:29 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\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.

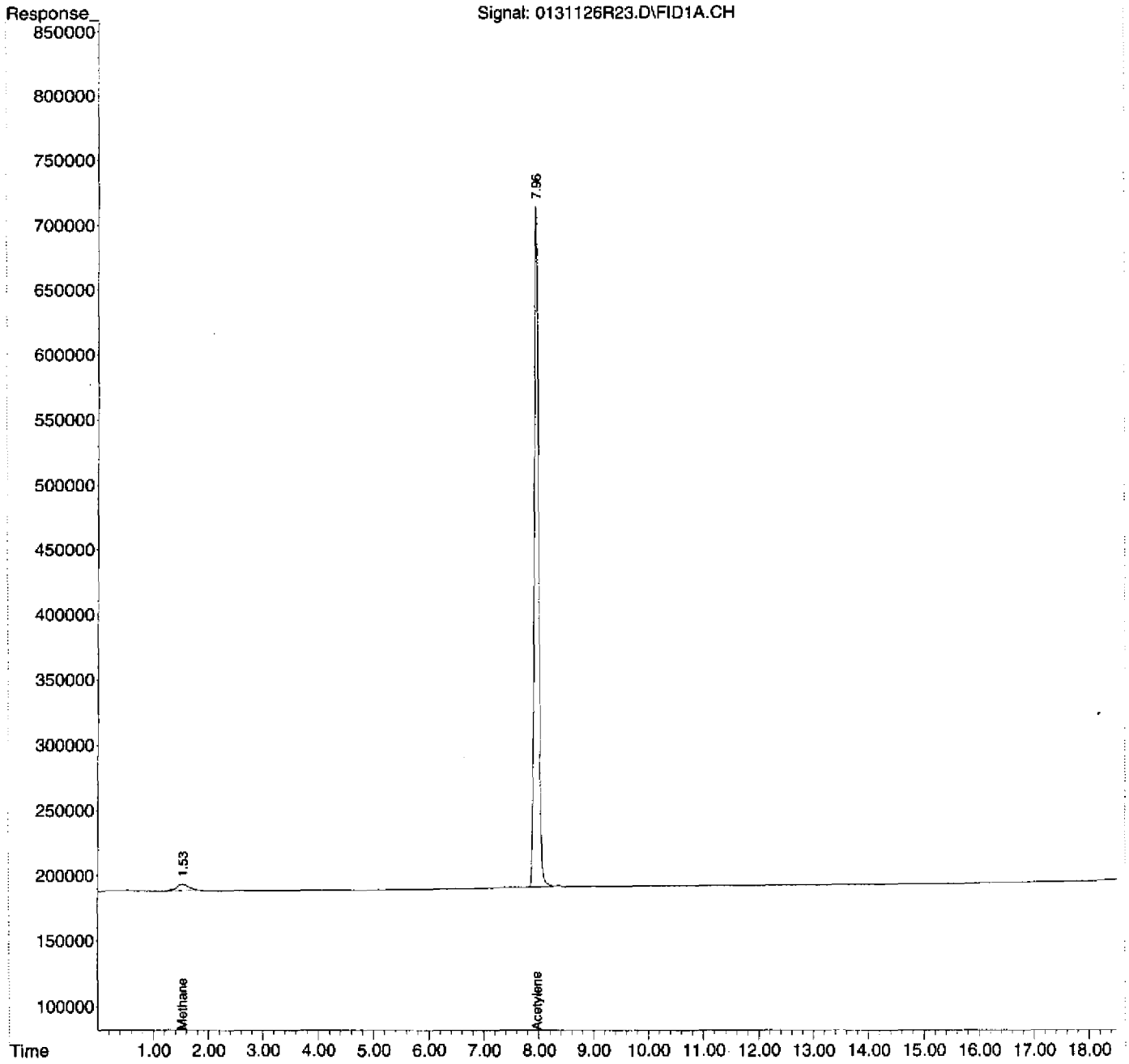
(f)=RT Delta > 1/2 Window (m)=manual int.

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.

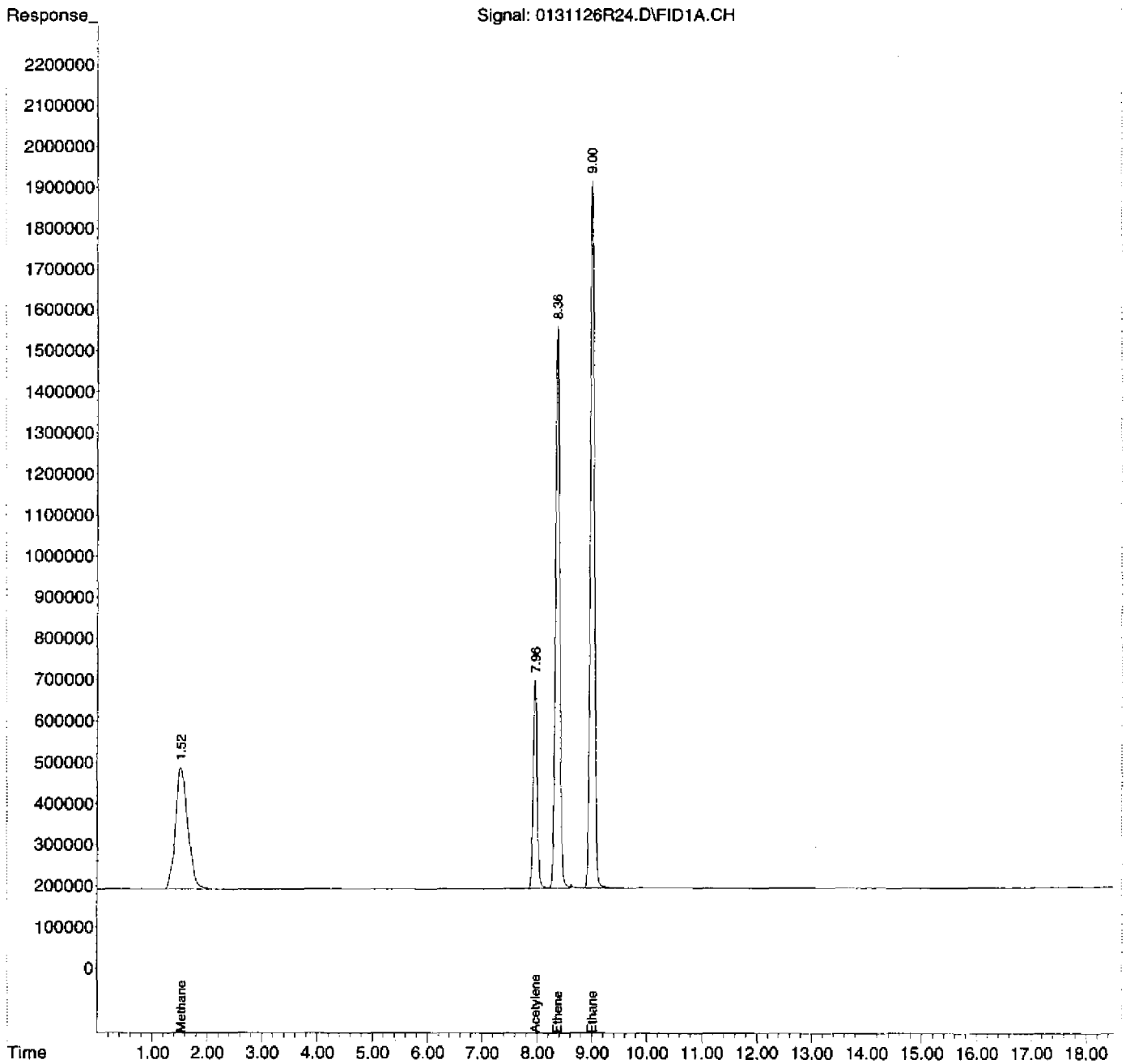
(f)=RT Delta > 1/2 Window (m)=manual int.

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



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

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.

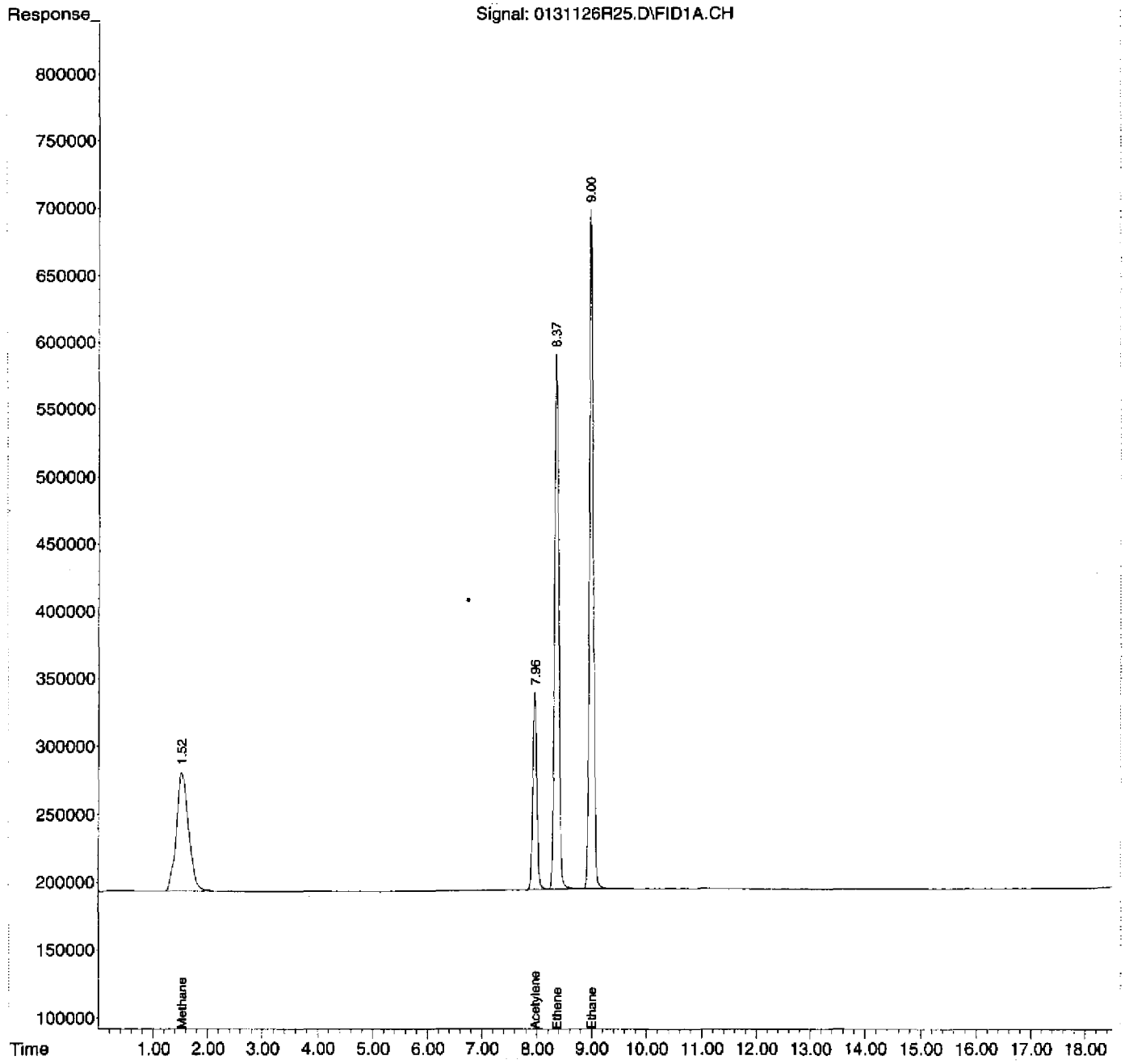
(f)=RT Delta > 1/2 Window (m)=manual int.

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.

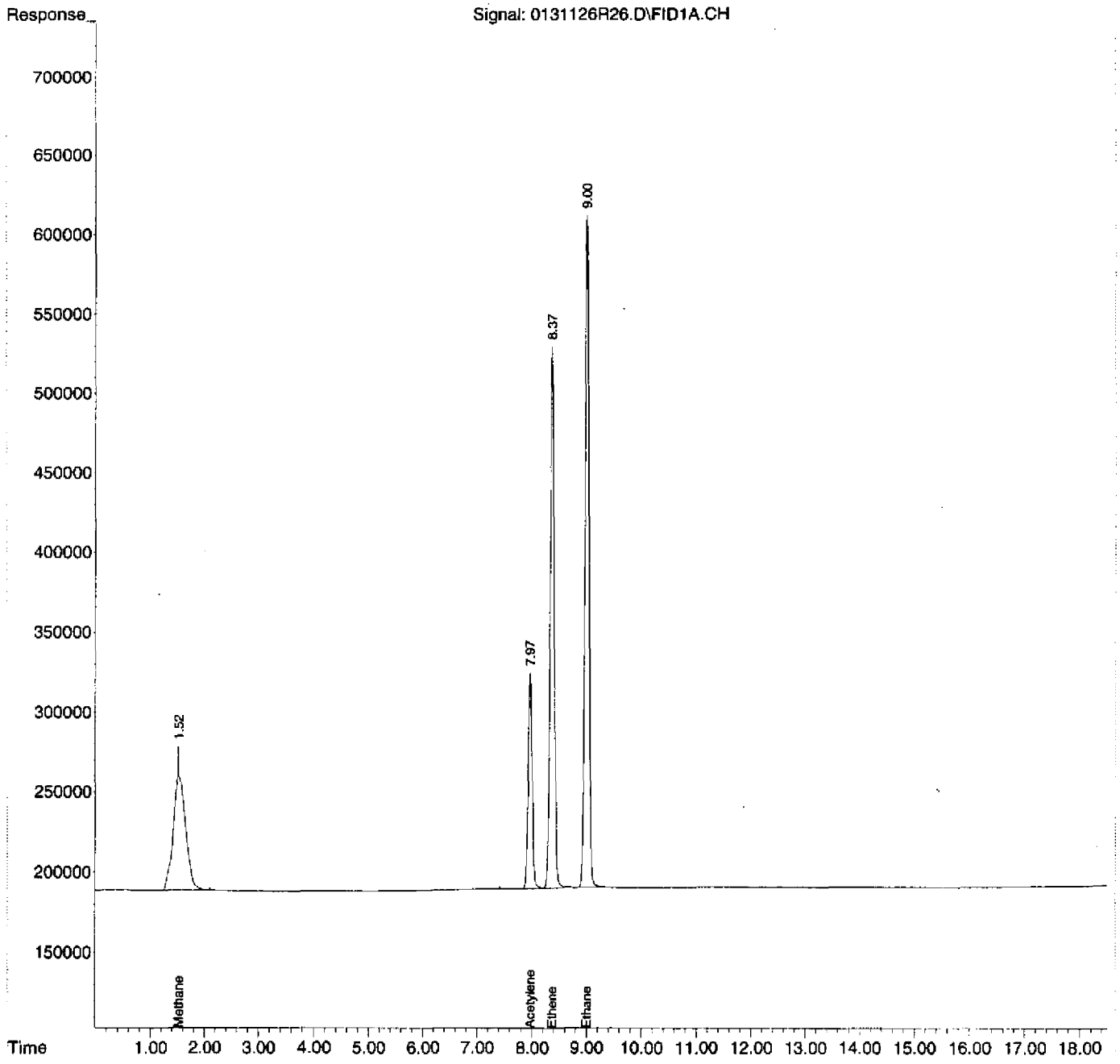
Not evaluated
RV
2/1/12

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



SDG: 12030A

Instrument: AG6890N-6

Analysis Date: 2/1/12

SAMPLE DATA

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

Injection Log

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

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

GC QA-QC Check Report

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

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

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

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

Response Factor Report AG6890N-6

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

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

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

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

Evaluate Continuing Calibration Report

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

Quant Time: Feb 01 12:51:44 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	TM	Methane	1.018	1.115 E6	-9.5	111	0.00
2	S	Acetylene	349.516	379.810 E3	-8.7	102	-0.02
3	TM	Ethene	887.936	982.767 E3	-10.7	108	0.00
4	TM	Ethane	966.567	1076.847 E3	-11.4	109	0.00

