DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER

October 29, 2015

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FROM: AFCEC/CIBE – Plattsburgh
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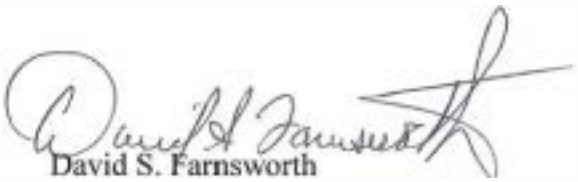
SUBJECT: Final Quarterly Operations and Maintenance Data Summary Report (2nd Quarter / Calendar Year 2015)
SD-052-02 Building 775 Site (Buildings 774 and 776) and SD-052-01 Apron 2 Chlorinated Plume Site (Buildings 785 and 786)
Sub-Slab Vapor Mitigation Systems
October 2015
Former Griffiss Air Force Base (AFB) Rome, New York
Contract Number FA8903-10-D-8595 / Delivery Order 0014

Accompanying this letter please find the "Final Quarterly Operations and Maintenance Data Summary Report (2nd Quarter / Calendar Year 2015) for SD-052-02 Building 775 Site (Buildings 774 and 776) and SD-052-01 Apron 2 Chlorinated Plume Site (Buildings 785 and 786)" in relation to work conducted at the Former Griffiss AFB in Rome, New York under the referenced Performance Based Remediation (PBR) contract.

This Report has been prepared by the Air Force Civil Engineer Center (AFCEC) to present the operations and maintenance of the respective sub-slab vapor mitigation systems at the Former

Griffiss AFB in Rome, New York. This version of the report incorporates data up until June 30, 2015. The draft report was submitted on August 27, 2015.

Should you have any questions or concerns please contact me at 518-563-2871.



David S. Farnsworth
Program Manager/BRAC Environment Coordinator
BRAC Program Execution Branch

FINAL

QUARTERLY OPERATION AND MAINTENANCE DATA SUMMARY REPORT
SD-052-02 BUILDING 775 SITE (BUILDINGS 774 AND 776) AND SD-052-01 APRON 2 CHLORINATED PLUME SITE (BUILDINGS 785 AND 786)
SUB-SLAB VAPOR MITIGATION SYSTEMS
(2ND QUARTER / CALENDAR YEAR 2015 / APRIL – JUNE)

FORMER GRIFFISS AIR FORCE BASE SITE
ROME, NEW YORK

Prepared for:

Air Force Civil Engineer Center
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Contract Number FA8903-10-D-8595/Delivery Order 0014

October 2015

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TABLE OF CONTENTS

SECTION **PAGE**

1 Introduction 1

2 Sub-Slab Vapor Mitigation System Operation and Maintenance 1

2.1 2nd Quarter / Calendar Year 2015 (April – June) Buildings 774 and 776 Sub-Slab Vapor Mitigation System Operation and Maintenance Results 1

2.2 2nd Quarter / Calendar Year 2015 (April – June) Buildings 785 and 786 Sub-Slab Vapor Mitigation System Operation and Maintenance Results 1

2.3 Spent Granular Activated Carbon Disposal 2

3 References 3

LIST OF FIGURES

Figure 2-1 774SSVM-1, -2 and 776SSVM-1 Long Term Operation Flow Rate
Figure 2-2 774SSVM-1, -2 and 776SSVM-1 Long Term Operation Vacuum
Figure 2-3 785SSVM-1 and 786SSVM-1 Long Term Operation Flow Rate
Figure 2-4 785SSVM-1 and 786SSVM-1 Long Term Operation Vacuum

LIST OF TABLES

Table 2-1 SSVM Systems Operation and Maintenance

LIST OF APPENDICES
(electronic copy on CD)

Appendix A Operation and Maintenance Field Forms
Appendix B Waste Inventory Tracking Form and Carbon Disposal Paperwork

LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
CY	calendar year
FPM	FPM Remediations, Inc.
GAC	granular activated carbon
O&M	Operation and Maintenance
SSVM	Sub-Slab Vapor Mitigation

1 Introduction

FPM Remediations, Inc. (FPM), in association with CAPE Environmental Management, Inc., under contract with the Air Force Civil Engineer Center (AFCEC), is conducting Operation and Maintenance (O&M) on Sub-Slab Vapor Mitigation (SSVM) systems associated with SD-052-02 Building 775 Site [Buildings 774 and 776] and SD-052-01 Apron 2 Chlorinated Plume Site [Buildings 785 and 786] at the former Griffiss Air Force Base (AFB) in Rome, New York. The O&M at the sites is conducted in accordance with provisions of the Basic Contract # FA8903-10-D-8595 and Delivery Order # 0014.

This abbreviated Data Summary Report has been prepared to provide the SSVM systems O&M activities from the 2nd quarter of the calendar year (CY) 2015 including the months of April through June. As recommended in the 3rd Quarter CY 2012 Quarterly Operation and Maintenance Report (CAPE/FPM, May 2013), comprehensive reporting of O&M activities will be reduced to semi-annually (to coincide with semi-annual soil vapor monitoring) and quarterly O&M results will be provided in abbreviated Data Summary Reports. O&M was conducted in accordance with the Final Completion Report Sub-Slab Vapor Mitigation Systems (FPM, February 2013). Previous results are presented in the 1st Quarter CY 2015 Quarterly Operation and Maintenance Report (CAPE/FPM, June 2015).

2 Sub-Slab Vapor Mitigation System Operation and Maintenance

Table 2-1 provides the O&M schedule for the SD-052-02 Building 775 Site [Buildings 774 and 776] and SD-052-01 Apron 2 Chlorinated Plume Site [Buildings 785 and 786] SSVM systems.

2.1 2nd Quarter / Calendar Year 2015 (April – June) Buildings 774 and 776 Sub-Slab Vapor Mitigation System Operation and Maintenance Results

The SSVM system at Buildings 774 and 776 has been in operation since June 2011. O&M activities conducted during this quarter included weekly system component readings (system temperature, flow, vacuum and motor status) and granular activated carbon (GAC) replacement. The system flow rate and vacuum readings collected in previous quarters and this quarter are illustrated on Figure 2-1 and Figure 2-2, respectively. The GAC was not replaced and there were no system shutdowns reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter. The O&M field forms and system flow rate and vacuum readings tables are presented in Appendix A. The waste inventory tracking form for the spent carbon is provided in Appendix B.

2.2 2nd Quarter / Calendar Year 2015 (April – June) Buildings 785 and 786 Sub-Slab Vapor Mitigation System Operation and Maintenance Results

The SSVM system at Buildings 785 and 786 was in operation from May 2011 to August 2013. After the shutdown period due to Building 785 and 786 renovations, the system was turned back online September 25, 2014. O&M activities conducted during this quarter included weekly system component readings (system temperature, flow, vacuum and motor status). The GAC was not replaced during this quarter. The system was shut down from June 17, 2015 to June 25,

2015 due to floor renovations within Building 785. No other shut downs occurred during this quarter. The system flow rate and vacuum readings collected in previous quarters and this quarter are illustrated on Figure 2-3 and Figure 2-4, respectively. In addition, no water removal from the knockout tank was required during this quarter. The O&M field forms and system flow rate and vacuum readings tables are presented in Appendix A. The waste inventory tracking form for the spent carbon is provided in Appendix B.

2.3 Spent Granular Activated Carbon Disposal

A total of 31 55-gallon drums filled with spent GAC were collected at the sites and transported to Cameron Great Lakes in Illinois on June 30, 2015 to be recycled. All disposal paperwork is provided in Appendix B. A verification of destruction from Cameron Great Lakes will be provided in the next quarterly O&M report.

3 References

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (4th Quarter / Calendar Year 2011), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 1.0, May 2012.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (1st Quarter / Calendar Year 2012), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 1.0, October 2012.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (2nd Quarter / Calendar Year 2012), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 1.0, November 2012.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (3rd Quarter / Calendar Year 2012), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 2.0, May 2013.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Data Summary Report, (4th Quarter / Calendar Year 2012), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 2.0, July 2013.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (1st Quarter / Calendar Year 2013), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 2.0, September 2013.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (2nd Quarter / Calendar Year 2013), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, October 2013.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (3rd Quarter / Calendar Year 2013), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, April 2014.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (4th Quarter / Calendar Year 2013), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, June 2014.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (1st Quarter / Calendar Year 2014), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, July 2014.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (2nd Quarter / Calendar Year 2014), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, October 2014.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (3rd Quarter / Calendar Year 2014), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, January 2015.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Data Summary Report, (4th Quarter / Calendar Year 2014), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, May 2015.

CAPE/FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (1st Quarter / Calendar Year 2015), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, June 2015.

FPM Remediations, Inc. *Final Completion Report Sub-Slab Vapor Mitigation Systems, Buildings 774, 776, 785 and 786,* Former Griffiss Air Force Base, Rome, New York, Revision 0.0, February 2013.

Figures

Figure 2-1
774SSVM-1, -2 and 776SSVM-1
Long Term Operation Flow Rate
(June 2011 through June 2015)

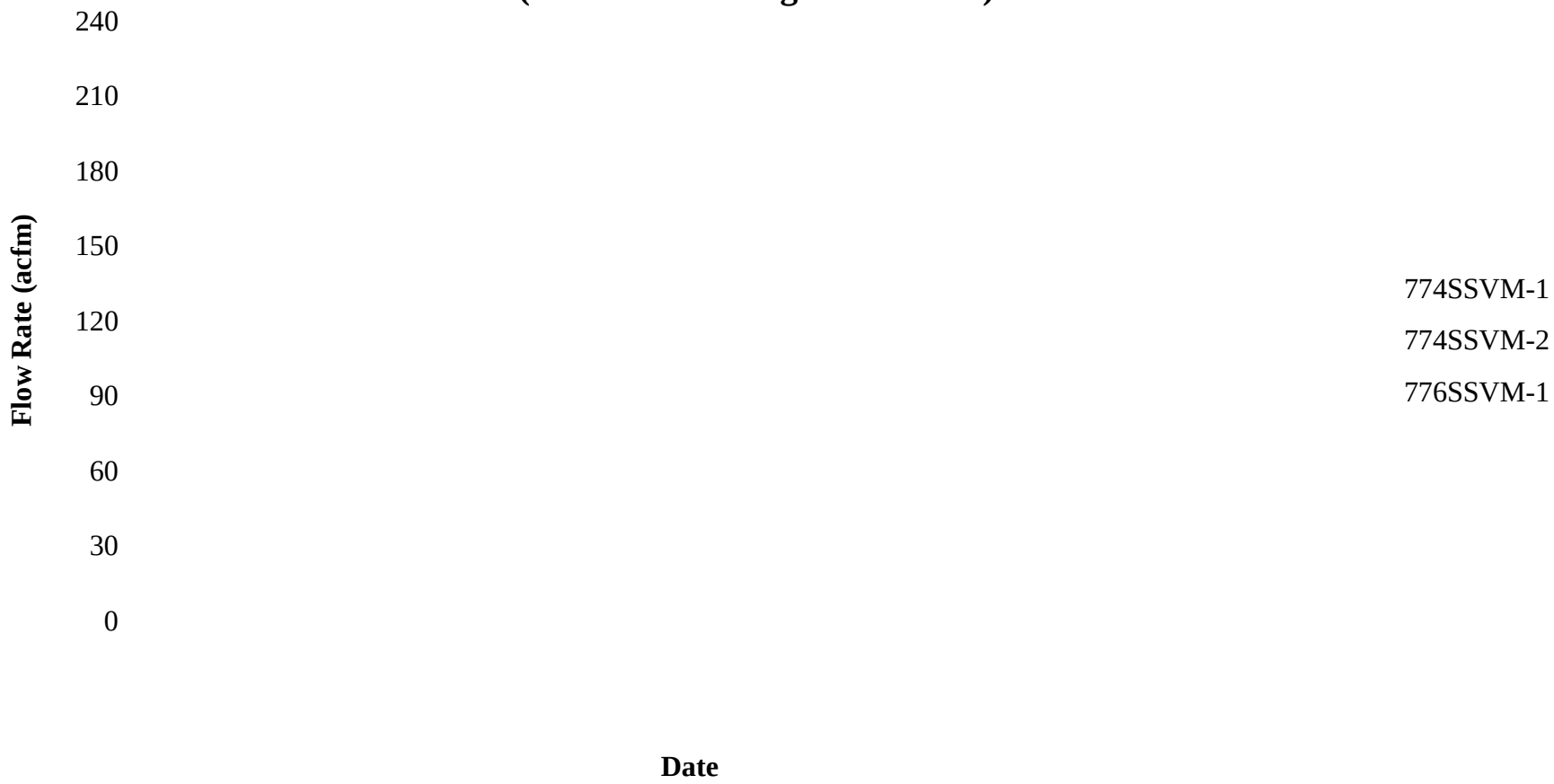


Figure 2-2
774SSVM-1, -2 and 776SSVM-1
Long Term Operation Vacuum
(June 2011 through June 2015)

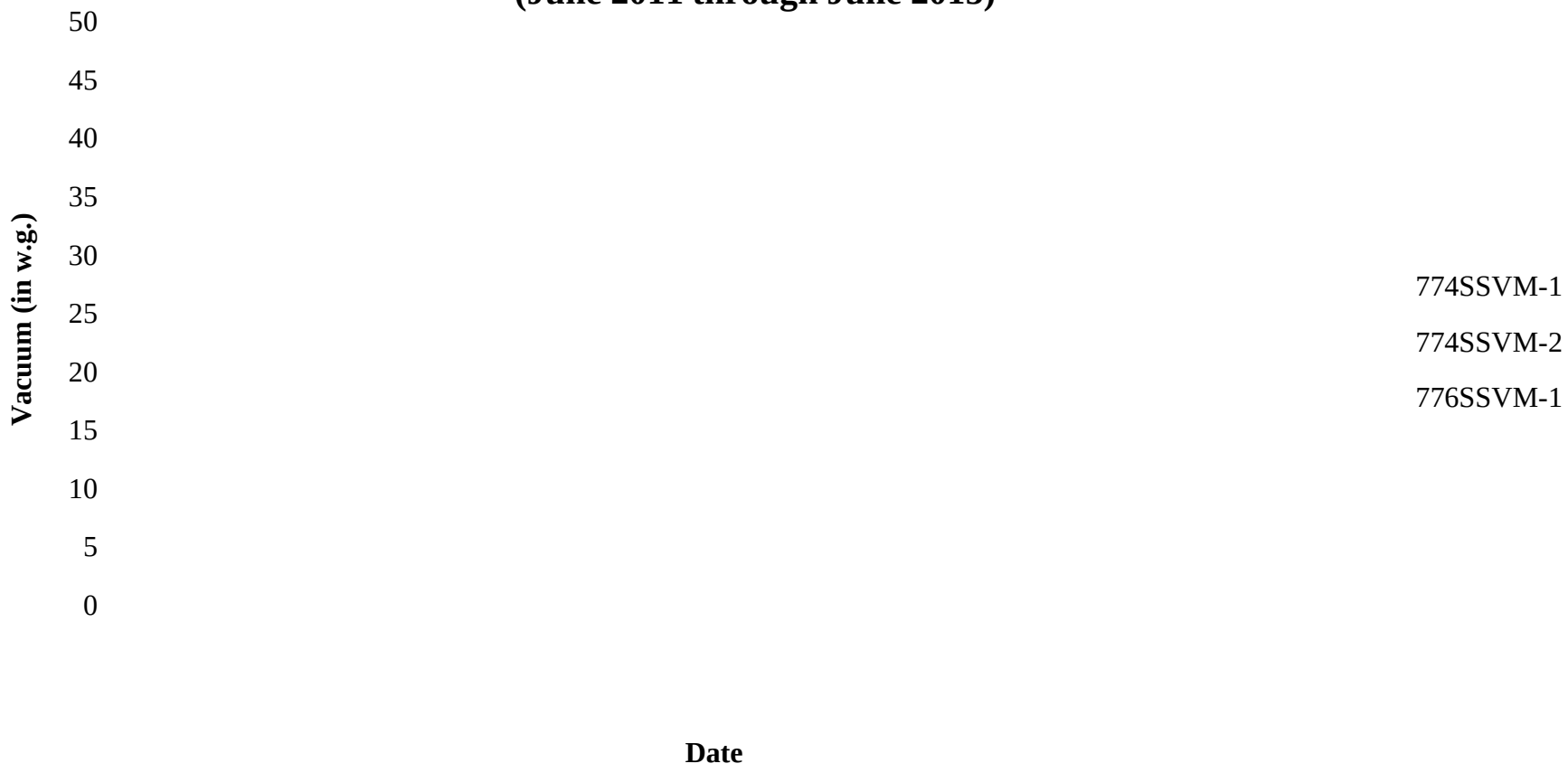


Figure 2-3
785SSVM-1 and 786SSVM-1
Long Term Operation Flow Rate
(May 2011 through June 2015)

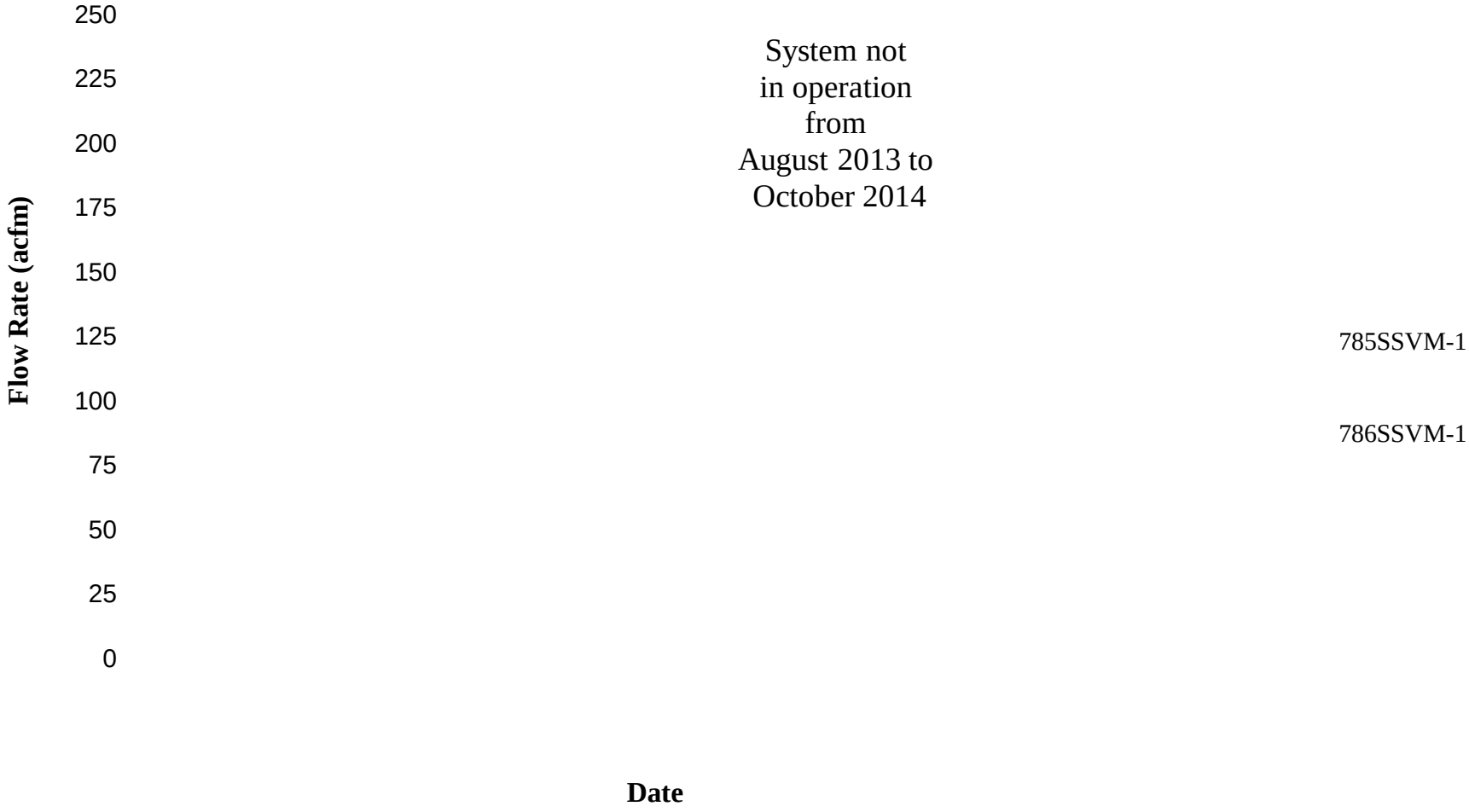
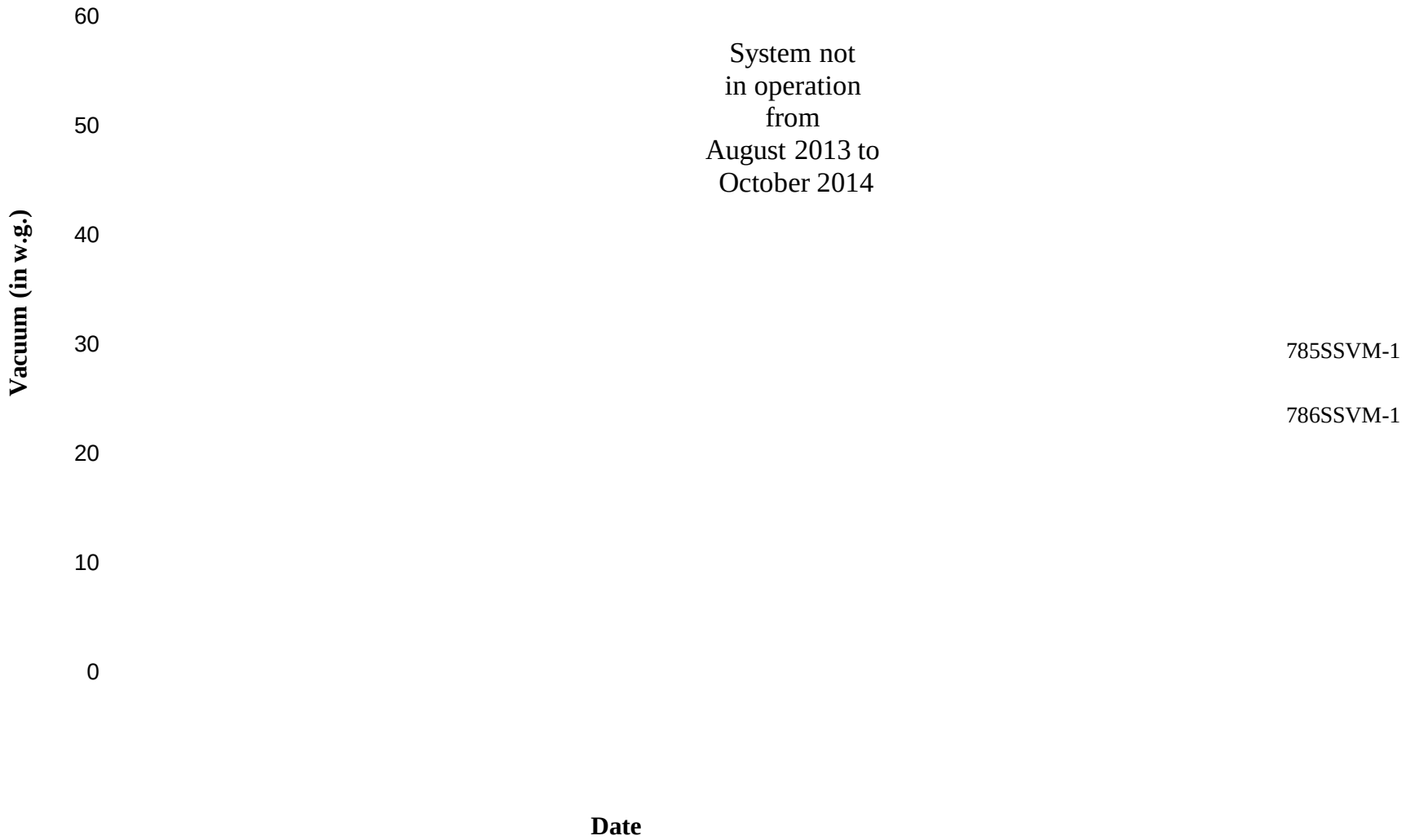


Figure 2-4
785SSVM-1 and 786SSVM-1
Long Term Operation Vacuum
(May 2011 through June 2015)



Table

Table 2-1
SSVM Systems Operation and Maintenance

Field Activities	Rationale	Location	Parameters
System Component Readings	Weekly recording of system temperature, flow, vacuum and motor status to determine proper operation.	Building 774 / 776 Blower Shed and Building 785 / 786 Blower Shed	None
VMP Vacuum Measurements	Semi-annually recording to support sub-slab depressurization.	VMPs inside buildings as shown on Figure 3-1 and 3-2	None
Granular Activated Carbon Replacement	Every four months to adsorb extracted chlorinated solvent vapors.	Building 774 / 776 Blower Shed and Building 785 / 786 Blower Shed	None
Indoor Air Sampling	Semi-Annually to evaluate current human exposure and to obtain site specific attenuation factors for risk assessment (ratio of indoor air to sub-slab vapor concentrations).	One sample per building as shown on Figure 3-1 and 3-2	VOC: Method TO-15 Full List
Outdoor Air Sampling	Semi-Annually to occur simultaneously with indoor air sampling to evaluate potential influence of outdoor air on indoor air sampled.	One sample per site as shown on Figure 3-1 and 3-2	VOC: Method TO-15 Full List
Sub-Slab Vapor Sampling	Semi-Annually to occur simultaneously with indoor air sampling to evaluate chlorinated solvent transport and mitigation and to obtain site specific attenuation factors for risk assessment (ratio of indoor air to sub-slab vapor concentrations).	VMPs inside buildings as shown on Figure 3-1 and 3-2	VOC: Method TO-15 Full List
Influent Sampling	Semi-Annually prior to sub-slab sampling to determine soil vapor extraction.	SSVM System's exhaust stack before carbon treatment	VOC: Method TO-15 Full List

QUARTERLY OPERATION AND MAINTENANCE DATA SUMMARY REPORT
SD-052-02 BUILDING 775 SITE (BUILDINGS 774 AND 776) AND SD-052-01 APRON 2 CHLORINATED PLUME SITE (BUILDINGS 785 AND 786)
SUB-SLAB VAPOR MITIGATION SYSTEMS
(2ND QUARTER / CALENDAR YEAR 2015 / APRIL – JUNE)

APPENDICES

Appendices	PDF Page
Appendix A – O&M Field Forms	**1**
Field Sheets	2
Flow Rate Tables	28
Appendix B – Carbon Disposal Paperwork	**33**
November 2013 Profile	35
2013 Profile Raw Lab Data	38
January 2015 Profile	375
2015 Profile Raw Lab Data	378
Bill of Lading	651

Appendix A

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-1-15			
conducted by:	NG			
Site ID:	B774-B776-SVE		Patm (inch hg):	30.18 (in HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-27	774-1	0.6	54°F
774-2	-22	774-2	0.1	58°F
776-1	-24	776-1	0.7	56°F
Blower Temp (deg F)	103°F	After Cooler Temp (deg F)	90°F	
Well ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w g.)	Medium Vacuum (inch w g.)	Deep Vacuum (inch w g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-1-15			
conducted by:	MG			
Site ID:	B785-B786 SVE		Patm (inch hg):	30.19 (inHg)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	0.5	~~-50~~ MG 36°F
786-1	-40	786-1	1	~~-40~~ MG 38°F
total	4(inH2O)	total	4	~~38°F~~ MG 40°F
Blower Temp (deg F)	130°F	After Cooler Temp (deg F)	100°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-9-15			
conducted by:	MG			
Site ID:	B774/B776 SVE		Patm (inch hg):	30.25 (In HG)
Vacuum Gauge	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-26	774-1	.6	54°F
774-2	-22	774-2	.1	50°F
776-1	-25	776-1	.6	50°F
Blower Temp (deg F)	100°F	After Cooler Temp (deg F)	84°F	
Well ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-9-15			
conducted by:	MG			
Site ID:	B785/B786 SVF		Patm (inch hg):	30.25 (inHg)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	.4	35°F
786-1	-48	786-1		38°F
total	2.8 (inHG)	total	4	48°F
Blower Temp (deg F)	126°F	After Cooler Temp (deg F)	100°F	
Well_ID; Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

Greased Bearings ☺

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-16-15			
conducted by:	MG			
Site ID:	B774/B776 SVT		Patm (inch hg):	30.24(in Hg)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-26	774-1	0.6	58°F
774-2	-22	774-2	0.1	60°F
776-1	-24	776-1	0.8	55°F
Blower Temp (deg F)	117°F	After Cooler Temp (deg F)	105°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

Flow Rate (acfm)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-16-15			
conducted by:	MG			
Site ID:	B785/B786 SVE		Patm (inch hg):	30.24(in HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	0.4	40°F
786-1	-47	786-1	0.1	40°F
total	5(in HG)	total	3.8	55°F
Blower Temp (deg F)	135°F	After Cooler Temp (deg F)	118°F	

Flow Rate (acfm)

Well ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-23-15			
conducted by:	MG			
Site ID:	B774/B776 SVE		Patm (inch hg):	29.76 (inHG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-26	774-1	.6	56°F
774-2	-22	774-2	.1	52°F
776-1	-24	776-1	.8	54°F
Blower Temp (deg F)	100°F	After Cooler Temp (deg F)	80°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-23-15			
conducted by:	MG			
Site ID:	B785/B786 SVE		Patm (inch hg):	29.76 (inHG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-48	785-1	.4	40°F
786-1	-47	786-1	1	40°F
total	4 (in HG)	total	3.8	50°F
Blower Temp (deg F)	130°F	After Cooler Temp (deg F)	100°F	
Well_ID. Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-30-25			
conducted by:	MG			
Site ID:	6774/6776SVE		Patm (inch hg):	29.83 (29.49)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-26	774-1	.7	70°F
774-2	-22	774-2	.1	70°F
776-1	-24	776-1	.8	68°F
Blower Temp (deg F)	110°F	After Cooler Temp (deg F)	100°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-30-15			
conducted by:	MG			
Site ID:	B785/B786 SVE		Patm (inch hg):	29.83 (inHg)
Vacuum Gauge:	Vacuum (inch w.g.)	Maguehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	.2	44°F
786-1	-46	786-1	1	44°F
total	5 in Hg	total	3.8	59°F
Blower Temp (deg F)	140°F	After Cooler Temp (deg F)	110°F	
Well_ID; Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-11-15			
conducted by:	MG			
Site ID:	B774/B776 SVE		Patm (inch hg):	30.02 (in HG)
Vacuum Gauge.	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-26	774-1	.5	62°F
774-2	-24	774-2	.1	70°F
776-1	-24	776-1	.8	62°F
Blower Temp (deg F)	120°F	After Cooler Temp (deg F)	110°F	
Well ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-1-15			
conducted by:	MG			
Site ID:	B785/B786 SVE		Patm (inch hg):	30.02 (in HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	.4	50°F
786-1	-48	786-1	1	50°F
total	5.6 (inHG)	total	~~1.638~~	66°F
Blower Temp (deg F)	150°F	After Cooler Temp (deg F)	130°F	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-14-15			
conducted by:	MG			
Site ID:	ST74/8776 SVI		Patm (inch hg):	30.52 inHG
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-25	774-1	.6	62°F
774-2	-22	774-2	.1	64°F
776-1	-24	776-1	.8	60°F
Blower Temp (deg F)	110°F	After Cooler Temp (deg F)	98°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-14-15			
conducted by:	MG			
Site ID:	B785/B786 SVE		Patm (inch hg):	30.52 (in HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	.4	50°F
786-1	-48	786-1	1	58°F
total	4 (in HG)	total	3.8	60°F
Blower Temp (deg F)	140°F	After Cooler Temp (deg F)	120°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-21-15			
conducted by:	MG			
Site ID:	R774/3776 SVE		Patm (inch hg)	29.38 (in HG)
Vacuum Gauge.	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-26	774-1	.5	64°F
774-2	-24	774-2	.2	65°F
776-1	-24	776-1	.9	62°F
Blower Temp (deg F)	118°F	After Cooler Temp (deg F)	106°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-21-15			
conducted by:	MG			
Site ID:	B785/786 SVE		Patm (inch hg):	29.38 (inHG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	.4	50°F
786-1	-48	786-1	.8	50°F
total	4.5 (inHG)	total	3.8	64°F
Blower Temp (deg F)	145°F	After Cooler Temp (deg F)	120°F	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-28-15			
conducted by:	MG			
Site ID:	B774/B776 SVE		Patm (inch hg):	29.45 (IN HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-23	774-1	.5	65°F
774-2	-20	774-2	.1	68°F
776-1	-22	776-1	.8	65°F
Blower Temp (deg F)	120°F	After Cooler Temp (deg F)	108°F	
Well_ID. Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-28-15			
conducted by:	MG			
Site ID:	B785/B786 SVI		Petro (inch hg):	29.45 (inHG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	.4	54°F
786-1	-48	786-1	1	50°F
total	4.5 (inHG)	total	3.8	68°F
Blower Temp (deg F)	150°F	After Cooler Temp (deg F)	125°F	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-4-15			
conducted by:	MG			
Site ID:	B774/B776SVI		Patm (inch hg):	30.25 (in HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-22	774-1	0.5	65°F
774-2	-19	774-2	0.2	68°F
776-1	-20	776-1	0.7	65°F
Blower Temp (deg F)	120°F	After Cooler Temp (deg F)	110°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-4-15			
conducted by:	MG			
Site ID:	B785/B786 SVE		Patm (inch hg):	30.25 (in Hg)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	0.4	55°F
786-1	-47	786-1	1.0	52°F
total	4.5 (in Hg)	total	3.8	68°F
Blower Temp (deg F)	150°F	After Cooler Temp (deg F)	130°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-11-15			
conducted by:	MG			
Site ID: 774-1/776-1	29.93 (in HG)		Patm (inch hg):	29.93 (in HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-20	774-1	0.2	70°F
774-2	-20	774-2	0.5	68°F
776-1	-20	776-1	0.7	70°F
Blower Temp (deg F)	122°F	After Cooler Temp (deg F)	110°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-18-15			
conducted by:	MG			
Site ID:	R774/B776 SVE		Barm (inch hg):	29.94 (IN HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-20	774-1	0.5	68°F
774-2	-18	774-2	0.2	70°F
776-1	-20	776-1	0.6	70°F
Blower Temp (deg F)	122°F	After Cooler Temp (deg F)	110°F	
Well ID. Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6/26/15			
conducted by:	DS/DB			
Site ID:	774 / 776		Patm (inch hg)	30.04
Vacuum Gauge:	Vacuum (mch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w g.)	Temperature (Deg F)
774-1	-20	774-1	0.4	70
774-2	-18	774-2	0.3	70
776-1	-20	776-1	0.6	70
Blower Temp (deg F)	122	After Cooler Temp (deg F)	100	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (mch w g.)	Medium Vacuum (mch w.g.)	Deep Vacuum (inch w g.)

#- System shut-down for B 785 floor work.

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6/26/15			
conducted by:	DS/DB			
Site ID:	785/786		Patm (inch hg):	30.02
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	0.2	58
786-1	-48	786-1	1.0	58
total	3 in hg	total	3.6	69
Blower Temp (deg F)	145	After Cooler Temp (deg F)	135	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g)

turn off- 6/16/15

start up - 6/26/15

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-30-15			
conducted by:	MG			
Site ID:	B774/B776		Patm (inch hg):	29.89 in HG
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-20	774-1	.4	65°F
774-2	-18	774-2	.2	70°F
776-1	-20	776-1	.6	68°F
Blower Temp (deg F)	118°F	After Cooler Temp (deg F)	105°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-30-15			
conducted by:	MG			
Site ID:	B785/786		Patm (inch hg):	29.89 (IN HG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge.	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-51	785-1	.4	58F
786-1	-49	786-1	1	54F
total	5 IN HG	total	3.8	70°F
Blower Temp (deg F)	145°F	After Cooler Temp (deg F)	120°F	

Well ID; Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

774-1 O&M Readings/Flow Rate					
Well	Date	Vacuum (inch w.g)	Pressure Differential (inch w.g)	Temperature (°F)	Flow (ACFM)
774-1	4/1/2015	-27	0.6	54	181.48
774-1	4/9/2015	-26	0.6	54	181.46
774-1	4/16/2015	-26	0.6	58	182.13
774-1	4/23/2015	-26	0.6	56	180.23
774-1	4/30/2015	-26	0.7	70	197.54
774-1	5/11/2015	-26	0.5	62	166.25
774-1	5/14/2015	-25	0.6	62	183.49
774-1	5/21/2015	-26	0.5	64	180.38
774-1	5/28/2015	-23	0.5	65	164.40
774-1	6/4/2015	-22	0.5	65	166.53
774-1	6/11/2015	-20	0.2	70	104.96
774-1	6/18/2015	-20	0.5	68	165.67
774-1	6/26/2015	-20	0.4	70	149.64
774-1	6/30/2015	-20	0.4	68	148.39

774-2 O&M Readings/Flow Rate					
Well	Date	Vacuum (inch w.g)	Pressure Differential (inch w.g)	Temperature (°F)	Flow (ACFM)
774-2	4/1/2015	-22	0.1	50	72.76
774-2	4/9/2015	-22	0.1	50	72.78
774-2	4/16/2015	-22	0.1	60	73.49
774-2	4/23/2015	-22	0.1	52	72.92
774-2	4/30/2015	-22	0.1	70	74.19
774-2	5/11/2015	-24	0.1	70	74.38
774-2	5/14/2015	-22	0.1	64	73.77
774-2	5/21/2015	-24	0.2	65	104.69
774-2	5/28/2015	-22	0.1	68	74.05
774-2	6/4/2015	-19	0.2	68	104.32
774-2	6/11/2015	-20	0.5	68	165.15
774-2	6/18/2015	-18	0.2	70	104.38
774-2	6/26/2015	-18	0.3	70	129.59
774-2	6/30/2015	-18	0.2	70	105.42

776-1 O&M Readings/Flow Rate					
Well	Date	Vacuum (inch w.g)	Pressure Differential (inch w.g)	Temperature (°F)	Flow (ACFM)
776-1	4/1/2015	-24	0.7	50	194.48
776-1	4/9/2015	-25	0.6	50	180.51
776-1	4/16/2015	-24	0.8	55	209.14
776-1	4/23/2015	-24	0.8	54	207.17
776-1	4/30/2015	-24	0.8	68	210.24
776-1	5/11/2015	-24	0.8	62	209.74
776-1	5/14/2015	-24	0.8	60	211.19
776-1	5/21/2015	-24	0.9	62	219.93
776-1	5/28/2015	-22	0.8	65	207.68
776-1	6/4/2015	-20	0.7	68	197.08
776-1	6/11/2015	-20	0.7	70	196.35
776-1	6/18/2015	-20	0.6	70	181.82
776-1	6/26/2015	-20	0.6	70	183.27
776-1	6/30/2015	-20	0.6	68	182.26

785-1 O&M Readings/Flow Rate					
Well	Date	Vacuum (inch w.g)	Pressure Differential (inch w.g)	Temperature (°F)	Flow (ACFM)
785-1	4/1/2015	-50	0.3	36	75.11
785-1	4/9/2015	-50	0.4	35	86.76
785-1	4/16/2015	-50	0.4	40	87.18
785-1	4/23/2015	-48	0.4	40	86.15
785-1	4/30/2015	-46	0.2	44	61.07
785-1	5/11/2015	-50	0.4	50	87.68
785-1	5/14/2015	-50	0.4	50	88.51
785-1	5/21/2015	-50	0.4	50	86.61
785-1	5/28/2015	-50	0.4	54	86.88
785-1	6/4/2015	-50	0.4	55	88.49
785-1	6/26/2015	-50	0.2	58	63.21
785-1	6/30/2015	-51	0.4	58	89.27

786-1 O&M Readings/Flow Rate					
Well	Date	Vacuum (inch w.g)	Pressure Differential (inch w.g)	Temperature (°F)	Flow (ACFM)
786-1	4/1/2015	-48	1	38	137.02
786-1	4/9/2015	-48	1	38	137.2
786-1	4/16/2015	-47	1	40	136.02
786-1	4/23/2015	-47	1	40	136.02
786-1	4/30/2015	-46	1	44	136.56
786-1	5/11/2015	-48	1	50	138.25
786-1	5/14/2015	-48	1	58	140.64
786-1	5/21/2015	-48	0.8	50	122.15
786-1	5/28/2015	-47	1	55	137.23
786-1	6/4/2015	-47	1	52	138.92
786-1	6/26/2015	-48	1	58	140.94
786-1	6/30/2015	-47	1	54	140.2

Appendix B

Waste Inventory Tracking Form

Location: Buildings 774, 776, 785 and 786

Project Name: 1015-11-01 SVI

Activities: Spent Carbon Generation

Date	Activity Generating Waste (borehole # / well #)	Description of Waste	Field Evidence of Contamination	Estimated Volume (gals)	Type of Container (storage ID #)	Location of Container	Waste Characterization
19-Dec-11	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	B774 and B786	Yes - Sampled on 08/13/13
23-Feb-12	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	B774 and B786	Yes - Sampled on 08/13/13
23-Apr-12	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	B774 and B786	Yes - Sampled on 08/13/13
5-Jul-12	SVE System (785 and 786)	Spent Carbon	Soil Vapor	110	55-gal drum	B786	Yes - Sampled on 08/13/13o
17-Jul-12	SVE System (774 and 776)	Spent Carbon	Soil Vapor	110	55-gal drum	B774	Yes - Sampled on 08/13/13
5-Sep-12	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	B774 and B786	Yes - Sampled on 08/13/13
4-Dec-12	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	B774 and B786	Yes - Sampled on 08/13/13
24-Apr-13	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	B774 and B786	Yes - Sampled on 08/13/13
13-Sep-13	SVE System (774 and 776)	Spent Carbon	Soil Vapor	110	55-gal drum	B774	Yes – Sampled on 8/22/14
13-Jan-14	SVE System (774 and 776)	Spent Carbon	Soil Vapor	110	55-gal drum	B774	Yes – Sampled on 8/22/14
20-May-14	SVE System (774 and 776	Spent Carbon	Soil Vapor	110	55-gal drum	B774	Yes – Sampled on 8/22/14
24-Sept-14	SVE System (785 and 786)	Spent Carbon	Soil Vapor	110	55-gal drum	B785	Yes – Sampled on 10/14/14
14-Oct-14	SVE System (774 and 776	Spent Carbon	Soil Vapor	110	55-gal drum	B774	Yes – Sampled on 10/14/14
26-Feb-15	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	B774	

Note: Describe whether soil or water samples have been collected for waste characterization, include date, if known.

Comments : _____

_____

_____

_____

11/18/2013

Catherine Jerrard Engineer

C. **Spent Carbon Identification**

1. Describe the carbon treatment system and detail the source of, or process which created the contaminants that are on this carbon (examples; system filtering gasoline leaking underground storage tank, wastewater treatment for spent solvent used for degreasing printed circuit boards, ground water cleanup of spilled chemical from drum storage area, air filtration of office building, waste water treatment from a municipal sewage plant, etc.):

Carbon used to filter vapor at chlorinated solvent soil vapor extraction systems. Sites include SD052 (Building 774 and 776, Building 785 and 786) where there are two systems that recover vapor degassing from the groundwater table.

2. Treatment System:
   a. Total Carbon by volume or weight: 4,400 lbs (22-55 gal drums)
   b. No. of Filters:_____ c. Flow Rate:_____( )GPM( )CFM
   d. Service Duration between carbon changeouts:
      _____Number of Months
      _____Days used per month
      _____Hours used per day
   e. Anticipated Spent Carbon Quantity Generated:
      _____Volume or Pounds (dry) per _____(wk, mo, yr)
      circle one circle one

3. Type of Carbon: a. U.S. Mesh Size: _____
   b. Liquid or Vapor:_____
4. Shipping Container Type: 55 gallon metal drums
5. Spent Carbon Color: black
6. Foreign Material Present (rocks, dirt, etc.) ( )YES ( )NO
   If yes, describe:_____
7. A chemical analysis of the influent stream or spent carbon must be provided. Please attach. Please list organic contaminants and concentrations in ( ) Influent Stream, or (X)on spent carbon below. SEE attached results in J45382-1
   Chemical Component Concentration(ppm/ppb)

8. Does the Influent Stream (X) or Spent Carbon (X)Contain:

Metals	_____YES__X__NO	PCB's	_____YES__X__NO
Radioactives	_____YES__X__NO	Dioxins	_____YES__X__NO

If any item above is "yes"' attach analysis and describe:

D. **Spent Carbon Hazardous Characterization**

Questions 1a, 2a, & 3, must be answered. If the answer to part (a)is "no" you need not complete the rest of that particular question.

1A. Is the spent carbon a Hazardous Waste as defined by U.S. EPA regulations under the Resource Conservation and Recovery Act(RCRA) as set fourth in 40 CFR, Part 261?
_____YES__X__NO

1B. If "yes", list U.S. EPA Hazardous Waste Code(s):

2A. Is the spent carbon a Hazardous Waste as defined by your State's regulations?_____YES_X_NO

2B. If "yes", list Generator State's waste code(s):

3. Generator's State Agency Information:
Agency Name: New York State Department of Environmental Conservation
Agency Address:____

E. Spent Carbon Handling Instructions

1. Required personal protection equipment or special handling instructions?
None

2. Do you have MSDS(s) for all contaminants in influent stream or on spent carbon?
_____YES X NO Please attach to original copy of this form.

spent carbon sampling results provided

Call "Profile Form Assistance" at **800-777-4044** with any questions.

Mail Signed Original to:
Cameron Great Lakes
2335 NW 29TH Ave.
Portland, OR 97210

This form and lab analyses (without MSDS's) may be faxed to
503-225-0137
to expedite the approval process.

ANALYTICAL REPORT

Job Number: 280-45380-1

Job Description: Griffiss AFB 1015-11-01 SVI

For:
FPM Remediations Inc
584 Phoenix Drive
Rome, NY 13441

Attention: Daniel Baldyga

Approved for release.
Elaine M Walker
Project Manager I
8/29/2013 11:30 AM

Elaine M Walker, Project Manager I
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0156
elaine.walker@testamericainc.com
08/29/2013

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

Table of Contents

Cover Title Page 1
Data Summaries 5
Report Narrative 5
Manual Integration Summary 6
Sample Summary 8
Executive Summary 9
Method Summary 10
Method / Analyst Summary 11
Sample Datasheets 12
Surrogate Summary 22
QC Data Summary 24
Data Qualifiers 33
QC Association Summary 34
Lab Chronicle 35
Reagent Traceability 37
Certification Summary 49
Organic Sample Data 50
GC/MS VOA 50
Method 8260B DOD 50
Method 8260B DOD QC Summary 51
Method 8260B DOD Sample Data 61
Standards Data 84
Method 8260B DOD ICAL Data 84
Method 8260B DOD CCAL Data 145
Raw QC Data 167
Method 8260B DOD Tune Data 167

Table of Contents

Method 8260B DOD Blank Data 173

Method 8260B DOD LCS/LCSD Data 182

Method 8260B DOD Run Logs 196

Method 8260B 198

Method 8260B QC Summary 199

Method 8260B Sample Data 205

Standards Data 211

Method 8260B ICAL Data 211

Method 8260B CCAL Data 274

Raw QC Data 294

Method 8260B Tune Data 294

Method 8260B Blank Data 300

Method 8260B LCS/LCSD Data 306

Method 8260B Run Logs 311

Method 8260B Prep Data 325

Inorganic Sample Data 326

General Chemistry Data 326

Gen Chem Cover Page 327

Gen Chem Sample Data 328

Gen Chem QC Data 330

Gen Chem Duplicates 330

Gen Chem MDL 331

Gen Chem Analysis Run Log 332

Gen Chem Raw Data 333

Shipping and Receiving Documents 335

Client Chain of Custody 336

Table of Contents

Sample Receipt Checklist 337

CASE NARRATIVE
Client: FPM Remediations Inc
Project: Griffiss AFB 1015-11-01 SVI
Report Number: 280-45380-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
Five samples were received on 08/12/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 4.6ºC.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples 774776CARBON080813 (280-45380-3) and 785786CARBON080813 (280-45380-4) were analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 08/16/2013 and analyzed on 08/22/2013.

The following samples were received with headspace in the sample vials: 774776CARBON080813 (280-45380-3) and 785786CARBON080813 (280-45380-4).

No other difficulties were encountered during the TCLP volatiles analyses.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples 774776WATER080813 (280-45380-1), 785786WATER080813 (280-45380-2), and 080813AB (280-45380-5) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/19/2013.

Methylene Chloride was detected in method blank MB 280-187741/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. However, because the result concentration was less than ½ the reporting limit, no corrective action was necessary.

No other difficulties were encountered during the VOC analyses.

All other quality control parameters were within the acceptance limits.

IGNITABILITY
Samples 774776CARBON080813 (280-45380-3) and 785786CARBON080813 (280-45380-4) were analyzed for Ignitability in accordance with EPA SW-846 Method 7.1.2. The samples were analyzed on 08/28/2013.

No difficulties were encountered during the ignitability analyses.

All quality control parameters were within the acceptance limits.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Instrument ID: VMS_MS1 Analysis Batch Number: 187554

Lab Sample ID: STD02 280-187554/17 IC Client Sample ID:

Date Analyzed: 08/16/13 16:17 Lab File ID: MS6055.D GC Column: DB-624 (60.25) ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION REASON	ANALYST	DATE
Ethanol	5.69	Split Peak	wickhamt	08/20/13 07:44

Lab Sample ID: STD05 280-187554/18 IC Client Sample ID:

Date Analyzed: 08/16/13 16:38 Lab File ID: MS6056.D GC Column: DB-624 (60.25) ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION REASON	ANALYST	DATE
Ethanol	5.70	Split Peak	wickhamt	08/20/13 07:45

Lab Sample ID: ICIS 280-187554/19 Client Sample ID:

Date Analyzed: 08/16/13 16:59 Lab File ID: MS6057.D GC Column: DB-624 (60.25) ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION REASON	ANALYST	DATE
Ethanol	5.71	Split Peak	wickhamt	08/20/13 07:42

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Instrument ID: VMS_R1 Analysis Batch Number: 187446

Lab Sample ID: STD10 280-187446/10 IC Client Sample ID:

Date Analyzed: 08/16/13 20:40 Lab File ID: R7552.D GC Column: DB-624 (60.25) ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION REASON	ANALYST	DATE
2-Methyl-2-propanol	5.64	Wrong peak	moanm	08/16/13 21:02

SAMPLE SUMMARY

Client: FPM Remediations Inc

Job Number: 280-45380-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-45380-1	774776WATER080813	Water	08/08/2013 1005	08/12/2013 0900
280-45380-2	785786WATER080813	Water	08/08/2013 1101	08/12/2013 0900
280-45380-3	774776CARBON080813	Solid	08/08/2013 1035	08/12/2013 0900
280-45380-4	785786CARBON080813	Solid	08/08/2013 1131	08/12/2013 0900
280-45380-5TB	080813AB	Water	08/08/2013 0825	08/12/2013 0900

EXECUTIVE SUMMARY - Detections

Client: FPM Remediations Inc

Job Number: 280-45380-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-45380-1	**774776WATER080813**					
Acetone		3.9	J	10	ug/L	8260C
280-45380-2	**785786WATER080813**					
Trichloroethene		0.37	J	1.0	ug/L	8260C
280-45380-3	**774776CARBON080813**					
Ignitability		No			No Unit	7.1.2
280-45380-4	**785786CARBON080813**					
Ignitability		No			No Unit	7.1.2

METHOD SUMMARY

Client: FPM Remediations Inc

Job Number: 280-45380-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
TCLP Extraction	TAL DEN		SW846 1311
Purge and Trap	TAL DEN		SW846 5030B
Ignitablity,Solids	TAL DEN	SW846 7.1.2	
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260C	
Purge and Trap	TAL DEN		SW846 5030B

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: FPM Remediations Inc

Job Number: 280-45380-1

Method	Analyst	Analyst ID
SW846 8260B	Berger, Brent B	BBB
SW846 8260C	Moan, Matthew R	MRM
SW846 7.1.2	Bandy, Darlene F	DFB

Client: FPM Remediations Inc Job Number: 280-45380-1

Client Sample ID: **774776CARBON080813**

Lab Sample ID: 280-45380-3 Date Sampled: 08/08/2013 1035
Client Matrix: Solid Date Received: 08/12/2013 0900

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	280-188217	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS6260.D
Dilution:	1.0	Leach Batch:	280-187564	Initial Weight/Volume:	2 mL
Analysis Date:	08/22/2013 0429			Final Weight/Volume:	20 mL
Prep Date:	08/22/2013 0429				
Leach Date:	08/16/2013 1124				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	DL	LOQ
Benzene		2.0	U	1.6	10
2-Butanone (MEK)		32	U	18	100
Carbon tetrachloride		4.0	U	1.9	10
Chlorobenzene		2.0	U	1.7	10
Chloroform		2.0	U	1.6	10
1,2-Dichloroethane		4.0	U	1.3	10
1,1-Dichloroethene		4.0	U	2.3	10
Tetrachloroethene		4.0	U	2.0	10
Trichloroethene		2.0	U	1.6	10
Vinyl chloride		8.0	U	1.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		64 - 129
Toluene-d8 (Surr)	105		78 - 120
4-Bromofluorobenzene (Surr)	94		78 - 121
Dibromofluoromethane (Surr)	98		79 - 119

Client: FPM Remediations Inc Job Number: 280-45380-1

Client Sample ID: **785786CARBON080813**

Lab Sample ID: 280-45380-4 Date Sampled: 08/08/2013 1131
Client Matrix: Solid Date Received: 08/12/2013 0900

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	280-188217	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS6261.D
Dilution:	1.0	Leach Batch:	280-187564	Initial Weight/Volume:	2 mL
Analysis Date:	08/22/2013 0450			Final Weight/Volume:	20 mL
Prep Date:	08/22/2013 0450				
Leach Date:	08/16/2013 1124				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	DL	LOQ
Benzene		2.0	U	1.6	10
2-Butanone (MEK)		32	U	18	100
Carbon tetrachloride		4.0	U	1.9	10
Chlorobenzene		2.0	U	1.7	10
Chloroform		2.0	U	1.6	10
1,2-Dichloroethane		4.0	U	1.3	10
1,1-Dichloroethene		4.0	U	2.3	10
Tetrachloroethene		4.0	U	2.0	10
Trichloroethene		2.0	U	1.6	10
Vinyl chloride		8.0	U	1.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83		64 - 129
Toluene-d8 (Surr)	93		78 - 120
4-Bromofluorobenzene (Surr)	85		78 - 121
Dibromofluoromethane (Surr)	91		79 - 119

Client: FPM Remediations Inc Job Number: 280-45380-1

Client Sample ID: **774776WATER080813**

Lab Sample ID: 280-45380-1 Date Sampled: 08/08/2013 1005
Client Matrix: Water Date Received: 08/12/2013 0900

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R7592.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1837			Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1837				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.40	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	0.79	3.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1-Dichloroethane	0.40	U	0.16	1.0
1,1-Dichloroethene	0.40	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.40	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	80	U	71	220
1-Chlorohexane	0.20	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Chlorotoluene	0.40	U	0.17	1.0
4-Isopropyltoluene	0.40	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	3.9	J	1.9	10
Benzene	0.20	U	0.16	1.0
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon disulfide	0.80	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.40	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.20	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.20	U	0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Cyclohexane	0.40	U	0.28	2.0
Dibromomethane	0.40	U	0.17	1.0

Client: FPM Remediations Inc Job Number: 280-45380-1

Client Sample ID: **774776WATER080813**

Lab Sample ID: 280-45380-1 Date Sampled: 08/08/2013 1005
Client Matrix: Water Date Received: 08/12/2013 0900

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R7592.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1837			Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1837				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.40	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	2.0	U	1.6	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
Methylcyclohexane	0.40	U	0.36	2.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.20	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.20	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.40	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 120
4-Bromofluorobenzene (Surr)	101		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Toluene-d8 (Surr)	102		85 - 120

Client: FPM Remediations Inc Job Number: 280-45380-1

Client Sample ID: **785786WATER080813**

Lab Sample ID: 280-45380-2 Date Sampled: 08/08/2013 1101
Client Matrix: Water Date Received: 08/12/2013 0900

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R7593.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1859			Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1859				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.40	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	0.79	3.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1-Dichloroethane	0.40	U	0.16	1.0
1,1-Dichloroethene	0.40	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.40	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	80	U	71	220
1-Chlorohexane	0.20	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Chlorotoluene	0.40	U	0.17	1.0
4-Isopropyltoluene	0.40	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.20	U	0.16	1.0
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon disulfide	0.80	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.40	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.20	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.20	U	0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Cyclohexane	0.40	U	0.28	2.0
Dibromomethane	0.40	U	0.17	1.0

Client: FPM Remediations Inc Job Number: 280-45380-1

Client Sample ID: **785786WATER080813**

Lab Sample ID: 280-45380-2 Date Sampled: 08/08/2013 1101
Client Matrix: Water Date Received: 08/12/2013 0900

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R7593.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1859			Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1859				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.40	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	2.0	U	1.6	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
Methylcyclohexane	0.40	U	0.36	2.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.20	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.37	J	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.40	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 120
4-Bromofluorobenzene (Surr)	102		75 - 120
Dibromofluoromethane (Surr)	104		85 - 115
Toluene-d8 (Surr)	104		85 - 120

Client: FPM Remediations Inc Job Number: 280-45380-1

Client Sample ID: **080813AB**

Lab Sample ID: 280-45380-5TB Date Sampled: 08/08/2013 0825
Client Matrix: Water Date Received: 08/12/2013 0900

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R7594.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1920			Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1920				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.40	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	0.79	3.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1-Dichloroethane	0.40	U	0.16	1.0
1,1-Dichloroethene	0.40	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.40	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	80	U	71	220
1-Chlorohexane	0.20	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Chlorotoluene	0.40	U	0.17	1.0
4-Isopropyltoluene	0.40	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.20	U	0.16	1.0
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon disulfide	0.80	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.40	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.20	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.20	U	0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Cyclohexane	0.40	U	0.28	2.0
Dibromomethane	0.40	U	0.17	1.0

Client: FPM Remediations Inc Job Number: 280-45380-1

Client Sample ID: **080813AB**

Lab Sample ID: 280-45380-5TB Date Sampled: 08/08/2013 0825
Client Matrix: Water Date Received: 08/12/2013 0900

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R7594.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1920			Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1920				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.40	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	2.0	U	1.6	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
Methylcyclohexane	0.40	U	0.36	2.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.20	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.20	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.40	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 120
4-Bromofluorobenzene (Surr)	102		75 - 120
Dibromofluoromethane (Surr)	102		85 - 115
Toluene-d8 (Surr)	101		85 - 120

Client: FPM Remediations Inc Job Number: 280-45380-1

General Chemistry

Client Sample ID: **774776CARBON080813**

Lab Sample ID: 280-45380-3 Date Sampled: 08/08/2013 1035
Client Matrix: Solid Date Received: 08/12/2013 0900

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Ignitability	No		No Unit			1.0	7.1.2

Analysis Batch: 280-189239 Analysis Date: 08/28/2013 1300 DryWt Corrected: N

Client: FPM Remediations Inc Job Number: 280-45380-1

General Chemistry

Client Sample ID: **785786CARBON080813**

Lab Sample ID: 280-45380-4 Date Sampled: 08/08/2013 1131
Client Matrix: Solid Date Received: 08/12/2013 0900

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Ignitability	No		No Unit			1.0	7.1.2

Analysis Batch: 280-189239 Analysis Date: 08/28/2013 1300 DryWt Corrected: N

Client: FPM Remediations Inc

Job Number: 280-45380-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-45380-3	774776CARBON080813	98	89	105	94
280-45380-4	785786CARBON080813	91	83	93	85
LB 280-187564/1-A		102	98	94	93
LCS 280-187564/2-A		101	102	90	91

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	79-119
DCA = 1,2-Dichloroethane-d4 (Surr)	64-129
TOL = Toluene-d8 (Surr)	78-120
BFB = 4-Bromofluorobenzene (Surr)	78-121

Client: FPM Remediations Inc

Job Number: 280-45380-1

Surrogate Recovery Report

8260C Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-45380-1	774776WATER080813	101	98	102	101
280-45380-2	785786WATER080813	104	101	104	102
280-45380-5	080813AB	102	98	101	102
MB 280-187741/5		104	101	100	105
LCS 280-187741/4		104	97	104	103
LCSD 280-187741/15		104	102	104	101

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	85-115
DCA = 1,2-Dichloroethane-d4 (Surr)	70-120
TOL = Toluene-d8 (Surr)	85-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Client: FPM Remediations Inc

Job Number: 280-45380-1

TCLP SPLPE Leachate Blank - Batch: 280-188217

Method: 8260B
Preparation: 5030B
TCLP

Lab Sample ID:	LB 280-187564/1-A	Analysis Batch:	280-188217	Instrument ID:	VMS_MS1
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	MS6247.D
Dilution:	1.0	Leach Batch:	280-187564	Initial Weight/Volume:	2 mL
Analysis Date:	08/21/2013 2357	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	08/21/2013 2357				
Leach Date:	08/16/2013 1124				

Analyte	Result	Qual	DL	LOQ
Benzene	2.0	U	1.6	10
2-Butanone (MEK)	32	U	18	100
Carbon tetrachloride	4.0	U	1.9	10
Chlorobenzene	2.0	U	1.7	10
Chloroform	2.0	U	1.6	10
1,2-Dichloroethane	4.0	U	1.3	10
1,1-Dichloroethene	4.0	U	2.3	10
Tetrachloroethene	4.0	U	2.0	10
Trichloroethene	2.0	U	1.6	10
Vinyl chloride	8.0	U	1.0	10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	64 - 129
Toluene-d8 (Surr)	94	78 - 120
4-Bromofluorobenzene (Surr)	93	78 - 121
Dibromofluoromethane (Surr)	102	79 - 119

Client: FPM Remediations Inc

Job Number: 280-45380-1

Lab Control Sample - Batch: 280-188217

Method: 8260B
Preparation: 5030B
TCLP

Lab Sample ID:	LCS 280-187564/2-A	Analysis Batch:	280-188217	Instrument ID:	VMS_MS1
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	MS6246.D
Dilution:	1.0	Leach Batch:	280-187564	Initial Weight/Volume:	2 mL
Analysis Date:	08/21/2013 2336	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	08/21/2013 2336				
Leach Date:	08/16/2013 1124				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	50.0	46.2	92	74 - 135	
2-Butanone (MEK)	200	203	102	44 - 150	
Carbon tetrachloride	50.0	50.1	100	67 - 135	
Chlorobenzene	50.0	42.6	85	76 - 135	
Chloroform	50.0	46.7	93	76 - 120	
1,2-Dichloroethane	50.0	47.6	95	70 - 135	
1,1-Dichloroethene	50.0	45.4	91	71 - 136	
Tetrachloroethene	50.0	45.0	90	70 - 135	
Trichloroethene	50.0	46.0	92	73 - 135	
Vinyl chloride	50.0	52.7	105	40 - 144	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	64 - 129
Toluene-d8 (Surr)	90	78 - 120
4-Bromofluorobenzene (Surr)	91	78 - 121
Dibromofluoromethane (Surr)	101	79 - 119

Client: FPM Remediations Inc

Job Number: 280-45380-1

Method Blank - Batch: 280-187741

Method: 8260C
Preparation: 5030B

Lab Sample ID:	MB 280-187741/5	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R7576.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1238	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1238				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.40	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	0.79	3.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1-Dichloroethane	0.40	U	0.16	1.0
1,1-Dichloroethene	0.40	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.40	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	80	U	71	220
1-Chlorohexane	0.20	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Chlorotoluene	0.40	U	0.17	1.0
4-Isopropyltoluene	0.40	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.20	U	0.16	1.0
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon disulfide	0.80	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.40	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.20	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.20	U	0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Cyclohexane	0.40	U	0.28	2.0

Client: FPM Remediations Inc

Job Number: 280-45380-1

Method Blank - Batch: 280-187741

Method: 8260C
Preparation: 5030B

Lab Sample ID:	MB 280-187741/5	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R7576.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1238	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1238				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Dibromomethane	0.40	U	0.17	1.0
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.40	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	2.0	U	1.6	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
Methylcyclohexane	0.40	U	0.36	2.0
Methylene Chloride	0.787	J	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.20	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.20	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.40	U	0.10	1.5

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101	70 - 120
4-Bromofluorobenzene (Surr)	105	75 - 120
Dibromofluoromethane (Surr)	104	85 - 115
Toluene-d8 (Surr)	100	85 - 120

Client: FPM Remediations Inc

Job Number: 280-45380-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-187741

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-187741/4	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R7575.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1217	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1217				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-187741/15	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R7584.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1547	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1547				
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	95	90	80 - 130	6	30		
1,1,1-Trichloroethane	99	96	65 - 130	3	30		
1,1,2,2-Tetrachloroethane	92	90	65 - 130	2	30		
1,1,2-Trichloroethane	94	88	75 - 125	6	30		
1,1-Dichloroethane	98	95	70 - 135	2	30		
1,1-Dichloroethene	78	79	70 - 130	1	30		
1,1-Dichloropropene	105	105	75 - 130	1	30		
1,2,3-Trichlorobenzene	94	90	55 - 140	5	30		
1,2,3-Trichloropropane	94	89	75 - 125	6	30		
1,2,4-Trichlorobenzene	94	91	65 - 135	3	30		
1,2,4-Trimethylbenzene	99	95	75 - 130	4	30		
1,2-Dibromo-3-Chloropropane	84	78	50 - 130	7	30	J	J
1,2-Dichlorobenzene	94	91	70 - 120	4	30		
1,2-Dichloroethane	96	91	70 - 130	5	30		
1,2-Dichloropropane	96	92	75 - 125	4	30		
1,3,5-Trimethylbenzene	99	95	75 - 130	4	30		
1,3-Dichlorobenzene	95	91	75 - 125	4	30		
1,3-Dichloropropane	91	85	75 - 125	7	30		
1,4-Dichlorobenzene	98	95	75 - 125	3	30		
2,2-Dichloropropane	101	99	70 - 135	1	30		
2-Butanone (MEK)	89	98	30 - 150	10	30		
2-Chlorotoluene	99	96	75 - 125	3	30		
2-Hexanone	89	93	55 - 130	4	30		
4-Chlorotoluene	95	94	75 - 130	2	30		
4-Isopropyltoluene	100	97	75 - 130	3	30		
4-Methyl-2-pentanone (MIBK)	92	91	60 - 135	1	30		
Acetone	92	95	40 - 140	3	30		
Benzene	96	94	80 - 120	3	30		
Bromobenzene	96	93	75 - 125	4	30		
Bromoform	84	76	70 - 130	10	30		
Bromomethane	74	76	30 - 145	2	30		
Carbon disulfide	89	88	35 - 160	1	30		
Carbon tetrachloride	102	100	65 - 140	1	30		
Chlorobenzene	96	92	80 - 120	4	30		
Chlorobromomethane	93	90	65 - 130	4	30		
Chlorodibromomethane	94	87	60 - 135	9	30		

Client: FPM Remediations Inc

Job Number: 280-45380-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-187741

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-187741/4	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R7575.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1217	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1217				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-187741/15	Analysis Batch:	280-187741	Instrument ID:	VMS_R1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R7584.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	08/19/2013 1547	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	08/19/2013 1547				
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloroethane	79	80	60 - 135	2	30		
Chloroform	96	94	65 - 135	3	30		
Chloromethane	70	71	40 - 125	1	30		
cis-1,2-Dichloroethene	96	93	70 - 125	3	30		
cis-1,3-Dichloropropene	95	88	70 - 130	7	30		
Dibromomethane	93	86	75 - 125	7	30		
Dichlorobromomethane	93	88	75 - 120	5	30		
Dichlorodifluoromethane	79	79	30 - 155	0	30		
Ethylbenzene	98	95	75 - 125	4	30		
Ethylene Dibromide	96	87	80 - 120	9	30		
Hexachlorobutadiene	100	96	50 - 140	4	30		
Isopropylbenzene	100	98	75 - 125	2	30		
Methyl tert-butyl ether	91	85	65 - 125	6	30	J	J
Methylene Chloride	111	113	55 - 140	1	30		
m-Xylene & p-Xylene	98	94	75 - 130	4	30		
Naphthalene	91	86	55 - 140	6	30		
n-Butylbenzene	101	98	70 - 135	3	30		
N-Propylbenzene	101	97	70 - 130	4	30		
o-Xylene	98	95	80 - 120	4	30		
sec-Butylbenzene	102	99	70 - 125	3	30		
Styrene	102	97	65 - 135	5	30		
tert-Butylbenzene	99	96	70 - 130	3	30		
Tetrachloroethene	99	96	45 - 150	3	30		
Toluene	100	97	75 - 120	3	30		
trans-1,2-Dichloroethene	97	95	60 - 140	2	30		
trans-1,3-Dichloropropene	95	87	55 - 140	9	30		
Trichloroethene	97	95	70 - 125	2	30		
Trichlorofluoromethane	87	90	60 - 145	3	30		
Vinyl chloride	75	76	50 - 145	1	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	102	70 - 120
4-Bromofluorobenzene (Surr)	103	101	75 - 120
Dibromofluoromethane (Surr)	104	104	85 - 115
Toluene-d8 (Surr)	104	104	85 - 120

Client: FPM Remediations Inc

Job Number: 280-45380-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-187741

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-187741/4	Units:	ug/L	LCSD Lab Sample ID:	LCSD 280-187741/15
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	08/19/2013 1217			Analysis Date:	08/19/2013 1547
Prep Date:	08/19/2013 1217			Prep Date:	08/19/2013 1547
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual		LCSD Result/Qual	
1,1,1,2-Tetrachloroethane	5.00	5.00	4.76		4.49	
1,1,1-Trichloroethane	5.00	5.00	4.95		4.82	
1,1,2,2-Tetrachloroethane	5.00	5.00	4.61		4.51	
1,1,2-Trichloroethane	5.00	5.00	4.68		4.42	
1,1-Dichloroethane	5.00	5.00	4.88		4.77	
1,1-Dichloroethene	5.00	5.00	3.89		3.95	
1,1-Dichloropropene	5.00	5.00	5.26		5.23	
1,2,3-Trichlorobenzene	5.00	5.00	4.72		4.50	
1,2,3-Trichloropropane	5.00	5.00	4.72		4.44	
1,2,4-Trichlorobenzene	5.00	5.00	4.70		4.57	
1,2,4-Trimethylbenzene	5.00	5.00	4.93		4.76	
1,2-Dibromo-3-Chloropropane	5.00	5.00	4.22	J	3.91	J
1,2-Dichlorobenzene	5.00	5.00	4.71		4.55	
1,2-Dichloroethane	5.00	5.00	4.78		4.55	
1,2-Dichloropropane	5.00	5.00	4.79		4.60	
1,3,5-Trimethylbenzene	5.00	5.00	4.97		4.77	
1,3-Dichlorobenzene	5.00	5.00	4.76		4.57	
1,3-Dichloropropane	5.00	5.00	4.54		4.23	
1,4-Dichlorobenzene	5.00	5.00	4.88		4.73	
2,2-Dichloropropane	5.00	5.00	5.03		4.96	
2-Butanone (MEK)	20.0	20.0	17.8		19.6	
2-Chlorotoluene	5.00	5.00	4.97		4.81	
2-Hexanone	20.0	20.0	17.9		18.6	
4-Chlorotoluene	5.00	5.00	4.77		4.69	
4-Isopropyltoluene	5.00	5.00	5.01		4.85	
4-Methyl-2-pentanone (MIBK)	20.0	20.0	18.3		18.2	
Acetone	20.0	20.0	18.3		19.0	
Benzene	5.00	5.00	4.82		4.68	
Bromobenzene	5.00	5.00	4.82		4.65	
Bromoform	5.00	5.00	4.20		3.80	
Bromomethane	5.00	5.00	3.71		3.78	
Carbon disulfide	5.00	5.00	4.46		4.41	
Carbon tetrachloride	5.00	5.00	5.09		5.01	
Chlorobenzene	5.00	5.00	4.78		4.59	
Chlorobromomethane	5.00	5.00	4.67		4.48	
Chlorodibromomethane	5.00	5.00	4.72		4.33	
Chloroethane	5.00	5.00	3.93		4.00	
Chloroform	5.00	5.00	4.82		4.68	
Chloromethane	5.00	5.00	3.52		3.55	

Client: FPM Remediations Inc

Job Number: 280-45380-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-187741

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-187741/4	Units:	ug/L	LCSD Lab Sample ID:	LCSD 280-187741/15
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	08/19/2013 1217			Analysis Date:	08/19/2013 1547
Prep Date:	08/19/2013 1217			Prep Date:	08/19/2013 1547
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
cis-1,2-Dichloroethene	5.00	5.00	4.79	4.64
cis-1,3-Dichloropropene	5.00	5.00	4.74	4.42
Dibromomethane	5.00	5.00	4.64	4.32
Dichlorobromomethane	5.00	5.00	4.63	4.41
Dichlorodifluoromethane	5.00	5.00	3.95	3.97
Ethylbenzene	5.00	5.00	4.92	4.74
Ethylene Dibromide	5.00	5.00	4.78	4.35
Hexachlorobutadiene	5.00	5.00	5.00	4.81
Isopropylbenzene	5.00	5.00	4.98	4.88
Methyl tert-butyl ether	5.00	5.00	4.53 J	4.24 J
Methylene Chloride	5.00	5.00	5.56	5.63
m-Xylene & p-Xylene	5.00	5.00	4.89	4.68
Naphthalene	5.00	5.00	4.57	4.30
n-Butylbenzene	5.00	5.00	5.03	4.90
N-Propylbenzene	5.00	5.00	5.05	4.87
o-Xylene	5.00	5.00	4.92	4.74
sec-Butylbenzene	5.00	5.00	5.11	4.95
Styrene	5.00	5.00	5.08	4.84
tert-Butylbenzene	5.00	5.00	4.93	4.79
Tetrachloroethene	5.00	5.00	4.95	4.79
Toluene	5.00	5.00	5.00	4.84
trans-1,2-Dichloroethene	5.00	5.00	4.85	4.77
trans-1,3-Dichloropropene	5.00	5.00	4.76	4.35
Trichloroethene	5.00	5.00	4.86	4.76
Trichlorofluoromethane	5.00	5.00	4.36	4.50
Vinyl chloride	5.00	5.00	3.74	3.78

Client: FPM Remediations Inc

Job Number: 280-45380-1

Duplicate - Batch: 280-189239

Method: 7.1.2
Preparation: N/A

Lab Sample ID:	280-45380-3	Analysis Batch:	280-189239	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/28/2013 1300	Units:	No Unit	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Ignitability	No	No	NC		

DATA REPORTING QUALIFIERS

Client: FPM Remediations Inc Job Number: 280-45380-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	U	Undetected at the Limit of Detection.