Evaluate Continuing Calibration Report - Not Founds

5	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\020112RSK\
Data File : 0201126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 12:11 pm
Operator : rh
Sample : 2020003-CCV1
Misc : 2B01006
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 12:51:44 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.963	8222896	23.527 ug/L
Spiked Amount 66.330 Range 66 - 153 Recovery = 35.47%#			
Target Compounds			
1) TM Methane	1.525	14747054	14.486 ug/L
3) TM Ethene	8.367	23050796	25.960 ug/L
4) TM Ethane	9.000	26900703	27.831 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

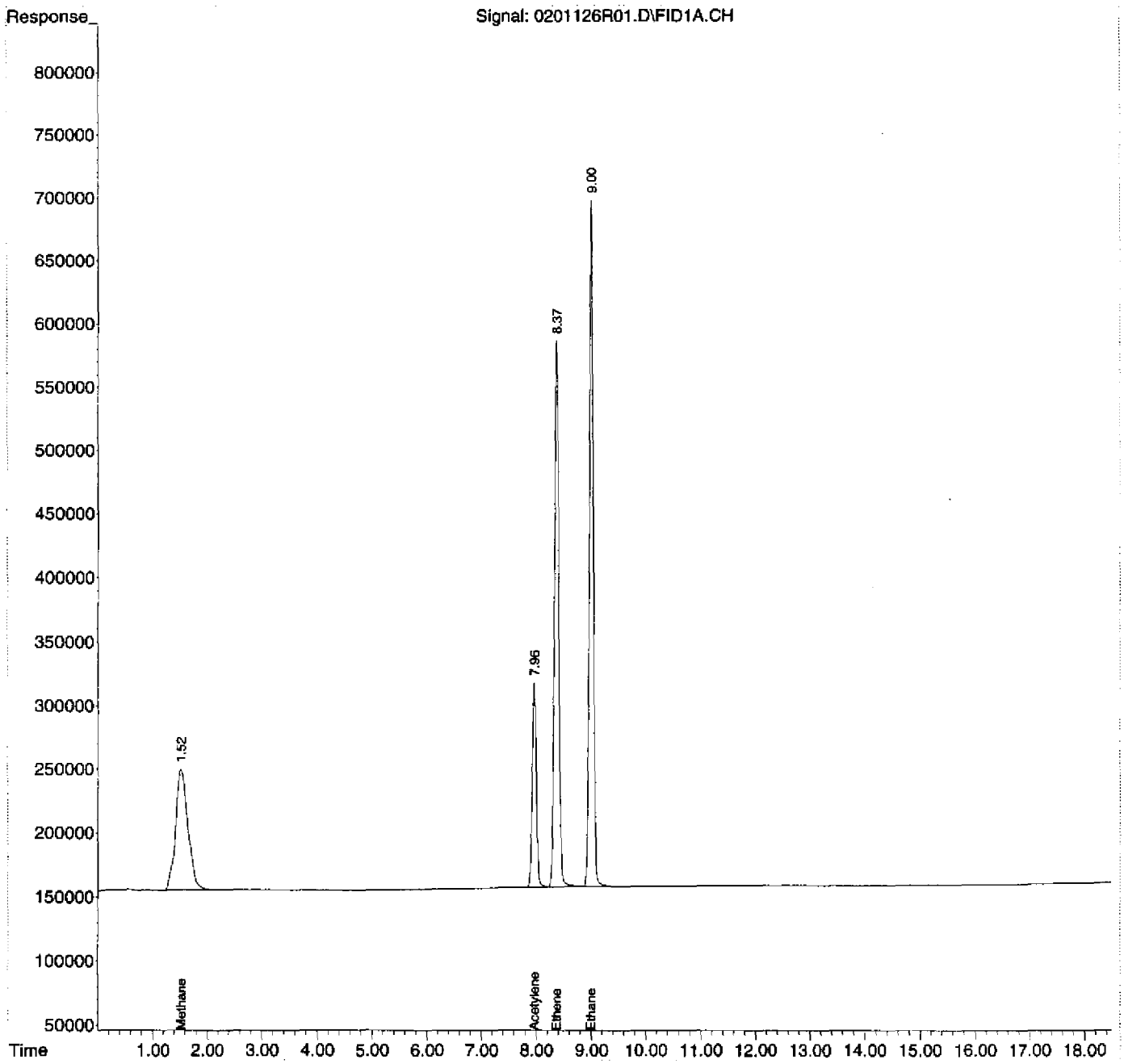
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 12:51:44 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



RSK-175 HC LCV REPORT

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

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.514	60 - 140	123.0%	pass
Acetylene	2.014	1.819	60 - 140	90.3%	NA
Ethene	1.091	1.004	60 - 140	92.0%	pass
Ethane	1.162	1.098	60 - 140	94.5%	pass

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

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 13:13:29 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.967	310869	0.889 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.34%#
Target Compounds			
1) TM Methane	1.531	958815	0.942 ug/L
3) TM Ethene	8.368	891059	1.004 ug/L
4) TM Ethane	9.001	1060810	1.098 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

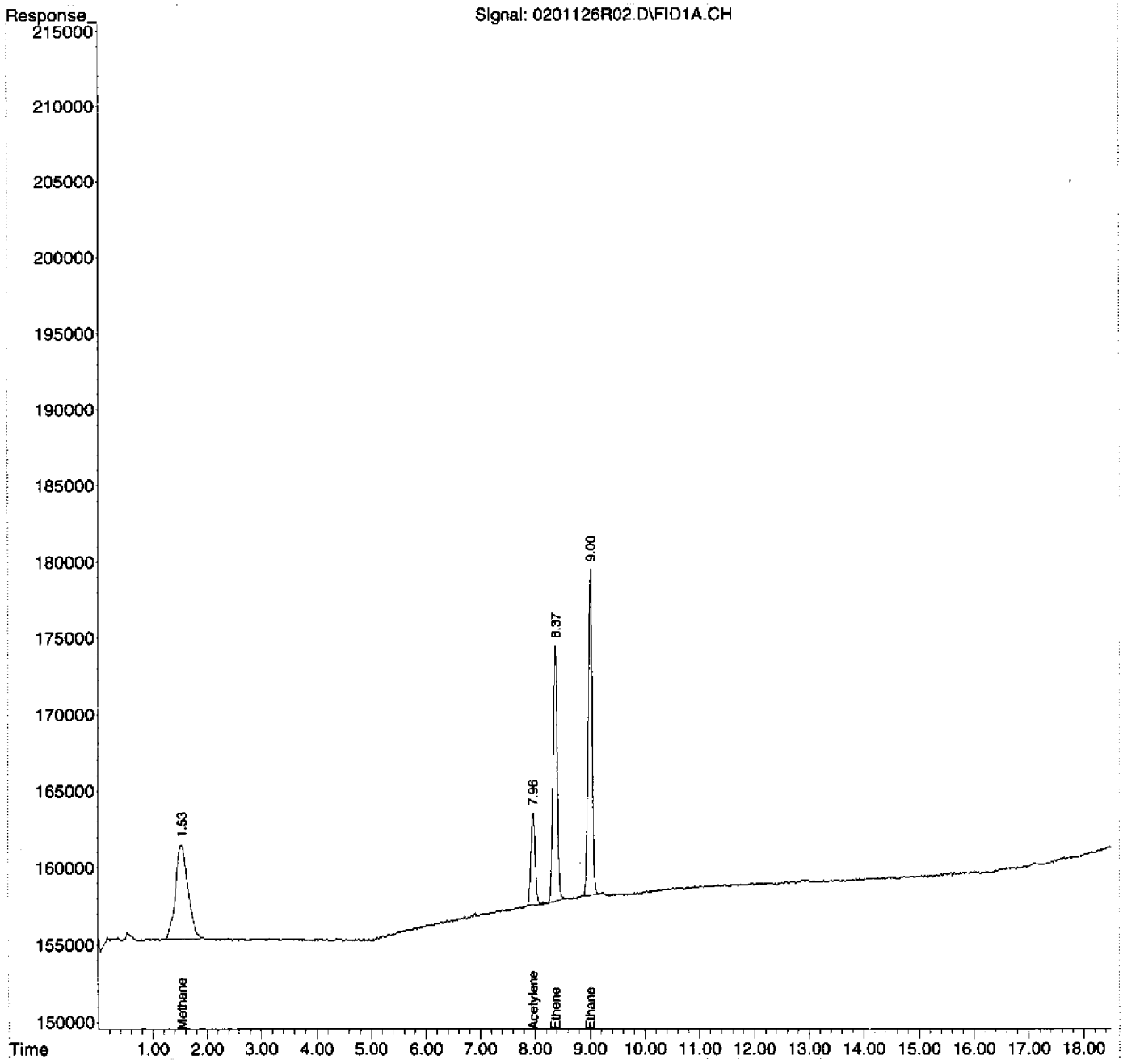
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 13:13:29 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 13:35:22 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.967	635891	1.819 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.74%#
Target Compounds			
1) TM Methane	1.526	1541027	1.514 ug/L
3) TM Ethene	8.368	1849459	2.083 ug/L
4) TM Ethane	9.001	2175729	2.251 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

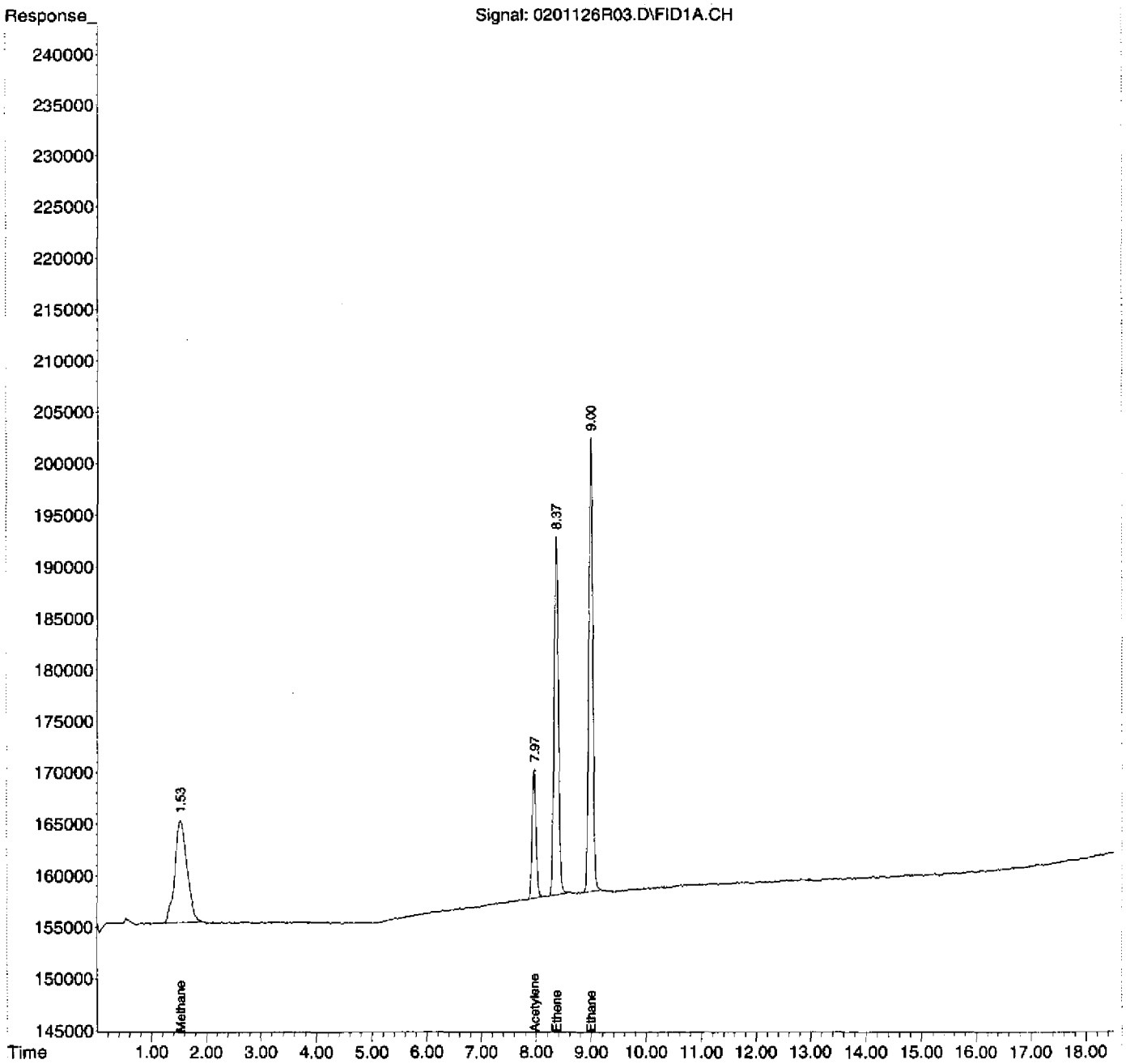
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 13:35:22 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 15:47:53 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.958	25373887	72.597 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	109.45%
Target Compounds			
1) TM Methane	1.527	695560	0.683 ug/L
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

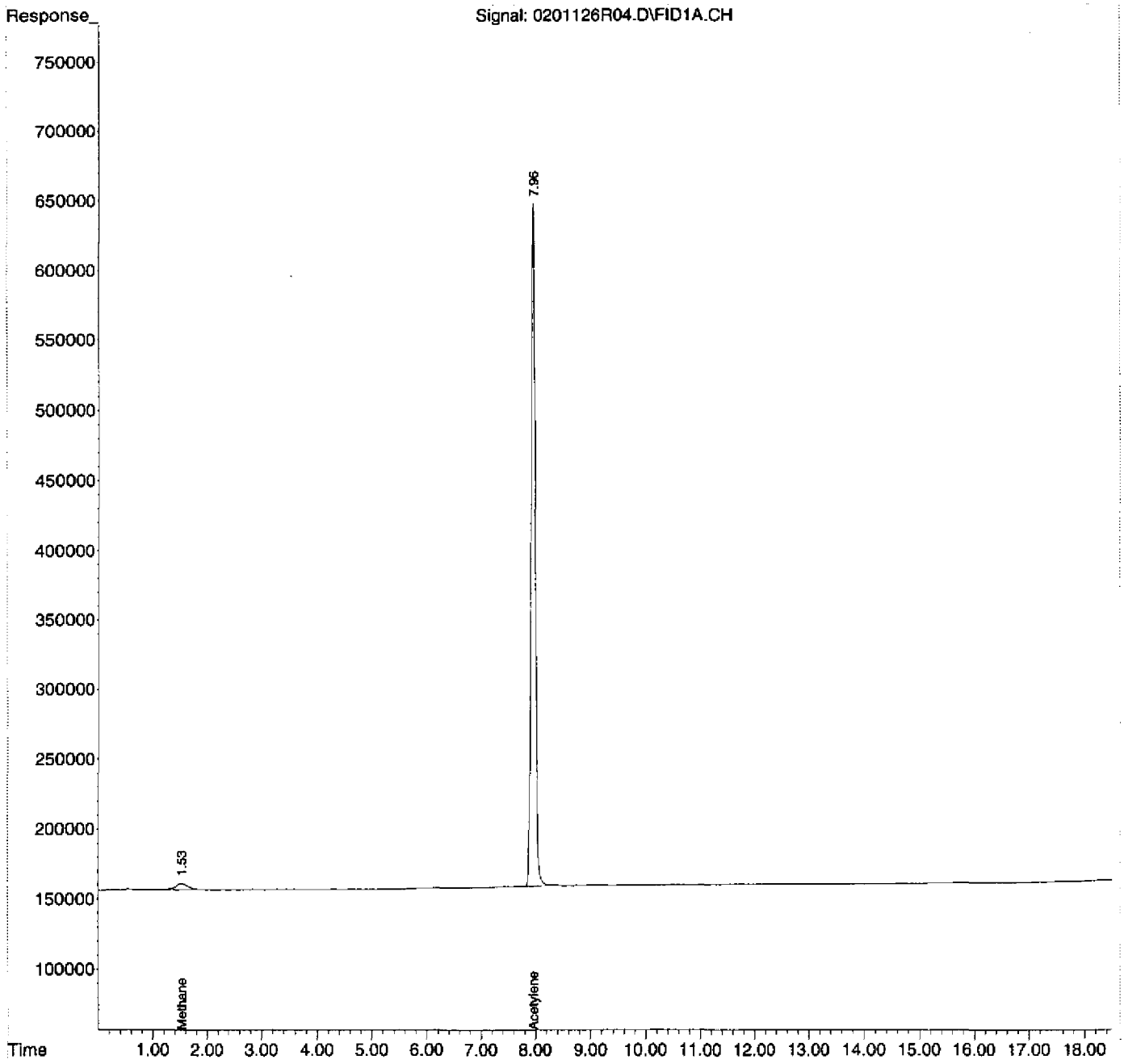
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 15:47:53 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



RSK-175 LCSSUMMARY REPORT

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

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

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 15:47:39 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.958	27214065	77.862 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	117.39%
Target Compounds			
1) TM Methane	1.523	47329011	46.491 ug/L
3) TM Ethene	8.364	76103054	85.708 ug/L
4) TM Ethane	8.997	88418290	91.477 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

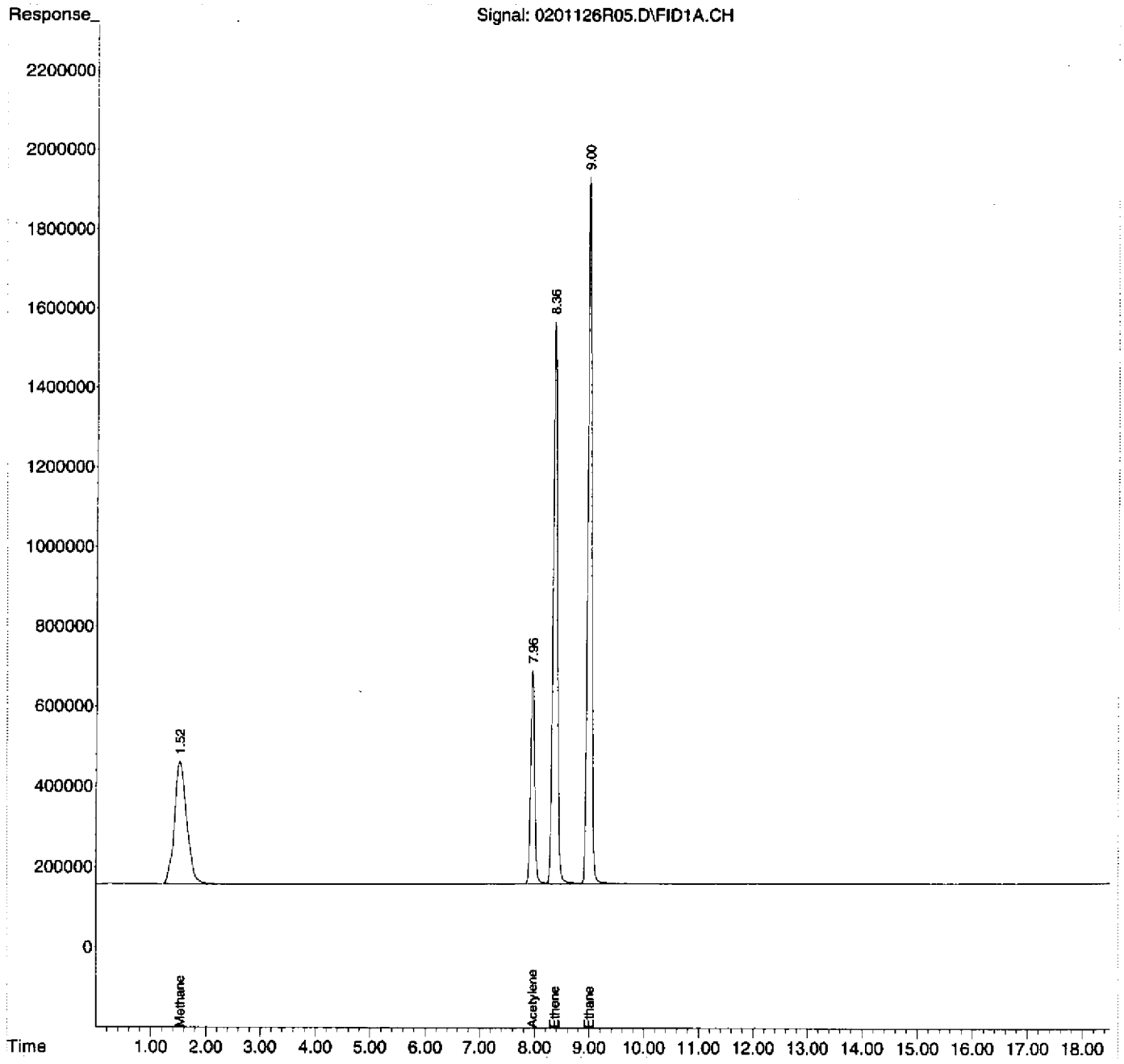
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 01 15:47:39 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:56 pm
Operator : rh
Sample : 1201034-02RE1
Misc : HW05 1.25ML
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 01 15:49:13 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	7.958	25849543	73.958 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.50%
Target Compounds			
1) TM Methane	1.524	158901531	156.087 ug/L - RPL.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.002	1180861	1.222 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

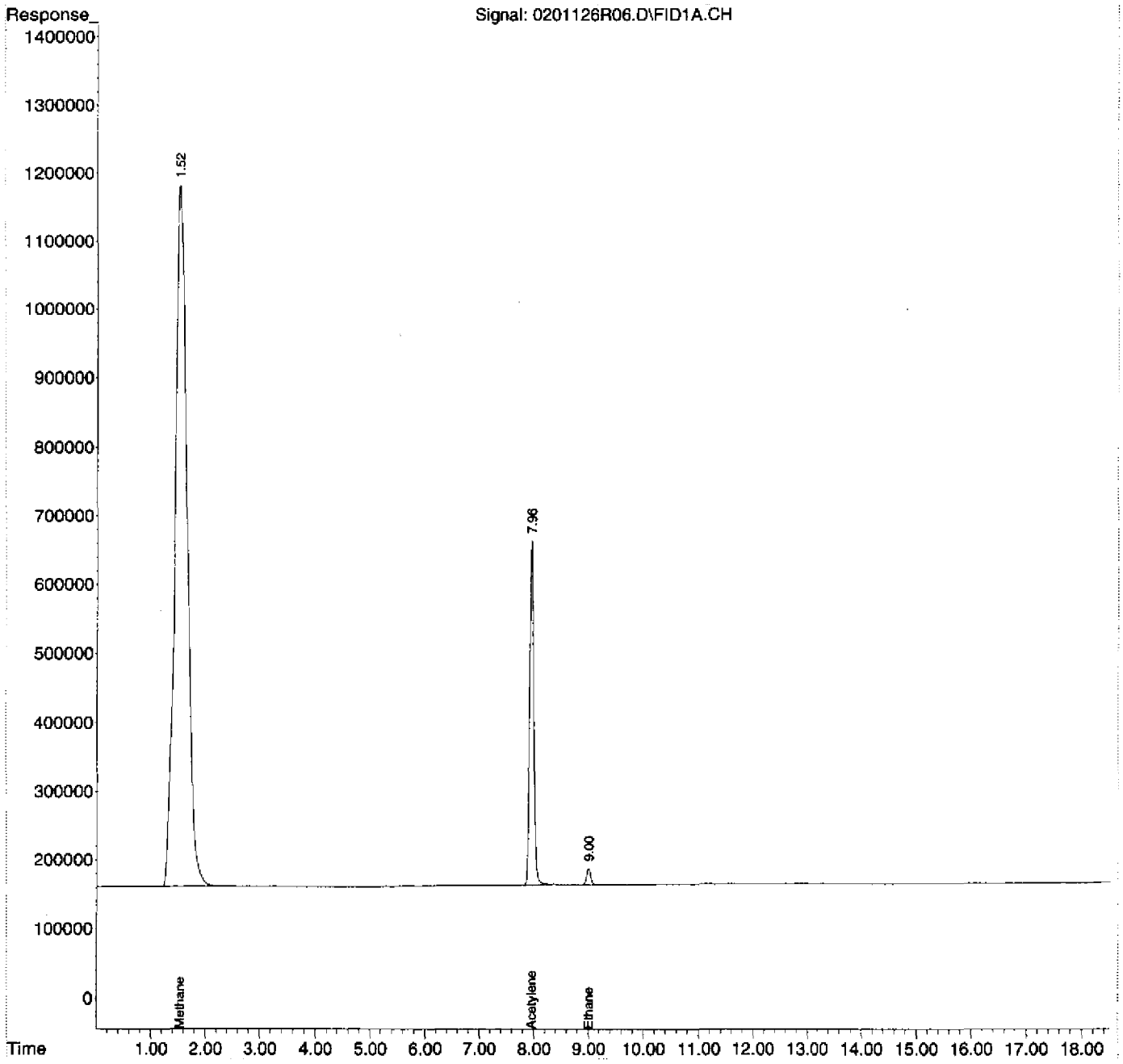
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 2:56 pm
Operator : rh
Sample : 1201034-02RE1
Misc : HW05 1.25ML
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 01 15:49:13 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 3:30 pm
Operator : rh
Sample : 1201034-03RE1
Misc : HW06 0.13 ML
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 01 15:49:36 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	7.958	26231591	75.051 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	113.15%
Target Compounds			
1) TM Methane	1.523	192885541	189.470 ug/L - Rpt.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.000	6423943	6.646 ug/L - Rpt.
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

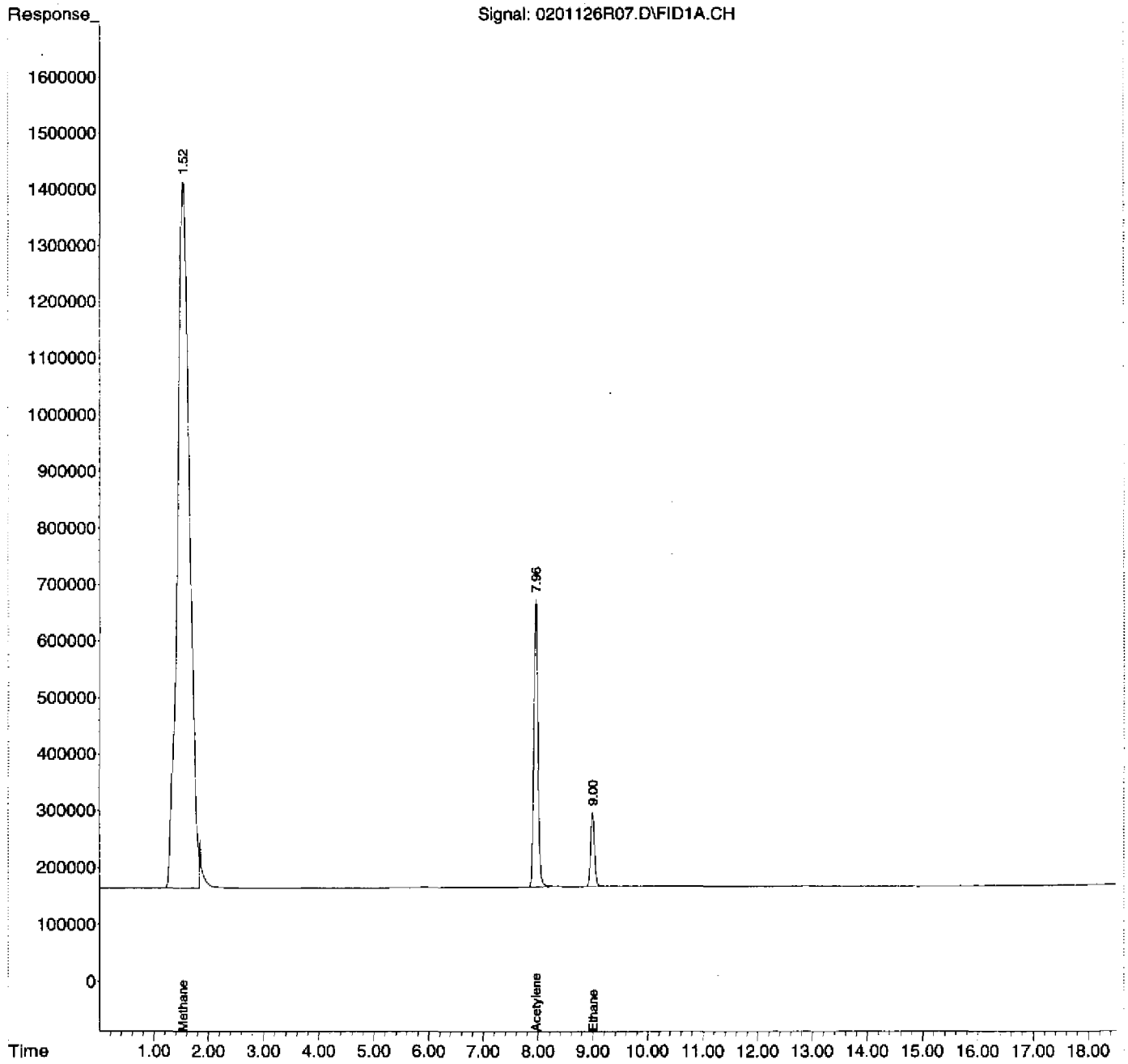
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R07.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 3:30 pm
Operator : rh
Sample : 1201034-03RE1
Misc : HW06 0.13 ML
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 01 15:49:36 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 4:03 pm
Operator : rh
Sample : 1201034-04RE1
Misc : HW12 0.05 ML
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 01 16:25:39 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.958	25878768	74.042 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	111.63%
Target Compounds			
1) TM Methane	1.523	233284537	229.153 ug/L —a.c—
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.000	5939909	6.145 ug/L
5) Qual Propane	12.897	215787	NoCal
6) Qual Butane	0.000	0	N.D.