Quality Control Results

Client: FPM Remediations Inc

Job Number: 280-45380-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-187564					
LCS 280-187564/2-A	Lab Control Sample	P	Solid	1311	
LB 280-187564/1-A	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-45380-3	774776CARBON080813	P	Solid	1311	
280-45380-4	785786CARBON080813	P	Solid	1311	
Analysis Batch:280-187741					
LCS 280-187741/4	Lab Control Sample	T	Water	8260C	
LCSD 280-187741/15	Lab Control Sample Duplicate	T	Water	8260C	
MB 280-187741/5	Method Blank	T	Water	8260C	
280-45380-1	774776WATER080813	T	Water	8260C	
280-45380-2	785786WATER080813	T	Water	8260C	
280-45380-5TB	080813AB	T	Water	8260C	
Analysis Batch:280-188217					
LCS 280-187564/2-A	Lab Control Sample	P	Solid	8260B	
LB 280-187564/1-A	TCLP SPLPE Leachate Blank	P	Solid	8260B	
280-45380-3	774776CARBON080813	P	Solid	8260B	
280-45380-4	785786CARBON080813	P	Solid	8260B	

Report Basis
P = TCLP
T = Total

General Chemistry

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Analysis Batch:280-189239					
280-45380-3	774776CARBON080813	T	Solid	7.1.2	
280-45380-3DU	Duplicate	T	Solid	7.1.2	
280-45380-4	785786CARBON080813	T	Solid	7.1.2	

Report Basis
T = Total

Client: FPM Remediations Inc Job Number: 280-45380-1

Laboratory Chronicle

Lab ID: 280-45380-1 **Client ID:** 774776WATER080813

Sample Date/Time: 08/08/2013 10:05 Received Date/Time: 08/12/2013 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-45380-B-1		280-187741		08/19/2013 18:37	1	TAL DEN	MRM
A:8260C	280-45380-B-1		280-187741		08/19/2013 18:37	1	TAL DEN	MRM

Lab ID: 280-45380-2 **Client ID:** 785786WATER080813

Sample Date/Time: 08/08/2013 11:01 Received Date/Time: 08/12/2013 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-45380-C-2		280-187741		08/19/2013 18:59	1	TAL DEN	MRM
A:8260C	280-45380-C-2		280-187741		08/19/2013 18:59	1	TAL DEN	MRM

Lab ID: 280-45380-3 **Client ID:** 774776CARBON080813

Sample Date/Time: 08/08/2013 10:35 Received Date/Time: 08/12/2013 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-45380-A-3-A		280-188217		08/22/2013 04:29	1	TAL DEN	BBB
A:8260B	280-45380-A-3-A		280-188217		08/22/2013 04:29	1	TAL DEN	BBB
A:7.1.2	280-45380-A-3		280-189239		08/28/2013 13:00	1	TAL DEN	DFB

Lab ID: 280-45380-3 DU **Client ID:** 774776CARBON080813

Sample Date/Time: 08/08/2013 10:35 Received Date/Time: 08/12/2013 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7.1.2	280-45380-A-3 DU		280-189239		08/28/2013 13:00	1	TAL DEN	DFB

Lab ID: 280-45380-4 **Client ID:** 785786CARBON080813

Sample Date/Time: 08/08/2013 11:31 Received Date/Time: 08/12/2013 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-45380-A-4-A		280-188217		08/22/2013 04:50	1	TAL DEN	BBB
A:8260B	280-45380-A-4-A		280-188217		08/22/2013 04:50	1	TAL DEN	BBB
A:7.1.2	280-45380-A-4		280-189239		08/28/2013 13:00	1	TAL DEN	DFB

Lab ID: 280-45380-5 **Client ID:** 080813AB

Sample Date/Time: 08/08/2013 08:25 Received Date/Time: 08/12/2013 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-45380-A-5		280-187741		08/19/2013 19:20	1	TAL DEN	MRM
A:8260C	280-45380-A-5		280-187741		08/19/2013 19:20	1	TAL DEN	MRM

Client: FPM Remediations Inc Job Number: 280-45380-1

Laboratory Chronicle

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 280-187741/5		280-187741		08/19/2013 12:38	1	TAL DEN	MRM
A:8260C	MB 280-187741/5		280-187741		08/19/2013 12:38	1	TAL DEN	MRM

Lab ID: LB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LB 280-187564/1-A		280-188217		08/21/2013 23:57	1	TAL DEN	BBB
A:8260B	LB 280-187564/1-A		280-188217		08/21/2013 23:57	1	TAL DEN	BBB

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 280-187564/2-A		280-188217		08/21/2013 23:36	1	TAL DEN	BBB
A:8260B	LCS 280-187564/2-A		280-188217		08/21/2013 23:36	1	TAL DEN	BBB
P:5030B	LCS 280-187741/4		280-187741		08/19/2013 12:17	1	TAL DEN	MRM
A:8260C	LCS 280-187741/4		280-187741		08/19/2013 12:17	1	TAL DEN	MRM

Lab ID: LCSD **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCSD 280-187741/15		280-187741		08/19/2013 15:47	1	TAL DEN	MRM
A:8260C	LCSD 280-187741/15		280-187741		08/19/2013 15:47	1	TAL DEN	MRM

Lab References:
TAL DEN = TestAmerica Denver

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Freon_A_00001	11/29/14	05/29/13	P&T Methanol, Lot DH955	10 mL	MV-568037_00001	400 uL	1,1,1-Trifluoro-2,2-dichloroethane	40 ug/mL
							1,2-Dichloro-1,1,2,2-tetrafluoroethane	40 ug/mL
							1,2-Dichloro-1,1,2-trifluoroethane	40 ug/mL
							2-Chloro-1,1,1-Trifluoroethane	40 ug/mL
							Chlorotrifluoroethene	40 ug/mL
.MV-568037_00001	04/30/16		Restek, Lot A094928		(Purchased Reagent)		1,1,1-Trifluoro-2,2-dichloroethane	1000 ug/mL
							1,2-Dichloro-1,1,2,2-tetrafluoroethane	1000 ug/mL
							1,2-Dichloro-1,1,2-trifluoroethane	1000 ug/mL
							2-Chloro-1,1,1-Trifluoroethane	1000 ug/mL
							Chlorotrifluoroethene	1000 ug/mL
MV-2 Cleve_00014	09/20/13	03/20/13	P&T Methanol, Lot Dh247	10 mL	MV-861206_00019	200 uL	2-Chloroethyl vinyl ether	40 ug/mL
.MV-861206_00019	05/31/14		Supelco, Lot LB85080		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
MV-567649_00001	12/31/17		RESTEK, Lot A092461		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							1,4-Dioxane-d8	5000 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
MV-567649_00004	02/28/18		RESTEK, Lot A093504		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							1,4-Dioxane-d8	5000 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
MV-ARCH SS A_00005	12/14/13	06/14/13	P&T Methanol, Lot 38701	50 mL	MV-567650_00007	5 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MV-567650_00007	02/28/18		Restek, Lot A093505		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-ARCH SS A_00007	01/23/14	07/23/13	P&T Methanol, Lot 38701	100 mL	MV-567650_00005	10 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MV-567650_00005	02/28/18		Restek, Lot A093505		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-Gas/Ket A_00009	09/30/13	07/31/13	P&T Methanol, Lot 38701	10 mL	MV-567642_00011	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567644_00013	400 uL	Acrolein	400 ug/mL
					MV-567644_00014	400 uL	Acrolein	400 ug/mL
					MV-567645_00008	200 uL	Bromomethane	40 ug/mL
							Butadiene	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Dichlorofluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
					MV-567648_00012	400 uL	Cyclohexanone	1600 ug/mL
					MV-567648_00015	400 uL	Cyclohexanone	1600 ug/mL
.MV-567642_00011	12/31/15		RESTEK, Lot A092220		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567644_00013	09/30/13		RESTEK, Lot A095611		(Purchased Reagent)		Acrolein	5000 ug/mL
.MV-567644_00014	09/30/13		RESTEK, Lot A095611		(Purchased Reagent)		Acrolein	5000 ug/mL
.MV-567645_00008	02/28/15		RESTEK, Lot A093341		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.MV-567648_00012	12/31/15		RESTEK, Lot A093361		(Purchased Reagent)		Cyclohexanone	20000 ug/mL
.MV-567648_00015	12/31/15		RESTEK, Lot A093361		(Purchased Reagent)		Cyclohexanone	20000 ug/mL
MV-Gas/Ket B_00004	09/30/13	07/31/13	P&T Methanol, Lot 38707	10 mL	MV-567642.sec_00012	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645.sec_00010	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MV-567642.sec_00012	02/28/16		RESTEK, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645.sec_00010	02/28/15		RESTEK, Lot A093618		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MV-Main A_00003	08/31/13	05/14/13	P&T Methanol, Lot dh755	10 mL	MV-567641_00004	200 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	800 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							2-Methyl-2-propanol	400 ug/mL
							3-Chloro-1-propene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Acrylonitrile	400 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL
							Ethyl ether	40 ug/mL
							Ethyl methacrylate	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexane	40 ug/mL
							Iodomethane	40 ug/mL
							Isobutyl alcohol	1000 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							n-Heptane	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Tetrahydrofuran	80 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							trans-1,4-Dichloro-2-butene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-567646_00003	200 uL	Vinyl acetate	80 ug/mL
					MV-568034_00001	400 uL	1-Chlorohexane	40 ug/mL
							2-Pentanone	160 ug/mL
							sec-Butyl Alcohol	1200 ug/mL
.MV-567641_00004	02/29/16		RESTEK, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-567646_00003	08/31/13		RESTEK, Lot A093363		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
.MV-568034_00001	05/14/14		RESTEK, Lot A094874		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main A_00007	11/30/13	08/15/13	P&T Methanol, Lot 38701	10 mL	MV-567641_00008	200 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	800 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							2-Methyl-2-propanol	400 ug/mL
							3-Chloro-1-propene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Acrylonitrile	400 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL
							Ethyl ether	40 ug/mL
							Ethyl methacrylate	40 ug/mL
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexane	40 ug/mL
							Iodomethane	40 ug/mL
							Isobutyl alcohol	1000 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Tetrahydrofuran	80 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							trans-1,4-Dichloro-2-butene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-567646.sec_00005	200 uL	Vinyl acetate	80 ug/mL
					MV-568034_00003	400 uL	1-Chlorohexane	40 ug/mL
							2-Pentanone	160 ug/mL
							sec-Butyl Alcohol	1200 ug/mL
.MV-567641_00008	12/31/15		RESTEK, Lot A092262		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-567646.sec_00005	11/30/13		RESTEK, Lot A096669		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
.MV-568034_00003	05/14/14		RESTEK, Lot A094874		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main B_00001	08/31/13	05/14/13	P&T Methanol, Lot dh755	10 mL	MV-567641.sec_00001	200 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	800 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-568034.sec_00001	400 uL	1-Chlorohexane	40 ug/mL
.MV-567641.sec_00001	02/29/16		RESTEK, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-568034.sec_00001	05/14/14	RESTEK, Lot A094981.sec			(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
MV-Supp A_00004	11/15/13	05/15/13	P&T Methanol, Lot dh755	10 mL	MV-567647_00003	200 uL	1,2,3-Trimethylbenzene	40 ug/mL
							1,3,5-Trichlorobenzene	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloro-1,3-butadiene	40 ug/mL
							2-Nitropropane	80 ug/mL
							Acetonitrile	400 ug/mL
							Ethanol	2000 ug/mL
							Ethyl acetate	80 ug/mL
							Isopropyl alcohol	400 ug/mL
							Isopropyl ether	40 ug/mL
							Methacrylonitrile	400 ug/mL
							Methyl methacrylate	80 ug/mL
							n-Butanol	1000 ug/mL
							Propionitrile	400 ug/mL
							Tert-amyl methyl ether	40 ug/mL
							Tert-butyl ethyl ether	40 ug/mL
					MV-568035_00001	400 uL	Ethylene oxide	8000 ug/mL
							Propene oxide	2000 ug/mL
					MV-568035_00002	400 uL	Ethylene oxide	8000 ug/mL
							Propene oxide	2000 ug/mL
					MV-568036_00001	400 uL	cis-1,4-Dichloro-2-butene	40 ug/mL
							Tetrahydrothiophene	40 ug/mL
.MV-567647_00003	08/30/14		RESTEK, Lot A093634		(Purchased Reagent)		1,2,3-Trimethylbenzene	2000 ug/mL
							1,3,5-Trichlorobenzene	2000 ug/mL
							2-Chloro-1,3-butadiene	2000 ug/mL
							2-Nitropropane	4000 ug/mL
							Acetonitrile	20000 ug/mL
							Ethanol	100000 ug/mL
							Ethyl acetate	4000 ug/mL
							Isopropyl alcohol	20000 ug/mL
							Isopropyl ether	2000 ug/mL
							Methacrylonitrile	20000 ug/mL
							Methyl methacrylate	4000 ug/mL
							n-Butanol	50000 ug/mL
							Propionitrile	20000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
							Tert-butyl ethyl ether	2000 ug/mL
.MV-568035_00001	04/30/14		RESTEK, Lot A094880		(Purchased Reagent)		Ethylene oxide	100000 ug/mL
							Propene oxide	25000 ug/mL
.MV-568035_00002	04/30/14		RESTEK, Lot A094880		(Purchased Reagent)		Ethylene oxide	100000 ug/mL
							Propene oxide	25000 ug/mL
.MV-568036_00001	10/31/14		RESTEk, Lot A094886		(Purchased Reagent)		cis-1,4-Dichloro-2-butene	1000 ug/mL
							Tetrahydrothiophene	1000 ug/mL

Certification Summary

Client: FPM Remediations Inc
Project/Site: Griffiss AFB 1015-11-01 SVI

TestAmerica Job ID: 280-45380-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alabama	State Program	4	40730
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	ELAP	9	2513
TestAmerica Denver	Colorado	State Program	8	N/A
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAP	4	E87667
TestAmerica Denver	Idaho	State Program	10	CO00026
TestAmerica Denver	Illinois	NELAP	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAP	7	E-10166
TestAmerica Denver	Louisiana	NELAP	6	02096
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Maryland	State Program	3	268
TestAmerica Denver	Minnesota	NELAP	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAP	1	205310
TestAmerica Denver	New Jersey	NELAP	2	CO004
TestAmerica Denver	New Mexico	State Program	6	CO00026
TestAmerica Denver	New York	NELAP	2	11964
TestAmerica Denver	North Carolina DENR	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAP	10	CO200001
TestAmerica Denver	Pennsylvania	NELAP	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002
TestAmerica Denver	Texas	NELAP	6	T104704183-08-TX
TestAmerica Denver	USDA	Federal		P330-13-00202
TestAmerica Denver	Utah	NELAP	8	CO000262012-4
TestAmerica Denver	Virginia	NELAP	3	460232
TestAmerica Denver	Washington	State Program	10	C583
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B DOD

Volatile Organic Compounds (GC/MS) by Method 8260B/DOD

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 (60.2 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
774776WATER080813	280-45380-1	101	98	102	101
785786WATER080813	280-45380-2	104	101	104	102
080813AB	280-45380-5	102	98	101	102
	MB 280-187741/5	104	101	100	105
	LCS 280-187741/4	104	97	104	103
	LCSD 280-187741/15	104	102	104	101

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	85-115
DCA = 1,2-Dichloroethane-d4 (Surr)	70-120
TOL = Toluene-d8 (Surr)	85-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R7575.D

Lab ID: LCS 280-187741/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.76	95	80-130	
1,1,1-Trichloroethane	5.00	4.95	99	65-130	
1,1,2,2-Tetrachloroethane	5.00	4.61	92	65-130	
1,1,2-Trichloroethane	5.00	4.68	94	75-125	
1,1-Dichloroethane	5.00	4.88	98	70-135	
1,1-Dichloroethene	5.00	3.89	78	70-130	
1,1-Dichloropropene	5.00	5.26	105	75-130	
1,2,3-Trichlorobenzene	5.00	4.72	94	55-140	
1,2,3-Trichloropropane	5.00	4.72	94	75-125	
1,2,4-Trichlorobenzene	5.00	4.70	94	65-135	
1,2,4-Trimethylbenzene	5.00	4.93	99	75-130	
1,2-Dibromo-3-Chloropropane	5.00	4.22 J	84	50-130	
1,2-Dichlorobenzene	5.00	4.71	94	70-120	
1,2-Dichloroethane	5.00	4.78	96	70-130	
1,2-Dichloropropane	5.00	4.79	96	75-125	
1,3,5-Trimethylbenzene	5.00	4.97	99	75-130	
1,3-Dichlorobenzene	5.00	4.76	95	75-125	
1,3-Dichloropropane	5.00	4.54	91	75-125	
1,4-Dichlorobenzene	5.00	4.88	98	75-125	
2,2-Dichloropropane	5.00	5.03	101	70-135	
2-Butanone (MEK)	20.0	17.8	89	30-150	
2-Chlorotoluene	5.00	4.97	99	75-125	
2-Hexanone	20.0	17.9	89	55-130	
4-Chlorotoluene	5.00	4.77	95	75-130	
4-Isopropyltoluene	5.00	5.01	100	75-130	
4-Methyl-2-pentanone (MIBK)	20.0	18.3	92	60-135	
Acetone	20.0	18.3	92	40-140	
Benzene	5.00	4.82	96	80-120	
Bromobenzene	5.00	4.82	96	75-125	
Bromoform	5.00	4.20	84	70-130	
Bromomethane	5.00	3.71	74	30-145	
Carbon disulfide	5.00	4.46	89	35-160	
Carbon tetrachloride	5.00	5.09	102	65-140	
Chlorobenzene	5.00	4.78	96	80-120	
Chlorobromomethane	5.00	4.67	93	65-130	
Chlorodibromomethane	5.00	4.72	94	60-135	
Chloroethane	5.00	3.93	79	60-135	
Chloroform	5.00	4.82	96	65-135	
Chloromethane	5.00	3.52	70	40-125	
cis-1,2-Dichloroethene	5.00	4.79	96	70-125	
cis-1,3-Dichloropropene	5.00	4.74	95	70-130	
Dibromomethane	5.00	4.64	93	75-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R7575.D

Lab ID: LCS 280-187741/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorobromomethane	5.00	4.63	93	75-120	
Dichlorodifluoromethane	5.00	3.95	79	30-155	
Ethylbenzene	5.00	4.92	98	75-125	
Ethylene Dibromide	5.00	4.78	96	80-120	
Hexachlorobutadiene	5.00	5.00	100	50-140	
Isopropylbenzene	5.00	4.98	100	75-125	
Methyl tert-butyl ether	5.00	4.53 J	91	65-125	
Methylene Chloride	5.00	5.56	111	55-140	
m-Xylene & p-Xylene	5.00	4.89	98	75-130	
Naphthalene	5.00	4.57	91	55-140	
n-Butylbenzene	5.00	5.03	101	70-135	
N-Propylbenzene	5.00	5.05	101	70-130	
o-Xylene	5.00	4.92	98	80-120	
sec-Butylbenzene	5.00	5.11	102	70-125	
Styrene	5.00	5.08	102	65-135	
tert-Butylbenzene	5.00	4.93	99	70-130	
Tetrachloroethene	5.00	4.95	99	45-150	
Toluene	5.00	5.00	100	75-120	
trans-1,2-Dichloroethene	5.00	4.85	97	60-140	
trans-1,3-Dichloropropene	5.00	4.76	95	55-140	
Trichloroethene	5.00	4.86	97	70-125	
Trichlorofluoromethane	5.00	4.36	87	60-145	
Vinyl chloride	5.00	3.74	75	50-145	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R7584.D

Lab ID: LCSD 280-187741/15 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.49	90	6	30	80-130	
1,1,1-Trichloroethane	5.00	4.82	96	3	30	65-130	
1,1,2,2-Tetrachloroethane	5.00	4.51	90	2	30	65-130	
1,1,2-Trichloroethane	5.00	4.42	88	6	30	75-125	
1,1-Dichloroethane	5.00	4.77	95	2	30	70-135	
1,1-Dichloroethene	5.00	3.95	79	1	30	70-130	
1,1-Dichloropropene	5.00	5.23	105	1	30	75-130	
1,2,3-Trichlorobenzene	5.00	4.50	90	5	30	55-140	
1,2,3-Trichloropropane	5.00	4.44	89	6	30	75-125	
1,2,4-Trichlorobenzene	5.00	4.57	91	3	30	65-135	
1,2,4-Trimethylbenzene	5.00	4.76	95	4	30	75-130	
1,2-Dibromo-3-Chloropropane	5.00	3.91 J	78	7	30	50-130	
1,2-Dichlorobenzene	5.00	4.55	91	4	30	70-120	
1,2-Dichloroethane	5.00	4.55	91	5	30	70-130	
1,2-Dichloropropane	5.00	4.60	92	4	30	75-125	
1,3,5-Trimethylbenzene	5.00	4.77	95	4	30	75-130	
1,3-Dichlorobenzene	5.00	4.57	91	4	30	75-125	
1,3-Dichloropropane	5.00	4.23	85	7	30	75-125	
1,4-Dichlorobenzene	5.00	4.73	95	3	30	75-125	
2,2-Dichloropropane	5.00	4.96	99	1	30	70-135	
2-Butanone (MEK)	20.0	19.6	98	10	30	30-150	
2-Chlorotoluene	5.00	4.81	96	3	30	75-125	
2-Hexanone	20.0	18.6	93	4	30	55-130	
4-Chlorotoluene	5.00	4.69	94	2	30	75-130	
4-Isopropyltoluene	5.00	4.85	97	3	30	75-130	
4-Methyl-2-pentanone (MIBK)	20.0	18.2	91	1	30	60-135	
Acetone	20.0	19.0	95	3	30	40-140	
Benzene	5.00	4.68	94	3	30	80-120	
Bromobenzene	5.00	4.65	93	4	30	75-125	
Bromoform	5.00	3.80	76	10	30	70-130	
Bromomethane	5.00	3.78	76	2	30	30-145	
Carbon disulfide	5.00	4.41	88	1	30	35-160	
Carbon tetrachloride	5.00	5.01	100	1	30	65-140	
Chlorobenzene	5.00	4.59	92	4	30	80-120	
Chlorobromomethane	5.00	4.48	90	4	30	65-130	
Chlorodibromomethane	5.00	4.33	87	9	30	60-135	
Chloroethane	5.00	4.00	80	2	30	60-135	
Chloroform	5.00	4.68	94	3	30	65-135	
Chloromethane	5.00	3.55	71	1	30	40-125	
cis-1,2-Dichloroethene	5.00	4.64	93	3	30	70-125	
cis-1,3-Dichloropropene	5.00	4.42	88	7	30	70-130	
Dibromomethane	5.00	4.32	86	7	30	75-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R7584.D

Lab ID: LCSD 280-187741/15 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorobromomethane	5.00	4.41	88	5	30	75-120	
Dichlorodifluoromethane	5.00	3.97	79	0	30	30-155	
Ethylbenzene	5.00	4.74	95	4	30	75-125	
Ethylene Dibromide	5.00	4.35	87	9	30	80-120	
Hexachlorobutadiene	5.00	4.81	96	4	30	50-140	
Isopropylbenzene	5.00	4.88	98	2	30	75-125	
Methyl tert-butyl ether	5.00	4.24 J	85	6	30	65-125	
Methylene Chloride	5.00	5.63	113	1	30	55-140	
m-Xylene & p-Xylene	5.00	4.68	94	4	30	75-130	
Naphthalene	5.00	4.30	86	6	30	55-140	
n-Butylbenzene	5.00	4.90	98	3	30	70-135	
N-Propylbenzene	5.00	4.87	97	4	30	70-130	
o-Xylene	5.00	4.74	95	4	30	80-120	
sec-Butylbenzene	5.00	4.95	99	3	30	70-125	
Styrene	5.00	4.84	97	5	30	65-135	
tert-Butylbenzene	5.00	4.79	96	3	30	70-130	
Tetrachloroethene	5.00	4.79	96	3	30	45-150	
Toluene	5.00	4.84	97	3	30	75-120	
trans-1,2-Dichloroethene	5.00	4.77	95	2	30	60-140	
trans-1,3-Dichloropropene	5.00	4.35	87	9	30	55-140	
Trichloroethene	5.00	4.76	95	2	30	70-125	
Trichlorofluoromethane	5.00	4.50	90	3	30	60-145	
Vinyl chloride	5.00	3.78	76	1	30	50-145	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab File ID: R7576.D Lab Sample ID: MB 280-187741/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: VMS_R1 Date Analyzed: 08/19/2013 12:38

GC Column: DB-624 (60.25) ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-187741/4	R7575.D	08/19/2013 12:17
	LCSD 280-187741/15	R7584.D	08/19/2013 15:47
774776WATER080813	280-45380-1	R7592.D	08/19/2013 18:37
785786WATER080813	280-45380-2	R7593.D	08/19/2013 18:59
080813AB	280-45380-5	R7594.D	08/19/2013 19:20

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab File ID: R7546.D BFB Injection Date: 08/16/2013

Instrument ID: VMS_R1 BFB Injection Time: 18:03

Analysis Batch No.: 187446

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.2	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	74.5	
175	5.0 - 9.0 % of mass 174	5.7	(7.6)1
176	95.0 - 101.0 % of mass 174	71.2	(95.5)1
177	5.0 - 9.0 % of mass 176	4.8	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD003 280-187446/6	R7548.D	08/16/2013	19:15
	STD01 280-187446/7	R7549.D	08/16/2013	19:36
	STD02 280-187446/8	R7550.D	08/16/2013	19:57
	STD05 280-187446/9	R7551.D	08/16/2013	20:19
	STD10 280-187446/10	R7552.D	08/16/2013	20:40
	STD30 280-187446/11	R7553.D	08/16/2013	21:01
	STD60 280-187446/12	R7554.D	08/16/2013	21:22
	ICV 280-187446/13	R7556.D	08/16/2013	22:04
	STD01 280-187446/14	R7558.D	08/16/2013	22:46
	STD02 280-187446/15	R7559.D	08/16/2013	23:07
	STD05 280-187446/16	R7560.D	08/16/2013	23:28
	ICIS 280-187446/17	R7561.D	08/16/2013	23:49
	STD30 280-187446/18	R7562.D	08/17/2013	00:10
	STD60 280-187446/19	R7563.D	08/17/2013	00:31
	ICV 280-187446/21	R7565.D	08/17/2013	01:13

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab File ID: R7569.D BFB Injection Date: 08/19/2013

Instrument ID: VMS_R1 BFB Injection Time: 09:51

Analysis Batch No.: 187741

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.2	
75	30.0 - 60.0 % of mass 95	46.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.2	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	74.4	
175	5.0 - 9.0 % of mass 174	4.8	(6.4)1
176	95.0 - 101.0 % of mass 174	71.8	(96.5)1
177	5.0 - 9.0 % of mass 176	5.3	(7.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-187741/2	R7571.D	08/19/2013	10:36
	CCV 280-187741/3	R7574.D	08/19/2013	11:56
	LCS 280-187741/4	R7575.D	08/19/2013	12:17
	MB 280-187741/5	R7576.D	08/19/2013	12:38
	LCSD 280-187741/15	R7584.D	08/19/2013	15:47
774776WATER080813	280-45380-1	R7592.D	08/19/2013	18:37
785786WATER080813	280-45380-2	R7593.D	08/19/2013	18:59
080813AB	280-45380-5	R7594.D	08/19/2013	19:20

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Sample No.: ICIS 280-187446/17 Date Analyzed: 08/16/2013 23:49

Instrument ID: VMS_R1 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): R7561.D Heated Purge: (Y/N) N

Calibration ID: 15151

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		207054	5.59	1523016	7.54	383598	9.81
UPPER LIMIT		414108	6.09	3046032	8.04	767196	10.31
LOWER LIMIT		103527	5.09	761508	7.04	191799	9.31
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-187446/21		196387	5.59	1448092	7.54	367205	9.81
CCV 280-187741/2		205103	5.59	1471116	7.54	377998	9.81
CCV 280-187741/3		244875	5.59	1513419	7.54	382902	9.81
LCS 280-187741/4		224569	5.59	1468554	7.54	376897	9.81
MB 280-187741/5		231827	5.59	1434598	7.54	377439	9.81
LCSD 280-187741/15		220230	5.59	1397940	7.54	360158	9.81
280-45380-1	774776WATER080813	232290	5.59	1417420	7.54	362569	9.81
280-45380-2	785786WATER080813	222524	5.59	1380032	7.54	352952	9.81
280-45380-5	080813AB	205711	5.59	1426567	7.54	374492	9.81

TBA = TBA-d9 (IS)
FB = Fluorobenzene
CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Sample No.: ICIS 280-187446/17 Date Analyzed: 08/16/2013 23:49

Instrument ID: VMS_R1 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): R7561.D Heated Purge: (Y/N) N

Calibration ID: 15151

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		565193	11.63				
UPPER LIMIT		1130386	12.13				
LOWER LIMIT		282597	11.13				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-187446/21		531125	11.63				
CCV 280-187741/2		562047	11.63				
CCV 280-187741/3		570240	11.64				
LCS 280-187741/4		575309	11.63				
MB 280-187741/5		554222	11.64				
LCSD 280-187741/15		548230	11.64				
280-45380-1	774776WATER080813	543231	11.63				
280-45380-2	785786WATER080813	535927	11.63				
280-45380-5	080813AB	543608	11.63				

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: 774776WATER080813 | Lab Sample ID: 280-45380-1

Matrix: Water | Lab File ID: R7592.D

Analysis Method: 8260C | Date Collected: 08/08/2013 10:05

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 18:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.40	U	1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	0.20	U	1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	0.40	U	1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	0.40	U	1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	0.40	U	1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.40	U	1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.20	U	1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	0.20	U	1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	0.40	U	1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	80	U	220	80	71
544-10-5	1-Chlorohexane	0.20	U	1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	3.2	U	6.0	3.2	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	3.2	U	5.0	3.2	1.4
106-43-4	4-Chlorotoluene	0.40	U	1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	3.9	J	10	6.4	1.9
71-43-2	Benzene	0.20	U	1.0	0.20	0.16
108-86-1	Bromobenzene	0.20	U	1.0	0.20	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.40	U	2.0	0.40	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: 774776WATER080813 Lab Sample ID: 280-45380-1

Matrix: Water Lab File ID: R7592.D

Analysis Method: 8260C Date Collected: 08/08/2013 10:05

Sample wt/vol: 20(mL) Date Analyzed: 08/19/2013 18:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187741 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.20	U	1.0	0.20	0.17
74-97-5	Chlorobromomethane	0.40	U	1.0	0.40	0.10
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.20	U	1.0	0.20	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.0	0.20	0.16
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.20	U	1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.20	U	1.0	0.20	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.40	U	1.0	0.40	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	0.40	U	5.0	0.40	0.25
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.40	U	1.0	0.40	0.32
103-65-1	N-Propylbenzene	0.20	U	1.0	0.20	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.20	U	1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.40	U	1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: 774776WATER080813 Lab Sample ID: 280-45380-1

Matrix: Water Lab File ID: R7592.D

Analysis Method: 8260C Date Collected: 08/08/2013 10:05

Sample wt/vol: 20(mL) Date Analyzed: 08/19/2013 18:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187741 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-120
460-00-4	4-Bromofluorobenzene (Surr)	101		75-120
1868-53-7	Dibromofluoromethane (Surr)	101		85-115
2037-26-5	Toluene-d8 (Surr)	102		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7592.D
Lims ID: 280-45380-B-1 Client ID: 774776WATER080813
Inject. Date: 19-Aug-2013 18:37:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 280-45380-B-1 ph<2
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 32
Lims Batch ID: 187741 Lims Sample ID: 23
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 23:19:15 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: thompsonl Date: 19-Aug-2013 22:54:01

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	1	232290	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1417420	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	18800	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	362569	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.638	-0.008	95	543231	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.996	6.996	0.0	58	457612	10.1	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.290	7.282	0.008	88	334162	9.81	
$ 7 Toluene-d8 (Surr)	98	8.737	8.737	0.0	92	2245565	10.2	
$ 8 4-Bromofluorobenzene (Surr)	95	10.671	10.678	-0.007	87	703936	10.1	
23 Dichlorodifluoromethane	85		3.881					
26 Chloromethane	50		4.091					
27 Vinyl chloride	62		4.244					
29 Bromomethane	94		4.594					
30 Chloroethane	64		4.650					
32 Trichlorofluoromethane	101		4.874					
41 Acetone	43	5.308	5.294	0.014	89	21747	3.88	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151		5.308					
43 1,1-Dichloroethene	96		5.336					
45 Methyl acetate	43		5.532					19
48 Carbon disulfide	76		5.602					
50 Methylene Chloride	84		5.686					
51 Methyl tert-butyl ether	73		5.867					
53 trans-1,2-Dichloroethene	96		5.909					
57 1,1-Dichloroethane	63		6.222					
61 2-Butanone (MEK)	43		6.602					
63 cis-1,2-Dichloroethene	96		6.659					
64 2,2-Dichloropropane	77		6.688					
67 Chlorobromomethane	128		6.853					
68 Chloroform	83		6.860					
71 1,1,1-Trichloroethane	97		7.089					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
72 Cyclohexane	56		7.161					
73 1,1-Dichloropropene	75		7.189					
74 Carbon tetrachloride	117		7.225					
76 1,2-Dichloroethane	62		7.340					
77 Benzene	78		7.368					
79 Trichloroethene	95		7.827					
83 1,2-Dichloropropane	63		8.013					
82 Methylcyclohexane	55		8.027					
84 1,4-Dioxane	88		8.070					
85 Dibromomethane	93		8.113					
86 Dichlorobromomethane	83		8.185					
89 cis-1,3-Dichloropropene	75		8.507					
90 4-Methyl-2-pentanone (MIBK)	43		8.565					
91 Toluene	91		8.787					
93 trans-1,3-Dichloropropene	75		8.887					
94 1,1,2-Trichloroethane	97		9.045					
95 2-Hexanone	43		9.159					19
96 1,3-Dichloropropane	76		9.181					
97 Tetrachloroethene	164		9.209					
98 Chlorodibromomethane	129		9.367					
100 Ethylene Dibromide	107		9.496					
101 1-Chlorohexane	91		9.725					
102 Chlorobenzene	112		9.832					19
104 1,1,1,2-Tetrachloroethane	131		9.868					
103 Ethylbenzene	106		9.875					
105 m-Xylene & p-Xylene	106		9.947					
107 o-Xylene	106		10.262					
106 Styrene	104		10.262					
108 Bromoform	173		10.463					
109 Isopropylbenzene	105		10.520					
112 1,1,2,2-Tetrachloroethane	83		10.721					
114 1,2,3-Trichloropropane	110		10.792					
116 Bromobenzene	156		10.842					
115 N-Propylbenzene	120		10.842					
117 1,3,5-Trimethylbenzene	105		10.950					
118 2-Chlorotoluene	126		10.964					
119 4-Chlorotoluene	126		11.043					
120 tert-Butylbenzene	119		11.251					
121 1,2,4-Trimethylbenzene	105		11.279					19
122 sec-Butylbenzene	134		11.423					
123 4-Isopropyltoluene	119		11.516					19
124 1,3-Dichlorobenzene	146		11.587					
126 1,4-Dichlorobenzene	146		11.652					
127 n-Butylbenzene	91		11.881					
128 1,2-Dichlorobenzene	146		12.010					
129 1,2-Dibromo-3-Chloropropane	157		12.748					
130 1,2,4-Trichlorobenzene	180		13.693					
131 Hexachlorobutadiene	225		13.844					
132 Naphthalene	128		14.059					
133 1,2,3-Trichlorobenzene	180		14.374					

QC Flag Legend

Processing Flags
1 - Missing Peaks
9 - Failed A Reference Spectral Test

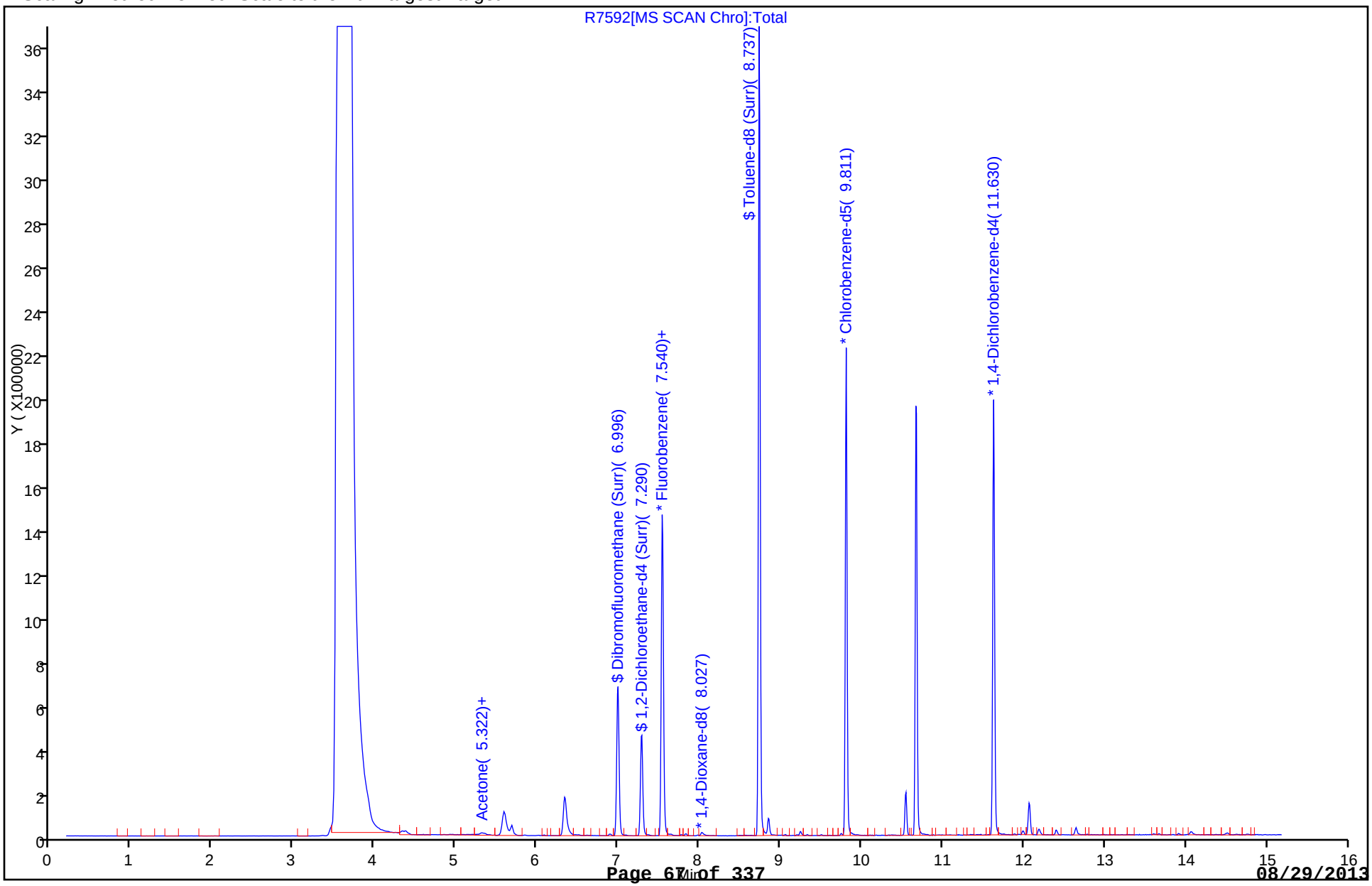
Report Date: 19-Aug-2013 23:19:25 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7592.D

Injection Date:	19-Aug-2013 18:37:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:	774776WATER080813	Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	23
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

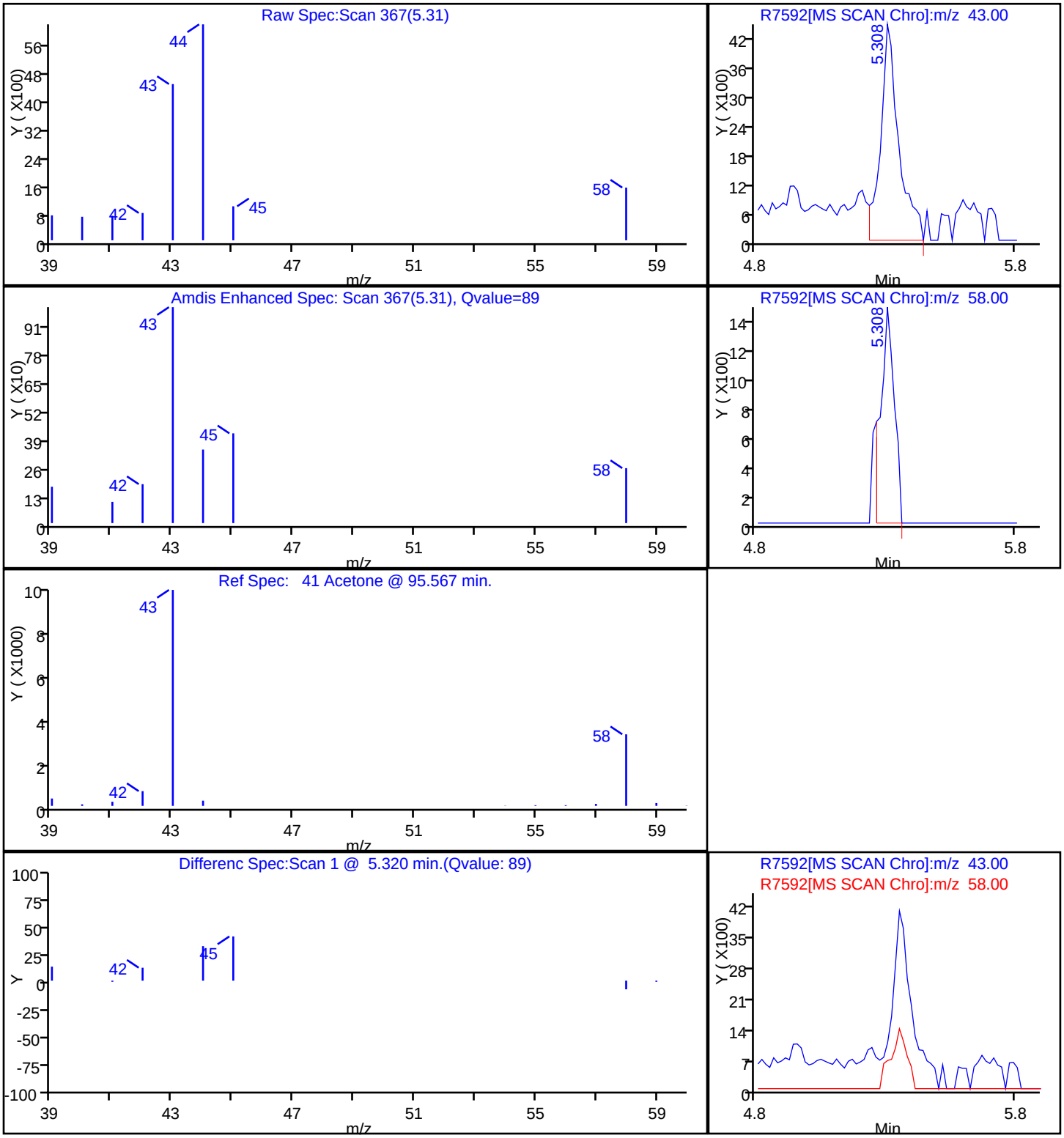


TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7592.D

Injection Date:	19-Aug-2013 18:37:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:	774776WATER080813	Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	23
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

41 Acetone



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: 785786WATER080813 | Lab Sample ID: 280-45380-2

Matrix: Water | Lab File ID: R7593.D

Analysis Method: 8260C | Date Collected: 08/08/2013 11:01

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 18:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.40	U	1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	0.20	U	1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	0.40	U	1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	0.40	U	1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	0.40	U	1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.40	U	1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.20	U	1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	0.20	U	1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	0.40	U	1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	80	U	220	80	71
544-10-5	1-Chlorohexane	0.20	U	1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	3.2	U	6.0	3.2	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	3.2	U	5.0	3.2	1.4
106-43-4	4-Chlorotoluene	0.40	U	1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.20	U	1.0	0.20	0.16
108-86-1	Bromobenzene	0.20	U	1.0	0.20	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.40	U	2.0	0.40	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: 785786WATER080813 | Lab Sample ID: 280-45380-2

Matrix: Water | Lab File ID: R7593.D

Analysis Method: 8260C | Date Collected: 08/08/2013 11:01

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 18:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.20	U	1.0	0.20	0.17
74-97-5	Chlorobromomethane	0.40	U	1.0	0.40	0.10
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.20	U	1.0	0.20	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.0	0.20	0.16
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.20	U	1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.20	U	1.0	0.20	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.40	U	1.0	0.40	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	0.40	U	5.0	0.40	0.25
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.40	U	1.0	0.40	0.32
103-65-1	N-Propylbenzene	0.20	U	1.0	0.20	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.37	J	1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.40	U	1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: 785786WATER080813 Lab Sample ID: 280-45380-2

Matrix: Water Lab File ID: R7593.D

Analysis Method: 8260C Date Collected: 08/08/2013 11:01

Sample wt/vol: 20(mL) Date Analyzed: 08/19/2013 18:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187741 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		70-120
460-00-4	4-Bromofluorobenzene (Surr)	102		75-120
1868-53-7	Dibromofluoromethane (Surr)	104		85-115
2037-26-5	Toluene-d8 (Surr)	104		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7593.D
Lims ID: 280-45380-C-2 Client ID: 785786WATER080813
Inject. Date: 19-Aug-2013 18:59:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 280-45380-C-2 ph<2
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 33
Lims Batch ID: 187741 Lims Sample ID: 24
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 23:19:15 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: thompsonl Date: 19-Aug-2013 23:14:30

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	1	222524	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1380032	12.5	
* 149 1,4-Dioxane-d8	96	8.034	8.027	0.007	1	22543	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	352952	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.638	-0.008	95	535927	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.996	6.996	0.0	58	457155	10.4	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.289	7.282	0.007	89	335158	10.1	
$ 7 Toluene-d8 (Surr)	98	8.736	8.737	-0.001	92	2240419	10.4	
$ 8 4-Bromofluorobenzene (Surr)	95	10.670	10.678	-0.008	86	699156	10.2	
23 Dichlorodifluoromethane	85		3.881					
26 Chloromethane	50		4.091					
27 Vinyl chloride	62		4.244					
29 Bromomethane	94		4.594					
30 Chloroethane	64		4.650					
32 Trichlorofluoromethane	101		4.874					
41 Acetone	43	5.322	5.294	0.028	89	13941	0.9005	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151		5.308					
43 1,1-Dichloroethene	96		5.336					
45 Methyl acetate	43		5.532					19
48 Carbon disulfide	76		5.602					
50 Methylene Chloride	84		5.686					
51 Methyl tert-butyl ether	73		5.867					
53 trans-1,2-Dichloroethene	96		5.909					
57 1,1-Dichloroethane	63		6.222					
61 2-Butanone (MEK)	43		6.602					
63 cis-1,2-Dichloroethene	96		6.659					
64 2,2-Dichloropropane	77		6.688					
67 Chlorobromomethane	128		6.853					
68 Chloroform	83		6.860					
71 1,1,1-Trichloroethane	97		7.089					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
72 Cyclohexane	56		7.161					
73 1,1-Dichloropropene	75		7.189					
74 Carbon tetrachloride	117		7.225					
76 1,2-Dichloroethane	62		7.340					
77 Benzene	78		7.368					
79 Trichloroethene	95	7.834	7.827	0.007	78	21880	0.3681	
83 1,2-Dichloropropane	63		8.013					
82 Methylcyclohexane	55		8.027					
84 1,4-Dioxane	88		8.070					
85 Dibromomethane	93		8.113					
86 Dichlorobromomethane	83		8.185					
89 cis-1,3-Dichloropropene	75		8.507					
90 4-Methyl-2-pentanone (MIBK)	43		8.565					
91 Toluene	91		8.787					
93 trans-1,3-Dichloropropene	75		8.887					
94 1,1,2-Trichloroethane	97		9.045					
95 2-Hexanone	43		9.159					19
96 1,3-Dichloropropane	76		9.181					
97 Tetrachloroethene	164		9.209					
98 Chlorodibromomethane	129		9.367					
100 Ethylene Dibromide	107		9.496					
101 1-Chlorohexane	91		9.725					
102 Chlorobenzene	112		9.832					
104 1,1,1,2-Tetrachloroethane	131		9.868					
103 Ethylbenzene	106		9.875					
105 m-Xylene & p-Xylene	106		9.947					
107 o-Xylene	106		10.262					
106 Styrene	104		10.262					
108 Bromoform	173		10.463					
109 Isopropylbenzene	105		10.520					
112 1,1,2,2-Tetrachloroethane	83		10.721					
114 1,2,3-Trichloropropane	110		10.792					
116 Bromobenzene	156		10.842					
115 N-Propylbenzene	120		10.842					
117 1,3,5-Trimethylbenzene	105		10.950					
118 2-Chlorotoluene	126		10.964					
119 4-Chlorotoluene	126		11.043					
120 tert-Butylbenzene	119		11.251					
121 1,2,4-Trimethylbenzene	105		11.279					19
122 sec-Butylbenzene	134		11.423					
123 4-Isopropyltoluene	119		11.516					19
124 1,3-Dichlorobenzene	146		11.587					
126 1,4-Dichlorobenzene	146		11.652					
127 n-Butylbenzene	91		11.881					
128 1,2-Dichlorobenzene	146		12.010					
129 1,2-Dibromo-3-Chloropropane	157		12.748					
130 1,2,4-Trichlorobenzene	180		13.693					
131 Hexachlorobutadiene	225		13.844					
132 Naphthalene	128		14.059					
133 1,2,3-Trichlorobenzene	180		14.374					

QC Flag Legend

Processing Flags
1 - Missing Peaks
9 - Failed A Reference Spectral Test

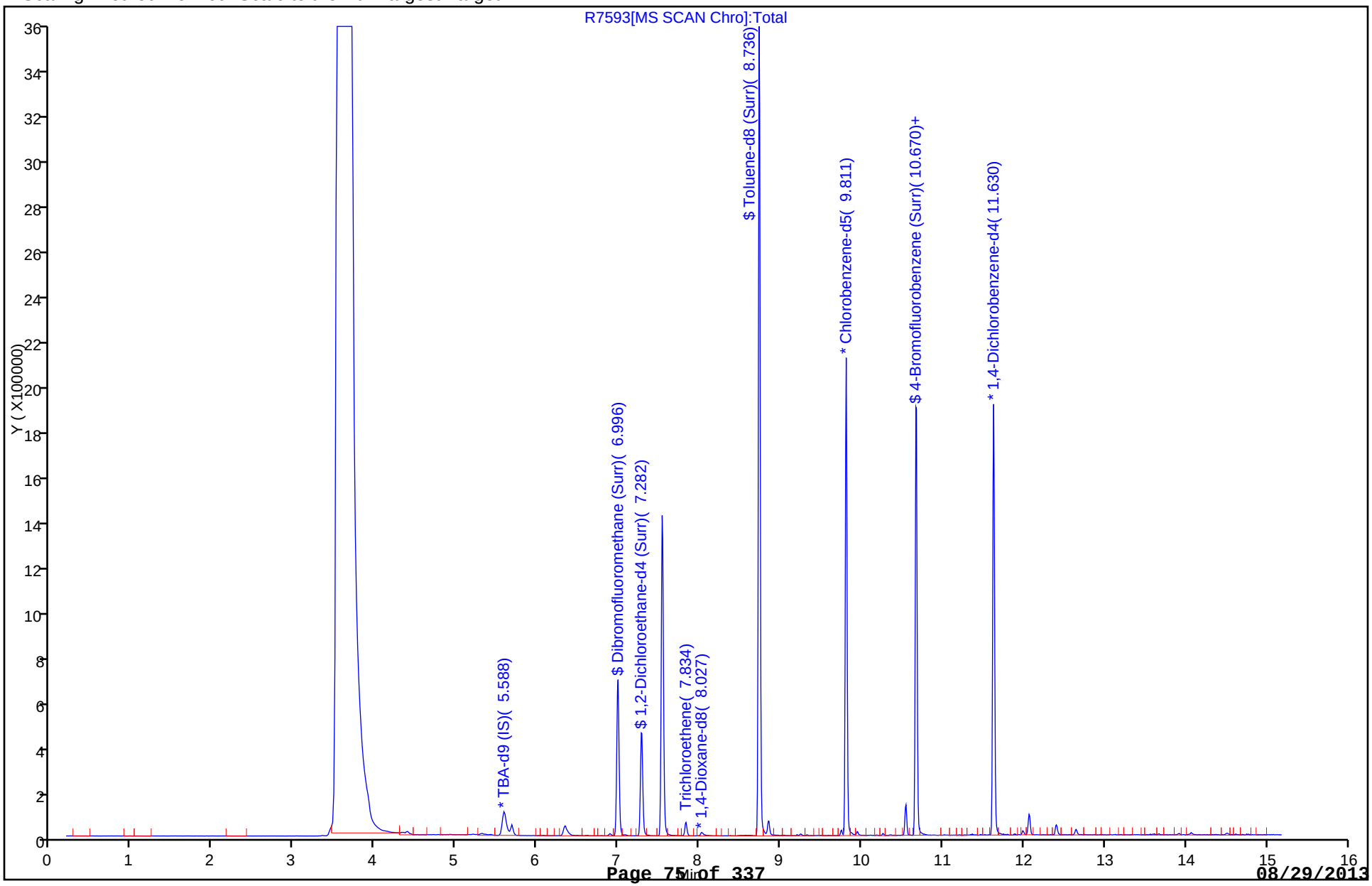
Report Date: 19-Aug-2013 23:19:26 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7593.D

Injection Date:	19-Aug-2013 18:59:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:	785786WATER080813	Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	24
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

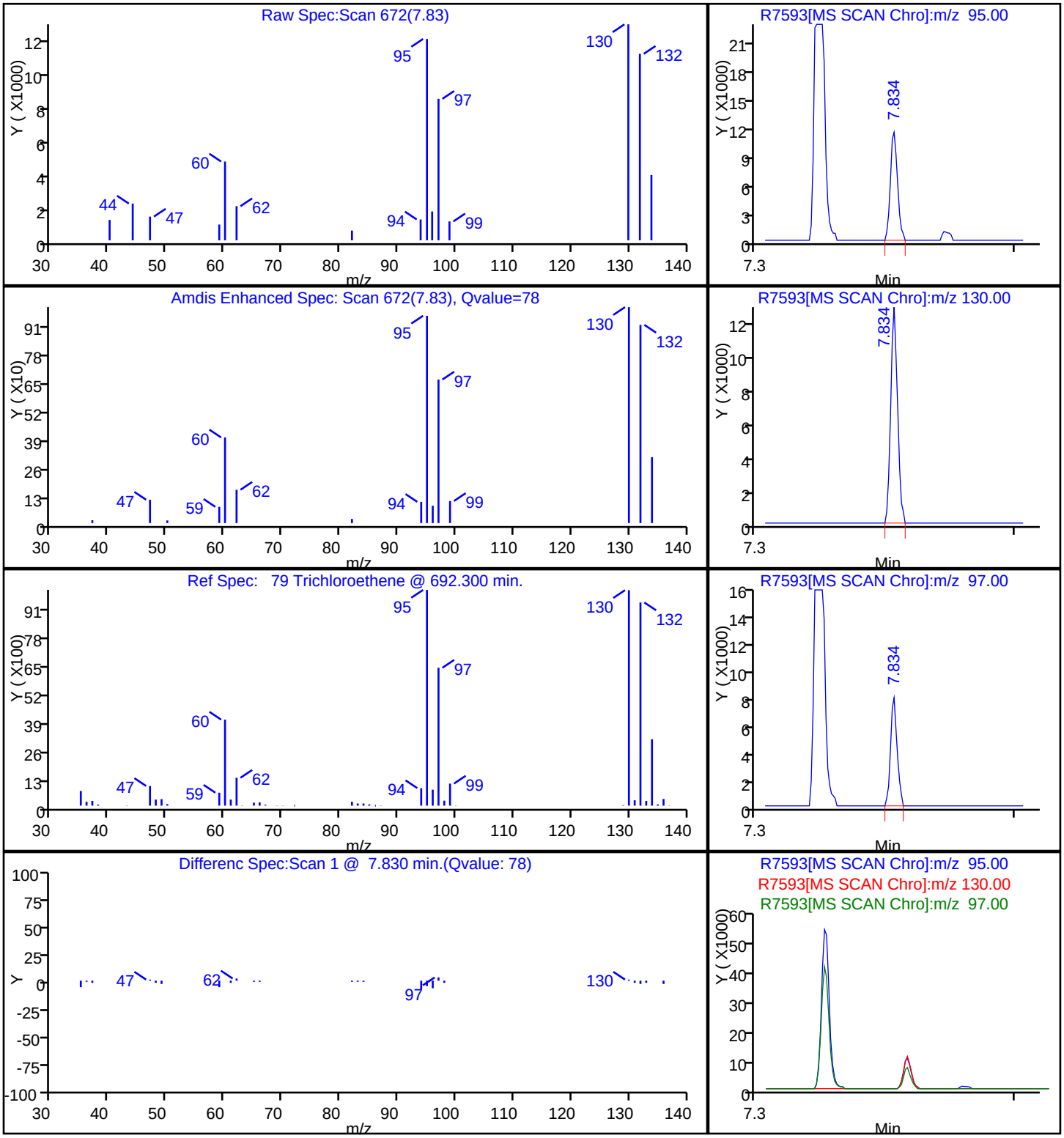
Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7593.D
Injection Date: 19-Aug-2013 18:59:30 Limit Group: MSV - 8260B Water and Solid
Client ID: 785786WATER080813 Instrument ID: VMS_R1
Lims Batch ID: 187741 Lims Sample ID: 24
Operator ID: MOANM Purge Vol: 20.000 mL
Column Type: DB-624 (60.25) Column Dia: 0.25 mm

79 Trichloroethene



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: 080813AB | Lab Sample ID: 280-45380-5

Matrix: Water | Lab File ID: R7594.D

Analysis Method: 8260C | Date Collected: 08/08/2013 08:25

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 19:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.40	U	1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	0.20	U	1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	0.40	U	1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	0.40	U	1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	0.40	U	1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.40	U	1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.20	U	1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	0.20	U	1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	0.40	U	1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	80	U	220	80	71
544-10-5	1-Chlorohexane	0.20	U	1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	3.2	U	6.0	3.2	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	3.2	U	5.0	3.2	1.4
106-43-4	4-Chlorotoluene	0.40	U	1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.20	U	1.0	0.20	0.16
108-86-1	Bromobenzene	0.20	U	1.0	0.20	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.40	U	2.0	0.40	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: 080813AB | Lab Sample ID: 280-45380-5

Matrix: Water | Lab File ID: R7594.D

Analysis Method: 8260C | Date Collected: 08/08/2013 08:25

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 19:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.20	U	1.0	0.20	0.17
74-97-5	Chlorobromomethane	0.40	U	1.0	0.40	0.10
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.20	U	1.0	0.20	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.0	0.20	0.16
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.20	U	1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.20	U	1.0	0.20	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.40	U	1.0	0.40	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	0.40	U	5.0	0.40	0.25
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.40	U	1.0	0.40	0.32
103-65-1	N-Propylbenzene	0.20	U	1.0	0.20	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.20	U	1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.40	U	1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: 080813AB Lab Sample ID: 280-45380-5

Matrix: Water Lab File ID: R7594.D

Analysis Method: 8260C Date Collected: 08/08/2013 08:25

Sample wt/vol: 20(mL) Date Analyzed: 08/19/2013 19:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187741 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-120
460-00-4	4-Bromofluorobenzene (Surr)	102		75-120
1868-53-7	Dibromofluoromethane (Surr)	102		85-115
2037-26-5	Toluene-d8 (Surr)	101		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7594.D
Lims ID: 280-45380-A-5 Client ID: 080813AB
Inject. Date: 19-Aug-2013 19:20:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 280-45380-A-5 ph<2
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 34
Lims Batch ID: 187741 Lims Sample ID: 25
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 23:19:15 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: thompsonl Date: 19-Aug-2013 23:14:55

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	1	205711	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1426567	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	16456	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	374492	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.638	-0.008	96	543608	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.996	6.996	0.0	57	463252	10.2	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.289	7.282	0.007	89	336254	9.81	
$ 7 Toluene-d8 (Surr)	98	8.736	8.737	-0.001	92	2296319	10.1	
$ 8 4-Bromofluorobenzene (Surr)	95	10.678	10.678	0.0	89	713558	10.2	
23 Dichlorodifluoromethane	85		3.881					
26 Chloromethane	50		4.091					
27 Vinyl chloride	62		4.244					19
29 Bromomethane	94		4.594					
30 Chloroethane	64		4.650					
32 Trichlorofluoromethane	101		4.874					
41 Acetone	43	5.308	5.294	0.014	89	12968	0.3259	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151		5.308					
43 1,1-Dichloroethene	96		5.336					
45 Methyl acetate	43		5.532					19
48 Carbon disulfide	76		5.602					
50 Methylene Chloride	84		5.686					
51 Methyl tert-butyl ether	73		5.867					
53 trans-1,2-Dichloroethene	96		5.909					
57 1,1-Dichloroethane	63		6.222					
61 2-Butanone (MEK)	43		6.602					
63 cis-1,2-Dichloroethene	96		6.659					
64 2,2-Dichloropropane	77		6.688					
67 Chlorobromomethane	128		6.853					
68 Chloroform	83		6.860					
71 1,1,1-Trichloroethane	97		7.089					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
72 Cyclohexane	56		7.161					
73 1,1-Dichloropropene	75		7.189					
74 Carbon tetrachloride	117		7.225					
76 1,2-Dichloroethane	62		7.340					
77 Benzene	78		7.368					
79 Trichloroethene	95		7.827					
83 1,2-Dichloropropane	63		8.013					
82 Methylcyclohexane	55		8.027					
84 1,4-Dioxane	88		8.070					
85 Dibromomethane	93		8.113					
86 Dichlorobromomethane	83		8.185					
89 cis-1,3-Dichloropropene	75		8.507					
90 4-Methyl-2-pentanone (MIBK)	43		8.565					
91 Toluene	91		8.787					
93 trans-1,3-Dichloropropene	75		8.887					19
94 1,1,2-Trichloroethane	97		9.045					
95 2-Hexanone	43		9.159					19
96 1,3-Dichloropropane	76		9.181					
97 Tetrachloroethene	164		9.209					
98 Chlorodibromomethane	129		9.367					
100 Ethylene Dibromide	107		9.496					
101 1-Chlorohexane	91		9.725					
102 Chlorobenzene	112		9.832					
104 1,1,1,2-Tetrachloroethane	131		9.868					
103 Ethylbenzene	106		9.875					
105 m-Xylene & p-Xylene	106		9.947					
107 o-Xylene	106		10.262					
106 Styrene	104		10.262					
108 Bromoform	173		10.463					
109 Isopropylbenzene	105		10.520					
112 1,1,2,2-Tetrachloroethane	83		10.721					
114 1,2,3-Trichloropropane	110		10.792					
116 Bromobenzene	156		10.842					
115 N-Propylbenzene	120		10.842					
117 1,3,5-Trimethylbenzene	105		10.950					
118 2-Chlorotoluene	126		10.964					
119 4-Chlorotoluene	126		11.043					
120 tert-Butylbenzene	119		11.251					
121 1,2,4-Trimethylbenzene	105		11.279					
122 sec-Butylbenzene	134		11.423					
123 4-Isopropyltoluene	119		11.516					
124 1,3-Dichlorobenzene	146		11.587					
126 1,4-Dichlorobenzene	146		11.652					
127 n-Butylbenzene	91		11.881					
128 1,2-Dichlorobenzene	146		12.010					
129 1,2-Dibromo-3-Chloropropane	157		12.748					
130 1,2,4-Trichlorobenzene	180		13.693					
131 Hexachlorobutadiene	225		13.844					
132 Naphthalene	128		14.059					
133 1,2,3-Trichlorobenzene	180		14.374					

QC Flag Legend

Processing Flags
1 - Missing Peaks
9 - Failed A Reference Spectral Test

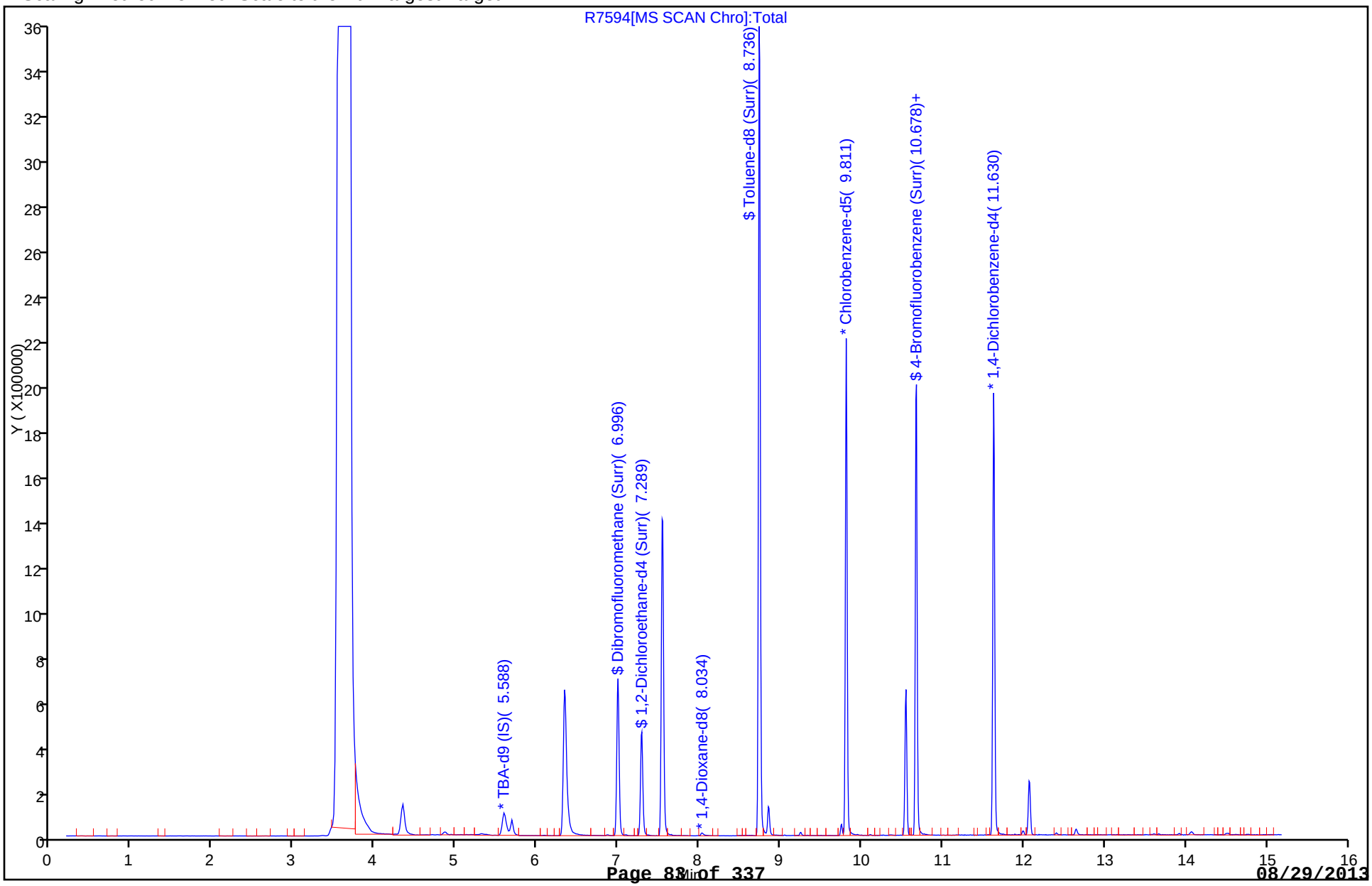
Report Date: 19-Aug-2013 23:19:26 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7594.D

Injection Date:	19-Aug-2013 19:20:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:	080813AB	Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	25
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD003 280-187446/6	R7548.D
Level 2	STD01 280-187446/7	R7549.D
Level 3	STD02 280-187446/8	R7550.D
Level 4	STD05 280-187446/9	R7551.D
Level 5	STD10 280-187446/10	R7552.D
Level 6	STD30 280-187446/11	R7553.D
Level 7	STD60 280-187446/12	R7554.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3894 0.5383	0.4120 0.5120	0.3819	0.5538	0.5479	Lin1	-0.066	0.5251							0.9980		0.9900
Chloromethane	0.4159 0.3819	0.3713 0.3672	0.3589	0.3949	0.3964	Ave		0.3838			0.1000	5.2		15.0			
Vinyl chloride	0.4140 0.3941	0.3959 0.3645	0.3730	0.4213	0.4286	Ave		0.3988				6.1		30.0			
Bromomethane	0.3210 0.2646	0.3134 0.2244	0.2939	0.2985	0.3014	Ave		0.2882				12.0		15.0			
Chloroethane	0.2491 0.2166	0.2347 0.1855	0.2290	0.2404	0.2439	Ave		0.2285				9.5		15.0			
Dichlorofluoromethane	0.8145 0.6166	0.7128 0.5627	0.6730	0.6578	0.6813	Ave		0.6741				12.0		15.0			
Trichlorofluoromethane	0.6012 0.5980	0.5723 0.5351	0.5571	0.6249	0.6299	Ave		0.5884				6.0		15.0			
Ethyl ether	0.2095 0.1343	0.1399 0.1266	0.1337	0.1375	0.1391	Lin2	0.0230	0.1288							0.9960		0.9900
Acrolein	0.0249 0.0102	0.0138 0.0101	0.0121	0.0112	0.0110	Lin2	0.0438	0.0101							0.9980		0.9900
Acetone	0.1103 0.0228	0.0514 0.0217	0.0317	0.0289	0.0252	Lin2	0.1065	0.0220							0.9900		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.4202 0.3486	0.3597 0.3290	0.3093	0.4153	0.3523	Ave		0.3621				11.0		15.0			
1,1-Dichloroethene	0.5341 0.4073	0.4843 0.3630	0.3421	0.5370	0.4052	Ave		0.4390				18.0		30.0			
Iodomethane	0.7937 0.8090	0.7692 0.7709	0.7720	0.8380	0.8200	Ave		0.7961				3.4		15.0			
Methyl acetate	0.0910 0.0865	0.0983 0.0836	0.0932	0.0963	0.0897	Ave		0.0912				5.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Allyl chloride	1.0767 0.7448	0.8094 0.6836	0.7906	0.7865	0.7959	Ave		0.8125				15.0		15.0			
Carbon disulfide	2.2626 2.2027	2.1041 2.0055	2.0435	2.3513	2.2925	Ave		2.1803				6.0		15.0			
2-Methyl-2-propanol	0.0157 0.0131	0.0149 0.0128	0.0145	0.0138	0.0131	Ave		0.0140				8.0		15.0			
Methylene Chloride	1.9524 0.4495	0.8740 0.4240	0.6539	0.5589	0.4924	Lin2	0.4536	0.4362							0.9980		0.9900
Acrylonitrile	0.0516 0.0477	0.0479 0.0462	0.0488	0.0497	0.0493	Ave		0.0487				3.5		15.0			
Methyl tert-butyl ether	0.7211 0.7048	0.7075 0.6862	0.7143	0.7234	0.7225	Ave		0.7114				1.9		15.0			
trans-1,2-Dichloroethene	0.5588 0.5552	0.5510 0.5239	0.5396	0.5876	0.5724	Ave		0.5555				3.7		15.0			
Hexane	3.9226 3.4582	3.5303 3.3135	3.3067	3.8443	3.6967	Ave		3.5817				6.9		15.0			
Vinyl acetate	0.3209 0.3251	0.3037 0.3249	0.2746	0.3360	0.3305	Ave		0.3165				6.6		15.0			
1,1-Dichloroethane	0.9190 0.8854	0.8920 0.8393	0.8856	0.9387	0.9137	Ave		0.8962			0.1000	3.6		15.0			
2-Butanone (MEK)	0.0926 0.0601	0.0765 0.0602	0.0718	0.0630	0.0644	Lin2	0.0380	0.0628							0.9970		0.9900
2-Butanol	1.3287 1.2578	1.1932 1.2379	1.2015	1.3007	1.2210	Ave		1.2487				4.1		15.0			
cis-1,2-Dichloroethene	0.5357 0.5235	0.5084 0.4976	0.5181	0.5514	0.5367	Ave		0.5245				3.5		15.0			
2,2-Dichloropropane	0.7593 0.7542	0.6833 0.7166	0.6830	0.7887	0.7709	Ave		0.7366				5.8		15.0			
Chlorobromomethane	0.1585 0.1698	0.1632 0.1661	0.1643	0.1702	0.1721	Ave		0.1663				2.9		15.0			
Chloroform	0.7766 0.7743	0.7822 0.7371	0.7680	0.8043	0.7918	Ave		0.7763				2.7		30.0			
Tetrahydrofuran	0.0545 0.0353	0.0425 0.0343	0.0372	0.0382	0.0366	Lin2	0.0115	0.0355							0.9990		0.9900
Isobutyl alcohol	0.3336 0.1942	0.2907 0.1926	0.1638	0.1702	0.1783	Lin1	0.9683	0.1890							0.9960		0.9900
1,1,1-Trichloroethane	0.7956 0.8003	0.7593 0.7631	0.7490	0.8179	0.8069	Ave		0.7846				3.4		15.0			
Cyclohexane	1.1012 1.0289	1.0338 0.9319	0.9780	1.1137	1.0869	Ave		1.0392				6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloropropene	0.7407 0.7181	0.6929 0.6611	0.6803	0.7572	0.7491	Ave		0.7142				5.2		15.0			
Carbon tetrachloride	0.6621 0.7074	0.6284 0.6744	0.6308	0.7011	0.7061	Ave		0.6729				5.1		15.0			
1,2-Dichloroethane	0.3548 0.3498	0.3565 0.3399	0.3420	0.3612	0.3575	Ave		0.3517				2.3		15.0			
Benzene	2.1617 2.0284	2.0860 1.8765	2.0703	2.1410	2.0970	Ave		2.0659				4.6		15.0			
Trichloroethene	0.5860 0.5305	0.5411 0.5022	0.5199	0.5500	0.5394	Ave		0.5384				4.9		15.0			
2-Pentanone	0.0913 0.0913	0.0957 0.0870	0.1003	0.0883	0.0912	Ave		0.0922				4.9		15.0			
1,2-Dichloropropane	0.4599 0.4231	0.4527 0.3853	0.4436	0.4520	0.4421	Ave		0.4370				5.9		30.0			
Methylcyclohexane	0.8844 0.7859	0.7990 0.6991	0.7582	0.8500	0.8336	Ave		0.8014				7.7		15.0			
1,4-Dioxane	 0.0014	0.0013 0.0016	0.0012	0.0012	0.0015	Ave		0.0014				13.0		15.0			
Dibromomethane	0.1400 0.1522	0.1439 0.1484	0.1487	0.1486	0.1511	Ave		0.1476				2.9		15.0			
Dichlorobromomethane	0.4434 0.4956	0.4485 0.4818	0.4552	0.4864	0.4870	Ave		0.4711				4.5		15.0			
2-Chloroethyl vinyl ether	 0.0092	0.0050 0.0118	0.0097	0.0123	0.0078	Qua	0.0089	0.0064	0.0001						0.9990		0.9900
cis-1,3-Dichloropropene	2.1611 2.2778	2.1587 2.2774	2.1867	2.3364	2.3020	Ave		2.2429				3.2		15.0			
4-Methyl-2-pentanone (MIBK)	0.1343 0.1227	0.1209 0.1209	0.1271	0.1235	0.1322	Ave		0.1260				4.3		15.0			
Toluene	2.3076 2.1085	2.1756 1.8548	2.1746	2.2707	2.2320	Ave		2.1605				7.0		30.0			
Ethyl methacrylate	0.8948 1.0181	0.9524 1.0118	0.9545	1.0246	1.0164	Ave		0.9818				5.0		15.0			
trans-1,3-Dichloropropene	0.3871 0.4355	0.3866 0.4198	0.3961	0.4186	0.4326	Ave		0.4109				5.1		15.0			
1,1,2-Trichloroethane	0.2249 0.2173	0.2156 0.2110	0.2096	0.2168	0.2224	Ave		0.2168				2.6		15.0			
2-Hexanone	0.2983 0.3188	0.3201 0.3274	0.3392	0.3204	0.3454	Ave		0.3242				4.7		15.0			
1,3-Dichloropropane	1.5863 1.6010	1.6516 1.5705	1.5990	1.6698	1.6332	Ave		1.6159				2.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Tetrachloroethene	1.6058 1.6730	1.7060 1.6055	1.6004	1.7587	1.7440	Ave		1.6705				4.1		15.0			
Chlorodibromomethane	0.8865 1.0388	0.8671 1.0600	0.9068	0.9888	1.0132	Ave		0.9659				8.1		15.0			
Ethylene Dibromide	0.7033 0.7857	0.7555 0.7931	0.7334	0.7791	0.7864	Ave		0.7624				4.4		15.0			
1-Chlorohexane	3.2229 3.1335	3.0727 2.9278	2.9732	3.3161	3.2701	Ave		3.1309				4.7		15.0			
Chlorobenzene	5.3098 4.9919	5.3324 4.7402	5.1703	5.3488	5.2143	Ave		5.1582			0.3000	4.3		15.0			
1,1,1,2-Tetrachloroethane	1.4228 1.5083	1.4634 1.4220	1.4394	1.5553	1.5438	Ave		1.4793				3.8		15.0			
Ethylbenzene	3.1918 3.1390	3.2998 2.7819	3.1401	3.4029	3.3140	Ave		3.1814				6.3		30.0			
m-Xylene & p-Xylene	4.1188 3.8770	3.9751 3.5945	3.9113	4.1488	4.0964	Ave		3.9603				4.9		15.0			
o-Xylene	3.7876 3.4033	3.7522 2.9886	3.6307	3.8580	3.7008	Ave		3.5887				8.4		15.0			
Styrene	5.1117 5.0620	5.2017 4.4440	5.1968	5.5633	5.4743	Ave		5.1505				7.0		15.0			
Bromoform	0.3168 0.4864	0.3672 0.5069	0.3800	0.4170	0.4490	Lin2	-0.046	0.4520			0.1000				0.9910		0.9900
Isopropylbenzene	7.2267 6.4454	6.9649 5.2248	6.6710	7.1303	6.9039	Ave		6.6524				10.0		15.0			
Cyclohexanone	0.0224 0.0185	0.0199 0.0197	0.0194	0.0173	0.0194	Ave		0.0195				8.0		15.0			
1,1,2,2-Tetrachloroethane	0.5652 0.5623	0.5579 0.5592	0.5417	0.5763	0.5660	Ave		0.5612			0.3000	1.9		15.0			
trans-1,4-Dichloro-2-butene	0.1033 0.1263	0.1115 0.1259	0.1085	0.1152	0.1210	Ave		0.1160				7.6		15.0			
1,2,3-Trichloropropane	0.1573 0.1532	0.1481 0.1514	0.1522	0.1483	0.1547	Ave		0.1522				2.2		15.0			
Bromobenzene	1.1736 1.1216	1.1596 1.0223	1.1379	1.2082	1.1736	Ave		1.1424				5.2		15.0			
N-Propylbenzene	2.0152 1.8374	1.9011 1.6033	1.8431	2.0194	1.9329	Ave		1.8789				7.5		15.0			
1,3,5-Trimethylbenzene	5.7613 5.1197	5.5625 4.3829	5.3975	5.7811	5.5015	Ave		5.3581				9.1		15.0			
2-Chlorotoluene	1.5349 1.3863	1.4697 1.2069	1.4688	1.5290	1.4903	Ave		1.4408				7.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
4-Chlorotoluene	1.4926 1.4456	1.5041 1.3251	1.4551	1.5331	1.5077	Ave		1.4662				4.7		15.0			
tert-Butylbenzene	5.8660 5.3012	5.6355 4.7349	5.3763	5.7777	5.6597	Ave		5.4788				7.0		15.0			
1,2,4-Trimethylbenzene	5.5097 5.1258	5.4479 4.5252	5.3292	5.6590	5.4695	Ave		5.2952				7.1		15.0			
sec-Butylbenzene	1.6014 1.5059	1.4926 1.3598	1.4704	1.6352	1.5978	Ave		1.5233				6.3		15.0			
4-Isopropyltoluene	6.6885 6.0601	6.3882 5.1185	6.1429	6.7767	6.6105	Ave		6.2551				9.1		15.0			
1,3-Dichlorobenzene	2.6620 2.4631	2.6303 2.2980	2.5284	2.6633	2.5877	Ave		2.5475				5.2		15.0			
1,4-Dichlorobenzene	2.6081 2.3889	2.5515 2.2310	2.4268	2.5811	2.5103	Ave		2.4711				5.4		15.0			
n-Butylbenzene	6.3252 5.6788	6.1769 4.9834	5.8218	6.4334	6.2597	Ave		5.9542				8.5		15.0			
1,2-Dichlorobenzene	2.1434 2.0008	2.0964 1.8911	2.0574	2.1570	2.0970	Ave		2.0633				4.5		15.0			
1,2-Dibromo-3-Chloropropane	 0.0850	0.0654 0.0901	0.0753	0.0777	0.0790	Ave		0.0788				11.0		15.0			
1,2,4-Trichlorobenzene	1.4502 1.3719	1.4411 1.3105	1.4100	1.4735	1.4294	Ave		1.4124				3.9		15.0			
Hexachlorobutadiene	1.0621 0.9555	0.9674 0.8969	0.9262	1.0157	1.0086	Ave		0.9761				5.8		15.0			
Naphthalene	1.9868 1.9169	1.8708 1.8690	1.8575	1.9106	1.9436	Ave		1.9079				2.4		15.0			
1,2,3-Trichlorobenzene	1.1457 1.0552	1.0609 1.0145	1.0803	1.1076	1.1086	Ave		1.0818				4.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD003 280-187446/6	R7548.D
Level 2	STD01 280-187446/7	R7549.D
Level 3	STD02 280-187446/8	R7550.D
Level 4	STD05 280-187446/9	R7551.D
Level 5	STD10 280-187446/10	R7552.D
Level 6	STD30 280-187446/11	R7553.D
Level 7	STD60 280-187446/12	R7554.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	14092 2052482	47565 3874576	87985	329953	642616	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloromethane	FB	Ave	15050 1456095	42866 2779049	82682	235252	464952	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	14984 1502817	45712 2758161	85930	250995	502646	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromomethane	FB	Ave	11617 1008903	36184 1698435	67709	177835	353528	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloroethane	FB	Ave	9016 826085	27103 1403566	52766	143240	286060	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	29476 2351309	82301 4258108	155060	391894	799134	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	21758 2280346	66075 4049128	128360	372303	738777	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl ether	FB	Lin2	7582 511927	16156 957908	30815	81945	163142	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Acrolein	FB	Lin2	9004 390304	15987 764494	27892	66812	129303	3.00 300	10.0 600	20.0	50.0	100
Acetone	FB	Lin2	15969 347551	23751 656583	29255	68763	118098	1.20 120	4.00 240	8.00	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	15207 1329299	41534 2489690	71266	247443	413160	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloroethene	FB	Ave	19328 1553181	55915 2747016	78811	319933	475245	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Iodomethane	FB	Ave	28723 3084955	88812 5833896	177875	499288	961800	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	16466 1648720	56754 3164552	107365	286905	526262	1.50 150	5.00 300	10.0	25.0	50.0
Allyl chloride	FB	Ave	38968 2840156	93456 5173320	182157	468584	933554	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Carbon disulfide	FB	Ave	81887 8399072	242937 15176235	470832	1400886	2688791	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Methyl-2-propanol	FB	Ave	5699 498567	17251 965782	33511	82412	153762	3.00 300	10.0 600	20.0	50.0	100
Methylene Chloride	FB	Lin2	70660 1714079	100906 3208583	150667	332978	577522	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	18676 1819037	55247 3495107	112345	296220	578594	3.00 300	10.0 600	20.0	50.0	100
Methyl tert-butyl ether	FB	Ave	26099 2687362	81684 5193068	164570	431003	847359	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	20222 2117184	63614 3964945	124327	350102	671413	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Hexane	CBZ	Ave	35412 3389217	99540 6232734	190651	572710	1101527	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	23225 2478954	70130 4917715	126546	400363	775265	0.600 60.0	2.00 120	4.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	33259 3376068	102990 6351506	204055	559231	1071637	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Lin2	13405 917240	35353 1821773	66138	150057	301944	1.20 120	4.00 240	8.00	20.0	40.0
2-Butanol	TBA	Ave	11233 1078015	33635 2063449	66768	180697	332799	9.00 900	30.0 1800	60.0	150	300
cis-1,2-Dichloroethene	FB	Ave	19387 1996052	58698 3765880	119370	328504	629510	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	27480 2875985	78890 5423095	157372	469917	904215	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobromomethane	FB	Ave	5735 647321	18844 1256711	37852	101412	201796	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloroform	FB	Ave	28105 2952565	90313 5577911	176938	479165	928729	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Lin2	3942 269169	9810 519481	17148	45477	85855	0.600 60.0	2.00 120	4.00	10.0	20.0
Isobutyl alcohol	TBA	Lin1	2350 138736	6830 267522	7587	19704	40499	7.50 750	25.0 1500	50.0	125	250
1,1,1-Trichloroethane	FB	Ave	28793 3051472	87670 5774941	172578	487313	946364	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	39855 3923089	119364 7052169	225333	663531	1274755	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	26808 2738138	79998 5002513	156739	451141	878634	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	23963 2697439	72552 5103345	145342	417682	828134	0.300 30.0	1.00 60.0	2.00	5.00	10.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	12840 1333777	41162 2571913	78799	215170	419332	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Benzene	FB	Ave	78235 7734552	240848 14200187	477008	1275581	2459584	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	21207 2022727	62469 3800572	119791	327692	632677	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Pentanone	FB	Ave	13214 1392362	44212 2633930	92434	210344	427923	1.20 120	4.00 240	8.00	20.0	40.0
1,2-Dichloropropane	FB	Ave	16646 1613144	52273 2915829	102215	269279	518538	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Methylcyclohexane	FB	Ave	32006 2996651	92253 5290447	174690	506387	977698	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dioxane	FB	Ave	 109032	2937 246210	5675	14167	36147	 600	20.0 1200	40.0	100	200
Dibromomethane	FB	Ave	5066 580231	16613 1123259	34264	88562	177265	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorobromomethane	FB	Ave	16048 1889765	51785 3645882	104871	289784	571137	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chloroethyl vinyl ether	FB	Qua	 35166	573 89375	2237	7335	9195	 30.0	1.00 60.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBZ	Ave	19510 2232370	60868 4283913	126077	348067	685952	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	19436 1871692	55855 3660690	117171	294206	620406	1.20 120	4.00 240	8.00	20.0	40.0
Toluene	FB	Ave	83513 8039843	251194 14036008	501032	1352821	2617882	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl methacrylate	CBZ	Ave	8078 997810	26853 1903197	55031	152645	302873	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,3-Dichloropropene	FB	Ave	14009 1660444	44640 3176711	91257	249381	507419	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloroethane	FB	Ave	8140 828422	24897 1596791	48283	129175	260876	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Hexanone	CBZ	Ave	10773 1249751	36105 2463625	78216	190945	411672	1.20 120	4.00 240	8.00	20.0	40.0
1,3-Dichloropropane	CBZ	Ave	14321 1569058	46568 2954257	92190	248755	486651	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	14497 1639680	48102 3019967	92274	261997	519662	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chlorodibromomethane	CBZ	Ave	8003 1018050	24450 1993982	52280	147303	301908	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylene Dibromide	CBZ	Ave	6349 770061	21302 1491870	42285	116069	234342	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1-Chlorohexane	CBZ	Ave	29096 3070973	86639 5507276	171422	494020	974417	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobenzene	CBZ	Ave	47936 4892321	150352 8916446	298099	796839	1553742	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	12845 1478192	41262 2674880	82990	231706	460029	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	28815 3076413	93041 5232807	181043	506954	987492	0.300 30.0	1.00 60.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBZ	Ave	37184 3799654	112081 6761305	225509	618072	1220649	0.300 30.0	1.00 60.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	34194 3335459	105797 5621618	209332	574745	1102757	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Styrene	CBZ	Ave	46147 4961037	146668 8359273	299623	828798	1631205	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromoform	CBZ	Lin2	2860 476665	10354 953452	21911	62125	133806	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	96234 9614225	297402 15250447	579355	1617152	3141620	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexanone	CBZ	Ave	8102 726456	22473 1482284	44659	103269	231298	12.0 1200	40.0 2400	80.0	200	400
1,1,2,2-Tetrachloroethane	DCB	Ave	7526 838749	23821 1632076	47049	130705	257543	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	1375 188398	4762 367374	9423	26125	55075	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	2095 228544	6323 441914	13214	33628	70392	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromobenzene	DCB	Ave	15628 1673063	49516 2983807	98826	274018	534035	0.300 30.0	1.00 60.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	26836 2740775	81178 4679698	160066	458000	879578	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	76721 7636754	237518 12792944	468760	1311152	2503422	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	20439 2067859	62757 3522781	127559	346768	678138	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	19876 2156386	64227 3867759	126372	347712	686062	0.300 30.0	1.00 60.0	2.00	5.00	10.0
tert-Butylbenzene	DCB	Ave	78115 7907600	240636 13820391	466917	1310373	2575424	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	73370 7645910	232627 13208375	462823	1283456	2488868	0.300 30.0	1.00 60.0	2.00	5.00	10.0
sec-Butylbenzene	DCB	Ave	21325 2246326	63733 3969035	127702	370853	727076	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 19:15 Calibration End Date: 08/16/2013 21:22 Calibration ID: 15150

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
4-Isopropyltoluene	DCB	Ave	89068 9039520	272776 14940099	533496	1536950	3008091	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	35449 3674129	112313 6707362	219588	604026	1177537	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	34731 3563401	108951 6511858	210758	585396	1142309	0.300 30.0	1.00 60.0	2.00	5.00	10.0
n-Butylbenzene	DCB	Ave	84229 8470855	263753 14545675	505603	1459101	2848477	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	28543 2984569	89517 5519681	178680	489201	954219	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	 126786	2794 262886	6543	17629	35952	 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	19312 2046464	61533 3825236	122455	334186	650443	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Ave	14144 1425344	41308 2617941	80436	230352	458945	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Naphthalene	DCB	Ave	26457 2859295	79883 5455163	161320	433325	884413	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	15257 1574000	45299 2961047	93817	251197	504451	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7548.D
Lims ID: std003 Client ID:
Inject. Date: 16-Aug-2013 19:15:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 1
Sample ID: std003
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 11
Lims Batch ID: 187446 Lims Sample ID: 6
Sublist: chrom-AQ_VMSR1_8260*sub41
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:48 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 16-Aug-2013 19:45:47

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	41	234838	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1507955	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	85	17025	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	83	376157	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	95	554855	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	45	14092	0.3476	
26 Chloromethane	50	4.062	4.091	-0.029	39	15050	0.3251	
27 Vinyl chloride	62	4.230	4.230	0.0	43	14984	0.3115	
147 Butadiene	54	4.244	4.244	0.0	0	12060	0.3018	
29 Bromomethane	94	4.580	4.580	0.0	75	11617	0.3342	
30 Chloroethane	64	4.664	4.650	0.014	56	9016	0.3271	
31 Dichlorofluoromethane	67	4.790	4.804	-0.014	26	29476	0.3625	
32 Trichlorofluoromethane	101	4.888	4.874	0.014	48	21758	0.3065	
35 Ethyl ether	59	5.070	5.056	0.014	77	7582	0.3093	
39 Acrolein	56	5.210	5.196	0.014	46	9004	3.06	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.308	5.308	0.0	53	15207	0.3482	
41 Acetone	43	5.308	5.308	0.0	81	15969	1.18	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	73	19328	0.3650	
44 Iodomethane	142	5.518	5.504	0.014	83	28723	0.2991	
45 Methyl acetate	43	5.546	5.532	0.014	92	16466	1.50	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	52	38968	0.3975	
48 Carbon disulfide	76	5.616	5.602	0.014	98	81887	0.3113	
49 2-Methyl-2-propanol	59	5.658	5.644	0.014	11	5699	3.37	
50 Methylene Chloride	84	5.686	5.686	0.0	82	70660	0.3028	
52 Acrylonitrile	53	5.839	5.826	0.013	81	18676	3.18	
51 Methyl tert-butyl ether	73	5.867	5.868	-0.001	85	26099	0.3041	
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	83	20222	0.3018	
54 Hexane	57	6.086	6.079	0.007	82	35412	0.3285	
55 Vinyl acetate	43	6.172	6.165	0.007	89	23225	0.6082	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.229	6.229	0.0	53	33259	0.3076	
61 2-Butanone (MEK)	43	6.616	6.602	0.014	67	13405	1.17	
62 sec-Butyl Alcohol	45	6.659	6.652	0.007	13	11233	9.58	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	45	19387	0.3064	
64 2,2-Dichloropropane	77	6.688	6.688	0.0	74	27480	0.3092	
67 Chlorobromomethane	128	6.860	6.853	0.007	48	5735	0.2859	
68 Chloroform	83	6.867	6.860	0.007	68	28105	0.3001	
69 Tetrahydrofuran	42	6.896	6.888	0.008	68	3942	0.5954	
70 Isobutyl alcohol	41	7.067	7.068	-0.001	11	2350	8.11	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	74	28793	0.3042	
72 Cyclohexane	56	7.161	7.161	0.0	85	39855	0.3179	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	79	26808	0.3111	
74 Carbon tetrachloride	117	7.232	7.225	0.007	61	23963	0.2952	
76 1,2-Dichloroethane	62	7.347	7.340	0.007	65	12840	0.3027	
77 Benzene	78	7.368	7.368	0.0	92	78235	0.3139	
14 n-Heptane	43	7.454	7.447	0.007	86	33733	0.3246	
79 Trichloroethene	95	7.834	7.827	0.007	77	21207	0.3265	
80 2-Pentanone	43	7.877	7.870	0.007	67	13214	1.19	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	72	16646	0.3158	
82 Methylcyclohexane	55	8.034	8.027	0.007	88	32006	0.3310	
84 1,4-Dioxane	88		8.070					
85 Dibromomethane	93	8.120	8.113	0.007	75	5066	0.2846	
86 Dichlorobromomethane	83	8.185	8.185	0.0	71	16048	0.2824	
87 2-Chloroethyl vinyl ether	63		8.335					
89 cis-1,3-Dichloropropene	75	8.514	8.507	0.007	58	19510	0.2891	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	0.0	81	19436	1.28	
91 Toluene	91	8.794	8.787	0.007	93	83513	0.3204	
92 Ethyl methacrylate	69	8.873	8.873	0.0	33	8078	0.2734	
93 trans-1,3-Dichloropropene	75	8.887	8.880	0.007	65	14009	0.2826	
94 1,1,2-Trichloroethane	97	9.044	9.045	-0.001	42	8140	0.3112	
95 2-Hexanone	43	9.166	9.159	0.007	65	10773	1.10	
96 1,3-Dichloropropane	76	9.181	9.173	0.008	67	14321	0.2945	
97 Tetrachloroethene	164	9.209	9.202	0.007	92	14497	0.2884	
98 Chlorodibromomethane	129	9.374	9.367	0.007	41	8003	0.2753	
100 Ethylene Dibromide	107	9.496	9.496	0.0	41	6349	0.2767	
101 1-Chlorohexane	91	9.725	9.725	0.0	84	29096	0.3088	
102 Chlorobenzene	112	9.832	9.832	0.0	86	47936	0.3088	
103 Ethylbenzene	106	9.875	9.868	0.007	97	28815	0.3010	
104 1,1,1,2-Tetrachloroethane	131	9.861	9.868	-0.007	60	12845	0.2885	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	37184	0.3120	
107 o-Xylene	106	10.262	10.262	0.0	87	34194	0.3166	
106 Styrene	104	10.262	10.262	0.0	78	46147	0.2977	
108 Bromoform	173	10.463	10.463	0.0	30	2860	0.3131	
109 Isopropylbenzene	105	10.520	10.520	0.0	93	96234	0.3259	
111 Cyclohexanone	55	10.649	10.649	0.0	60	8102	13.8	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	7	7526	0.3021	
113 trans-1,4-Dichloro-2-butene	53	10.756	10.757	-0.001	1	1375	0.2671	
114 1,2,3-Trichloropropane	110	10.799	10.792	0.007	9	2095	0.3102	
115 N-Propylbenzene	120	10.842	10.842	0.0	94	26836	0.3218	
116 Bromobenzene	156	10.842	10.842	0.0	47	15628	0.3082	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	90	76721	0.3226	
118 2-Chlorotoluene	126	10.964	10.964	0.0	93	20439	0.3196	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.036	11.036	0.0	89	19876	0.3054	
120 tert-Butylbenzene	119	11.244	11.244	0.0	84	78115	0.3212	
121 1,2,4-Trimethylbenzene	105	11.272	11.272	0.0	88	73370	0.3122	
122 sec-Butylbenzene	134	11.423	11.423	0.0	87	21325	0.3154	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	92	89068	0.3208	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	75	35449	0.3135	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	75	34731	0.3166	
127 n-Butylbenzene	91	11.881	11.881	0.0	90	84229	0.3187	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	76	28543	0.3117	
129 1,2-Dibromo-3-Chloropropane	157		12.741					
130 1,2,4-Trichlorobenzene	180	13.693	13.693	0.0	51	19312	0.3080	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	64	14144	0.3265	
132 Naphthalene	128	14.051	14.052	-0.001	64	26457	0.3124	
133 1,2,3-Trichlorobenzene	180	14.367	14.367	0.0	51	15257	0.3177	
S 137 1,3-Dichloropropene, Total	1				0		0.5717	
S 138 1,2-Dichloroethene, Total	1				0		0.6082	
S 139 Xylenes, Total	106				0		0.6286	
S 134 Trihalomethanes, Total	1				0		1.17	
S 135 Xylenes, Total (URS)	1				0		0.6286	
S 136 Total BTEX	1				0		1.56	
S 140 1,2-Dichloroethene, Total (URS)	96				0		0.6082	