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

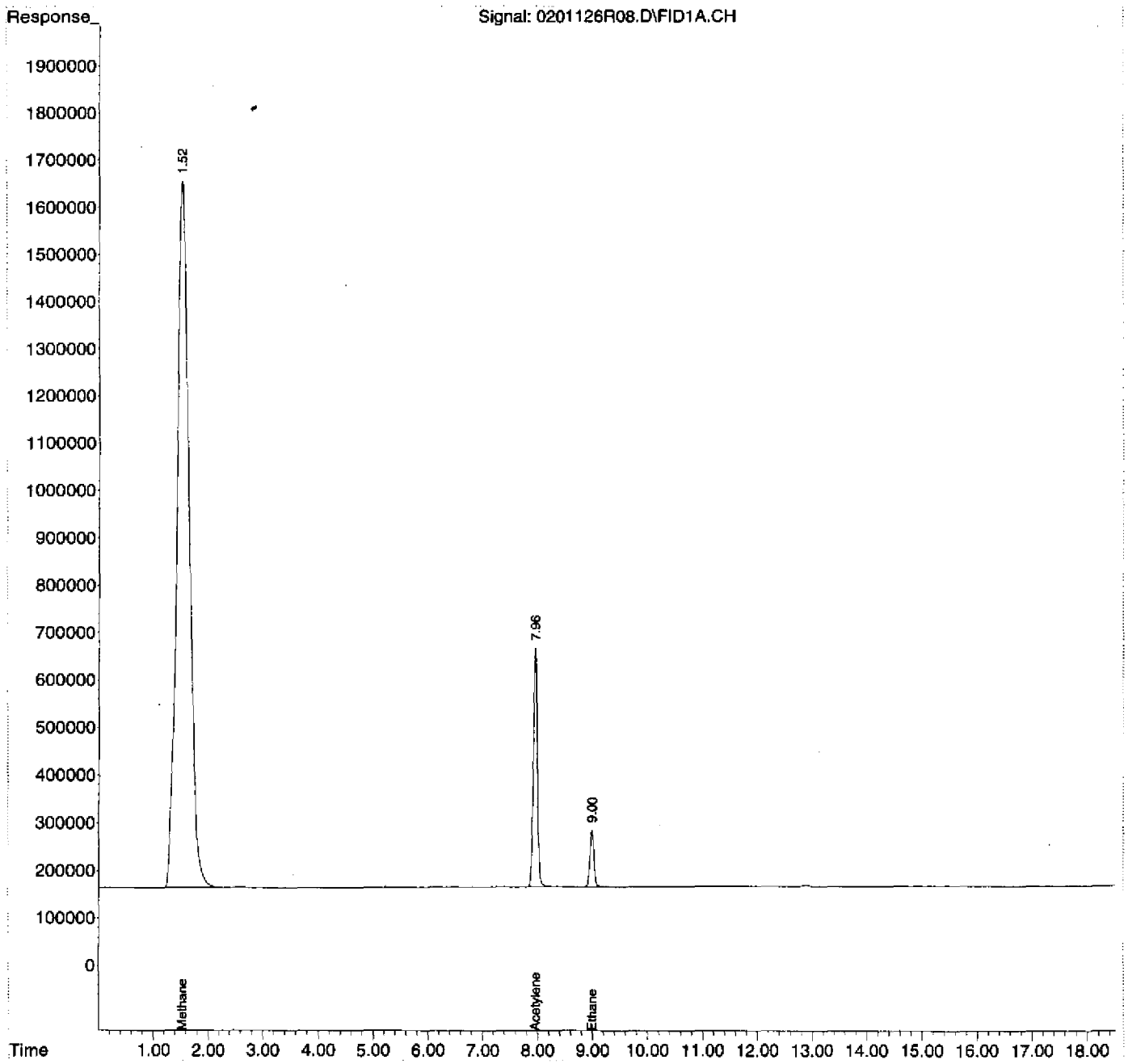
RR
0.03 ~~ht~~ MV
RR
2/2/12

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R08.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 4:03 pm
Operator : rh
Sample : 1201034-04RE1
Misc : HW12 0.05 ML
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 01 16:25:39 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 4:37 pm
Operator : rh
Sample : 1201034-06RE1
Misc : HW14 0.7 ML
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 02 08:49:23 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	7.958	26612180	76.140 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	114.79%
Target Compounds			
1) TM Methane	1.524	169365002	166.366 ug/L - RPD.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.000	1972195	2.040 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

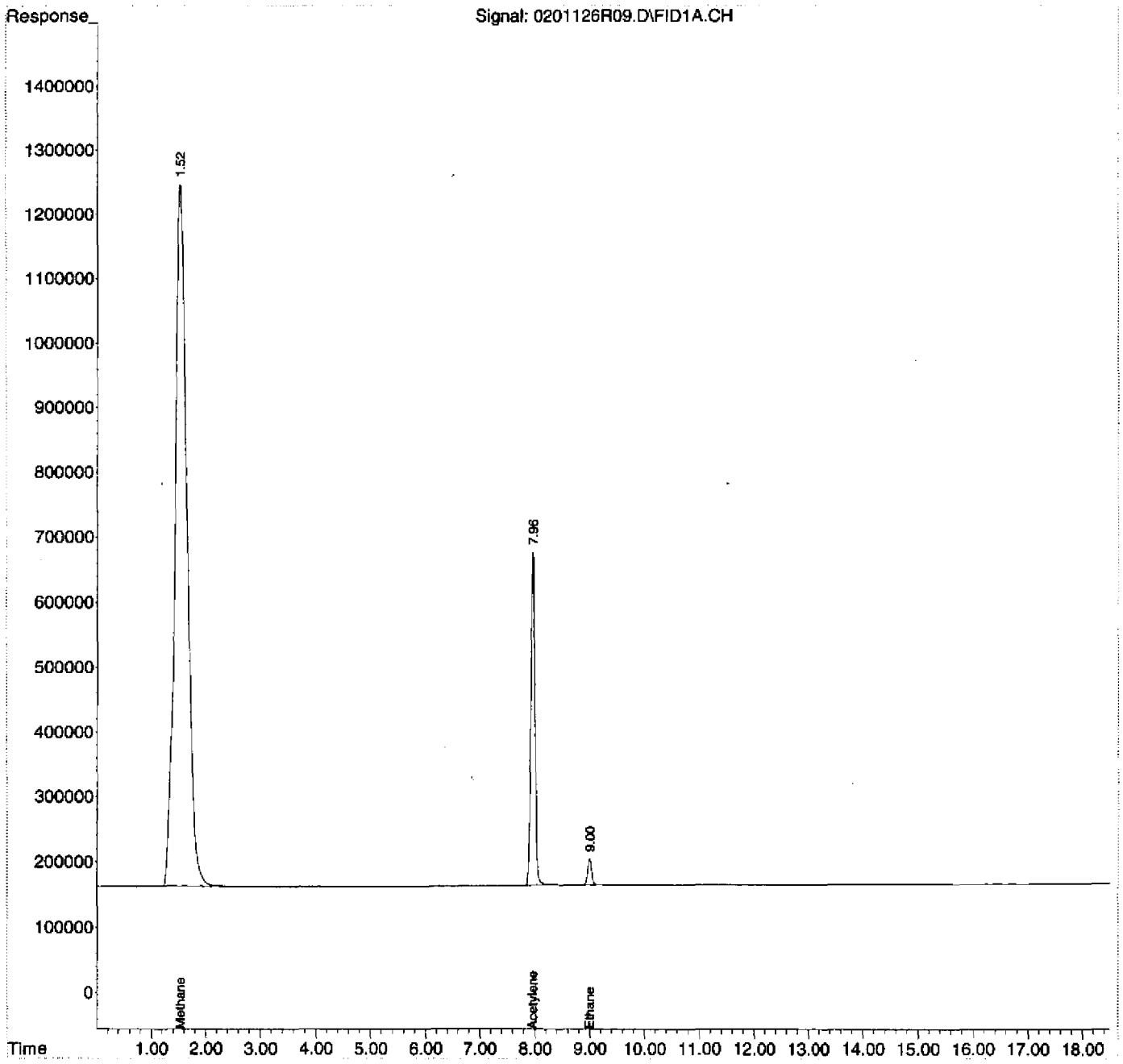
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R09.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 4:37 pm
Operator : rh
Sample : 1201034-06RE1
Misc : HW14 0.7 ML
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 02 08:49:23 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\020112RSK\
Data File : 0201126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 5:11 pm
Operator : rh
Sample : 1201034-11RE1
Misc : HW24-P 4.0 ML
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 02 08:49:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.957	25709247	73.557 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	110.90%
Target Compounds			
1) TM Methane	1.523	158190155	155.389 ug/L — Rpt.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	0.000	0	N.D. ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

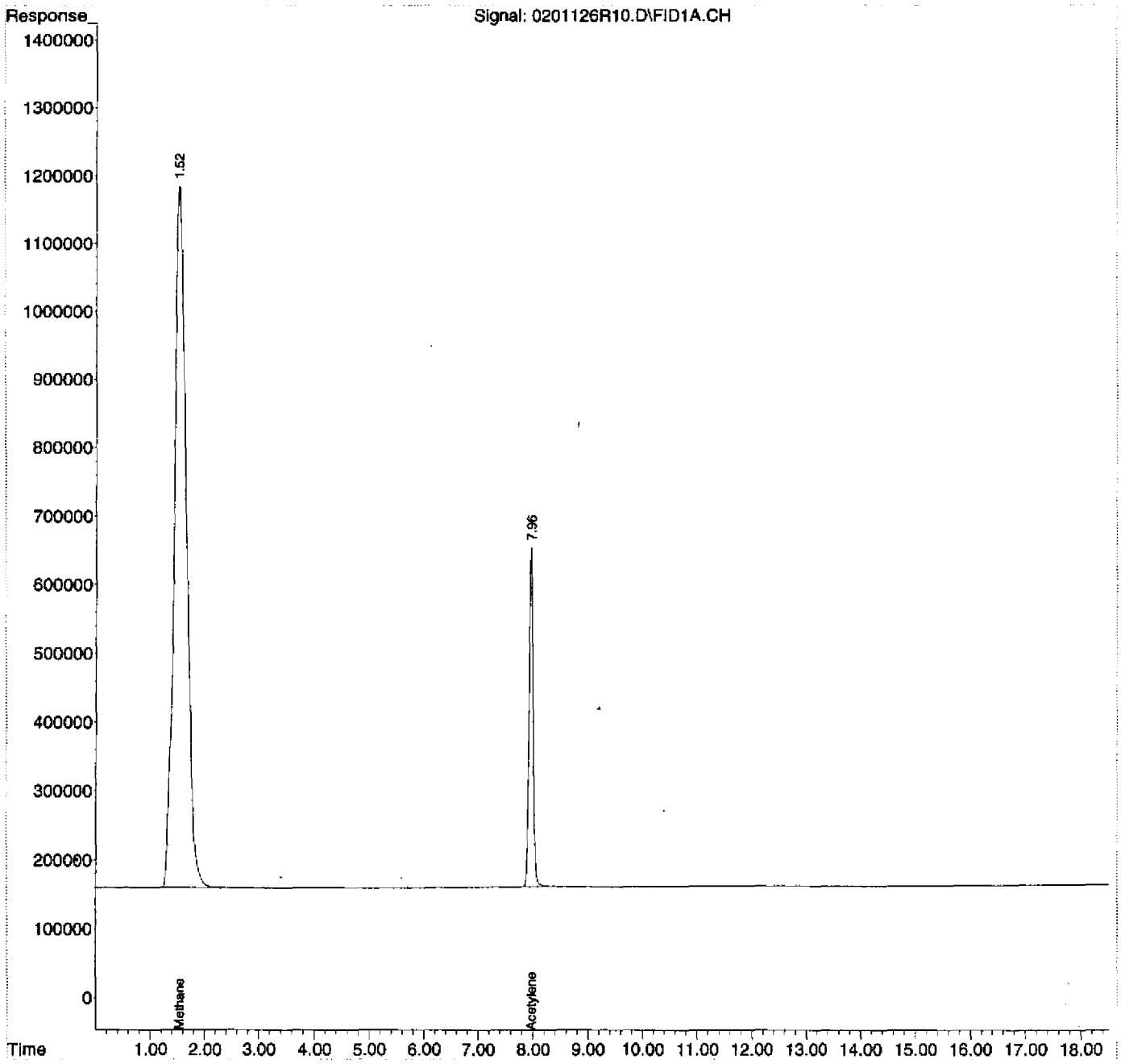
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R10.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 5:11 pm
Operator : rh
Sample : 1201034-11RE1
Misc : HW24-P 4.0 ML
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 02 08:49:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 5:45 pm
Operator : rh
Sample : 1201034-15RE1
Misc : HW17 1.0 ML
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 02 08:49:40 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