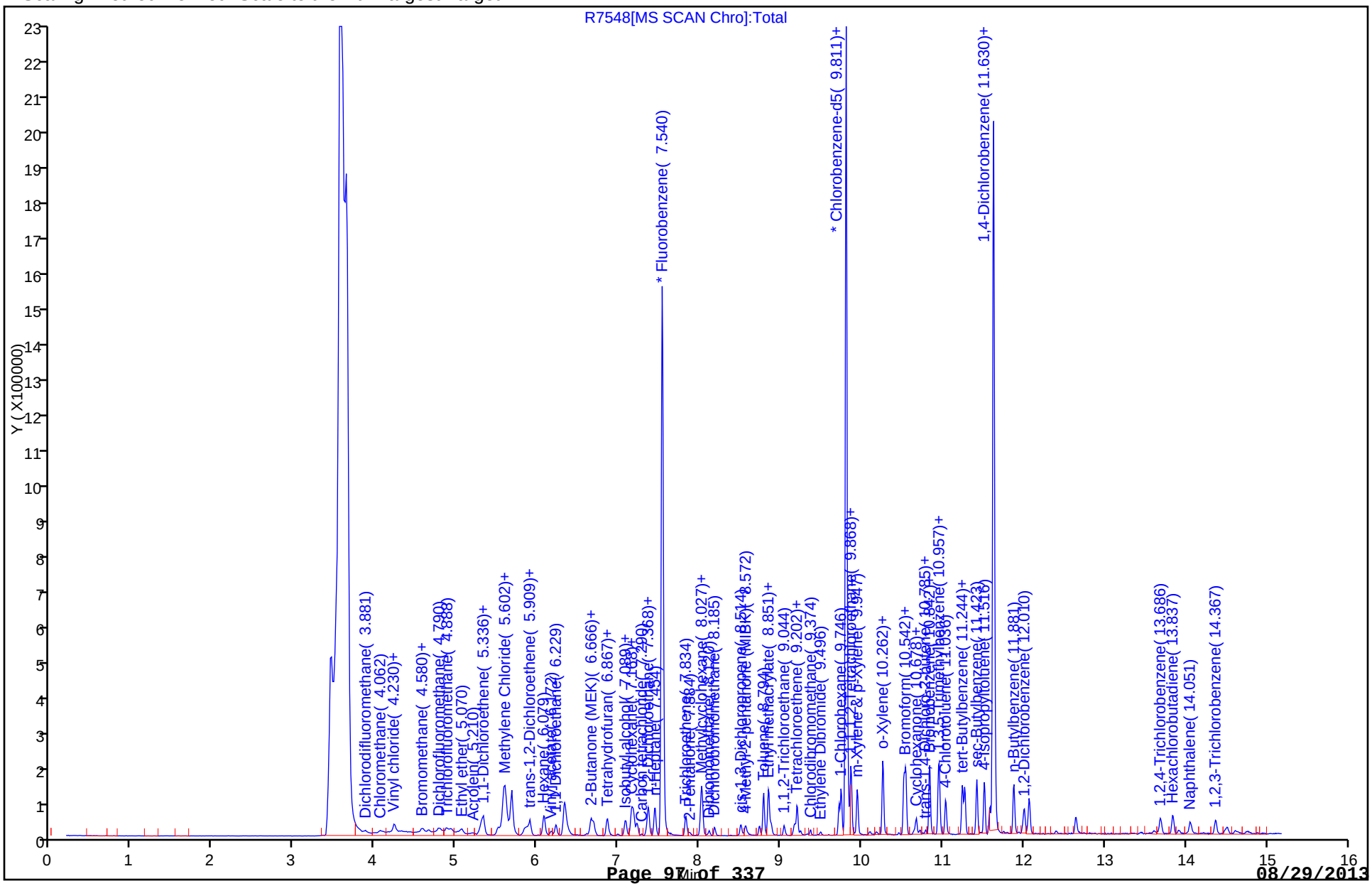
Report Date: 19-Aug-2013 08:50:49 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7548.D

Injection Date:	16-Aug-2013 19:15:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	6
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7549.D
Lims ID: std01 Client ID:
Inject. Date: 16-Aug-2013 19:36:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 2
Sample ID: std01
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 12
Lims Batch ID: 187446 Lims Sample ID: 7
Sublist: chrom-AQ_VMSR1_8260*sub41
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:49 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 16-Aug-2013 20:34:48

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	60	234912	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1443228	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	88	14388	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	352451	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	95	533751	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	74	47565	0.9097	
26 Chloromethane	50	4.077	4.091	-0.014	82	42866	0.9674	
27 Vinyl chloride	62	4.245	4.230	0.014	75	45712	0.99	
147 Butadiene	54	4.245	4.244	0.0	0	37131	0.9709	
29 Bromomethane	94	4.580	4.580	0.0	87	36184	1.09	
30 Chloroethane	64	4.664	4.650	0.014	66	27103	1.03	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	66	82301	1.06	
32 Trichlorofluoromethane	101	4.888	4.874	0.014	70	66075	0.9727	
35 Ethyl ether	59	5.070	5.056	0.014	80	16156	0.9080	
39 Acrolein	56	5.210	5.196	0.014	69	15987	9.37	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.322	5.308	0.014	81	41534	0.99	
41 Acetone	43	5.308	5.308	0.0	52	23751	4.51	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	87	55915	1.10	
44 Iodomethane	142	5.518	5.504	0.014	96	88812	0.9662	
45 Methyl acetate	43	5.546	5.532	0.014	95	56754	5.39	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	68	93456	1.00	
48 Carbon disulfide	76	5.616	5.602	0.014	98	242937	0.9650	
49 2-Methyl-2-propanol	59	5.658	5.644	0.014	24	17251	10.7	
50 Methylene Chloride	84	5.686	5.686	0.0	84	100906	0.9635	
52 Acrylonitrile	53	5.840	5.826	0.014	96	55247	9.82	
51 Methyl tert-butyl ether	73	5.868	5.868	0.0	85	81684	0.99	
53 trans-1,2-Dichloroethene	96	5.910	5.909	0.001	98	63614	0.99	
54 Hexane	57	6.079	6.079	0.0	87	99540	0.9856	
55 Vinyl acetate	43	6.172	6.165	0.007	88	70130	1.92	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.230	6.229	0.001	79	102990	1.00	
61 2-Butanone (MEK)	43	6.609	6.602	0.007	96	35353	4.27	
62 sec-Butyl Alcohol	45	6.659	6.652	0.007	29	33635	28.7	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	65	58698	0.9693	
64 2,2-Dichloropropane	77	6.695	6.688	0.007	86	78890	0.9276	
67 Chlorobromomethane	128	6.853	6.853	0.0	84	18844	0.9815	
68 Chloroform	83	6.867	6.860	0.007	77	90313	1.01	
69 Tetrahydrofuran	42	6.903	6.888	0.015	85	9810	2.07	
70 Isobutyl alcohol	41	7.075	7.068	0.007	1	6830	33.3	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	88	87670	0.9678	
72 Cyclohexane	56	7.168	7.161	0.007	88	119364	0.99	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	94	79998	0.9701	
74 Carbon tetrachloride	117	7.232	7.225	0.007	69	72552	0.9339	
76 1,2-Dichloroethane	62	7.347	7.340	0.007	85	41162	1.01	
77 Benzene	78	7.368	7.368	0.0	94	240848	1.01	
14 n-Heptane	43	7.447	7.447	0.0	88	98091	0.9862	
79 Trichloroethene	95	7.834	7.827	0.007	92	62469	1.00	
80 2-Pentanone	43	7.877	7.870	0.007	82	44212	4.16	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	93	52273	1.04	
82 Methylcyclohexane	55	8.027	8.027	0.0	91	92253	1.00	
84 1,4-Dioxane	88	8.070	8.070	0.0	16	2937	18.4	
85 Dibromomethane	93	8.121	8.113	0.008	83	16613	0.9751	
86 Dichlorobromomethane	83	8.185	8.185	0.0	86	51785	0.9520	
87 2-Chloroethyl vinyl ether	63	8.328	8.335	-0.007	1	573	-0.6292	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	82	60868	0.9625	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	0.0	87	55855	3.84	
91 Toluene	91	8.794	8.787	0.007	98	251194	1.01	
92 Ethyl methacrylate	69	8.873	8.873	0.0	77	26853	0.9700	
93 trans-1,3-Dichloropropene	75	8.887	8.880	0.007	85	44640	0.9410	
94 1,1,2-Trichloroethane	97	9.045	9.045	0.0	73	24897	0.99	
95 2-Hexanone	43	9.159	9.159	0.0	84	36105	3.95	
96 1,3-Dichloropropane	76	9.181	9.173	0.008	82	46568	1.02	
97 Tetrachloroethene	164	9.209	9.202	0.007	91	48102	1.02	
98 Chlorodibromomethane	129	9.367	9.367	0.0	72	24450	0.8978	
100 Ethylene Dibromide	107	9.496	9.496	0.0	75	21302	0.99	
101 1-Chlorohexane	91	9.725	9.725	0.0	88	86639	0.9814	
102 Chlorobenzene	112	9.833	9.832	0.001	94	150352	1.03	
103 Ethylbenzene	106	9.876	9.868	0.008	97	93041	1.04	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	65	41262	0.9892	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	112081	1.00	
107 o-Xylene	106	10.262	10.262	0.0	89	105797	1.05	
106 Styrene	104	10.262	10.262	0.0	84	146668	1.01	
108 Bromoform	173	10.463	10.463	0.0	75	10354	0.9152	
109 Isopropylbenzene	105	10.520	10.520	0.0	94	297402	1.05	
111 Cyclohexanone	55	10.649	10.649	0.0	73	22473	40.8	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	65	23821	0.99	
113 trans-1,4-Dichloro-2-butene	53	10.757	10.757	0.0	20	4762	0.9618	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	43	6323	0.9732	
115 N-Propylbenzene	120	10.843	10.842	0.001	97	81178	1.01	
116 Bromobenzene	156	10.843	10.842	0.001	48	49516	1.02	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	93	237518	1.04	
118 2-Chlorotoluene	126	10.964	10.964	0.0	95	62757	1.02	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.043	11.036	0.007	98	64227	1.03	
120 tert-Butylbenzene	119	11.244	11.244	0.0	87	240636	1.03	
121 1,2,4-Trimethylbenzene	105	11.272	11.272	0.0	96	232627	1.03	
122 sec-Butylbenzene	134	11.423	11.423	0.0	92	63733	0.9798	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	95	272776	1.02	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	83	112313	1.03	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	92	108951	1.03	
127 n-Butylbenzene	91	11.881	11.881	0.0	97	263753	1.04	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	88	89517	1.02	
129 1,2-Dibromo-3-Chloropropane	157	12.748	12.741	0.007	1	2794	0.8308	
130 1,2,4-Trichlorobenzene	180	13.693	13.693	0.0	89	61533	1.02	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	88	41308	0.99	
132 Naphthalene	128	14.052	14.052	0.0	86	79883	0.9806	
133 1,2,3-Trichlorobenzene	180	14.367	14.367	0.0	85	45299	0.9806	
S 137 1,3-Dichloropropene, Total	1				0		1.90	
S 138 1,2-Dichloroethene, Total	1				0		1.96	
S 139 Xylenes, Total	106				0		2.05	
S 134 Trihalomethanes, Total	1				0		3.77	
S 135 Xylenes, Total (URS)	1				0		2.05	
S 136 Total BTEX	1				0		5.10	
S 140 1,2-Dichloroethene, Total (URS)	96				0		1.96	

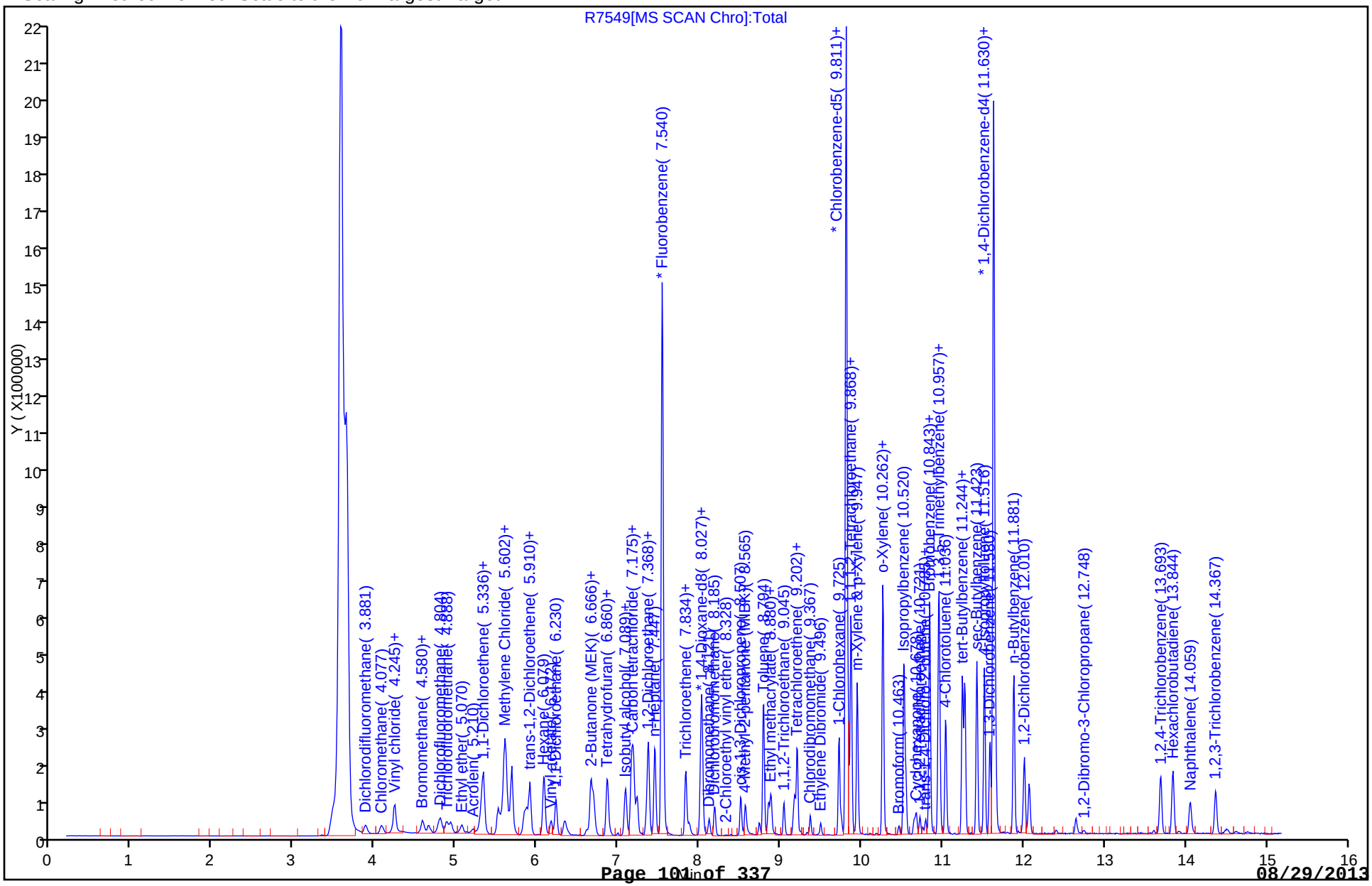
Report Date: 19-Aug-2013 08:50:49 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7549.D

Injection Date:	16-Aug-2013 19:36:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	7
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7550.D
Lims ID: std02 Client ID:
Inject. Date: 16-Aug-2013 19:57:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 3
Sample ID: std02
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 13
Lims Batch ID: 187446 Lims Sample ID: 8
Sublist: chrom-AQ_VMSR1_8260*sub41
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:50 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 16-Aug-2013 20:34:58

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	81	231540	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1440009	12.5	
* 149 1,4-Dioxane-d8	96	8.034	8.027	0.007	87	16539	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	360349	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	94	542795	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	-0.001	78	87985	1.58	
26 Chloromethane	50	4.076	4.091	-0.015	82	82682	1.87	
27 Vinyl chloride	62	4.244	4.230	0.014	82	85930	1.87	
147 Butadiene	54	4.244	4.244	0.0	0	71240	1.87	
29 Bromomethane	94	4.594	4.580	0.014	87	67709	2.04	
30 Chloroethane	64	4.664	4.650	0.014	91	52766	2.00	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	79	155060	2.00	
32 Trichlorofluoromethane	101	4.888	4.874	0.014	81	128360	1.89	
35 Ethyl ether	59	5.070	5.056	0.014	82	30815	1.90	
39 Acrolein	56	5.210	5.196	0.014	87	27892	19.6	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.322	5.308	0.014	82	71266	1.71	
41 Acetone	43	5.308	5.308	0.0	46	29255	6.70	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	91	78811	1.56	
44 Iodomethane	142	5.518	5.504	0.014	96	177875	1.94	
45 Methyl acetate	43	5.546	5.532	0.014	96	107365	10.2	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	81	182157	1.95	
48 Carbon disulfide	76	5.616	5.602	0.014	98	470832	1.87	
49 2-Methyl-2-propanol	59	5.657	5.644	0.013	27	33511	20.8	
50 Methylene Chloride	84	5.685	5.686	-0.001	81	150667	1.96	
52 Acrylonitrile	53	5.839	5.826	0.013	100	112345	20.0	
51 Methyl tert-butyl ether	73	5.867	5.868	-0.001	88	164570	2.01	
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	96	124327	1.94	
54 Hexane	57	6.086	6.079	0.007	88	190651	1.85	
55 Vinyl acetate	43	6.172	6.165	0.007	90	126546	3.47	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.229	6.229	0.0	84	204055	1.98	
61 2-Butanone (MEK)	43	6.609	6.602	0.007	95	66138	8.54	
62 sec-Butyl Alcohol	45	6.659	6.652	0.007	53	66768	57.7	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	66	119370	1.98	
64 2,2-Dichloropropane	77	6.695	6.688	0.007	87	157372	1.85	
67 Chlorobromomethane	128	6.860	6.853	0.007	88	37852	1.98	
68 Chloroform	83	6.867	6.860	0.007	79	176938	1.98	
69 Tetrahydrofuran	42	6.895	6.888	0.007	75	17148	3.87	
70 Isobutyl alcohol	41	7.075	7.068	0.007	60	7587	38.2	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	90	172578	1.91	
72 Cyclohexane	56	7.168	7.161	0.007	87	225333	1.88	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	95	156739	1.91	
74 Carbon tetrachloride	117	7.232	7.225	0.007	72	145342	1.87	
76 1,2-Dichloroethane	62	7.347	7.340	0.007	93	78799	1.95	
77 Benzene	78	7.368	7.368	0.0	95	477008	2.00	
14 n-Heptane	43	7.447	7.447	0.0	89	188397	1.90	
79 Trichloroethene	95	7.834	7.827	0.007	94	119791	1.93	
80 2-Pentanone	43	7.870	7.870	0.0	84	92434	8.71	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	96	102215	2.03	
82 Methylcyclohexane	55	8.027	8.027	0.0	90	174690	1.89	
84 1,4-Dioxane	88	8.077	8.070	0.007	13	5675	35.7	
85 Dibromomethane	93	8.120	8.113	0.007	89	34264	2.02	
86 Dichlorobromomethane	83	8.185	8.185	0.0	92	104871	1.93	
87 2-Chloroethyl vinyl ether	63	8.335	8.335	0.0	1	2237	1.60	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	85	126077	1.95	
90 4-Methyl-2-pentanone (MIBK)	43	8.564	8.565	-0.001	93	117171	8.08	
91 Toluene	91	8.794	8.787	0.007	98	501032	2.01	
92 Ethyl methacrylate	69	8.872	8.873	-0.001	82	55031	1.94	
93 trans-1,3-Dichloropropene	75	8.887	8.880	0.007	90	91257	1.93	
94 1,1,2-Trichloroethane	97	9.044	9.045	-0.001	82	48283	1.93	
95 2-Hexanone	43	9.159	9.159	0.0	89	78216	8.37	
96 1,3-Dichloropropane	76	9.180	9.173	0.007	87	92190	1.98	
97 Tetrachloroethene	164	9.209	9.202	0.007	92	92274	1.92	
98 Chlorodibromomethane	129	9.367	9.367	0.0	81	52280	1.88	
100 Ethylene Dibromide	107	9.496	9.496	0.0	88	42285	1.92	
101 1-Chlorohexane	91	9.725	9.725	0.0	91	171422	1.90	
102 Chlorobenzene	112	9.832	9.832	0.0	93	298099	2.00	
103 Ethylbenzene	106	9.875	9.868	0.007	97	181043	1.97	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	82	82990	1.95	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	225509	1.98	
107 o-Xylene	106	10.262	10.262	0.0	90	209332	2.02	
106 Styrene	104	10.262	10.262	0.0	84	299623	2.02	
108 Bromoform	173	10.463	10.463	0.0	80	21911	1.78	
109 Isopropylbenzene	105	10.520	10.520	0.0	95	579355	2.01	
111 Cyclohexanone	55	10.649	10.649	0.0	82	44659	79.3	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	75	47049	1.93	
113 trans-1,4-Dichloro-2-butene	53	10.756	10.757	-0.001	65	9423	1.87	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	63	13214	2.00	
115 N-Propylbenzene	120	10.842	10.842	0.0	97	160066	1.96	
116 Bromobenzene	156	10.842	10.842	0.0	49	98826	1.99	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	94	468760	2.01	
118 2-Chlorotoluene	126	10.964	10.964	0.0	96	127559	2.04	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.043	11.036	0.007	97	126372	1.98	
120 tert-Butylbenzene	119	11.243	11.244	-0.001	92	466917	1.96	
121 1,2,4-Trimethylbenzene	105	11.272	11.272	0.0	96	462823	2.01	
122 sec-Butylbenzene	134	11.423	11.423	0.0	94	127702	1.93	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	96	533496	1.96	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	86	219588	1.99	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	93	210758	1.96	
127 n-Butylbenzene	91	11.881	11.881	0.0	97	505603	1.96	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	95	178680	1.99	
129 1,2-Dibromo-3-Chloropropane	157	12.741	12.741	0.0	33	6543	1.91	
130 1,2,4-Trichlorobenzene	180	13.693	13.693	0.0	92	122455	2.00	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	92	80436	1.90	
132 Naphthalene	128	14.051	14.052	-0.001	94	161320	1.95	
133 1,2,3-Trichlorobenzene	180	14.367	14.367	0.0	92	93817	2.00	
S 137 1,3-Dichloropropene, Total	1				0		3.88	
S 138 1,2-Dichloroethene, Total	1				0		3.92	
S 139 Xylenes, Total	106				0		4.00	
S 134 Trihalomethanes, Total	1				0		7.57	
S 135 Xylenes, Total (URS)	1				0		4.00	
S 136 Total BTEX	1				0		10.0	
S 140 1,2-Dichloroethene, Total (URS)	96				0		3.92	

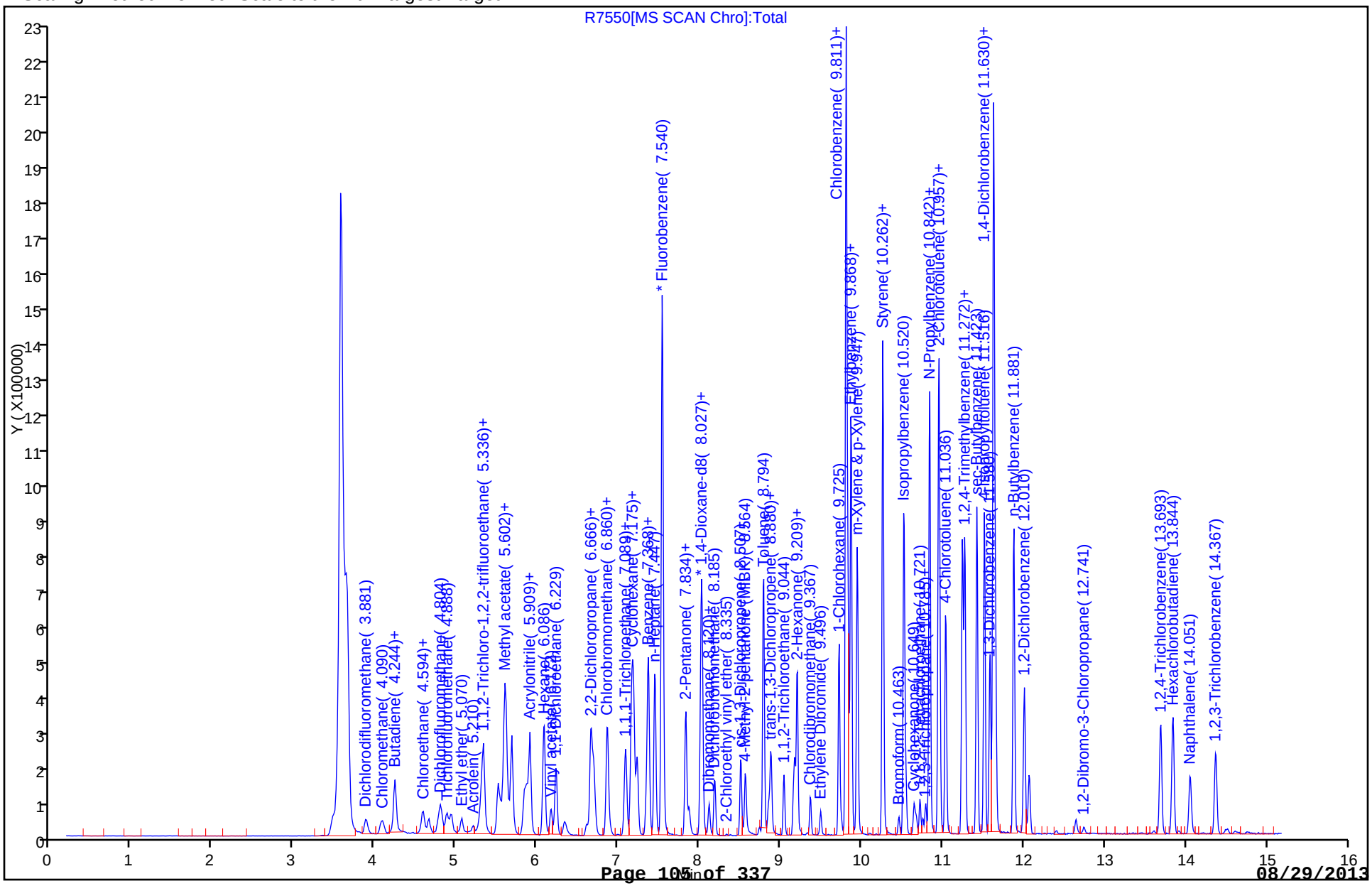
Report Date: 19-Aug-2013 08:50:50 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7550.D

Injection Date:	16-Aug-2013 19:57:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	8
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7551.D
Lims ID: std05 Client ID:
Inject. Date: 16-Aug-2013 20:19:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 4
Sample ID: std05
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 14
Lims Batch ID: 187446 Lims Sample ID: 9
Sublist: chrom-AQ_VMSR1_8260*sub41
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:51 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 16-Aug-2013 21:01:11

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	79	231533	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1489451	12.5	
* 149 1,4-Dioxane-d8	96	8.113	8.027	0.086	1	1568	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	82	372439	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	88	566999	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	87	329953	5.40	
26 Chloromethane	50	4.090	4.091	-0.001	89	235252	5.14	
27 Vinyl chloride	62	4.244	4.230	0.014	98	250995	5.28	
147 Butadiene	54	4.244	4.244	0.0	0	211631	5.36	
29 Bromomethane	94	4.594	4.580	0.014	87	177835	5.18	
30 Chloroethane	64	4.664	4.650	0.014	94	143240	5.26	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	75	391894	4.88	
32 Trichlorofluoromethane	101	4.888	4.874	0.014	83	372303	5.31	
35 Ethyl ether	59	5.070	5.056	0.014	85	81945	5.16	
39 Acrolein	56	5.210	5.196	0.014	93	66812	51.2	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.322	5.308	0.014	85	247443	5.74	
41 Acetone	43	5.308	5.308	0.0	37	68763	21.4	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	90	319933	6.12	
44 Iodomethane	142	5.518	5.504	0.014	98	499288	5.26	
45 Methyl acetate	43	5.546	5.532	0.014	97	286905	26.4	
47 3-Chloro-1-propene	41	5.602	5.588	0.014	83	468584	4.84	
48 Carbon disulfide	76	5.616	5.602	0.014	98	1400886	5.39	
49 2-Methyl-2-propanol	59	5.657	5.644	0.013	29	82412	49.4	
50 Methylene Chloride	84	5.685	5.686	-0.001	81	332978	5.37	
52 Acrylonitrile	53	5.839	5.826	0.013	100	296220	51.0	
51 Methyl tert-butyl ether	73	5.867	5.868	-0.001	88	431003	5.08	
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	96	350102	5.29	
54 Hexane	57	6.086	6.079	0.007	88	572710	5.37	
55 Vinyl acetate	43	6.172	6.165	0.007	90	400363	10.6	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.229	6.229	0.0	85	559231	5.24	
61 2-Butanone (MEK)	43	6.609	6.602	0.007	98	150057	19.5	
62 sec-Butyl Alcohol	45	6.652	6.652	0.0	67	180697	156.3	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	67	328504	5.26	
64 2,2-Dichloropropane	77	6.695	6.688	0.007	88	469917	5.35	
67 Chlorobromomethane	128	6.860	6.853	0.007	91	101412	5.12	
68 Chloroform	83	6.867	6.860	0.007	80	479165	5.18	
69 Tetrahydrofuran	42	6.895	6.888	0.007	84	45477	10.4	
70 Isobutyl alcohol	41	7.075	7.068	0.007	84	19704	107.5	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	90	487313	5.21	
72 Cyclohexane	56	7.168	7.161	0.007	87	663531	5.36	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	95	451141	5.30	
74 Carbon tetrachloride	117	7.232	7.225	0.007	79	417682	5.21	
76 1,2-Dichloroethane	62	7.347	7.340	0.007	91	215170	5.13	
77 Benzene	78	7.368	7.368	0.0	94	1275581	5.18	
14 n-Heptane	43	7.447	7.447	0.0	89	554486	5.40	
79 Trichloroethene	95	7.834	7.827	0.007	95	327692	5.11	
80 2-Pentanone	43	7.870	7.870	0.0	97	210344	19.2	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	95	269279	5.17	
82 Methylcyclohexane	55	8.034	8.027	0.007	90	506387	5.30	
84 1,4-Dioxane	88	8.070	8.070	0.0	70	14167	86.1	
85 Dibromomethane	93	8.120	8.113	0.007	87	88562	5.04	
86 Dichlorobromomethane	83	8.185	8.185	0.0	93	289784	5.16	
87 2-Chloroethyl vinyl ether	63	8.335	8.335	0.0	51	7335	7.47	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	92	348067	5.21	
90 4-Methyl-2-pentanone (MIBK)	43	8.564	8.565	-0.001	94	294206	19.6	
91 Toluene	91	8.794	8.787	0.007	99	1352821	5.25	
92 Ethyl methacrylate	69	8.872	8.873	-0.001	87	152645	5.22	
93 trans-1,3-Dichloropropene	75	8.887	8.880	0.007	92	249381	5.09	
94 1,1,2-Trichloroethane	97	9.044	9.045	-0.001	85	129175	5.00	
95 2-Hexanone	43	9.159	9.159	0.0	91	190945	19.8	
96 1,3-Dichloropropane	76	9.181	9.173	0.007	90	248755	5.17	
97 Tetrachloroethene	164	9.209	9.202	0.007	93	261997	5.26	
98 Chlorodibromomethane	129	9.367	9.367	0.0	88	147303	5.12	
100 Ethylene Dibromide	107	9.496	9.496	0.0	98	116069	5.11	
101 1-Chlorohexane	91	9.725	9.725	0.0	95	494020	5.30	
102 Chlorobenzene	112	9.832	9.832	0.0	94	796839	5.18	
103 Ethylbenzene	106	9.868	9.868	0.0	97	506954	5.35	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	82	231706	5.26	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	618072	5.24	
107 o-Xylene	106	10.262	10.262	0.0	89	574745	5.38	
106 Styrene	104	10.262	10.262	0.0	86	828798	5.40	
108 Bromoform	173	10.463	10.463	0.0	95	62125	4.72	
109 Isopropylbenzene	105	10.520	10.520	0.0	95	1617152	5.36	
111 Cyclohexanone	55	10.649	10.649	0.0	85	103269	177.5	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	84	130705	5.13	
113 trans-1,4-Dichloro-2-butene	53	10.756	10.757	-0.001	78	26125	4.97	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	76	33628	4.87	
115 N-Propylbenzene	120	10.842	10.842	0.0	97	458000	5.37	
116 Bromobenzene	156	10.842	10.842	0.0	50	274018	5.29	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	94	1311152	5.39	
118 2-Chlorotoluene	126	10.964	10.964	0.0	96	346768	5.31	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.036	11.036	0.0	97	347712	5.23	
120 tert-Butylbenzene	119	11.243	11.244	-0.001	92	1310373	5.27	
121 1,2,4-Trimethylbenzene	105	11.272	11.272	0.0	97	1283456	5.34	
122 sec-Butylbenzene	134	11.423	11.423	0.0	94	370853	5.37	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	95	1536950	5.42	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	89	604026	5.23	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	82	585396	5.22	
127 n-Butylbenzene	91	11.881	11.881	0.0	97	1459101	5.40	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	98	489201	5.23	
129 1,2-Dibromo-3-Chloropropane	157	12.748	12.741	0.007	61	17629	4.93	
130 1,2,4-Trichlorobenzene	180	13.693	13.693	0.0	92	334186	5.22	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	96	230352	5.20	
132 Naphthalene	128	14.051	14.052	-0.001	96	433325	5.01	
133 1,2,3-Trichlorobenzene	180	14.367	14.367	0.0	94	251197	5.12	
S 137 1,3-Dichloropropene, Total	1				0		10.3	
S 138 1,2-Dichloroethene, Total	1				0		10.5	
S 139 Xylenes, Total	106				0		10.6	
S 134 Trihalomethanes, Total	1				0		20.2	
S 135 Xylenes, Total (URS)	1				0		10.6	
S 136 Total BTEX	1				0		26.4	
S 140 1,2-Dichloroethene, Total (URS)	96				0		10.5	

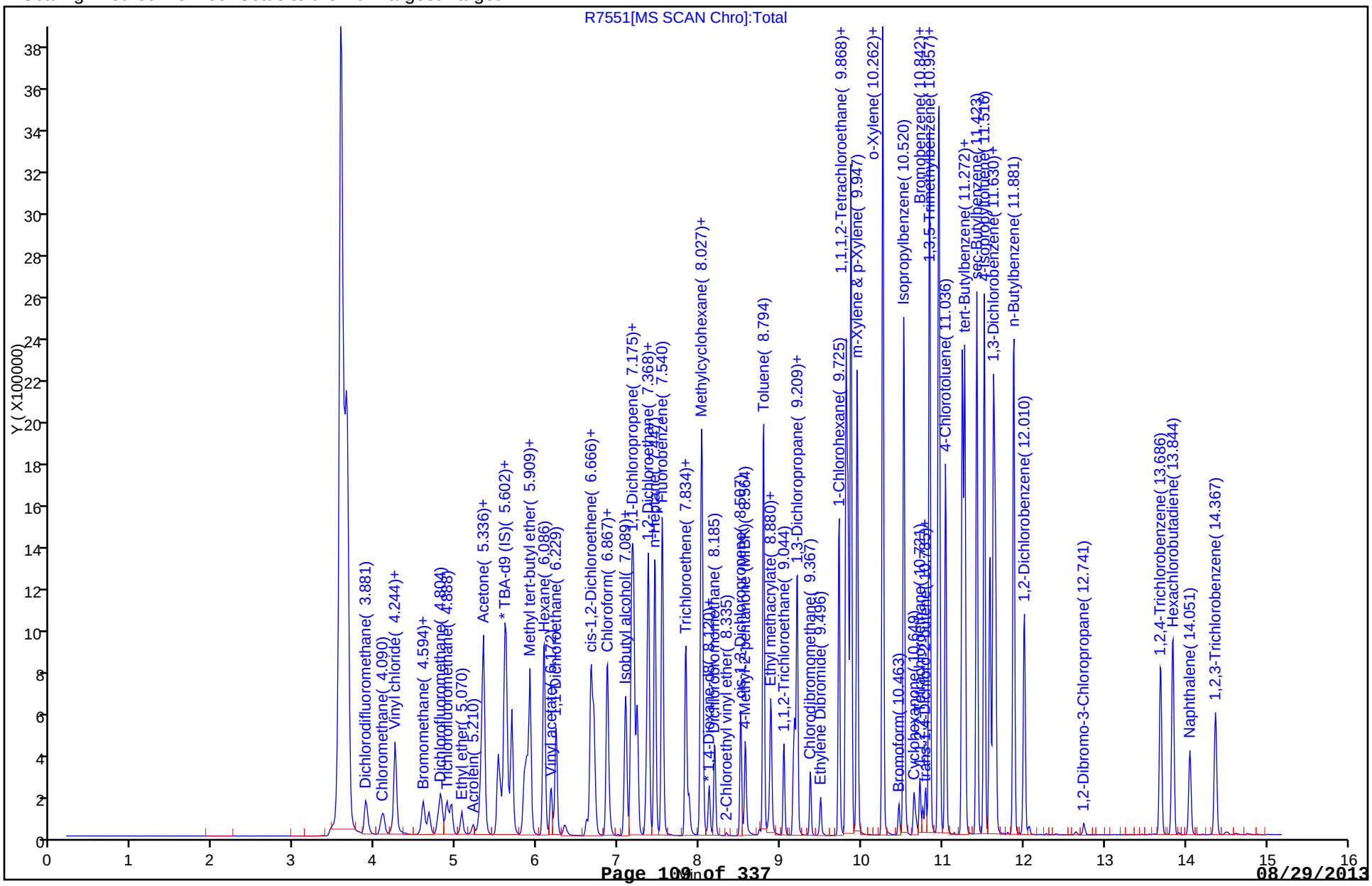
Report Date: 19-Aug-2013 08:50:51 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7551.D

Injection Date:	16-Aug-2013 20:19:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	9
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7552.D
Lims ID: std10 Client ID:
Inject. Date: 16-Aug-2013 20:40:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 5
Sample ID: std10
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 15
Lims Batch ID: 187446 Lims Sample ID: 10
Sublist: chrom-AQ_VMSR1_8260*sub41
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:51 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 16-Aug-2013 21:02:39

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	80	227139	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1466104	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	87	22400	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	81	372472	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	79	568809	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	87	642616	10.6	
26 Chloromethane	50	4.091	4.091	0.0	89	464952	10.3	
27 Vinyl chloride	62	4.230	4.230	0.0	83	502646	10.7	
147 Butadiene	54	4.244	4.244	0.0	0	419736	10.8	
29 Bromomethane	94	4.580	4.580	0.0	87	353528	10.5	
30 Chloroethane	64	4.650	4.650	0.0	95	286060	10.7	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	79	799134	10.1	
32 Trichlorofluoromethane	101	4.874	4.874	0.0	87	738777	10.7	
35 Ethyl ether	59	5.056	5.056	0.0	85	163142	10.6	
39 Acrolein	56	5.196	5.196	0.0	95	129303	104.8	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.308	5.308	0.0	86	413160	9.73	
41 Acetone	43	5.308	5.308	0.0	95	118098	40.9	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	90	475245	9.23	
44 Iodomethane	142	5.504	5.504	0.0	98	961800	10.3	
45 Methyl acetate	43	5.532	5.532	0.0	90	526262	49.2	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	84	933554	9.80	
48 Carbon disulfide	76	5.602	5.602	0.0	98	2688791	10.5	
49 2-Methyl-2-propanol	59	5.644	5.644	0.0	76	153762	93.6	M
50 Methylene Chloride	84	5.686	5.686	0.0	85	577522	10.2	
52 Acrylonitrile	53	5.826	5.826	0.0	100	578594	101.2	
51 Methyl tert-butyl ether	73	5.868	5.868	0.0	88	847359	10.2	
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	96	671413	10.3	
54 Hexane	57	6.079	6.079	0.0	89	1101527	10.3	
55 Vinyl acetate	43	6.165	6.165	0.0	96	775265	20.9	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.229	6.229	0.0	85	1071637	10.2	
61 2-Butanone (MEK)	43	6.602	6.602	0.0	99	301944	40.4	
62 sec-Butyl Alcohol	45	6.652	6.652	0.0	75	332799	293.3	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	67	629510	10.2	
64 2,2-Dichloropropane	77	6.688	6.688	0.0	89	904215	10.5	
67 Chlorobromomethane	128	6.853	6.853	0.0	93	201796	10.3	
68 Chloroform	83	6.860	6.860	0.0	80	928729	10.2	
69 Tetrahydrofuran	42	6.888	6.888	0.0	84	85855	20.3	
70 Isobutyl alcohol	41	7.068	7.068	0.0	93	40499	230.8	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	90	946364	10.3	
72 Cyclohexane	56	7.161	7.161	0.0	87	1274755	10.5	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	94	878634	10.5	
74 Carbon tetrachloride	117	7.225	7.225	0.0	74	828134	10.5	
76 1,2-Dichloroethane	62	7.340	7.340	0.0	91	419332	10.2	
77 Benzene	78	7.368	7.368	0.0	94	2459584	10.2	
14 n-Heptane	43	7.447	7.447	0.0	88	1063416	10.5	
79 Trichloroethene	95	7.827	7.827	0.0	96	632677	10.0	
80 2-Pentanone	43	7.870	7.870	0.0	97	427923	39.6	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	95	518538	10.1	
82 Methylcyclohexane	55	8.027	8.027	0.0	89	977698	10.4	
84 1,4-Dioxane	88	8.070	8.070	0.0	91	36147	223.1	
85 Dibromomethane	93	8.113	8.113	0.0	87	177265	10.2	
86 Dichlorobromomethane	83	8.185	8.185	0.0	94	571137	10.3	
87 2-Chloroethyl vinyl ether	63	8.335	8.335	0.0	66	9195	9.61	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	92	685952	10.3	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	0.0	93	620406	42.0	
91 Toluene	91	8.787	8.787	0.0	99	2617882	10.3	
92 Ethyl methacrylate	69	8.873	8.873	0.0	87	302873	10.4	
93 trans-1,3-Dichloropropene	75	8.880	8.880	0.0	91	507419	10.5	
94 1,1,2-Trichloroethane	97	9.045	9.045	0.0	85	260876	10.3	
95 2-Hexanone	43	9.159	9.159	0.0	90	411672	42.6	
96 1,3-Dichloropropane	76	9.173	9.173	0.0	89	486651	10.1	
97 Tetrachloroethene	164	9.202	9.202	0.0	92	519662	10.4	
98 Chlorodibromomethane	129	9.367	9.367	0.0	88	301908	10.5	
100 Ethylene Dibromide	107	9.496	9.496	0.0	98	234342	10.3	
101 1-Chlorohexane	91	9.725	9.725	0.0	95	974417	10.4	
102 Chlorobenzene	112	9.832	9.832	0.0	96	1553742	10.1	
103 Ethylbenzene	106	9.868	9.868	0.0	98	987492	10.4	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	82	460029	10.4	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	1220649	10.3	
107 o-Xylene	106	10.262	10.262	0.0	89	1102757	10.3	
106 Styrene	104	10.262	10.262	0.0	86	1631205	10.6	
108 Bromoform	173	10.463	10.463	0.0	96	133806	10.0	
109 Isopropylbenzene	105	10.520	10.520	0.0	95	3141620	10.4	
111 Cyclohexanone	55	10.649	10.649	0.0	88	231298	397.5	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	84	257543	10.1	
113 trans-1,4-Dichloro-2-butene	53	10.757	10.757	0.0	81	55075	10.4	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	69	70392	10.2	
115 N-Propylbenzene	120	10.842	10.842	0.0	97	879578	10.3	
116 Bromobenzene	156	10.842	10.842	0.0	50	534035	10.3	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	94	2503422	10.3	
118 2-Chlorotoluene	126	10.964	10.964	0.0	96	678138	10.3	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.036	11.036	0.0	97	686062	10.3	
120 tert-Butylbenzene	119	11.244	11.244	0.0	92	2575424	10.3	
121 1,2,4-Trimethylbenzene	105	11.272	11.272	0.0	97	2488868	10.3	
122 sec-Butylbenzene	134	11.423	11.423	0.0	94	727076	10.5	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	96	3008091	10.6	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	96	1177537	10.2	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	95	1142309	10.2	
127 n-Butylbenzene	91	11.881	11.881	0.0	97	2848477	10.5	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	97	954219	10.2	
129 1,2-Dibromo-3-Chloropropane	157	12.741	12.741	0.0	66	35952	10.0	
130 1,2,4-Trichlorobenzene	180	13.693	13.693	0.0	93	650443	10.1	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	96	458945	10.3	
132 Naphthalene	128	14.052	14.052	0.0	97	884413	10.2	
133 1,2,3-Trichlorobenzene	180	14.367	14.367	0.0	94	504451	10.2	
S 137 1,3-Dichloropropene, Total	1				0		20.8	
S 138 1,2-Dichloroethene, Total	1				0		20.5	
S 139 Xylenes, Total	106				0		20.7	
S 134 Trihalomethanes, Total	1				0		41.1	
S 135 Xylenes, Total (URS)	1				0		20.7	
S 136 Total BTEX	1				0		51.6	
S 140 1,2-Dichloroethene, Total (URS)	96				0		20.5	

QC Flag Legend

Review Flags
M - Manually Integrated

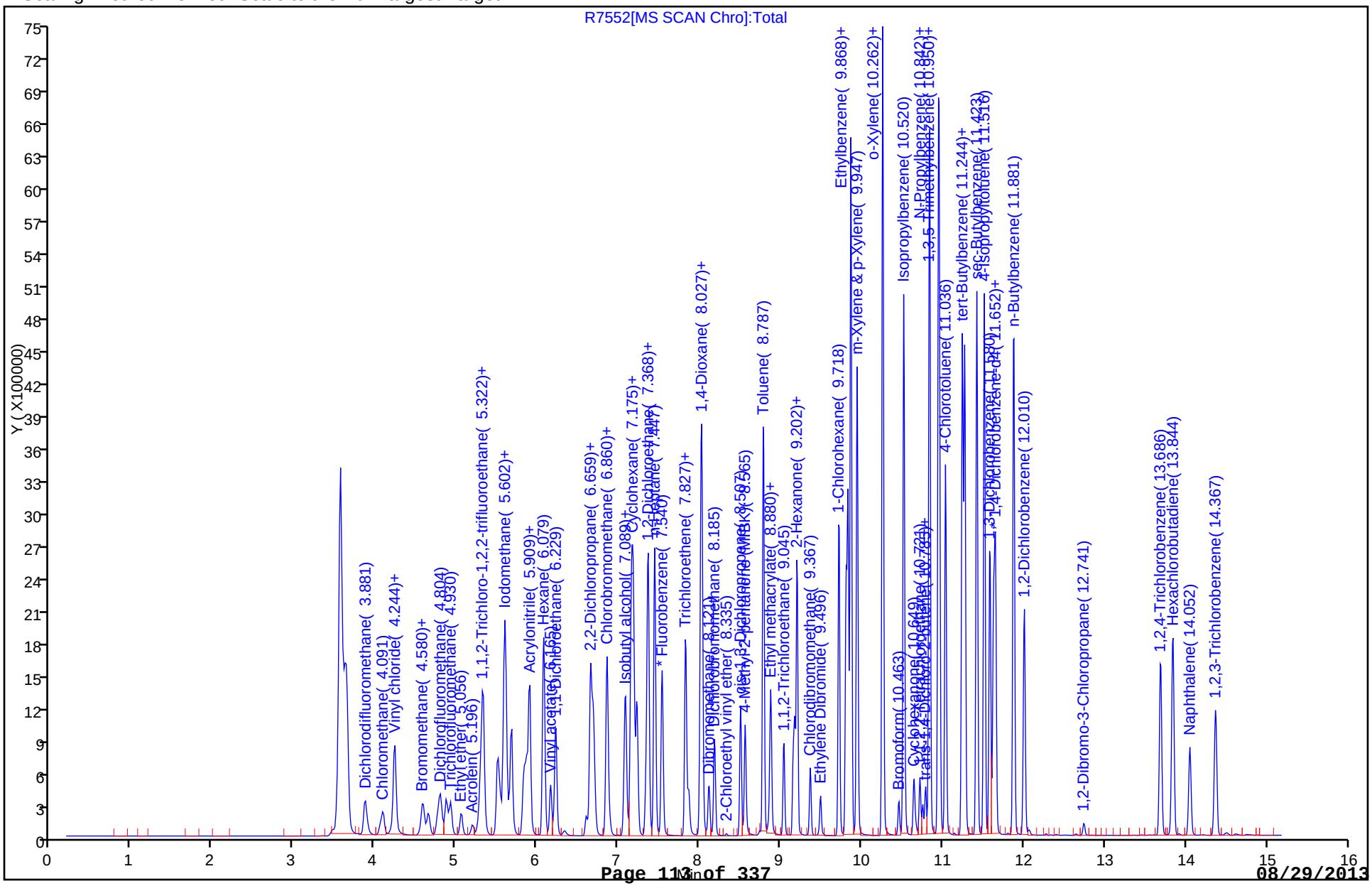
Report Date: 19-Aug-2013 08:50:52 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7552.D

Injection Date:	16-Aug-2013 20:40:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	10
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



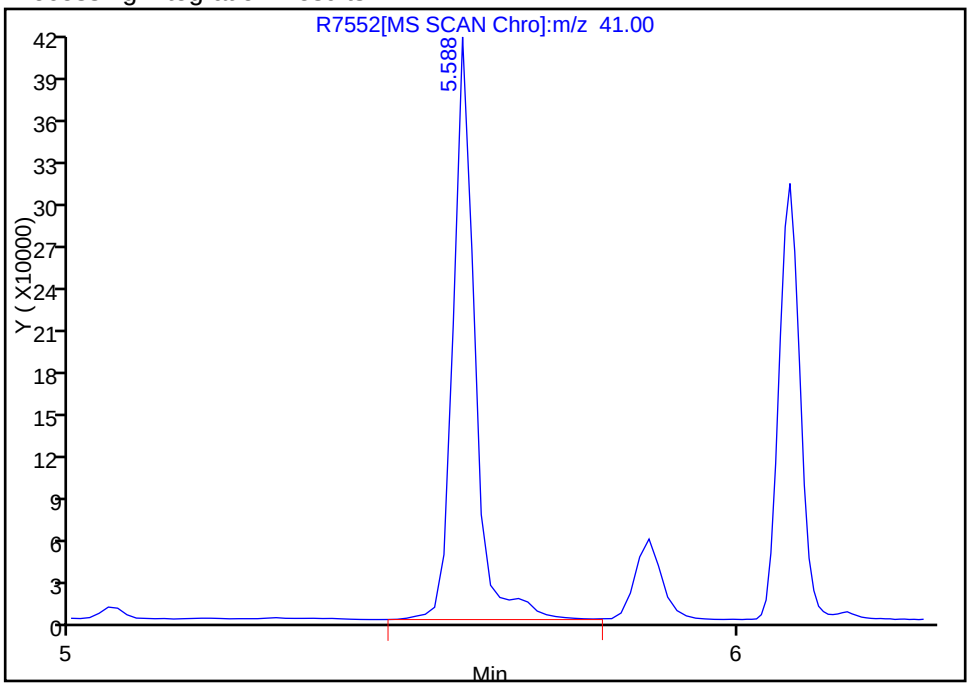
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7552.D		
Injection Date:	16-Aug-2013 20:40:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	10
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

49 2-Methyl-2-propanol, Signal: 2, m/z: 41.0 Type: monitor, RT: 5.64

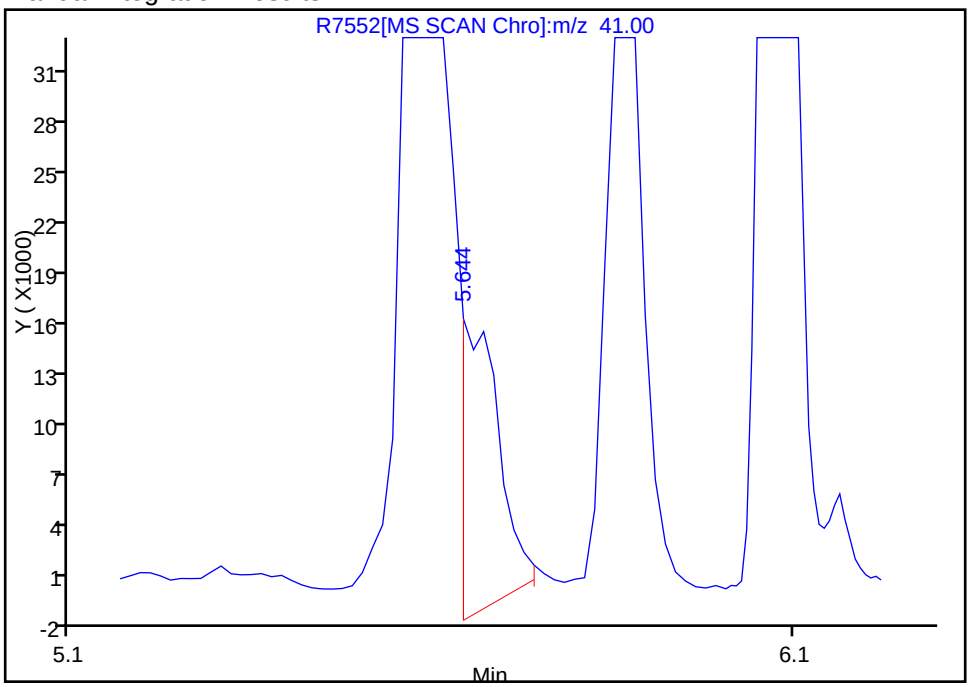
Processing Integration Results

RT: 5.59
Response: 933554
Amount: 0



Manual Integration Results

RT: 5.64
Response: 62568
Amount: 0



Reviewer: moanm, 16-Aug-2013 21:02:39
Audit Action: Manually Integrated
Audit Reason: Wrong peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7553.D
Lims ID: std30 Client ID:
Inject. Date: 16-Aug-2013 21:01:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 6
Sample ID: std30
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 16
Lims Batch ID: 187446 Lims Sample ID: 11
Sublist: chrom-AQ_VMSR1_8260*sub41
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:53 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 16-Aug-2013 21:21:29

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	84	238073	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1588781	12.5	
* 149 1,4-Dioxane-d8	96	8.020	8.027	-0.007	86	30769	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	74	408358	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	94	621522	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	89	2052482	30.9	
26 Chloromethane	50	4.105	4.091	0.014	88	1456095	29.9	
27 Vinyl chloride	62	4.244	4.230	0.014	83	1502817	29.7	
147 Butadiene	54	4.258	4.244	0.014	0	1289618	30.6	
29 Bromomethane	94	4.594	4.580	0.014	88	1008903	27.5	
30 Chloroethane	64	4.664	4.650	0.014	95	826085	28.4	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	79	2351309	27.4	
32 Trichlorofluoromethane	101	4.888	4.874	0.014	87	2280346	30.5	
35 Ethyl ether	59	5.070	5.056	0.014	86	511927	31.1	
39 Acrolein	56	5.210	5.196	0.014	91	390304	299.6	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.322	5.308	0.014	85	1329299	28.9	
41 Acetone	43	5.308	5.308	0.0	97	347551	119.4	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	90	1553181	27.8	
44 Iodomethane	142	5.518	5.504	0.014	98	3084955	30.5	
45 Methyl acetate	43	5.546	5.532	0.014	88	1648720	142.2	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	76	2840156	27.5	
48 Carbon disulfide	76	5.616	5.602	0.014	98	8399072	30.3	
49 2-Methyl-2-propanol	59	5.658	5.644	0.014	36	498567	280.1	
50 Methylene Chloride	84	5.686	5.686	0.0	80	1714079	29.9	
52 Acrylonitrile	53	5.840	5.826	0.014	100	1819037	293.7	
51 Methyl tert-butyl ether	73	5.867	5.868	-0.001	82	2687362	29.7	
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	95	2117184	30.0	
54 Hexane	57	6.079	6.079	0.0	88	3389217	29.0	
55 Vinyl acetate	43	6.165	6.165	0.0	96	2478954	61.6	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.229	6.229	0.0	85	3376068	29.6	
61 2-Butanone (MEK)	43	6.602	6.602	0.0	98	917240	114.4	
62 sec-Butyl Alcohol	45	6.652	6.652	0.0	75	1078015	906.6	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	66	1996052	29.9	
64 2,2-Dichloropropane	77	6.695	6.688	0.007	84	2875985	30.7	
67 Chlorobromomethane	128	6.860	6.853	0.007	91	647321	30.6	
68 Chloroform	83	6.867	6.860	0.007	80	2952565	29.9	
69 Tetrahydrofuran	42	6.896	6.888	0.008	85	269169	59.3	
70 Isobutyl alcohol	41	7.068	7.068	0.0	95	138736	765.9	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	90	3051472	30.6	
72 Cyclohexane	56	7.168	7.161	0.007	86	3923089	29.7	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	93	2738138	30.2	
74 Carbon tetrachloride	117	7.232	7.225	0.007	74	2697439	31.5	
76 1,2-Dichloroethane	62	7.347	7.340	0.007	91	1333777	29.8	
77 Benzene	78	7.368	7.368	0.0	94	7734552	29.5	
14 n-Heptane	43	7.447	7.447	0.0	88	3202720	29.3	
79 Trichloroethene	95	7.834	7.827	0.007	95	2022727	29.6	
80 2-Pentanone	43	7.870	7.870	0.0	97	1392362	118.9	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	95	1613144	29.0	
82 Methylcyclohexane	55	8.035	8.027	0.008	90	2996651	29.4	
84 1,4-Dioxane	88	8.070	8.070	0.0	82	109032	620.9	
85 Dibromomethane	93	8.121	8.113	0.007	88	580231	30.9	
86 Dichlorobromomethane	83	8.185	8.185	0.0	94	1889765	31.6	
87 2-Chloroethyl vinyl ether	63	8.328	8.335	-0.007	81	35166	29.8	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	94	2232370	30.5	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	0.0	93	1871692	116.9	
91 Toluene	91	8.787	8.787	0.0	99	8039843	29.3	
92 Ethyl methacrylate	69	8.873	8.873	0.0	87	997810	31.1	
93 trans-1,3-Dichloropropene	75	8.887	8.880	0.007	91	1660444	31.8	
94 1,1,2-Trichloroethane	97	9.045	9.045	0.0	85	828422	30.1	
95 2-Hexanone	43	9.152	9.159	-0.007	93	1249751	118.0	
96 1,3-Dichloropropane	76	9.173	9.173	0.0	88	1569058	29.7	
97 Tetrachloroethene	164	9.209	9.202	0.007	92	1639680	30.0	
98 Chlorodibromomethane	129	9.367	9.367	0.0	88	1018050	32.3	
100 Ethylene Dibromide	107	9.496	9.496	0.0	98	770061	30.9	
101 1-Chlorohexane	91	9.725	9.725	0.0	93	3070973	30.0	
102 Chlorobenzene	112	9.832	9.832	0.0	95	4892321	29.0	
103 Ethylbenzene	106	9.868	9.868	0.0	97	3076413	29.6	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	85	1478192	30.6	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	3799654	29.4	
107 o-Xylene	106	10.262	10.262	0.0	89	3335459	28.4	
106 Styrene	104	10.262	10.262	0.0	86	4961037	29.5	
108 Bromoform	173	10.463	10.463	0.0	97	476665	32.4	
109 Isopropylbenzene	105	10.520	10.520	0.0	95	9614225	29.1	
111 Cyclohexanone	55	10.649	10.649	0.0	89	726456	1138.8	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	85	838749	30.1	
113 trans-1,4-Dichloro-2-butene	53	10.757	10.757	-0.001	86	188398	32.7	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	70	228544	30.2	
115 N-Propylbenzene	120	10.842	10.842	0.0	96	2740775	29.3	
116 Bromobenzene	156	10.842	10.842	0.0	81	1673063	29.5	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	93	7636754	28.7	
118 2-Chlorotoluene	126	10.964	10.964	0.0	97	2067859	28.9	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.036	11.036	0.0	98	2156386	29.6	
120 tert-Butylbenzene	119	11.244	11.244	0.0	92	7907600	29.0	
121 1,2,4-Trimethylbenzene	105	11.272	11.272	0.0	97	7645910	29.0	
122 sec-Butylbenzene	134	11.423	11.423	0.0	94	2246326	29.7	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	94	9039520	29.1	
124 1,3-Dichlorobenzene	146	11.580	11.587	-0.007	96	3674129	29.0	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	95	3563401	29.0	
127 n-Butylbenzene	91	11.874	11.881	-0.007	97	8470855	28.6	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	97	2984569	29.1	
129 1,2-Dibromo-3-Chloropropane	157	12.741	12.741	0.0	82	126786	32.4	
130 1,2,4-Trichlorobenzene	180	13.686	13.693	-0.007	93	2046464	29.1	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	96	1425344	29.4	
132 Naphthalene	128	14.051	14.052	-0.001	97	2859295	30.1	
133 1,2,3-Trichlorobenzene	180	14.367	14.367	0.0	93	1574000	29.3	
S 137 1,3-Dichloropropene, Total	1				0		62.3	
S 138 1,2-Dichloroethene, Total	1				0		59.9	
S 139 Xylenes, Total	106				0		57.8	
S 134 Trihalomethanes, Total	1				0		126.1	
S 135 Xylenes, Total (URS)	1				0		57.8	
S 136 Total BTEX	1				0		146.2	
S 140 1,2-Dichloroethene, Total (URS)	96				0		59.9	

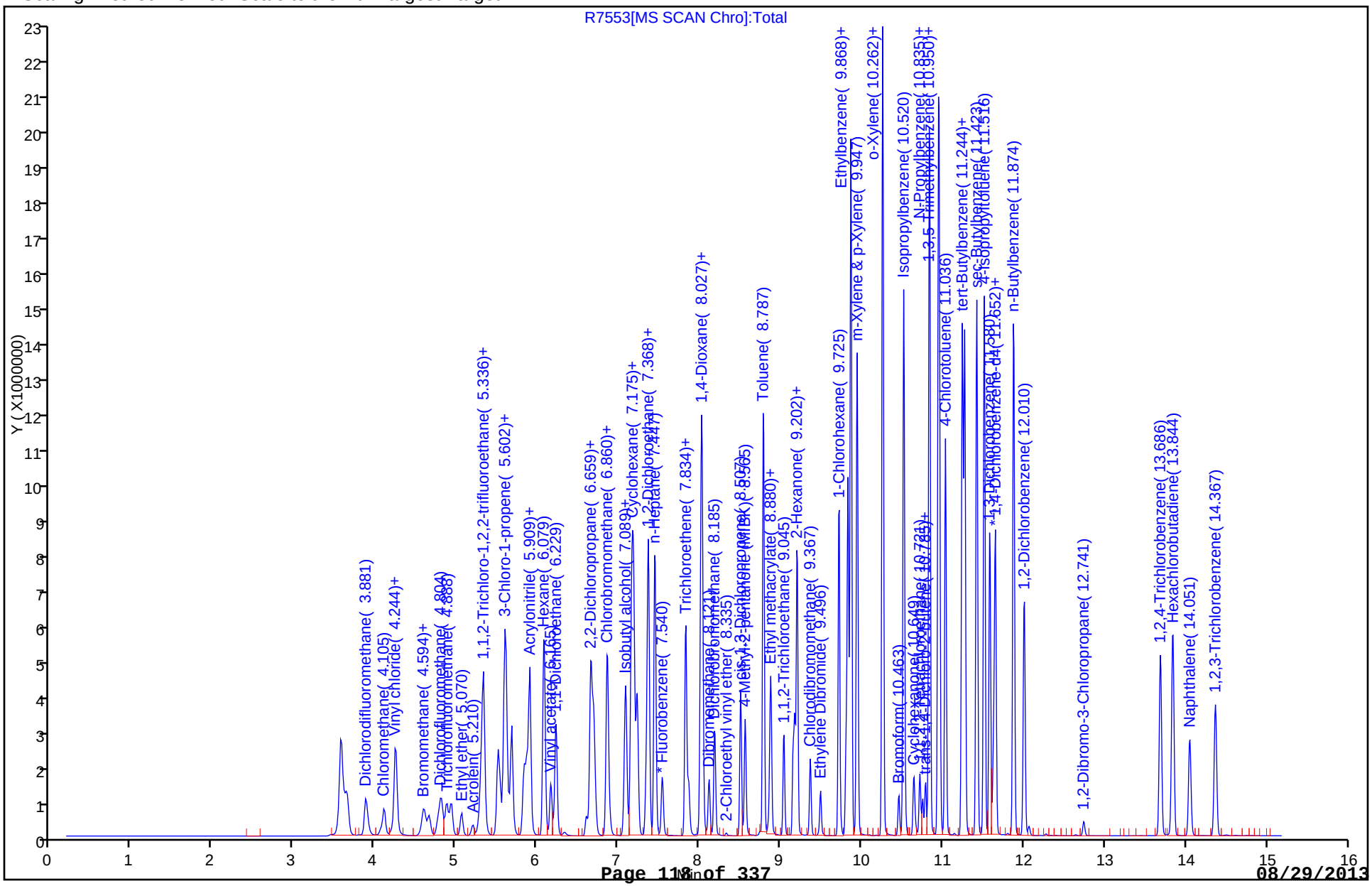
Report Date: 19-Aug-2013 08:50:53 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7553.D

Injection Date:	16-Aug-2013 21:01:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	11
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7554.D
Lims ID: std60 Client ID:
Inject. Date: 16-Aug-2013 21:22:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 7
Sample ID: std60
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 17
Lims Batch ID: 187446 Lims Sample ID: 12
Sublist: chrom-AQ_VMSR1_8260*sub41
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:54 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 16-Aug-2013 22:09:53

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	66	231506	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1576559	12.5	
* 149 1,4-Dioxane-d8	96	8.020	8.027	-0.007	86	38667	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	71	391882	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	91	608091	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	89	3874576	58.6	
26 Chloromethane	50	4.105	4.091	0.014	88	2779049	57.4	
27 Vinyl chloride	62	4.244	4.230	0.014	83	2758161	54.8	
147 Butadiene	54	4.244	4.244	0.0	0	2295655	54.9	
29 Bromomethane	94	4.594	4.580	0.014	88	1698435	46.7	
30 Chloroethane	64	4.650	4.650	0.0	94	1403566	48.7	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	79	4258108	50.1	
32 Trichlorofluoromethane	101	4.930	4.874	0.056	87	4049128	54.6	
35 Ethyl ether	59	5.056	5.056	0.0	87	957908	58.8	
39 Acrolein	56	5.196	5.196	0.0	95	764494	595.6	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.308	5.308	0.0	85	2489690	54.5	
41 Acetone	43	5.294	5.308	-0.014	97	656583	231.7	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	90	2747016	49.6	
44 Iodomethane	142	5.504	5.504	0.0	98	5833896	58.1	
45 Methyl acetate	43	5.532	5.532	0.0	88	3164552	275.0	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	82	5173320	50.5	
48 Carbon disulfide	76	5.602	5.602	0.0	98	15176235	55.2	
49 2-Methyl-2-propanol	59	5.644	5.644	0.0	59	965782	546.9	
50 Methylene Chloride	84	5.686	5.686	0.0	80	3208583	57.3	
52 Acrylonitrile	53	5.826	5.826	0.0	100	3495107	568.6	
51 Methyl tert-butyl ether	73	5.868	5.868	0.0	87	5193068	57.9	
53 trans-1,2-Dichloroethene	96	5.910	5.909	0.001	95	3964945	56.6	
54 Hexane	57	6.079	6.079	0.0	88	6232734	55.5	
55 Vinyl acetate	43	6.165	6.165	0.0	90	4917715	123.2	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.230	6.229	0.001	85	6351506	56.2	
61 2-Butanone (MEK)	43	6.602	6.602	0.0	98	1821773	229.5	
62 sec-Butyl Alcohol	45	6.645	6.652	-0.007	57	2063449	1784.5	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	66	3765880	56.9	
64 2,2-Dichloropropane	77	6.688	6.688	0.0	79	5423095	58.4	
67 Chlorobromomethane	128	6.853	6.853	0.0	89	1256711	59.9	
68 Chloroform	83	6.867	6.860	0.007	81	5577911	57.0	
69 Tetrahydrofuran	42	6.889	6.888	0.0	84	519481	115.6	
70 Isobutyl alcohol	41	7.060	7.068	-0.008	95	267522	1523.7	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	90	5774941	58.4	
72 Cyclohexane	56	7.161	7.161	0.0	86	7052169	53.8	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	93	5002513	55.5	
74 Carbon tetrachloride	117	7.225	7.225	0.0	74	5103345	60.1	
76 1,2-Dichloroethane	62	7.340	7.340	0.0	91	2571913	58.0	
77 Benzene	78	7.368	7.368	0.0	95	14200187	54.5	
14 n-Heptane	43	7.447	7.447	0.0	87	5701034	52.5	
79 Trichloroethene	95	7.827	7.827	0.0	96	3800572	56.0	
80 2-Pentanone	43	7.863	7.870	-0.007	97	2633930	226.6	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	95	2915829	52.9	
82 Methylcyclohexane	55	8.027	8.027	0.0	90	5290447	52.3	
84 1,4-Dioxane	88	8.070	8.070	0.0	89	246210	1412.9	
85 Dibromomethane	93	8.113	8.113	0.0	88	1123259	60.4	
86 Dichlorobromomethane	83	8.185	8.185	0.0	94	3645882	61.4	
87 2-Chloroethyl vinyl ether	63	8.328	8.335	-0.007	88	89375	60.0	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	94	4283913	60.9	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	0.0	93	3660690	230.4	
91 Toluene	91	8.787	8.787	0.0	99	14036008	51.5	
92 Ethyl methacrylate	69	8.873	8.873	0.0	87	1903197	61.8	
93 trans-1,3-Dichloropropene	75	8.880	8.880	0.0	91	3176711	61.3	
94 1,1,2-Trichloroethane	97	9.037	9.045	-0.008	84	1596791	58.4	
95 2-Hexanone	43	9.152	9.159	-0.007	93	2463625	242.4	
96 1,3-Dichloropropane	76	9.174	9.173	0.001	87	2954257	58.3	
97 Tetrachloroethene	164	9.202	9.202	0.0	91	3019967	57.7	
98 Chlorodibromomethane	129	9.367	9.367	0.0	88	1993982	65.8	
100 Ethylene Dibromide	107	9.496	9.496	0.0	98	1491870	62.4	
101 1-Chlorohexane	91	9.718	9.725	-0.007	92	5507276	56.1	
102 Chlorobenzene	112	9.833	9.832	0.0	95	8916446	55.1	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	80	2674880	57.7	
103 Ethylbenzene	106	9.868	9.868	0.0	97	5232807	52.5	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	6761305	54.5	
106 Styrene	104	10.262	10.262	0.0	86	8359273	51.8	
107 o-Xylene	106	10.262	10.262	0.0	89	5621618	50.0	
108 Bromoform	173	10.463	10.463	0.0	97	953452	67.4	
109 Isopropylbenzene	105	10.520	10.520	0.0	96	15250447	47.1	
111 Cyclohexanone	55	10.642	10.649	-0.007	89	1482284	2421.2	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	82	1632076	59.8	
113 trans-1,4-Dichloro-2-butene	53	10.757	10.757	0.0	85	367374	65.1	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	78	441914	59.7	
115 N-Propylbenzene	120	10.843	10.842	0.0	93	4679698	51.2	
116 Bromobenzene	156	10.835	10.842	-0.007	57	2983807	53.7	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	94	12792944	49.1	
118 2-Chlorotoluene	126	10.964	10.964	0.0	96	3522781	50.3	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.036	11.036	0.0	97	3867759	54.2	
120 tert-Butylbenzene	119	11.244	11.244	0.0	92	13820391	51.9	
121 1,2,4-Trimethylbenzene	105	11.272	11.272	0.0	97	13208375	51.3	
122 sec-Butylbenzene	134	11.423	11.423	0.0	95	3969035	53.6	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	92	14940099	49.1	
124 1,3-Dichlorobenzene	146	11.580	11.587	-0.007	96	6707362	54.1	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	95	6511858	54.2	
127 n-Butylbenzene	91	11.874	11.881	-0.007	96	14545675	50.2	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	97	5519681	55.0	
129 1,2-Dibromo-3-Chloropropane	157	12.741	12.741	0.0	85	262886	68.6	
130 1,2,4-Trichlorobenzene	180	13.686	13.693	-0.007	93	3825236	55.7	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	96	2617941	55.1	
132 Naphthalene	128	14.052	14.052	0.0	97	5455163	58.8	
133 1,2,3-Trichlorobenzene	180	14.367	14.367	0.0	93	2961047	56.3	
S 137 1,3-Dichloropropene, Total	1				0		122.2	
S 138 1,2-Dichloroethene, Total	1				0		113.5	
S 139 Xylenes, Total	106				0		104.4	
S 134 Trihalomethanes, Total	1				0		251.6	
S 135 Xylenes, Total (URS)	1				0		104.4	
S 136 Total BTEX	1				0		262.9	
S 140 1,2-Dichloroethene, Total (URS)	96				0		113.5	

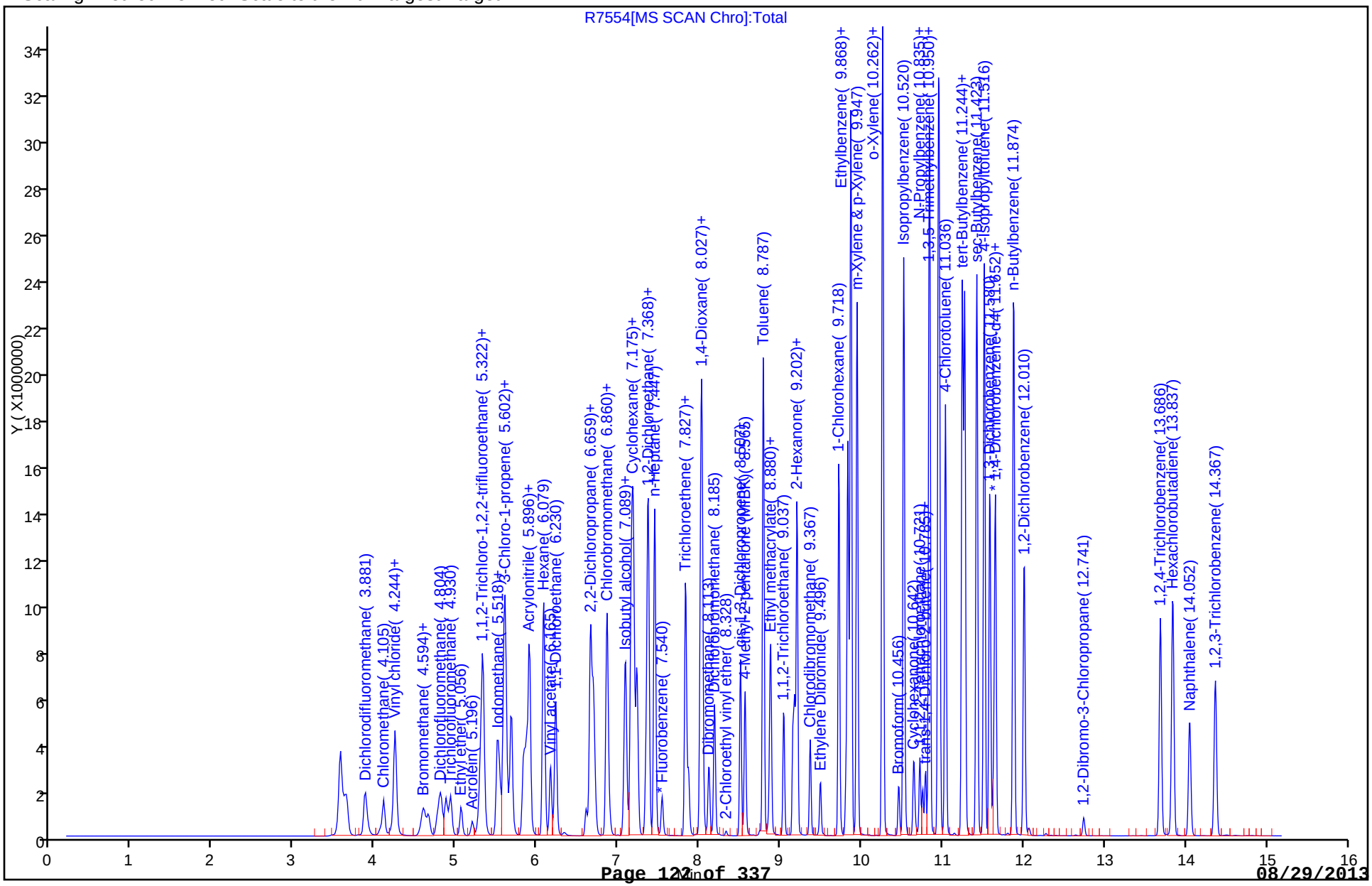
Report Date: 19-Aug-2013 08:50:54 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7554.D

Injection Date:	16-Aug-2013 21:22:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	12
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 22:46 Calibration End Date: 08/17/2013 00:31 Calibration ID: 15151

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 280-187446/14	R7558.D
Level 2	STD02 280-187446/15	R7559.D
Level 3	STD05 280-187446/16	R7560.D
Level 4	ICIS 280-187446/17	R7561.D
Level 5	STD30 280-187446/18	R7562.D
Level 6	STD60 280-187446/19	R7563.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethanol	0.0973 0.0812	0.1493	0.1254	0.1147	0.0938	Lin	10.192	0.0800							0.9930		0.9900
2,2-Dichloro-1,1,1-trifluoroethane	0.6068 0.5224	0.6001	0.6546	0.5746	0.5751	Ave		0.5889				7.4		15.0			
Propene oxide	0.0178 0.0154	0.0190	0.0201	0.0183	0.0170	Ave		0.0179				9.0		15.0			
Isopropyl alcohol	1.1049 0.7118	1.0293	0.8766	0.8512	0.7019	Lin2	3.9482	0.7576							0.9900		0.9900
Acetonitrile	0.0233 0.0140	0.0183	0.0143	0.0150	0.0139	Lin2	0.0959	0.0135							0.9970		0.9900
Isopropyl ether	0.3442 0.3484	0.3657	0.3873	0.3484	0.3534	Ave		0.3579				4.5		15.0			
2-Chloro-1,3-butadiene	0.7555 0.7288	0.7720	0.8527	0.7253	0.7610	Ave		0.7659				6.0		15.0			
Tert-butyl ethyl ether	0.9079 0.9097	0.9652	1.0325	0.9368	0.9330	Ave		0.9475				4.9		15.0			
Ethyl acetate	0.0826 0.0737	0.0836	0.0838	0.0760	0.0750	Ave		0.0791				5.9		15.0			
Propionitrile	0.0163 0.0165	0.0171	0.0187	0.0171	0.0169	Ave		0.0171				5.0		15.0			
Methacrylonitrile	0.0749 0.0673	0.0807	0.0840	0.0762	0.0727	Ave		0.0760				7.8		15.0			
Tert-amyl methyl ether	0.6960 0.7331	0.7509	0.8020	0.7305	0.7397	Ave		0.7420				4.7		15.0			
Methyl methacrylate	0.0373 0.0465	0.0445	0.0469	0.0450	0.0466	Ave		0.0445				8.1		15.0			
2-Nitropropane	0.0256 0.0272	0.0250	0.0279	0.0259	0.0258	Ave		0.0262				4.2		15.0			
cis-1,4-Dichloro-2-butene	0.1058 0.1315	0.1146	0.1272	0.1176	0.1289	Ave		0.1209				8.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 22:46 Calibration End Date: 08/17/2013 00:31 Calibration ID: 15151

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromofluoromethane (Surr)	0.3903 0.3927	0.4095	0.4228	0.3854	0.3905	Ave		0.3985				3.6		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3100 0.2881	0.3107	0.3160	0.2873	0.2898	Ave		0.3003				4.4		15.0			
Toluene-d8 (Surr)	7.9308 7.0956	7.9277	8.1681	7.2888	7.2002	Ave		7.6019				6.0		15.0			
4-Bromofluorobenzene (Surr)	1.7111 1.5234	1.6659	1.6773	1.5096	1.5264	Ave		1.6023				5.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 22:46 Calibration End Date: 08/17/2013 00:31 Calibration ID: 15151

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 280-187446/14	R7558.D
Level 2	STD02 280-187446/15	R7559.D
Level 3	STD05 280-187446/16	R7560.D
Level 4	ICIS 280-187446/17	R7561.D
Level 5	STD30 280-187446/18	R7562.D
Level 6	STD60 280-187446/19	R7563.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Ethanol	TBA	Lin	4395 212217	12478	26036	47497	121623	50.0 3000	100	250	500	1500
2,2-Dichloro-1,1,1-trifluoroethane	FB	Ave	74762 3866689	138465	376055	700084	2091547	1.00 60.0	2.00	5.00	10.0	30.0
Propene oxide	FB	Ave	109614 5717651	219363	576202	1116957	3086693	50.0 3000	100	250	500	1500
Isopropyl alcohol	TBA	Lin2	9986 371834	17200	36413	70496	182073	10.0 600	20.0	50.0	100	300
Acetonitrile	FB	Lin2	28658 1036316	42122	82399	182325	505223	10.0 600	20.0	50.0	100	300
Isopropyl ether	FB	Ave	42402 2578633	84377	222479	424464	1285159	1.00 60.0	2.00	5.00	10.0	30.0
2-Chloro-1,3-butadiene	FB	Ave	93082 5395079	178133	489824	883770	2767560	1.00 60.0	2.00	5.00	10.0	30.0
Tert-butyl ethyl ether	FB	Ave	111856 6733599	222728	593128	1141355	3393027	1.00 60.0	2.00	5.00	10.0	30.0
Ethyl acetate	FB	Ave	20351 1091373	38580	96311	185206	545643	2.00 120	4.00	10.0	20.0	60.0
Propionitrile	FB	Ave	20021 1220771	39396	107420	208058	616298	10.0 600	20.0	50.0	100	300
Methacrylonitrile	FB	Ave	92218 4983676	186143	482681	928936	2644878	10.0 600	20.0	50.0	100	300
Tert-amyl methyl ether	FB	Ave	85747 5426624	173269	460679	890027	2690066	1.00 60.0	2.00	5.00	10.0	30.0
Methyl methacrylate	FB	Ave	9202 688155	20518	53854	109538	339070	2.00 120	4.00	10.0	20.0	60.0
2-Nitropropane	FB	Ave	6311 402805	11536	32088	62998	187521	2.00 120	4.00	10.0	20.0	60.0
cis-1,4-Dichloro-2-butene	DCB	Ave	4716 362395	9708	26630	53180	174163	1.00 60.0	2.00	5.00	10.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	48081 1453468	94500	242893	469523	946835	1.00 30.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187446

SDG No.:

Instrument ID: VMS_R1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 22:46 Calibration End Date: 08/17/2013 00:31 Calibration ID: 15151

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane-d4 (Surr)	FB	Ave	38196 1066260	71684	181510	350079	702526	1.00 30.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBZ	Ave	241743 6613283	459442	1178184	2236773	4397611	1.00 30.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	DCB	Ave	76269 2099757	141146	351093	682577	1374804	1.00 30.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7558.D		
Lims ID:	std01	Client ID:	
Inject. Date:	16-Aug-2013 22:46:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	2
Sample ID:	std01		
Misc. Info.:			
Operator:	MOANM	Instrument ID:	VMS_R1
Purge Vol:	20.000 mL	ALS Bottle#:	21
Lims Batch ID:	187446	Lims Sample ID:	14
Sublist:	chrom-AQ_VMSR1_8260*sub60		
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m		
Last Update:	19-Aug-2013 08:50:56	Calib Date:	17-Aug-2013 00:31:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: moanm		Date:	16-Aug-2013 23:16:10

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	1	225943	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1540030	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	19008	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	381020	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	94	557169	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.996	6.989	0.007	56	48081	0.9792	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	91	38196	1.03	
$ 7 Toluene-d8 (Surr)	98	8.737	8.737	0.0	90	241743	1.04	
$ 8 4-Bromofluorobenzene (Surr)	95	10.671	10.671	0.0	82	76269	1.07	
22 Chlorotrifluoroethene	116	3.825	3.825	0.0	13	6237	1.11	
24 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.035	4.035	0.0	78	29851	0.9037	
25 2-Chloro-1,1,1-Trifluoroethane	118	4.272	4.272	0.0	1	50479	0.99	
28 Ethylene oxide	43	4.538	4.538	0.0	99	110098	-234.2	
33 Ethanol	45	4.916	4.930	-0.014	56	4395	-66.7	
36 1,2-Dichloro-1,1,2-trifluoroetha	117	5.042	5.042	0.0	64	48043	1.02	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.070	5.070	0.0	69	74762	1.03	
38 Propene oxide	58	5.168	5.154	0.014	95	109614	49.6	
42 Isopropyl alcohol	45	5.322	5.322	0.0	49	9986	9.37	
46 Acetonitrile	41	5.546	5.532	0.014	94	28658	10.1	
56 Isopropyl ether	87	6.194	6.187	0.007	94	42402	0.9617	
58 2-Chloro-1,3-butadiene	53	6.301	6.301	0.0	86	93082	0.9865	
59 Tert-butyl ethyl ether	59	6.466	6.466	0.0	97	111856	0.9582	
60 Ethyl acetate	43	6.602	6.595	0.007	86	20351	2.09	
65 Propionitrile	54	6.674	6.659	0.015	73	20021	9.51	
66 Methacrylonitrile	41	6.788	6.788	0.0	88	92218	9.85	
75 Tert-amyl methyl ether	73	7.361	7.361	0.0	99	85747	0.9380	
78 n-Butanol	56	7.583	7.576	0.007	64	12759	25.5	
148 Ethyl acrylate	55	7.777	7.770	0.007	55	18380	0.8718	
81 Methyl methacrylate	100	7.970	7.963	0.007	78	9202	1.68	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
88 2-Nitropropane	41	8.328	8.328	0.0	74	6311	1.95	
144 n-Butyl acetate	43	9.202	9.202	0.0	86	16859	0.8873	
99 Tetrahydrothiophene	60	9.410	9.410	0.0	59	9408	0.8464	
110 cis-1,4-Dichloro-2-butene	53	10.549	10.542	0.007	73	4716	0.8749	
125 1,2,3-Trimethylbenzene	105	11.652	11.652	0.0	93	224079	0.99	
146 Benzyl chloride	126	11.745	11.738	0.007	81	5936	1.05	
16 1,3,5-Trichlorobenzene	180	12.963	12.963	0.0	95	87011	0.9811	

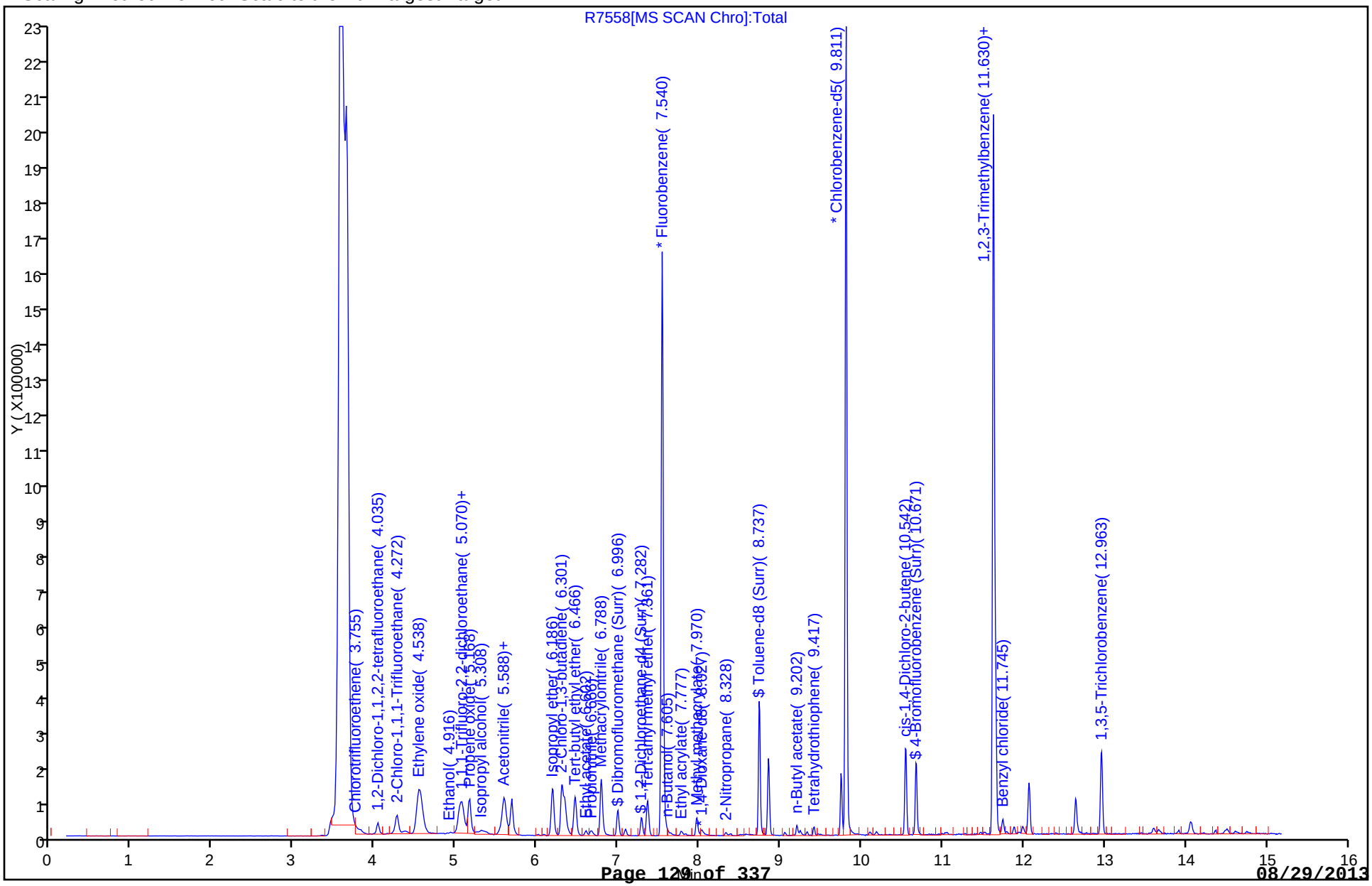
Report Date: 19-Aug-2013 08:50:56 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7558.D

Injection Date:	16-Aug-2013 22:46:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	14
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7559.D		
Lims ID:	std02	Client ID:	
Inject. Date:	16-Aug-2013 23:07:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	3
Sample ID:	std02		
Misc. Info.:			
Operator:	MOANM	Instrument ID:	VMS_R1
Purge Vol:	20.000 mL	ALS Bottle#:	22
Lims Batch ID:	187446	Lims Sample ID:	15
Sublist:	chrom-AQ_VMSR1_8260*sub60		
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m		
Last Update:	19-Aug-2013 08:50:56	Calib Date:	17-Aug-2013 00:31:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: moanm		Date:	19-Aug-2013 08:30:54

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	1	208876	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1442192	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	16493	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	362211	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	94	529547	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.989	6.989	0.0	54	94500	2.06	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	88	71684	2.07	
$ 7 Toluene-d8 (Surr)	98	8.736	8.737	-0.001	92	459442	2.09	
$ 8 4-Bromofluorobenzene (Surr)	95	10.670	10.671	-0.001	84	141146	2.08	
22 Chlorotrifluoroethene	116	3.825	3.825	0.0	46	12708	1.64	
24 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.034	4.035	-0.001	82	50640	1.64	
25 2-Chloro-1,1,1-Trifluoroethane	118	4.272	4.272	0.0	1	94969	2.00	
28 Ethylene oxide	43	4.538	4.538	0.0	100	211511	78.1	
33 Ethanol	45	4.930	4.930	0.0	83	12478	59.3	
36 1,2-Dichloro-1,1,2-trifluoroetha	117	5.042	5.042	0.0	67	89002	2.02	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.070	5.070	0.0	74	138465	2.04	
38 Propene oxide	58	5.168	5.154	0.014	95	219363	106.0	
42 Isopropyl alcohol	45	5.336	5.322	0.014	70	17200	22.0	
46 Acetonitrile	41	5.532	5.532	0.0	95	42122	19.9	
56 Isopropyl ether	87	6.186	6.187	-0.001	94	84377	2.04	
58 2-Chloro-1,3-butadiene	53	6.301	6.301	0.0	88	178133	2.02	
59 Tert-butyl ethyl ether	59	6.466	6.466	0.0	97	222728	2.04	
60 Ethyl acetate	43	6.602	6.595	0.007	94	38580	4.23	
65 Propionitrile	54	6.666	6.659	0.007	92	39396	20.0	
66 Methacrylonitrile	41	6.788	6.788	0.0	89	186143	21.2	
75 Tert-amyl methyl ether	73	7.361	7.361	0.0	99	173269	2.02	
78 n-Butanol	56	7.576	7.576	0.0	81	24236	52.5	
148 Ethyl acrylate	55	7.777	7.770	0.007	91	39528	2.00	
81 Methyl methacrylate	100	7.970	7.963	0.007	85	20518	4.00	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
88 2-Nitropropane	41	8.321	8.328	-0.007	81	11536	3.81	
144 n-Butyl acetate	43	9.202	9.202	0.0	93	42260	2.37	
99 Tetrahydrothiophene	60	9.417	9.410	0.007	76	20549	1.94	
110 cis-1,4-Dichloro-2-butene	53	10.549	10.542	0.007	82	9708	1.89	
125 1,2,3-Trimethylbenzene	105	11.652	11.652	0.0	97	441305	2.06	
146 Benzyl chloride	126	11.738	11.738	0.0	96	12648	1.85	
16 1,3,5-Trichlorobenzene	180	12.963	12.963	0.0	96	168693	2.00	

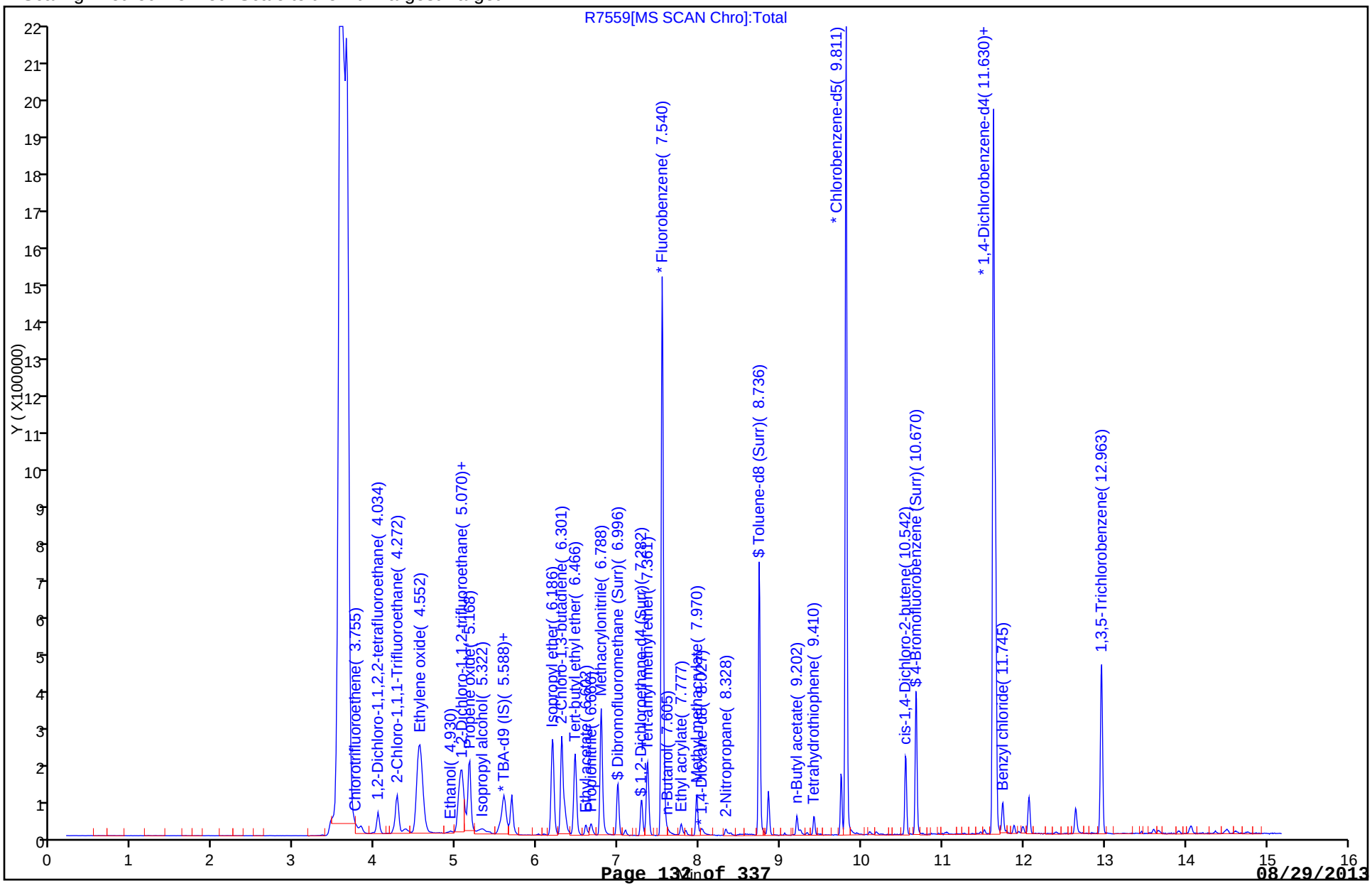
Report Date: 19-Aug-2013 08:50:57 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7559.D

Injection Date:	16-Aug-2013 23:07:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	15
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7560.D
Lims ID: std05 Client ID:
Inject. Date: 16-Aug-2013 23:28:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 4
Sample ID: std05
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 23
Lims Batch ID: 187446 Lims Sample ID: 16
Sublist: chrom-AQ_VMSR1_8260*sub60
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:57 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 19-Aug-2013 08:31:23

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	1	207698	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1436106	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	17146	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	360606	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	95	523292	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.989	6.989	0.0	61	242893	5.30	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	88	181510	5.26	
$ 7 Toluene-d8 (Surr)	98	8.736	8.737	-0.001	92	1178184	5.37	
$ 8 4-Bromofluorobenzene (Surr)	95	10.670	10.671	-0.001	86	351093	5.23	
22 Chlorotrifluoroethene	116	3.825	3.825	0.0	81	61199	5.41	
24 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.020	4.035	-0.015	96	182140	5.91	
25 2-Chloro-1,1,1-Trifluoroethane	118	4.272	4.272	0.0	1	261261	5.52	
28 Ethylene oxide	43	4.538	4.538	0.0	100	578331	1142.0	
33 Ethanol	45	4.916	4.930	-0.014	94	26036	264.5	
36 1,2-Dichloro-1,1,2-trifluoroetha	117	5.042	5.042	0.0	75	242115	5.52	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.070	5.070	0.0	79	376055	5.56	
38 Propene oxide	58	5.154	5.154	0.0	96	576202	279.6	
42 Isopropyl alcohol	45	5.322	5.322	0.0	78	36413	52.6	
46 Acetonitrile	41	5.532	5.532	0.0	98	82399	46.0	
56 Isopropyl ether	87	6.186	6.187	-0.001	94	222479	5.41	
58 2-Chloro-1,3-butadiene	53	6.294	6.301	-0.007	86	489824	5.57	
59 Tert-butyl ethyl ether	59	6.466	6.466	0.0	96	593128	5.45	
60 Ethyl acetate	43	6.595	6.595	0.0	97	96311	10.6	
65 Propionitrile	54	6.659	6.659	0.0	96	107420	54.7	
66 Methacrylonitrile	41	6.781	6.788	-0.007	89	482681	55.3	
75 Tert-amyl methyl ether	73	7.361	7.361	0.0	99	460679	5.40	
78 n-Butanol	56	7.576	7.576	0.0	78	60138	130.9	
148 Ethyl acrylate	55	7.769	7.770	-0.001	100	103982	5.29	
81 Methyl methacrylate	100	7.963	7.963	0.0	87	53854	10.5	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
88 2-Nitropropane	41	8.328	8.328	0.0	94	32088	10.6	
144 n-Butyl acetate	43	9.202	9.202	0.0	96	96390	5.44	
99 Tetrahydrothiophene	60	9.410	9.410	0.0	91	55103	5.24	
110 cis-1,4-Dichloro-2-butene	53	10.542	10.542	0.0	91	26630	5.26	
125 1,2,3-Trimethylbenzene	105	11.652	11.652	0.0	98	1158129	5.46	
146 Benzyl chloride	126	11.745	11.738	0.007	99	38093	4.81	
16 1,3,5-Trichlorobenzene	180	12.963	12.963	0.0	96	446512	5.36	

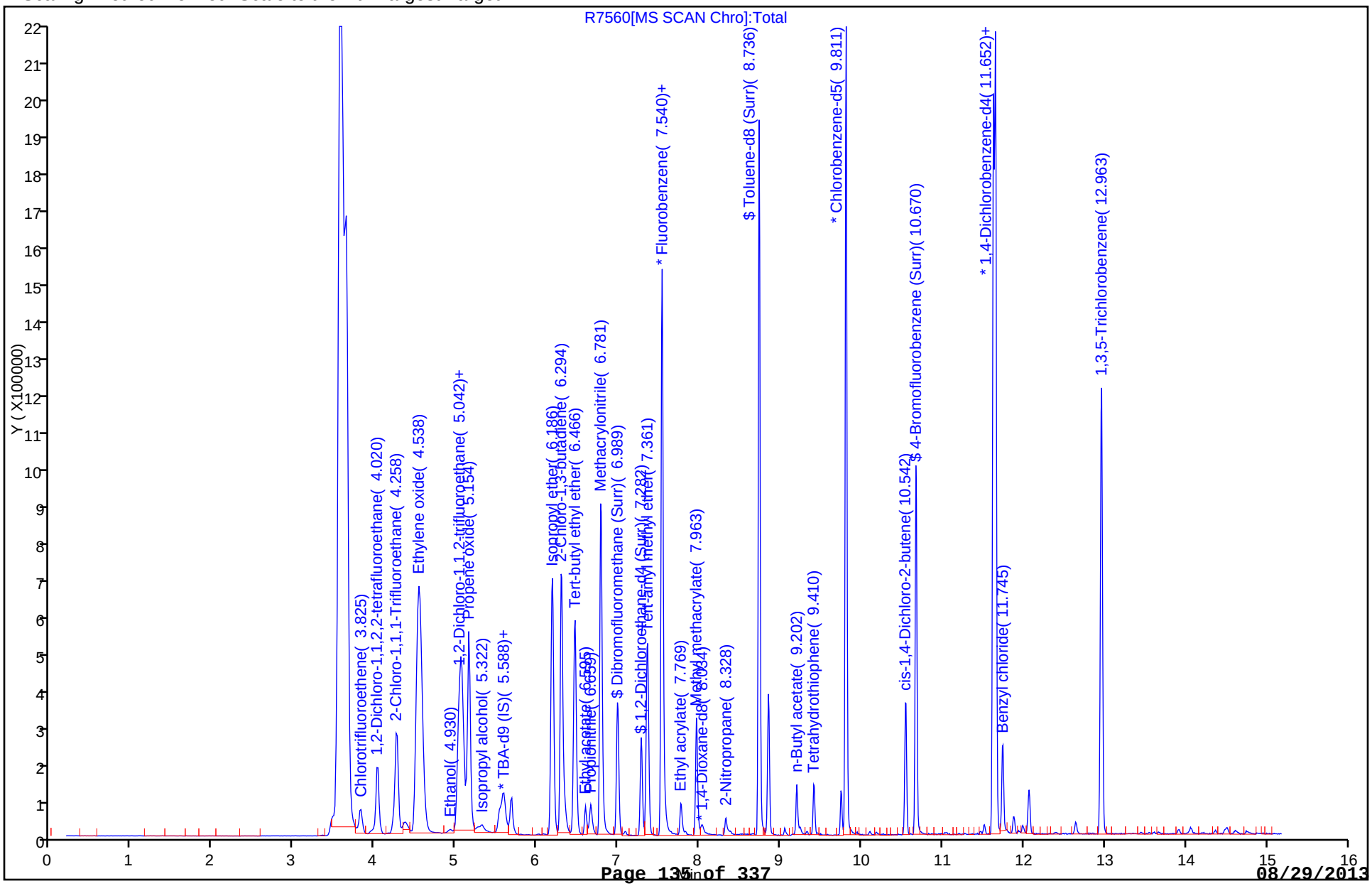
Report Date: 19-Aug-2013 08:50:57 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7560.D

Injection Date:	16-Aug-2013 23:28:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	16
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7561.D		
Lims ID:	icis	Client ID:	
Inject. Date:	16-Aug-2013 23:49:30	Dil. Factor:	1.0000
Sample Type:	ICIS	Calib Level:	5
Sample ID:	ICIS		
Misc. Info.:			
Operator:	MOANM	Instrument ID:	VMS_R1
Purge Vol:	20.000 mL	ALS Bottle#:	24
Lims Batch ID:	187446	Lims Sample ID:	17
Sublist:	chrom-AQ_VMSR1_8260*sub60		
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m		
Last Update:	19-Aug-2013 08:50:58	Calib Date:	17-Aug-2013 00:31:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: moanm		Date:	19-Aug-2013 08:30:02

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	1	207054	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1523016	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	15014	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	383598	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	95	565193	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.989	6.989	0.0	66	469523	9.67	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	89	350079	9.57	
$ 7 Toluene-d8 (Surr)	98	8.737	8.737	0.0	92	2236773	9.59	
$ 8 4-Bromofluorobenzene (Surr)	95	10.671	10.671	0.0	87	682577	9.42	
22 Chlorotrifluoroethene	116	3.825	3.825	0.0	87	124883	9.80	
24 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.035	4.035	0.0	94	336391	10.3	
25 2-Chloro-1,1,1-Trifluoroethane	118	4.272	4.272	0.0	5	490329	9.77	
28 Ethylene oxide	43	4.538	4.538	0.0	100	1038967	2303.1	
33 Ethanol	45	4.930	4.930	0.0	94	47497	589.8	
36 1,2-Dichloro-1,1,2-trifluoroetha	117	5.042	5.042	0.0	73	453990	9.76	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.070	5.070	0.0	79	700084	9.76	
38 Propene oxide	58	5.154	5.154	0.0	96	1116957	511.1	
42 Isopropyl alcohol	45	5.322	5.322	0.0	92	70496	107.1	
46 Acetonitrile	41	5.532	5.532	0.0	98	182325	103.8	
56 Isopropyl ether	87	6.187	6.187	0.0	94	424464	9.73	
58 2-Chloro-1,3-butadiene	53	6.301	6.301	0.0	86	883770	9.47	
59 Tert-butyl ethyl ether	59	6.466	6.466	0.0	97	1141355	9.89	
60 Ethyl acetate	43	6.595	6.595	0.0	97	185206	19.2	
65 Propionitrile	54	6.659	6.659	0.0	98	208058	99.9	
66 Methacrylonitrile	41	6.788	6.788	0.0	89	928936	100.4	
75 Tert-amyl methyl ether	73	7.361	7.361	0.0	99	890027	9.84	
78 n-Butanol	56	7.576	7.576	0.0	85	112324	245.3	
148 Ethyl acrylate	55	7.770	7.770	0.0	100	211894	10.2	
81 Methyl methacrylate	100	7.963	7.963	0.0	86	109538	20.2	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
88 2-Nitropropane	41	8.328	8.328	0.0	98	62998	19.7	
144 n-Butyl acetate	43	9.202	9.202	0.0	97	174369	9.28	
99 Tetrahydrothiophene	60	9.410	9.410	0.0	90	111800	10.0	
110 cis-1,4-Dichloro-2-butene	53	10.542	10.542	0.0	90	53180	9.73	
125 1,2,3-Trimethylbenzene	105	11.652	11.652	0.0	98	2199854	9.60	
146 Benzyl chloride	126	11.738	11.738	0.0	99	81146	9.09	
16 1,3,5-Trichlorobenzene	180	12.963	12.963	0.0	96	840904	9.35	

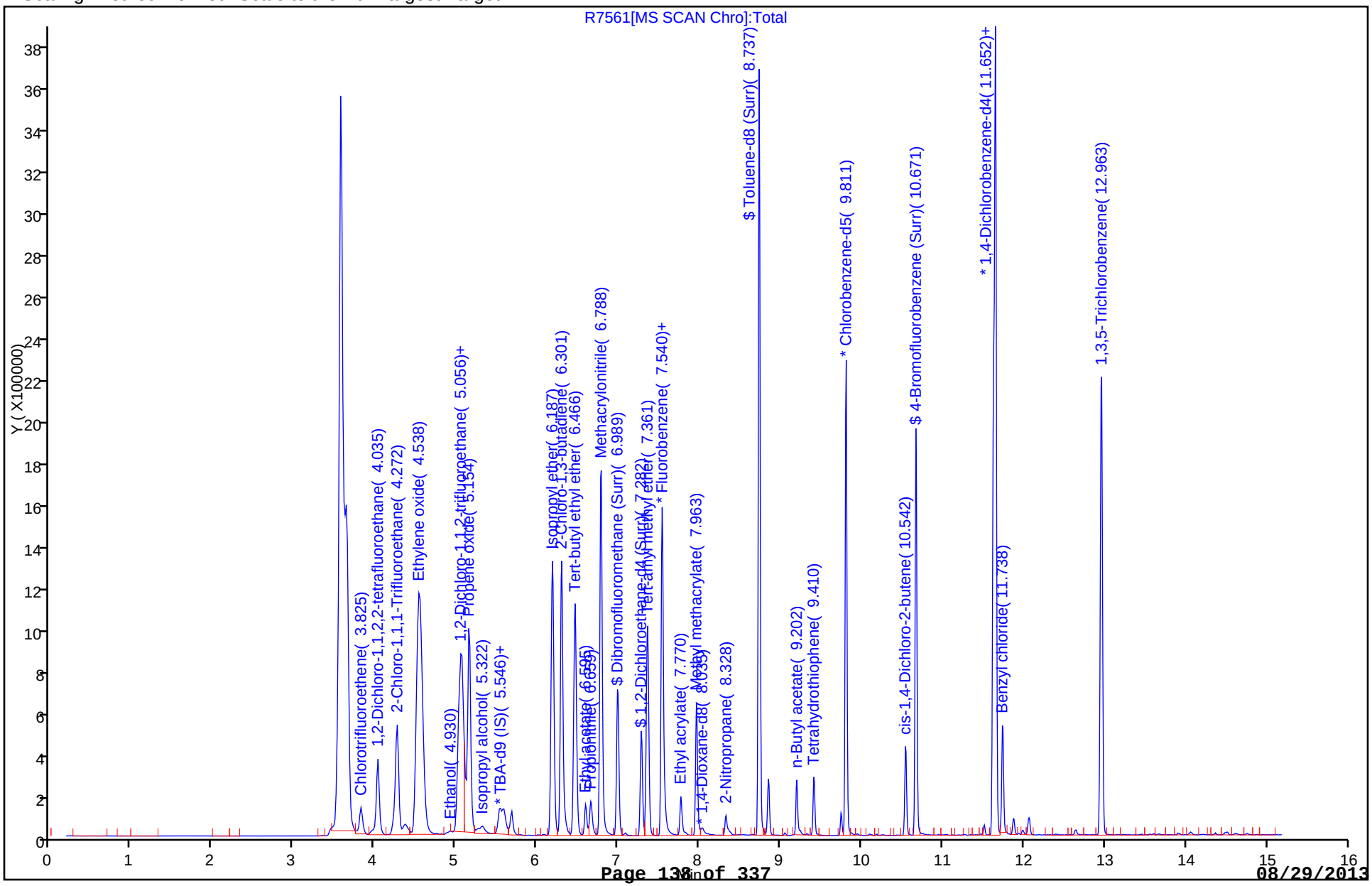
Report Date: 19-Aug-2013 08:50:58 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7561.D

Injection Date:	16-Aug-2013 23:49:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	17
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7562.D		
Lims ID:	std30	Client ID:	
Inject. Date:	17-Aug-2013 00:10:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	6
Sample ID:	std30		
Misc. Info.:			
Operator:	MOANM	Instrument ID:	VMS_R1
Purge Vol:	20.000 mL	ALS Bottle#:	25
Lims Batch ID:	187446	Lims Sample ID:	18
Sublist:	chrom-AQ_VMSR1_8260*sub60		
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m		
Last Update:	19-Aug-2013 08:50:58	Calib Date:	17-Aug-2013 00:31:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: moanm		Date:	19-Aug-2013 08:32:13

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	9	216166	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1515321	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	20221	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	381724	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	93	562934	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.989	6.989	0.0	71	946835	19.6	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	88	702526	19.3	
$ 7 Toluene-d8 (Surr)	98	8.736	8.737	-0.001	92	4397611	18.9	
$ 8 4-Bromofluorobenzene (Surr)	95	10.670	10.671	-0.001	87	1374804	19.1	
22 Chlorotrifluoroethene	116	3.825	3.825	0.0	87	406696	30.6	
24 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.020	4.035	-0.015	96	1037965	31.9	
25 2-Chloro-1,1,1-Trifluoroethane	118	4.272	4.272	0.0	24	1493554	29.9	
28 Ethylene oxide	43	4.538	4.538	0.0	100	2641158	6710.6	
33 Ethanol	45	4.916	4.930	-0.014	96	121623	1631.8	
36 1,2-Dichloro-1,1,2-trifluoroetha	117	5.028	5.042	-0.014	79	1364049	29.5	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.070	5.070	0.0	80	2091547	29.3	
38 Propene oxide	58	5.154	5.154	0.0	96	3086693	1419.5	
42 Isopropyl alcohol	45	5.322	5.322	0.0	98	182073	272.8	
46 Acetonitrile	41	5.532	5.532	0.0	98	505223	301.7	
56 Isopropyl ether	87	6.186	6.187	-0.001	94	1285159	29.6	
58 2-Chloro-1,3-butadiene	53	6.294	6.301	-0.007	86	2767560	29.8	
59 Tert-butyl ethyl ether	59	6.466	6.466	0.0	97	3393027	29.5	
60 Ethyl acetate	43	6.595	6.595	0.0	98	545643	56.9	
65 Propionitrile	54	6.659	6.659	0.0	99	616298	297.5	
66 Methacrylonitrile	41	6.781	6.788	-0.007	89	2644878	287.2	
75 Tert-amyl methyl ether	73	7.361	7.361	0.0	99	2690066	29.9	
78 n-Butanol	56	7.569	7.576	-0.007	84	334150	699.0	
148 Ethyl acrylate	55	7.769	7.770	-0.001	100	636739	30.7	
81 Methyl methacrylate	100	7.963	7.963	0.0	86	339070	62.9	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
88 2-Nitropropane	41	8.321	8.328	-0.007	97	187521	59.0	
144 n-Butyl acetate	43	9.195	9.202	-0.007	97	539754	28.9	
99 Tetrahydrothiophene	60	9.410	9.410	0.0	90	349917	31.4	
110 cis-1,4-Dichloro-2-butene	53	10.542	10.542	0.0	56	174163	32.0	
125 1,2,3-Trimethylbenzene	105	11.652	11.652	0.0	98	6802719	29.8	
146 Benzyl chloride	126	11.745	11.738	0.007	99	288678	31.4	
16 1,3,5-Trichlorobenzene	180	12.963	12.963	0.0	97	2703091	30.2	

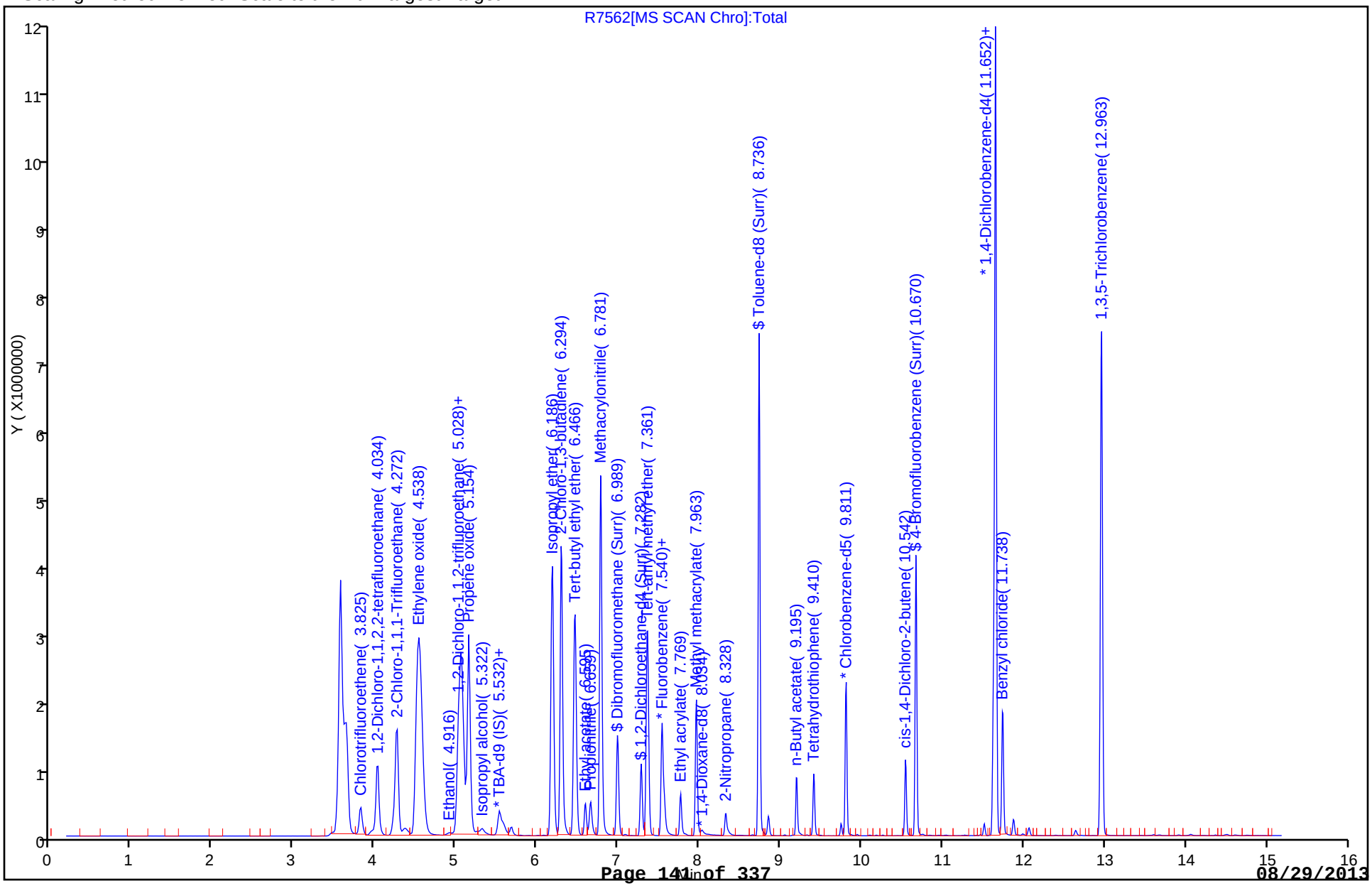
Report Date: 19-Aug-2013 08:50:58 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7562.D

Injection Date:	17-Aug-2013 00:10:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	18
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D		
Lims ID:	std60	Client ID:	
Inject. Date:	17-Aug-2013 00:31:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	7
Sample ID:	std60		
Misc. Info.:			
Operator:	MOANM	Instrument ID:	VMS_R1
Purge Vol:	20.000 mL	ALS Bottle#:	26
Lims Batch ID:	187446	Lims Sample ID:	19
Sublist:	chrom-AQ_VMSR1_8260*sub60		
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m		
Last Update:	19-Aug-2013 08:50:59	Calib Date:	17-Aug-2013 00:31:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: moanm		Date:	19-Aug-2013 08:32:32

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	20	217659	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1542166	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	12619	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	388346	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	88	574289	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.989	6.989	0.0	68	1453468	29.6	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	88	1066260	28.8	
$ 7 Toluene-d8 (Surr)	98	8.737	8.737	-0.001	92	6613283	28.0	
$ 8 4-Bromofluorobenzene (Surr)	95	10.671	10.671	0.0	87	2099757	28.5	
22 Chlorotrifluoroethene	116	3.825	3.825	0.0	87	812682	59.4	
24 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.035	4.035	0.0	95	1987067	60.1	
25 2-Chloro-1,1,1-Trifluoroethane	118	4.272	4.272	0.0	27	2824900	55.6	
28 Ethylene oxide	43	4.538	4.538	0.0	100	4502881	11600	
33 Ethanol	45	4.930	4.930	0.0	94	212217	2921.2	
36 1,2-Dichloro-1,1,2-trifluoroetha	117	5.042	5.042	0.0	82	2563977	54.4	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.070	5.070	0.0	78	3866689	53.2	
38 Propene oxide	58	5.154	5.154	0.0	95	5717651	2583.6	
42 Isopropyl alcohol	45	5.322	5.322	0.0	97	371834	558.6	
46 Acetonitrile	41	5.532	5.532	0.0	99	1036316	615.4	
56 Isopropyl ether	87	6.186	6.187	-0.001	94	2578633	58.4	
58 2-Chloro-1,3-butadiene	53	6.301	6.301	0.0	86	5395079	57.1	
59 Tert-butyl ethyl ether	59	6.466	6.466	0.0	96	6733599	57.6	
60 Ethyl acetate	43	6.595	6.595	0.0	98	1091373	111.8	
65 Propionitrile	54	6.659	6.659	0.0	99	1220771	579.0	
66 Methacrylonitrile	41	6.781	6.788	-0.007	89	4983676	531.7	
75 Tert-amyl methyl ether	73	7.361	7.361	0.0	99	5426624	59.3	
78 n-Butanol	56	7.569	7.576	-0.007	85	699349	1452.9	
148 Ethyl acrylate	55	7.769	7.770	-0.001	100	1305000	61.8	
81 Methyl methacrylate	100	7.963	7.963	0.0	87	688155	125.5	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
88 2-Nitropropane	41	8.328	8.328	0.0	97	402805	124.5	
144 n-Butyl acetate	43	9.195	9.202	-0.007	97	1081074	56.8	
99 Tetrahydrothiophene	60	9.410	9.410	0.0	90	738840	65.2	
110 cis-1,4-Dichloro-2-butene	53	10.542	10.542	0.0	47	362395	65.2	
125 1,2,3-Trimethylbenzene	105	11.652	11.652	0.0	98	13064400	56.1	
146 Benzyl chloride	126	11.738	11.738	0.0	99	625889	66.3	
16 1,3,5-Trichlorobenzene	180	12.963	12.963	0.0	97	5518366	60.4	

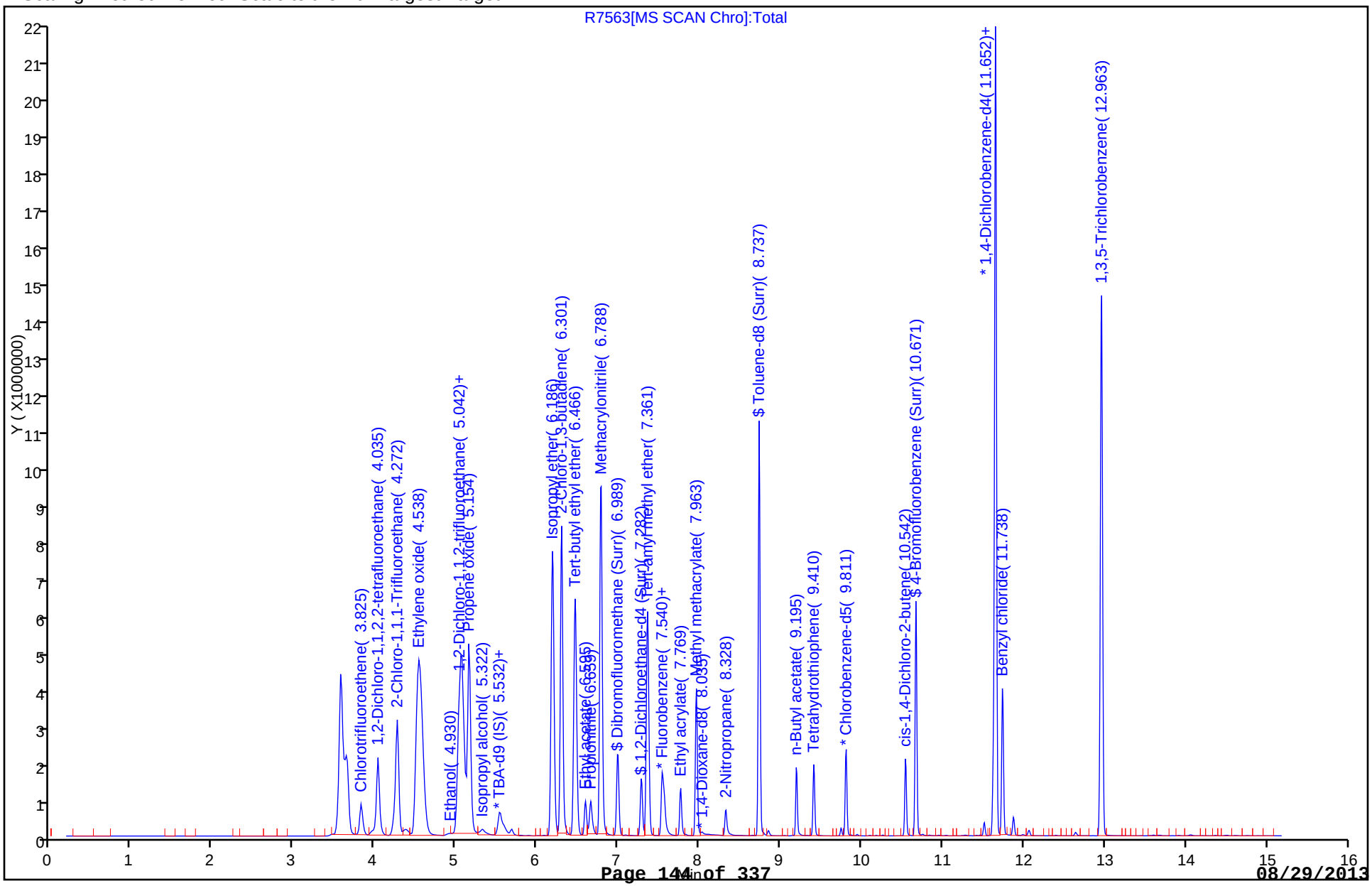
Report Date: 19-Aug-2013 08:50:59 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D

Injection Date:	17-Aug-2013 00:31:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	19
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: ICV 280-187446/13 Calibration Date: 08/16/2013 22:04

Instrument ID: VMS_R1 Calib Start Date: 08/16/2013 19:15

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 21:22

Lab File ID: R7556.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.4552		8.79	10.0	-12.1	20.0
Chloromethane	Ave	0.3838	0.3357	0.1000	8.75	10.0	-12.5	20.0
Vinyl chloride	Ave	0.3988	0.3601		9.03	10.0	-9.7	20.0
Bromomethane	Ave	0.2882	0.2461		8.54	10.0	-14.6	20.0
Chloroethane	Ave	0.2285	0.2092		9.15	10.0	-8.5	20.0
Dichlorofluoromethane	Ave	0.6741	0.6243		9.26	10.0	-7.4	50.0
Trichlorofluoromethane	Ave	0.5884	0.5536		9.41	10.0	-5.9	20.0
Ethyl ether	Lin2		0.1424		10.9	10.0	8.8	35.0
Acrolein	Lin2		0.0102		96.9	100	-3.1	55.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3621	0.3553		9.81	10.0	-1.9	35.0
Acetone	Lin2		0.0237		38.1	40.0	-4.6	20.0
1,1-Dichloroethene	Ave	0.4390	0.4057		9.24	10.0	-7.6	20.0
Iodomethane	Ave	0.7961	0.8907		11.2	10.0	11.9	35.0
Methyl acetate	Ave	0.0912	0.0869		47.6	50.0	-4.7	55.0
Allyl chloride	Ave	0.8125	0.7594		9.35	10.0	-6.5	35.0
Carbon disulfide	Ave	2.180	2.245		10.3	10.0	3.0	20.0
2-Methyl-2-propanol	Ave	0.0140	0.0137		97.9	100	-2.1	50.0
Methylene Chloride	Lin2		0.5078		10.6	10.0	6.0	20.0
Acrylonitrile	Ave	0.0487	0.0498		102	100	2.2	55.0
Methyl tert-butyl ether	Ave	0.7114	0.7175		10.1	10.0	0.9	20.0
trans-1,2-Dichloroethene	Ave	0.5555	0.5884		10.6	10.0	5.9	20.0
Hexane	Ave	3.582	3.811		10.6	10.0	6.4	20.0
Vinyl acetate	Ave	0.3165	0.3580		22.6	20.0	13.1	55.0
1,1-Dichloroethane	Ave	0.8962	0.9563	0.1000	10.7	10.0	6.7	20.0
2-Butanone (MEK)	Lin2		0.0609		38.2	40.0	-4.5	20.0
2-Butanol	Ave	1.249	1.301		313	300	4.2	50.0
cis-1,2-Dichloroethene	Ave	0.5245	0.5462		10.4	10.0	4.1	20.0
2,2-Dichloropropane	Ave	0.7366	0.7901		10.7	10.0	7.3	20.0
Chlorobromomethane	Ave	0.1663	0.1714		10.3	10.0	3.1	20.0
Chloroform	Ave	0.7763	0.8041		10.4	10.0	3.6	20.0
Tetrahydrofuran	Lin2		0.0362		20.1	20.0	0.3	55.0
Isobutyl alcohol	Lin1		0.4778		627	250	150.8*	50.0
1,1,1-Trichloroethane	Ave	0.7846	0.8270		10.5	10.0	5.4	20.0
Cyclohexane	Ave	1.039	1.094		10.5	10.0	5.2	35.0
1,1-Dichloropropene	Ave	0.7142	0.8040		11.3	10.0	12.6	20.0
Carbon tetrachloride	Ave	0.6729	0.7395		11.0	10.0	9.9	20.0
1,2-Dichloroethane	Ave	0.3517	0.3582		10.2	10.0	1.9	20.0
Benzene	Ave	2.066	2.132		10.3	10.0	3.2	20.0
Trichloroethene	Ave	0.5384	0.5569		10.3	10.0	3.4	20.0
2-Pentanone	Ave	0.0922	0.1187		51.5	40.0	28.8	55.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: ICV 280-187446/13 Calibration Date: 08/16/2013 22:04

Instrument ID: VMS_R1 Calib Start Date: 08/16/2013 19:15

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 21:22

Lab File ID: R7556.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.4370	0.4497		10.3	10.0	2.9	20.0
Methylcyclohexane	Ave	0.8014	0.8424		10.5	10.0	5.1	35.0
1,4-Dioxane	Ave	0.0014	0.0017		241	200	20.5	55.0
Dibromomethane	Ave	0.1476	0.1509		10.2	10.0	2.3	20.0
Dichlorobromomethane	Ave	0.4711	0.4872		10.3	10.0	3.4	20.0
2-Chloroethyl vinyl ether	Qua		0.0077		9.45	10.0	-5.5	55.0
cis-1,3-Dichloropropene	Ave	2.243	2.389		10.7	10.0	6.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1260	0.1182		37.5	40.0	-6.1	20.0
Toluene	Ave	2.161	2.271		10.5	10.0	5.1	20.0
Ethyl methacrylate	Ave	0.9818	1.068		10.9	10.0	8.8	35.0
trans-1,3-Dichloropropene	Ave	0.4109	0.4419		10.8	10.0	7.6	20.0
1,1,2-Trichloroethane	Ave	0.2168	0.2213		10.2	10.0	2.1	20.0
2-Hexanone	Ave	0.3242	0.3178		39.2	40.0	-2.0	20.0
1,3-Dichloropropane	Ave	1.616	1.614		9.99	10.0	-0.1	20.0
Tetrachloroethene	Ave	1.670	1.776		10.6	10.0	6.3	20.0
Chlorodibromomethane	Ave	0.9659	1.040		10.8	10.0	7.6	20.0
Ethylene Dibromide	Ave	0.7624	0.7859		10.3	10.0	3.1	20.0
1-Chlorohexane	Ave	3.131	3.410		10.9	10.0	8.9	35.0
Chlorobenzene	Ave	5.158	5.348	0.3000	10.4	10.0	3.7	20.0
1,1,1,2-Tetrachloroethane	Ave	1.479	1.568		10.6	10.0	6.0	20.0
Ethylbenzene	Ave	3.181	3.402		10.7	10.0	7.0	20.0
m-Xylene & p-Xylene	Ave	3.960	4.163		10.5	10.0	5.1	20.0
o-Xylene	Ave	3.589	3.845		10.7	10.0	7.1	20.0
Styrene	Ave	5.151	5.805		11.3	10.0	12.7	20.0
Bromoform	Lin2		0.4495	0.1000	10.0	10.0	0.5	20.0
Isopropylbenzene	Ave	6.652	7.068		10.6	10.0	6.2	20.0
Cyclohexanone	Ave	0.0195	0.0201		412	400	3.1	55.0
1,1,2,2-Tetrachloroethane	Ave	0.5612	0.5671	0.3000	10.1	10.0	1.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1160	0.1332		11.5	10.0	14.9	55.0
1,2,3-Trichloropropane	Ave	0.1522	0.1589		10.4	10.0	4.4	20.0
Bromobenzene	Ave	1.142	1.202		10.5	10.0	5.2	20.0
N-Propylbenzene	Ave	1.879	2.022		10.8	10.0	7.6	20.0
1,3,5-Trimethylbenzene	Ave	5.358	5.729		10.7	10.0	6.9	20.0
2-Chlorotoluene	Ave	1.441	1.536		10.7	10.0	6.6	20.0
4-Chlorotoluene	Ave	1.466	1.557		10.6	10.0	6.2	20.0
tert-Butylbenzene	Ave	5.479	5.860		10.7	10.0	7.0	20.0
1,2,4-Trimethylbenzene	Ave	5.295	5.685		10.7	10.0	7.4	20.0
sec-Butylbenzene	Ave	1.523	1.662		10.9	10.0	9.1	20.0
4-Isopropyltoluene	Ave	6.255	6.750		10.8	10.0	7.9	20.0
1,3-Dichlorobenzene	Ave	2.548	2.655		10.4	10.0	4.2	20.0
1,4-Dichlorobenzene	Ave	2.471	2.618		10.6	10.0	5.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: ICV 280-187446/13 Calibration Date: 08/16/2013 22:04

Instrument ID: VMS_R1 Calib Start Date: 08/16/2013 19:15

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 21:22

Lab File ID: R7556.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butylbenzene	Ave	5.954	6.454		10.8	10.0	8.4	20.0
1,2-Dichlorobenzene	Ave	2.063	2.155		10.4	10.0	4.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0788	0.0794		10.1	10.0	0.7	20.0
1,2,4-Trichlorobenzene	Ave	1.412	1.497		10.6	10.0	6.0	20.0
Hexachlorobutadiene	Ave	0.9761	1.064		10.9	10.0	9.0	20.0
Naphthalene	Ave	1.908	2.005		10.5	10.0	5.1	20.0
1,2,3-Trichlorobenzene	Ave	1.082	1.137		10.5	10.0	5.1	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7556.D
Lims ID: icv Client ID:
Inject. Date: 16-Aug-2013 22:04:30 Dil. Factor: 1.0000
Sample Type: ICV
Sample ID: icv
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 19
Lims Batch ID: 187446 Lims Sample ID: 13
Sublist:
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 08:50:54 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 16-Aug-2013 22:29:28

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	75	227951	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1495316	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	87	23085	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	76	379554	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	78	584521	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	87	544571	8.79	
26 Chloromethane	50	4.090	4.091	-0.001	89	401573	8.75	
27 Vinyl chloride	62	4.230	4.230	0.0	83	430814	9.03	
147 Butadiene	54	4.244	4.244	0.0	0	341633	8.62	
29 Bromomethane	94	4.580	4.580	0.0	89	294445	8.54	
30 Chloroethane	64	4.664	4.650	0.014	95	250210	9.15	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	82	746832	9.26	
32 Trichlorofluoromethane	101	4.874	4.874	0.0	87	662255	9.41	
35 Ethyl ether	59	5.056	5.056	0.0	85	170381	10.9	
39 Acrolein	56	5.210	5.196	0.014	91	122327	96.9	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.308	5.308	0.0	86	425034	9.81	
41 Acetone	43	5.308	5.308	0.0	98	113157	38.1	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	90	485337	9.24	
44 Iodomethane	142	5.504	5.504	0.0	98	1065476	11.2	
45 Methyl acetate	43	5.532	5.532	0.0	96	519865	47.6	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	84	908477	9.35	
48 Carbon disulfide	76	5.616	5.602	0.014	98	2686146	10.3	
49 2-Methyl-2-propanol	59	5.644	5.644	0.0	75	164060	97.9	
50 Methylene Chloride	84	5.686	5.686	0.0	85	607465	10.6	
52 Acrylonitrile	53	5.839	5.826	0.013	100	595833	102.2	
51 Methyl tert-butyl ether	73	5.867	5.868	-0.001	88	858293	10.1	
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	96	703850	10.6	
54 Hexane	57	6.079	6.079	0.0	88	1157039	10.6	
55 Vinyl acetate	43	6.165	6.165	0.0	96	856508	22.6	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.229	6.229	0.0	85	1143958	10.7	
61 2-Butanone (MEK)	43	6.602	6.602	0.0	99	291367	38.2	
62 sec-Butyl Alcohol	45	6.652	6.652	0.0	71	355961	312.6	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	67	653333	10.4	
64 2,2-Dichloropropane	77	6.695	6.688	0.007	87	945192	10.7	
67 Chlorobromomethane	128	6.853	6.853	0.0	92	205073	10.3	
68 Chloroform	83	6.860	6.860	0.0	81	961949	10.4	
69 Tetrahydrofuran	42	6.888	6.888	0.0	83	86641	20.1	
70 Isobutyl alcohol	41	7.067	7.068	-0.001	96	108915	627.0	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	94	989324	10.5	
72 Cyclohexane	56	7.161	7.161	0.0	87	1308263	10.5	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	96	961770	11.3	
74 Carbon tetrachloride	117	7.232	7.225	0.007	74	884592	11.0	
76 1,2-Dichloroethane	62	7.340	7.340	0.0	91	428472	10.2	
77 Benzene	78	7.368	7.368	0.0	95	2550601	10.3	
14 n-Heptane	43	7.447	7.447	0.0	88	1069316	10.4	
79 Trichloroethene	95	7.827	7.827	0.0	95	666183	10.3	
80 2-Pentanone	43	7.870	7.870	0.0	97	568037	51.5	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	95	537956	10.3	
82 Methylcyclohexane	55	8.027	8.027	0.0	90	1007713	10.5	
84 1,4-Dioxane	88	8.070	8.070	0.0	86	39845	241.1	
85 Dibromomethane	93	8.120	8.113	0.007	89	180539	10.2	
86 Dichlorobromomethane	83	8.185	8.185	0.0	94	582768	10.3	
87 2-Chloroethyl vinyl ether	63	8.335	8.335	0.0	63	9230	9.45	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	91	725455	10.7	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	0.0	93	565726	37.5	
91 Toluene	91	8.787	8.787	0.0	99	2716981	10.5	
92 Ethyl methacrylate	69	8.873	8.873	0.0	87	324215	10.9	
93 trans-1,3-Dichloropropene	75	8.887	8.880	0.007	91	528653	10.8	
94 1,1,2-Trichloroethane	97	9.044	9.045	-0.001	85	264704	10.2	
95 2-Hexanone	43	9.159	9.159	0.0	90	386012	39.2	
96 1,3-Dichloropropane	76	9.173	9.173	0.0	88	490143	9.99	
97 Tetrachloroethene	164	9.202	9.202	0.0	92	539195	10.6	
98 Chlorodibromomethane	129	9.367	9.367	0.0	89	315684	10.8	
100 Ethylene Dibromide	107	9.496	9.496	0.0	97	238624	10.3	
101 1-Chlorohexane	91	9.725	9.725	0.0	94	1035558	10.9	
102 Chlorobenzene	112	9.832	9.832	0.0	95	1623932	10.4	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	87	476120	10.6	
103 Ethylbenzene	106	9.868	9.868	0.0	98	1033141	10.7	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	1264163	10.5	
106 Styrene	104	10.262	10.262	0.0	87	1762753	11.3	
107 o-Xylene	106	10.262	10.262	0.0	89	1167585	10.7	
108 Bromoform	173	10.463	10.463	0.0	95	136477	10.0	
109 Isopropylbenzene	105	10.520	10.520	0.0	95	3305210	10.6	
111 Cyclohexanone	55	10.649	10.649	0.0	89	244538	412.4	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	83	265190	10.1	
113 trans-1,4-Dichloro-2-butene	53	10.756	10.757	-0.001	83	62306	11.5	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	70	74296	10.4	
115 N-Propylbenzene	120	10.842	10.842	0.0	97	945562	10.8	
116 Bromobenzene	156	10.842	10.842	0.0	50	562000	10.5	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	91	2678814	10.7	
118 2-Chlorotoluene	126	10.964	10.964	0.0	96	718121	10.7	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.036	11.036	0.0	97	728006	10.6	
120 tert-Butylbenzene	119	11.244	11.244	0.0	92	2740345	10.7	
121 1,2,4-Trimethylbenzene	105	11.272	11.272	0.0	97	2658583	10.7	
122 sec-Butylbenzene	134	11.423	11.423	0.0	94	777183	10.9	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	96	3156289	10.8	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	96	1241591	10.4	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	94	1224142	10.6	
127 n-Butylbenzene	91	11.874	11.881	-0.007	97	3017953	10.8	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	97	1007827	10.4	
129 1,2-Dibromo-3-Chloropropane	157	12.741	12.741	0.0	69	37104	10.1	
130 1,2,4-Trichlorobenzene	180	13.686	13.693	-0.007	91	699823	10.6	
131 Hexachlorobutadiene	225	13.837	13.844	-0.007	96	497466	10.9	
132 Naphthalene	128	14.051	14.052	-0.001	97	937461	10.5	
133 1,2,3-Trichlorobenzene	180	14.367	14.367	0.0	94	531490	10.5	
S 137 1,3-Dichloropropene, Total	1				0		21.4	
S 138 1,2-Dichloroethene, Total	1				0		21.0	
S 139 Xylenes, Total	106				0		21.2	
S 134 Trihalomethanes, Total	1				0		41.5	
S 135 Xylenes, Total (URS)	1				0		21.2	
S 140 1,2-Dichloroethene, Total (URS)	96				0		21.0	

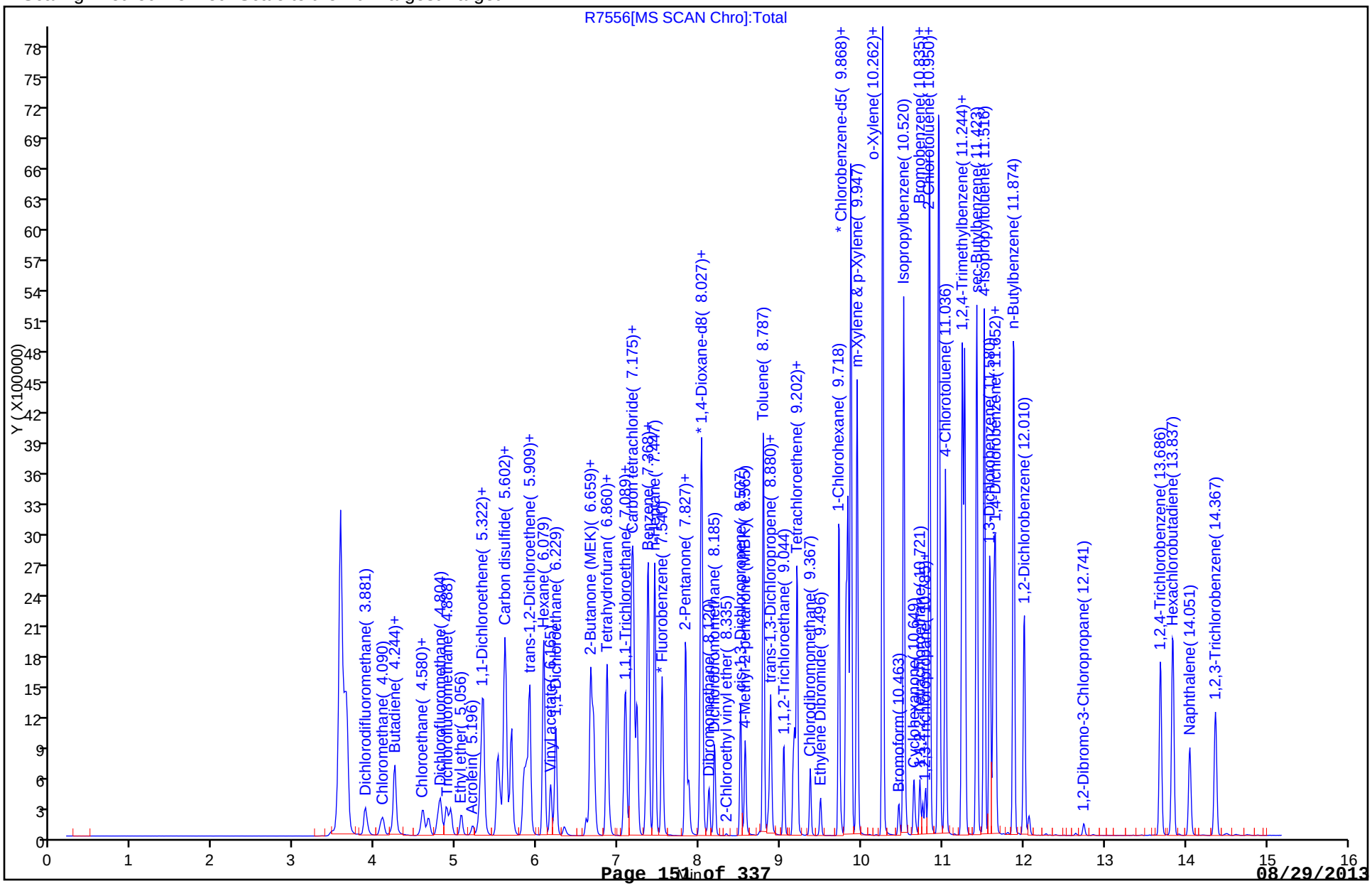
Report Date: 19-Aug-2013 08:50:55 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7556.D

Injection Date:	16-Aug-2013 22:04:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	13
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: ICV 280-187446/21 Calibration Date: 08/17/2013 01:13

Instrument ID: VMS_R1 Calib Start Date: 08/16/2013 22:46

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/17/2013 00:31

Lab File ID: R7565.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin		0.1097		558	500	11.7	50.0
2,2-Dichloro-1,1,1-trifluoro ethane	Ave	0.5889	0.5542		9.41	10.0	-5.9	50.0
Isopropyl alcohol	Lin2		0.8096		102	100	1.7	50.0
Acetonitrile	Lin2		0.0128		88.0	100	-12.0	55.0
Isopropyl ether	Ave	0.3579	0.3564		9.96	10.0	-0.4	35.0
2-Chloro-1,3-butadiene	Ave	0.7659	0.7428		9.70	10.0	-3.0	35.0
Tert-butyl ethyl ether	Ave	0.9475	0.9132		9.64	10.0	-3.6	35.0
Ethyl acetate	Ave	0.0791	0.1091		27.6	20.0	37.9	55.0
Propionitrile	Ave	0.0171	0.0163		95.2	100	-4.8	35.0
Methacrylonitrile	Ave	0.0760	0.0752		99.0	100	-1.0	50.0
Tert-amyl methyl ether	Ave	0.7420	0.7087		9.55	10.0	-4.5	35.0
Methyl methacrylate	Ave	0.0445	0.0436		19.6	20.0	-1.9	35.0
2-Nitropropane	Ave	0.0262	0.0227		17.3	20.0	-13.4	55.0
cis-1,4-Dichloro-2-butene	Ave	0.1209	0.1223		10.1	10.0	1.2	55.0
Dibromofluoromethane (Surr)	Ave	0.3985	0.4043		10.1	10.0	1.4	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3003	0.3005		10.0	10.0	0.0	35.0
Toluene-d8 (Surr)	Ave	7.602	7.528		9.90	10.0	-1.0	35.0
4-Bromofluorobenzene (Surr)	Ave	1.602	1.587		9.90	10.0	-1.0	35.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7565.D
Lims ID: icv Client ID:
Inject. Date: 17-Aug-2013 01:13:30 Dil. Factor: 1.0000
Sample Type: ICV
Sample ID: icv
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 28
Lims Batch ID: 187446 Lims Sample ID: 21
Sublist:
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 09:58:27 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: moanm Date: 19-Aug-2013 09:58:27

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.587	5.588	-0.001	1	196387	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1448092	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	16546	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	367205	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	95	531125	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.989	6.989	0.0	66	468344	10.1	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	88	348084	10.0	
$ 7 Toluene-d8 (Surr)	98	8.736	8.737	-0.001	92	2211374	9.90	
$ 8 4-Bromofluorobenzene (Surr)	95	10.670	10.671	-0.001	87	674124	9.90	
22 Chlorotrifluoroethene	116	3.825	3.825	-0.001	86	208967	16.8	
24 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.020	4.035	-0.015	96	417353	13.4	
25 2-Chloro-1,1,1-Trifluoroethane	118	4.272	4.272	0.0	4	536127	11.2	
28 Ethylene oxide	43	4.538	4.538	0.0	100	1015077	2381.2	
33 Ethanol	45	4.916	4.930	-0.014	25	43068	558.3	
36 1,2-Dichloro-1,1,2-trifluoroetha	117	5.028	5.042	-0.014	75	435698	9.85	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.070	5.070	0.0	80	642075	9.41	
38 Propene oxide	58	5.154	5.154	0.0	96	1043649	502.2	
42 Isopropyl alcohol	45	5.322	5.322	0.0	92	63595	101.7	
46 Acetonitrile	41	5.532	5.532	0.0	95	148677	88.0	
56 Isopropyl ether	87	6.186	6.187	-0.001	94	412927	9.96	
58 2-Chloro-1,3-butadiene	53	6.294	6.301	-0.007	86	860476	9.70	
59 Tert-butyl ethyl ether	59	6.466	6.466	0.0	97	1057861	9.64	
60 Ethyl acetate	43	6.595	6.595	0.0	98	252819	27.6	
65 Propionitrile	54	6.659	6.659	0.0	97	188497	95.2	
66 Methacrylonitrile	41	6.781	6.788	-0.007	89	870991	99.0	
75 Tert-amyl methyl ether	73	7.361	7.361	0.0	99	821038	9.55	
78 n-Butanol	56	7.569	7.576	-0.007	82	97073	223.5	
148 Ethyl acrylate	55	7.769	7.770	-0.001	100	193085	9.74	
81 Methyl methacrylate	100	7.963	7.963	0.0	87	101014	19.6	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
88 2-Nitropropane	41	8.328	8.328	0.0	98	52608	17.3	
144 n-Butyl acetate	43	9.202	9.202	0.0	97	244057	13.7	
99 Tetrahydrothiophene	60	9.410	9.410	0.0	90	104774	9.78	
110 cis-1,4-Dichloro-2-butene	53	10.541	10.542	-0.001	91	51983	10.1	
125 1,2,3-Trimethylbenzene	105	11.652	11.652	0.0	97	2072899	9.63	
146 Benzyl chloride	126	11.745	11.738	0.007	99	69538	8.33	
16 1,3,5-Trichlorobenzene	180	12.963	12.963	0.0	97	797389	9.43	

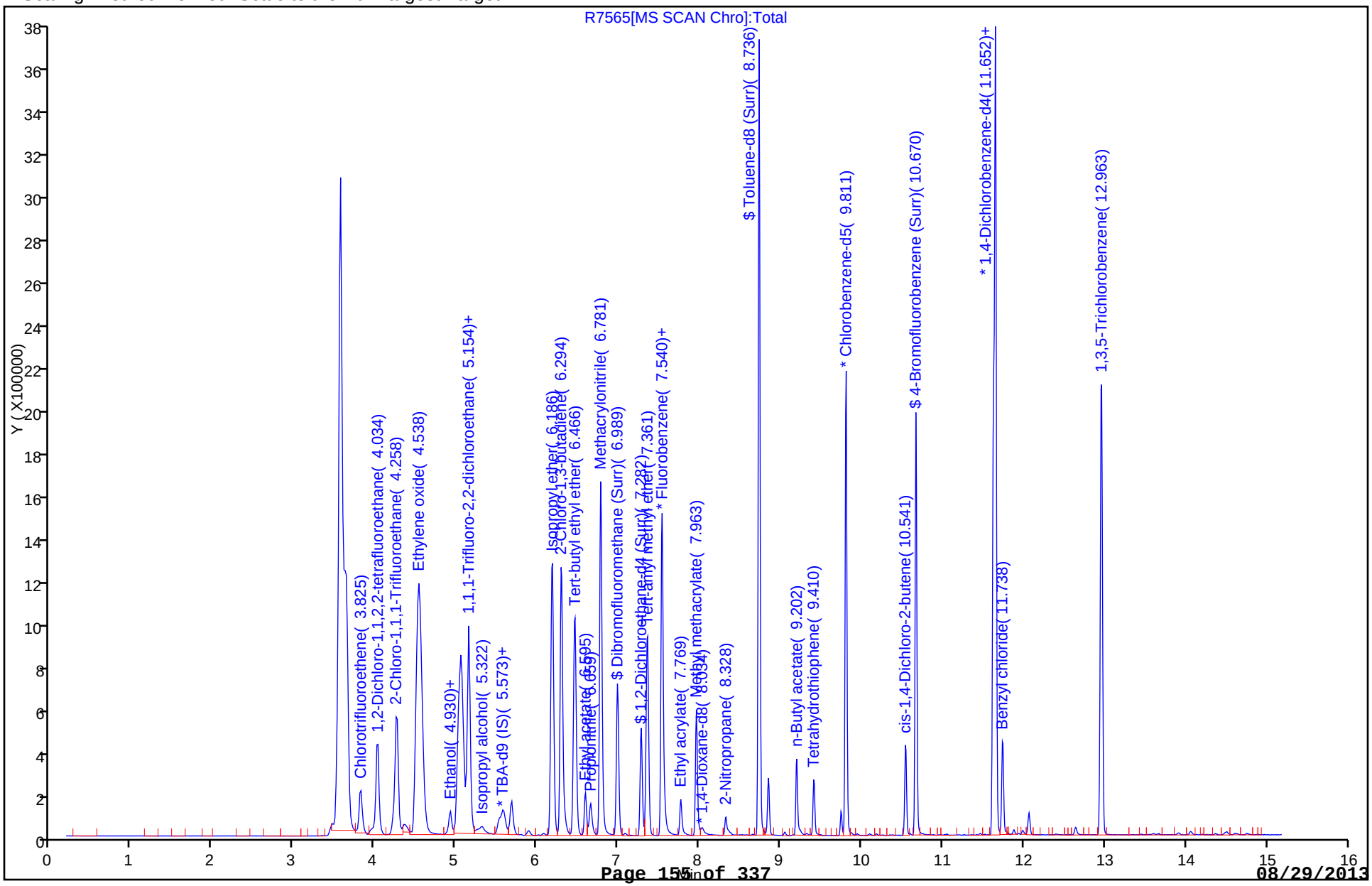
Report Date: 19-Aug-2013 09:58:28 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7565.D

Injection Date:	17-Aug-2013 01:13:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	21
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: CCV 280-187741/2 Calibration Date: 08/19/2013 10:36

Instrument ID: VMS_R1 Calib Start Date: 08/16/2013 19:15

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 21:22

Lab File ID: R7571.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.5517		10.6	10.0	6.3	20.0
Chloromethane	Ave	0.3838	0.3728	0.1000	9.71	10.0	-2.9	20.0
Vinyl chloride	Ave	0.3988	0.4095		10.3	10.0	2.7	20.0
Bromomethane	Ave	0.2882	0.2850		9.89	10.0	-1.1	20.0
Chloroethane	Ave	0.2285	0.2347		10.3	10.0	2.7	20.0
Dichlorofluoromethane	Ave	0.6741	0.6893		10.2	10.0	2.3	50.0
Trichlorofluoromethane	Ave	0.5884	0.6372		10.8	10.0	8.3	20.0
Ethyl ether	Lin2		0.1331		10.2	10.0	1.6	35.0
Acrolein	Lin2		0.0103		97.3	100	-2.7	50.0
Acetone	Lin2		0.0243		39.3	40.0	-1.8	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.3621	0.3576		9.88	10.0	-1.2	50.0
1,1-Dichloroethene	Ave	0.4390	0.3979		9.06	10.0	-9.4	20.0
Iodomethane	Ave	0.7961	0.8355		10.5	10.0	4.9	35.0
Methyl acetate	Ave	0.0912	0.0854		46.8	50.0	-6.4	50.0
Allyl chloride	Ave	0.8125	0.7869		9.68	10.0	-3.2	35.0
Carbon disulfide	Ave	2.180	2.329		10.7	10.0	6.8	20.0
2-Methyl-2-propanol	Ave	0.0140	0.0116		83.0	100	-17.0	50.0
Methylene Chloride	Lin2		0.5247		11.0	10.0	9.9	20.0
Acrylonitrile	Ave	0.0487	0.0477		98.0	100	-2.0	50.0
Methyl tert-butyl ether	Ave	0.7114	0.6820		9.59	10.0	-4.1	20.0
trans-1,2-Dichloroethene	Ave	0.5555	0.5834		10.5	10.0	5.0	20.0
Hexane	Ave	3.582	3.669		10.2	10.0	2.4	20.0
Vinyl acetate	Ave	0.3165	0.3200		20.2	20.0	1.1	50.0
1,1-Dichloroethane	Ave	0.8962	0.9163	0.1000	10.2	10.0	2.2	20.0
2-Butanone (MEK)	Lin2		0.0577		36.1	40.0	-9.7	20.0
2-Butanol	Ave	1.249	1.201		289	300	-3.8	50.0
cis-1,2-Dichloroethene	Ave	0.5245	0.5360		10.2	10.0	2.2	20.0
2,2-Dichloropropane	Ave	0.7366	0.8139		11.0	10.0	10.5	20.0
Chlorobromomethane	Ave	0.1663	0.1719		10.3	10.0	3.4	20.0
Chloroform	Ave	0.7763	0.7896		10.2	10.0	1.7	20.0
Tetrahydrofuran	Lin2		0.0333		18.4	20.0	-7.8	50.0
Isobutyl alcohol	Lin1		0.1715		222	250	-11.3	50.0
1,1,1-Trichloroethane	Ave	0.7846	0.8192		10.4	10.0	4.4	20.0
Cyclohexane	Ave	1.039	1.099		10.6	10.0	5.8	35.0
1,1-Dichloropropene	Ave	0.7142	0.7563		10.6	10.0	5.9	20.0
Carbon tetrachloride	Ave	0.6729	0.7195		10.7	10.0	6.9	20.0
1,2-Dichloroethane	Ave	0.3517	0.3561		10.1	10.0	1.3	20.0
Benzene	Ave	2.066	2.121		10.3	10.0	2.7	20.0
Trichloroethene	Ave	0.5384	0.5499		10.2	10.0	2.1	20.0
2-Pentanone	Ave	0.0922	0.0856		37.2	40.0	-7.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: CCV 280-187741/2 Calibration Date: 08/19/2013 10:36

Instrument ID: VMS_R1 Calib Start Date: 08/16/2013 19:15

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 21:22

Lab File ID: R7571.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.4370	0.4422		10.1	10.0	1.2	20.0
Methylcyclohexane	Ave	0.8014	0.8442		10.5	10.0	5.3	35.0
1,4-Dioxane	Ave	0.0014	0.0015		217	200	8.5	50.0
Dibromomethane	Ave	0.1476	0.1521		10.3	10.0	3.1	20.0
Dichlorobromomethane	Ave	0.4711	0.4885		10.4	10.0	3.7	20.0
2-Chloroethyl vinyl ether	Qua		0.0065		7.91	10.0	-20.9	50.0
cis-1,3-Dichloropropene	Ave	2.243	2.281		10.2	10.0	1.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1260	0.1165		37.0	40.0	-7.5	20.0
Toluene	Ave	2.161	2.271		10.5	10.0	5.1	20.0
Ethyl methacrylate	Ave	0.9818	0.9535		9.71	10.0	-2.9	35.0
trans-1,3-Dichloropropene	Ave	0.4109	0.4372		10.6	10.0	6.4	20.0
1,1,2-Trichloroethane	Ave	0.2168	0.2188		10.1	10.0	0.9	20.0
2-Hexanone	Ave	0.3242	0.3081		38.0	40.0	-5.0	20.0
1,3-Dichloropropane	Ave	1.616	1.623		10.0	10.0	0.5	20.0
Tetrachloroethene	Ave	1.670	1.764		10.6	10.0	5.6	20.0
Chlorodibromomethane	Ave	0.9659	0.996		10.3	10.0	3.1	20.0
Ethylene Dibromide	Ave	0.7624	0.7764		10.2	10.0	1.8	20.0
1-Chlorohexane	Ave	3.131	3.329		10.6	10.0	6.3	35.0
Chlorobenzene	Ave	5.158	5.267	0.3000	10.2	10.0	2.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.479	1.528		10.3	10.0	3.3	20.0
Ethylbenzene	Ave	3.181	3.357		10.6	10.0	5.5	20.0
m-Xylene & p-Xylene	Ave	3.960	4.119		10.4	10.0	4.0	20.0
o-Xylene	Ave	3.589	3.741		10.4	10.0	4.2	20.0
Styrene	Ave	5.151	5.446		10.6	10.0	5.7	20.0
Bromoform	Lin2		0.4329	0.1000	9.68	10.0	-3.2	20.0
Isopropylbenzene	Ave	6.652	7.174		10.8	10.0	7.8	20.0
Cyclohexanone	Ave	0.0195	0.0171		349	400	-12.6	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5612	0.5527	0.3000	9.85	10.0	-1.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1160	0.1165		10.0	10.0	0.4	50.0
1,2,3-Trichloropropane	Ave	0.1522	0.1538		10.1	10.0	1.1	20.0
Bromobenzene	Ave	1.142	1.203		10.5	10.0	5.3	20.0
N-Propylbenzene	Ave	1.879	2.053		10.9	10.0	9.3	20.0
1,3,5-Trimethylbenzene	Ave	5.358	5.742		10.7	10.0	7.2	20.0
2-Chlorotoluene	Ave	1.441	1.536		10.7	10.0	6.6	20.0
4-Chlorotoluene	Ave	1.466	1.564		10.7	10.0	6.7	20.0
tert-Butylbenzene	Ave	5.479	5.857		10.7	10.0	6.9	20.0
1,2,4-Trimethylbenzene	Ave	5.295	5.642		10.7	10.0	6.6	20.0
sec-Butylbenzene	Ave	1.523	1.667		10.9	10.0	9.4	20.0
4-Isopropyltoluene	Ave	6.255	6.832		10.9	10.0	9.2	20.0
1,3-Dichlorobenzene	Ave	2.548	2.636		10.3	10.0	3.5	20.0
1,4-Dichlorobenzene	Ave	2.471	2.548		10.3	10.0	3.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: CCV 280-187741/2 Calibration Date: 08/19/2013 10:36

Instrument ID: VMS_R1 Calib Start Date: 08/16/2013 19:15

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 21:22

Lab File ID: R7571.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butylbenzene	Ave	5.954	6.469		10.9	10.0	8.6	20.0
1,2-Dichlorobenzene	Ave	2.063	2.099		10.2	10.0	1.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0788	0.0748		9.49	10.0	-5.1	20.0
1,2,4-Trichlorobenzene	Ave	1.412	1.445		10.2	10.0	2.3	20.0
Hexachlorobutadiene	Ave	0.9761	1.061		10.9	10.0	8.7	20.0
Naphthalene	Ave	1.908	1.868		9.79	10.0	-2.1	20.0
1,2,3-Trichlorobenzene	Ave	1.082	1.092		10.1	10.0	0.9	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7571.D
Lims ID: CCV Client ID:
Inject. Date: 19-Aug-2013 10:36:30 Dil. Factor: 1.0000
Sample Type: CCV
Sample ID: ccv
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 11
Lims Batch ID: 187741 Lims Sample ID: 2
Sublist: chrom-AQ_VMSR1_8260*sub41
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 23:19:14 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: moanm Date: 19-Aug-2013 11:00:52