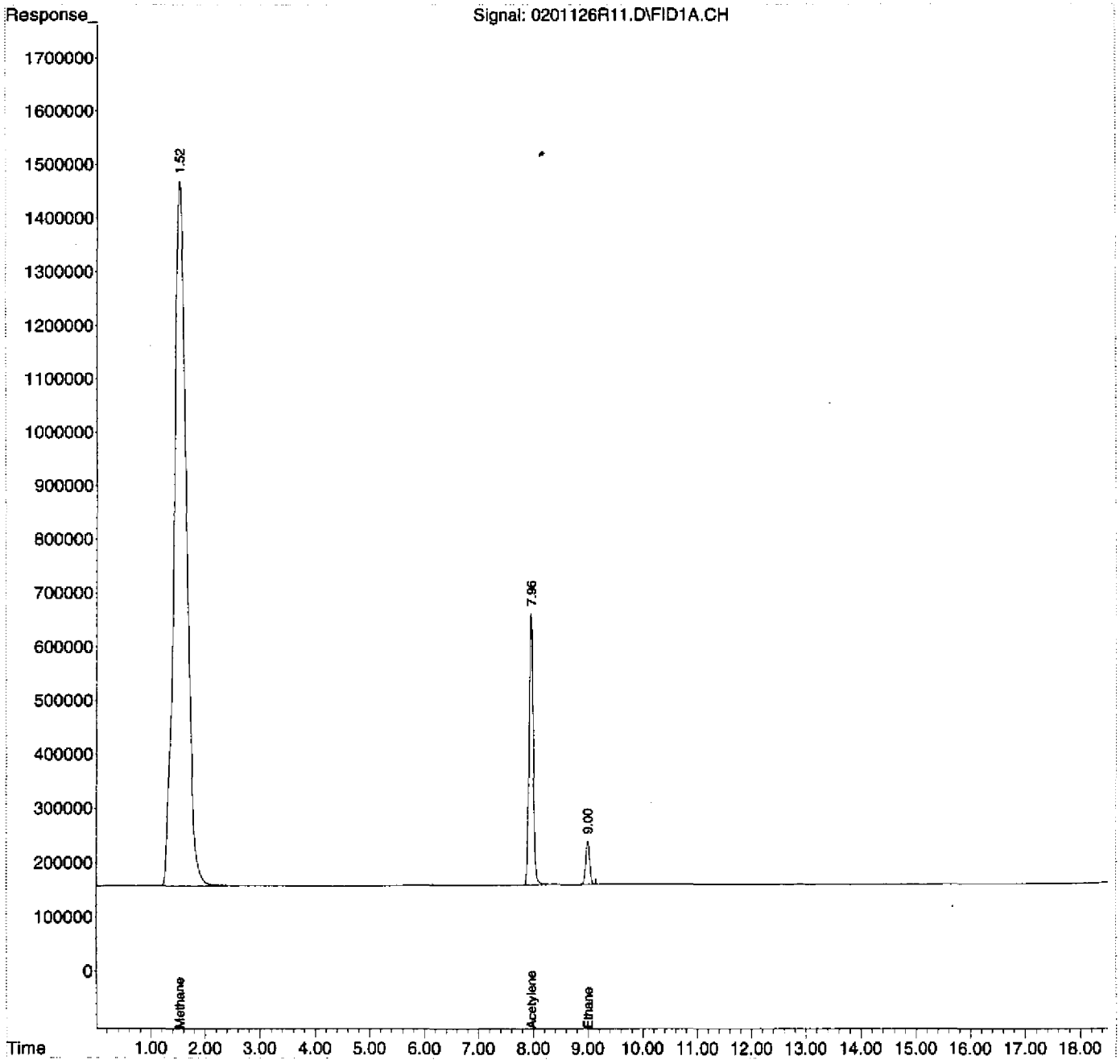
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.957	26136865	74.780 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	112.74%
Target Compounds			
1) TM Methane	1.523	205708217	202.065 ug/L- RT
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.001	3921848	4.058 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

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

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R11.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 5:45 pm
Operator : rh
Sample : 1201034-15RE1
Misc : HW17 1.0 ML
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 02 08:49:40 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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 6:18 pm
Operator : rh
Sample : 1201034-16RE1
Misc : HW24 4.0 ML
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 02 08:49:48 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S Acetylene	7.956	26506614	75.838	ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	114.33%	
Target Compounds				
1) TM Methane	1.521	186078771	182.783	ug/L – RPT
3) TM Ethene	0.000	0	N.D.	ug/L
4) TM Ethane	0.000	0	N.D.	ug/L
5) Qual Propane	0.000	0	N.D.	
6) Qual Butane	0.000	0	N.D.	

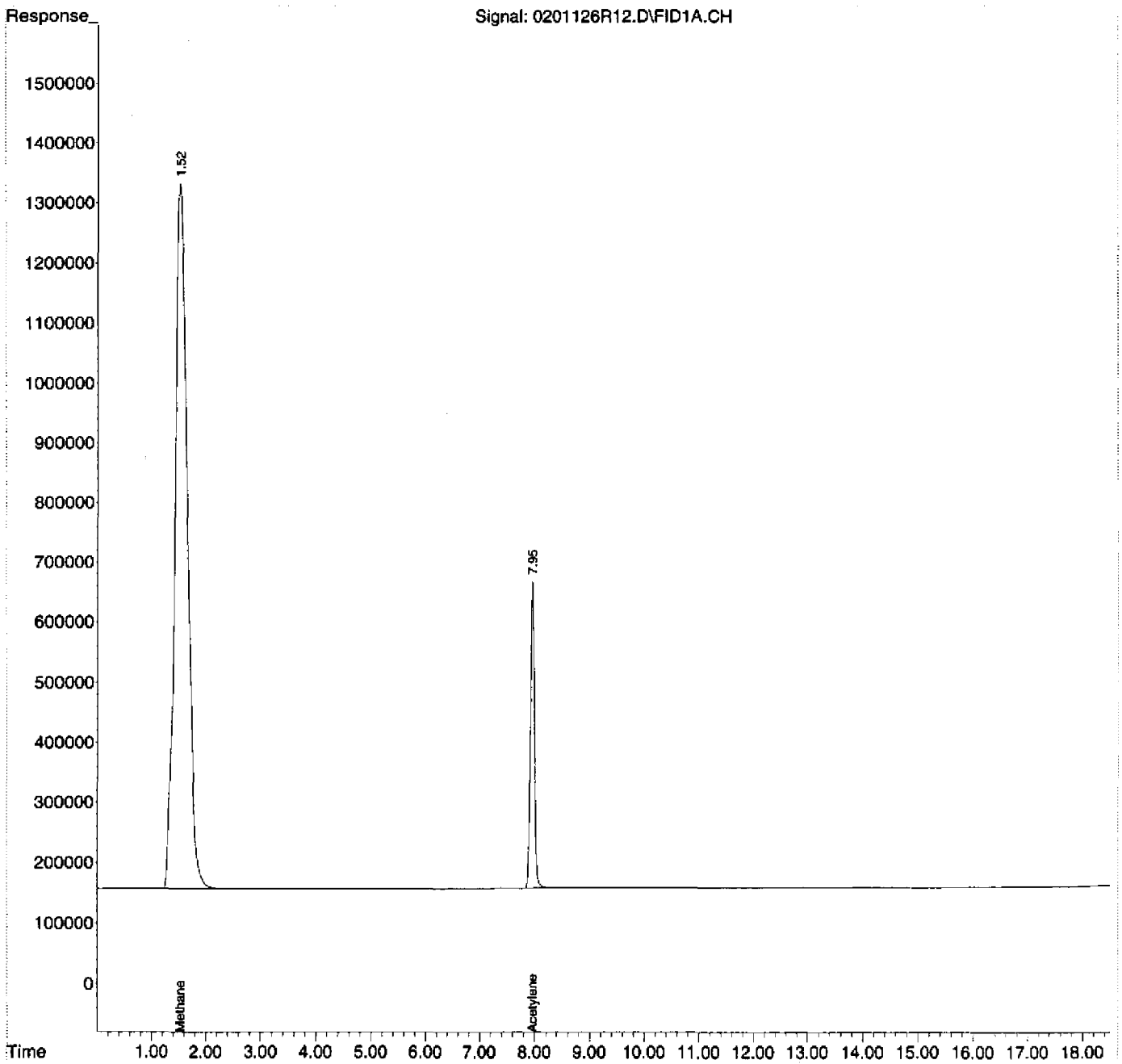
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R12.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 6:18 pm
Operator : rh
Sample : 1201034-16RE1
Misc : HW24 4.0 ML
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 02 08:49:48 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 6:52 pm
Operator : rh
Sample : 1201034-04RE2
Misc : HW12 0.03 ML
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 02 08:49:56 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.957	26195306	74.947 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	112.99%
Target Compounds			
1) TM Methane	1.525	98863094	97.112 ug/L — RPt.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	9.001	2755618	2.851 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

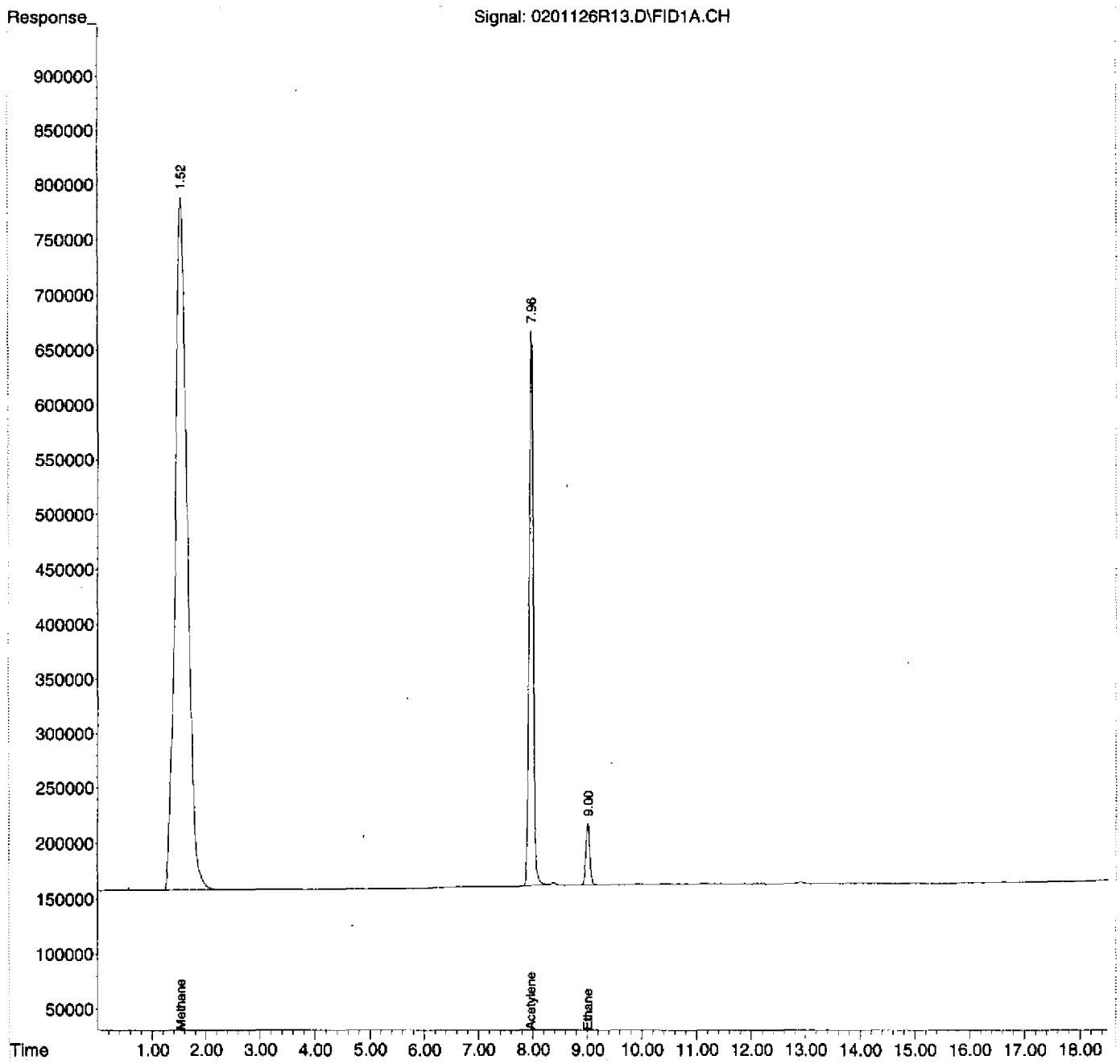
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D;\MSDCHEM\1\2012\DATA\020112RSK\
Data File : 0201126R13.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 01 Feb 2012 6:52 pm
Operator : rh
Sample : 1201034-04RE2
Misc : HW12 0.03 ML
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 02 08:49:56 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Evaluate Continuing Calibration Report

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

Quant Time: Feb 02 08:51:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 TM	Methane	1.018	0.978 E6	3.9	97	0.00
2 S	Acetylene	349.516	368.108 E3	-5.3	99	-0.02
3 TM	Ethene	887.936	884.268 E3	0.4	98	0.00
4 TM	Ethane	966.567	958.706 E3	0.8	97	0.00

Evaluate Continuing Calibration Report - Not Founds

5	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\020112RSK\
Data File : 0201126R25.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 02 Feb 2012 1:07 am
Operator : rh
Sample : 2020003-CCV2
Misc : 2B01006
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 02 08:51:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.961	7969530	22.802 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	34.38%#
Target Compounds			
1) TM Methane	1.523	12936510	12.707 ug/L
3) TM Ethene	8.366	20740502	23.358 ug/L
4) TM Ethane	9.002	23949429	24.778 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

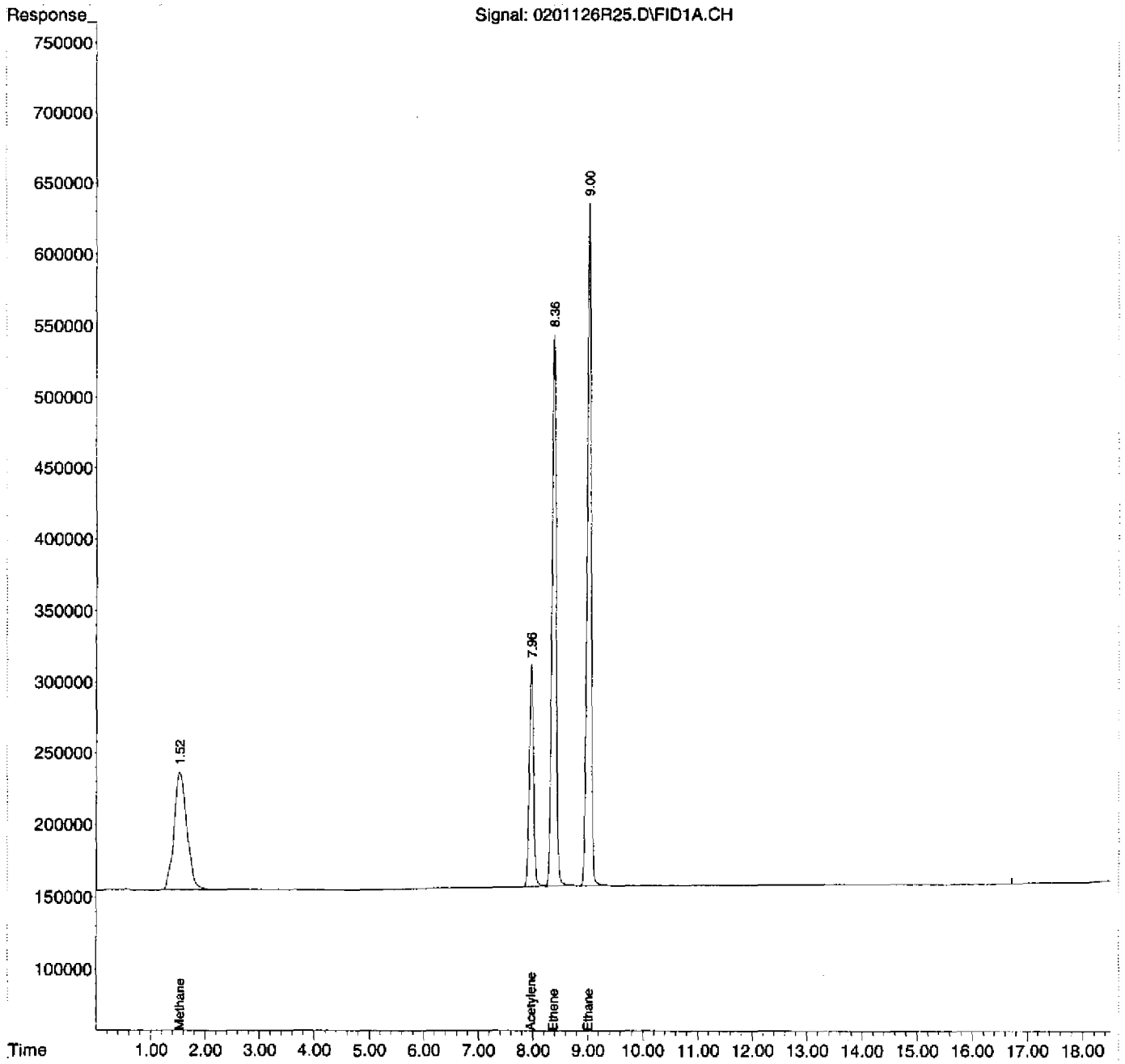
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 02 08:51:32 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Quantitation Report (Not Reviewed)