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	70	205103	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1471116	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	87	23057	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	69	377998	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.630	0.0	79	562047	12.5	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	87	649238	10.6	
26 Chloromethane	50	4.091	4.091	0.0	89	438729	9.71	
27 Vinyl chloride	62	4.244	4.244	0.0	84	481949	10.3	
147 Butadiene	54	4.244	4.244	0.0	0	395720	10.2	
29 Bromomethane	94	4.594	4.594	0.0	86	335464	9.89	
30 Chloroethane	64	4.650	4.650	0.0	95	276225	10.3	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	78	811240	10.2	
32 Trichlorofluoromethane	101	4.874	4.874	0.0	84	749855	10.8	
35 Ethyl ether	59	5.056	5.056	0.0	86	156632	10.2	
39 Acrolein	56	5.196	5.196	0.0	91	120891	97.3	
41 Acetone	43	5.294	5.294	0.0	92	114204	39.3	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.308	5.308	0.0	86	420899	9.88	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	90	468263	9.06	
44 Iodomethane	142	5.504	5.504	0.0	98	983339	10.5	
45 Methyl acetate	43	5.532	5.532	0.0	89	502457	46.8	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	83	926076	9.68	
48 Carbon disulfide	76	5.602	5.602	0.0	98	2741057	10.7	
49 2-Methyl-2-propanol	59	5.644	5.644	0.0	53	136800	83.0	
50 Methylene Chloride	84	5.686	5.686	0.0	81	617519	11.0	
52 Acrylonitrile	53	5.825	5.825	0.0	100	561856	98.0	
51 Methyl tert-butyl ether	73	5.867	5.867	0.0	88	802630	9.59	
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	96	686642	10.5	
54 Hexane	57	6.079	6.079	0.0	88	1109547	10.2	
55 Vinyl acetate	43	6.165	6.165	0.0	96	753253	20.2	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.222	6.222	0.0	85	1078324	10.2	
61 2-Butanone (MEK)	43	6.602	6.602	0.0	99	271403	36.1	
62 sec-Butyl Alcohol	45	6.652	6.652	0.0	68	295568	288.5	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	68	630750	10.2	
64 2,2-Dichloropropane	77	6.688	6.688	0.0	87	957837	11.0	
67 Chlorobromomethane	128	6.853	6.853	0.0	92	202327	10.3	
68 Chloroform	83	6.860	6.860	0.0	80	929316	10.2	
69 Tetrahydrofuran	42	6.888	6.888	0.0	84	78450	18.4	
70 Isobutyl alcohol	41	7.068	7.068	0.0	92	35164	221.7	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	90	964154	10.4	
72 Cyclohexane	56	7.161	7.161	0.0	87	1293719	10.6	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	95	890027	10.6	
74 Carbon tetrachloride	117	7.225	7.225	0.0	74	846724	10.7	
76 1,2-Dichloroethane	62	7.340	7.340	0.0	86	419068	10.1	
77 Benzene	78	7.368	7.368	0.0	94	2495986	10.3	
14 n-Heptane	43	7.447	7.447	0.0	88	1072669	10.6	
79 Trichloroethene	95	7.827	7.827	0.0	95	647160	10.2	
80 2-Pentanone	43	7.870	7.870	0.0	97	403113	37.2	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	95	520456	10.1	
82 Methylcyclohexane	55	8.027	8.027	0.0	89	993504	10.5	
84 1,4-Dioxane	88	8.070	8.070	0.0	77	35273	216.9	
85 Dibromomethane	93	8.113	8.113	0.0	86	178995	10.3	
86 Dichlorobromomethane	83	8.185	8.185	0.0	94	574887	10.4	
87 2-Chloroethyl vinyl ether	63	8.328	8.328	0.0	46	7641	7.91	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	92	689697	10.2	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	0.0	93	548284	37.0	
91 Toluene	91	8.787	8.787	0.0	98	2672616	10.5	
92 Ethyl methacrylate	69	8.873	8.873	0.0	84	288339	9.71	
93 trans-1,3-Dichloropropene	75	8.887	8.887	0.0	91	514477	10.6	
94 1,1,2-Trichloroethane	97	9.045	9.045	0.0	85	257458	10.1	
95 2-Hexanone	43	9.159	9.159	0.0	91	372693	38.0	
96 1,3-Dichloropropane	76	9.181	9.181	0.0	87	490869	10.0	
97 Tetrachloroethene	164	9.209	9.209	0.0	92	533535	10.6	
98 Chlorodibromomethane	129	9.367	9.367	0.0	88	301244	10.3	
100 Ethylene Dibromide	107	9.496	9.496	0.0	98	234794	10.2	
101 1-Chlorohexane	91	9.725	9.725	0.0	93	1006715	10.6	
102 Chlorobenzene	112	9.832	9.832	0.0	95	1592701	10.2	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	86	462005	10.3	
103 Ethylbenzene	106	9.875	9.875	0.0	97	1015268	10.6	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	1245458	10.4	
106 Styrene	104	10.262	10.262	0.0	86	1646788	10.6	
107 o-Xylene	106	10.262	10.262	0.0	89	1131208	10.4	
108 Bromoform	173	10.463	10.463	0.0	95	130904	9.68	
109 Isopropylbenzene	105	10.520	10.520	0.0	95	3225588	10.8	
111 Cyclohexanone	55	10.649	10.649	0.0	88	206351	349.4	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	64	248528	9.85	
113 trans-1,4-Dichloro-2-butene	53	10.756	10.756	0.0	83	52369	10.0	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	75	69143	10.1	
116 Bromobenzene	156	10.842	10.842	0.0	50	541031	10.5	
115 N-Propylbenzene	120	10.842	10.842	0.0	97	923213	10.9	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	94	2581839	10.7	
118 2-Chlorotoluene	126	10.964	10.964	0.0	96	690750	10.7	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 4-Chlorotoluene	126	11.043	11.043	0.0	97	703200	10.7	
120 tert-Butylbenzene	119	11.251	11.251	0.0	91	2633446	10.7	
121 1,2,4-Trimethylbenzene	105	11.279	11.279	0.0	97	2536913	10.7	
122 sec-Butylbenzene	134	11.423	11.423	0.0	94	749369	10.9	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	94	3072092	10.9	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	96	1185456	10.3	
126 1,4-Dichlorobenzene	146	11.652	11.652	0.0	94	1145877	10.3	
127 n-Butylbenzene	91	11.881	11.881	0.0	97	2908571	10.9	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	97	943952	10.2	
129 1,2-Dibromo-3-Chloropropane	157	12.748	12.748	0.0	68	33616	9.49	
130 1,2,4-Trichlorobenzene	180	13.693	13.693	0.0	93	649742	10.2	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	96	476918	10.9	
132 Naphthalene	128	14.059	14.059	0.0	96	839730	9.79	
133 1,2,3-Trichlorobenzene	180	14.374	14.374	0.0	92	491008	10.1	
S 134 Trihalomethanes, Total	1				0		40.5	
S 135 Xylenes, Total (URS)	1				0		20.8	
S 136 Total BTEX	1				0		52.2	
S 137 1,3-Dichloropropene, Total	1				0		20.8	
S 138 1,2-Dichloroethene, Total	1				0		20.7	
S 139 Xylenes, Total	106				0		20.8	
S 140 1,2-Dichloroethene, Total (URS)	96				0		20.7	

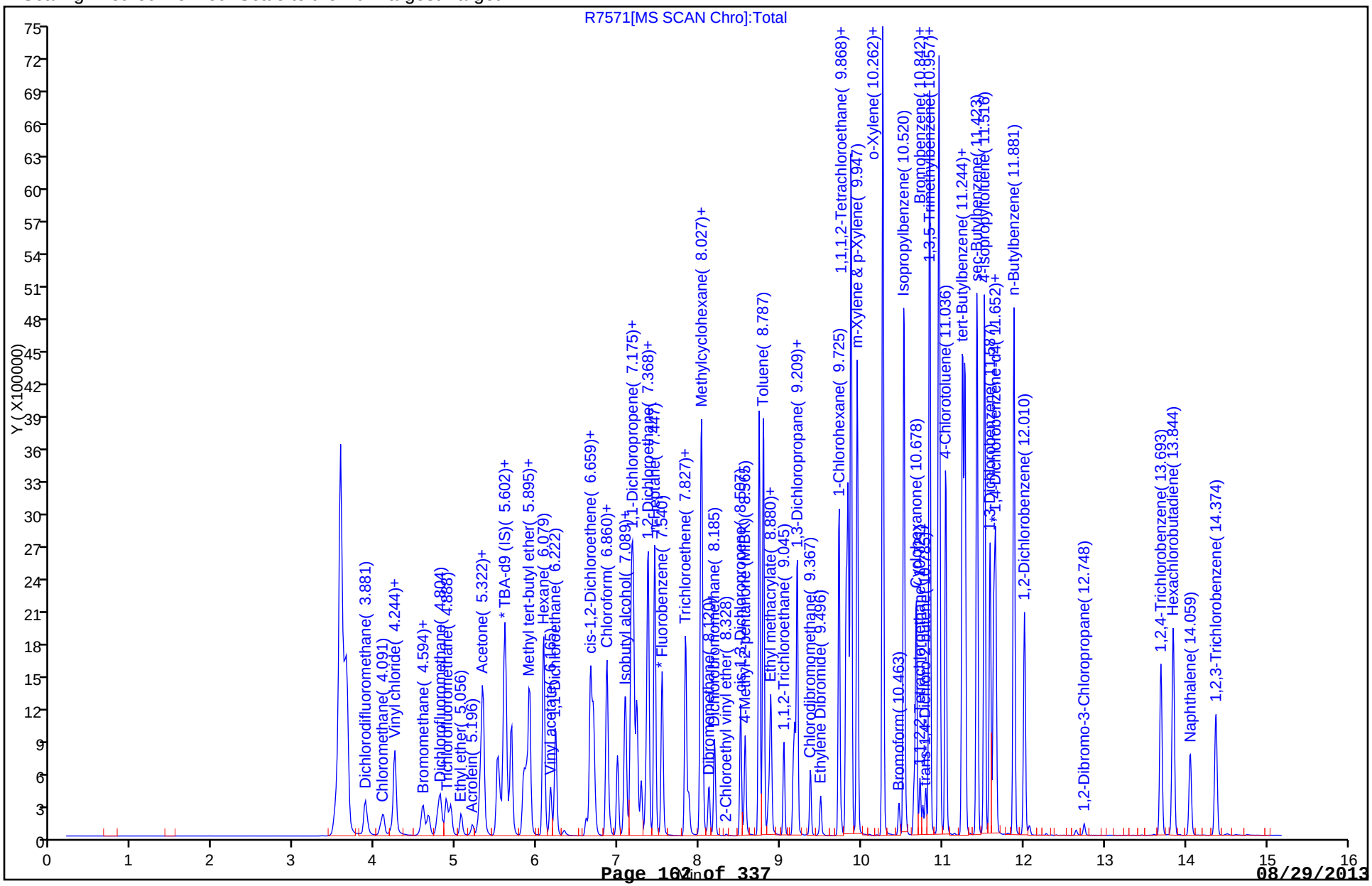
Report Date: 19-Aug-2013 23:19:15 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7571.D

Injection Date:	19-Aug-2013 10:36:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	2
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: CCV 280-187741/3 Calibration Date: 08/19/2013 11:56

Instrument ID: VMS_R1 Calib Start Date: 08/16/2013 22:46

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/17/2013 00:31

Lab File ID: R7574.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin		0.0861		411	500	-17.8	50.0
Isopropyl alcohol	Lin2		0.7902		99.1	100	-0.9	50.0
Acetonitrile	Lin2		0.0138		95.4	100	-4.6	50.0
Isopropyl ether	Ave	0.3579	0.3578		10.0	10.0	-0.0	35.0
2-Chloro-1,3-butadiene	Ave	0.7659	0.7972		10.4	10.0	4.1	35.0
Tert-butyl ethyl ether	Ave	0.9475	0.9381		9.90	10.0	-1.0	35.0
Ethyl acetate	Ave	0.0791	0.0731		18.5	20.0	-7.6	50.0
Propionitrile	Ave	0.0171	0.0169		99.1	100	-0.9	50.0
Methacrylonitrile	Ave	0.0760	0.0744		97.9	100	-2.1	50.0
Tert-amyl methyl ether	Ave	0.7420	0.7332		9.88	10.0	-1.2	35.0
Methyl methacrylate	Ave	0.0445	0.0439		19.8	20.0	-1.2	35.0
2-Nitropropane	Ave	0.0262	0.0242		18.4	20.0	-7.9	50.0
cis-1,4-Dichloro-2-butene	Ave	0.1209	0.1129		9.33	10.0	-6.7	50.0
Dibromofluoromethane (Surr)	Ave	0.3985	0.4073		10.2	10.0	2.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3003	0.2884		9.60	10.0	-4.0	20.0
Toluene-d8 (Surr)	Ave	7.602	7.944		10.5	10.0	4.5	20.0
4-Bromofluorobenzene (Surr)	Ave	1.602	1.652		10.3	10.0	3.1	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7574.D
Lims ID: CCV Client ID:
Inject. Date: 19-Aug-2013 11:56:30 Dil. Factor: 1.0000
Sample Type: CCV
Sample ID: ccv
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 14
Lims Batch ID: 187741 Lims Sample ID: 3
Sublist: chrom-AQ_VMSR1_8260*sub42
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 23:19:15 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: moanm Date: 19-Aug-2013 12:14:42

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	6	244875	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1513419	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	1	21929	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	382902	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.638	11.638	0.0	95	570240	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.996	6.996	0.0	65	493119	10.2	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	88	349223	9.60	
$ 7 Toluene-d8 (Surr)	98	8.737	8.737	0.0	92	2433410	10.5	
$ 8 4-Bromofluorobenzene (Surr)	95	10.678	10.678	0.0	87	753684	10.3	
28 Ethylene oxide	43	4.552	4.552	0.0	100	1042880	2331.9	
33 Ethanol	45	4.930	4.930	0.0	94	42165	410.9	
38 Propene oxide	58	5.168	5.168	0.0	96	1072965	494.0	
42 Isopropyl alcohol	45	5.336	5.336	0.0	89	77399	99.1	
46 Acetonitrile	41	5.546	5.546	0.0	99	167459	95.4	
56 Isopropyl ether	87	6.187	6.187	0.0	94	433145	10.0	
58 2-Chloro-1,3-butadiene	53	6.301	6.301	0.0	85	965181	10.4	
59 Tert-butyl ethyl ether	59	6.466	6.466	0.0	97	1135758	9.90	
60 Ethyl acetate	43	6.595	6.595	0.0	97	176952	18.5	
65 Propionitrile	54	6.666	6.666	0.0	98	205015	99.1	
66 Methacrylonitrile	41	6.788	6.788	0.0	89	900418	97.9	
75 Tert-amyl methyl ether	73	7.361	7.361	0.0	99	887740	9.88	
78 n-Butanol	56	7.569	7.569	0.0	78	113150	208.9	
148 Ethyl acrylate	55	7.770	7.770	0.0	100	200997	9.70	
81 Methyl methacrylate	100	7.963	7.963	0.0	87	106396	19.8	
88 2-Nitropropane	41	8.328	8.328	0.0	98	58523	18.4	
144 n-Butyl acetate	43	9.202	9.202	0.0	97	179235	9.60	
99 Tetrahydrothiophene	60	9.417	9.417	0.0	90	110416	9.89	
110 cis-1,4-Dichloro-2-butene	53	10.549	10.549	0.0	75	51488	9.33	
125 1,2,3-Trimethylbenzene	105	11.659	11.659	0.0	97	2347281	10.2	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
146 Benzyl chloride	126	11.752	11.752	0.0	99	93102	10.3	
16 1,3,5-Trichlorobenzene	180	12.970	12.970	0.0	97	944532	10.4	

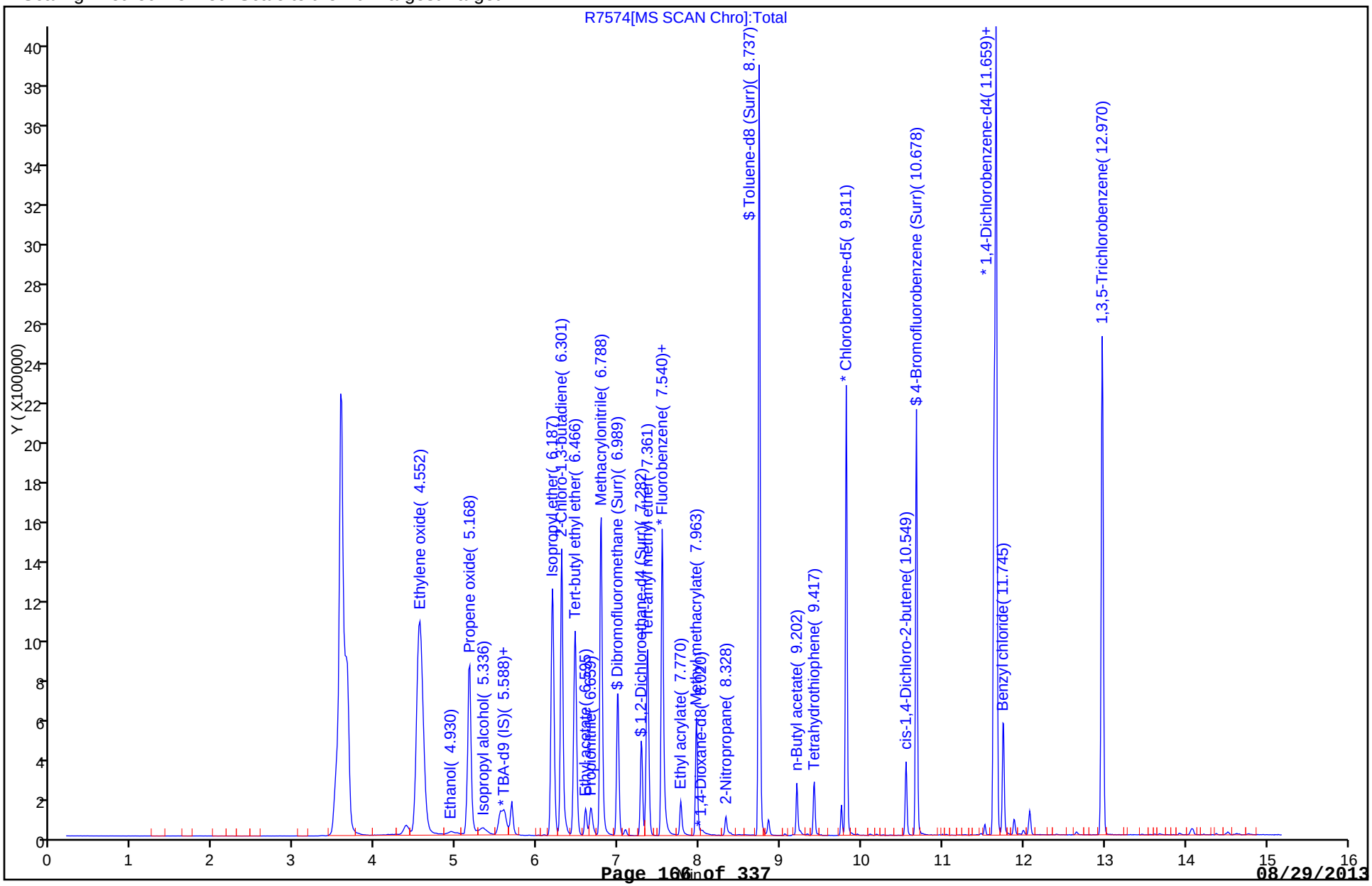
Report Date: 19-Aug-2013 23:19:16 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7574.D

Injection Date:	19-Aug-2013 11:56:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	3
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7546.D		
Lims ID:	BFB	Client ID:	
Inject. Date:	16-Aug-2013 18:03:30	Dil. Factor:	1.0000
Sample Type:	BFB		
Sample ID:	TUNE		
Misc. Info.:			
Operator:	MOANM	Instrument ID:	VMS_R1
Purge Vol:	20.000 mL	ALS Bottle#:	99
Lims Batch ID:	187446	Lims Sample ID:	1
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\AQ_VMSR1_8260.m		
Last Update:	19-Aug-2013 08:51:00	Calib Date:	17-Aug-2013 00:31:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: moanm		Date:	16-Aug-2013 18:13:19

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
$ 4 BFB	95	4.571	4.571	0.0	0	157742	0	

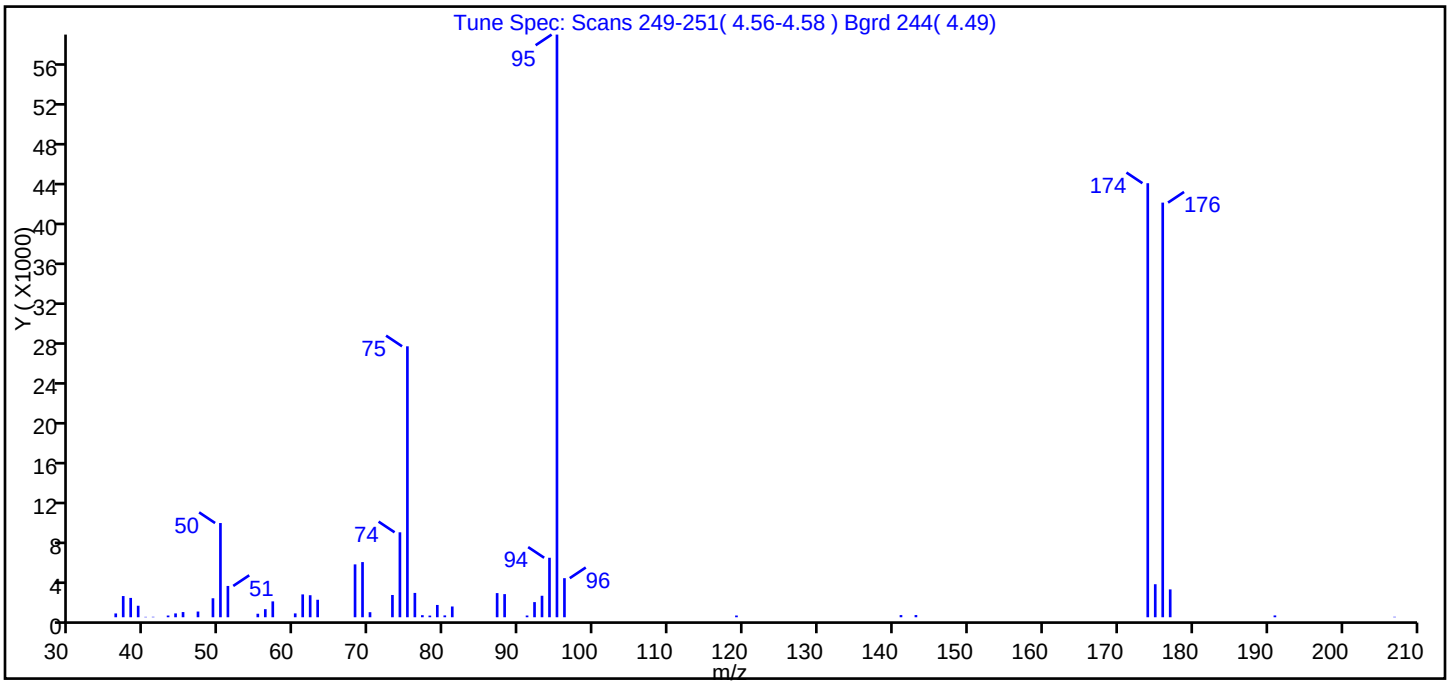
MS Tune Report

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7546.D

Injection Date:	16-Aug-2013 18:03:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187446	Lims Sample ID:	1
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Tune Method:	BFB Method 8260		

$ 4 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.17
75	30.00 - 60.00% of mass 95	46.50
96	5.00 - 9.00% of mass 95	6.71
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	74.49
175	5.00 - 9.00% of mass 174	5.67 (7.61)
176	95.00 - 101.00% of mass 174	71.16 (95.53)
177	5.00 - 9.00% of mass 176	4.78 (6.72)

Data File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7546.D\AQ_VMSR1_8260.rslt\spectra.d
Injection Date: 16-Aug-2013 18:03:30
Spectrum: Tune Spec: Scans 249-251(4.56-4.58) Bgrd 244(4.49)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 49

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	384	55.00	355	76.00	2450	96.00	3935
37.00	2134	56.00	813	77.00	209	119.00	176
38.00	1947	57.00	1598	78.00	170	141.00	219
39.00	1158	60.00	388	79.00	1238	143.00	221
40.00	41	61.00	2301	80.00	186	174.00	43688
41.00	46	62.00	2218	81.00	1084	175.00	3325
43.00	174	63.00	1761	87.00	2432	176.00	41736
44.00	387	68.00	5322	88.00	2329	177.00	2804
45.00	523	69.00	5553	91.00	175	191.00	182
47.00	576	70.00	510	92.00	1525	207.00	46
49.00	1911	73.00	2242	93.00	2164		
50.00	9484	74.00	8551	94.00	5988		
51.00	3151	75.00	27272	95.00	58648		

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7569.D		
Lims ID:	BFB	Client ID:	
Inject. Date:	19-Aug-2013 09:51:30	Dil. Factor:	1.0000
Sample Type:	BFB		
Sample ID:	BFB		
Misc. Info.:			
Operator:	MOANM	Instrument ID:	VMS_R1
Purge Vol:	20.000 mL	ALS Bottle#:	100
Lims Batch ID:	187741	Lims Sample ID:	1
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m		
Last Update:	19-Aug-2013 23:19:14	Calib Date:	17-Aug-2013 00:31:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK049		
First Level Reviewer: moanm		Date:	19-Aug-2013 10:00:11

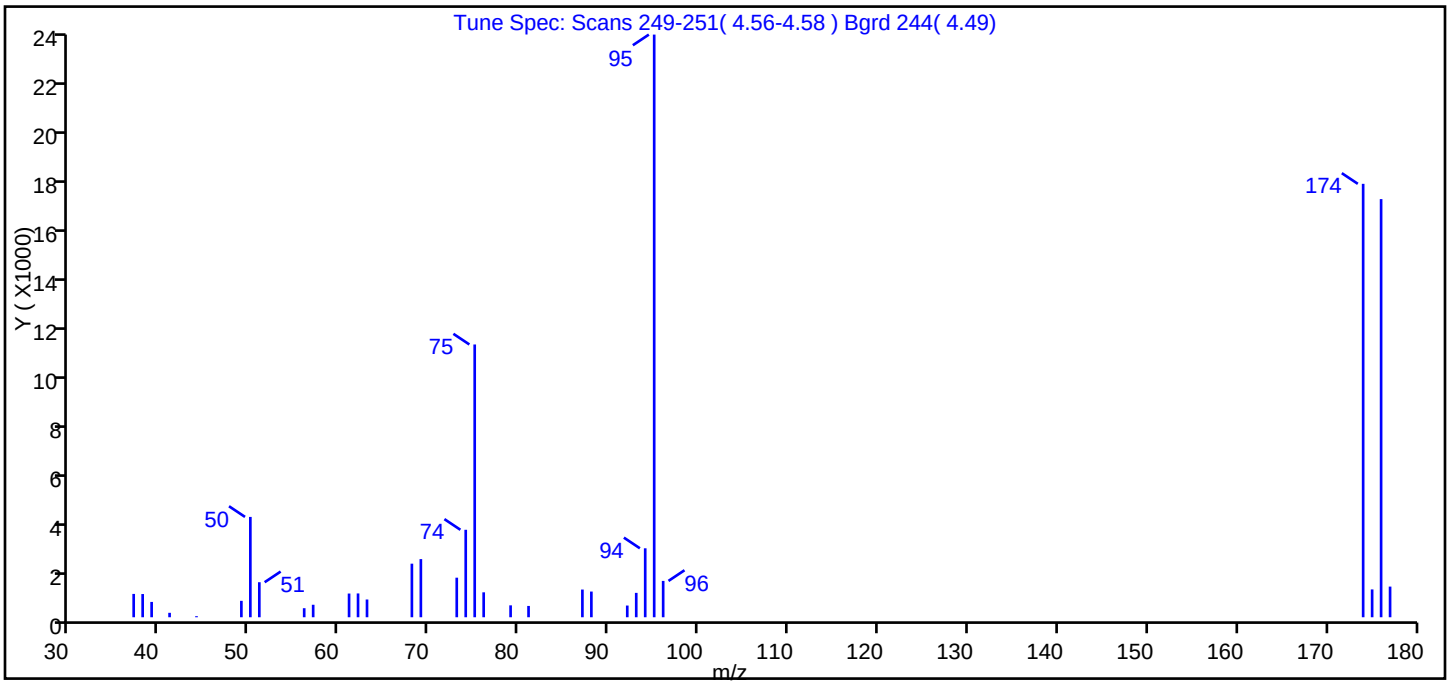
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
$ 4 BFB	95	4.571	4.571	0.0	0	63226	0	

MS Tune Report

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7569.D		
Injection Date:	19-Aug-2013 09:51:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	1
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Tune Method:	BFB Method 8260		

$ 4 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.22
75	30.00 - 60.00% of mass 95	46.82
96	5.00 - 9.00% of mass 95	6.24
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	74.39
175	5.00 - 9.00% of mass 174	4.78 (6.42)
176	95.00 - 101.00% of mass 174	71.76 (96.47)
177	5.00 - 9.00% of mass 176	5.26 (7.33)

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7569.D\AQ_VMSR1_8260.rslt\spectra.d
Injection Date: 19-Aug-2013 09:51:30
Spectrum: Tune Spec: Scans 249-251(4.56-4.58) Bgrd 244(4.49)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 32

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	941	56.00	365	74.00	3526	93.00	983
38.00	936	57.00	504	75.00	10996	94.00	2780
39.00	618	61.00	956	76.00	1005	95.00	23488
41.00	179	62.00	960	79.00	480	96.00	1465
44.00	43	63.00	716	81.00	456	174.00	17472
49.00	662	68.00	2160	87.00	1117	175.00	1122
50.00	4045	69.00	2344	88.00	1036	176.00	16856
51.00	1412	73.00	1595	92.00	472	177.00	1236

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-187741/5

Matrix: Water | Lab File ID: R7576.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 12:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.40	U	1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	0.20	U	1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	0.40	U	1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	0.40	U	1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	0.40	U	1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.40	U	1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.20	U	1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	0.20	U	1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	0.40	U	1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	80	U	220	80	71
544-10-5	1-Chlorohexane	0.20	U	1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	3.2	U	6.0	3.2	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	3.2	U	5.0	3.2	1.4
106-43-4	4-Chlorotoluene	0.40	U	1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.20	U	1.0	0.20	0.16
108-86-1	Bromobenzene	0.20	U	1.0	0.20	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.40	U	2.0	0.40	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-187741/5

Matrix: Water | Lab File ID: R7576.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 12:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.20	U	1.0	0.20	0.17
74-97-5	Chlorobromomethane	0.40	U	1.0	0.40	0.10
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.20	U	1.0	0.20	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.0	0.20	0.16
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.20	U	1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.20	U	1.0	0.20	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.40	U	1.0	0.40	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	0.40	U	5.0	0.40	0.25
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36
75-09-2	Methylene Chloride	0.787	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.40	U	1.0	0.40	0.32
103-65-1	N-Propylbenzene	0.20	U	1.0	0.20	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.20	U	1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.40	U	1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 280-187741/5

Matrix: Water Lab File ID: R7576.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 08/19/2013 12:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187741 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		70-120
460-00-4	4-Bromofluorobenzene (Surr)	105		75-120
1868-53-7	Dibromofluoromethane (Surr)	104		85-115
2037-26-5	Toluene-d8 (Surr)	100		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7576.D
Lims ID: MB Client ID:
Inject. Date: 19-Aug-2013 12:38:30 Dil. Factor: 1.0000
Sample Type: MB
Sample ID: mb
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 16
Lims Batch ID: 187741 Lims Sample ID: 5
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m
Last Update: 20-Aug-2013 00:53:11 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: thompsonl Date: 20-Aug-2013 00:53:03

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	1	231827	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1434598	12.5	
* 149 1,4-Dioxane-d8	96	8.035	8.027	0.008	1	20036	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	84	377439	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.638	11.638	0.0	95	554222	12.5	
$ 152 Trifluorotoluene (Surr)	1		0.000					
$ 4 BFB	95		4.571					1
$ 5 Dibromofluoromethane (Surr)	111	6.989	6.996	-0.007	58	474168	10.4	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.283	7.282	0.0	88	346568	10.1	
$ 7 Toluene-d8 (Surr)	98	8.737	8.737	0.0	92	2304340	10.0	
$ 8 4-Bromofluorobenzene (Surr)	95	10.678	10.678	0.0	87	743873	10.5	
18 3,3-Dimethylpentane	1		0.000					
13 2,2-Dimethylpentane	1		0.000					
20 2-Methylhexane	1		0.000					
11 2,3-Dimethylpentane	1		0.000					
12 2,2,3-Trimethylbutane	1		0.000					
9 2,4-Dimethylpentane	1		0.000					
19 3-Methylhexane	1		0.000					
145 2-Methylnaphthalene	142		0.000					
15 Dimethyl disulfide	1		0.000					
143 Pentachloroethane	167		0.000					
21 2-Butoxyethanol TIC	1		0.000					
10 n-Nonyl Aldehyde	1		0.000					
17 3-Ethylpentane	1		0.000					
22 Chlorotrifluoroethene	116		3.825					
23 Dichlorodifluoromethane	85		3.881					
24 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.035					
26 Chloromethane	50		4.091					
27 Vinyl chloride	62		4.244					
147 Butadiene	54		4.244					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
25 2-Chloro-1,1,1-Trifluoroethane	118		4.272					
28 Ethylene oxide	43		4.552					
29 Bromomethane	94		4.594					
30 Chloroethane	64		4.650					
31 Dichlorofluoromethane	67		4.804					
32 Trichlorofluoromethane	101		4.874					
33 Ethanol	45		4.930					
36 1,2-Dichloro-1,1,2-trifluoroetha	117		5.042					
35 Ethyl ether	59		5.056					
37 1,1,1-Trifluoro-2,2-dichloroetha	83		5.070					
38 Propene oxide	58		5.168					19
39 Acrolein	56		5.196					
41 Acetone	43		5.294					
40 1,1,2-Trichloro-1,2,2-trifluoroe	151		5.308					
34 Propene oxide TIC	58	5.308	5.334	-0.026	1	2529	0	
43 1,1-Dichloroethene	96		5.336					
42 Isopropyl alcohol	45		5.336					
44 Iodomethane	142		5.504					
45 Methyl acetate	43		5.532					19
46 Acetonitrile	41		5.546					
47 3-Chloro-1-propene	41		5.588					
48 Carbon disulfide	76		5.602					
49 2-Methyl-2-propanol	59		5.644					
50 Methylene Chloride	84	5.686	5.686	0.0	85	91463	0.7869	
52 Acrylonitrile	53		5.825					
51 Methyl tert-butyl ether	73		5.867					
53 trans-1,2-Dichloroethene	96		5.909					
54 Hexane	57		6.079					
55 Vinyl acetate	43		6.165					
56 Isopropyl ether	87		6.187					
57 1,1-Dichloroethane	63		6.222					
58 2-Chloro-1,3-butadiene	53		6.301					
59 Tert-butyl ethyl ether	59		6.466					
60 Ethyl acetate	43		6.595					
61 2-Butanone (MEK)	43		6.602					
62 sec-Butyl Alcohol	45		6.652					139
63 cis-1,2-Dichloroethene	96		6.659					
65 Propionitrile	54		6.666					
64 2,2-Dichloropropane	77		6.688					
66 Methacrylonitrile	41		6.788					
67 Chlorobromomethane	128		6.853					
68 Chloroform	83		6.860					
69 Tetrahydrofuran	42		6.888					
70 Isobutyl alcohol	41		7.068					
71 1,1,1-Trichloroethane	97		7.089					
72 Cyclohexane	56		7.161					
73 1,1-Dichloropropene	75		7.189					
74 Carbon tetrachloride	117		7.225					
76 1,2-Dichloroethane	62		7.340					
75 Tert-amyl methyl ether	73		7.361					
77 Benzene	78		7.368					
14 n-Heptane	43		7.447					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
78 n-Butanol	56		7.569					
148 Ethyl acrylate	55		7.770					
79 Trichloroethene	95		7.827					
80 2-Pentanone	43		7.870					
81 Methyl methacrylate	100		7.963					
83 1,2-Dichloropropane	63		8.013					
82 Methylcyclohexane	55		8.027					
84 1,4-Dioxane	88		8.070					
85 Dibromomethane	93		8.113					
86 Dichlorobromomethane	83		8.185					
87 2-Chloroethyl vinyl ether	63		8.328					
88 2-Nitropropane	41		8.328					
89 cis-1,3-Dichloropropene	75		8.507					
90 4-Methyl-2-pentanone (MIBK)	43		8.565					
91 Toluene	91		8.787					
92 Ethyl methacrylate	69		8.873					
93 trans-1,3-Dichloropropene	75		8.887					19
94 1,1,2-Trichloroethane	97		9.045					
95 2-Hexanone	43		9.159					19
96 1,3-Dichloropropane	76		9.181					
144 n-Butyl acetate	43		9.202					14
97 Tetrachloroethene	164		9.209					
98 Chlorodibromomethane	129		9.367					
99 Tetrahydrothiophene	60		9.417					
100 Ethylene Dibromide	107		9.496					
101 1-Chlorohexane	91		9.725					
102 Chlorobenzene	112		9.832					
104 1,1,1,2-Tetrachloroethane	131		9.868					
103 Ethylbenzene	106		9.875					
105 m-Xylene & p-Xylene	106		9.947					
106 Styrene	104		10.262					
107 o-Xylene	106		10.262					
108 Bromoform	173		10.463					
109 Isopropylbenzene	105		10.520					
110 cis-1,4-Dichloro-2-butene	53		10.549					
111 Cyclohexanone	55		10.649					
112 1,1,2,2-Tetrachloroethane	83		10.721					
113 trans-1,4-Dichloro-2-butene	53		10.756					
114 1,2,3-Trichloropropane	110		10.792					
116 Bromobenzene	156		10.842					
115 N-Propylbenzene	120		10.842					
117 1,3,5-Trimethylbenzene	105		10.950					19
118 2-Chlorotoluene	126		10.964					
119 4-Chlorotoluene	126		11.043					
120 tert-Butylbenzene	119		11.251					19
121 1,2,4-Trimethylbenzene	105		11.279					19
122 sec-Butylbenzene	134		11.423					
123 4-Isopropyltoluene	119		11.516					19
124 1,3-Dichlorobenzene	146		11.587					
126 1,4-Dichlorobenzene	146		11.652					
125 1,2,3-Trimethylbenzene	105		11.659					
146 Benzyl chloride	126		11.752					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
127 n-Butylbenzene	91		11.881					19
128 1,2-Dichlorobenzene	146		12.010					
129 1,2-Dibromo-3-Chloropropane	157		12.748					
16 1,3,5-Trichlorobenzene	180		12.970					
130 1,2,4-Trichlorobenzene	180		13.693					
131 Hexachlorobutadiene	225		13.844					
132 Naphthalene	128		14.059					19
133 1,2,3-Trichlorobenzene	180		14.374					19
S 134 Trihalomethanes, Total	1				0		0	7
S 135 Xylenes, Total (URS)	1				0		0	7
S 136 Total BTEX	1		0.000					7
S 137 1,3-Dichloropropene, Total	1				0		0	7
S 138 1,2-Dichloroethene, Total	1				0		0	7
S 139 Xylenes, Total	106				0		0	7
S 140 1,2-Dichloroethene, Total (URS)	96				0		0	7
T 141 Dichloroacetonitrile TIC	74		1.000					1
T 142 2,3-dichloro-1-propene TIC	75		1.000					1

QC Flag Legend

Processing Flags
1 - Missing Peaks
3 - Failed RT Window Test
4 - Failed Signal Ratio Test
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

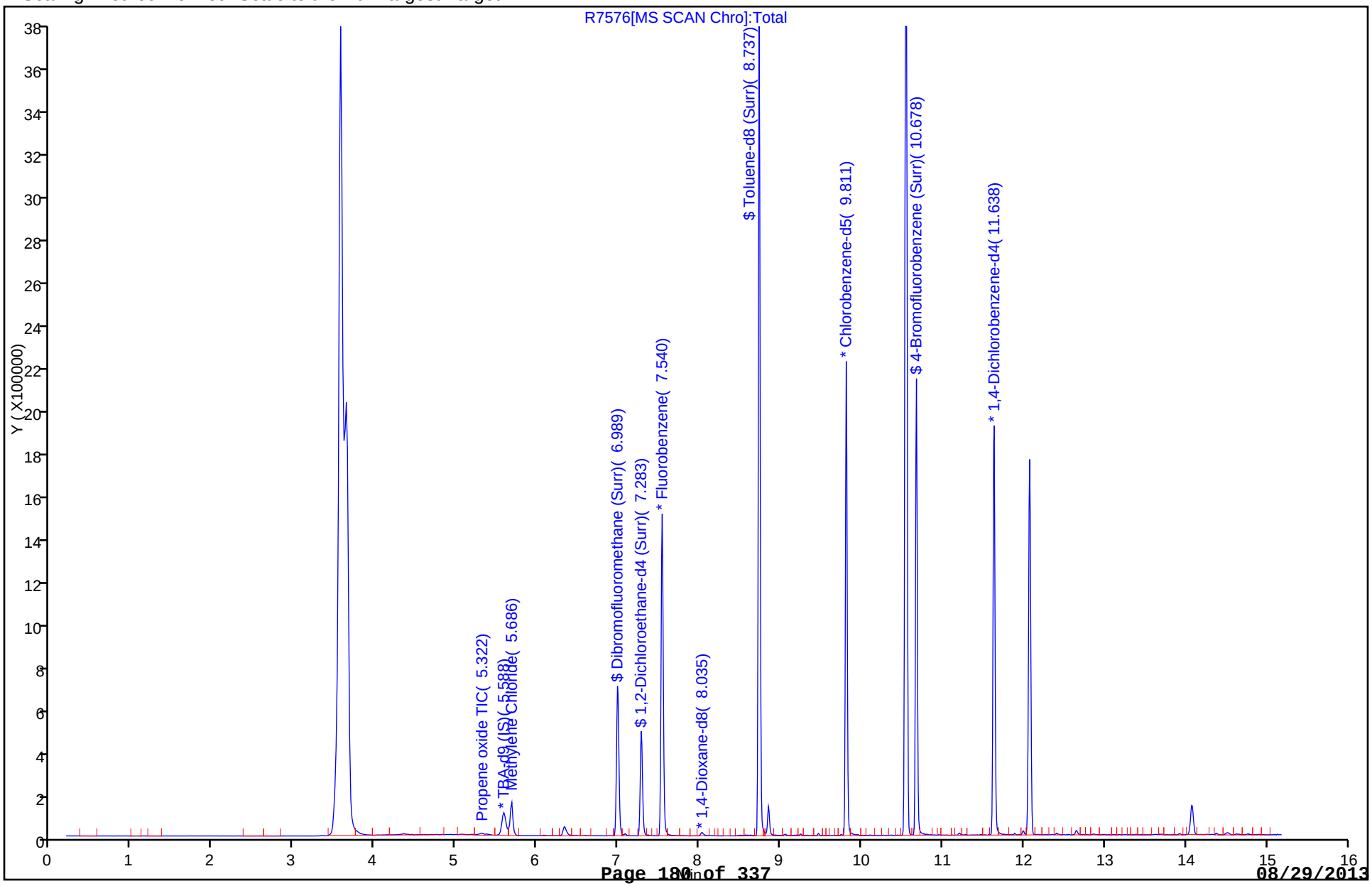
Report Date: 20-Aug-2013 00:53:11 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7576.D

Injection Date:	19-Aug-2013 12:38:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	5
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7576.D

Injection Date:	19-Aug-2013 12:38:30	Limit Group:	MSV - 8260B Water and Solid
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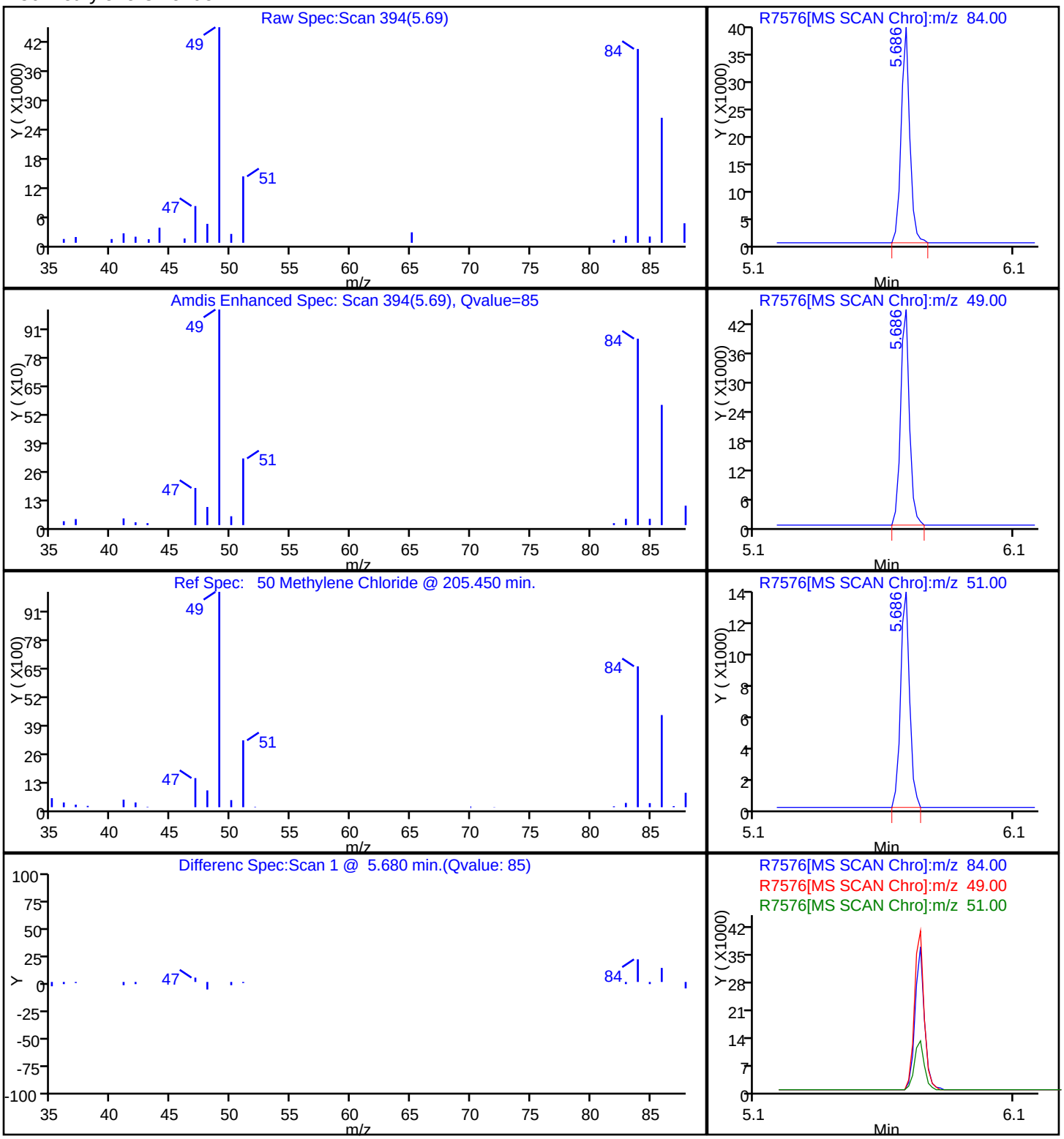
50 Methylene Chloride



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-187741/4

Matrix: Water | Lab File ID: R7575.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 12:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	4.76		1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	4.95		1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.61		1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.47		3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	4.68		1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	4.88		1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	3.89		1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	5.26		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	4.72		1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	4.72		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	4.70		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	4.93		1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	4.22	J	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	4.71		1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	4.78		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.79		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	4.97		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	4.76		1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	4.54		1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	4.88		1.0	0.40	0.16
123-91-1	1,4-Dioxane	95.1	J	220	80	71
544-10-5	1-Chlorohexane	5.07		1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	5.03		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	17.8		6.0	3.2	1.8
95-49-8	2-Chlorotoluene	4.97		1.0	0.40	0.17
591-78-6	2-Hexanone	17.9		5.0	3.2	1.4
106-43-4	4-Chlorotoluene	4.77		1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	5.01		1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	18.3		5.0	3.2	1.0
67-64-1	Acetone	18.3		10	6.4	1.9
71-43-2	Benzene	4.82		1.0	0.20	0.16
108-86-1	Bromobenzene	4.82		1.0	0.20	0.17
75-25-2	Bromoform	4.20		1.0	0.40	0.19
74-83-9	Bromomethane	3.71		2.0	0.40	0.21
75-15-0	Carbon disulfide	4.46		2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-187741/4

Matrix: Water | Lab File ID: R7575.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 12:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	5.09		2.0	0.40	0.19
108-90-7	Chlorobenzene	4.78		1.0	0.20	0.17
74-97-5	Chlorobromomethane	4.67		1.0	0.40	0.10
124-48-1	Chlorodibromomethane	4.72		1.0	0.40	0.17
75-00-3	Chloroethane	3.93		2.0	1.6	0.41
67-66-3	Chloroform	4.82		1.0	0.20	0.16
74-87-3	Chloromethane	3.52		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	4.79		1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	4.74		1.0	0.20	0.16
110-82-7	Cyclohexane	4.87		2.0	0.40	0.28
74-95-3	Dibromomethane	4.64		1.0	0.40	0.17
75-27-4	Dichlorobromomethane	4.63		1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	3.95		2.0	0.80	0.31
100-41-4	Ethylbenzene	4.92		1.0	0.20	0.16
106-93-4	Ethylene Dibromide	4.78		1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	5.00		1.0	0.40	0.36
98-82-8	Isopropylbenzene	4.98		1.0	0.40	0.19
79-20-9	Methyl acetate	21.7		5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	4.53	J	5.0	0.40	0.25
108-87-2	Methylcyclohexane	4.90		2.0	0.40	0.36
75-09-2	Methylene Chloride	5.56		5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	4.89		2.0	0.80	0.34
91-20-3	Naphthalene	4.57		1.0	0.80	0.22
104-51-8	n-Butylbenzene	5.03		1.0	0.40	0.32
103-65-1	N-Propylbenzene	5.05		1.0	0.20	0.16
95-47-6	o-Xylene	4.92		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	5.11		1.0	0.40	0.17
100-42-5	Styrene	5.08		1.0	0.40	0.17
98-06-6	tert-Butylbenzene	4.93		1.0	0.40	0.16
127-18-4	Tetrachloroethene	4.95		1.0	0.40	0.20
108-88-3	Toluene	5.00		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	4.85		1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	4.76		1.0	0.40	0.19
79-01-6	Trichloroethene	4.86		1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	4.36		2.0	0.80	0.29
75-01-4	Vinyl chloride	3.74		1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-187741/4

Matrix: Water Lab File ID: R7575.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 08/19/2013 12:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187741 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-120
460-00-4	4-Bromofluorobenzene (Surr)	103		75-120
1868-53-7	Dibromofluoromethane (Surr)	104		85-115
2037-26-5	Toluene-d8 (Surr)	104		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7575.D
Lims ID: LCS Client ID:
Inject. Date: 19-Aug-2013 12:17:30 Dil. Factor: 1.0000
Sample Type: LCS
Sample ID: lcs
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 15
Lims Batch ID: 187741 Lims Sample ID: 4
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 23:19:15 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: moanm Date: 19-Aug-2013 12:54:26

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	84	224569	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1468554	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	86	22466	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	82	376897	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.630	11.638	-0.008	83	575309	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.996	6.996	0.0	58	487955	10.4	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	86	343473	9.74	
$ 7 Toluene-d8 (Surr)	98	8.737	8.737	0.0	92	2383925	10.4	
$ 8 4-Bromofluorobenzene (Surr)	95	10.678	10.678	0.0	87	757176	10.3	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	86	236114	3.95	
26 Chloromethane	50	4.091	4.091	0.001	89	158712	3.52	
27 Vinyl chloride	62	4.244	4.244	0.0	83	175113	3.74	
147 Butadiene	54	4.244	4.244	0.0	0	126759	3.26	
29 Bromomethane	94	4.594	4.594	0.0	88	125624	3.71	
30 Chloroethane	64	4.664	4.650	0.014	93	105520	3.93	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	74	354221	4.47	
32 Trichlorofluoromethane	101	4.888	4.874	0.014	83	301204	4.36	
35 Ethyl ether	59	5.070	5.056	0.014	83	73496	4.68	
39 Acrolein	56	5.210	5.196	0.014	90	60106	46.3	
41 Acetone	43	5.308	5.294	0.014	94	59867	18.3	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.322	5.308	0.014	85	190051	4.47	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	90	200863	3.89	
44 Iodomethane	142	5.518	5.504	0.014	97	465151	4.97	
45 Methyl acetate	43	5.546	5.532	0.014	96	232128	21.7	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	79	385572	4.04	
48 Carbon disulfide	76	5.616	5.602	0.014	98	1142407	4.46	
49 2-Methyl-2-propanol	59	5.658	5.644	0.014	34	70726	43.0	
50 Methylene Chloride	84	5.686	5.686	0.0	81	338504	5.56	
52 Acrylonitrile	53	5.840	5.825	0.015	100	266890	46.6	
51 Methyl tert-butyl ether	73	5.867	5.867	0.0	88	378297	4.53	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	96	316543	4.85	
54 Hexane	57	6.079	6.079	0.0	88	507753	4.70	
55 Vinyl acetate	43	6.165	6.165	0.0	90	376354	10.1	
57 1,1-Dichloroethane	63	6.229	6.222	0.007	85	513326	4.88	
61 2-Butanone (MEK)	43	6.609	6.602	0.007	98	135792	17.8	
62 sec-Butyl Alcohol	45	6.652	6.652	0.0	69	147366	131.4	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	68	295183	4.79	
64 2,2-Dichloropropane	77	6.695	6.688	0.007	88	434985	5.03	
67 Chlorobromomethane	128	6.860	6.853	0.007	91	91271	4.67	
68 Chloroform	83	6.867	6.860	0.007	80	439401	4.82	
69 Tetrahydrofuran	42	6.896	6.888	0.008	84	38543	8.91	
70 Isobutyl alcohol	41	7.068	7.068	0.0	91	47190	272.9	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	91	456393	4.95	
72 Cyclohexane	56	7.168	7.161	0.007	87	594920	4.87	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	93	441090	5.26	
74 Carbon tetrachloride	117	7.232	7.225	0.007	74	402298	5.09	
76 1,2-Dichloroethane	62	7.347	7.340	0.007	83	197361	4.78	
77 Benzene	78	7.368	7.368	0.0	94	1168774	4.82	
14 n-Heptane	43	7.447	7.447	0.0	88	490825	4.85	
79 Trichloroethene	95	7.834	7.827	0.007	95	307541	4.86	
80 2-Pentanone	43	7.870	7.870	0.0	97	224610	20.7	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	95	245993	4.79	
82 Methylcyclohexane	55	8.027	8.027	0.0	89	461402	4.90	
84 1,4-Dioxane	88	8.070	8.070	0.0	65	15433	95.1	
85 Dibromomethane	93	8.121	8.113	0.007	93	80410	4.64	
86 Dichlorobromomethane	83	8.185	8.185	0.0	93	256483	4.63	
87 2-Chloroethyl vinyl ether	63	8.335	8.328	0.007	67	11787	12.2	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	92	320349	4.74	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	0.0	94	271275	18.3	
91 Toluene	91	8.794	8.787	0.007	98	1270235	5.00	
92 Ethyl methacrylate	69	8.873	8.873	0.0	85	140401	4.74	
93 trans-1,3-Dichloropropene	75	8.887	8.887	0.0	91	229584	4.76	
94 1,1,2-Trichloroethane	97	9.045	9.045	0.001	85	119242	4.68	
95 2-Hexanone	43	9.159	9.159	0.0	92	174697	17.9	
96 1,3-Dichloropropane	76	9.181	9.181	0.0	87	221372	4.54	
97 Tetrachloroethene	164	9.209	9.209	0.0	92	249358	4.95	
98 Chlorodibromomethane	129	9.374	9.367	0.007	87	137606	4.72	
100 Ethylene Dibromide	107	9.496	9.496	0.0	96	109991	4.78	
101 1-Chlorohexane	91	9.725	9.725	0.0	94	478396	5.07	
102 Chlorobenzene	112	9.832	9.832	0.0	95	743210	4.78	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	90	212135	4.76	
103 Ethylbenzene	106	9.875	9.875	0.0	97	472210	4.92	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	583578	4.89	
107 o-Xylene	106	10.262	10.262	0.0	89	531851	4.92	
106 Styrene	104	10.262	10.262	0.0	86	789352	5.08	
108 Bromoform	173	10.463	10.463	0.0	94	55871	4.20	
109 Isopropylbenzene	105	10.527	10.520	0.007	95	1526051	4.98	
111 Cyclohexanone	55	10.649	10.649	0.0	88	113511	192.8	
112 1,1,2,2-Tetrachloroethane	83	10.721	10.721	0.0	76	119109	4.61	
113 trans-1,4-Dichloro-2-butene	53	10.757	10.756	0.0	74	26146	4.90	
114 1,2,3-Trichloropropane	110	10.792	10.792	0.0	70	33076	4.72	
116 Bromobenzene	156	10.842	10.842	0.0	50	253354	4.82	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
115 N-Propylbenzene	120	10.842	10.842	0.0	97	437113	5.05	
117 1,3,5-Trimethylbenzene	105	10.950	10.950	0.0	92	1225686	4.97	
118 2-Chlorotoluene	126	10.964	10.964	0.0	95	329752	4.97	
119 4-Chlorotoluene	126	11.043	11.043	0.0	97	321753	4.77	
120 tert-Butylbenzene	119	11.251	11.251	0.0	91	1242705	4.93	
121 1,2,4-Trimethylbenzene	105	11.279	11.279	0.0	97	1201168	4.93	
122 sec-Butylbenzene	134	11.430	11.423	0.007	93	358088	5.11	
123 4-Isopropyltoluene	119	11.516	11.516	0.0	94	1442308	5.01	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	96	558233	4.76	
126 1,4-Dichlorobenzene	146	11.659	11.652	0.007	95	554650	4.88	
127 n-Butylbenzene	91	11.881	11.881	0.0	97	1378235	5.03	
128 1,2-Dichlorobenzene	146	12.010	12.010	0.0	97	447488	4.71	
129 1,2-Dibromo-3-Chloropropane	157	12.755	12.748	0.007	55	15282	4.22	
130 1,2,4-Trichlorobenzene	180	13.693	13.693	0.0	94	305837	4.70	
131 Hexachlorobutadiene	225	13.844	13.844	0.0	95	224416	5.00	
132 Naphthalene	128	14.059	14.059	0.0	95	401204	4.57	
133 1,2,3-Trichlorobenzene	180	14.374	14.374	0.0	94	234938	4.72	
S 134 Trihalomethanes, Total	1				0		18.4	
S 135 Xylenes, Total (URS)	1				0		9.80	
S 137 1,3-Dichloropropene, Total	1				0		9.49	
S 138 1,2-Dichloroethene, Total	1				0		9.64	
S 139 Xylenes, Total	106				0		9.80	
S 140 1,2-Dichloroethene, Total (URS)	96				0		9.64	

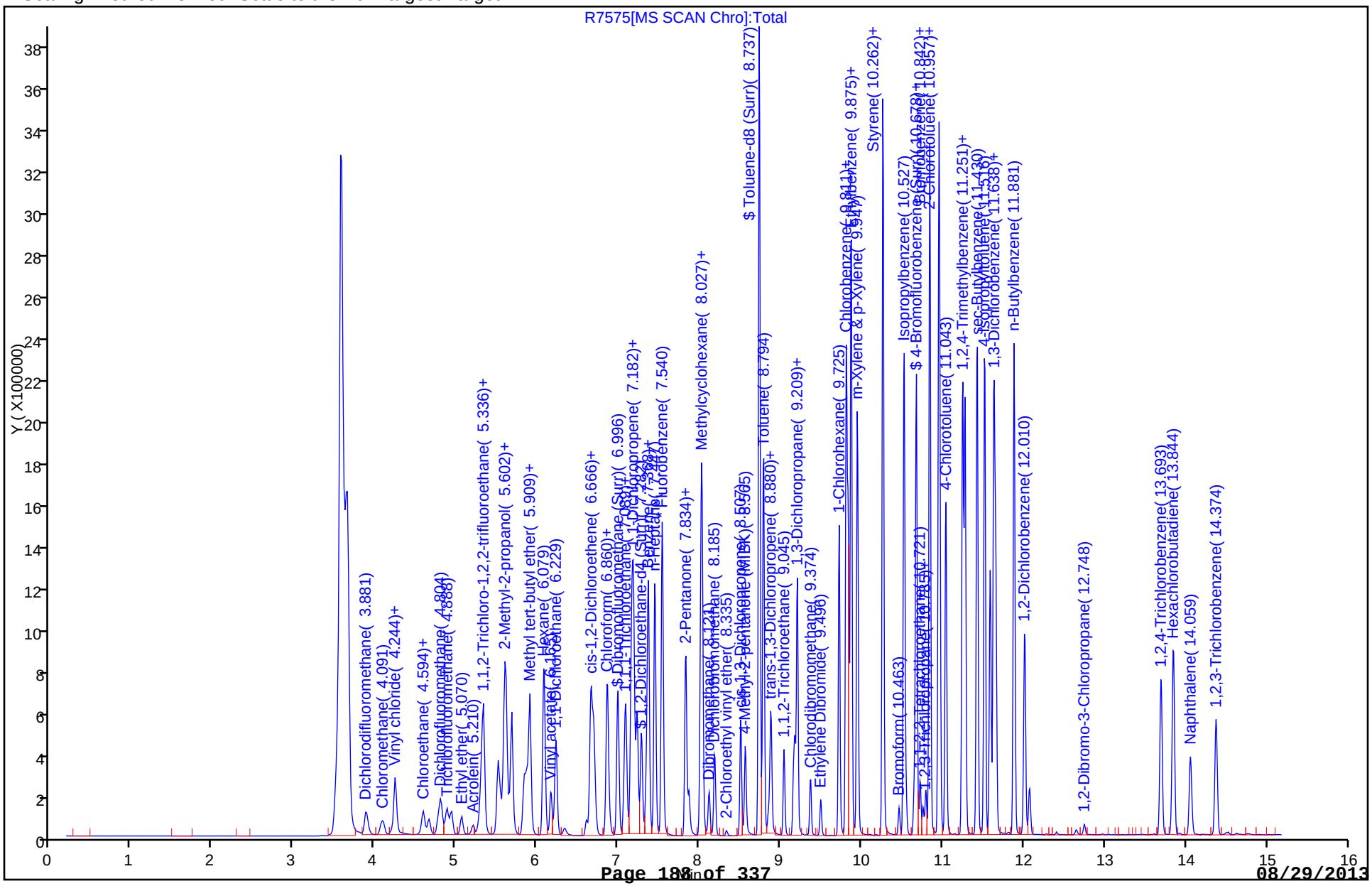
Report Date: 19-Aug-2013 23:19:16 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7575.D

Injection Date:	19-Aug-2013 12:17:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	4
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-187741/15

Matrix: Water Lab File ID: R7584.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 08/19/2013 15:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187741 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	4.49		1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	4.82		1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.51		1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.49		3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	4.42		1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	4.77		1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	3.95		1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	5.23		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	4.50		1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	4.44		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	4.57		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	4.76		1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	3.91	J	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	4.55		1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	4.55		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.60		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	4.77		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	4.57		1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	4.23		1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	4.73		1.0	0.40	0.16
123-91-1	1,4-Dioxane	96.3	J	220	80	71
544-10-5	1-Chlorohexane	4.85		1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	4.96		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	19.6		6.0	3.2	1.8
95-49-8	2-Chlorotoluene	4.81		1.0	0.40	0.17
591-78-6	2-Hexanone	18.6		5.0	3.2	1.4
106-43-4	4-Chlorotoluene	4.69		1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	4.85		1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	18.2		5.0	3.2	1.0
67-64-1	Acetone	19.0		10	6.4	1.9
71-43-2	Benzene	4.68		1.0	0.20	0.16
108-86-1	Bromobenzene	4.65		1.0	0.20	0.17
75-25-2	Bromoform	3.80		1.0	0.40	0.19
74-83-9	Bromomethane	3.78		2.0	0.40	0.21
75-15-0	Carbon disulfide	4.41		2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-187741/15

Matrix: Water | Lab File ID: R7584.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 08/19/2013 15:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187741 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	5.01		2.0	0.40	0.19
108-90-7	Chlorobenzene	4.59		1.0	0.20	0.17
74-97-5	Chlorobromomethane	4.48		1.0	0.40	0.10
124-48-1	Chlorodibromomethane	4.33		1.0	0.40	0.17
75-00-3	Chloroethane	4.00		2.0	1.6	0.41
67-66-3	Chloroform	4.68		1.0	0.20	0.16
74-87-3	Chloromethane	3.55		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	4.64		1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	4.42		1.0	0.20	0.16
110-82-7	Cyclohexane	4.81		2.0	0.40	0.28
74-95-3	Dibromomethane	4.32		1.0	0.40	0.17
75-27-4	Dichlorobromomethane	4.41		1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	3.97		2.0	0.80	0.31
100-41-4	Ethylbenzene	4.74		1.0	0.20	0.16
106-93-4	Ethylene Dibromide	4.35		1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	4.81		1.0	0.40	0.36
98-82-8	Isopropylbenzene	4.88		1.0	0.40	0.19
79-20-9	Methyl acetate	20.8		5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	4.24	J	5.0	0.40	0.25
108-87-2	Methylcyclohexane	4.84		2.0	0.40	0.36
75-09-2	Methylene Chloride	5.63		5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	4.68		2.0	0.80	0.34
91-20-3	Naphthalene	4.30		1.0	0.80	0.22
104-51-8	n-Butylbenzene	4.90		1.0	0.40	0.32
103-65-1	N-Propylbenzene	4.87		1.0	0.20	0.16
95-47-6	o-Xylene	4.74		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	4.95		1.0	0.40	0.17
100-42-5	Styrene	4.84		1.0	0.40	0.17
98-06-6	tert-Butylbenzene	4.79		1.0	0.40	0.16
127-18-4	Tetrachloroethene	4.79		1.0	0.40	0.20
108-88-3	Toluene	4.84		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	4.77		1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	4.35		1.0	0.40	0.19
79-01-6	Trichloroethene	4.76		1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	4.50		2.0	0.80	0.29
75-01-4	Vinyl chloride	3.78		1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-187741/15

Matrix: Water Lab File ID: R7584.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 08/19/2013 15:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187741 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-120
460-00-4	4-Bromofluorobenzene (Surr)	101		75-120
1868-53-7	Dibromofluoromethane (Surr)	104		85-115
2037-26-5	Toluene-d8 (Surr)	104		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7584.D
Lims ID: lcsd Client ID:
Inject. Date: 19-Aug-2013 15:47:30 Dil. Factor: 1.0000
Sample Type: LCSD
Sample ID: lcsd
Misc. Info.:
Operator: MOANM Instrument ID: VMS_R1
Purge Vol: 20.000 mL ALS Bottle#: 24
Lims Batch ID: 187741 Lims Sample ID: 15
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\AQ_VMSR1_8260.m
Last Update: 19-Aug-2013 23:19:15 Calib Date: 17-Aug-2013 00:31:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_R1\20130815-14475.b\R7563.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: moanm Date: 19-Aug-2013 16:14:51

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	5.588	5.588	0.0	82	220230	250.0	
* 1 Fluorobenzene	96	7.540	7.540	0.0	99	1397940	12.5	
* 149 1,4-Dioxane-d8	96	8.027	8.027	0.0	87	22631	250.0	
* 2 Chlorobenzene-d5	119	9.811	9.811	0.0	81	360158	12.5	
* 3 1,4-Dichlorobenzene-d4	152	11.637	11.638	-0.001	87	548230	12.5	
$ 5 Dibromofluoromethane (Surr)	111	6.989	6.996	-0.007	58	464998	10.4	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	7.282	7.282	0.0	86	341384	10.2	
$ 7 Toluene-d8 (Surr)	98	8.736	8.737	-0.001	92	2287531	10.4	
$ 8 4-Bromofluorobenzene (Surr)	95	10.678	10.678	0.0	86	712054	10.1	
23 Dichlorodifluoromethane	85	3.881	3.881	0.0	86	225819	3.97	
26 Chloromethane	50	4.076	4.091	-0.014	89	152433	3.55	
27 Vinyl chloride	62	4.230	4.244	-0.014	83	168681	3.78	
147 Butadiene	54	4.244	4.244	0.0	0	120520	3.25	
29 Bromomethane	94	4.580	4.594	-0.014	87	121872	3.78	
30 Chloroethane	64	4.650	4.650	0.0	93	102114	4.00	
31 Dichlorofluoromethane	67	4.804	4.804	0.0	78	342317	4.54	
32 Trichlorofluoromethane	101	4.874	4.874	0.0	82	296331	4.50	
35 Ethyl ether	59	5.070	5.056	0.014	84	66198	4.42	
39 Acrolein	56	5.210	5.196	0.014	96	57552	46.6	
41 Acetone	43	5.308	5.294	0.014	91	58568	19.0	
40 1,1,2-Trichloro-1,2,2-trifluoroe	151	5.308	5.308	0.0	86	181629	4.49	
43 1,1-Dichloroethene	96	5.336	5.336	0.0	90	193995	3.95	
44 Iodomethane	142	5.518	5.504	0.014	97	433461	4.87	
45 Methyl acetate	43	5.532	5.532	0.0	89	211944	20.8	
47 3-Chloro-1-propene	41	5.588	5.588	0.0	92	361196	3.97	
48 Carbon disulfide	76	5.616	5.602	0.014	98	1075536	4.41	
49 2-Methyl-2-propanol	59	5.644	5.644	0.0	27	64606	41.3	
50 Methylene Chloride	84	5.685	5.686	-0.001	81	325233	5.63	
52 Acrylonitrile	53	5.839	5.825	0.014	100	242653	44.5	
51 Methyl tert-butyl ether	73	5.867	5.867	0.0	88	337490	4.24	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
53 trans-1,2-Dichloroethene	96	5.909	5.909	0.0	96	296227	4.77	
54 Hexane	57	6.079	6.079	0.0	88	476324	4.62	
55 Vinyl acetate	43	6.165	6.165	0.0	90	341162	9.64	
57 1,1-Dichloroethane	63	6.229	6.222	0.007	85	477913	4.77	
61 2-Butanone (MEK)	43	6.609	6.602	0.007	98	142039	19.6	
62 sec-Butyl Alcohol	45	6.652	6.652	0.0	55	134511	122.3	
63 cis-1,2-Dichloroethene	96	6.659	6.659	0.0	68	272193	4.64	
64 2,2-Dichloropropane	77	6.695	6.688	0.007	88	408365	4.96	
67 Chlorobromomethane	128	6.860	6.853	0.007	92	83349	4.48	
68 Chloroform	83	6.867	6.860	0.007	80	406060	4.68	
69 Tetrahydrofuran	42	6.888	6.888	0.0	83	33861	8.20	
70 Isobutyl alcohol	41	7.067	7.068	-0.001	92	45619	268.9	
71 1,1,1-Trichloroethane	97	7.089	7.089	0.0	90	422618	4.82	
72 Cyclohexane	56	7.168	7.161	0.007	87	559048	4.81	
73 1,1-Dichloropropene	75	7.189	7.189	0.0	93	417698	5.23	
74 Carbon tetrachloride	117	7.232	7.225	0.007	73	377263	5.01	
76 1,2-Dichloroethane	62	7.347	7.340	0.007	83	178876	4.55	
77 Benzene	78	7.368	7.368	0.0	90	1080912	4.68	
14 n-Heptane	43	7.447	7.447	0.0	88	459481	4.77	
79 Trichloroethene	95	7.827	7.827	0.0	95	286646	4.76	
80 2-Pentanone	43	7.870	7.870	0.0	97	205009	19.9	
83 1,2-Dichloropropane	63	8.013	8.013	0.0	95	224658	4.60	
82 Methylcyclohexane	55	8.027	8.027	0.0	89	433683	4.84	
84 1,4-Dioxane	88	8.070	8.070	0.0	61	14875	96.3	
85 Dibromomethane	93	8.120	8.113	0.007	87	71367	4.32	
86 Dichlorobromomethane	83	8.185	8.185	0.0	93	232369	4.41	
87 2-Chloroethyl vinyl ether	63	8.335	8.328	0.007	60	8470	9.27	
89 cis-1,3-Dichloropropene	75	8.507	8.507	0.0	91	285862	4.42	
90 4-Methyl-2-pentanone (MIBK)	43	8.565	8.565	-0.001	93	255987	18.2	
91 Toluene	91	8.794	8.787	0.007	99	1169912	4.84	
92 Ethyl methacrylate	69	8.873	8.873	0.0	86	121032	4.28	
93 trans-1,3-Dichloropropene	75	8.887	8.887	0.0	91	200085	4.35	
94 1,1,2-Trichloroethane	97	9.044	9.045	0.0	85	107181	4.42	
95 2-Hexanone	43	9.159	9.159	0.0	93	174041	18.6	
96 1,3-Dichloropropane	76	9.181	9.181	0.0	88	196943	4.23	
97 Tetrachloroethene	164	9.209	9.209	0.0	91	230689	4.79	
98 Chlorodibromomethane	129	9.374	9.367	0.007	87	120607	4.33	
100 Ethylene Dibromide	107	9.496	9.496	0.0	96	95624	4.35	
101 1-Chlorohexane	91	9.725	9.725	0.0	95	437072	4.85	
102 Chlorobenzene	112	9.840	9.832	0.008	96	682365	4.59	
104 1,1,1,2-Tetrachloroethane	131	9.868	9.868	0.0	85	191351	4.49	
103 Ethylbenzene	106	9.875	9.875	0.0	97	434123	4.74	
105 m-Xylene & p-Xylene	106	9.947	9.947	0.0	0	534096	4.68	
107 o-Xylene	106	10.269	10.262	0.007	89	490493	4.74	
106 Styrene	104	10.269	10.262	0.007	86	718088	4.84	
108 Bromoform	173	10.463	10.463	0.0	94	48116	3.80	
109 Isopropylbenzene	105	10.527	10.520	0.007	95	1423299	4.88	
111 Cyclohexanone	55	10.649	10.649	0.0	88	113021	200.9	
112 1,1,2,2-Tetrachloroethane	83	10.728	10.721	0.007	61	111014	4.51	
113 trans-1,4-Dichloro-2-butene	53	10.764	10.756	0.008	72	23215	4.56	
114 1,2,3-Trichloropropane	110	10.799	10.792	0.007	75	29622	4.44	
116 Bromobenzene	156	10.842	10.842	0.0	50	232779	4.65	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
115 N-Propylbenzene	120	10.842	10.842	0.0	97	401502	4.87	
117 1,3,5-Trimethylbenzene	105	10.957	10.950	0.007	92	1121788	4.77	
118 2-Chlorotoluene	126	10.964	10.964	0.0	95	303909	4.81	
119 4-Chlorotoluene	126	11.043	11.043	0.0	97	301672	4.69	
120 tert-Butylbenzene	119	11.251	11.251	0.0	91	1150915	4.79	
121 1,2,4-Trimethylbenzene	105	11.279	11.279	0.0	97	1105118	4.76	
122 sec-Butylbenzene	134	11.430	11.423	0.007	94	330883	4.95	
123 4-Isopropyltoluene	119	11.523	11.516	0.007	95	1330708	4.85	
124 1,3-Dichlorobenzene	146	11.587	11.587	0.0	89	510054	4.57	
126 1,4-Dichlorobenzene	146	11.659	11.652	0.007	95	512093	4.73	
127 n-Butylbenzene	91	11.888	11.881	0.007	97	1278871	4.90	
128 1,2-Dichlorobenzene	146	12.017	12.010	0.007	96	411510	4.55	
129 1,2-Dibromo-3-Chloropropane	157	12.755	12.748	0.007	55	13523	3.91	
130 1,2,4-Trichlorobenzene	180	13.700	13.693	0.007	93	283320	4.57	
131 Hexachlorobutadiene	225	13.851	13.844	0.007	95	206012	4.81	
132 Naphthalene	128	14.066	14.059	0.007	95	359798	4.30	
133 1,2,3-Trichlorobenzene	180	14.381	14.374	0.007	94	213721	4.50	
S 134 Trihalomethanes, Total	1				0		17.2	
S 135 Xylenes, Total (URS)	1				0		9.42	
S 137 1,3-Dichloropropene, Total	1				0		8.78	
S 138 1,2-Dichloroethene, Total	1				0		9.41	
S 139 Xylenes, Total	106				0		9.42	
S 140 1,2-Dichloroethene, Total (URS)	96				0		9.41	

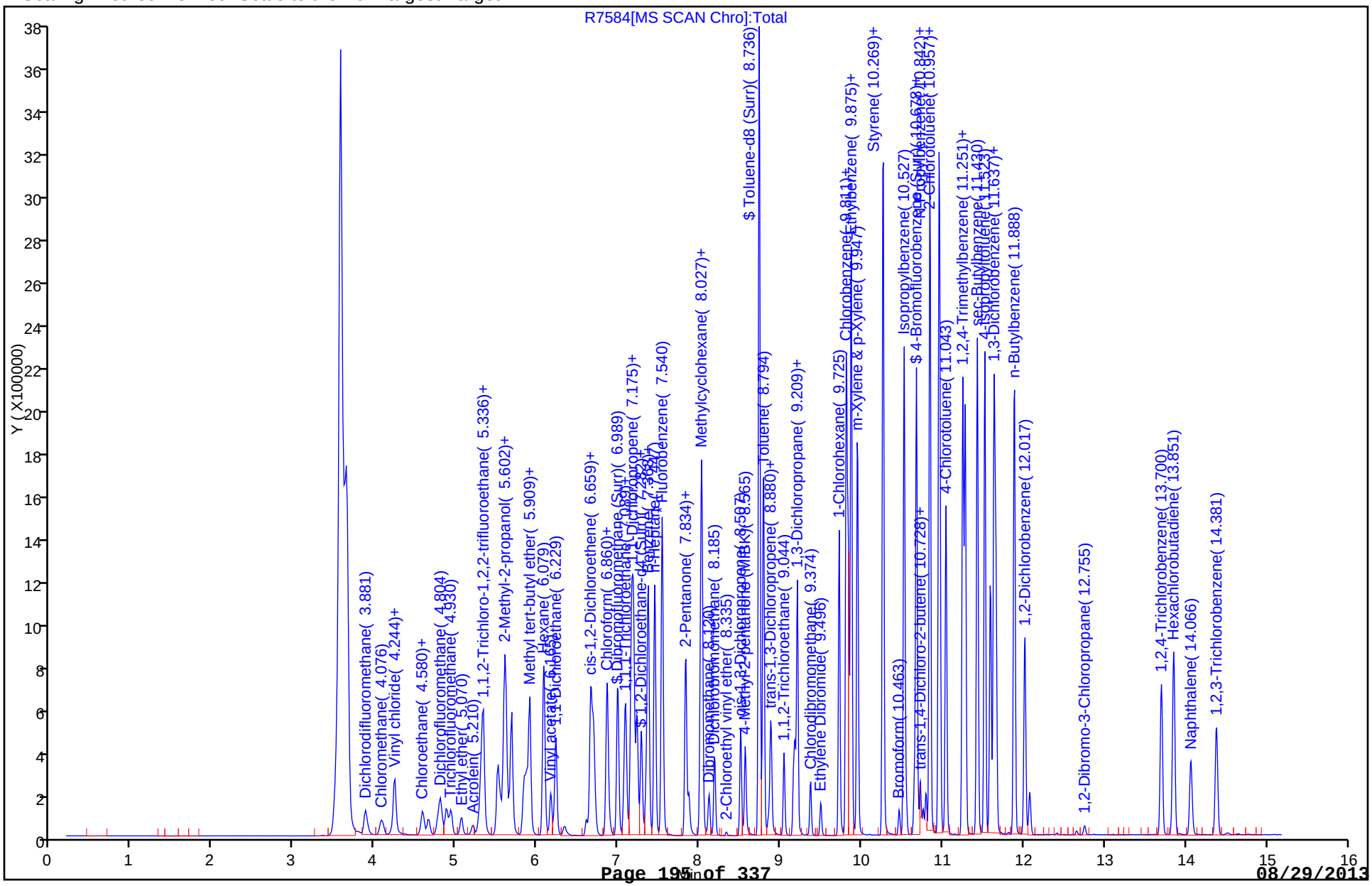
Report Date: 19-Aug-2013 23:19:22 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_R1\20130819-14527.b\R7584.D

Injection Date:	19-Aug-2013 15:47:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_R1
Lims Batch ID:	187741	Lims Sample ID:	15
Operator ID:	MOANM	Purge Vol:	20.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Instrument ID: VMS_R1 Start Date: 08/16/2013 18:03

Analysis Batch Number: 187446 End Date: 08/17/2013 01:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-187446/1		08/16/2013 18:03	1	R7546.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		08/16/2013 18:28	1		DB-624 (60.25) 0.25(mm)
STD003 280-187446/6 IC		08/16/2013 19:15	1	R7548.D	DB-624 (60.25) 0.25(mm)
STD01 280-187446/7 IC		08/16/2013 19:36	1	R7549.D	DB-624 (60.25) 0.25(mm)
STD02 280-187446/8 IC		08/16/2013 19:57	1	R7550.D	DB-624 (60.25) 0.25(mm)
STD05 280-187446/9 IC		08/16/2013 20:19	1	R7551.D	DB-624 (60.25) 0.25(mm)
STD10 280-187446/10 IC		08/16/2013 20:40	1	R7552.D	DB-624 (60.25) 0.25(mm)
STD30 280-187446/11 IC		08/16/2013 21:01	1	R7553.D	DB-624 (60.25) 0.25(mm)
STD60 280-187446/12 IC		08/16/2013 21:22	1	R7554.D	DB-624 (60.25) 0.25(mm)
ICV 280-187446/13		08/16/2013 22:04	1	R7556.D	DB-624 (60.25) 0.25(mm)
STD01 280-187446/14 IC		08/16/2013 22:46	1	R7558.D	DB-624 (60.25) 0.25(mm)
STD02 280-187446/15 IC		08/16/2013 23:07	1	R7559.D	DB-624 (60.25) 0.25(mm)
STD05 280-187446/16 IC		08/16/2013 23:28	1	R7560.D	DB-624 (60.25) 0.25(mm)
ICIS 280-187446/17		08/16/2013 23:49	1	R7561.D	DB-624 (60.25) 0.25(mm)
STD30 280-187446/18 IC		08/17/2013 00:10	1	R7562.D	DB-624 (60.25) 0.25(mm)
STD60 280-187446/19 IC		08/17/2013 00:31	1	R7563.D	DB-624 (60.25) 0.25(mm)
ICV 280-187446/21		08/17/2013 01:13	1	R7565.D	DB-624 (60.25) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Instrument ID: VMS_R1 Start Date: 08/19/2013 09:51

Analysis Batch Number: 187741 End Date: 08/19/2013 21:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-187741/1		08/19/2013 09:51	1	R7569.D	DB-624 (60.25) 0.25(mm)
CCV 280-187741/2		08/19/2013 10:36	1	R7571.D	DB-624 (60.25) 0.25(mm)
CCV 280-187741/3		08/19/2013 11:56	1	R7574.D	DB-624 (60.25) 0.25(mm)
LCS 280-187741/4		08/19/2013 12:17	1	R7575.D	DB-624 (60.25) 0.25(mm)
MB 280-187741/5		08/19/2013 12:38	1	R7576.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 12:59	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 13:20	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 13:46	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 14:07	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 14:43	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 15:04	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 15:26	1		DB-624 (60.25) 0.25(mm)
LCSD 280-187741/15		08/19/2013 15:47	1	R7584.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 16:08	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 16:29	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 16:51	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 17:12	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 17:33	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 17:55	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 18:16	1		DB-624 (60.25) 0.25(mm)
280-45380-1	774776WATER080813	08/19/2013 18:37	1	R7592.D	DB-624 (60.25) 0.25(mm)
280-45380-2	785786WATER080813	08/19/2013 18:59	1	R7593.D	DB-624 (60.25) 0.25(mm)
280-45380-5	080813AB	08/19/2013 19:20	1	R7594.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 19:41	10		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 20:02	100		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 20:24	20		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 20:45	200		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 21:06	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 21:27	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/19/2013 21:48	1		DB-624 (60.25) 0.25(mm)

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): DB-624 (60.2 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
774776CARBON080813	280-45380-3	98	89	105	94
785786CARBON080813	280-45380-4	91	83	93	85
	LB 280-187564/1-A	102	98	94	93
	LCS 280-187564/2-A	101	102	90	91

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	79-119
DCA = 1,2-Dichloroethane-d4 (Surr)	64-129
TOL = Toluene-d8 (Surr)	78-120
BFB = 4-Bromofluorobenzene (Surr)	78-121

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: MS6246.D

Lab ID: LCS 280-187564/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Benzene	50.0	46.2	92	74-135	
2-Butanone (MEK)	200	203	102	44-150	
Carbon tetrachloride	50.0	50.1	100	67-135	
Chlorobenzene	50.0	42.6	85	76-135	
Chloroform	50.0	46.7	93	76-120	
1,2-Dichloroethane	50.0	47.6	95	70-135	
1,1-Dichloroethene	50.0	45.4	91	71-136	
Tetrachloroethene	50.0	45.0	90	70-135	
Trichloroethene	50.0	46.0	92	73-135	
Vinyl chloride	50.0	52.7	105	40-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab File ID: MS6041.D BFB Injection Date: 08/16/2013