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

Quant Time: Feb 02 08:51:40 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.960	8266871	23.652 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	35.66%#
Target Compounds			
1) TM Methane	1.524	14502316	14.245 ug/L
3) TM Ethene	8.367	23010669	25.915 ug/L
4) TM Ethane	9.003	26838016	27.766 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

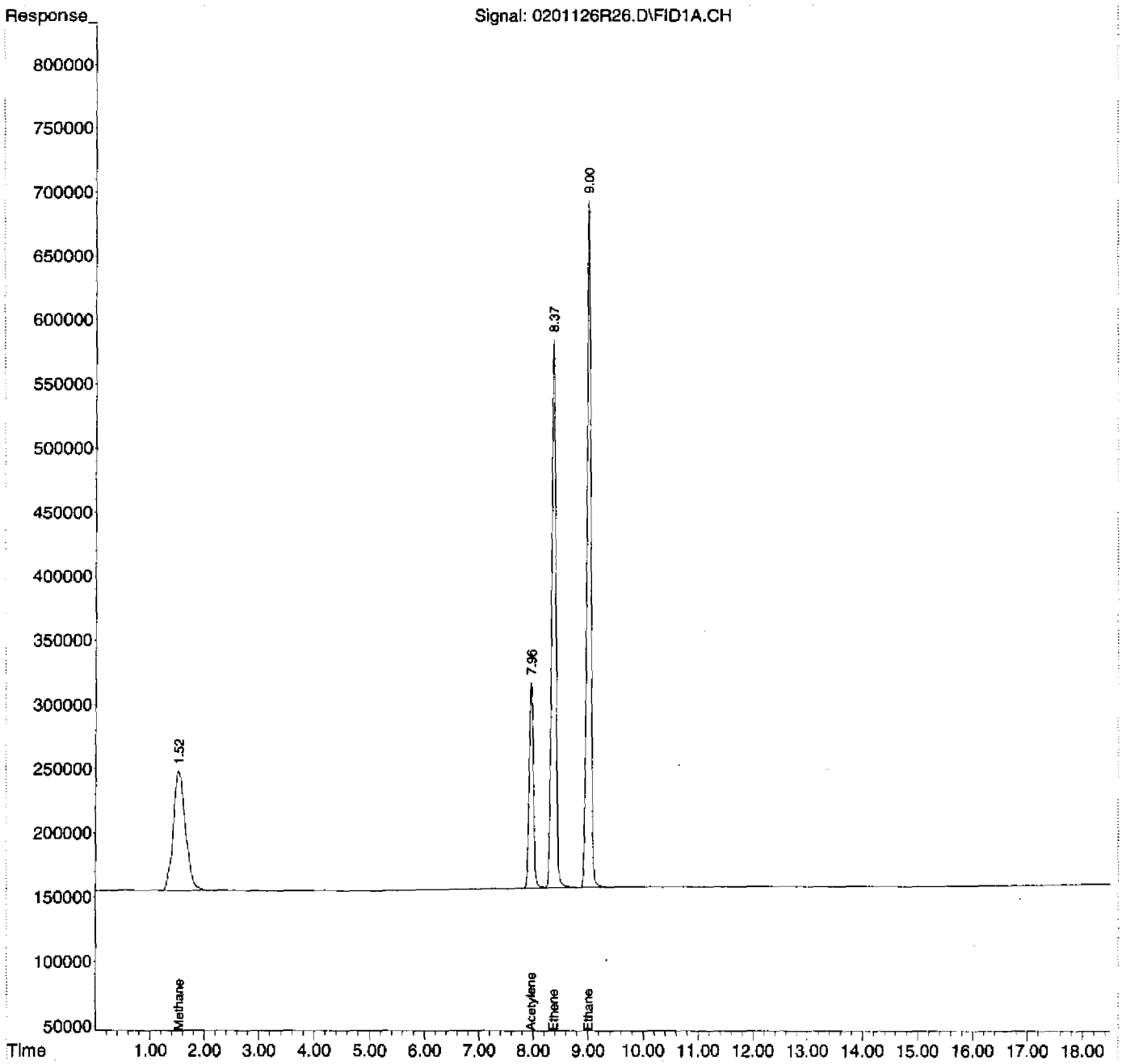
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

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

Quant Time: Feb 02 08:51:40 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



00169

Standard Records

:00153

DIM0065936 DIM0066122

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

AU003098

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

ITEM NUMBER: GMT10402TC

CGA: 160

PSIG: 240

FILL DATE: 9/2/10

EXPIRATION DATE: 09/02/12

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

Ex. 4 - CBI

9/10/2010
DATE

: 00154

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: Ex. 4 - CBI

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

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

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.

Ex. 4 - CBI

9/14/2011
DATE

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

RSK-175 Surrogate

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	Ex. 4 - CBI	10/24/12	01/27/12 10:56 by RFH	0.1

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

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

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

Analytical Standard Record

EPA Region 9 Laboratory

2B01003

Description:	RSK-175 HC PDS 020112	**Expires:**	02/03/12
Standard Type:	Reference Material	**Prepared:**	02/01/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/01/12 10:46 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

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

Parent Standards used in this standard:

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

Analytical Standard Record

EPA Region 9 Laboratory

2B01004

Description:	RSK-175 LCV1	**Expires:**	02/03/12
Standard Type:	Other Solution	**Prepared:**	02/01/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/01/12 10:46 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

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

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2B01003	RSK-175 HC PDS 020112	02/01/12	Bob Hopeman	02/03/12	02/01/12 10:46 by RFH	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2B01006

Description:	RSK-175 CCV	**Expires:**	02/03/12
Standard Type:	Other Solution	**Prepared:**	02/01/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/01/12 10:47 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

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

Parent Standards used in this standard:

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

Analytical Standard Record

EPA Region 9 Laboratory

2B02005

Description:	RSK-175 CCV	**Expires:**	02/04/12
Standard Type:	Other Solution	**Prepared:**	02/02/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/12 10:05 by RFH
Vendor:	*Prepared*	**Lot Numbe**	N/A

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

Parent Standards used in this standard:

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

Analytical Standard Record

EPA Region 9 Laboratory

2B08002

Description:	RSK-175 HC PDS 020812	**Expires:**	02/10/12
Standard Type:	Reference Material	**Prepared:**	02/08/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	21.5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/08/12 09:44 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

2B08003

Description:	RSK-175 LCV1	**Expires:**	02/10/12
Standard Type:	Other Solution	**Prepared:**	02/08/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/08/12 09:45 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)
2B08002	RSK-175 HC PDS 020812	02/08/12	Bob Hopeman	02/10/12	02/08/12 09:44 by RFH	0.03

00177B

Analytical Standard Record

EPA Region 9 Laboratory

2B08004

Description:	RSK-175 LCV2	**Expires:**	02/10/12
Standard Type:	Other Solution	**Prepared:**	02/08/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/08/12 09:45 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)
2B08002	RSK-175 HC PDS 020812	02/08/12	Bob Hopeman	02/10/12	02/08/12 09:44 by RFH	0.06

Analytical Standard Record

EPA Region 9 Laboratory

2B08005

Description:	RSK-175 CCV	**Expires:**	02/10/12
Standard Type:	Other Solution	**Prepared:**	02/08/12
Solvent:	N2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	16.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/08/12 09:45 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

00178A

00197

SDG: 12030A

Instrument: AG6890N-6

Analysis Date: 2/8/12

SAMPLE DATA

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

00178 B

Injection Log

Operator: rh
Directory: D:\MSDCHEM\1\2012\DATA\020812RSK\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	0208126R01.D	0	2020026-CCV1	2B08005	08 Feb 2012 4:14 pm
2	0208126R02.D	0	2020026-LCV1	2B08003	08 Feb 2012 4:41 pm
3	0208126R03.D	0	2020026-LCV2	2B08004	08 Feb 2012 5:15 pm
4	0208126R04.D	0	B2B0032-BLK1	MB	08 Feb 2012 5:42 pm
5	0208126R05.D	0	B2B0032-BS1	LCS	08 Feb 2012 6:18 pm
6	0208126R06.D	0	1201034-10	HW01	08 Feb 2012 6:45 pm
7	0208126R07.D	0	1202005-11RE1	HW35 16.1 ML	08 Feb 2012 7:20 pm
8	0208126R08.D	0	B2B0032-MS1	MS 17-02	08 Feb 2012 7:46 pm
9	0208126R09.D	0	B2B0032-MSD1	MSD 17-02	08 Feb 2012 8:21 pm
10	0208126R10.D	0	1202017-02	HW45	08 Feb 2012 8:48 pm
11	0208126R11.D	0	1202017-03	HW45	08 Feb 2012 9:22 pm
12	0208126R12.D	0	1202017-05	HW43	08 Feb 2012 9:49 pm
13	0208126R13.D	0	1202017-06	HW43-P	08 Feb 2012 10:23 pm
14	0208126R14.D	0	1202020-03	HW31	08 Feb 2012 10:50 pm
15	0208126R15.D	0	1202020-04	HW31-P	08 Feb 2012 11:24 pm
16	0208126R16.D	0	1202020-05	HW31Z	08 Feb 2012 11:51 pm
17	0208126R17.D	0	1202020-08	HW30	09 Feb 2012 12:25 am
18	0208126R18.D	0	1202020-09	HW30-P	09 Feb 2012 12:51 am
19	0208126R19.D	0	1202020-11	HW15A	09 Feb 2012 1:18 am
20	0208126R20.D	0	1202020-12	HW15A-P	09 Feb 2012 1:53 am
21	0208126R21.D	0	2020026-IBL1	IB	09 Feb 2012 2:19 am
22	0208126R22.D	0	1202017-01	EB02	09 Feb 2012 2:46 am
23	0208126R23.D	0	1202017-04	TB24	09 Feb 2012 3:21 am
24	0208126R24.D	0	1202017-07	TB23	09 Feb 2012 3:47 am
25	0208126R25.D	0	1202020-06	TB25	09 Feb 2012 4:13 am
26	0208126R26.D	0	1202020-07	FB11	09 Feb 2012 4:48 am
27	0208126R27.D	0	1202020-10	TB26	09 Feb 2012 5:15 am
28	0208126R28.D	0	1202020-13	TB28	09 Feb 2012 5:41 am
29	0208126R29.D	0	2020026-CCV2	2B08005	09 Feb 2012 6:16 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 ###

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 %
0208126R01.D	2020026-CCV1	36*
0208126R02.D	2020026-LCV1	2*
0208126R03.D	2020026-LCV2	3*
0208126R04.D	B2B0032-BLK1	118
0208126R05.D	B2B0032-BS1	119
0208126R06.D	1201034-10	113
0208126R07.D	1202005-11RE1	115
0208126R08.D	B2B0032-MS1	115
0208126R09.D	B2B0032-MSD1	117
0208126R10.D	1202017-02	117
0208126R11.D	1202017-03	116
0208126R12.D	1202017-05	118
0208126R13.D	1202017-06	118
0208126R14.D	1202020-03	116
0208126R15.D	1202020-04	116
0208126R16.D	1202020-05	115
0208126R17.D	1202020-08	116
0208126R18.D	1202020-09	114
0208126R19.D	1202020-11	112
0208126R20.D	1202020-12	111
0208126R21.D	2020026-IBL1	117
0208126R22.D	1202017-01	118
0208126R23.D	1202017-04	116
0208126R24.D	1202017-07	112
0208126R25.D	1202020-06	116
0208126R26.D	1202020-07	113
0208126R27.D	1202020-10	114
0208126R28.D	1202020-13	116
0208126R29.D	2020026-CCV2	37*

Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 4:14 pm
Operator : rh
Sample : 2020026-CCV1
Misc : 2B08005
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 09 09:02:27 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

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	1.112 E6	-9.2	111	0.00
2	S	Acetylene	349.516	386.955 E3	-10.7	104	-0.03
3	TM	Ethene	887.936	996.449 E3	-12.2	110	0.00
4	TM	Ethane	966.567	1090.241 E3	-12.8	111	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\020812RSK\
Data File : 0208126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 4:14 pm
Operator : rh
Sample : 2020026-CCV1
Misc : 2B08005
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 09 09:02:27 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	7.950	8377577	23.969 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	36.14%#
Target Compounds			
1) TM Methane	1.528	14712664	14.452 ug/L
3) TM Ethene	8.366	23371712	26.321 ug/L
4) TM Ethane	9.002	27235321	28.177 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