Instrument ID: VMS_MS1 BFB Injection Time: 11:20

Analysis Batch No.: 187554

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.0	
75	30.0 - 60.0 % of mass 95	54.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	8.3	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	71.3	
175	5.0 - 9.0 % of mass 174	5.1	(7.2)1
176	95.0 - 101.0 % of mass 174	69.8	(97.9)1
177	5.0 - 9.0 % of mass 176	5.1	(7.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD003 280-187554/8	MS6044.D	08/16/2013	12:26
	STD01 280-187554/9	MS6045.D	08/16/2013	12:47
	STD02 280-187554/10	MS6046.D	08/16/2013	13:08
	STD05 280-187554/11	MS6047.D	08/16/2013	13:29
	STD10 280-187554/12	MS6048.D	08/16/2013	13:50
	STD30 280-187554/13	MS6049.D	08/16/2013	14:11
	STD60 280-187554/14	MS6050.D	08/16/2013	14:32
	ICV 280-187554/15	MS6052.D	08/16/2013	15:14
	STD01 280-187554/16	MS6054.D	08/16/2013	15:56
	STD02 280-187554/17	MS6055.D	08/16/2013	16:17
	STD05 280-187554/18	MS6056.D	08/16/2013	16:38
	ICIS 280-187554/19	MS6057.D	08/16/2013	16:59
	STD30 280-187554/20	MS6058.D	08/16/2013	17:20
	STD60 280-187554/21	MS6059.D	08/16/2013	17:42
	ICV 280-187554/22	MS6061.D	08/16/2013	18:24

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab File ID: MS6235.D BFB Injection Date: 08/21/2013

Instrument ID: VMS_MS1 BFB Injection Time: 19:22

Analysis Batch No.: 188217

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.8	
75	30.0 - 60.0 % of mass 95	57.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	71.9	
175	5.0 - 9.0 % of mass 174	5.6	(7.7)1
176	95.0 - 101.0 % of mass 174	69.8	(97.0)1
177	5.0 - 9.0 % of mass 176	5.0	(7.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-188217/2	MS6237.D	08/21/2013	20:15
	CCV 280-188217/3	MS6238.D	08/21/2013	20:36
	LCS 280-187564/2-A	MS6246.D	08/21/2013	23:36
	LB 280-187564/1-A	MS6247.D	08/21/2013	23:57
774776CARBON080813	280-45380-3	MS6260.D	08/22/2013	04:29
785786CARBON080813	280-45380-4	MS6261.D	08/22/2013	04:50

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Sample No.: ICIS 280-187554/19 Date Analyzed: 08/16/2013 16:59

Instrument ID: VMS_MS1 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): MS6057.D Heated Purge: (Y/N) N

Calibration ID: 15174

		TBA		FB		DXE	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		206099	6.34	1701403	8.31	17003	8.76
UPPER LIMIT		412198	6.84	3402806	8.81	34006	9.26
LOWER LIMIT		103050	5.84	850702	7.81	8502	8.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-187554/22		216558	6.34	1731862	8.31	17931	8.76
CCV 280-188217/2		189693	6.34	1395730	8.31		
CCV 280-188217/3		187948	6.34	1499018	8.31		
LCS 280-187564/2-A		175027	6.33	1380931	8.31		
LB 280-187564/1-A		157928	6.34	1328952	8.31		
280-45380-3	774776CARBON080813	244236	6.34	1999849	8.31		
280-45380-4	785786CARBON080813	254481	6.34	2154170	8.31		

TBA = TBA-d9 (IS)
FB = Fluorobenzene
DXE = 1,4-Dioxane-d8

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Sample No.: ICIS 280-187554/19 Date Analyzed: 08/16/2013 16:59

Instrument ID: VMS_MS1 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): MS6057.D Heated Purge: (Y/N) N

Calibration ID: 15174

		CBZ		DCB			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		320284	10.58	426620	12.50		
UPPER LIMIT		640568	11.08	853240	13.00		
LOWER LIMIT		160142	10.08	213310	12.00		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-187554/22		344130	10.58	435426	12.50		
CCV 280-188217/2		274713	10.56	434236	12.50		
CCV 280-188217/3		300380	10.56	393115	12.50		
LCS 280-187564/2-A		305462	10.56	417133	12.49		
LB 280-187564/1-A		273831	10.56	345903	12.49		
280-45380-3	774776CARBON080813	412517	10.56	545540	12.49		
280-45380-4	785786CARBON080813	443601	10.56	592505	12.49		

CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: 774776CARBON080813 | Lab Sample ID: 280-45380-3

Matrix: Solid (TCLP) | Lab File ID: MS6260.D

Analysis Method: 8260B | Date Collected: 08/08/2013 10:35

Sample wt/vol: 2(mL) | Date Analyzed: 08/22/2013 04:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	2.0	U	10	2.0	1.6
78-93-3	2-Butanone (MEK)	32	U	100	32	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	2.0	U	10	2.0	1.7
67-66-3	Chloroform	2.0	U	10	2.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
75-35-4	1,1-Dichloroethene	4.0	U	10	4.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	2.0	U	10	2.0	1.6
75-01-4	Vinyl chloride	8.0	U	10	8.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-129
2037-26-5	Toluene-d8 (Surr)	105		78-120
460-00-4	4-Bromofluorobenzene (Surr)	94		78-121
1868-53-7	Dibromofluoromethane (Surr)	98		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6260.D		
Lims ID:	280-45380-A-3-A	Client ID:	774776CARBON080813
Inject. Date:	22-Aug-2013 04:29:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	280-45380-A-3-A 2ml		
Misc. Info.:			
Operator:	bergerb	Instrument ID:	VMS_MS1
Purge Vol:	5.000 mL	ALS Bottle#:	25
Lims Batch ID:	188217	Lims Sample ID:	23
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\AQ_VMS1_8260.m		
Last Update:	22-Aug-2013 17:34:38	Calib Date:	16-Aug-2013 17:42:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK049		
First Level Reviewer: bergerb		Date:	22-Aug-2013 17:31:37

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	244236	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1999849	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	20578	250.0	
* 2 Chlorobenzene-d5	119	10.561	10.561	0.0	89	412517	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.488	12.502	-0.014	97	545540	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	69	446675	9.77	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	100	401611	8.92	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	94	2145969	10.5	
$ 8 4-Bromofluorobenzene (Surr)	95	11.468	11.468	0.0	88	629037	9.43	
27 Vinyl chloride	62		4.946					
43 1,1-Dichloroethene	96		6.105					
61 2-Butanone (MEK)	43		7.362					
68 Chloroform	83		7.642					
74 Carbon tetrachloride	117		8.019					
75 1,2-Dichloroethane	62		8.116					
77 Benzene	78		8.144					
79 Trichloroethene	95		8.591					
97 Tetrachloroethene	164		9.946					
102 Chlorobenzene	112		10.588					

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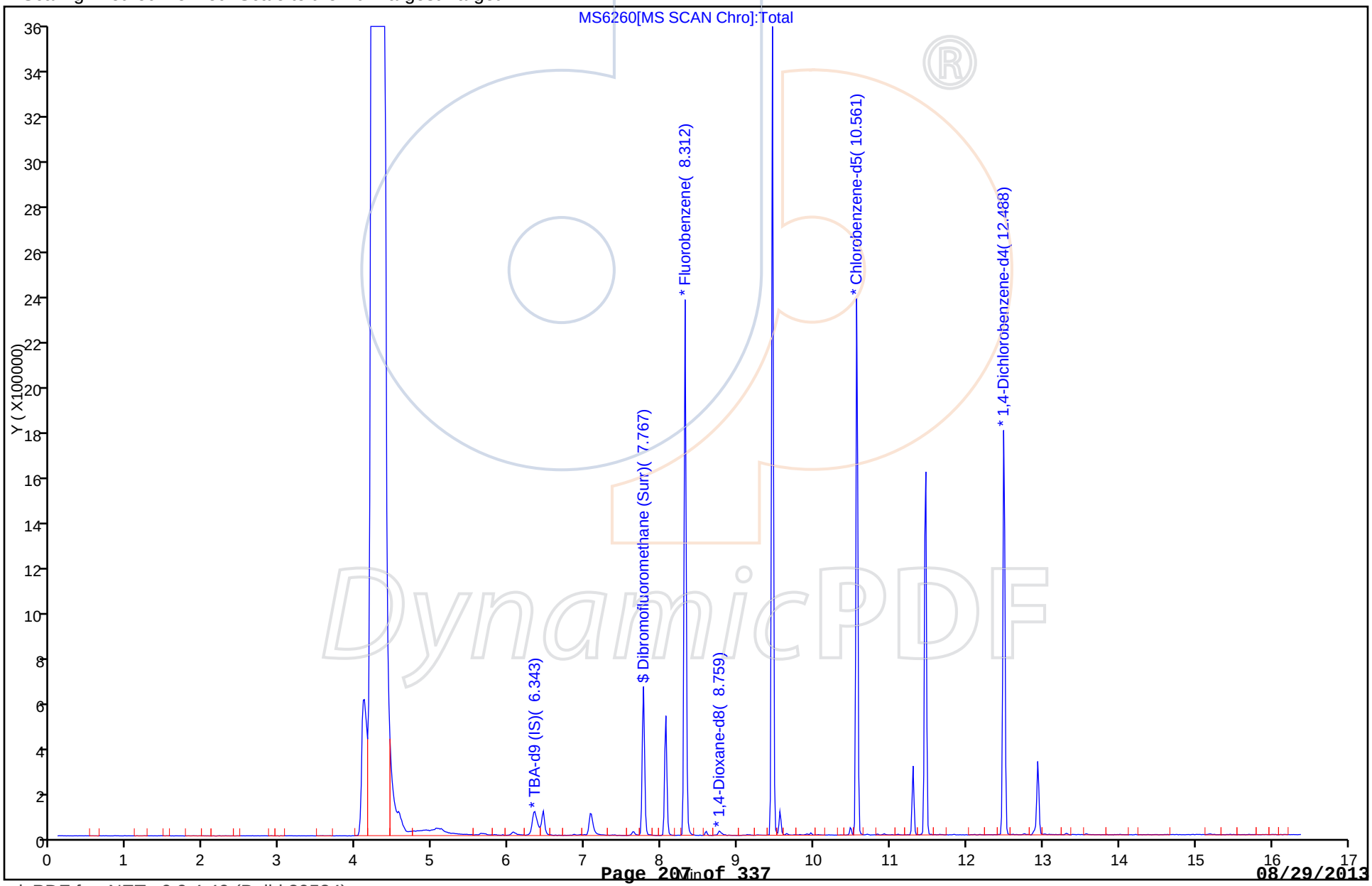
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6260.D
Injection Date: 22-Aug-2013 04:29:30 Limit Group: MSV - 8260B Water and Solid
Client ID: 774776CARBON080813 Instrument ID: VMS_MS1
Lims Batch ID: 188217 Lims Sample ID: 23
Operator ID: bergerb Purge Vol: 5.000 mL
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-45380-1

SDG No.:

Client Sample ID: 785786CARBON080813 | Lab Sample ID: 280-45380-4

Matrix: Solid (TCLP) | Lab File ID: MS6261.D

Analysis Method: 8260B | Date Collected: 08/08/2013 11:31

Sample wt/vol: 2(mL) | Date Analyzed: 08/22/2013 04:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	2.0	U	10	2.0	1.6
78-93-3	2-Butanone (MEK)	32	U	100	32	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	2.0	U	10	2.0	1.7
67-66-3	Chloroform	2.0	U	10	2.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
75-35-4	1,1-Dichloroethene	4.0	U	10	4.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	2.0	U	10	2.0	1.6
75-01-4	Vinyl chloride	8.0	U	10	8.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		64-129
2037-26-5	Toluene-d8 (Surr)	93		78-120
460-00-4	4-Bromofluorobenzene (Surr)	85		78-121
1868-53-7	Dibromofluoromethane (Surr)	91		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6261.D		
Lims ID:	280-45380-A-4-A	Client ID:	785786CARBON080813
Inject. Date:	22-Aug-2013 04:50:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	280-45380-A-4-A 2ml		
Misc. Info.:			
Operator:	bergerb	Instrument ID:	VMS_MS1
Purge Vol:	5.000 mL	ALS Bottle#:	26
Lims Batch ID:	188217	Lims Sample ID:	24
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\AQ_VMS1_8260.m		
Last Update:	22-Aug-2013 17:34:38	Calib Date:	16-Aug-2013 17:42:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK049		
First Level Reviewer: bergerb		Date:	22-Aug-2013 17:32:16

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	254481	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	98	2154170	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	19411	250.0	
* 2 Chlorobenzene-d5	119	10.561	10.561	0.0	89	443601	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.488	12.502	-0.014	97	592505	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	66	453022	9.13	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	100	404770	8.28	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	94	2059693	9.31	
$ 8 4-Bromofluorobenzene (Surr)	95	11.468	11.468	0.0	88	617111	8.52	
27 Vinyl chloride	62		4.946					
43 1,1-Dichloroethene	96		6.105					
61 2-Butanone (MEK)	43		7.362					
68 Chloroform	83		7.642					
74 Carbon tetrachloride	117		8.019					
75 1,2-Dichloroethane	62		8.116					
77 Benzene	78		8.144					
79 Trichloroethene	95		8.591					
97 Tetrachloroethene	164		9.946					
102 Chlorobenzene	112		10.588					

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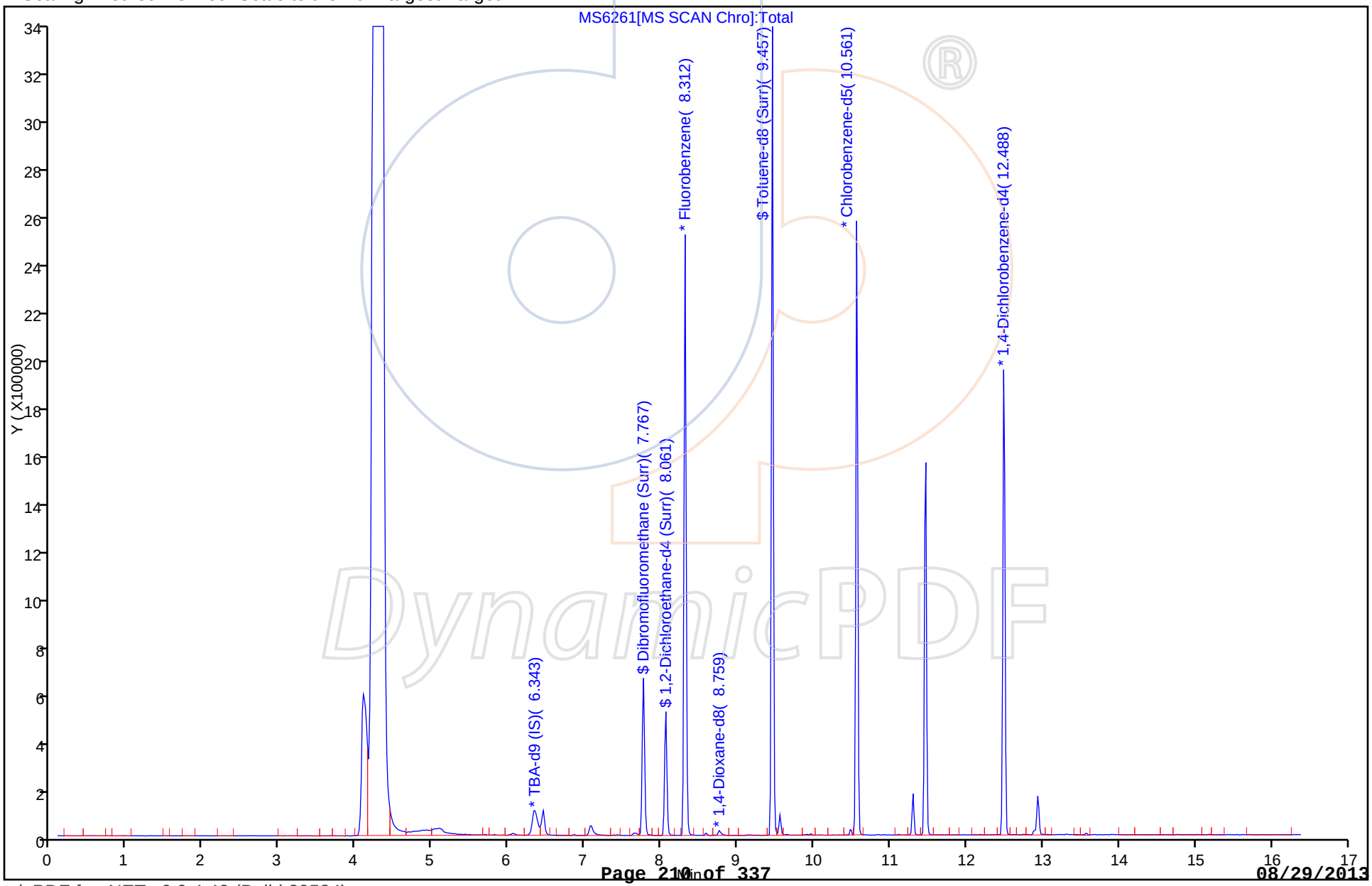
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6261.D
Injection Date: 22-Aug-2013 04:50:30 Limit Group: MSV - 8260B Water and Solid
Client ID: 785786CARBON080813 Instrument ID: VMS_MS1
Lims Batch ID: 188217 Lims Sample ID: 24
Operator ID: bergerb Purge Vol: 5.000 mL
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD003 280-187554/8	MS6044.D
Level 2	STD01 280-187554/9	MS6045.D
Level 3	STD02 280-187554/10	MS6046.D
Level 4	STD05 280-187554/11	MS6047.D
Level 5	STD10 280-187554/12	MS6048.D
Level 6	STD30 280-187554/13	MS6049.D
Level 7	STD60 280-187554/14	MS6050.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.4607	0.3940 0.4152	0.4147	0.5050	0.5552	Ave		0.4574				14.0		15.0			
Chloromethane	+++++ 0.5726	0.5985 0.5171	0.6443	0.6305	0.7042	Ave		0.6112			0.1000	11.0		15.0			
Vinyl chloride	+++++ 0.5045	0.5359 0.4534	0.5617	0.5594	0.6212	Ave		0.5393				11.0		30.0			
Butadiene	+++++ 0.4432	0.3652 0.3953	0.4158	0.4410	0.5271	Ave		0.4313				13.0		15.0			
Bromomethane	+++++ 0.3218	0.3160 0.3056	0.3376	0.3303	0.3713	Ave		0.3304				6.9		15.0			
Chloroethane	+++++ 0.3221	0.3362 0.3067	0.3540	0.3421	0.3791	Ave		0.3400				7.4		15.0			
Dichlorofluoromethane	+++++ 0.7724	0.8248 0.7217	0.8970	0.8397	0.9215	Ave		0.8295				9.0		15.0			
Trichlorofluoromethane	+++++ 0.5993	0.6528 0.5511	0.6782	0.6459	0.7095	Ave		0.6395				8.9		15.0			
Ethyl ether	+++++ 0.1542	0.1154 0.1494	0.1361	0.1390	0.1666	Ave		0.1434				12.0		15.0			
Acrolein	+++++ 0.0129	0.0102 0.0125	0.0121	0.0119	0.0140	Ave		0.0123				10.0		15.0			
Acetone	+++++ 0.0339	0.0534 0.0303	0.0475	0.0382	0.0401	Lin1	0.1179	0.0315							0.9930		0.9900
1,1,2-Trichlorotrifluoroethane	+++++ 0.2619	0.3105 0.2493	0.3159	0.2668	0.3324	Ave		0.2895				12.0		15.0			
1,1-Dichloroethene	+++++ 0.3212	0.3142 0.3055	0.3387	0.3162	0.3902	Ave		0.3310				9.4		30.0			
Iodomethane	+++++ 0.4996	0.4393 0.4779	0.4948	0.4812	0.5694	Ave		0.4937				8.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	+++++ 0.0819	0.0728 0.0767	0.1017	0.0861	0.0938	Ave		0.0855				13.0		15.0			
Allyl chloride	+++++ 0.7927	0.7704 0.7418	0.8157	0.8111	0.9327	Ave		0.8107				8.1		15.0			
Carbon disulfide	+++++ 1.4803	1.6403 1.3469	1.7199	1.5596	1.8464	Ave		1.5989				11.0		15.0			
Tert-butyl alcohol (2-methyl-2-propanol)	+++++ 1.5215	1.4715 1.5060	1.8189	1.6580	1.8305	Ave		1.6344				9.8		15.0			
Methylene Chloride	+++++ 0.3025	0.6127 0.2768	0.5043	0.3625	0.3782	Lin1	0.4017	0.2823							0.9930		0.9900
Acrylonitrile	+++++ 0.0383	0.0348 0.0354	0.0386	0.0385	0.0436	Ave		0.0382				8.2		15.0			
Methyl tert-butyl ether	+++++ 0.4476	0.3365 0.4265	0.3934	0.4025	0.4847	Ave		0.4152				12.0		15.0			
trans-1,2-Dichloroethene	+++++ 0.3554	0.3466 0.3364	0.3862	0.3617	0.4255	Ave		0.3686				8.8		15.0			
Hexane	+++++ 2.9162	2.6146 2.8004	3.0612	2.6496	3.2428	Ave		2.8808				8.4		15.0			
Vinyl acetate	+++++ 0.3080	0.2551 0.2995	0.2724	0.2736	0.3345	Ave		0.2905				10.0		15.0			
1,1-Dichloroethane	+++++ 0.6831	0.7004 0.6360	0.7892	0.7131	0.8173	Ave		0.7232			0.1000	9.4		15.0			
2-Butanone (MEK)	+++++ 0.0564	0.0565 0.0525	0.0641	0.0582	0.0654	Ave		0.0589				8.4		15.0			
sec-Butyl Alcohol	+++++ 1.2256	0.9987 1.2153	1.1627	1.1598	1.3598	Ave		1.1870				9.9		15.0			
cis-1,2-Dichloroethene	+++++ 0.3351	0.2956 0.3171	0.3366	0.3387	0.3871	Ave		0.3350				9.1		15.0			
2,2-Dichloropropane	+++++ 0.5660	0.5635 0.5286	0.6026	0.5475	0.6681	Ave		0.5794				8.6		15.0			
Chlorobromomethane	+++++ 0.1014	0.0875 0.0982	0.1125	0.1028	0.1176	Ave		0.1033				10.0		15.0			
Chloroform	0.6807 0.5644	0.5845 0.5278	0.6361	0.5916	0.6676	Ave		0.6075				9.2		30.0			
Tetrahydrofuran	+++++ 0.0306	0.0274 0.0299	0.0299	0.0281	0.0332	Ave		0.0299				6.8		15.0			
Isobutyl alcohol	+++++ 0.2448	0.3598 0.2160	0.4056	0.2583	0.2942	Lin	11.117	0.2133							0.9950		0.9900
1,1,1-Trichloroethane	+++++ 0.5742	0.5980 0.5328	0.6538	0.5720	0.6945	Ave		0.6042				9.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Cyclohexane	+++++ 0.7660	0.6638 0.7098	0.7927	0.7359	0.9417	Ave		0.7683				12.0		15.0			
1,1-Dichloropropene	+++++ 0.4880	0.4576 0.4615	0.5354	0.4875	0.5860	Ave		0.5027				9.8		15.0			
Carbon tetrachloride	+++++ 0.4787	0.5124 0.4483	0.5636	0.4839	0.5810	Ave		0.5113				10.0		15.0			
1,2-Dichloroethane	0.3582 0.3020	0.3023 0.2775	0.3280	0.3165	0.3457	Ave		0.3186				8.7		15.0			
Benzene	1.4869 1.3352	1.3330 1.2079	1.4764	1.3859	1.5754	Ave		1.4001				8.7		15.0			
n-Heptane	+++++ 0.7297	0.6661 0.6656	0.7667	0.7246	0.9091	Ave		0.7436				12.0		15.0			
Trichloroethene	+++++ 0.3414	0.3325 0.3211	0.3625	0.3318	0.3949	Ave		0.3474				7.8		15.0			
2-Pentanone	+++++ 0.0887	0.0644 +++++	0.0851	0.0834	0.1002	Ave		0.0843				15.0		15.0			
1,2-Dichloropropane	+++++ 0.3189	0.3190 0.2911	0.3395	0.3237	0.3618	Ave		0.3257				7.2		30.0			
Methylcyclohexane	+++++ 0.6127	0.5936 0.5606	0.6711	0.6082	0.7704	Ave		0.6361				12.0		15.0			
1,4-Dioxane	+++++ 0.0010	0.0007 0.0009	0.0010	0.0009	0.0011	Ave		0.0009				13.0		15.0			
Dibromomethane	+++++ 0.1021	0.1010 0.0926	0.1115	0.1035	0.1173	Ave		0.1047				8.3		15.0			
Dichlorobromomethane	0.3878 0.3446	0.3243 0.3193	0.3618	0.3448	0.3891	Ave		0.3531				7.9		15.0			
cis-1,3-Dichloropropene	1.6033 1.9134	1.4832 1.7949	1.6536	1.6166	1.8918	Ave		1.7081				9.5		15.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.1183	0.0873 0.1085	0.1040	0.1103	0.1324	Ave		0.1102				14.0		15.0			
Toluene	+++++ 1.3535	1.2427 1.1674	1.4164	1.4068	1.6574	Ave		1.3740				12.0		30.0			
Ethyl methacrylate	+++++ 0.8509	0.5154 0.8135	0.6449	0.6600	0.7983	Lin2	-0.313	0.8104							0.9950		0.9900
trans-1,3-Dichloropropene	+++++ 0.3154	0.2438 0.2792	0.2892	0.2968	0.3592	Ave		0.2973				13.0		15.0			
1,1,2-Trichloroethane	+++++ 0.1323	0.1273 0.1191	0.1419	0.1394	0.1554	Ave		0.1359				9.3		15.0			
2-Hexanone	+++++ 0.3824	0.2883 0.3582	0.3470	0.3139	0.3742	Ave		0.3440				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichloropropane	1.4348 1.3607	1.2966 1.2445	1.4735	1.3476	1.4703	Ave		1.3754				6.4		15.0			
Tetrachloroethene	+++++ 1.2778	1.3244 1.2143	1.4465	1.2242	1.4099	Ave		1.3162				7.3		15.0			
Chlorodibromomethane	0.8209 0.7764	0.6817 0.7467	0.7671	0.7144	0.7791	Ave		0.7552				6.1		15.0			
1,2-Dibromoethane	+++++ 0.6019	0.5640 0.5740	0.6233	0.5770	0.6321	Ave		0.5954				4.7		15.0			
1-Chlorohexane	+++++ 2.3567	1.7456 2.1807	2.1252	2.0910	2.6451	Ave		2.1907				14.0		15.0			
Chlorobenzene	5.0502 4.0490	4.3740 3.6898	4.6572	4.1612	4.5192	Ave		4.3572			0.3000	10.0		15.0			
1,1,1,2-Tetrachloroethane	1.3015 1.2975	1.2114 1.2869	1.2904	1.1630	1.2972	Ave		1.2640				4.3		15.0			
Ethylbenzene	+++++ 2.6154	2.4409 2.4627	2.7057	2.5175	2.8380	Ave		2.5967				5.9		30.0			
m-Xylene & p-Xylene	+++++ 3.1868	2.7092 2.9309	3.2461	3.0301	3.4914	Ave		3.0991				8.8		15.0			
o-Xylene	+++++ 2.9701	2.3722 2.8076	2.9150	2.7944	3.2144	Ave		2.8456				9.7		15.0			
Styrene	+++++ 4.3503	2.7998 4.0445	3.6630	3.7925	4.5734	Lin2	-1.506	4.3350							0.9950		0.9900
Bromoform	+++++ 0.3615	0.2966 0.3572	0.3258	0.3095	0.3608	Ave		0.3352			0.1000	8.5		15.0			
Isopropylbenzene	+++++ 5.3739	5.1180 4.6249	5.9872	5.8121	6.7944	Ave		5.6184				13.0		15.0			
Cyclohexanone	+++++ 0.0172	0.0105 0.0171	0.0128	0.0125	0.0154	Lin2	-0.249	0.0162							0.9900		0.9900
1,1,2,2-Tetrachloroethane	0.6604 0.4691	0.5103 0.4259	0.5606	0.5106	0.5635	Ave		0.5286			0.3000	14.0		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1485	0.1233 0.1396	0.1350	0.1302	0.1584	Ave		0.1392				9.1		15.0			
1,2,3-Trichloropropane	+++++ 0.1313	0.1334 0.1215	0.1444	0.1365	0.1597	Ave		0.1378				9.5		15.0			
N-Propylbenzene	+++++ 1.5902	1.3699 1.4728	1.6772	1.6190	1.9638	Ave		1.6155				13.0		15.0			
Bromobenzene	+++++ 1.0074	0.9842 0.9437	1.1113	1.0510	1.1973	Ave		1.0491				8.8		15.0			
1,3,5-Trimethylbenzene	+++++ 4.5630	4.0045 4.0257	4.8630	4.8573	5.6704	Ave		4.6640				13.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Chlorotoluene	+++++ 1.2693	1.2831 1.1802	1.4577	1.3595	1.5501	Ave		1.3500				10.0		15.0			
4-Chlorotoluene	+++++ 1.2667	1.2110 1.1778	1.3706	1.3038	1.5219	Ave		1.3086				9.5		15.0			
tert-Butylbenzene	+++++ 4.4887	3.9201 4.1205	4.6666	4.5810	5.4211	Ave		4.5330				11.0		15.0			
1,2,4-Trimethylbenzene	+++++ 4.6051	4.1311 4.0358	5.1121	4.9370	5.7286	Ave		4.7583				13.0		15.0			
sec-Butylbenzene	+++++ 1.2979	1.1973 1.2104	1.3773	1.3238	1.5974	Ave		1.3340				11.0		15.0			
4-Isopropyltoluene	+++++ 5.3271	4.8912 4.5704	5.8987	5.6710	6.7510	Ave		5.5182				14.0		15.0			
1,3-Dichlorobenzene	+++++ 2.2139	2.2870 2.0242	2.4823	2.3102	2.6273	Ave		2.3241				9.0		15.0			
1,4-Dichlorobenzene	2.7147 2.0933	2.2602 1.9369	2.4275	2.2252	2.5108	Ave		2.3098				11.0		15.0			
n-Butylbenzene	+++++ 5.2926	4.8724 4.5093	5.8942	5.6963	6.7587	Ave		5.5039				15.0		15.0			
1,2-Dichlorobenzene	+++++ 1.7416	1.7480 1.6092	1.9733	1.8035	2.0577	Ave		1.8222				9.1		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0666	0.0331 0.0658	0.0674	0.0546	0.0698	Lin1	-0.024	0.0669							0.9970		0.9900
1,2,4-Trichlorobenzene	+++++ 1.2350	0.9736 1.1914	1.1143	1.1583	1.3789	Ave		1.1752				11.0		15.0			
Hexachlorobutadiene	1.2802 0.9389	1.0583 0.8734	1.1812	1.0137	1.2108	Ave		1.0795				14.0		15.0			
Naphthalene	+++++ 1.4859	0.8025 1.4622	0.9990	1.1194	1.5075	Lin2	-0.717	1.4504							0.9900		0.9900
1,2,3-Trichlorobenzene	+++++ 0.9671	0.7701 0.9312	0.9195	0.9080	1.0881	Ave		0.9307				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD003 280-187554/8	MS6044.D
Level 2	STD01 280-187554/9	MS6045.D
Level 3	STD02 280-187554/10	MS6046.D
Level 4	STD05 280-187554/11	MS6047.D
Level 5	STD10 280-187554/12	MS6048.D
Level 6	STD30 280-187554/13	MS6049.D
Level 7	STD60 280-187554/14	MS6050.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 2136398	52583 4384877	101784	359893	716423	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloromethane	FB	Ave	+++++ 2655489	79885 5461171	158127	449352	908690	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	+++++ 2339769	71524 4788349	137864	398694	801613	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Butadiene	FB	Ave	+++++ 2055221	48743 4175557	102047	314326	680259	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromomethane	FB	Ave	+++++ 1492240	42175 3227481	82845	235413	479124	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloroethane	FB	Ave	+++++ 1494021	44872 3239574	86879	243815	489186	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	+++++ 3581990	110080 7622960	220139	598462	1189120	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	+++++ 2779267	87127 5820988	166448	460359	915543	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl ether	FB	Ave	+++++ 714959	15399 1577836	33394	99098	214981	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acrolein	FB	Ave	+++++ 597140	13634 1319861	29617	84855	180636	+++++ 300	10.0 600	20.0	50.0	100
Acetone	FB	Lin1	+++++ 629227	28499 1281359	46664	108918	207138	+++++ 120	4.00 240	8.00	20.0	40.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	+++++ 1214691	41438 2633347	77535	190151	428944	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloroethene	FB	Ave	+++++ 1489586	41938 3226975	83127	225340	503482	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Iodomethane	FB	Ave	+++++ 2317113	58630 5047388	121441	342941	734806	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	+++++ 1898546	48597 4051399	124760	306985	605432	+++++ 150	5.00 300	10.0	25.0	50.0

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Allyl chloride	FB	Ave	+++++ 3676173	102825 7834936	200192	578078	1203582	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	+++++ 6865435	218930 14226357	422109	1111542	2382706	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Tert-butyl alcohol (2-methyl-2-propanol)	TBA	Ave	+++++ 435665	9898 970864	22474	61351	133752	+++++ 300	10.0 600	20.0	50.0	100
Methylene Chloride	FB	Lin1	+++++ 1403125	81775 2923250	123761	258379	488008	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	+++++ 1775681	46465 3740492	94764	274191	563144	+++++ 300	10.0 600	20.0	50.0	100
Methyl tert-butyl ether	FB	Ave	+++++ 2075821	44911 4504738	96545	286845	625522	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	+++++ 1648389	46258 3552970	94778	257756	549127	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Hexane	CBZ	Ave	+++++ 2754519	71113 5817762	151892	408499	945883	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	+++++ 2856644	68096 6325884	133694	389927	863406	+++++ 60.0	2.00 120	4.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	+++++ 3167902	93486 6717870	193682	508203	1054685	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	+++++ 1047167	30159 2217594	62941	166029	337499	+++++ 120	4.00 240	8.00	20.0	40.0
sec-Butyl Alcohol	TBA	Ave	+++++ 1052880	20153 2350361	43099	128750	298079	+++++ 900	30.0 1800	60.0	150	300
cis-1,2-Dichloroethene	FB	Ave	+++++ 1553898	39451 3349199	82611	241419	499572	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	+++++ 2624932	75212 5582716	147892	390196	862115	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobromomethane	FB	Ave	+++++ 470255	11672 1037116	27619	73286	151743	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloroform	FB	Ave	23308 2617299	78014 5574270	156115	421606	861468	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	+++++ 284244	7327 630684	14693	40051	85660	+++++ 60.0	2.00 120	4.00	10.0	20.0
Isobutyl alcohol	TBA	Lin	+++++ 175243	6051 348103	12530	23892	53738	+++++ 750	25.0 1500	50.0	125	250
1,1,1-Trichloroethane	FB	Ave	+++++ 2663187	79809 5627539	160471	407654	896222	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	+++++ 3552536	88600 7496851	194543	524453	1215264	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	+++++ 2263120	61069 4874679	131407	347432	756163	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Carbon tetrachloride	FB	Ave	+++++ 2220093	68393 4735037	138325	344881	749700	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichloroethane	FB	Ave	12266 1400669	40341 2931208	80503	225545	446100	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Benzene	FB	Ave	50911 6192224	177908 12758016	362344	987710	2033021	0.300 30.0	1.00 60.0	2.00	5.00	10.0
n-Heptane	FB	Ave	+++++ 3384198	88900 7029974	188176	516418	1173199	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	+++++ 1583125	44372 3391828	88975	236479	509556	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Pentanone	FB	Ave	+++++ 1644794	34395 +++++	83528	237682	517116	+++++ 120	4.00 +++++	8.00	20.0	40.0
1,2-Dichloropropane	FB	Ave	+++++ 1478807	42571 3074832	83333	230723	466837	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Methylcyclohexane	FB	Ave	+++++ 2841675	79227 5920729	164714	433456	994133	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dioxane	FB	Ave	+++++ 93010	1937 196698	4712	12457	27295	+++++ 600	20.0 1200	40.0	100	200
Dibromomethane	FB	Ave	+++++ 473618	13479 977773	27360	73752	151336	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorobromomethane	FB	Ave	13280 1598087	43279 3372430	88786	245746	502112	0.300 30.0	1.00 60.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBZ	Ave	11108 1807334	40340 3728983	82052	249230	551821	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	+++++ 2195300	46620 4585703	102139	314506	683477	+++++ 120	4.00 240	8.00	20.0	40.0
Toluene	FB	Ave	+++++ 6276960	165859 12329822	347632	1002584	2138848	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl methacrylate	CBZ	Lin2	+++++ 803771	14019 1690035	32000	101749	232858	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,3-Dichloropropene	FB	Ave	+++++ 1462720	32536 2948878	70983	211526	463511	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloroethane	FB	Ave	+++++ 613627	16996 1258135	34821	99378	200474	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Hexanone	CBZ	Ave	+++++ 1444891	31367 2976388	68868	193591	436597	+++++ 120	4.00 240	8.00	20.0	40.0
1,3-Dichloropropane	CBZ	Ave	9940 1285311	35265 2585464	73113	207761	428877	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	+++++ 1206992	36023 2522804	71776	188739	411258	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chlorodibromomethane	CBZ	Ave	5687 733389	18540 1551267	38064	110142	227244	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dibromoethane	CBZ	Ave	+++++ 568518	15340 1192416	30927	88950	184372	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1-Chlorohexane	CBZ	Ave	+++++ 2226093	47479 4530433	105451	322374	771546	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobenzene	CBZ	Ave	34988 3824512	118967 7665576	231087	641542	1318180	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	9017 1225594	32948 2673509	64029	179305	378363	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	+++++ 2470396	66388 5116280	134256	388119	827809	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBZ	Ave	+++++ 3010123	73685 6089022	161069	467159	1018384	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	+++++ 2805473	64519 5832816	144638	430823	937594	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Styrene	CBZ	Lin2	+++++ 4109166	76149 8402442	181756	584699	1333989	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromoform	CBZ	Ave	+++++ 341455	8066 742093	16166	47712	105251	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	+++++ 7639539	187004 14686868	405417	1221749	2669062	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexanone	CBZ	Lin2	+++++ 651734	11461 1420901	25411	77078	179907	+++++ 1200	40.0 2400	80.0	200	400
1,1,2,2-Tetrachloroethane	DCB	Ave	5900 666873	18644 1352366	37963	107329	221345	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 211109	4505 443242	9142	27371	62222	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	+++++ 186651	4875 385918	9775	28690	62754	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	+++++ 2260671	50055 4677198	113572	340334	771441	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromobenzene	DCB	Ave	+++++ 1432140	35961 2996706	75249	220928	470333	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	+++++ 6486788	146319 12784058	329290	1021040	2227540	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	+++++ 1804393	46882 3747963	98709	285774	608931	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	+++++ 1800681	44247 3740203	92809	274068	597860	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
tert-Butylbenzene	DCB	Ave	+++++ 6381166	143234 13085229	315990	962946	2129577	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	+++++ 6546565	150946 12816219	346159	1037795	2250379	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 12:26 Calibration End Date: 08/16/2013 14:32 Calibration ID: 15173

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
sec-Butylbenzene	DCB	Ave	+++++ 1845037	43748 3843790	93262	278269	627523	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
4-Isopropyltoluene	DCB	Ave	+++++ 7573046	178717 14513995	399419	1192080	2652029	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	+++++ 3147210	83565 6427982	168086	485616	1032088	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	24252 2975892	82584 6151001	164374	467751	986316	0.300 30.0	1.00 60.0	2.00	5.00	10.0
n-Butylbenzene	DCB	Ave	+++++ 7523975	178030 14319876	399119	1197395	2655056	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	+++++ 2475868	63870 5110138	133622	379099	808332	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Lin1	+++++ 94619	1211 209028	4565	11471	27424	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	+++++ 1755690	35574 3783434	75452	243472	541687	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Ave	11437 1334685	38670 2773610	79980	213084	475635	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Naphthalene	DCB	Lin2	+++++ 2112376	29324 4643471	67644	235301	592211	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	+++++ 1374817	28140 2957198	62263	190857	427427	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6044.D		
Lims ID:	std003	Client ID:	
Inject. Date:	16-Aug-2013 12:26:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	1
Sample ID:	std003		
Misc. Info.:			
Operator:	wickhamt	Instrument ID:	VMS_MS1
Purge Vol:	5.000 mL	ALS Bottle#:	3
Lims Batch ID:	187554	Lims Sample ID:	8
Sublist:	chrom-AQ_VMS1_8260*sub35		
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m		
Last Update:	20-Aug-2013 08:24:22	Calib Date:	16-Aug-2013 17:42:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: wickhamt		Date:	20-Aug-2013 07:32:48

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	142333	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1426696	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	13016	250.0	
* 2 Chlorobenzene-d5	119	10.561	10.575	-0.014	91	288667	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	372226	12.5	
24 Dichlorodifluoromethane	85		4.569					
26 Chloromethane	50		4.793					
27 Vinyl chloride	62		4.946					
147 Butadiene	54		4.960					
29 Bromomethane	94		5.337					
31 Chloroethane	64		5.407					
32 Dichlorofluoromethane	67		5.547					
33 Trichlorofluoromethane	101		5.645					
36 Ethyl ether	59		5.826					
39 Acrolein	56		5.952					
40 Acetone	43		6.063					
42 1,1,2-Trichloro-1,2,2-trifluoroe	151		6.091					
43 1,1-Dichloroethene	96		6.105					
45 Iodomethane	142		6.287					
46 Methyl acetate	43		6.301					
47 3-Chloro-1-propene	41		6.357					
48 Carbon disulfide	76		6.399					
49 2-Methyl-2-propanol	59		6.413					
50 Methylene Chloride	84		6.455					
51 Acrylonitrile	53		6.594					
52 Methyl tert-butyl ether	73		6.650					
53 trans-1,2-Dichloroethene	96		6.692					
54 Hexane	57		6.860					
55 Vinyl acetate	43		6.929					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63		6.999					
61 2-Butanone (MEK)	43		7.362					
62 sec-Butyl Alcohol	45		7.404					
64 cis-1,2-Dichloroethene	96		7.432					
65 2,2-Dichloropropane	77		7.474					
67 Chlorobromomethane	128		7.628					
68 Chloroform	83	7.642	7.642	0.0	67	23308	0.3361	
69 Tetrahydrofuran	42		7.670					
70 Isobutyl alcohol	41		7.823					
71 1,1,1-Trichloroethane	97		7.879					
72 Cyclohexane	56		7.963					
73 1,1-Dichloropropene	75		7.977					
74 Carbon tetrachloride	117		8.019					
75 1,2-Dichloroethane	62	8.117	8.117	0.0	39	12266	0.3373	
77 Benzene	78	8.145	8.144	0.001	92	50911	0.3186	
9 n-Heptane	43		8.228					
79 Trichloroethene	95		8.591					
80 2-Pentanone	43		8.605					
82 1,2-Dichloropropane	63		8.759					
83 Methylcyclohexane	55		8.787					
84 1,4-Dioxane	88		8.801					
85 Dibromomethane	93		8.857					
86 Dichlorobromomethane	83	8.913	8.913	0.0	70	13280	0.3295	
88 2-Chloroethyl vinyl ether	63		9.038					
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	52	11108	0.2816	
90 4-Methyl-2-pentanone (MIBK)	43		9.276					
91 Toluene	91		9.513					
92 Ethyl methacrylate	69		9.569					
93 trans-1,3-Dichloropropene	75		9.597					
94 1,1,2-Trichloroethane	97		9.765					
95 2-Hexanone	43		9.862					
96 1,3-Dichloropropane	76	9.904	9.904	0.0	57	9940	0.3129	
97 Tetrachloroethene	164		9.946					
98 Chlorodibromomethane	129	10.100	10.114	-0.014	26	5687	0.3261	
100 Ethylene Dibromide	107		10.239					
101 1-Chlorohexane	91		10.463					
102 Chlorobenzene	112	10.589	10.589	0.0	71	34988	0.3477	
103 1,1,1,2-Tetrachloroethane	131	10.617	10.630	-0.013	8	9017	0.3089	
104 Ethylbenzene	106		10.630					
105 m-Xylene & p-Xylene	106		10.700					
106 Styrene	104		11.035					
109 o-Xylene	106		11.035					
107 Bromoform	173		11.245					
108 Isopropylbenzene	105		11.301					
111 Cyclohexanone	55		11.440					
112 1,1,2,2-Tetrachloroethane	83	11.496	11.510	-0.014	1	5900	0.3748	
113 trans-1,4-Dichloro-2-butene	53		11.538					
114 1,2,3-Trichloropropane	110		11.580					
115 N-Propylbenzene	120		11.650					
116 Bromobenzene	156		11.650					
120 1,3,5-Trimethylbenzene	105		11.762					
117 2-Chlorotoluene	126		11.776					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
118 4-Chlorotoluene	126		11.859					
119 tert-Butylbenzene	119		12.083					
121 1,2,4-Trimethylbenzene	105		12.111					
122 sec-Butylbenzene	134		12.265					
123 4-Isopropyltoluene	119		12.362					
124 1,3-Dichlorobenzene	146		12.446					
126 1,4-Dichlorobenzene	146	12.516	12.530	-0.014	63	24252	0.3526	
127 n-Butylbenzene	91		12.767					
128 1,2-Dichlorobenzene	146		12.921					
129 1,2-Dibromo-3-Chloropropane	157		13.717					
130 1,2,4-Trichlorobenzene	180		14.792					
131 Hexachlorobutadiene	225	14.974	14.974	0.0	51	11437	0.3558	
132 Naphthalene	128		15.197					
133 1,2,3-Trichlorobenzene	180		15.561					
S 137 Total BTEX	1				0		0.3186	
S 138 Xylenes, Total	106				0		0	
S 139 Xylenes, Total (URS)	1				0		0	
S 134 Trihalomethanes, Total	1				0		0.99	
S 135 1,3-Dichloropropene, Total	1				0		0.2816	
S 136 1,2-Dichloroethene, Total	1				0		0	
S 140 1,2-Dichloroethene, Total (URS)	96				0		0	

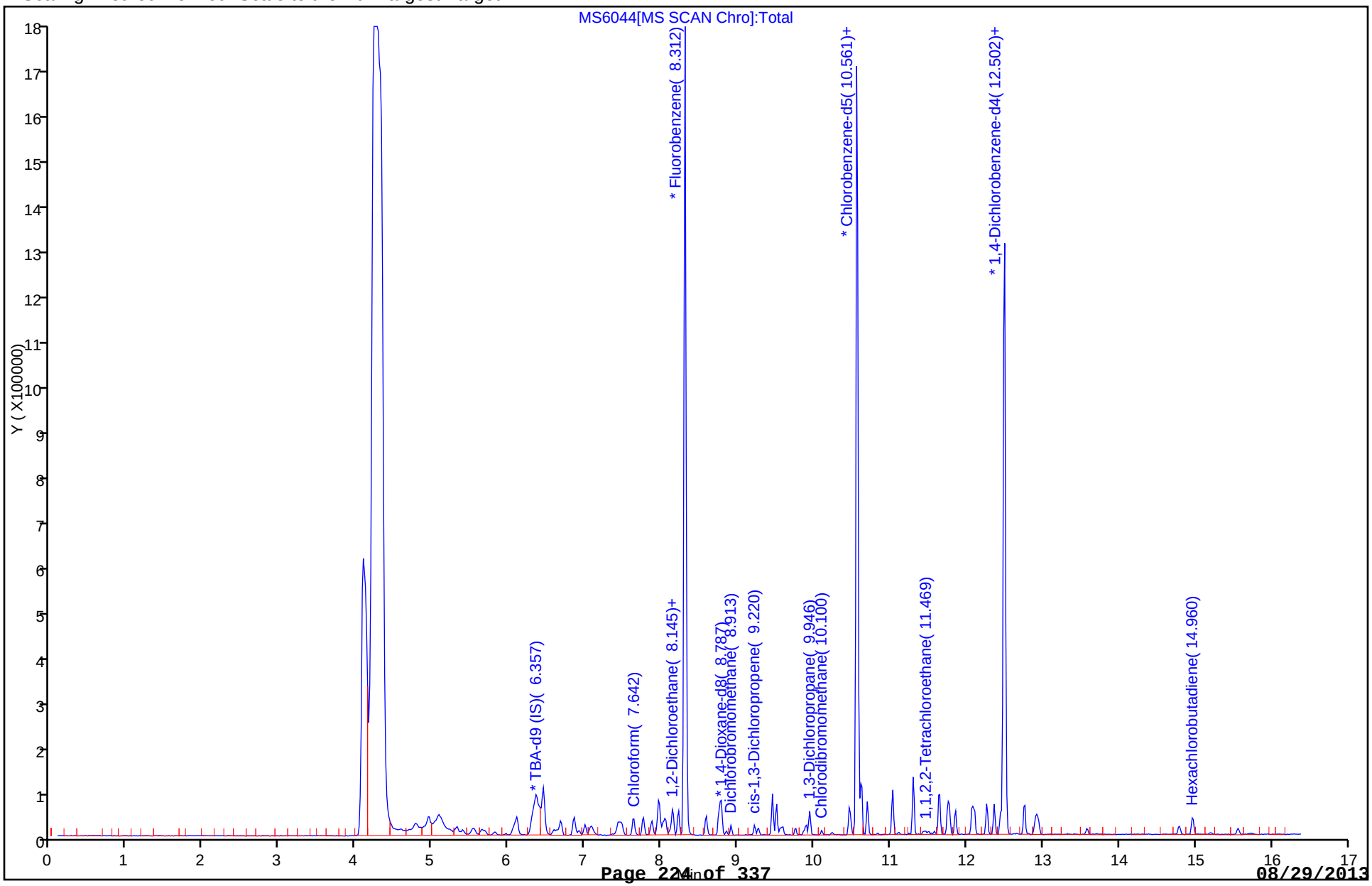
Report Date: 20-Aug-2013 08:24:22 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6044.D

Injection Date:	16-Aug-2013 12:26:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	8
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6045.D
Lims ID: std01 Client ID:
Inject. Date: 16-Aug-2013 12:47:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 2
Sample ID: std01
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 4
Lims Batch ID: 187554 Lims Sample ID: 9
Sublist: chrom-AQ_VMS1_8260*sub35
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:22 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:34:29

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	168161	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1668330	12.5	
* 149 1,4-Dioxane-d8	96	8.773	8.759	0.014	0	19924	250.0	
* 2 Chlorobenzene-d5	119	10.561	10.575	-0.015	91	339981	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	456734	12.5	
24 Dichlorodifluoromethane	85	4.583	4.569	0.014	74	52583	0.8613	
26 Chloromethane	50	4.792	4.793	-0.001	89	79885	0.9793	
27 Vinyl chloride	62	4.946	4.946	0.0	79	71524	0.99	
147 Butadiene	54	4.960	4.960	0.0	94	48743	0.8468	
29 Bromomethane	94	5.323	5.337	-0.014	80	42175	0.9564	
31 Chloroethane	64	5.407	5.407	0.0	81	44872	0.9887	
32 Dichlorofluoromethane	67	5.533	5.547	-0.014	74	110080	0.99	
33 Trichlorofluoromethane	101	5.644	5.645	0.0	72	87127	1.02	
36 Ethyl ether	59	5.826	5.826	0.0	71	15399	0.8044	
39 Acrolein	56	5.952	5.952	0.0	58	13634	8.33	
40 Acetone	43	6.063	6.063	0.0	67	28499	3.04	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.091	6.091	0.0	81	41438	1.07	
43 1,1-Dichloroethene	96	6.105	6.105	0.0	82	41938	0.9493	
45 Iodomethane	142	6.287	6.287	0.0	96	58630	0.8898	
46 Methyl acetate	43	6.301	6.301	0.0	81	48597	4.26	
47 3-Chloro-1-propene	41	6.371	6.357	0.014	82	102825	0.9503	
48 Carbon disulfide	76	6.399	6.399	0.0	99	218930	1.03	
49 2-Methyl-2-propanol	59	6.399	6.413	-0.014	1	9898	9.00	
50 Methylene Chloride	84	6.454	6.455	-0.001	86	81775	0.7473	
51 Acrylonitrile	53	6.594	6.594	0.0	95	46465	9.11	
52 Methyl tert-butyl ether	73	6.650	6.650	0.0	85	44911	0.8105	
53 trans-1,2-Dichloroethene	96	6.692	6.692	0.0	89	46258	0.9402	
54 Hexane	57	6.859	6.860	-0.001	87	71113	0.9076	
55 Vinyl acetate	43	6.929	6.929	0.0	88	68096	1.76	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.999	6.999	0.0	77	93486	0.9686	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	90	30159	3.84	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	82	20153	25.2	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	68	39451	0.8823	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	83	75212	0.9727	
67 Chlorobromomethane	128	7.628	7.628	0.0	72	11672	0.8463	
68 Chloroform	83	7.642	7.642	0.0	78	78014	0.9622	
69 Tetrahydrofuran	42	7.670	7.670	0.0	80	7327	1.84	
70 Isobutyl alcohol	41	7.823	7.823	0.0	49	6051	-9.94	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	86	79809	0.9896	
72 Cyclohexane	56	7.963	7.963	0.0	94	88600	0.8640	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	78	61069	0.9103	
74 Carbon tetrachloride	117	8.019	8.019	0.0	68	68393	1.00	
75 1,2-Dichloroethane	62	8.116	8.117	-0.001	84	40341	0.9487	
77 Benzene	78	8.158	8.144	0.014	97	177908	0.9521	
9 n-Heptane	43	8.228	8.228	0.0	91	88900	0.8957	
79 Trichloroethene	95	8.591	8.591	0.0	89	44372	0.9571	
80 2-Pentanone	43	8.605	8.605	0.0	82	34395	3.06	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	84	42571	0.9794	
83 Methylcyclohexane	55	8.787	8.787	0.0	93	79227	0.9332	
84 1,4-Dioxane	88	8.801	8.801	0.0	6	1937	15.7	
85 Dibromomethane	93	8.857	8.857	0.0	70	13479	0.9650	
86 Dichlorobromomethane	83	8.912	8.913	-0.001	86	43279	0.9184	
88 2-Chloroethyl vinyl ether	63		9.038					
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	64	40340	0.8683	
90 4-Methyl-2-pentanone (MIBK)	43	9.276	9.276	0.0	87	46620	3.17	
91 Toluene	91	9.513	9.513	0.0	95	165859	0.9044	
92 Ethyl methacrylate	69	9.583	9.569	0.014	67	14019	1.02	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	83	32536	0.8201	
94 1,1,2-Trichloroethane	97	9.764	9.765	-0.001	75	16996	0.9370	
95 2-Hexanone	43	9.876	9.862	0.014	89	31367	3.35	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	90	35265	0.9427	
97 Tetrachloroethene	164	9.946	9.946	0.0	86	36023	1.01	
98 Chlorodibromomethane	129	10.114	10.114	0.0	61	18540	0.9026	
100 Ethylene Dibromide	107	10.239	10.239	0.0	63	15340	0.9473	
101 1-Chlorohexane	91	10.463	10.463	0.0	73	47479	0.7968	
102 Chlorobenzene	112	10.588	10.589	-0.001	86	118967	1.00	
103 1,1,1,2-Tetrachloroethane	131	10.616	10.630	-0.014	67	32948	0.9584	
104 Ethylbenzene	106	10.630	10.630	0.0	99	66388	0.9400	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	99	73685	0.8742	
106 Styrene	104	11.035	11.035	0.0	78	76149	0.99	
109 o-Xylene	106	11.035	11.035	0.0	90	64519	0.8336	
107 Bromoform	173	11.245	11.245	0.0	55	8066	0.8847	
108 Isopropylbenzene	105	11.301	11.301	0.0	97	187004	0.9109	
111 Cyclohexanone	55	11.440	11.440	0.0	71	11461	41.4	
112 1,1,2,2-Tetrachloroethane	83	11.496	11.510	-0.014	50	18644	0.9653	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	1	4505	0.8860	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	46	4875	0.9682	
115 N-Propylbenzene	120	11.650	11.650	0.0	96	50055	0.8480	
116 Bromobenzene	156	11.650	11.650	0.0	88	35961	0.9381	
120 1,3,5-Trimethylbenzene	105	11.762	11.762	0.0	90	146319	0.8586	
117 2-Chlorotoluene	126	11.776	11.776	0.0	93	46882	0.9504	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
118 4-Chlorotoluene	126	11.859	11.859	0.0	97	44247	0.9254	
119 tert-Butylbenzene	119	12.083	12.083	0.0	90	143234	0.8648	
121 1,2,4-Trimethylbenzene	105	12.111	12.111	0.0	97	150946	0.8682	
122 sec-Butylbenzene	134	12.264	12.265	0.0	95	43748	0.8975	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	95	178717	0.8864	
124 1,3-Dichlorobenzene	146	12.446	12.446	0.0	76	83565	0.9840	
126 1,4-Dichlorobenzene	146	12.530	12.530	0.0	78	82584	0.9785	
127 n-Butylbenzene	91	12.767	12.767	0.0	95	178030	0.8853	
128 1,2-Dichlorobenzene	146	12.921	12.921	0.0	90	63870	0.9593	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	1	1211	0.8527	
130 1,2,4-Trichlorobenzene	180	14.792	14.792	0.0	80	35574	0.8284	
131 Hexachlorobutadiene	225	14.960	14.974	-0.014	81	38670	0.9804	
132 Naphthalene	128	15.197	15.197	0.0	65	29324	1.05	
133 1,2,3-Trichlorobenzene	180	15.560	15.561	-0.001	72	28140	0.8275	
S 137 Total BTEX	1				0		4.50	
S 138 Xylenes, Total	106				0		1.71	
S 139 Xylenes, Total (URS)	1				0		1.71	
S 134 Trihalomethanes, Total	1				0		3.67	
S 135 1,3-Dichloropropene, Total	1				0		1.69	
S 136 1,2-Dichloroethene, Total	1				0		1.82	
S 140 1,2-Dichloroethene, Total (URS)	96				0		1.82	

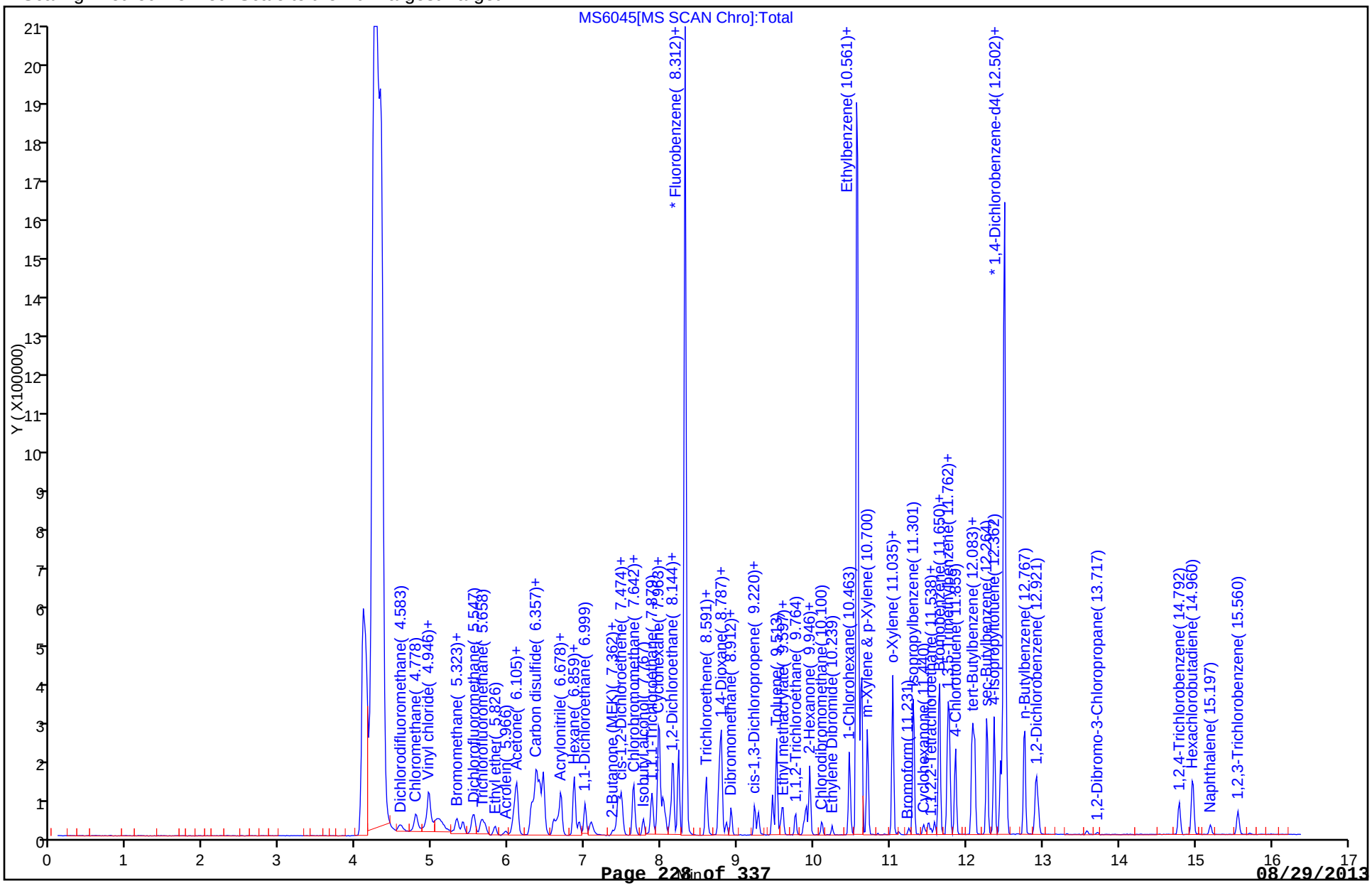
Report Date: 20-Aug-2013 08:24:22 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6045.D

Injection Date:	16-Aug-2013 12:47:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	9
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6046.D
Lims ID: std02 Client ID:
Inject. Date: 16-Aug-2013 13:08:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 3
Sample ID: std02
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 5
Lims Batch ID: 187554 Lims Sample ID: 10
Sublist: chrom-AQ_VMS1_8260*sub35
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:23 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:35:21

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	154445	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1533929	12.5	
* 149 1,4-Dioxane-d8	96	8.773	8.759	0.014	0	20425	250.0	
* 2 Chlorobenzene-d5	119	10.574	10.575	-0.001	88	310120	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	423210	12.5	
24 Dichlorodifluoromethane	85	4.569	4.569	0.0	78	101784	1.81	
26 Chloromethane	50	4.778	4.793	-0.015	89	158127	2.11	
27 Vinyl chloride	62	4.946	4.946	0.0	82	137864	2.08	
147 Butadiene	54	4.960	4.960	0.0	95	102047	1.93	
29 Bromomethane	94	5.323	5.337	-0.014	90	82845	2.04	
31 Chloroethane	64	5.393	5.407	-0.014	93	86879	2.08	
32 Dichlorofluoromethane	67	5.547	5.547	0.0	73	220139	2.16	
33 Trichlorofluoromethane	101	5.644	5.645	0.0	80	166448	2.12	
36 Ethyl ether	59	5.826	5.826	0.0	83	33394	1.90	
39 Acrolein	56	5.952	5.952	0.0	79	29617	19.7	
40 Acetone	43	6.063	6.063	0.0	56	46664	8.33	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.077	6.091	-0.014	83	77535	2.18	
43 1,1-Dichloroethene	96	6.105	6.105	0.0	84	83127	2.05	
45 Iodomethane	142	6.287	6.287	0.0	99	121441	2.00	
46 Methyl acetate	43	6.301	6.301	0.0	98	124760	11.9	
47 3-Chloro-1-propene	41	6.357	6.357	0.0	77	200192	2.01	
48 Carbon disulfide	76	6.399	6.399	0.0	100	422109	2.15	
49 2-Methyl-2-propanol	59	6.399	6.413	-0.014	2	22474	22.3	
50 Methylene Chloride	84	6.454	6.455	-0.001	86	123761	2.15	
51 Acrylonitrile	53	6.594	6.594	0.0	96	94764	20.2	
52 Methyl tert-butyl ether	73	6.650	6.650	0.0	88	96545	1.89	
53 trans-1,2-Dichloroethene	96	6.692	6.692	0.0	91	94778	2.10	
54 Hexane	57	6.859	6.860	-0.001	93	151892	2.13	
55 Vinyl acetate	43	6.915	6.929	-0.014	89	133694	3.75	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.999	6.999	0.0	85	193682	2.18	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	95	62941	8.71	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	86	43099	58.8	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	72	82611	2.01	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	88	147892	2.08	
67 Chlorobromomethane	128	7.628	7.628	0.0	76	27619	2.18	
68 Chloroform	83	7.642	7.642	0.0	81	156115	2.09	
69 Tetrahydrofuran	42	7.669	7.670	-0.001	85	14693	4.01	
70 Isobutyl alcohol	41	7.823	7.823	0.0	43	12530	43.0	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	88	160471	2.16	
72 Cyclohexane	56	7.963	7.963	0.0	96	194543	2.06	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	81	131407	2.13	
74 Carbon tetrachloride	117	8.019	8.019	0.0	72	138325	2.20	
75 1,2-Dichloroethane	62	8.116	8.117	-0.001	92	80503	2.06	
77 Benzene	78	8.144	8.144	0.0	94	362344	2.11	
9 n-Heptane	43	8.228	8.228	0.0	93	188176	2.06	
79 Trichloroethene	95	8.591	8.591	0.0	92	88975	2.09	
80 2-Pentanone	43	8.605	8.605	0.0	84	83528	8.07	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	85	83333	2.09	
83 Methylcyclohexane	55	8.787	8.787	0.0	95	164714	2.11	
84 1,4-Dioxane	88	8.801	8.801	0.0	4	4712	41.5	
85 Dibromomethane	93	8.857	8.857	0.0	78	27360	2.13	
86 Dichlorobromomethane	83	8.912	8.913	-0.001	85	88786	2.05	
88 2-Chloroethyl vinyl ether	63		9.038					
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	73	82052	1.94	
90 4-Methyl-2-pentanone (MIBK)	43	9.276	9.276	0.0	96	102139	7.56	
91 Toluene	91	9.513	9.513	0.0	96	347632	2.06	
92 Ethyl methacrylate	69	9.583	9.569	0.014	77	32000	1.98	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	95	70983	1.95	
94 1,1,2-Trichloroethane	97	9.764	9.765	-0.001	86	34821	2.09	
95 2-Hexanone	43	9.876	9.862	0.014	95	68868	8.07	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	92	73113	2.14	
97 Tetrachloroethene	164	9.946	9.946	0.0	86	71776	2.20	
98 Chlorodibromomethane	129	10.100	10.114	-0.014	75	38064	2.03	
100 Ethylene Dibromide	107	10.239	10.239	0.0	82	30927	2.09	
101 1-Chlorohexane	91	10.463	10.463	0.0	76	105451	1.94	
102 Chlorobenzene	112	10.588	10.589	-0.001	87	231087	2.14	
103 1,1,1,2-Tetrachloroethane	131	10.630	10.630	0.0	30	64029	2.04	
104 Ethylbenzene	106	10.630	10.630	0.0	72	134256	2.08	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	99	161069	2.09	
106 Styrene	104	11.035	11.035	0.0	81	181756	2.04	
109 o-Xylene	106	11.035	11.035	0.0	89	144638	2.05	
107 Bromoform	173	11.245	11.245	0.0	77	16166	1.94	
108 Isopropylbenzene	105	11.301	11.301	0.0	98	405417	2.13	
111 Cyclohexanone	55	11.440	11.440	0.0	81	25411	78.7	
112 1,1,2,2-Tetrachloroethane	83	11.510	11.510	0.0	75	37963	2.12	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	39	9142	1.94	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	65	9775	2.10	
115 N-Propylbenzene	120	11.650	11.650	0.0	96	113572	2.08	
116 Bromobenzene	156	11.650	11.650	0.0	93	75249	2.12	
120 1,3,5-Trimethylbenzene	105	11.762	11.762	0.0	90	329290	2.09	
117 2-Chlorotoluene	126	11.776	11.776	0.0	93	98709	2.16	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
118 4-Chlorotoluene	126	11.859	11.859	0.0	99	92809	2.09	
119 tert-Butylbenzene	119	12.083	12.083	0.0	92	315990	2.06	
121 1,2,4-Trimethylbenzene	105	12.111	12.111	0.0	98	346159	2.15	
122 sec-Butylbenzene	134	12.278	12.265	0.014	95	93262	2.06	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	95	399419	2.14	
124 1,3-Dichlorobenzene	146	12.446	12.446	0.0	71	168086	2.14	
126 1,4-Dichlorobenzene	146	12.530	12.530	0.0	90	164374	2.10	
127 n-Butylbenzene	91	12.767	12.767	0.0	96	399119	2.14	
128 1,2-Dichlorobenzene	146	12.921	12.921	0.0	91	133622	2.17	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	1	4565	2.37	
130 1,2,4-Trichlorobenzene	180	14.792	14.792	0.0	87	75452	1.90	
131 Hexachlorobutadiene	225	14.974	14.974	0.0	90	79980	2.19	
132 Naphthalene	128	15.197	15.197	0.0	84	67644	1.87	
133 1,2,3-Trichlorobenzene	180	15.560	15.561	-0.001	88	62263	1.98	
S 137 Total BTEX	1				0		10.4	
S 138 Xylenes, Total	106				0		4.14	
S 139 Xylenes, Total (URS)	1				0		4.14	
S 134 Trihalomethanes, Total	1				0		8.12	
S 135 1,3-Dichloropropene, Total	1				0		3.88	
S 136 1,2-Dichloroethene, Total	1				0		4.10	
S 140 1,2-Dichloroethene, Total (URS)	96				0		4.10	

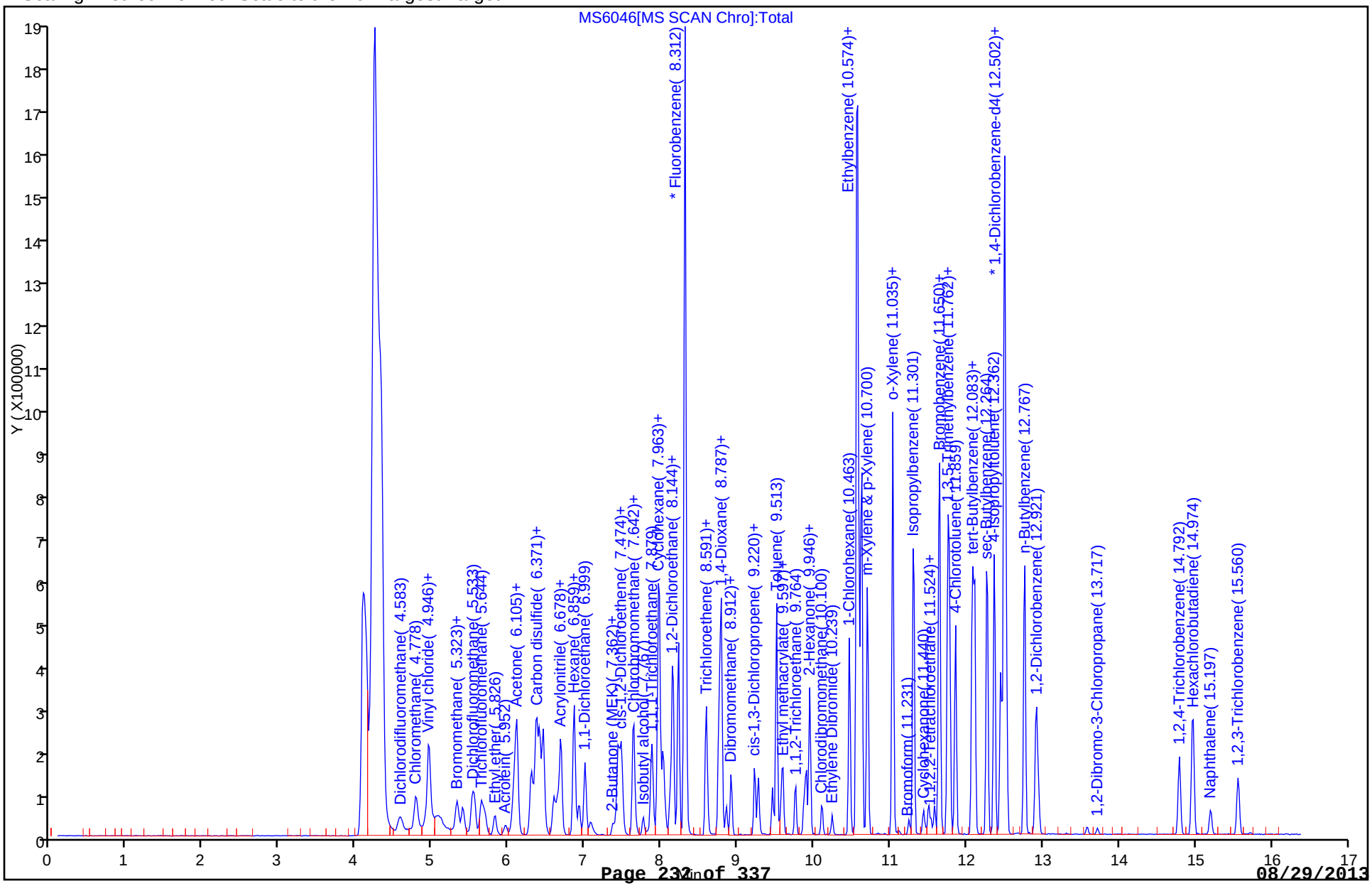
Report Date: 20-Aug-2013 08:24:23 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6046.D

Injection Date:	16-Aug-2013 13:08:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	10
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6047.D
Lims ID: std05 Client ID:
Inject. Date: 16-Aug-2013 13:29:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 4
Sample ID: std05
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 6
Lims Batch ID: 187554 Lims Sample ID: 11
Sublist: chrom-AQ_VMS1_8260*sub35
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:23 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:36:20

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.329	6.343	-0.014	0	185019	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1781732	12.5	
* 149 1,4-Dioxane-d8	96	8.773	8.759	0.014	0	28160	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	80	385428	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	525516	12.5	
24 Dichlorodifluoromethane	85	4.569	4.569	0.0	87	359893	5.52	
26 Chloromethane	50	4.779	4.793	-0.014	89	449352	5.16	
27 Vinyl chloride	62	4.946	4.946	0.0	83	398694	5.19	
147 Butadiene	54	4.960	4.960	0.0	95	314326	5.11	
29 Bromomethane	94	5.323	5.337	-0.014	92	235413	5.00	
31 Chloroethane	64	5.393	5.407	-0.014	93	243815	5.03	
32 Dichlorofluoromethane	67	5.533	5.547	-0.014	80	598462	5.06	
33 Trichlorofluoromethane	101	5.645	5.645	0.001	83	460359	5.05	
36 Ethyl ether	59	5.812	5.826	-0.014	91	99098	4.85	
39 Acrolein	56	5.952	5.952	0.0	88	84855	48.6	
40 Acetone	43	6.050	6.063	-0.013	95	108918	20.5	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.092	6.091	0.001	88	190151	4.61	
43 1,1-Dichloroethene	96	6.105	6.105	0.0	85	225340	4.78	
45 Iodomethane	142	6.287	6.287	0.0	99	342941	4.87	
46 Methyl acetate	43	6.287	6.301	-0.014	99	306985	25.2	
47 3-Chloro-1-propene	41	6.357	6.357	0.0	87	578078	5.00	
48 Carbon disulfide	76	6.399	6.399	0.0	100	1111542	4.88	
49 2-Methyl-2-propanol	59	6.399	6.413	-0.014	7	61351	50.7	
50 Methylene Chloride	84	6.455	6.455	0.0	89	258379	5.00	
51 Acrylonitrile	53	6.594	6.594	0.0	97	274191	50.3	
52 Methyl tert-butyl ether	73	6.636	6.650	-0.014	91	286845	4.85	
53 trans-1,2-Dichloroethene	96	6.678	6.692	-0.014	90	257756	4.91	
54 Hexane	57	6.860	6.860	0.0	94	408499	4.60	
55 Vinyl acetate	43	6.916	6.929	-0.013	90	389927	9.42	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.999	6.999	0.0	86	508203	4.93	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	98	166029	19.8	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	93	128750	146.6	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	72	241419	5.06	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	90	390196	4.72	
67 Chlorobromomethane	128	7.628	7.628	0.0	81	73286	4.98	
68 Chloroform	83	7.642	7.642	0.0	82	421606	4.87	
69 Tetrahydrofuran	42	7.670	7.670	0.0	86	40051	9.41	
70 Isobutyl alcohol	41	7.823	7.823	0.0	73	23892	99.2	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	89	407654	4.73	
72 Cyclohexane	56	7.963	7.963	0.0	97	524453	4.79	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	81	347432	4.85	
74 Carbon tetrachloride	117	8.019	8.019	0.0	73	344881	4.73	
75 1,2-Dichloroethane	62	8.117	8.117	0.0	90	225545	4.97	
77 Benzene	78	8.145	8.144	0.001	98	987710	4.95	
9 n-Heptane	43	8.228	8.228	0.0	95	516418	4.87	
79 Trichloroethene	95	8.591	8.591	0.0	93	236479	4.78	
80 2-Pentanone	43	8.605	8.605	0.0	97	237682	19.8	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	87	230723	4.97	
83 Methylcyclohexane	55	8.787	8.787	0.0	95	433456	4.78	
84 1,4-Dioxane	88	8.801	8.801	0.0	67	12457	94.5	
85 Dibromomethane	93	8.857	8.857	0.0	82	73752	4.94	
86 Dichlorobromomethane	83	8.913	8.913	0.0	91	245746	4.88	
88 2-Chloroethyl vinyl ether	63		9.038					
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	84	249230	4.73	
90 4-Methyl-2-pentanone (MIBK)	43	9.276	9.276	0.0	95	314506	20.0	
91 Toluene	91	9.513	9.513	0.0	97	1002584	5.12	
92 Ethyl methacrylate	69	9.569	9.569	0.0	92	101749	4.46	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	93	211526	4.99	
94 1,1,2-Trichloroethane	97	9.765	9.765	0.0	90	99378	5.13	
95 2-Hexanone	43	9.876	9.862	0.014	90	193591	18.3	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	95	207761	4.90	
97 Tetrachloroethene	164	9.946	9.946	0.0	88	188739	4.65	
98 Chlorodibromomethane	129	10.100	10.114	-0.014	87	110142	4.73	
100 Ethylene Dibromide	107	10.240	10.239	0.001	95	88950	4.85	
101 1-Chlorohexane	91	10.463	10.463	0.0	83	322374	4.77	
102 Chlorobenzene	112	10.589	10.589	0.0	88	641542	4.78	
103 1,1,1,2-Tetrachloroethane	131	10.617	10.630	-0.013	77	179305	4.60	
104 Ethylbenzene	106	10.631	10.630	0.001	99	388119	4.85	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	99	467159	4.89	
106 Styrene	104	11.036	11.035	0.001	82	584699	4.72	
109 o-Xylene	106	11.036	11.035	0.001	89	430823	4.91	
107 Bromoform	173	11.245	11.245	0.0	89	47712	4.62	
108 Isopropylbenzene	105	11.301	11.301	0.0	97	1221749	5.17	
111 Cyclohexanone	55	11.441	11.440	0.001	88	77078	169.8	
112 1,1,2,2-Tetrachloroethane	83	11.510	11.510	0.0	83	107329	4.83	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	81	27371	4.68	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	80	28690	4.95	
115 N-Propylbenzene	120	11.650	11.650	0.0	97	340334	5.01	
116 Bromobenzene	156	11.650	11.650	0.0	94	220928	5.01	
120 1,3,5-Trimethylbenzene	105	11.762	11.762	0.0	90	1021040	5.21	
117 2-Chlorotoluene	126	11.776	11.776	0.0	93	285774	5.04	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
118 4-Chlorotoluene	126	11.860	11.859	0.001	99	274068	4.98	
119 tert-Butylbenzene	119	12.083	12.083	0.0	91	962946	5.05	
121 1,2,4-Trimethylbenzene	105	12.111	12.111	0.0	99	1037795	5.19	
122 sec-Butylbenzene	134	12.279	12.265	0.015	96	278269	4.96	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	96	1192080	5.14	
124 1,3-Dichlorobenzene	146	12.446	12.446	0.0	78	485616	4.97	
126 1,4-Dichlorobenzene	146	12.530	12.530	0.0	92	467751	4.82	
127 n-Butylbenzene	91	12.767	12.767	0.0	96	1197395	5.17	
128 1,2-Dichlorobenzene	146	12.921	12.921	0.0	93	379099	4.95	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	37	11471	4.43	
130 1,2,4-Trichlorobenzene	180	14.792	14.792	0.0	91	243472	4.93	
131 Hexachlorobutadiene	225	14.974	14.974	0.0	95	213084	4.70	
132 Naphthalene	128	15.198	15.197	0.001	97	235301	4.35	
133 1,2,3-Trichlorobenzene	180	15.561	15.561	0.0	90	190857	4.88	
S 137 Total BTEX	1				0		24.7	
S 138 Xylenes, Total	106				0		9.80	
S 139 Xylenes, Total (URS)	1				0		9.80	
S 134 Trihalomethanes, Total	1				0		19.1	
S 135 1,3-Dichloropropene, Total	1				0		9.72	
S 136 1,2-Dichloroethene, Total	1				0		9.96	
S 140 1,2-Dichloroethene, Total (URS)	96				0		9.96	

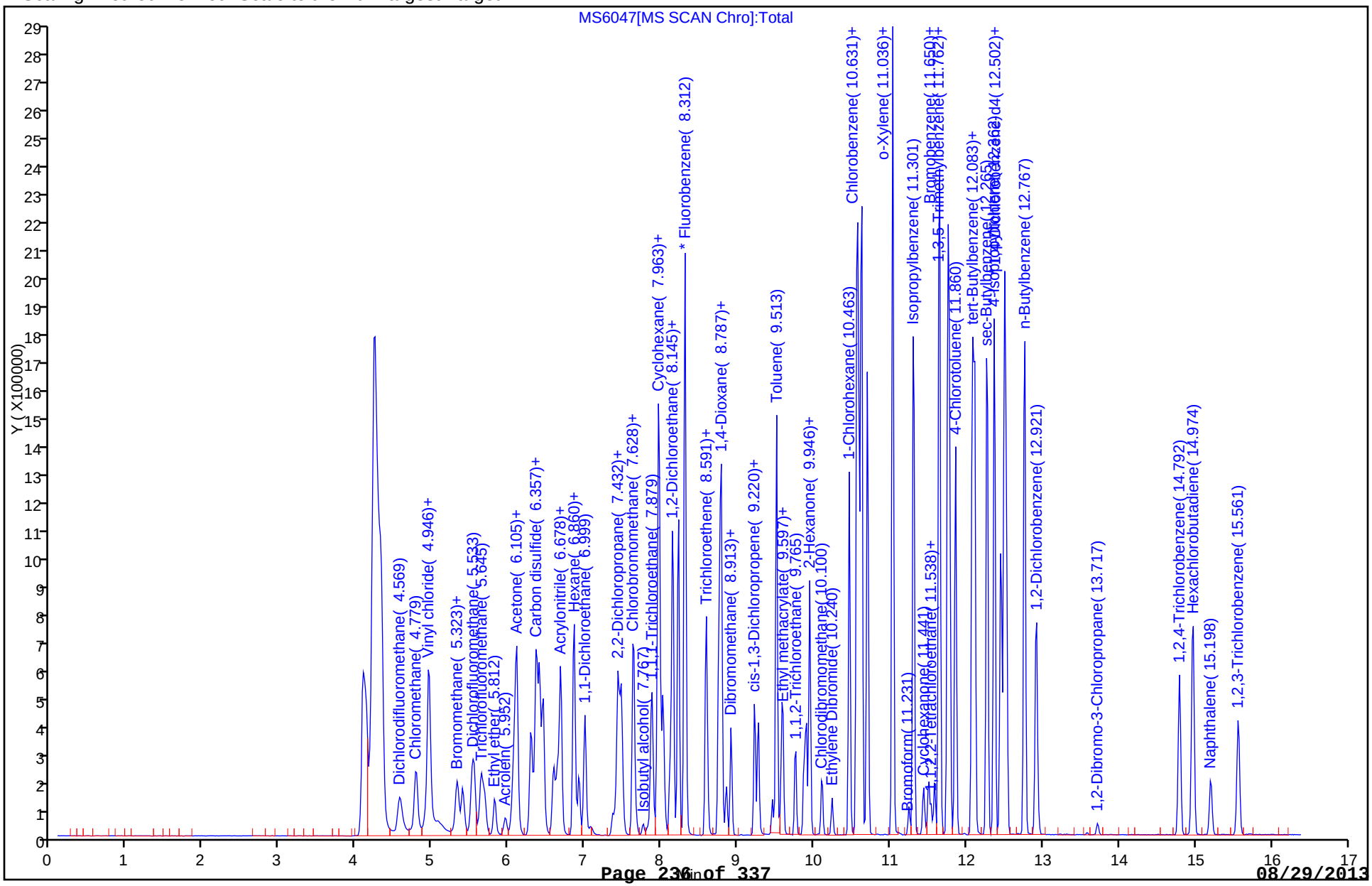
Report Date: 20-Aug-2013 08:24:24 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6047.D