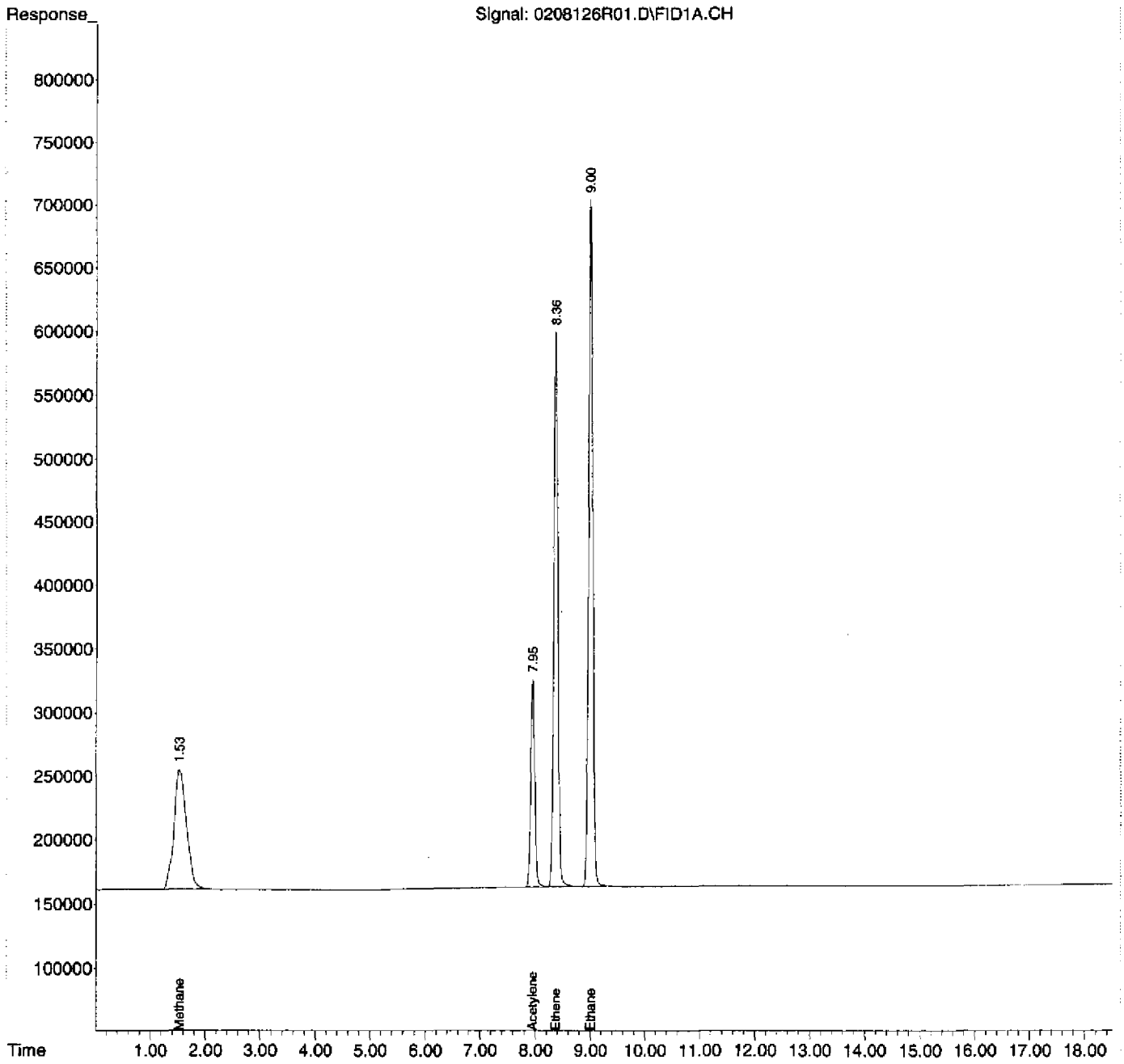
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R01.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 4:14 pm
Operator : rh
Sample : 2020026-CCV1
Misc : 2B08005
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 09 09:02:27 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



RSK-175 HC LCV REPORT

Instrument Name: AG6890N-6
File Name LCV1: 0208126R02
File Name LCV2: 0208126R03
Date Acquired: 02/08/12
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	1.231	1.514	60 - 140	123.0%	pass
Acetylene	2.014	1.924	60 - 140	95.5%	NA
Ethene	1.091	1.13	60 - 140	103.6%	pass
Ethane	1.162	1.214	60 - 140	104.5%	pass

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

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 4:41 pm
Operator : rh
Sample : 2020026-LCV1
Misc : 2B08003
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 09:02:35 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	358013	1.024 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	1.54%#
Target Compounds			
1) TM Methane	1.517	1012323	0.994 ug/L
3) TM Ethene	8.368	1003113	1.130 ug/L
4) TM Ethane	9.005	1172938	1.214 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

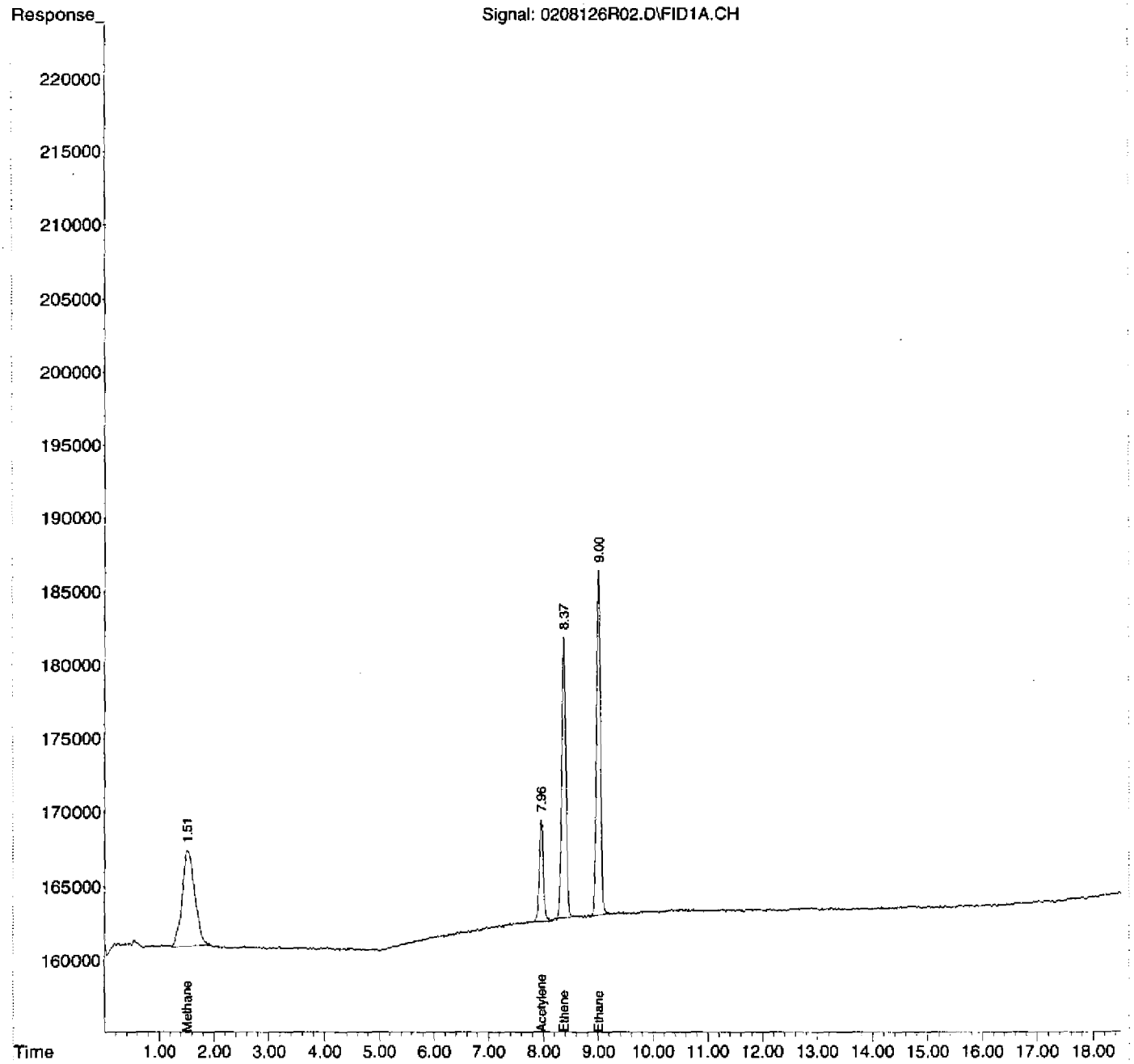
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R02.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 4:41 pm
Operator : rh
Sample : 2020026-LCV1
Misc : 2B08003
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 09:02:35 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\020812RSK\
Data File : 0208126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 5:15 pm
Operator : rh
Sample : 2020026-LCV2
Misc : 2B08004
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 09:02:43 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	672342	1.924 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	2.90%#
Target Compounds			
1) TM Methane	1.530	1541715	1.514 ug/L
3) TM Ethene	8.370	1946981	2.193 ug/L
4) TM Ethane	9.006	2265537	2.344 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

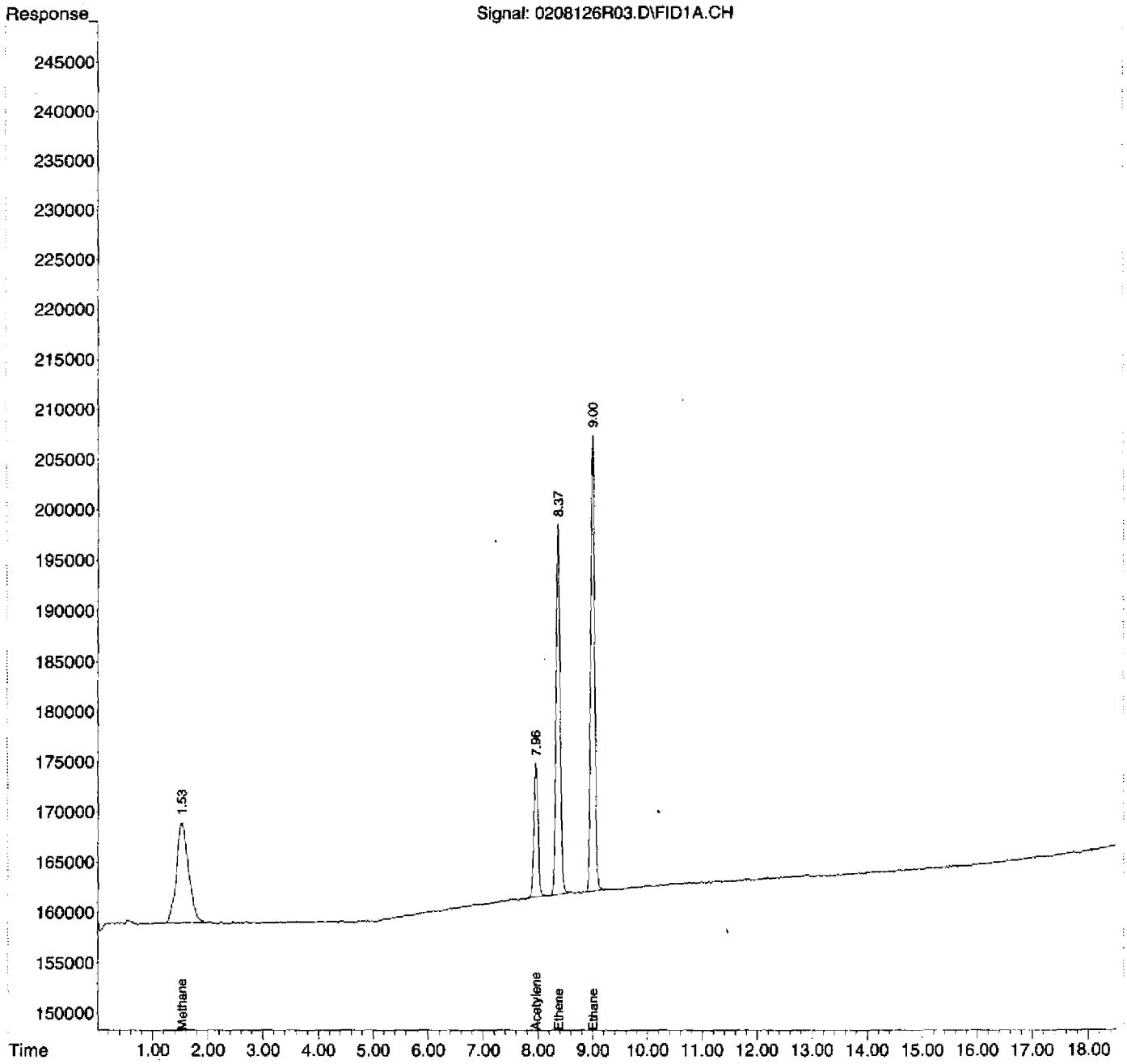
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R03.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 5:15 pm
Operator : rh
Sample : 2020026-LCV2
Misc : 2B08004
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 09:02:43 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\020812RSK\
Data File : 0208126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 5:42 pm
Operator : rh
Sample : B2B0032-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 09:02:50 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	7.954	27437947	78.503 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	118.35%
Target Compounds			
1) TM Methane	1.528	938031	0.921 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.

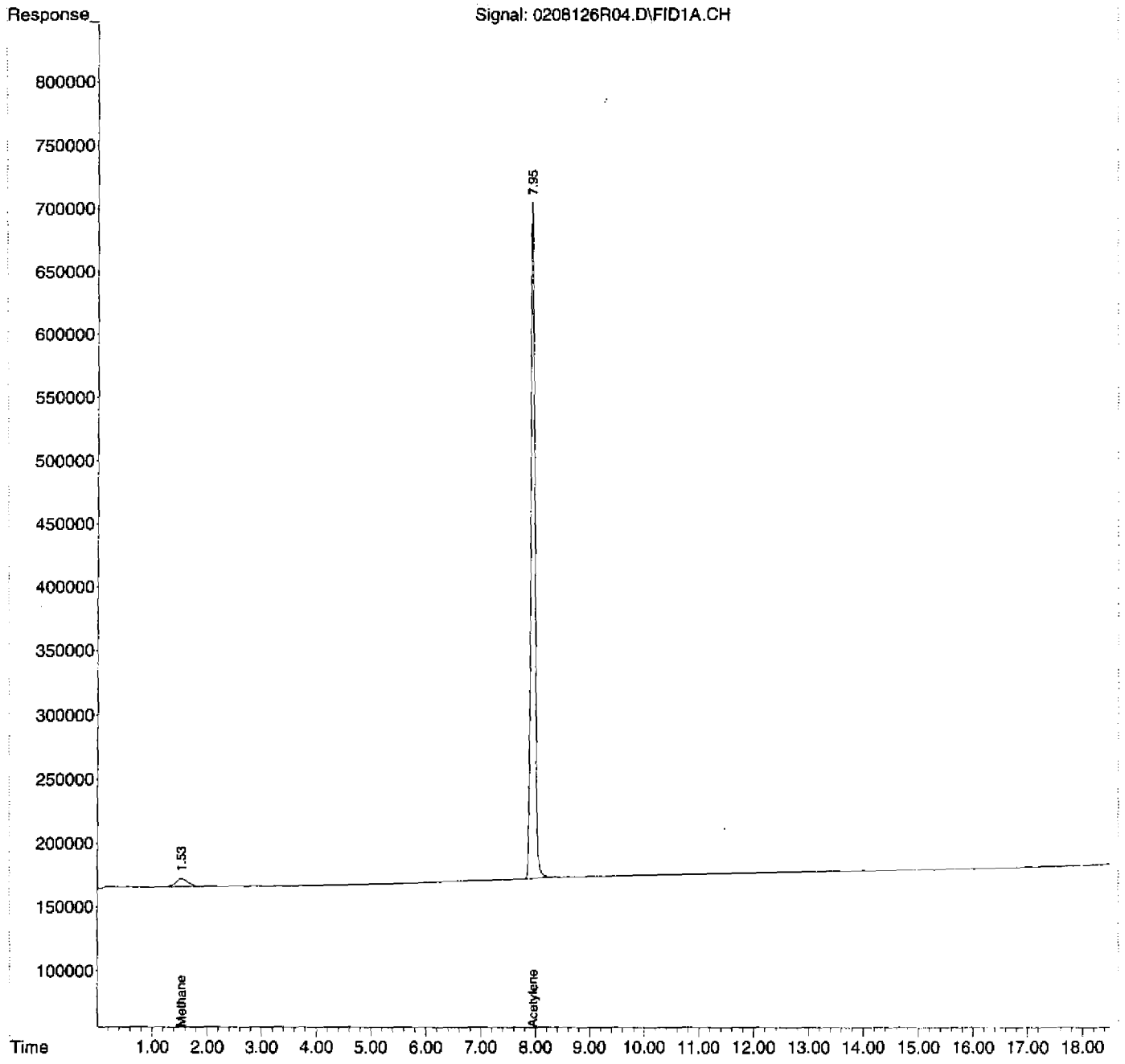
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R04.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 5:42 pm
Operator : rh
Sample : B2B0032-BLK1
Misc : MB
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 09:02:50 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: 0208126R05.D
Date Acquired: 2/8/2012
Operator: rh

Analyte	Spike ug/L	Calculated ug/L	QC Limits	%R	Status
Methane	44.099	47.723	70-130	108.2%	pass
Acetylene	72.166	79.241	66.4-153	109.8%	pass
Ethene	78.183	87.984	78-138	112.5%	pass
Ethane	83.269	93.878	77-137	112.7%	pass

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 6:18 pm
Operator : rh
Sample : B2B0032-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 09 09:02:57 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	7.953	27696121	79.241 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	119.46%
Target Compounds			
1) TM Methane	1.527	48583186	47.723 ug/L
3) TM Ethene	8.366	78124145	87.984 ug/L
4) TM Ethane	9.003	90739159	93.878 ug/L
5) Qual Propane	0.000	0	N.D.
6) Qual Butane	0.000	0	N.D.

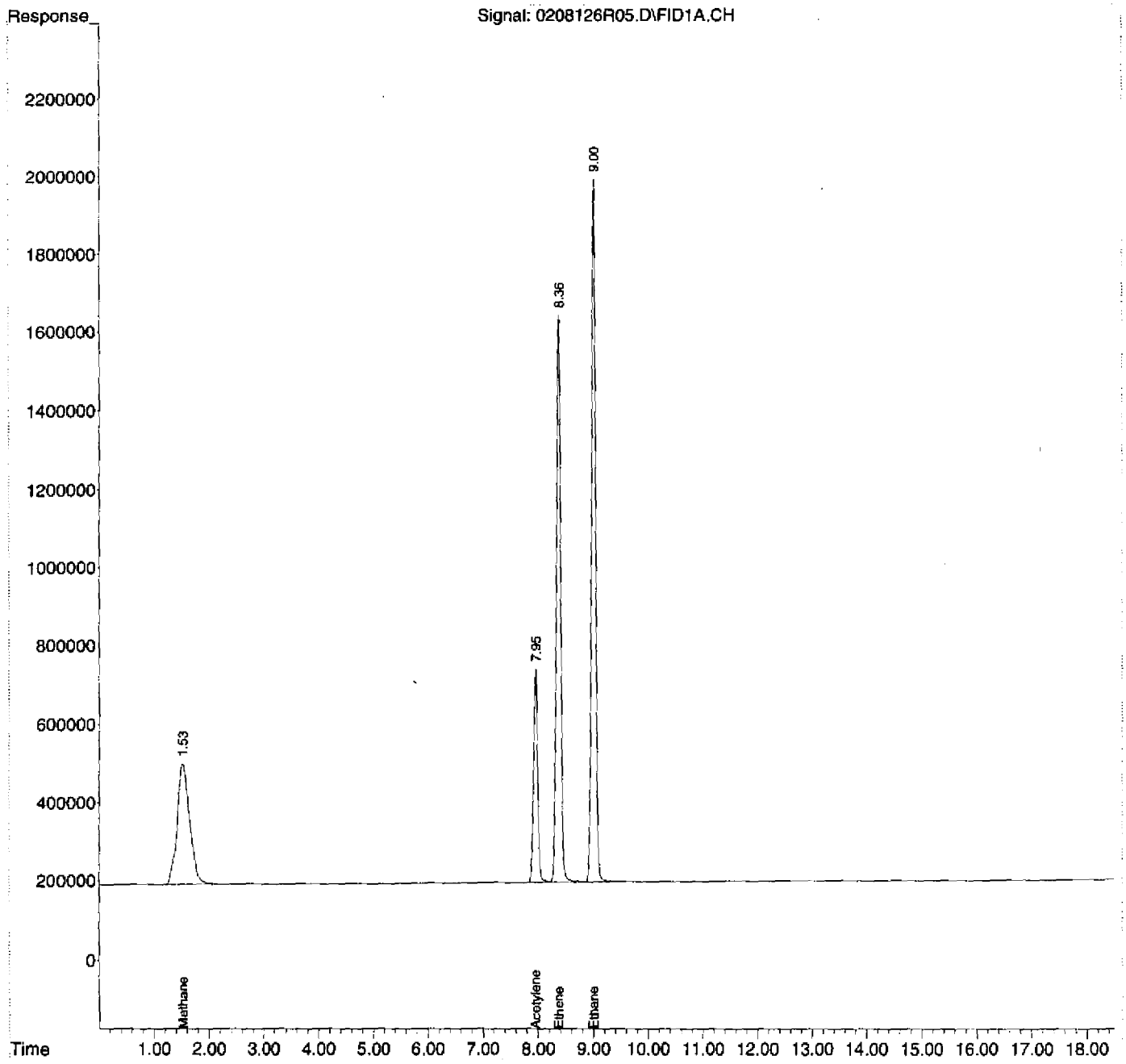
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R05.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 6:18 pm
Operator : rh
Sample : B2B0032-BS1
Misc : LCS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 09 09:02:57 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



DIM0066166

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 6:45 pm
Operator : rh
Sample : 1201034-10
Misc : HW01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 09:03:05 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.954	26236428	75.065 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	113.17%
Target Compounds			
1) TM Methane	1.481	12243779770	12026.944 ug/L — o.c.
3) TM Ethene	0.000	0	N.D. ug/L
4) TM Ethane	8.996	341630484	353.447 ug/L — rpt.
5) Qual Propane	12.901	470445	NoCal
6) Qual Butane	0.000	0	N.D.

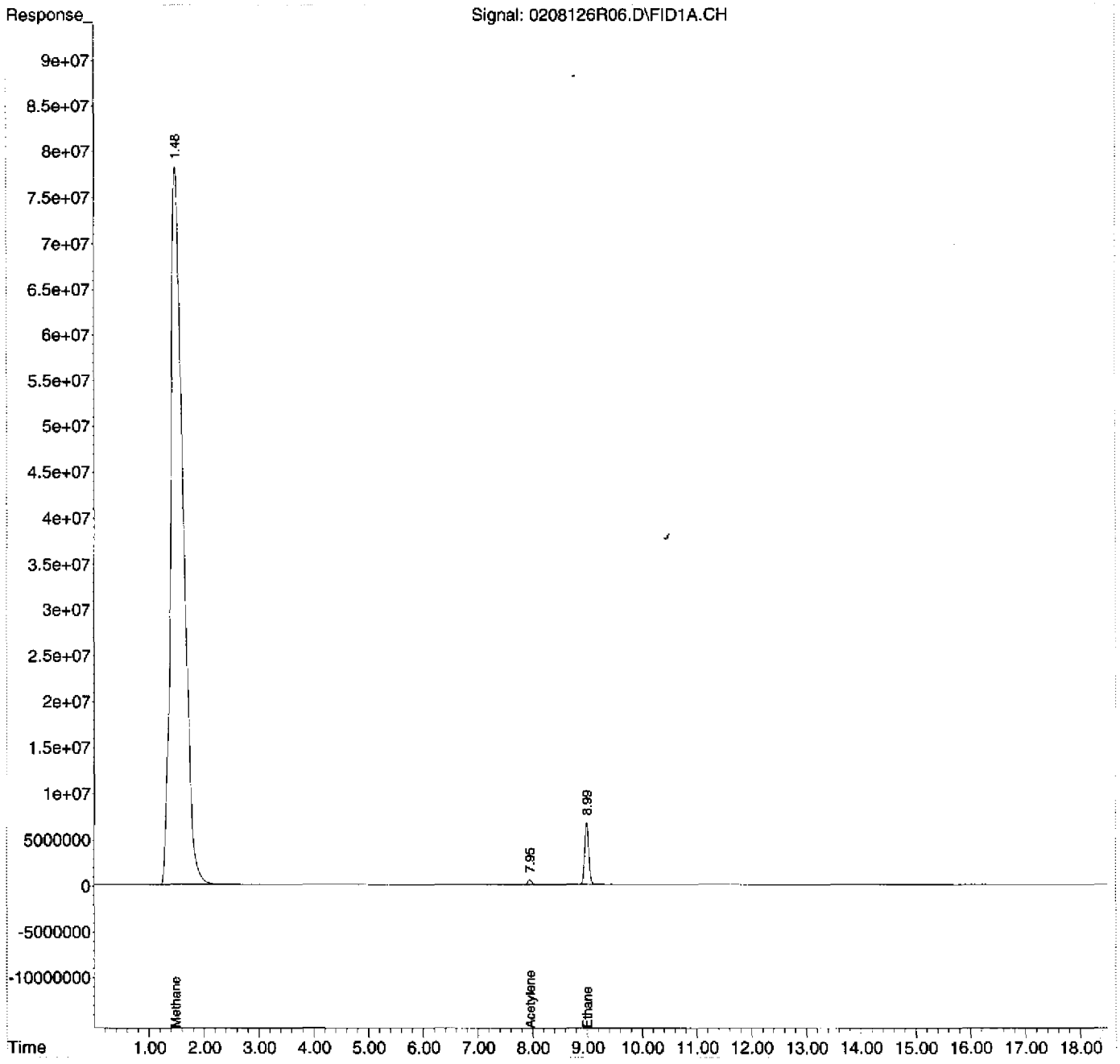
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R06.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 08 Feb 2012 6:45 pm
Operator : rh
Sample : 1201034-10
Misc : HW01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 09:03:05 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



Evaluate Continuing Calibration Report

Data Path : D:\MSDCHEM\1\2012\DATA\020812RSK\
Data File : 0208126R29.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Feb 2012 6:16 am
Operator : rh
Sample : 2020026-CCV2
Misc : 2B08005
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 09 09:06:16 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

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	1.158 E6	-13.8	115	0.00
2	S	Acetylene	349.516	396.155 E3	-13.3	107	-0.02
3	TM	Ethene	887.936	1034.912 E3	-16.6	114	0.00
4	TM	Ethane	966.567	1130.648 E3	-17.0	115	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\020812RSK\
Data File : 0208126R29.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Feb 2012 6:16 am
Operator : rh
Sample : 2020026-CCV2
Misc : 2B08005
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 09 09:06:16 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

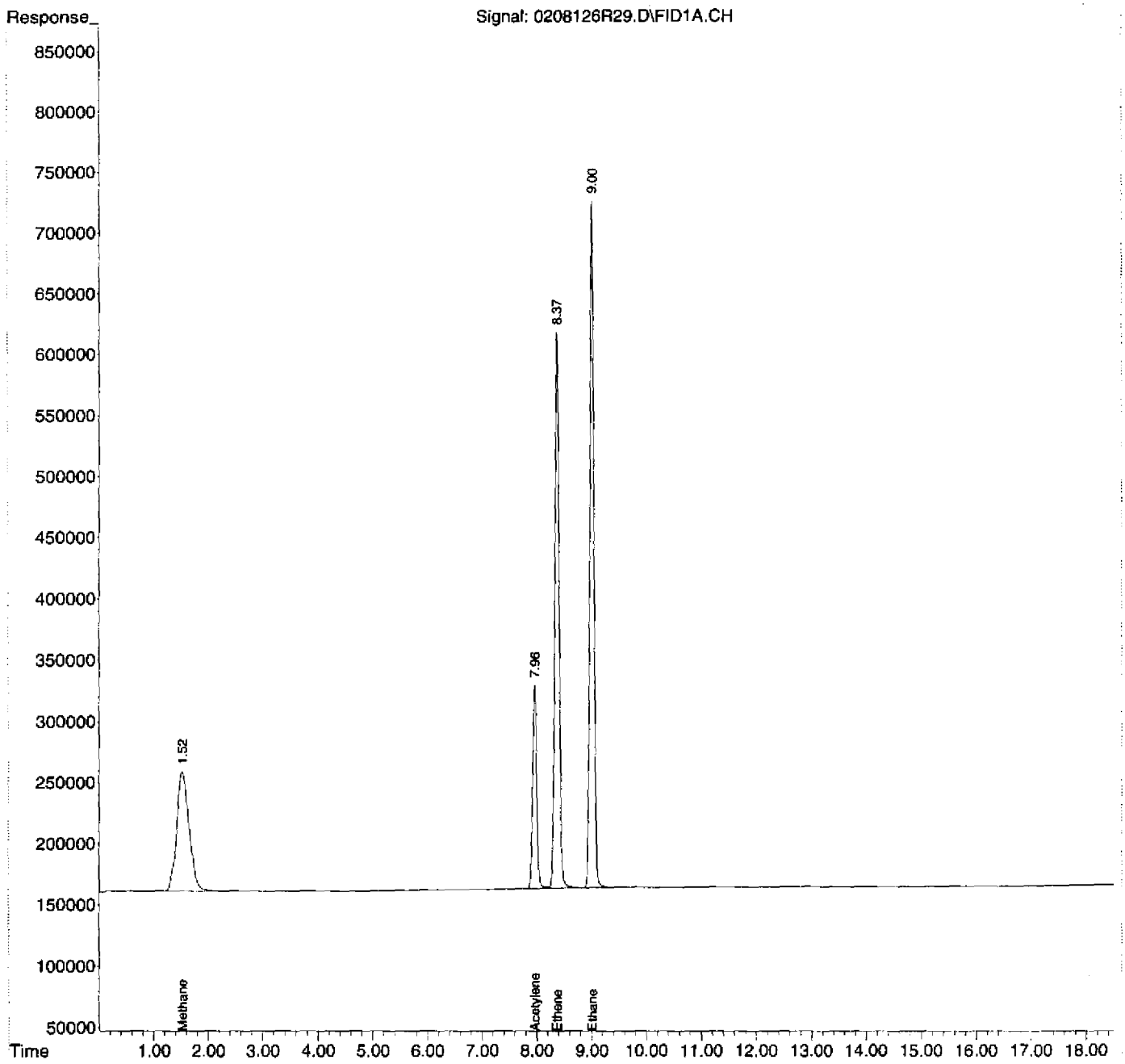
Volume Inj. : 600 uL
Signal Phase : ShinCarbon ST
Signal Info : 1m x 0.75mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S Acetylene	7.961	8576752	24.539 ug/L
Spiked Amount 66.330 Range 66 - 153		Recovery =	37.00%#
Target Compounds			
1) TM Methane	1.525	15323973	15.053 ug/L
3) TM Ethene	8.368	24273866	27.337 ug/L
4) TM Ethane	9.006	28244727	29.222 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\020812RSK\
Data File : 0208126R29.D
Signal(s) : FID1A.CH
InstName : AG6890N-6
DataAcq Meth:0126126RSK.M
Acq On : 09 Feb 2012 6:16 am
Operator : rh
Sample : 2020026-CCV2
Misc : 2B08005
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 09 09:06:16 2012
Quant Method : D:\MSDCHEM\1\2012\METHOD\0126126RSK.M
Quant Title :
QLast Update : Fri Jan 27 11:26:56 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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