Injection Date:	16-Aug-2013 13:29:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	11
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6048.D
Lims ID: std10 Client ID:
Inject. Date: 16-Aug-2013 13:50:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 5
Sample ID: std10
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 7
Lims Batch ID: 187554 Lims Sample ID: 12
Sublist: chrom-AQ_VMS1_8260*sub35
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:24 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:23:38

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	182669	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1613077	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	32447	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	75	364605	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	96	491043	12.5	
24 Dichlorodifluoromethane	85	4.569	4.569	0.0	87	716423	12.1	
26 Chloromethane	50	4.793	4.793	0.0	89	908690	11.5	
27 Vinyl chloride	62	4.946	4.946	0.0	83	801613	11.5	
147 Butadiene	54	4.960	4.960	0.0	96	680259	12.2	
29 Bromomethane	94	5.337	5.337	0.0	90	479124	11.2	
31 Chloroethane	64	5.407	5.407	0.0	94	489186	11.1	
32 Dichlorofluoromethane	67	5.547	5.547	0.0	80	1189120	11.1	
33 Trichlorofluoromethane	101	5.645	5.645	0.0	83	915543	11.1	
36 Ethyl ether	59	5.826	5.826	0.0	94	214981	11.6	
39 Acrolein	56	5.952	5.952	0.0	92	180636	114.2	
40 Acetone	43	6.063	6.063	0.0	95	207138	47.2	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.091	6.091	0.0	83	428944	11.5	
43 1,1-Dichloroethene	96	6.105	6.105	0.0	86	503482	11.8	
45 Iodomethane	142	6.287	6.287	0.0	99	734806	11.5	
46 Methyl acetate	43	6.301	6.301	0.0	99	605432	54.9	
47 3-Chloro-1-propene	41	6.357	6.357	0.0	85	1203582	11.5	
48 Carbon disulfide	76	6.399	6.399	0.0	100	2382706	11.5	
49 2-Methyl-2-propanol	59	6.413	6.413	0.0	8	133752	112.0	
50 Methylene Chloride	84	6.455	6.455	0.0	89	488008	12.0	
51 Acrylonitrile	53	6.594	6.594	0.0	97	563144	114.2	
52 Methyl tert-butyl ether	73	6.650	6.650	0.0	92	625522	11.7	
53 trans-1,2-Dichloroethene	96	6.692	6.692	0.0	92	549127	11.5	
54 Hexane	57	6.860	6.860	0.0	95	945883	11.3	
55 Vinyl acetate	43	6.929	6.929	0.0	89	863406	23.0	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.999	6.999	0.0	86	1054685	11.3	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	98	337499	44.4	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	94	298079	343.7	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	72	499572	11.6	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	90	862115	11.5	
67 Chlorobromomethane	128	7.628	7.628	0.0	83	151743	11.4	
68 Chloroform	83	7.642	7.642	0.0	83	861468	11.0	
69 Tetrahydrofuran	42	7.670	7.670	0.0	85	85660	22.2	
70 Isobutyl alcohol	41	7.823	7.823	0.0	84	53738	292.6	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	90	896222	11.5	
72 Cyclohexane	56	7.963	7.963	0.0	96	1215264	12.3	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	80	756163	11.7	
74 Carbon tetrachloride	117	8.019	8.019	0.0	72	749700	11.4	
75 1,2-Dichloroethane	62	8.117	8.117	0.0	92	446100	10.9	
77 Benzene	78	8.144	8.144	0.0	94	2033021	11.3	
9 n-Heptane	43	8.228	8.228	0.0	96	1173199	12.2	
79 Trichloroethene	95	8.591	8.591	0.0	93	509556	11.4	
80 2-Pentanone	43	8.605	8.605	0.0	97	517116	47.5	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	87	466837	11.1	
83 Methylcyclohexane	55	8.787	8.787	0.0	96	994133	12.1	
84 1,4-Dioxane	88	8.801	8.801	0.0	67	27295	228.6	
85 Dibromomethane	93	8.857	8.857	0.0	82	151336	11.2	
86 Dichlorobromomethane	83	8.913	8.913	0.0	88	502112	11.0	
88 2-Chloroethyl vinyl ether	63		9.038					
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	84	551821	11.1	
90 4-Methyl-2-pentanone (MIBK)	43	9.276	9.276	0.0	95	683477	48.1	
91 Toluene	91	9.513	9.513	0.0	97	2138848	12.1	
92 Ethyl methacrylate	69	9.569	9.569	0.0	93	232858	10.2	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	96	463511	12.1	
94 1,1,2-Trichloroethane	97	9.765	9.765	0.0	90	200474	11.4	
95 2-Hexanone	43	9.862	9.862	0.0	98	436597	43.5	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	96	428877	10.7	
97 Tetrachloroethene	164	9.946	9.946	0.0	88	411258	10.7	
98 Chlorodibromomethane	129	10.114	10.114	0.0	88	227244	10.3	
100 Ethylene Dibromide	107	10.239	10.239	0.0	97	184372	10.6	
101 1-Chlorohexane	91	10.463	10.463	0.0	87	771546	12.1	
102 Chlorobenzene	112	10.589	10.589	0.0	88	1318180	10.4	
103 1,1,1,2-Tetrachloroethane	131	10.630	10.630	0.0	31	378363	10.3	
104 Ethylbenzene	106	10.630	10.630	0.0	98	827809	10.9	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	99	1018384	11.3	
106 Styrene	104	11.035	11.035	0.0	83	1333989	10.9	
109 o-Xylene	106	11.035	11.035	0.0	88	937594	11.3	
107 Bromoform	173	11.245	11.245	0.0	93	105251	10.8	
108 Isopropylbenzene	105	11.301	11.301	0.0	98	2669062	12.1	
111 Cyclohexanone	55	11.440	11.440	0.0	91	179907	396.4	
112 1,1,2,2-Tetrachloroethane	83	11.510	11.510	0.0	82	221345	10.7	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	90	62222	11.4	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	81	62754	11.6	
115 N-Propylbenzene	120	11.650	11.650	0.0	97	771441	12.2	
116 Bromobenzene	156	11.650	11.650	0.0	94	470333	11.4	
120 1,3,5-Trimethylbenzene	105	11.762	11.762	0.0	93	2227540	12.2	
117 2-Chlorotoluene	126	11.776	11.776	0.0	94	608931	11.5	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
118 4-Chlorotoluene	126	11.859	11.859	0.0	99	597860	11.6	
119 tert-Butylbenzene	119	12.083	12.083	0.0	87	2129577	12.0	
121 1,2,4-Trimethylbenzene	105	12.111	12.111	0.0	98	2250379	12.0	
122 sec-Butylbenzene	134	12.265	12.265	0.0	96	627523	12.0	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	96	2652029	12.2	
124 1,3-Dichlorobenzene	146	12.446	12.446	0.0	84	1032088	11.3	
126 1,4-Dichlorobenzene	146	12.530	12.530	0.0	93	986316	10.9	
127 n-Butylbenzene	91	12.767	12.767	0.0	96	2655056	12.3	
128 1,2-Dichlorobenzene	146	12.921	12.921	0.0	95	808332	11.3	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	51	27424	10.8	
130 1,2,4-Trichlorobenzene	180	14.792	14.792	0.0	89	541687	11.7	
131 Hexachlorobutadiene	225	14.974	14.974	0.0	96	475635	11.2	
132 Naphthalene	128	15.197	15.197	0.0	98	592211	10.9	
133 1,2,3-Trichlorobenzene	180	15.561	15.561	0.0	91	427427	11.7	
S 137 Total BTEX	1				0		56.8	
S 138 Xylenes, Total	106				0		22.6	
S 139 Xylenes, Total (URS)	1				0		22.6	
S 134 Trihalomethanes, Total	1				0		43.1	
S 135 1,3-Dichloropropene, Total	1				0		23.2	
S 136 1,2-Dichloroethene, Total	1				0		23.1	
S 140 1,2-Dichloroethene, Total (URS)	96				0		23.1	

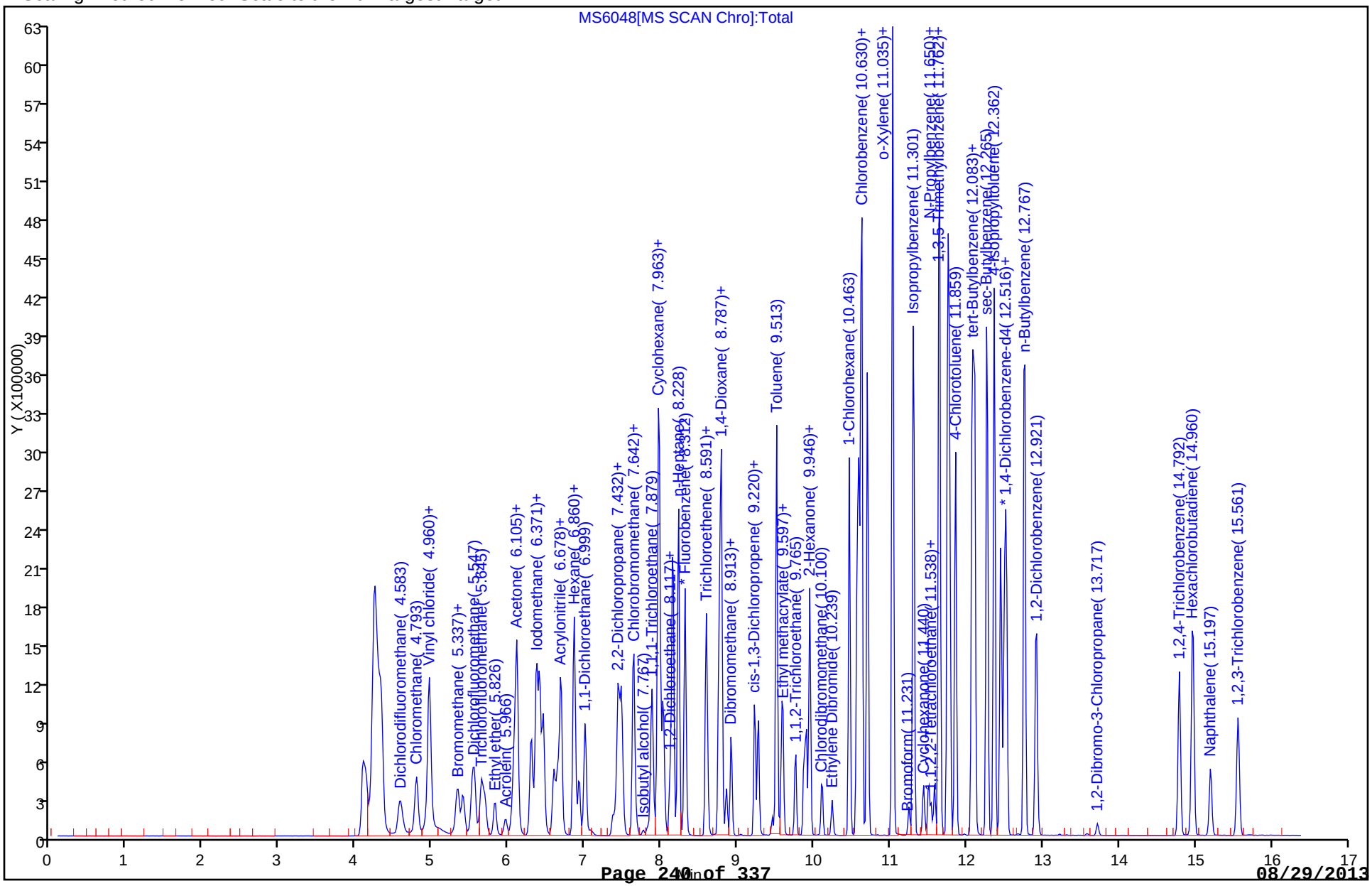
Report Date: 20-Aug-2013 08:24:24 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6048.D

Injection Date:	16-Aug-2013 13:50:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	12
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6049.D
Lims ID: std30 Client ID:
Inject. Date: 16-Aug-2013 14:11:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 6
Sample ID: std30
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 8
Lims Batch ID: 187554 Lims Sample ID: 13
Sublist: chrom-AQ_VMS1_8260*sub35
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:25 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:38:42

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	238622	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1932384	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	44262	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	79	393567	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	95	592333	12.5	
24 Dichlorodifluoromethane	85	4.583	4.569	0.014	88	2136398	30.2	
26 Chloromethane	50	4.793	4.793	0.0	89	2655489	28.1	
27 Vinyl chloride	62	4.960	4.946	0.014	83	2339769	28.1	
147 Butadiene	54	4.960	4.960	0.0	94	2055221	30.8	
29 Bromomethane	94	5.337	5.337	0.0	89	1492240	29.2	
31 Chloroethane	64	5.407	5.407	0.0	94	1494021	28.4	
32 Dichlorofluoromethane	67	5.547	5.547	0.0	80	3581990	27.9	
33 Trichlorofluoromethane	101	5.645	5.645	0.001	83	2779267	28.1	
36 Ethyl ether	59	5.826	5.826	0.0	96	714959	32.2	
39 Acrolein	56	5.952	5.952	0.0	94	597140	315.1	
40 Acetone	43	6.064	6.063	0.001	96	629227	125.5	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.092	6.091	0.001	88	1214691	27.1	
43 1,1-Dichloroethene	96	6.106	6.105	0.001	86	1489586	29.1	
45 Iodomethane	142	6.287	6.287	0.0	99	2317113	30.4	
46 Methyl acetate	43	6.301	6.301	0.0	99	1898546	143.6	
47 3-Chloro-1-propene	41	6.357	6.357	0.0	87	3676173	29.3	
48 Carbon disulfide	76	6.399	6.399	0.0	100	6865435	27.8	
49 2-Methyl-2-propanol	59	6.399	6.413	-0.014	7	435665	279.3	
50 Methylene Chloride	84	6.455	6.455	0.0	90	1403125	30.7	
51 Acrylonitrile	53	6.594	6.594	0.0	99	1775681	300.6	
52 Methyl tert-butyl ether	73	6.650	6.650	0.0	91	2075821	32.3	
53 trans-1,2-Dichloroethene	96	6.692	6.692	0.0	91	1648389	28.9	
54 Hexane	57	6.860	6.860	0.0	96	2754519	30.4	
55 Vinyl acetate	43	6.930	6.929	0.001	89	2856644	63.6	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.999	6.999	0.0	85	3167902	28.3	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	98	1047167	115.1	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	96	1052880	929.3	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	71	1553898	30.0	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	84	2624932	29.3	
67 Chlorobromomethane	128	7.628	7.628	0.0	84	470255	29.4	
68 Chloroform	83	7.642	7.642	0.0	82	2617299	27.9	
69 Tetrahydrofuran	42	7.670	7.670	0.0	89	284244	61.6	
70 Isobutyl alcohol	41	7.823	7.823	0.0	91	175243	808.5	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	90	2663187	28.5	
72 Cyclohexane	56	7.963	7.963	0.0	96	3552536	29.9	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	80	2263120	29.1	
74 Carbon tetrachloride	117	8.019	8.019	0.0	62	2220093	28.1	
75 1,2-Dichloroethane	62	8.117	8.117	0.0	92	1400669	28.4	
77 Benzene	78	8.159	8.144	0.015	97	6192224	28.6	
9 n-Heptane	43	8.228	8.228	0.0	96	3384198	29.4	
79 Trichloroethene	95	8.592	8.591	0.001	94	1583125	29.5	
80 2-Pentanone	43	8.605	8.605	0.0	98	1644794	126.1	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	89	1478807	29.4	
83 Methylcyclohexane	55	8.787	8.787	0.0	95	2841675	28.9	
84 1,4-Dioxane	88	8.801	8.801	0.0	78	93010	650.3	
85 Dibromomethane	93	8.857	8.857	0.0	85	473618	29.3	
86 Dichlorobromomethane	83	8.913	8.913	0.0	89	1598087	29.3	
88 2-Chloroethyl vinyl ether	63		9.038					
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	84	1807334	33.6	
90 4-Methyl-2-pentanone (MIBK)	43	9.276	9.276	0.0	95	2195300	128.9	
91 Toluene	91	9.513	9.513	0.0	98	6276960	29.6	
92 Ethyl methacrylate	69	9.569	9.569	0.0	93	803771	31.9	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	94	1462720	31.8	
94 1,1,2-Trichloroethane	97	9.765	9.765	0.0	89	613627	29.2	
95 2-Hexanone	43	9.862	9.862	0.0	99	1444891	133.4	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	95	1285311	29.7	
97 Tetrachloroethene	164	9.946	9.946	0.0	89	1206992	29.1	
98 Chlorodibromomethane	129	10.114	10.114	0.0	88	733389	30.8	
100 Ethylene Dibromide	107	10.240	10.239	0.001	98	568518	30.3	
101 1-Chlorohexane	91	10.463	10.463	0.0	89	2226093	32.3	
102 Chlorobenzene	112	10.589	10.589	0.0	88	3824512	27.9	
103 1,1,1,2-Tetrachloroethane	131	10.631	10.630	0.001	34	1225594	30.8	
104 Ethylbenzene	106	10.631	10.630	0.001	98	2470396	30.2	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	99	3010123	30.8	
106 Styrene	104	11.036	11.035	0.001	84	4109166	30.5	
109 o-Xylene	106	11.036	11.035	0.001	86	2805473	31.3	
107 Bromoform	173	11.245	11.245	0.0	92	341455	32.4	
108 Isopropylbenzene	105	11.301	11.301	0.0	98	7639539	28.7	
111 Cyclohexanone	55	11.441	11.440	0.001	91	651734	1294.0	
112 1,1,2,2-Tetrachloroethane	83	11.510	11.510	0.0	78	666873	26.6	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	92	211109	32.0	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	81	186651	28.6	
115 N-Propylbenzene	120	11.650	11.650	0.0	97	2260671	29.5	
116 Bromobenzene	156	11.650	11.650	0.0	95	1432140	28.8	
120 1,3,5-Trimethylbenzene	105	11.762	11.762	0.0	93	6486788	29.4	
117 2-Chlorotoluene	126	11.776	11.776	0.0	94	1804393	28.2	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
118 4-Chlorotoluene	126	11.860	11.859	0.001	99	1800681	29.0	
119 tert-Butylbenzene	119	12.083	12.083	0.0	91	6381166	29.7	
121 1,2,4-Trimethylbenzene	105	12.111	12.111	0.0	98	6546565	29.0	
122 sec-Butylbenzene	134	12.279	12.265	0.015	96	1845037	29.2	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	94	7573046	29.0	
124 1,3-Dichlorobenzene	146	12.446	12.446	0.0	88	3147210	28.6	
126 1,4-Dichlorobenzene	146	12.530	12.530	0.0	92	2975892	27.2	
127 n-Butylbenzene	91	12.767	12.767	0.0	95	7523975	28.8	
128 1,2-Dichlorobenzene	146	12.921	12.921	0.0	94	2475868	28.7	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	64	94619	30.2	
130 1,2,4-Trichlorobenzene	180	14.793	14.792	0.001	92	1755690	31.5	
131 Hexachlorobutadiene	225	14.974	14.974	0.0	96	1334685	26.1	
132 Naphthalene	128	15.198	15.197	0.001	98	2112376	31.2	
133 1,2,3-Trichlorobenzene	180	15.561	15.561	0.0	91	1374817	31.2	
S 137 Total BTEX	1				0		150.5	
S 138 Xylenes, Total	106				0		62.2	
S 139 Xylenes, Total (URS)	1				0		62.2	
S 134 Trihalomethanes, Total	1				0		120.3	
S 135 1,3-Dichloropropene, Total	1				0		65.4	
S 136 1,2-Dichloroethene, Total	1				0		58.9	
S 140 1,2-Dichloroethene, Total (URS)	96				0		58.9	

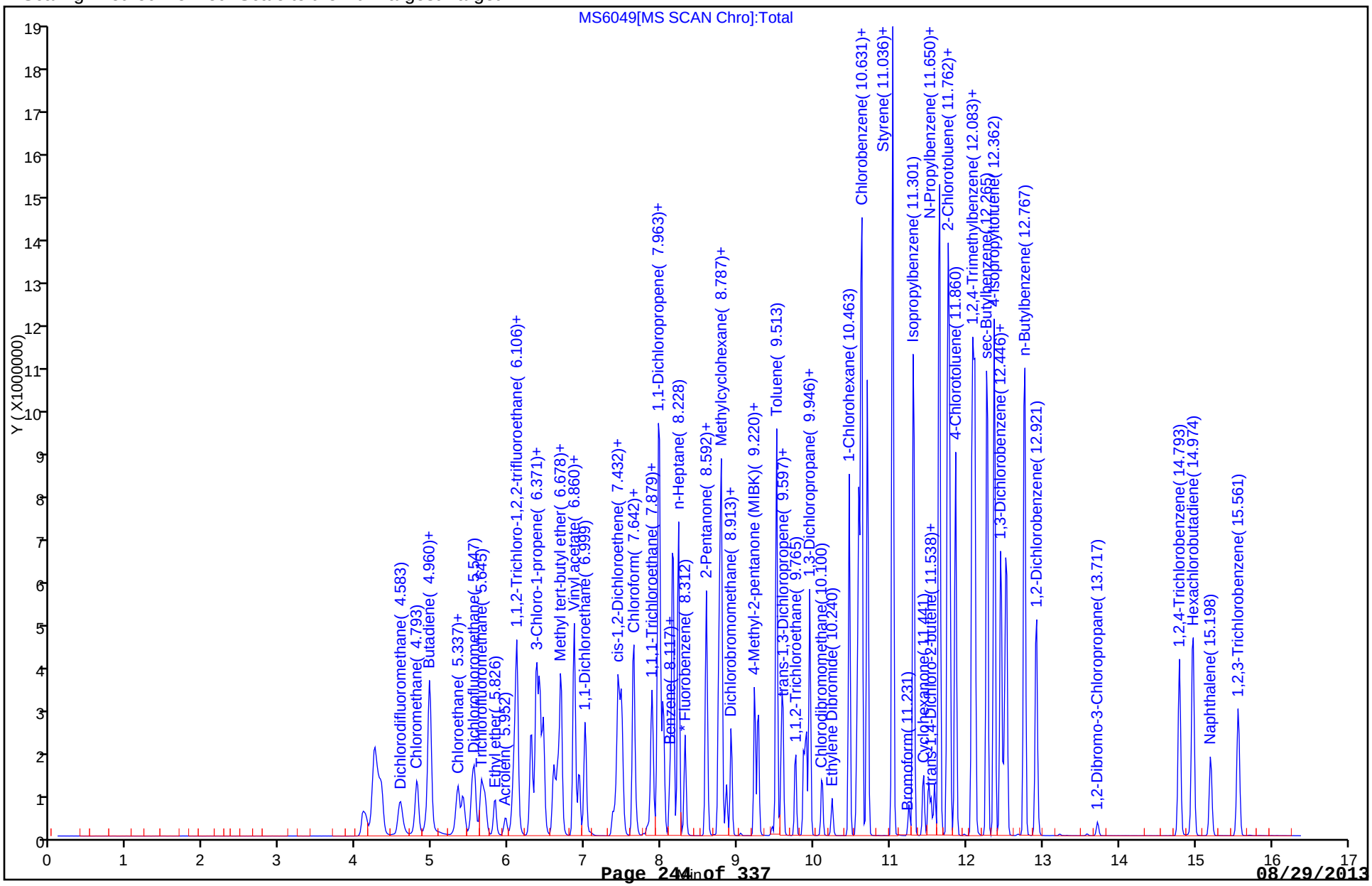
Report Date: 20-Aug-2013 08:24:25 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6049.D

Injection Date:	16-Aug-2013 14:11:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	13
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6050.D
Lims ID: std60 Client ID:
Inject. Date: 16-Aug-2013 14:32:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 7
Sample ID: std60
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 9
Lims Batch ID: 187554 Lims Sample ID: 14
Sublist: chrom-AQ_VMS1_8260*sub35
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:25 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:39:54

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.329	6.343	-0.014	0	268611	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	2200410	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	56221	250.0	
* 2 Chlorobenzene-d5	119	10.560	10.575	-0.015	69	432813	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	94	661592	12.5	
24 Dichlorodifluoromethane	85	4.569	4.569	0.0	88	4384877	54.5	
26 Chloromethane	50	4.792	4.793	-0.001	89	5461171	50.8	
27 Vinyl chloride	62	4.946	4.946	0.0	84	4788349	50.4	
147 Butadiene	54	4.960	4.960	0.0	95	4175557	55.0	
29 Bromomethane	94	5.323	5.337	-0.014	89	3227481	55.5	
31 Chloroethane	64	5.393	5.407	-0.014	94	3239574	54.1	
32 Dichlorofluoromethane	67	5.533	5.547	-0.014	80	7622960	52.2	
33 Trichlorofluoromethane	101	5.644	5.645	0.0	83	5820988	51.7	
36 Ethyl ether	59	5.812	5.826	-0.014	96	1577836	62.5	
39 Acrolein	56	5.952	5.952	0.0	94	1319861	611.6	
40 Acetone	43	6.049	6.063	-0.014	97	1281359	227.4	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.077	6.091	-0.014	88	2633347	51.7	
43 1,1-Dichloroethene	96	6.105	6.105	0.0	87	3226975	55.4	
45 Iodomethane	142	6.287	6.287	0.0	99	5047388	58.1	
46 Methyl acetate	43	6.287	6.301	-0.014	98	4051399	269.1	
47 3-Chloro-1-propene	41	6.357	6.357	0.0	88	7834936	54.9	
48 Carbon disulfide	76	6.399	6.399	0.0	100	14226357	50.5	
49 2-Methyl-2-propanol	59	6.399	6.413	-0.014	9	970864	552.9	
50 Methylene Chloride	84	6.454	6.455	-0.001	90	2923250	57.4	
51 Acrylonitrile	53	6.580	6.594	-0.014	98	3740492	556.2	
52 Methyl tert-butyl ether	73	6.636	6.650	-0.014	93	4504738	61.6	
53 trans-1,2-Dichloroethene	96	6.678	6.692	-0.014	92	3552970	54.8	
54 Hexane	57	6.859	6.860	-0.001	96	5817762	58.3	
55 Vinyl acetate	43	6.915	6.929	-0.014	90	6325884	123.7	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.999	6.999	0.0	85	6717870	52.8	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	98	2217594	214.0	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	97	2350361	1842.9	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	66	3349199	56.8	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	89	5582716	54.7	
67 Chlorobromomethane	128	7.628	7.628	0.0	86	1037116	57.0	
68 Chloroform	83	7.642	7.642	0.0	82	5574270	52.1	
69 Tetrahydrofuran	42	7.669	7.670	-0.001	90	630684	120.0	
70 Isobutyl alcohol	41	7.809	7.823	-0.014	92	348103	1466.6	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	90	5627539	52.9	
72 Cyclohexane	56	7.963	7.963	0.0	95	7496851	55.4	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	82	4874679	55.1	
74 Carbon tetrachloride	117	8.019	8.019	0.0	73	4735037	52.6	
75 1,2-Dichloroethane	62	8.116	8.117	-0.001	90	2931208	52.3	
77 Benzene	78	8.144	8.144	0.0	99	12758016	51.8	
9 n-Heptane	43	8.228	8.228	0.0	94	7029974	53.7	
79 Trichloroethene	95	8.591	8.591	0.0	93	3391828	55.5	
80 2-Pentanone	43	8.591	8.605	-0.014	97	3004563	202.4	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	89	3074832	53.6	
83 Methylcyclohexane	55	8.787	8.787	0.0	95	5920729	52.9	
84 1,4-Dioxane	88	8.801	8.801	0.0	86	196698	1207.8	
85 Dibromomethane	93	8.857	8.857	0.0	87	977773	53.1	
86 Dichlorobromomethane	83	8.912	8.913	-0.001	93	3372430	54.3	
88 2-Chloroethyl vinyl ether	63		9.038					
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	84	3728983	63.0	
90 4-Methyl-2-pentanone (MIBK)	43	9.262	9.276	-0.014	94	4585703	236.5	
91 Toluene	91	9.513	9.513	0.0	90	12329822	51.0	
92 Ethyl methacrylate	69	9.569	9.569	0.0	93	1690035	60.6	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	95	2948878	56.4	
94 1,1,2-Trichloroethane	97	9.750	9.765	-0.015	89	1258135	52.6	
95 2-Hexanone	43	9.862	9.862	0.0	94	2976388	249.9	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	94	2585464	54.3	
97 Tetrachloroethene	164	9.946	9.946	0.0	90	2522804	55.4	
98 Chlorodibromomethane	129	10.100	10.114	-0.014	88	1551267	59.3	
100 Ethylene Dibromide	107	10.239	10.239	0.0	98	1192416	57.8	
101 1-Chlorohexane	91	10.463	10.463	0.0	90	4530433	59.7	
102 Chlorobenzene	112	10.588	10.589	-0.001	88	7665576	50.8	
103 1,1,1,2-Tetrachloroethane	131	10.616	10.630	-0.014	83	2673509	61.1	
104 Ethylbenzene	106	10.630	10.630	0.0	98	5116280	56.9	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	97	6089022	56.7	
106 Styrene	104	11.035	11.035	0.0	84	8402442	56.3	
109 o-Xylene	106	11.035	11.035	0.0	85	5832816	59.2	
107 Bromoform	173	11.245	11.245	0.0	93	742093	63.9	
108 Isopropylbenzene	105	11.301	11.301	0.0	98	14686868	49.4	
111 Cyclohexanone	55	11.440	11.440	0.0	96	1420901	2550.2	
112 1,1,2,2-Tetrachloroethane	83	11.496	11.510	-0.014	78	1352366	48.3	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	85	443242	60.2	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	75	385918	52.9	
115 N-Propylbenzene	120	11.636	11.650	-0.014	95	4677198	54.7	
116 Bromobenzene	156	11.650	11.650	0.0	94	2996706	54.0	
120 1,3,5-Trimethylbenzene	105	11.762	11.762	0.0	94	12784058	51.8	
117 2-Chlorotoluene	126	11.776	11.776	0.0	94	3747963	52.5	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
118 4-Chlorotoluene	126	11.859	11.859	0.0	98	3740203	54.0	
119 tert-Butylbenzene	119	12.083	12.083	0.0	92	13085229	54.5	
121 1,2,4-Trimethylbenzene	105	12.111	12.111	0.0	97	12816219	50.9	
122 sec-Butylbenzene	134	12.278	12.265	0.014	96	3843790	54.4	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	94	14513995	49.7	
124 1,3-Dichlorobenzene	146	12.446	12.446	0.0	95	6427982	52.3	
126 1,4-Dichlorobenzene	146	12.530	12.530	0.0	92	6151001	50.3	
127 n-Butylbenzene	91	12.767	12.767	0.0	93	14319876	49.2	
128 1,2-Dichlorobenzene	146	12.921	12.921	0.0	95	5110138	53.0	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	72	209028	59.4	
130 1,2,4-Trichlorobenzene	180	14.792	14.792	0.0	90	3783434	60.8	
131 Hexachlorobutadiene	225	14.974	14.974	0.0	96	2773610	48.5	
132 Naphthalene	128	15.197	15.197	0.0	98	4643471	61.0	
133 1,2,3-Trichlorobenzene	180	15.560	15.561	-0.001	91	2957198	60.0	
S 137 Total BTEX	1				0		275.6	
S 138 Xylenes, Total	106				0		115.9	
S 139 Xylenes, Total (URS)	1				0		115.9	
S 134 Trihalomethanes, Total	1				0		229.6	
S 135 1,3-Dichloropropene, Total	1				0		119.4	
S 136 1,2-Dichloroethene, Total	1				0		111.5	
S 140 1,2-Dichloroethene, Total (URS)	96				0		111.5	

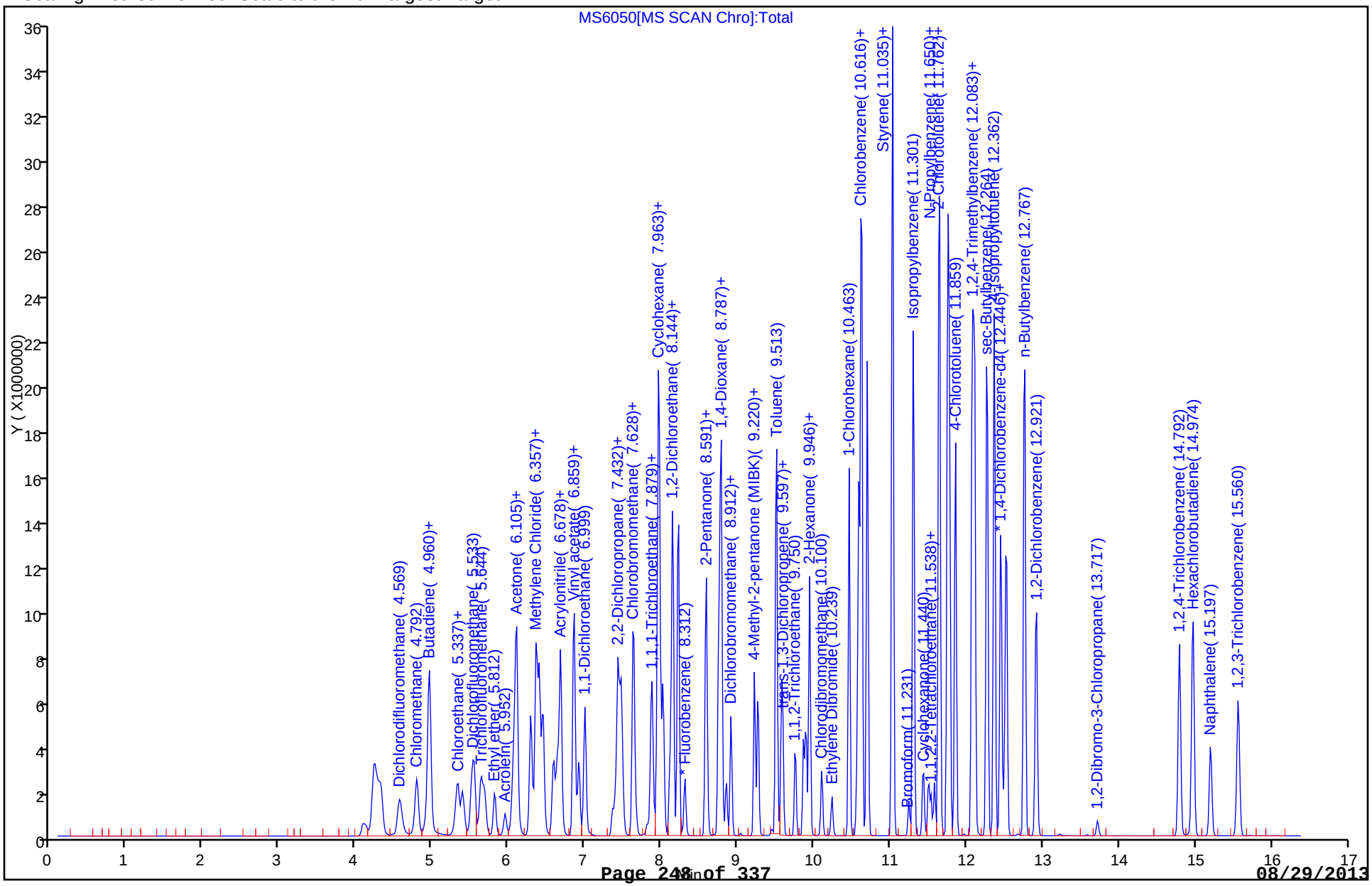
Report Date: 20-Aug-2013 08:24:26 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6050.D

Injection Date:	16-Aug-2013 14:32:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	14
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 15:56 Calibration End Date: 08/16/2013 17:42 Calibration ID: 15174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 280-187554/16	MS6054.D
Level 2	STD02 280-187554/17	MS6055.D
Level 3	STD05 280-187554/18	MS6056.D
Level 4	ICIS 280-187554/19	MS6057.D
Level 5	STD30 280-187554/20	MS6058.D
Level 6	STD60 280-187554/21	MS6059.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorotrifluoroethene	0.0798 0.0920	0.0805	0.0804	0.0901	0.0906	Ave		0.0856				6.9		15.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.3927 0.2716	0.3453	0.3143	0.3129	0.2934	Ave		0.3217				13.0		15.0			
2-Chloro-1,1,1-Trifluoroethane	0.4640 0.3265	0.4209	0.3771	0.3705	0.3472	Ave		0.3844				13.0		15.0			
Ethylene oxide	0.0081 0.0051	0.0075	0.0060	0.0065	0.0062	Lin2	0.4923	0.0058							0.9910		0.9900
Ethanol	0.3522 0.2176	0.3136	0.2383	0.2304	0.2305	Lin2	7.0495	0.2203							0.9950		0.9900
1,2-Dichloro-1,1,2-trifluoroethane	0.3994 0.2996	0.3564	0.3182	0.3241	0.3113	Ave		0.3348				11.0		15.0			
2,2-Dichloro-1,1,1-trifluoroethane	0.7127 0.5412	0.6458	0.5746	0.5929	0.5665	Ave		0.6056				10.0		15.0			
Propene oxide	0.0174 0.0199	0.0180	0.0155	0.0186	0.0193	Ave		0.0181				8.6		15.0			
2-Propanol	1.8189 1.1134	1.4649	1.1321	1.2198	1.1572	Lin2	7.1015	1.0987							0.9960		0.9900
Acetonitrile	0.0259 0.0154	0.0220	0.0167	0.0166	0.0164	Lin2	0.1072	0.0155							0.9970		0.9900
Isopropyl ether	0.2542 0.2224	0.2286	0.2001	0.2216	0.2292	Ave		0.2260				7.7		15.0			
Chloroprene	0.7447 0.6308	0.7087	0.6025	0.6420	0.6641	Ave		0.6655				7.9		15.0			
Tert-butyl ethyl ether	0.8438 0.7186	0.7570	0.6472	0.7121	0.7315	Ave		0.7350				8.8		15.0			
Ethyl acetate	0.1226 0.0708	0.0933	0.0716	0.0779	0.0746	Lin2	0.1026	0.0693							0.9940		0.9900
Propionitrile	0.0188 0.0136	0.0175	0.0139	0.0148	0.0142	Ave		0.0155				14.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 15:56 Calibration End Date: 08/16/2013 17:42 Calibration ID: 15174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methacrylonitrile	0.1006 0.0767	0.0916	0.0790	0.0837	0.0815	Ave		0.0855				11.0		15.0			
Tert-amyl methyl ether	0.5017 0.5064	0.4477	0.4032	0.4587	0.4991	Ave		0.4695				8.7		15.0			
n-Butanol	1.5047 0.4657	0.9556	0.5836	0.5580	0.4894	Lin2	26.470	0.4331							0.9920		0.9900
Methyl methacrylate	0.0288 0.0291	0.0229	0.0217	0.0255	0.0292	Ave		0.0262				13.0		15.0			
2-Nitropropane	0.0487 0.0299	0.0386	0.0327	0.0334	0.0315	Lin2	0.0361	0.0303							0.9980		0.9900
Tetrahydrothiophene	0.3139 0.3820	0.3254	0.2722	0.3416	0.3767	Ave		0.3353				12.0		15.0			
cis-1,4-Dichloro-2-butene	0.2187 0.1654	0.1767	0.1463	0.1642	0.1688	Ave		0.1734				14.0		15.0			
1,2,3-Trimethylbenzene	5.4842 4.2419	5.0252	4.5168	4.8838	4.8988	Ave		4.8418				8.8		15.0			
1,3,5-Trichlorobenzene	2.3093 1.7624	2.1641	1.7591	1.9837	2.0058	Ave		1.9974				11.0		15.0			
Dibromofluoromethane (Surr)	0.5504 0.2518	0.4111	0.3044	0.2923	0.2716	Lin2	0.2975	0.2552							0.9990		0.9900
1,2-Dichloroethane-d4 (Surr)	0.5313 0.2433	0.3982	0.2964	0.2894	0.2641	Lin2	0.2843	0.2494							0.9980		0.9900
Toluene-d8 (Surr)	9.7144 5.4396	7.9568	6.3384	6.6406	6.1039	Lin2	3.9796	5.8053							0.9960		0.9900
4-Bromofluorobenzene (Surr)	1.7866 1.3698	1.5673	1.4210	1.5079	1.5147	Ave		1.5279				9.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 15:56 Calibration End Date: 08/16/2013 17:42 Calibration ID: 15174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 280-187554/16	MS6054.D
Level 2	STD02 280-187554/17	MS6055.D
Level 3	STD05 280-187554/18	MS6056.D
Level 4	ICIS 280-187554/19	MS6057.D
Level 5	STD30 280-187554/20	MS6058.D
Level 6	STD60 280-187554/21	MS6059.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Chlorotrifluoroethene	FB	Ave	11362 829431	21197	57607	122666	390821	1.00 60.0	2.00	5.00	10.0	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroeth ane	FB	Ave	55888 2448827	90898	225213	425954	1265806	1.00 60.0	2.00	5.00	10.0	30.0
2-Chloro-1,1,1-Trifluoroethane	FB	Ave	66044 2943699	110784	270205	504279	1497808	1.00 60.0	2.00	5.00	10.0	30.0
Ethylene oxide	FB	Lin2	229576 9286572	393678	866800	1757014	5368229	200 12000	400	1000	2000	6000
Ethanol	TBA	Lin2	14457 616390	24993	50715	94978	303998	50.0 3000	100	250	500	1500
1,2-Dichloro-1,1,2-trifluoroethane	FB	Ave	56837 2701834	93807	228002	441177	1343013	1.00 60.0	2.00	5.00	10.0	30.0
2,2-Dichloro-1,1,1-trifluoroethane	FB	Ave	101438 4880218	169993	411785	807058	2444104	1.00 60.0	2.00	5.00	10.0	30.0
Propene oxide	FB	Ave	123642 8950616	236913	555653	1265202	4167801	50.0 3000	100	250	500	1500
2-Propanol	TBA	Lin2	14931 630660	23348	48193	100557	305273	10.0 600	20.0	50.0	100	300
Acetonitrile	FB	Lin2	36817 1388952	57854	119867	225798	706797	10.0 600	20.0	50.0	100	300
Isopropyl ether	FB	Ave	36176 2005001	60175	143414	301598	988839	1.00 60.0	2.00	5.00	10.0	30.0
Chloroprene	FB	Ave	105990 5688300	186545	431729	873801	2864945	1.00 60.0	2.00	5.00	10.0	30.0
Tert-butyl ethyl ether	FB	Ave	120088 6479912	199259	463752	969284	3155886	1.00 60.0	2.00	5.00	10.0	30.0
Ethyl acetate	FB	Lin2	34885 1276652	49109	102596	212184	643748	2.00 120	4.00	10.0	20.0	60.0
Propionitrile	FB	Ave	26798 1229487	45935	99457	201671	610470	10.0 600	20.0	50.0	100	300
Methacrylonitrile	FB	Ave	143165 6913878	241202	565985	1139427	3517520	10.0 600	20.0	50.0	100	300

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-45380-1 Analy Batch No.: 187554

SDG No.:

Instrument ID: VMS_MS1 GC Column: DB-624 (60.2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2013 15:56 Calibration End Date: 08/16/2013 17:42 Calibration ID: 15174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Tert-amyl methyl ether	FB	Ave	71408 4566614	117839	288934	624316	2153175	1.00 60.0	2.00	5.00	10.0	30.0
n-Butanol	TBA	Lin2	30879 659499	38075	62115	115013	322788	25.0 1500	50.0	125	250	750
Methyl methacrylate	FB	Ave	8197 525184	12053	31132	69510	252160	2.00 120	4.00	10.0	20.0	60.0
2-Nitropropane	FB	Lin2	13869 540070	20336	46855	91020	271939	2.00 120	4.00	10.0	20.0	60.0
Tetrahydrothiophene	CBZ	Ave	8966 688031	16353	39107	87522	322886	1.00 60.0	2.00	5.00	10.0	30.0
cis-1,4-Dichloro-2-butene	DCB	Ave	7716 408383	11725	26784	56042	193551	1.00 60.0	2.00	5.00	10.0	30.0
1,2,3-Trimethylbenzene	DCB	Ave	193483 10470920	333369	826971	1666809	5618696	1.00 60.0	2.00	5.00	10.0	30.0
1,3,5-Trichlorobenzene	DCB	Ave	81471 4350476	143564	322066	677034	2300552	1.00 60.0	2.00	5.00	10.0	30.0
Dibromofluoromethane (Surr)	FB	Lin2	78335 2270784	108220	218159	397789	1171804	1.00 60.0	2.00	5.00	10.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Lin2	75619 2193578	104805	212414	393887	1139271	1.00 60.0	2.00	5.00	10.0	30.0
Toluene-d8 (Surr)	CBZ	Lin2	277473 9796873	399831	910645	1701510	5232595	1.00 60.0	2.00	5.00	10.0	30.0
4-Bromofluorobenzene (Surr)	DCB	Ave	63031 3381204	103975	260170	514652	1737355	1.00 60.0	2.00	5.00	10.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6054.D
Lims ID: std01 Client ID:
Inject. Date: 16-Aug-2013 15:56:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 2
Sample ID: std01
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 13
Lims Batch ID: 187554 Lims Sample ID: 16
Sublist: chrom-AQ_VMS1_8260*sub61
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:27 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:43:34

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	205222	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1779011	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	16858	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	88	357038	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	441003	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	52	78335	0.99	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	99	75619	0.99	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	84	277473	0.9879	
$ 8 4-Bromofluorobenzene (Surr)	95	11.469	11.469	0.0	79	63031	1.17	
144 n-Butyl acetate	43		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
22 Chlorotrifluoroethene	116	4.499	4.513	-0.014	37	11362	0.9329	
25 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.737	4.723	0.014	84	55888	1.22	
23 2-Chloro-1,1,1-Trifluoroethane	118	4.988	4.988	0.0	1	66044	1.21	
28 Ethylene oxide	43	5.268	5.268	0.0	100	229576	192.9	
34 Ethanol	45	5.659	5.714	-0.055	82	14457	47.9	
35 1,2-Dichloro-1,1,2-trifluoroetha	117	5.784	5.784	0.0	76	56837	1.19	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.826	5.826	0.0	74	101438	1.18	
38 Propene oxide	58	5.924	5.924	0.0	94	123642	48.0	
41 Isopropyl alcohol	45	6.078	6.078	0.0	44	14931	10.1	
44 Acetonitrile	41	6.287	6.287	0.0	98	36817	9.76	
56 Isopropyl ether	87	6.957	6.957	0.0	92	36176	1.12	
58 2-Chloro-1,3-butadiene	53	7.083	7.083	0.0	82	105990	1.12	
59 Tert-butyl ethyl ether	59	7.237	7.237	0.0	96	120088	1.15	
60 Ethyl acetate	43	7.362	7.362	0.0	88	34885	2.06	
63 Propionitrile	54	7.418	7.418	0.0	87	26798	12.2	
66 Methacrylonitrile	41	7.544	7.544	0.0	97	143165	11.8	
76 Tert-amyl methyl ether	73	8.131	8.145	-0.014	87	71408	1.07	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
78 n-Butanol	56	8.312	8.312	0.0	24	30879	25.7	
81 Methyl methacrylate	100	8.703	8.689	0.014	82	8197	2.20	
87 2-Nitropropane	41	9.038	9.038	0.0	76	13869	2.03	
99 Tetrahydrothiophene	60	10.170	10.156	0.014	60	8966	0.9362	
110 cis-1,4-Dichloro-2-butene	53	11.315	11.315	0.0	0	7716	1.26	
125 1,2,3-Trimethylbenzene	105	12.530	12.530	0.0	98	193483	1.13	
21 1,3,5-Trichlorobenzene	180	13.982	13.982	0.0	93	81471	1.16	

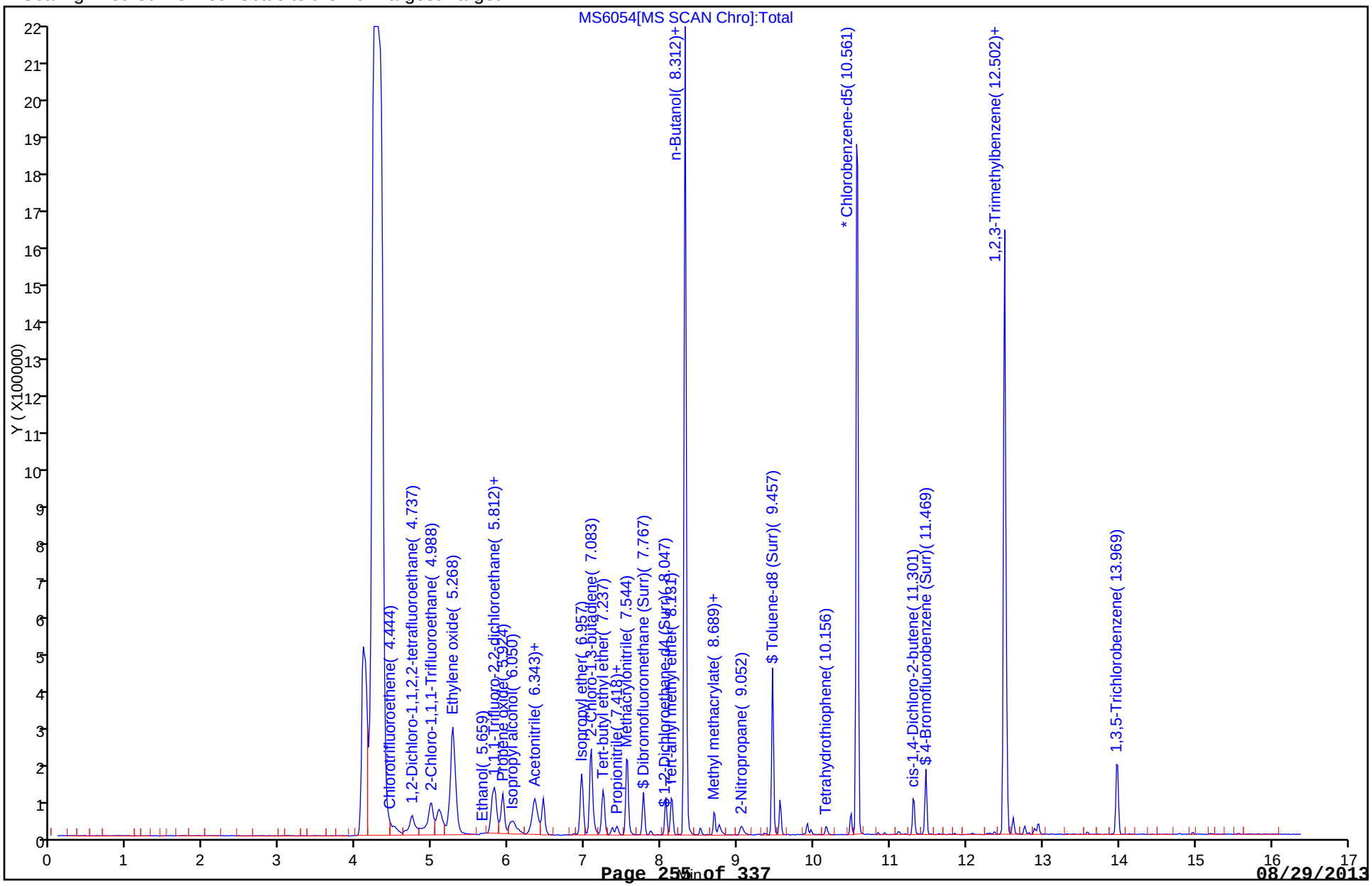
Report Date: 20-Aug-2013 08:24:27 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6054.D

Injection Date:	16-Aug-2013 15:56:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	16
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6055.D
Lims ID: std02 Client ID:
Inject. Date: 16-Aug-2013 16:17:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 3
Sample ID: std02
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 14
Lims Batch ID: 187554 Lims Sample ID: 17
Sublist: chrom-AQ_VMS1_8260*sub61
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:27 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:44:22

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	199229	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1645154	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	16904	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	-0.001	88	314063	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	414620	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	53	108220	2.06	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	100	104805	2.05	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	94	399831	2.06	
$ 8 4-Bromofluorobenzene (Surr)	95	11.468	11.469	-0.001	80	103975	2.05	
144 n-Butyl acetate	43		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
22 Chlorotrifluoroethene	116	4.499	4.513	-0.014	62	21197	1.88	
25 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.737	4.723	0.014	88	90898	2.15	
23 2-Chloro-1,1,1-Trifluoroethane	118	4.988	4.988	0.0	2	110784	2.19	
28 Ethylene oxide	43	5.267	5.268	-0.001	99	393678	430.1	
34 Ethanol	45	5.686	5.714	-0.028	91	24993	110.4	M
35 1,2-Dichloro-1,1,2-trifluoroetha	117	5.784	5.784	0.0	79	93807	2.13	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.812	5.826	-0.014	76	169993	2.13	
38 Propene oxide	58	5.924	5.924	0.0	95	236913	99.4	
41 Isopropyl alcohol	45	6.077	6.078	-0.001	37	23348	20.2	
44 Acetonitrile	41	6.287	6.287	0.0	98	57854	21.4	
56 Isopropyl ether	87	6.957	6.957	0.0	92	60175	2.02	
58 2-Chloro-1,3-butadiene	53	7.083	7.083	0.0	91	186545	2.13	
59 Tert-butyl ethyl ether	59	7.237	7.237	0.0	96	199259	2.06	
60 Ethyl acetate	43	7.348	7.362	-0.014	94	49109	3.90	
63 Propionitrile	54	7.418	7.418	0.0	94	45935	22.6	
66 Methacrylonitrile	41	7.544	7.544	0.0	97	241202	21.4	
76 Tert-amyl methyl ether	73	8.130	8.145	-0.015	90	117839	1.91	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
78 n-Butanol	56	8.312	8.312	0.0	24	38075	49.2	
81 Methyl methacrylate	100	8.689	8.689	0.0	87	12053	3.49	
87 2-Nitropropane	41	9.038	9.038	0.0	83	20336	3.91	
99 Tetrahydrothiophene	60	10.156	10.156	0.0	75	16353	1.94	
110 cis-1,4-Dichloro-2-butene	53	11.315	11.315	0.0	0	11725	2.04	
125 1,2,3-Trimethylbenzene	105	12.530	12.530	0.0	98	333369	2.08	
21 1,3,5-Trichlorobenzene	180	13.982	13.982	0.0	95	143564	2.17	

QC Flag Legend

Review Flags
M - Manually Integrated

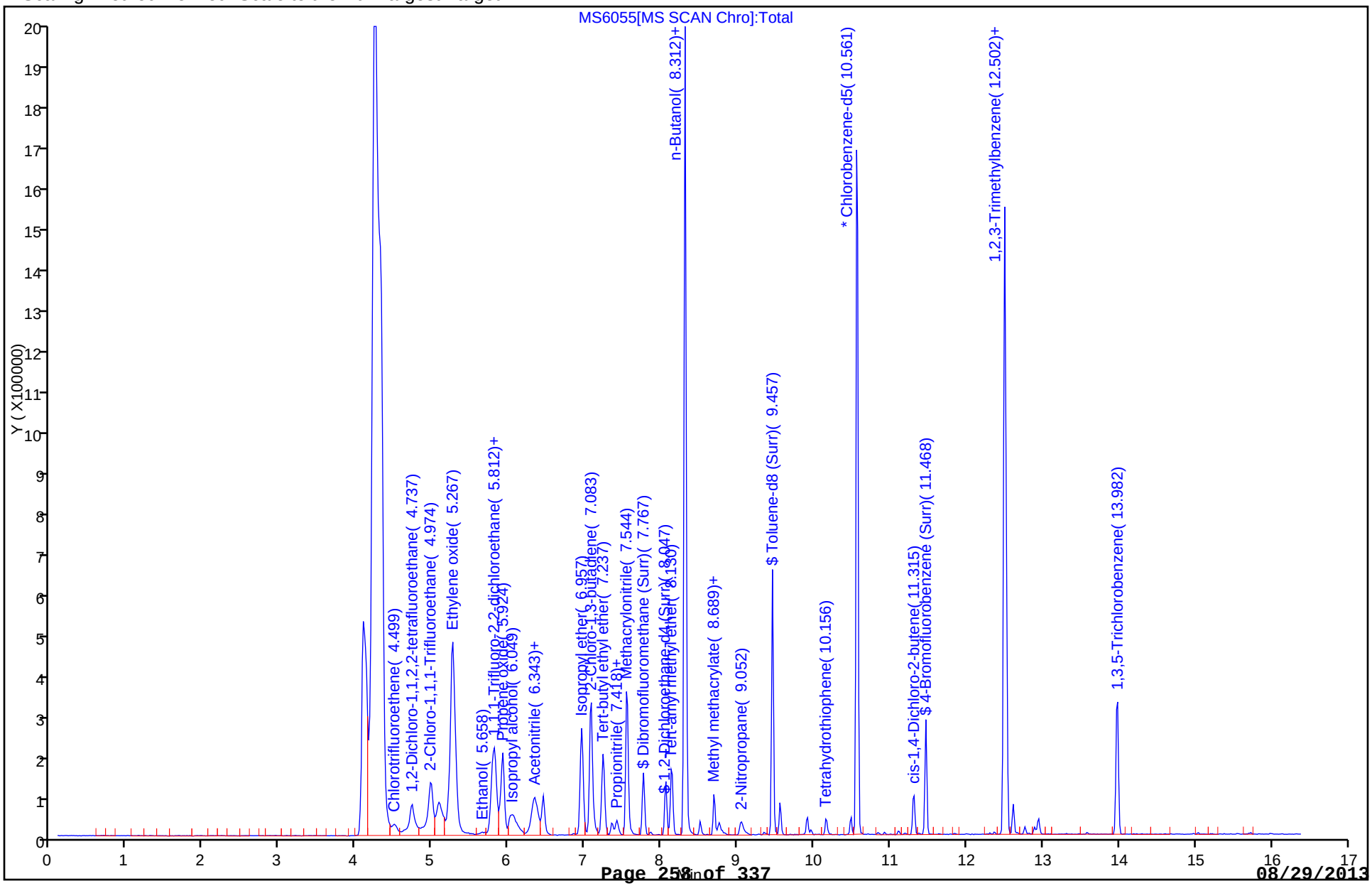
Report Date: 20-Aug-2013 08:24:27 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6055.D

Injection Date:	16-Aug-2013 16:17:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	17
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

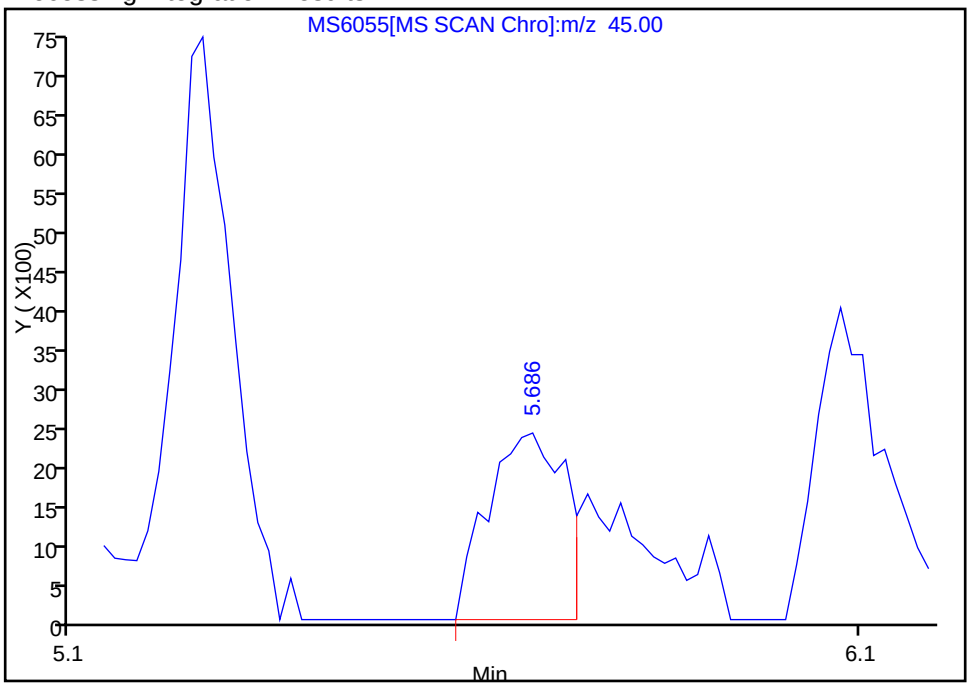
Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6055.D

Injection Date:	16-Aug-2013 16:17:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	17
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

34 Ethanol, Signal: 1, m/z: 45.0 Type: quant, RT: 5.71

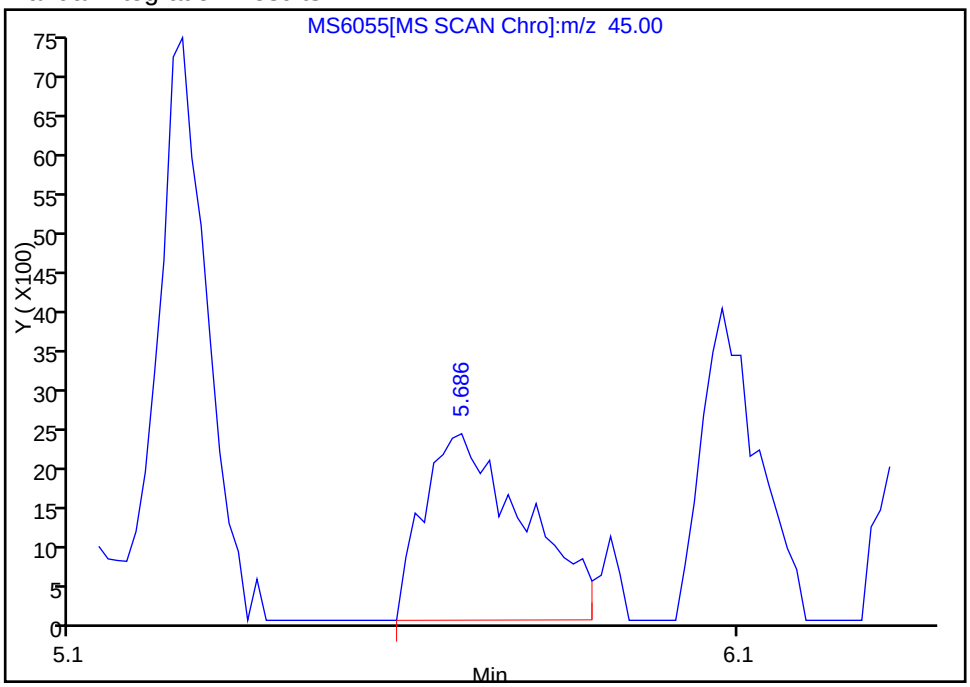
Processing Integration Results

RT: 5.69
Response: 16377
Amount: 204.5527



Manual Integration Results

RT: 5.69
Response: 24993
Amount: 110.3601



Reviewer: wickhamt, 20-Aug-2013 07:44:22
Audit Action: Assigned New Baseline
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6056.D
Lims ID: std05 Client ID:
Inject. Date: 16-Aug-2013 16:38:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 4
Sample ID: std05
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 15
Lims Batch ID: 187554 Lims Sample ID: 18
Sublist: chrom-AQ_VMS1_8260*sub61
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:27 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:45:09

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	212855	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1791506	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	17819	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	88	359178	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	457720	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	64	218159	4.80	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	99	212414	4.80	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	95	910645	4.77	
$ 8 4-Bromofluorobenzene (Surr)	95	11.469	11.469	0.0	82	260170	4.65	
144 n-Butyl acetate	43		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
22 Chlorotrifluoroethene	116	4.513	4.513	0.0	83	57607	4.70	
25 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.737	4.723	0.014	95	225213	4.88	
23 2-Chloro-1,1,1-Trifluoroethane	118	4.988	4.988	0.0	3	270205	4.91	
28 Ethylene oxide	43	5.268	5.268	0.0	100	866800	956.1	
34 Ethanol	45	5.700	5.714	-0.014	93	50715	238.4	M
35 1,2-Dichloro-1,1,2-trifluoroetha	117	5.784	5.784	0.0	77	228002	4.75	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.812	5.826	-0.014	79	411785	4.74	
38 Propene oxide	58	5.924	5.924	0.0	95	555653	214.1	
41 Isopropyl alcohol	45	6.078	6.078	0.0	57	48193	45.1	
44 Acetonitrile	41	6.287	6.287	0.0	99	119867	47.0	
56 Isopropyl ether	87	6.957	6.957	0.0	93	143414	4.43	
58 2-Chloro-1,3-butadiene	53	7.083	7.083	0.0	92	431729	4.53	
59 Tert-butyl ethyl ether	59	7.237	7.237	0.0	97	463752	4.40	
60 Ethyl acetate	43	7.348	7.362	-0.014	94	102596	8.85	
63 Propionitrile	54	7.418	7.418	0.0	98	99457	44.9	
66 Methacrylonitrile	41	7.544	7.544	0.0	97	565985	46.2	
76 Tert-amyl methyl ether	73	8.131	8.145	-0.014	90	288934	4.29	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
78 n-Butanol	56	8.312	8.312	0.0	25	62115	107.3	
81 Methyl methacrylate	100	8.689	8.689	0.0	88	31132	8.29	
87 2-Nitropropane	41	9.038	9.038	0.0	98	46855	9.61	
99 Tetrahydrothiophene	60	10.156	10.156	0.0	90	39107	4.06	
110 cis-1,4-Dichloro-2-butene	53	11.315	11.315	0.0	0	26784	4.22	
125 1,2,3-Trimethylbenzene	105	12.530	12.530	0.0	99	826971	4.66	
21 1,3,5-Trichlorobenzene	180	13.982	13.982	0.0	95	322066	4.40	

QC Flag Legend

Review Flags
M - Manually Integrated

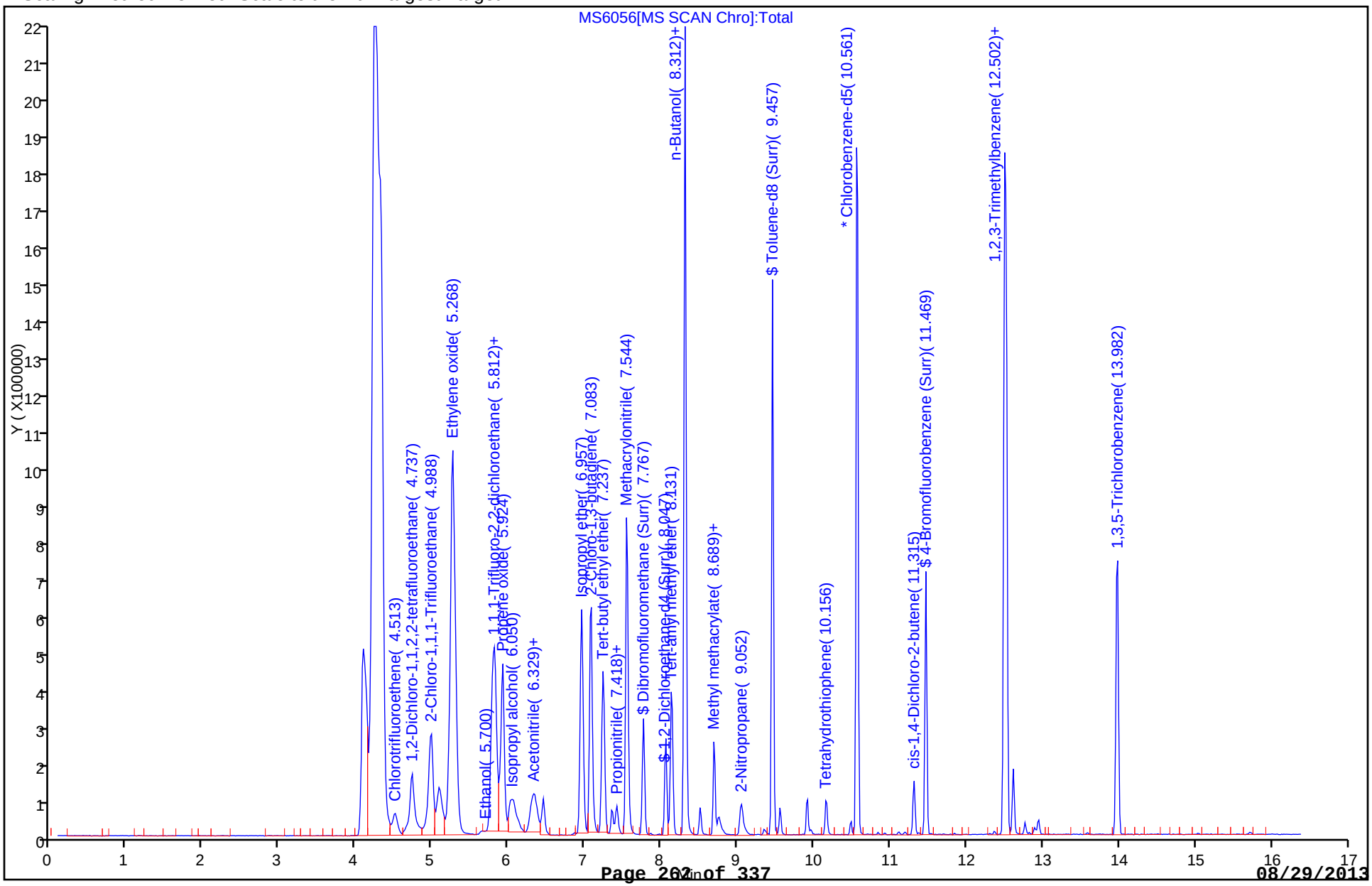
Report Date: 20-Aug-2013 08:24:28 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6056.D

Injection Date:	16-Aug-2013 16:38:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	18
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



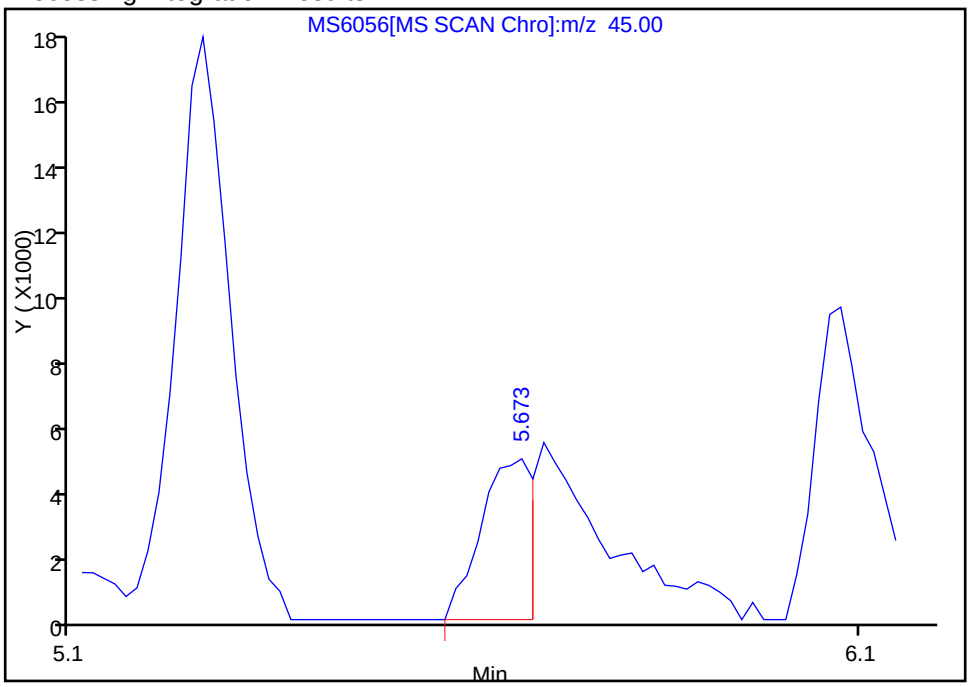
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6056.D		
Injection Date:	16-Aug-2013 16:38:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	18
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

34 Ethanol, Signal: 1, m/z: 45.0 Type: quant, RT: 5.71

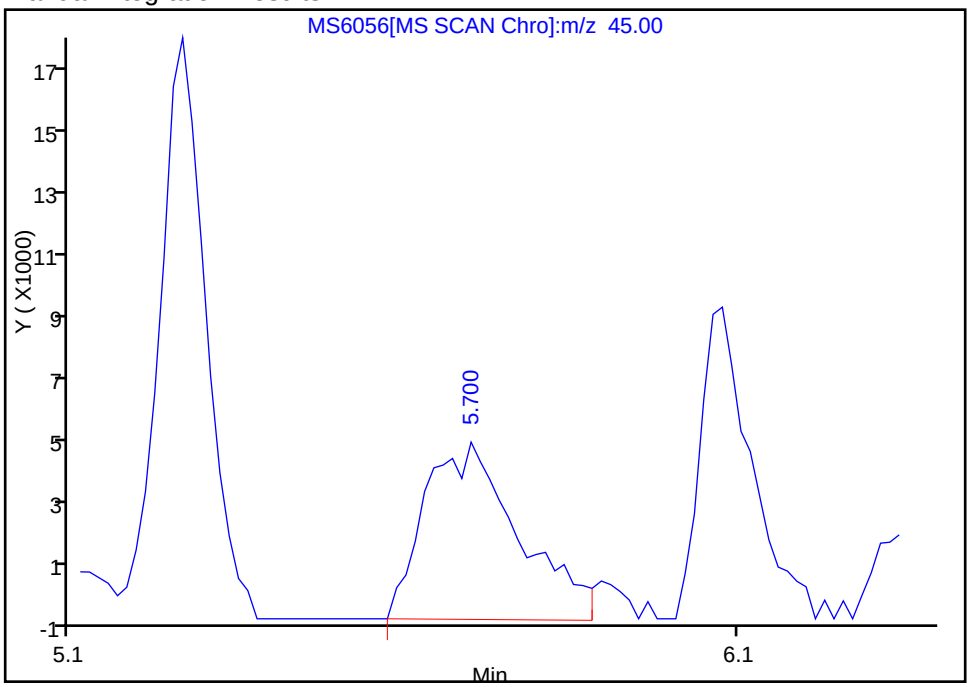
Processing Integration Results

RT: 5.67
Response: 21706
Amount: 102.1549



Manual Integration Results

RT: 5.70
Response: 50715
Amount: 238.3795



Reviewer: wickhamt, 20-Aug-2013 07:45:09
Audit Action: Assigned New Baseline
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6057.D
Lims ID: icis Client ID:
Inject. Date: 16-Aug-2013 16:59:30 Dil. Factor: 1.0000
Sample Type: ICIS Calib Level: 5
Sample ID: icis
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 16
Lims Batch ID: 187554 Lims Sample ID: 19
Sublist: chrom-AQ_VMS1_8260*sub61
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:28 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:42:21

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	206099	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1701403	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	17003	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	88	320284	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	426620	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	57	397789	10.3	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	99	393887	10.5	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	95	1701510	10.8	
$ 8 4-Bromofluorobenzene (Surr)	95	11.469	11.469	0.0	82	514652	9.87	
144 n-Butyl acetate	43		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
22 Chlorotrifluoroethene	116	4.513	4.513	0.0	85	122666	10.5	
25 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.723	4.723	0.0	95	425954	9.73	
23 2-Chloro-1,1,1-Trifluoroethane	118	4.988	4.988	0.0	7	504279	9.64	
28 Ethylene oxide	43	5.268	5.268	0.0	100	1757014	2136.9	
34 Ethanol	45	5.714	5.714	0.0	92	94978	491.0	M
35 1,2-Dichloro-1,1,2-trifluoroetha	117	5.784	5.784	0.0	79	441177	9.68	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.826	5.826	0.0	82	807058	9.79	
38 Propene oxide	58	5.924	5.924	0.0	95	1265202	513.3	
41 Isopropyl alcohol	45	6.078	6.078	0.0	62	100557	104.6	
44 Acetonitrile	41	6.287	6.287	0.0	100	225798	100.0	
56 Isopropyl ether	87	6.957	6.957	0.0	93	301598	9.80	
58 2-Chloro-1,3-butadiene	53	7.083	7.083	0.0	92	873801	9.65	
59 Tert-butyl ethyl ether	59	7.237	7.237	0.0	98	969284	9.69	
60 Ethyl acetate	43	7.362	7.362	0.0	98	212184	21.0	
63 Propionitrile	54	7.418	7.418	0.0	96	201671	95.8	
66 Methacrylonitrile	41	7.544	7.544	0.0	97	1139427	97.9	
76 Tert-amyl methyl ether	73	8.145	8.145	0.0	91	624316	9.77	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
78 n-Butanol	56	8.312	8.312	0.0	27	115013	261.0	
81 Methyl methacrylate	100	8.689	8.689	0.0	89	69510	19.5	
87 2-Nitropropane	41	9.038	9.038	0.0	100	91020	20.9	
99 Tetrahydrothiophene	60	10.156	10.156	0.0	94	87522	10.2	
110 cis-1,4-Dichloro-2-butene	53	11.315	11.315	0.0	0	56042	9.47	
125 1,2,3-Trimethylbenzene	105	12.530	12.530	0.0	99	1666809	10.1	
21 1,3,5-Trichlorobenzene	180	13.982	13.982	0.0	92	677034	9.93	

QC Flag Legend

Review Flags
M - Manually Integrated

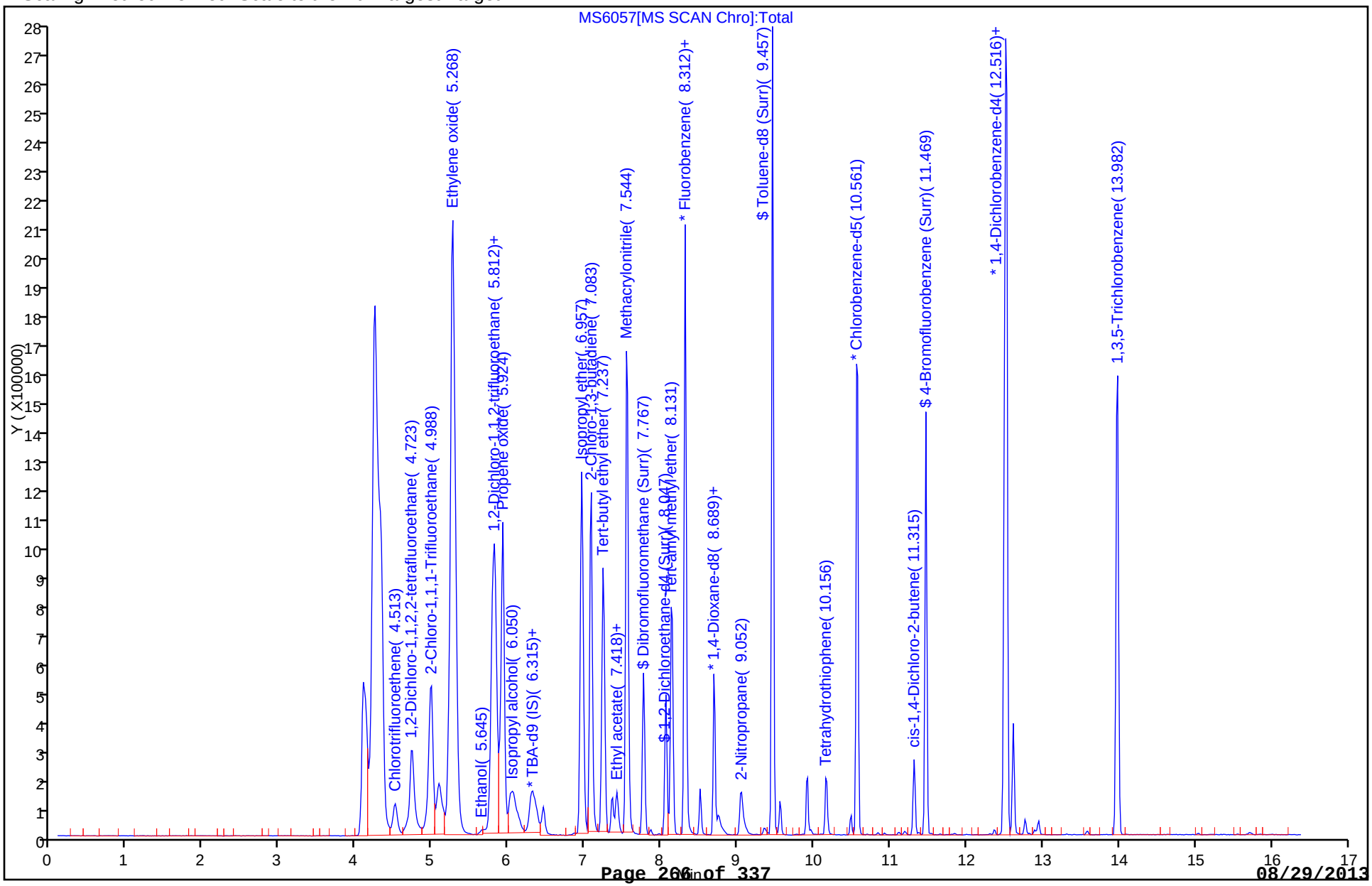
Report Date: 20-Aug-2013 08:24:28 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6057.D

Injection Date:	16-Aug-2013 16:59:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	19
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



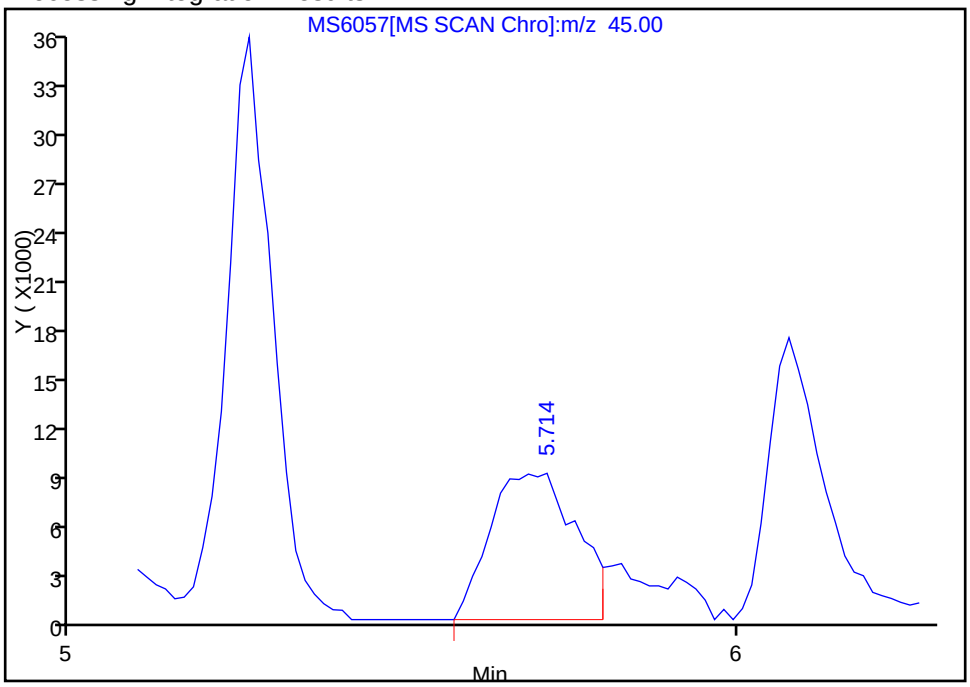
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6057.D		
Injection Date:	16-Aug-2013 16:59:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	19
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

34 Ethanol, Signal: 1, m/z: 45.0 Type: quant, RT: 5.71

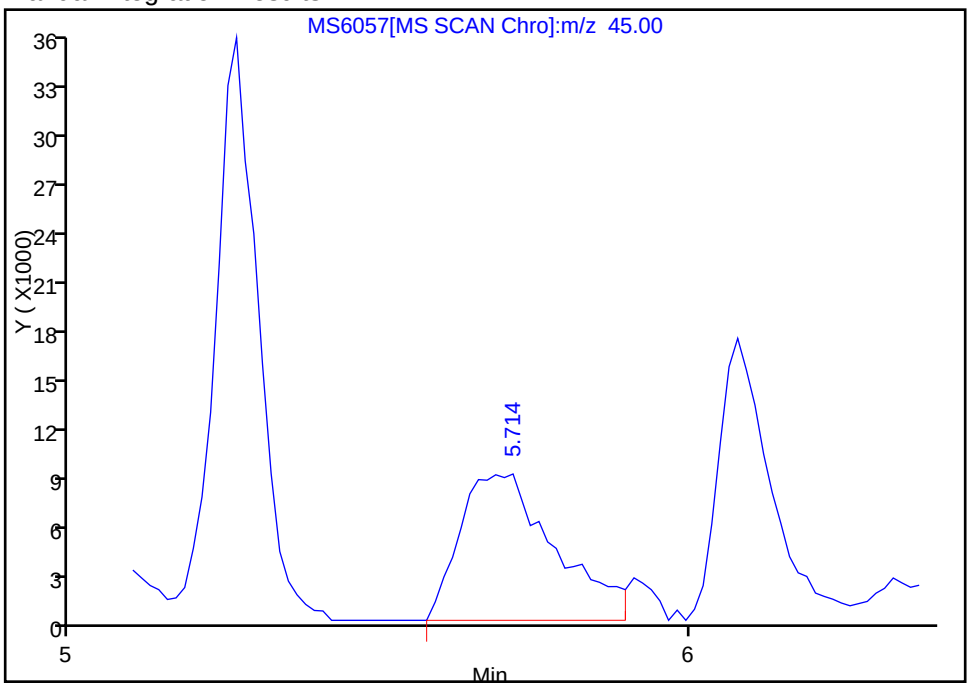
Processing Integration Results

RT: 5.71
Response: 80399
Amount: 384.7743



Manual Integration Results

RT: 5.71
Response: 94978
Amount: 490.9588



Reviewer: wickhamt, 20-Aug-2013 07:42:21
Audit Action: Assigned New Baseline
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6058.D
Lims ID: std30 Client ID:
Inject. Date: 16-Aug-2013 17:20:30 Dil. Factor: 1.0000
Sample Type: IC Calib Level: 6
Sample ID: std30
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 17
Lims Batch ID: 187554 Lims Sample ID: 20
Sublist: chrom-AQ_VMS1_8260*sub61
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:28 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:54:02

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	219833	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1797602	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	19628	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	88	357188	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	477901	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	65	1171804	30.8	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	99	1139271	30.6	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	95	5232595	30.9	
$ 8 4-Bromofluorobenzene (Surr)	95	11.468	11.469	-0.001	83	1737355	29.7	
144 n-Butyl acetate	43		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
22 Chlorotrifluoroethene	116	4.513	4.513	0.0	91	390821	31.8	
25 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.723	4.723	0.0	96	1265806	27.4	
23 2-Chloro-1,1,1-Trifluoroethane	118	4.988	4.988	0.0	26	1497808	27.1	
28 Ethylene oxide	43	5.253	5.268	-0.015	100	5368229	6339.7	
34 Ethanol	45	5.658	5.714	-0.056	94	303998	1537.3	
35 1,2-Dichloro-1,1,2-trifluoroetha	117	5.784	5.784	0.0	80	1343013	27.9	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.812	5.826	-0.014	80	2444104	28.1	
38 Propene oxide	58	5.924	5.924	0.0	95	4167801	1600.5	
41 Isopropyl alcohol	45	6.063	6.078	-0.015	82	305273	309.5	
44 Acetonitrile	41	6.287	6.287	0.0	99	706797	309.8	
56 Isopropyl ether	87	6.957	6.957	0.0	94	988839	30.4	
58 2-Chloro-1,3-butadiene	53	7.083	7.083	0.0	93	2864945	29.9	
59 Tert-butyl ethyl ether	59	7.237	7.237	0.0	98	3155886	29.9	
60 Ethyl acetate	43	7.348	7.362	-0.014	99	643748	63.1	
63 Propionitrile	54	7.418	7.418	0.0	97	610470	274.6	
66 Methacrylonitrile	41	7.544	7.544	0.0	97	3517520	286.0	
76 Tert-amyl methyl ether	73	8.130	8.145	-0.015	93	2153175	31.9	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
78 n-Butanol	56	8.312	8.312	0.0	33	322788	786.5	
81 Methyl methacrylate	100	8.689	8.689	0.0	89	252160	66.9	
87 2-Nitropropane	41	9.038	9.038	0.0	99	271939	61.3	
99 Tetrahydrothiophene	60	10.156	10.156	0.0	95	322886	33.7	
110 cis-1,4-Dichloro-2-butene	53	11.315	11.315	0.0	0	193551	29.2	
125 1,2,3-Trimethylbenzene	105	12.530	12.530	0.0	99	5618696	30.4	
21 1,3,5-Trichlorobenzene	180	13.982	13.982	0.0	92	2300552	30.1	

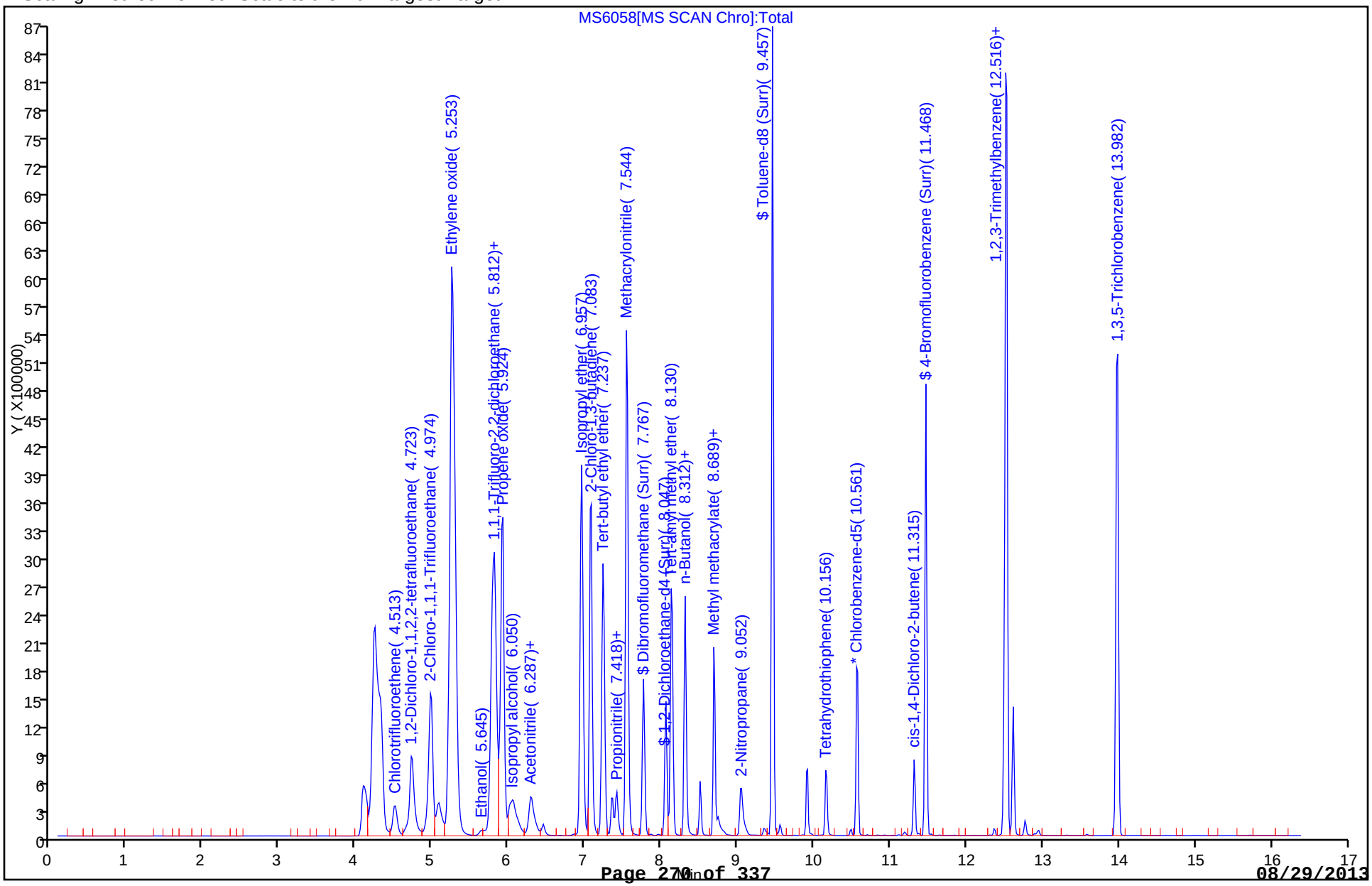
Report Date: 20-Aug-2013 08:24:29 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6058.D

Injection Date:	16-Aug-2013 17:20:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	20
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D		
Lims ID:	std60	Client ID:	
Inject. Date:	16-Aug-2013 17:42:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	7
Sample ID:	std60		
Misc. Info.:			
Operator:	wickhamt	Instrument ID:	VMS_MS1
Purge Vol:	5.000 mL	ALS Bottle#:	18
Lims Batch ID:	187554	Lims Sample ID:	21
Sublist:	chrom-AQ_VMS1_8260*sub61		
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m		
Last Update:	20-Aug-2013 08:24:29	Calib Date:	16-Aug-2013 17:42:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: wickhamt		Date:	20-Aug-2013 07:54:22

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.329	6.343	-0.014	0	236009	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1878569	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	20748	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	88	375216	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	96	514257	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	68	2270784	58.0	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	100	2193578	57.4	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	95	9796873	55.5	
$ 8 4-Bromofluorobenzene (Surr)	95	11.469	11.469	0.0	84	3381204	53.8	
144 n-Butyl acetate	43		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
22 Chlorotrifluoroethene	116	4.513	4.513	0.0	91	829431	64.5	
25 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.723	4.723	0.0	96	2448827	50.7	
23 2-Chloro-1,1,1-Trifluoroethane	118	4.974	4.988	-0.014	25	2943699	51.0	
28 Ethylene oxide	43	5.254	5.268	-0.014	99	9286572	10550	
34 Ethanol	45	5.645	5.714	-0.069	94	616390	2931.8	
35 1,2-Dichloro-1,1,2-trifluoroetha	117	5.784	5.784	0.0	80	2701834	53.7	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.812	5.826	-0.014	80	4880218	53.6	
38 Propene oxide	58	5.910	5.924	-0.014	95	8950616	3289.0	
41 Isopropyl alcohol	45	6.064	6.078	-0.014	89	630660	601.5	
44 Acetonitrile	41	6.287	6.287	0.0	100	1388952	588.6	
56 Isopropyl ether	87	6.957	6.957	0.0	94	2005001	59.0	
58 2-Chloro-1,3-butadiene	53	7.069	7.083	-0.014	92	5688300	56.9	
59 Tert-butyl ethyl ether	59	7.237	7.237	0.0	98	6479912	58.7	
60 Ethyl acetate	43	7.348	7.362	-0.014	100	1276652	121.1	
63 Propionitrile	54	7.418	7.418	0.0	97	1229487	529.2	
66 Methacrylonitrile	41	7.544	7.544	0.0	96	6913878	537.9	
76 Tert-amyl methyl ether	73	8.131	8.145	-0.014	94	4566614	64.7	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
78 n-Butanol	56	8.312	8.312	0.0	43	659499	1552.1	
81 Methyl methacrylate	100	8.689	8.689	0.0	90	525184	133.3	
87 2-Nitropropane	41	9.038	9.038	0.0	97	540070	117.6	
99 Tetrahydrothiophene	60	10.156	10.156	0.0	96	688031	68.4	
110 cis-1,4-Dichloro-2-butene	53	11.315	11.315	0.0	0	408383	57.3	
125 1,2,3-Trimethylbenzene	105	12.530	12.530	0.0	98	10470920	52.6	
21 1,3,5-Trichlorobenzene	180	13.982	13.982	0.0	93	4350476	52.9	

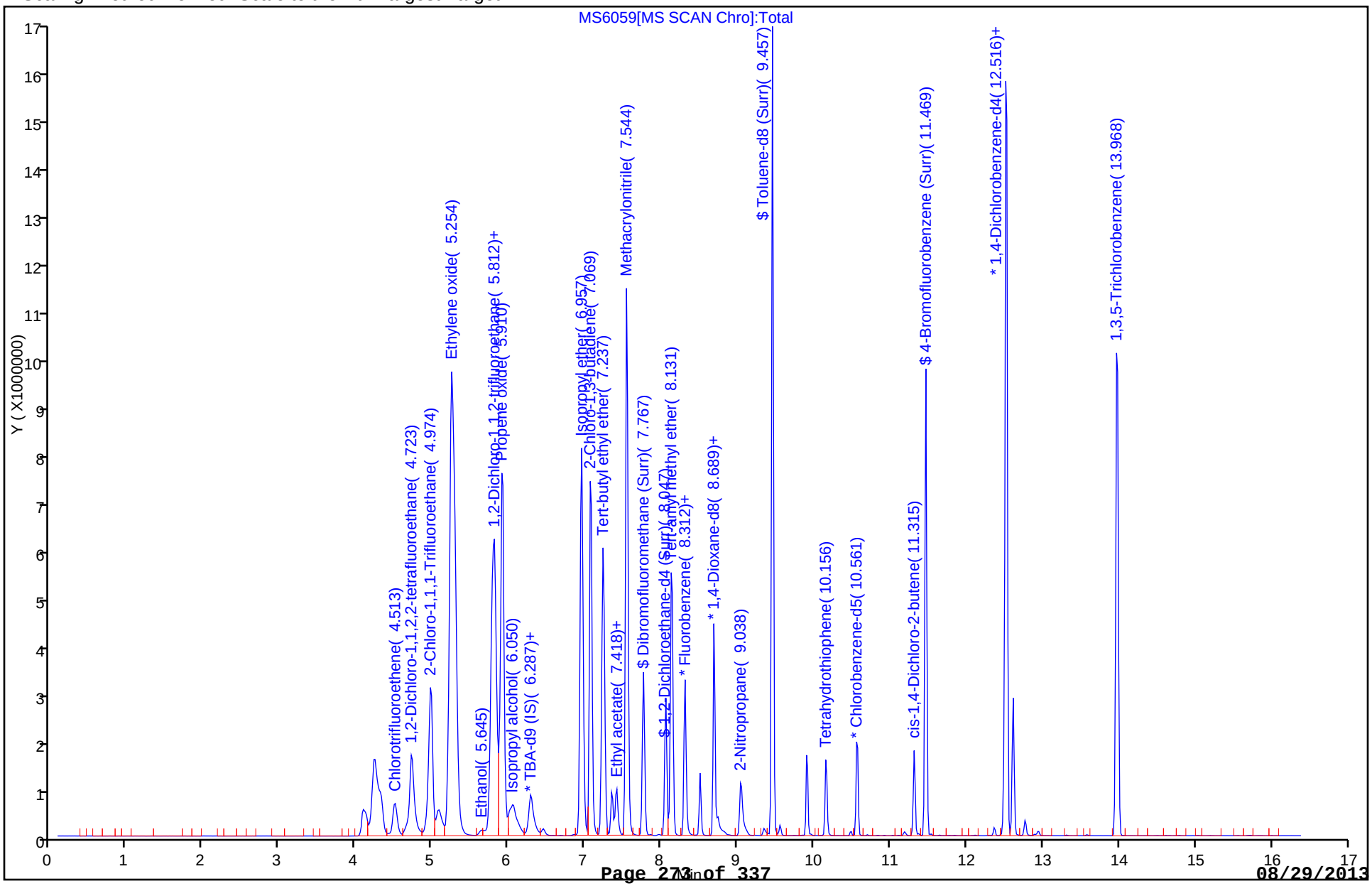
Report Date: 20-Aug-2013 08:24:31 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D

Injection Date:	16-Aug-2013 17:42:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	21
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: ICV 280-187554/15 Calibration Date: 08/16/2013 15:14

Instrument ID: VMS_MS1 Calib Start Date: 08/16/2013 12:26

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 14:32

Lab File ID: MS6052.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4574	0.3886		0.00850	0.0100	-15.0	55.0
Chloromethane	Ave	0.6112	0.4837	0.1000	0.00791	0.0100	-20.9	35.0
Vinyl chloride	Ave	0.5393	0.4361		0.00809	0.0100	-19.1	20.0
Bromomethane	Ave	0.3304	0.2717		0.00822	0.0100	-17.8	35.0
Chloroethane	Ave	0.3400	0.2855		0.00840	0.0100	-16.0	35.0
Trichlorofluoromethane	Ave	0.6395	0.5284		0.00826	0.0100	-17.4	50.0
Acetone	Lin1		0.0342		0.0396	0.0400	-0.9	55.0
1,1-Dichloroethene	Ave	0.3310	0.3341		0.0101	0.0100	0.9	20.0
Carbon disulfide	Ave	1.599	1.538		0.00962	0.0100	-3.8	55.0
Methylene Chloride	Lin1		0.3491		0.0109	0.0100	9.4	35.0
Methyl tert-butyl ether	Ave	0.4152	0.4662		0.0112	0.0100	12.3	35.0
trans-1,2-Dichloroethene	Ave	0.3686	0.3816		0.0104	0.0100	3.5	35.0
1,1-Dichloroethane	Ave	0.7232	0.7448	0.1000	0.0103	0.0100	3.0	35.0
2-Butanone (MEK)	Ave	0.0589	0.0591		0.0401	0.0400	0.4	20.0
cis-1,2-Dichloroethene	Ave	0.3350	0.3578		0.0107	0.0100	6.8	35.0
2,2-Dichloropropane	Ave	0.5794	0.5511		0.00951	0.0100	-4.9	35.0
Chlorobromomethane	Ave	0.1033	0.1104		0.0107	0.0100	6.8	35.0
Chloroform	Ave	0.6075	0.6023		0.00991	0.0100	-0.9	20.0
1,1,1-Trichloroethane	Ave	0.6042	0.5747		0.00951	0.0100	-4.9	35.0
1,1-Dichloropropene	Ave	0.5027	0.5312		0.0106	0.0100	5.7	35.0
Carbon tetrachloride	Ave	0.5113	0.4786		0.00936	0.0100	-6.4	20.0
1,2-Dichloroethane	Ave	0.3186	0.3139		0.00985	0.0100	-1.5	20.0
Benzene	Ave	1.400	1.433		0.0102	0.0100	2.4	20.0
Trichloroethene	Ave	0.3474	0.3535		0.0102	0.0100	1.8	20.0
1,2-Dichloropropane	Ave	0.3257	0.3344		0.0103	0.0100	2.7	20.0
Dibromomethane	Ave	0.1047	0.1058		0.0101	0.0100	1.1	35.0
Dichlorobromomethane	Ave	0.3531	0.3485		0.00987	0.0100	-1.3	35.0
cis-1,3-Dichloropropene	Ave	1.708	1.930		0.0113	0.0100	13.0	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1102	0.1146		0.0416	0.0400	4.0	55.0
Toluene	Ave	1.374	1.468		0.0107	0.0100	6.8	20.0
trans-1,3-Dichloropropene	Ave	0.2973	0.3284		0.0110	0.0100	10.5	35.0
1,1,2-Trichloroethane	Ave	0.1359	0.1419		0.0104	0.0100	4.4	35.0
2-Hexanone	Ave	0.3440	0.3509		0.0408	0.0400	2.0	55.0
1,3-Dichloropropane	Ave	1.375	1.381		0.0100	0.0100	0.4	35.0
Tetrachloroethene	Ave	1.316	1.268		0.00963	0.0100	-3.7	20.0
Chlorodibromomethane	Ave	0.7552	0.7737		0.0102	0.0100	2.4	35.0
1,2-Dibromoethane	Ave	0.5954	0.6189		0.0104	0.0100	4.0	35.0
Chlorobenzene	Ave	4.357	4.222	0.3000	0.00969	0.0100	-3.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.264	1.252		0.00990	0.0100	-1.0	35.0
Ethylbenzene	Ave	2.597	2.615		0.0101	0.0100	0.7	20.0
m-Xylene & p-Xylene	Ave	3.099	3.155		0.0102	0.0100	1.8	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: ICV 280-187554/15 Calibration Date: 08/16/2013 15:14

Instrument ID: VMS_MS1 Calib Start Date: 08/16/2013 12:26

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 14:32

Lab File ID: MS6052.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
o-Xylene	Ave	2.846	2.989		0.0105	0.0100	5.1	35.0
Styrene	Lin2		4.392		0.0105	0.0100	4.8	35.0
Bromoform	Ave	0.3352	0.3416	0.1000	0.0102	0.0100	1.9	35.0
Isopropylbenzene	Ave	5.618	6.135		0.0109	0.0100	9.2	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5286	0.5362	0.3000	0.0101	0.0100	1.4	35.0
1,2,3-Trichloropropane	Ave	0.1378	0.1527		0.0111	0.0100	10.8	35.0
Bromobenzene	Ave	1.049	1.132		0.0108	0.0100	7.9	35.0
N-Propylbenzene	Ave	1.616	1.734		0.0107	0.0100	7.3	35.0
1,3,5-Trimethylbenzene	Ave	4.664	5.163		0.0111	0.0100	10.7	35.0
2-Chlorotoluene	Ave	1.350	1.428		0.0106	0.0100	5.8	35.0
4-Chlorotoluene	Ave	1.309	1.416		0.0108	0.0100	8.2	35.0
tert-Butylbenzene	Ave	4.533	4.911		0.0108	0.0100	8.3	35.0
1,2,4-Trimethylbenzene	Ave	4.758	5.163		0.0109	0.0100	8.5	35.0
sec-Butylbenzene	Ave	1.334	1.420		0.0106	0.0100	6.5	35.0
4-Isopropyltoluene	Ave	5.518	5.896		0.0107	0.0100	6.8	35.0
1,3-Dichlorobenzene	Ave	2.324	2.429		0.0105	0.0100	4.5	35.0
1,4-Dichlorobenzene	Ave	2.310	2.349		0.0102	0.0100	1.7	35.0
n-Butylbenzene	Ave	5.504	5.884		0.0107	0.0100	6.9	35.0
1,2-Dichlorobenzene	Ave	1.822	1.947		0.0107	0.0100	6.8	35.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0732		0.0113	0.0100	12.9	55.0
1,2,4-Trichlorobenzene	Ave	1.175	1.347		0.0115	0.0100	14.6	35.0
Hexachlorobutadiene	Ave	1.079	1.086		0.0101	0.0100	0.6	35.0
Naphthalene	Lin2		1.561		0.0113	0.0100	12.6	35.0
1,2,3-Trichlorobenzene	Ave	0.9307	1.077		0.0116	0.0100	15.7	35.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6052.D
Lims ID: icv Client ID:
Inject. Date: 16-Aug-2013 15:14:30 Dil. Factor: 1.0000
Sample Type: ICV
Sample ID: icv
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 11
Lims Batch ID: 187554 Lims Sample ID: 15
Sublist:
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:51:23 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 08:51:23

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	236052	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	98	1969005	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	30818	250.0	
* 2 Chlorobenzene-d5	119	10.574	10.575	-0.001	75	419568	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	96	557696	12.5	
24 Dichlorodifluoromethane	85	4.583	4.569	0.014	87	612153	8.50	
26 Chloromethane	50	4.792	4.793	-0.001	89	761946	7.91	
27 Vinyl chloride	62	4.946	4.946	0.0	83	687008	8.09	
147 Butadiene	54	4.960	4.960	0.0	94	527286	7.76	
29 Bromomethane	94	5.323	5.337	-0.014	92	427994	8.22	
31 Chloroethane	64	5.407	5.407	0.0	94	449693	8.40	
32 Dichlorofluoromethane	67	5.547	5.547	0.0	80	1157202	8.86	
33 Trichlorofluoromethane	101	5.644	5.645	0.0	83	832383	8.26	
36 Ethyl ether	59	5.826	5.826	0.0	96	258836	11.5	
39 Acrolein	56	5.966	5.952	0.014	91	200958	104.1	
40 Acetone	43	6.063	6.063	0.0	96	215193	39.6	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.091	6.091	0.0	82	418479	9.18	
43 1,1-Dichloroethene	96	6.105	6.105	0.0	86	526269	10.1	
45 Iodomethane	142	6.287	6.287	0.0	100	900387	11.6	
46 Methyl acetate	43	6.301	6.301	0.0	99	685188	50.9	
47 3-Chloro-1-propene	41	6.357	6.357	0.0	87	1255042	9.83	
48 Carbon disulfide	76	6.399	6.399	0.0	100	2422906	9.62	
49 2-Methyl-2-propanol	59	6.399	6.413	-0.014	8	154224	99.9	
50 Methylene Chloride	84	6.454	6.455	-0.001	90	549878	10.9	
51 Acrylonitrile	53	6.594	6.594	0.0	98	640694	106.5	
52 Methyl tert-butyl ether	73	6.650	6.650	0.0	93	734275	11.2	
53 trans-1,2-Dichloroethene	96	6.692	6.692	0.0	92	601134	10.4	
54 Hexane	57	6.859	6.860	-0.001	96	991449	10.3	
55 Vinyl acetate	43	6.929	6.929	0.0	89	1109943	24.3	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.999	6.999	0.0	85	1173241	10.3	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	98	372213	40.1	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	96	358295	319.7	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	72	563609	10.7	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	91	868156	9.51	
67 Chlorobromomethane	128	7.628	7.628	0.0	84	173863	10.7	
68 Chloroform	83	7.642	7.642	0.0	82	948713	9.91	
69 Tetrahydrofuran	42	7.670	7.670	0.0	87	102103	21.7	
70 Isobutyl alcohol	41	7.823	7.823	0.0	90	147654	680.9	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	90	905290	9.51	
72 Cyclohexane	56	7.963	7.963	0.0	95	1206059	9.97	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	82	836663	10.6	
74 Carbon tetrachloride	117	8.019	8.019	0.0	72	753885	9.36	
75 1,2-Dichloroethane	62	8.116	8.117	-0.001	91	494397	9.85	
77 Benzene	78	8.144	8.144	0.0	98	2257586	10.2	
9 n-Heptane	43	8.228	8.228	0.0	96	1162742	9.93	
79 Trichloroethene	95	8.591	8.591	0.0	93	556817	10.2	
80 2-Pentanone	43	8.605	8.605	0.0	98	530219	39.9	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	89	526810	10.3	
83 Methylcyclohexane	55	8.787	8.787	0.0	96	954602	9.53	
84 1,4-Dioxane	88	8.801	8.801	0.0	81	34267	235.1	
85 Dibromomethane	93	8.857	8.857	0.0	82	166620	10.1	
86 Dichlorobromomethane	83	8.912	8.913	-0.001	89	548946	9.87	
88 2-Chloroethyl vinyl ether	63	9.038	9.038	0.0	33	4018	0	
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	84	647819	11.3	
90 4-Methyl-2-pentanone (MIBK)	43	9.276	9.276	0.0	95	722224	41.6	
91 Toluene	91	9.513	9.513	0.0	98	2312386	10.7	
92 Ethyl methacrylate	69	9.583	9.569	0.014	93	286794	10.9	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	95	517365	11.0	
94 1,1,2-Trichloroethane	97	9.764	9.765	-0.001	89	223562	10.4	
95 2-Hexanone	43	9.876	9.862	0.014	98	471057	40.8	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	95	463454	10.0	
97 Tetrachloroethene	164	9.946	9.946	0.0	89	425560	9.63	
98 Chlorodibromomethane	129	10.114	10.114	0.0	88	259679	10.2	
100 Ethylene Dibromide	107	10.239	10.239	0.0	97	207732	10.4	
101 1-Chlorohexane	91	10.463	10.463	0.0	87	798527	10.9	
102 Chlorobenzene	112	10.588	10.589	-0.001	89	1417201	9.69	
103 1,1,1,2-Tetrachloroethane	131	10.630	10.630	0.0	80	420079	9.90	
104 Ethylbenzene	106	10.630	10.630	0.0	99	877615	10.1	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	99	1058870	10.2	
106 Styrene	104	11.035	11.035	0.0	84	1474135	10.5	
109 o-Xylene	106	11.035	11.035	0.0	87	1003389	10.5	
107 Bromoform	173	11.245	11.245	0.0	87	114668	10.2	
108 Isopropylbenzene	105	11.301	11.301	0.0	98	2737133	10.9	
111 Cyclohexanone	55	11.440	11.440	0.0	91	211700	405.0	
112 1,1,2,2-Tetrachloroethane	83	11.510	11.510	0.0	79	239242	10.1	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	82	73577	11.9	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	80	68131	11.1	
115 N-Propylbenzene	120	11.650	11.650	0.0	97	773438	10.7	
116 Bromobenzene	156	11.650	11.650	0.0	94	504982	10.8	
120 1,3,5-Trimethylbenzene	105	11.762	11.762	0.0	93	2303647	11.1	
117 2-Chlorotoluene	126	11.776	11.776	0.0	94	637138	10.6	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
118 4-Chlorotoluene	126	11.859	11.859	0.0	99	631931	10.8	
119 tert-Butylbenzene	119	12.083	12.083	0.0	91	2190974	10.8	
121 1,2,4-Trimethylbenzene	105	12.111	12.111	0.0	98	2303653	10.9	
122 sec-Butylbenzene	134	12.278	12.265	0.014	95	633758	10.6	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	96	2630477	10.7	
124 1,3-Dichlorobenzene	146	12.460	12.446	0.014	83	1083932	10.5	
126 1,4-Dichlorobenzene	146	12.530	12.530	0.0	91	1048041	10.2	
127 n-Butylbenzene	91	12.767	12.767	0.0	96	2625214	10.7	
128 1,2-Dichlorobenzene	146	12.921	12.921	0.0	95	868677	10.7	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	54	32642	11.3	
130 1,2,4-Trichlorobenzene	180	14.792	14.792	0.0	90	600812	11.5	
131 Hexachlorobutadiene	225	14.974	14.974	0.0	96	484509	10.1	
132 Naphthalene	128	15.197	15.197	0.0	98	696560	11.3	
133 1,2,3-Trichlorobenzene	180	15.560	15.561	-0.001	92	480405	11.6	
S 138 Xylenes, Total	106				0		20.7	
S 139 Xylenes, Total (URS)	1				0		20.7	
S 134 Trihalomethanes, Total	1				0		40.2	
S 135 1,3-Dichloropropene, Total	1				0		22.3	
S 136 1,2-Dichloroethene, Total	1				0		21.0	
S 140 1,2-Dichloroethene, Total (URS)	96				0		21.0	

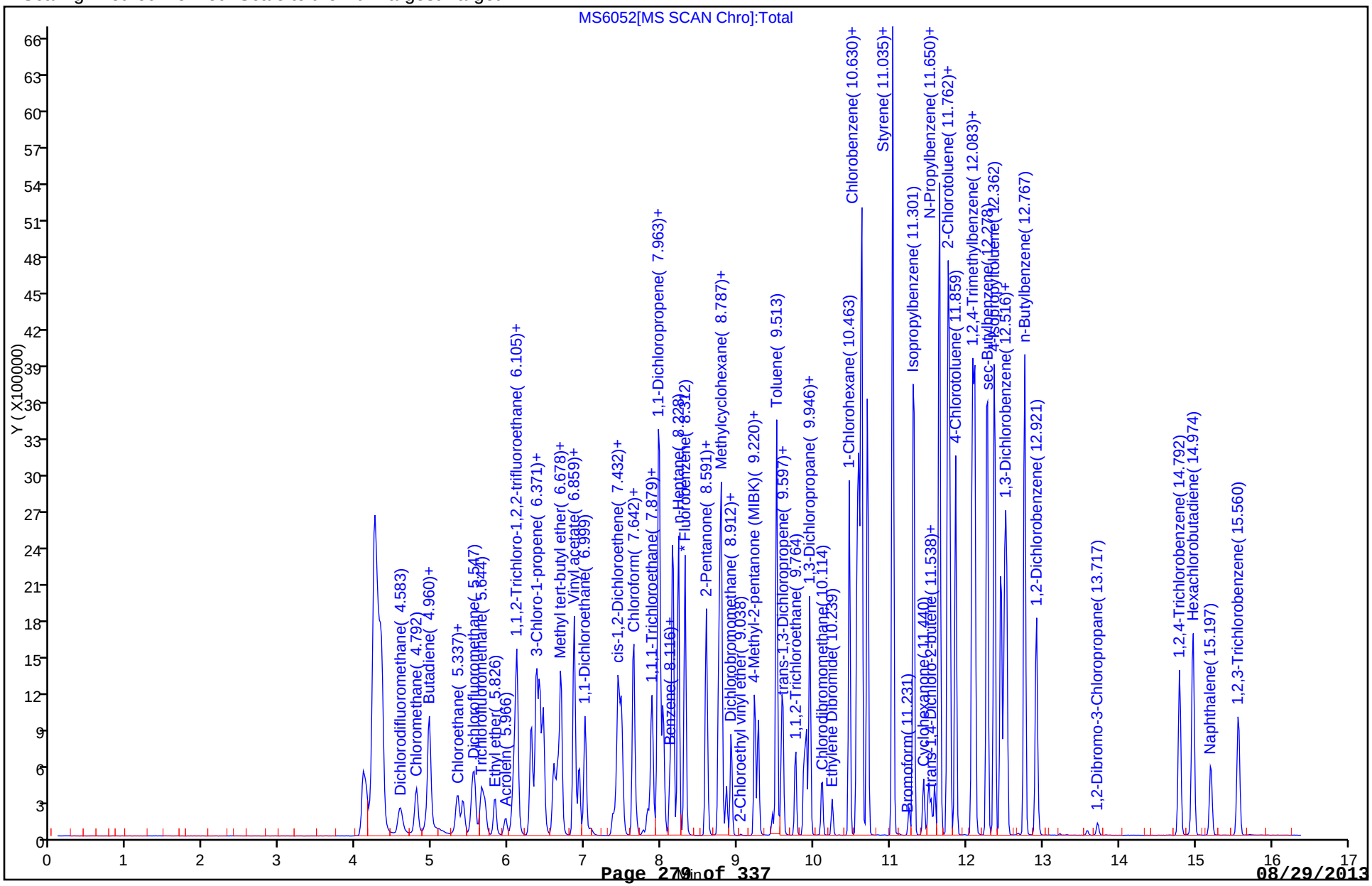
Report Date: 20-Aug-2013 08:51:24 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6052.D

Injection Date:	16-Aug-2013 15:14:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	15
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: ICV 280-187554/22 Calibration Date: 08/16/2013 18:24

Instrument ID: VMS_MS1 Calib Start Date: 08/16/2013 15:56

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 17:42

Lab File ID: MS6061.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropyl ether	Ave	0.2260	0.2125		0.00940	0.0100	-6.0	35.0
Dibromofluoromethane (Surr)	Lin2		0.2878		0.0101	0.0100	1.1	20.0
1,2-Dichloroethane-d4 (Surr)	Lin2		0.2916		0.0105	0.0100	5.5	20.0
Toluene-d8 (Surr)	Lin2		6.414		0.0104	0.0100	3.6	20.0
4-Bromofluorobenzene (Surr)	Ave	1.528	1.569		0.0103	0.0100	2.7	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6061.D
Lims ID: icv Client ID:
Inject. Date: 16-Aug-2013 18:24:30 Dil. Factor: 1.0000
Sample Type: ICV
Sample ID: icv
Misc. Info.:
Operator: wickhamt Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 20
Lims Batch ID: 187554 Lims Sample ID: 22
Sublist:
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m
Last Update: 20-Aug-2013 08:24:29 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: RT Order ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK050

First Level Reviewer: wickhamt Date: 20-Aug-2013 07:55:14

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	216558	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1731862	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	17931	250.0	
* 2 Chlorobenzene-d5	119	10.575	10.575	0.0	88	344130	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	435426	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	78	398794	10.1	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	99	403971	10.5	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	95	1765782	10.4	
$ 8 4-Bromofluorobenzene (Surr)	95	11.468	11.469	-0.001	83	546526	10.3	
144 n-Butyl acetate	43		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
22 Chlorotrifluoroethene	116	4.499	4.513	-0.014	90	161932	13.7	
25 1,2-Dichloro-1,1,2,2-tetrafluoro	85	4.723	4.723	0.0	95	507398	11.4	
23 2-Chloro-1,1,1-Trifluoroethane	118	4.974	4.988	-0.014	25	566916	10.6	
28 Ethylene oxide	43	5.253	5.268	-0.015	100	1771457	2115.7	
34 Ethanol	45	5.686	5.714	-0.028	39	92882	454.7	
35 1,2-Dichloro-1,1,2-trifluoroetha	117	5.784	5.784	0.0	77	441638	9.52	
37 1,1,1-Trifluoro-2,2-dichloroetha	83	5.812	5.826	-0.014	79	767111	9.14	
38 Propene oxide	58	5.924	5.924	0.0	95	1160324	462.5	
41 Isopropyl alcohol	45	6.063	6.078	-0.015	65	99966	98.6	
44 Acetonitrile	41	6.287	6.287	0.0	94	217217	94.1	
56 Isopropyl ether	87	6.957	6.957	0.0	94	294390	9.40	
58 2-Chloro-1,3-butadiene	53	7.069	7.083	-0.014	92	838813	9.10	
59 Tert-butyl ethyl ether	59	7.237	7.237	0.0	97	934827	9.18	
60 Ethyl acetate	43	7.362	7.362	0.0	98	298579	29.6	
63 Propionitrile	54	7.418	7.418	0.0	98	198751	92.8	
66 Methacrylonitrile	41	7.544	7.544	0.0	97	1140784	96.3	
76 Tert-amyl methyl ether	73	8.130	8.145	-0.015	92	619156	9.52	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
78 n-Butanol	56	8.312	8.312	0.0	27	107664	225.9	
81 Methyl methacrylate	100	8.703	8.689	0.014	90	70970	19.5	
87 2-Nitropropane	41	9.038	9.038	0.0	99	87456	19.7	
99 Tetrahydrothiophene	60	10.156	10.156	0.0	93	89476	9.69	
110 cis-1,4-Dichloro-2-butene	53	11.315	11.315	0.0	0	57492	9.52	
125 1,2,3-Trimethylbenzene	105	12.516	12.530	-0.014	99	1620078	9.61	
21 1,3,5-Trichlorobenzene	180	13.968	13.982	-0.014	94	633412	9.10	

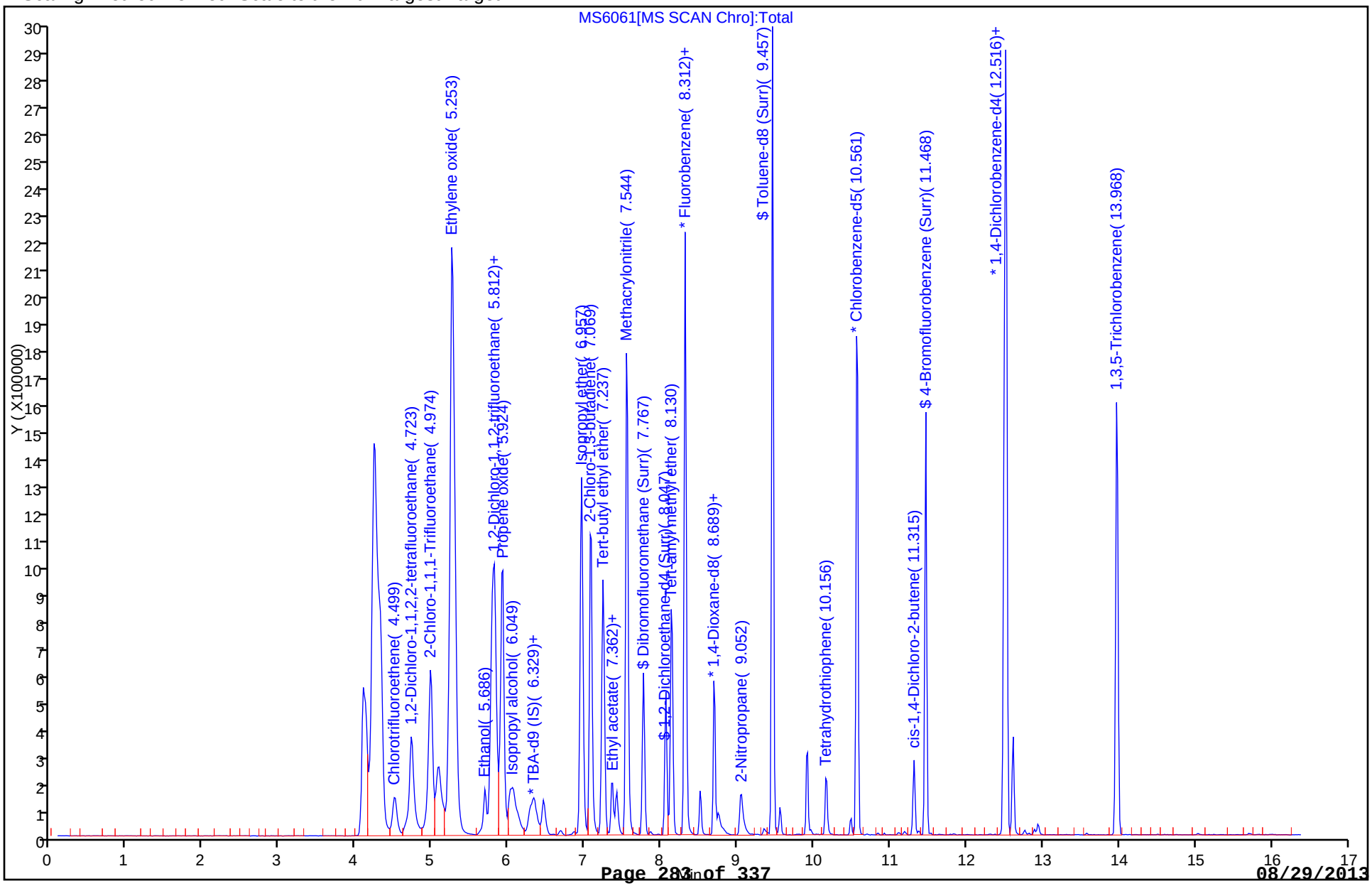
Report Date: 20-Aug-2013 08:24:31 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6061.D

Injection Date:	16-Aug-2013 18:24:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	22
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: CCV 280-188217/2 Calibration Date: 08/21/2013 20:15

Instrument ID: VMS_MS1 Calib Start Date: 08/16/2013 12:26

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 14:32

Lab File ID: MS6237.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4574	0.4636		0.0101	0.0100	1.4	50.0
Chloromethane	Ave	0.6112	0.5760	0.1000	0.00942	0.0100	-5.8	35.0
Vinyl chloride	Ave	0.5393	0.5296		0.00982	0.0100	-1.8	20.0
Bromomethane	Ave	0.3304	0.2776		0.00840	0.0100	-16.0	35.0
Chloroethane	Ave	0.3400	0.2964		0.00872	0.0100	-12.8	35.0
Trichlorofluoromethane	Ave	0.6395	0.6117		0.00957	0.0100	-4.3	50.0
Acetone	Lin1		0.0376		0.0441	0.0400	10.2	50.0
1,1-Dichloroethene	Ave	0.3310	0.3322		0.0100	0.0100	0.4	20.0
Carbon disulfide	Ave	1.599	1.620		0.0101	0.0100	1.3	50.0
Methylene Chloride	Lin1		0.3297		0.0103	0.0100	2.6	35.0
Methyl tert-butyl ether	Ave	0.4152	0.4099		0.00987	0.0100	-1.3	35.0
trans-1,2-Dichloroethene	Ave	0.3686	0.3624		0.00983	0.0100	-1.7	35.0
1,1-Dichloroethane	Ave	0.7232	0.6912	0.1000	0.00956	0.0100	-4.4	35.0
2-Butanone (MEK)	Ave	0.0589	0.0586		0.0398	0.0400	-0.5	20.0
cis-1,2-Dichloroethene	Ave	0.3350	0.3252		0.00971	0.0100	-2.9	35.0
2,2-Dichloropropane	Ave	0.5794	0.5891		0.0102	0.0100	1.7	35.0
Chlorobromomethane	Ave	0.1033	0.1019		0.00986	0.0100	-1.4	35.0
Chloroform	Ave	0.6075	0.5686		0.00936	0.0100	-6.4	20.0
1,1,1-Trichloroethane	Ave	0.6042	0.5953		0.00985	0.0100	-1.5	35.0
1,1-Dichloropropene	Ave	0.5027	0.5196		0.0103	0.0100	3.4	35.0
Carbon tetrachloride	Ave	0.5113	0.5176		0.0101	0.0100	1.2	20.0
1,2-Dichloroethane	Ave	0.3186	0.3063		0.00961	0.0100	-3.9	20.0
Benzene	Ave	1.400	1.324		0.00946	0.0100	-5.4	20.0
Trichloroethene	Ave	0.3474	0.3297		0.00949	0.0100	-5.1	20.0
1,2-Dichloropropane	Ave	0.3257	0.2994		0.00919	0.0100	-8.1	20.0
Dibromomethane	Ave	0.1047	0.1031		0.00985	0.0100	-1.5	35.0
Dichlorobromomethane	Ave	0.3531	0.3248		0.00920	0.0100	-8.0	35.0
cis-1,3-Dichloropropene	Ave	1.708	1.640		0.00960	0.0100	-4.0	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1102	0.1099		0.0399	0.0400	-0.2	50.0
Toluene	Ave	1.374	1.330		0.00968	0.0100	-3.2	20.0
trans-1,3-Dichloropropene	Ave	0.2973	0.2823		0.00949	0.0100	-5.1	35.0
1,1,2-Trichloroethane	Ave	0.1359	0.1251		0.00921	0.0100	-7.9	35.0
2-Hexanone	Ave	0.3440	0.3452		0.0401	0.0400	0.4	50.0
1,3-Dichloropropane	Ave	1.375	1.332		0.00969	0.0100	-3.1	35.0
Tetrachloroethene	Ave	1.316	1.298		0.00986	0.0100	-1.4	20.0
Chlorodibromomethane	Ave	0.7552	0.7172		0.00950	0.0100	-5.0	35.0
1,2-Dibromoethane	Ave	0.5954	0.5472		0.00919	0.0100	-8.1	35.0
Chlorobenzene	Ave	4.357	3.928	0.3000	0.00902	0.0100	-9.8	20.0
1,1,1,2-Tetrachloroethane	Ave	1.264	1.248		0.00987	0.0100	-1.3	35.0
Ethylbenzene	Ave	2.597	2.542		0.00979	0.0100	-2.1	50.0
m-Xylene & p-Xylene	Ave	3.099	3.042		0.00982	0.0100	-1.8	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: CCV 280-188217/2 Calibration Date: 08/21/2013 20:15

Instrument ID: VMS_MS1 Calib Start Date: 08/16/2013 12:26

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 14:32

Lab File ID: MS6237.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
o-Xylene	Ave	2.846	2.865		0.0101	0.0100	0.7	35.0
Styrene	Lin2		3.881		0.00930	0.0100	-7.0	35.0
Bromoform	Ave	0.3352	0.3311	0.1000	0.00988	0.0100	-1.2	35.0
Isopropylbenzene	Ave	5.618	5.312		0.00946	0.0100	-5.4	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5286	0.4706	0.3000	0.00890	0.0100	-11.0	35.0
1,2,3-Trichloropropane	Ave	0.1378	0.1273		0.00924	0.0100	-7.6	35.0
N-Propylbenzene	Ave	1.616	1.520		0.00941	0.0100	-5.9	35.0
Bromobenzene	Ave	1.049	0.9178		0.00875	0.0100	-12.5	35.0
1,3,5-Trimethylbenzene	Ave	4.664	4.434		0.00951	0.0100	-4.9	35.0
2-Chlorotoluene	Ave	1.350	1.195		0.00885	0.0100	-11.5	35.0
4-Chlorotoluene	Ave	1.309	1.159		0.00886	0.0100	-11.4	35.0
tert-Butylbenzene	Ave	4.533	4.383		0.00967	0.0100	-3.3	35.0
1,2,4-Trimethylbenzene	Ave	4.758	4.519		0.00950	0.0100	-5.0	35.0
sec-Butylbenzene	Ave	1.334	1.280		0.00959	0.0100	-4.1	35.0
4-Isopropyltoluene	Ave	5.518	5.373		0.00974	0.0100	-2.6	35.0
1,3-Dichlorobenzene	Ave	2.324	2.092		0.00900	0.0100	-10.0	35.0
1,4-Dichlorobenzene	Ave	2.310	1.991		0.00862	0.0100	-13.8	35.0
n-Butylbenzene	Ave	5.504	5.539		0.0101	0.0100	0.6	35.0
1,2-Dichlorobenzene	Ave	1.822	1.670		0.00916	0.0100	-8.4	35.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0568		0.00884	0.0100	-11.6	50.0
1,2,4-Trichlorobenzene	Ave	1.175	1.131		0.00963	0.0100	-3.7	35.0
Hexachlorobutadiene	Ave	1.079	0.9625		0.00892	0.0100	-10.8	35.0
Naphthalene	Lin2		1.240		0.00904	0.0100	-9.6	35.0
1,2,3-Trichlorobenzene	Ave	0.9307	0.9164		0.00985	0.0100	-1.5	35.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6237.D
Lims ID: CCV Client ID:
Inject. Date: 21-Aug-2013 20:15:30 Dil. Factor: 1.0000
Sample Type: CCV
Sample ID: ccv m
Misc. Info.:
Operator: bergerb Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 2
Lims Batch ID: 188217 Lims Sample ID: 2
Sublist: chrom-AQ_VMS1_8260*sub52
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\AQ_VMS1_8260.m
Last Update: 22-Aug-2013 18:10:02 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: bergerb Date: 21-Aug-2013 20:35:01

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	189693	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1395730	12.5	
* 149 1,4-Dioxane-d8	96	8.773	8.773	0.0	0	30781	250.0	
* 2 Chlorobenzene-d5	119	10.561	10.561	0.0	75	274713	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	96	434236	12.5	
24 Dichlorodifluoromethane	85	4.569	4.569	0.0	86	517688	10.1	
26 Chloromethane	50	4.792	4.792	0.0	89	643144	9.42	
27 Vinyl chloride	62	4.946	4.946	0.0	83	591333	9.82	
147 Butadiene	54	4.960	4.960	0.0	96	442273	9.18	
29 Bromomethane	94	5.323	5.323	0.0	92	309980	8.40	
31 Chloroethane	64	5.393	5.393	0.0	93	330969	8.72	
32 Dichlorofluoromethane	67	5.533	5.533	0.0	80	889019	9.60	
33 Trichlorofluoromethane	101	5.644	5.644	0.0	83	683026	9.57	
36 Ethyl ether	59	5.826	5.826	0.0	92	150394	9.39	
39 Acrolein	56	5.966	5.966	0.0	93	125689	91.8	
40 Acetone	43	6.063	6.063	0.0	93	168107	44.1	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.091	6.091	0.0	87	329389	10.2	
43 1,1-Dichloroethene	96	6.105	6.105	0.0	85	370899	10.0	
45 Iodomethane	142	6.287	6.287	0.0	98	518345	9.40	
46 Methyl acetate	43	6.301	6.301	0.0	96	460676	48.2	
47 3-Chloro-1-propene	41	6.371	6.371	0.0	82	880689	9.73	
48 Carbon disulfide	76	6.399	6.399	0.0	100	1809136	10.1	
49 2-Methyl-2-propanol	59	6.399	6.399	0.0	6	101250	81.6	
50 Methylene Chloride	84	6.454	6.454	0.0	89	368136	10.3	
51 Acrylonitrile	53	6.594	6.594	0.0	97	427050	100.1	
52 Methyl tert-butyl ether	73	6.650	6.650	0.0	91	457728	9.87	
53 trans-1,2-Dichloroethene	96	6.692	6.692	0.0	92	404690	9.83	
54 Hexane	57	6.859	6.859	0.0	96	733091	11.6	
55 Vinyl acetate	43	6.929	6.929	0.0	89	678244	20.9	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
57 1,1-Dichloroethane	63	6.999	6.999	0.0	86	771775	9.56	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	98	261494	39.8	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	90	224845	249.6	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	73	363163	9.71	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	89	657771	10.2	
67 Chlorobromomethane	128	7.628	7.628	0.0	83	113720	9.86	
68 Chloroform	83	7.642	7.642	0.0	82	634924	9.36	
69 Tetrahydrofuran	42	7.670	7.670	0.0	85	64540	19.4	
70 Isobutyl alcohol	41	7.823	7.823	0.0	74	43384	215.9	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	89	664740	9.85	
72 Cyclohexane	56	7.963	7.963	0.0	97	928827	10.8	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	88	580193	10.3	
74 Carbon tetrachloride	117	8.019	8.019	0.0	71	577884	10.1	
75 1,2-Dichloroethane	62	8.116	8.116	0.0	86	341966	9.61	
77 Benzene	78	8.144	8.144	0.0	94	1478890	9.46	
9 n-Heptane	43	8.228	8.228	0.0	96	898829	10.8	
79 Trichloroethene	95	8.591	8.591	0.0	91	368177	9.49	
80 2-Pentanone	43	8.605	8.605	0.0	96	341729	36.3	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	87	334295	9.19	
83 Methylcyclohexane	55	8.787	8.787	0.0	95	749518	10.6	
84 1,4-Dioxane	88	8.801	8.801	0.0	69	20951	202.8	
85 Dibromomethane	93	8.857	8.857	0.0	80	115072	9.85	
86 Dichlorobromomethane	83	8.913	8.913	0.0	88	362689	9.20	
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	84	360402	9.60	
90 4-Methyl-2-pentanone (MIBK)	43	9.276	9.276	0.0	95	490936	39.9	
91 Toluene	91	9.513	9.513	0.0	96	1485099	9.68	
92 Ethyl methacrylate	69	9.569	9.569	0.0	93	159622	9.35	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	96	315154	9.49	
94 1,1,2-Trichloroethane	97	9.764	9.764	0.0	90	139705	9.21	
95 2-Hexanone	43	9.862	9.862	0.0	98	303473	40.1	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	96	292837	9.69	
97 Tetrachloroethene	164	9.946	9.946	0.0	87	285342	9.86	
98 Chlorodibromomethane	129	10.100	10.100	0.0	88	157610	9.50	
100 Ethylene Dibromide	107	10.239	10.239	0.0	98	120266	9.19	
101 1-Chlorohexane	91	10.463	10.463	0.0	83	503706	10.5	
102 Chlorobenzene	112	10.588	10.588	0.0	89	863362	9.02	
103 1,1,1,2-Tetrachloroethane	131	10.616	10.616	0.0	35	274249	9.87	
104 Ethylbenzene	106	10.630	10.630	0.0	92	558717	9.79	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	99	668587	9.82	
106 Styrene	104	11.035	11.035	0.0	83	852895	9.30	
109 o-Xylene	106	11.035	11.035	0.0	89	629651	10.1	
107 Bromoform	173	11.245	11.245	0.0	91	72754	9.88	
108 Isopropylbenzene	105	11.301	11.301	0.0	97	1845487	9.46	
111 Cyclohexanone	55	11.440	11.440	0.0	90	143079	417.5	
112 1,1,2,2-Tetrachloroethane	83	11.496	11.496	0.0	72	163479	8.90	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	86	46853	9.69	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	75	44217	9.24	
115 N-Propylbenzene	120	11.636	11.636	0.0	96	528109	9.41	
116 Bromobenzene	156	11.650	11.650	0.0	95	318822	8.75	
120 1,3,5-Trimethylbenzene	105	11.748	11.748	0.0	92	1540446	9.51	
117 2-Chlorotoluene	126	11.776	11.776	0.0	94	415184	8.85	
118 4-Chlorotoluene	126	11.859	11.859	0.0	99	402683	8.86	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
119 tert-Butylbenzene	119	12.083	12.083	0.0	91	1522750	9.67	
121 1,2,4-Trimethylbenzene	105	12.111	12.111	0.0	98	1569947	9.50	
122 sec-Butylbenzene	134	12.264	12.264	0.0	96	444647	9.59	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	95	1866438	9.74	
124 1,3-Dichlorobenzene	146	12.446	12.446	0.0	83	726828	9.00	
126 1,4-Dichlorobenzene	146	12.516	12.516	0.0	88	691714	8.62	
127 n-Butylbenzene	91	12.753	12.753	0.0	96	1924115	10.1	
128 1,2-Dichlorobenzene	146	12.907	12.907	0.0	93	580048	9.16	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	46	19721	8.84	
130 1,2,4-Trichlorobenzene	180	14.792	14.792	0.0	92	393013	9.63	
131 Hexachlorobutadiene	225	14.960	14.960	0.0	92	334344	8.92	
132 Naphthalene	128	15.197	15.197	0.0	98	430587	9.04	
133 1,2,3-Trichlorobenzene	180	15.560	15.560	0.0	90	318343	9.85	
S 137 Total BTEX	1				0		48.8	
S 138 Xylenes, Total	106				0		19.9	
S 139 Xylenes, Total (URS)	1				0		19.9	
S 134 Trihalomethanes, Total	1				0		37.9	
S 135 1,3-Dichloropropene, Total	1				0		19.1	
S 136 1,2-Dichloroethene, Total	1				0		19.5	
S 140 1,2-Dichloroethene, Total (URS)	96				0		19.5	

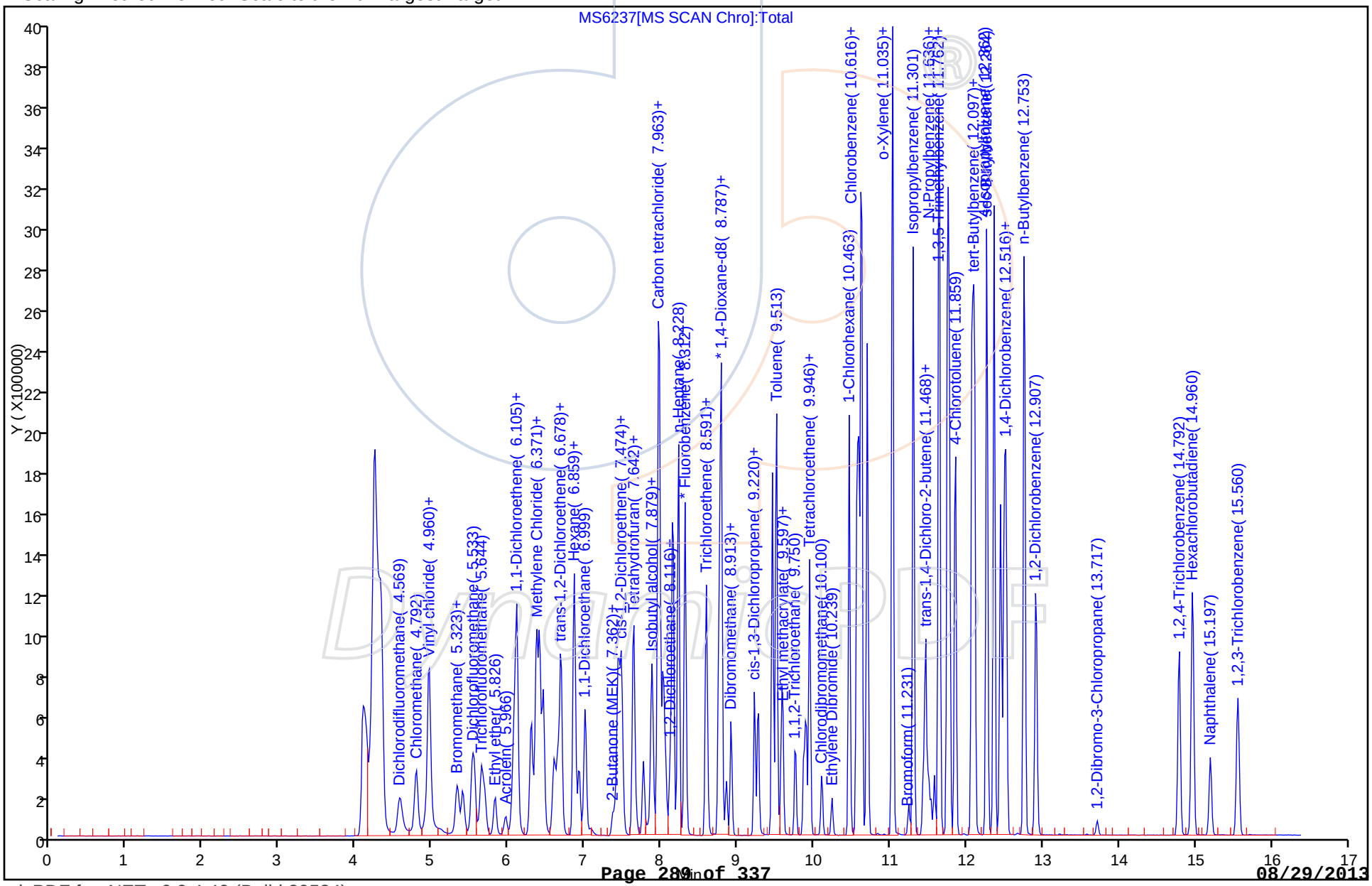
Evaluating unlicensed DynamicPDF feature. Click here for details. [4:0:d1:v6.0]

Report Date: 22-Aug-2013 18:10:02 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6237.D		
Injection Date:	21-Aug-2013 20:15:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	188217	Lims Sample ID:	2
Operator ID:	bergerb	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



DynamicPDF for .NET v6.0.4.40 (Build 20524)

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Lab Sample ID: CCV 280-188217/3 Calibration Date: 08/21/2013 20:36

Instrument ID: VMS_MS1 Calib Start Date: 08/16/2013 15:56

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 08/16/2013 17:42

Lab File ID: MS6238.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropyl ether	Ave	0.2260	0.1975		0.00874	0.0100	-12.6	35.0
Dibromofluoromethane (Surr)	Lin2		0.2803		0.00982	0.0100	-1.8	20.0
1,2-Dichloroethane-d4 (Surr)	Lin2		0.2598		0.00928	0.0100	-7.2	20.0
Toluene-d8 (Surr)	Lin2		5.941		0.00955	0.0100	-4.5	20.0
4-Bromofluorobenzene (Surr)	Ave	1.528	1.332		0.00872	0.0100	-12.8	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6238.D		
Lims ID:	CCV	Client ID:	
Inject. Date:	21-Aug-2013 20:36:30	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	ccv s		
Misc. Info.:			
Operator:	bergerb	Instrument ID:	VMS_MS1
Purge Vol:	5.000 mL	ALS Bottle#:	3
Lims Batch ID:	188217	Lims Sample ID:	3
Sublist:	chrom-AQ_VMS1_8260*sub36		
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\AQ_VMS1_8260.m		
Last Update:	22-Aug-2013 18:10:03	Calib Date:	16-Aug-2013 17:42:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK049		
First Level Reviewer: bergerb		Date:	21-Aug-2013 21:23:29

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	187948	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1499018	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	17354	250.0	
* 2 Chlorobenzene-d5	119	10.561	10.561	0.0	91	300380	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.502	12.502	0.0	97	393115	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	79	336092	9.82	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	100	311605	9.28	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	95	1427525	9.55	
$ 8 4-Bromofluorobenzene (Surr)	95	11.468	11.468	0.0	83	418885	8.72	
144 n-Butyl acetate	43		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
28 Ethylene oxide	43	5.267	5.267	0.0	100	1565626	2162.1	
34 Ethanol	45	5.659	5.659	0.0	96	75628	424.6	
38 Propene oxide	58	5.924	5.924	0.0	95	1046643	482.0	
41 Isopropyl alcohol	45	6.077	6.077	0.0	69	81987	92.8	
44 Acetonitrile	41	6.287	6.287	0.0	99	192740	96.7	
56 Isopropyl ether	87	6.957	6.957	0.0	93	236879	8.74	
58 2-Chloro-1,3-butadiene	53	7.083	7.083	0.0	93	735353	9.21	
59 Tert-butyl ethyl ether	59	7.237	7.237	0.0	96	771961	8.76	
60 Ethyl acetate	43	7.348	7.348	0.0	97	177150	19.8	
63 Propionitrile	54	7.418	7.418	0.0	96	168607	90.9	
66 Methacrylonitrile	41	7.544	7.544	0.0	97	980849	95.6	
76 Tert-amyl methyl ether	73	8.131	8.131	0.0	91	503739	8.95	
78 n-Butanol	56	8.312	8.312	0.0	26	91231	219.1	
81 Methyl methacrylate	100	8.689	8.689	0.0	88	55738	17.7	
87 2-Nitropropane	41	9.038	9.038	0.0	98	84134	22.0	
99 Tetrahydrothiophene	60	10.156	10.156	0.0	93	65492	8.13	
110 cis-1,4-Dichloro-2-butene	53	11.315	11.315	0.0	0	48772	8.95	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
125 1,2,3-Trimethylbenzene	105	12.516	12.516	0.0	99	1376174	9.04	
21 1,3,5-Trichlorobenzene	180	13.968	13.968	0.0	93	545506	8.68	

Evaluating unlicensed DynamicPDF feature. Click here for details. [4:0:d1:v6.0]

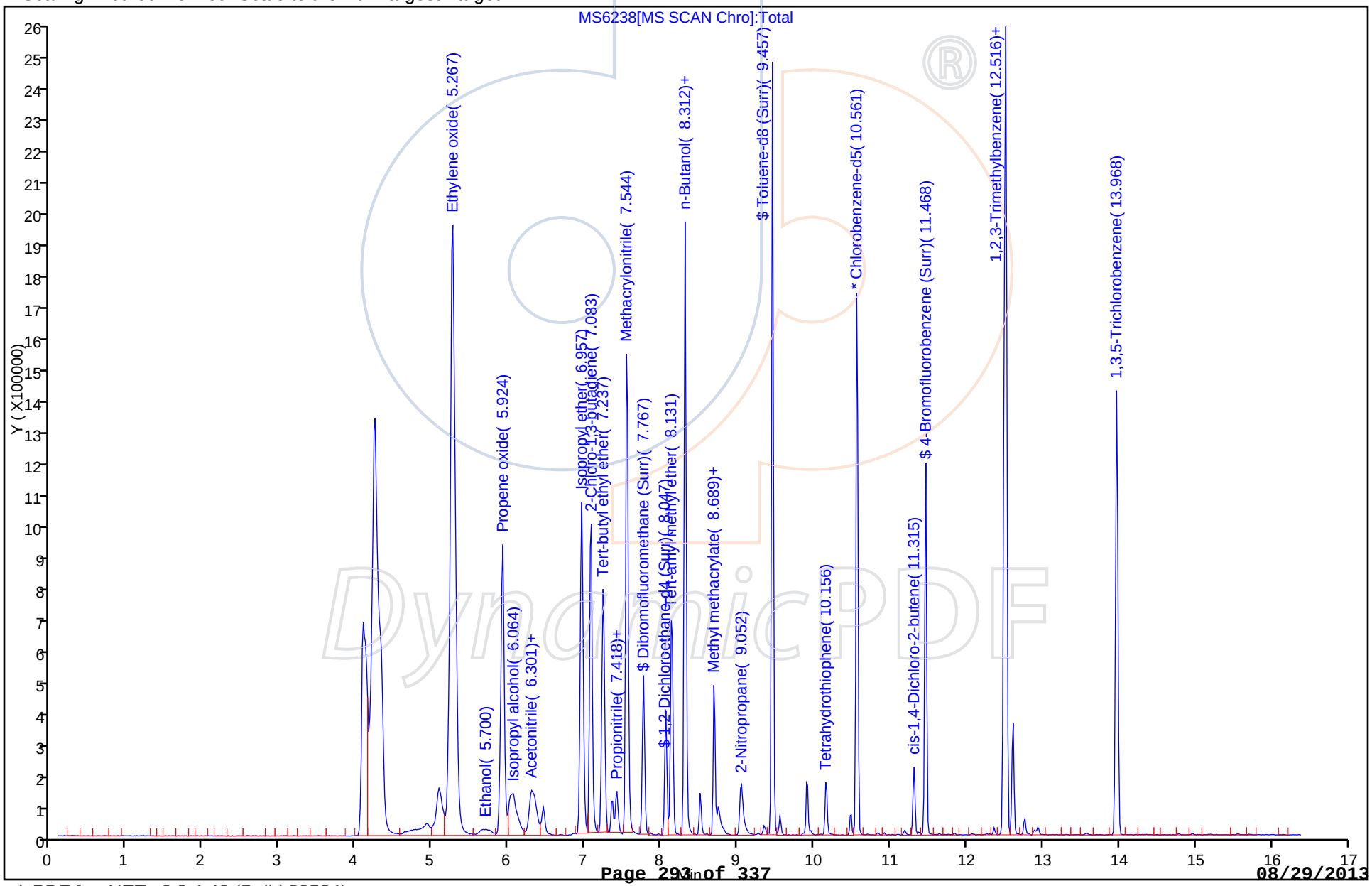
Report Date: 22-Aug-2013 18:10:03 Chrom Revision: 2.0 14-Jul-2013 20:56:00

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6238.D

Injection Date:	21-Aug-2013 20:36:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	188217	Lims Sample ID:	3
Operator ID:	bergerb	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



DynamicPDF for .NET v6.0.4.40 (Build 20524)

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6041.D		
Lims ID:	BFB	Client ID:	
Inject. Date:	16-Aug-2013 11:20:30	Dil. Factor:	1.0000
Sample Type:	BFB		
Sample ID:	bfb		
Misc. Info.:			
Operator:	wickhamt	Instrument ID:	VMS_MS1
Purge Vol:	5.000 mL	ALS Bottle#:	98
Lims Batch ID:	187554	Lims Sample ID:	1
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\AQ_VMS1_8260.m		
Last Update:	20-Aug-2013 08:24:32	Calib Date:	16-Aug-2013 17:42:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK050		
First Level Reviewer: wickhamt		Date:	16-Aug-2013 11:27:31

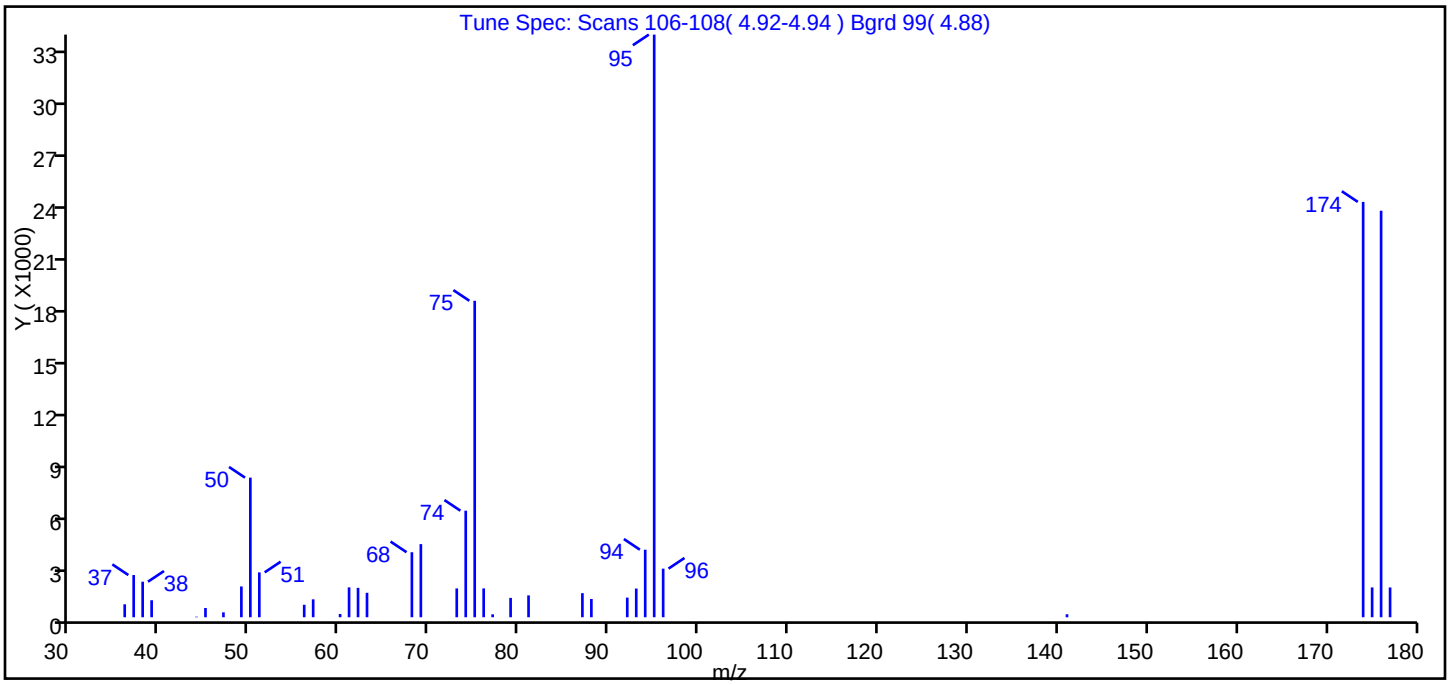
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
$ 4 BFB	95	4.930	4.930	0.0	79	60677	0	

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6041.D

Injection Date:	16-Aug-2013 11:20:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	187554	Lims Sample ID:	1
Operator ID:	wickhamt	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Tune Method:	BFB Method 8260		

$ 4 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.96
75	30.00 - 60.00% of mass 95	54.31
96	5.00 - 9.00% of mass 95	8.34
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	71.28
175	5.00 - 9.00% of mass 174	5.12 (7.18)
176	95.00 - 101.00% of mass 174	69.77 (97.88)
177	5.00 - 9.00% of mass 176	5.11 (7.33)

Data File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6041.D\AQ_VMS1_8260.rslt\spectra.d
Injection Date: 16-Aug-2013 11:20:30
Spectrum: Tune Spec: Scans 106-108(4.92-4.94) Bgrd 99(4.88)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 37

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	743	56.00	715	75.00	18128	95.00	33376
37.00	2418	57.00	1027	76.00	1653	96.00	2785
38.00	2037	60.00	188	77.00	168	141.00	171
39.00	975	61.00	1711	79.00	1108	174.00	23792
44.00	33	62.00	1684	81.00	1254	175.00	1709
45.00	530	63.00	1401	87.00	1380	176.00	23288
47.00	281	68.00	3725	88.00	1048	177.00	1707
49.00	1764	69.00	4190	92.00	1127		
50.00	7998	73.00	1652	93.00	1644		
51.00	2571	74.00	6104	94.00	3870		

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6235.D		
Lims ID:	BFB	Client ID:	
Inject. Date:	21-Aug-2013 19:22:30	Dil. Factor:	1.0000
Sample Type:	BFB		
Sample ID:	bfb		
Misc. Info.:			
Operator:	bergerb	Instrument ID:	VMS_MS1
Purge Vol:	5.000 mL	ALS Bottle#:	100
Lims Batch ID:	188217	Lims Sample ID:	1
Detector:	MS SCAN		
Method:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\AQ_VMS1_8260.m		
Last Update:	22-Aug-2013 18:10:00	Calib Date:	16-Aug-2013 17:42:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D		
Limit Group:	MSV - 8260B Water and Solid		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Process Host:	XAWRK049		
First Level Reviewer: bergerb		Date:	21-Aug-2013 19:38:47

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
$ 4 BFB	95	4.930	4.930	0.0	0	32987	0	

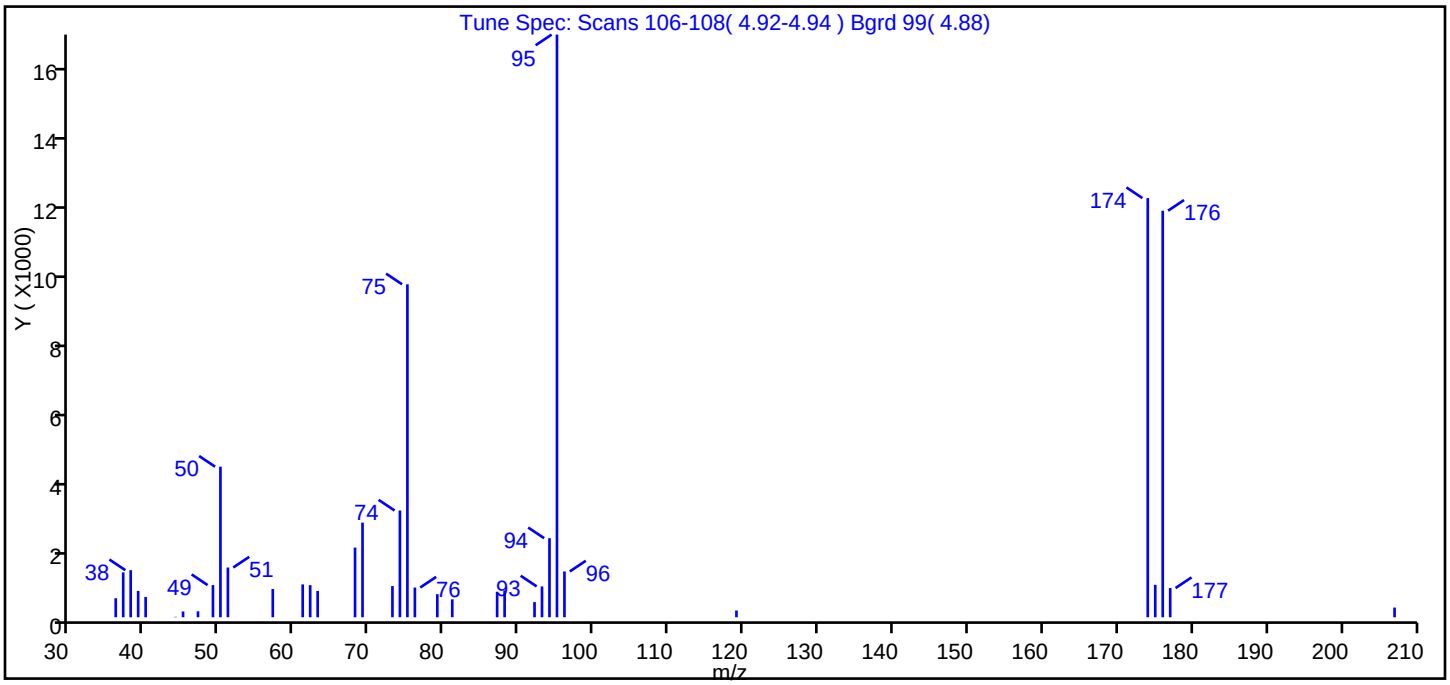
MS Tune Report

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6235.D

Injection Date:	21-Aug-2013 19:22:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	188217	Lims Sample ID:	1
Operator ID:	bergerb	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm
Tune Method:	BFB Method 8260		

$ 4 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	25.84
75	30.00 - 60.00% of mass 95	57.15
96	5.00 - 9.00% of mass 95	7.86
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	71.94
175	5.00 - 9.00% of mass 174	5.56 (7.73)
176	95.00 - 101.00% of mass 174	69.77 (96.99)
177	5.00 - 9.00% of mass 176	5.01 (7.18)

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6235.D\AQ_VMS1_8260.rslt\spectra.d
Injection Date: 21-Aug-2013 19:22:30
Spectrum: Tune Spec: Scans 106-108(4.92-4.94) Bgrd 99(4.88)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 36

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	546	50.00	4321	74.00	3063	94.00	2269
37.00	1288	51.00	1428	75.00	9555	95.00	16720
38.00	1351	57.00	811	76.00	853	96.00	1314
39.00	755	61.00	943	79.00	662	119.00	194
40.00	582	62.00	922	81.00	514	174.00	12028
44.00	12	63.00	755	87.00	732	175.00	930
45.00	166	68.00	1999	88.00	770	176.00	11666
47.00	171	69.00	2715	92.00	435	177.00	838
49.00	923	73.00	895	93.00	885	207.00	278

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: Lab Sample ID: LB 280-187564/1-A

Matrix: Solid (TCLP) Lab File ID: MS6247.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 2(mL) Date Analyzed: 08/21/2013 23:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188217 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	2.0	U	10	2.0	1.6
78-93-3	2-Butanone (MEK)	32	U	100	32	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	2.0	U	10	2.0	1.7
67-66-3	Chloroform	2.0	U	10	2.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
75-35-4	1,1-Dichloroethene	4.0	U	10	4.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	2.0	U	10	2.0	1.6
75-01-4	Vinyl chloride	8.0	U	10	8.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-129
2037-26-5	Toluene-d8 (Surr)	94		78-120
460-00-4	4-Bromofluorobenzene (Surr)	93		78-121
1868-53-7	Dibromofluoromethane (Surr)	102		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6247.D
Lims ID: LB 280-187564/1-A Client ID:
Inject. Date: 21-Aug-2013 23:57:30 Dil. Factor: 1.0000
Sample Type: LB
Sample ID: LB 280-187564/1-A 2ml af
Misc. Info.:
Operator: bergerb Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 12
Lims Batch ID: 188217 Lims Sample ID: 8
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\AQ_VMS1_8260.m
Last Update: 22-Aug-2013 17:34:38 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: bergerb Date: 22-Aug-2013 02:01:14

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.343	6.343	0.0	0	157928	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1328952	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	11061	250.0	
* 2 Chlorobenzene-d5	119	10.561	10.561	0.0	90	273831	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.488	12.502	-0.014	97	345903	12.5	
$ 151 a,a,a-Trifluorotoluene	1		0.000					
$ 4 BFB	95	4.066	4.930	-0.864	0	2291	0	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	64	309245	10.2	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	99	290400	9.81	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	95	1285773	9.42	
$ 8 4-Bromofluorobenzene (Surr)	95	11.468	11.468	0.0	85	394305	9.33	
145 2-Methylnaphthalene	142		0.000					
143 Pentachloroethane	167		0.000					
144 n-Butyl acetate	43		0.000					
16 2-Butoxyethanol TIC	1		0.000					
146 Benzyl chloride	126		0.000					
148 Ethyl acrylate	55		0.000					
22 Chlorotrifluoroethene	116		4.513					
24 Dichlorodifluoromethane	85		4.569					
25 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.723					
26 Chloromethane	50		4.792					
27 Vinyl chloride	62		4.946					
147 Butadiene	54		4.960					
23 2-Chloro-1,1,1-Trifluoroethane	118		4.988					
28 Ethylene oxide	43		5.267					
29 Bromomethane	94		5.323					
30 Propene oxide TIC	58		5.334					
31 Chloroethane	64		5.393					
32 Dichlorofluoromethane	67		5.533					
33 Trichlorofluoromethane	101		5.644					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
34 Ethanol	45		5.659					
35 1,2-Dichloro-1,1,2-trifluoroetha	117		5.784					
36 Ethyl ether	59		5.826					
37 1,1,1-Trifluoro-2,2-dichloroetha	83		5.826					
38 Propene oxide	58		5.924					
39 Acrolein	56		5.966					
40 Acetone	43	6.063	6.063	0.0	85	20838	2.48	
41 Isopropyl alcohol	45		6.077					
42 1,1,2-Trichloro-1,2,2-trifluoroe	151		6.091					
43 1,1-Dichloroethene	96		6.105					
45 Iodomethane	142		6.287					
44 Acetonitrile	41		6.287					
46 Methyl acetate	43		6.301					19
47 3-Chloro-1-propene	41		6.371					
48 Carbon disulfide	76		6.399					
49 2-Methyl-2-propanol	59		6.399					
50 Methylene Chloride	84		6.454					
51 Acrylonitrile	53		6.594					
52 Methyl tert-butyl ether	73		6.650					
53 trans-1,2-Dichloroethene	96		6.692					
54 Hexane	57		6.859					
55 Vinyl acetate	43		6.929					
56 Isopropyl ether	87		6.957					
57 1,1-Dichloroethane	63		6.999					
58 2-Chloro-1,3-butadiene	53		7.083					
59 Tert-butyl ethyl ether	59		7.237					
19 2,2-Dimethylpentane	57		7.251					
17 2,4-Dimethylpentane	43		7.293					19
60 Ethyl acetate	43		7.348					
61 2-Butanone (MEK)	43		7.362					
62 sec-Butyl Alcohol	45		7.404					
63 Propionitrile	54		7.418					
64 cis-1,2-Dichloroethene	96		7.432					
65 2,2-Dichloropropane	77		7.474					
10 2,2,3-Trimethylbutane	57		7.502					
66 Methacrylonitrile	41		7.544					19
67 Chlorobromomethane	128		7.628					
68 Chloroform	83		7.642					19
69 Tetrahydrofuran	42		7.670					
12 3,3-Dimethylpentane	43		7.768					1
18 2-Methylhexane	43		7.810					1
70 Isobutyl alcohol	41		7.823					
71 1,1,1-Trichloroethane	97		7.879					
11 2,3-Dimethylpentane	56		7.921					
15 3-Methylhexane	43		7.949					19
72 Cyclohexane	56		7.963					
73 1,1-Dichloropropene	75		7.977					
74 Carbon tetrachloride	117		8.019					
75 1,2-Dichloroethane	62		8.116					
76 Tert-amyl methyl ether	73		8.131					
20 3-Ethylpentane	43		8.131					
77 Benzene	78		8.144					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
9 n-Heptane	43		8.228					
78 n-Butanol	56		8.312					
79 Trichloroethene	95		8.591					
80 2-Pentanone	43		8.605					
81 Methyl methacrylate	100		8.689					
82 1,2-Dichloropropane	63		8.759					
83 Methylcyclohexane	55		8.787					
84 1,4-Dioxane	88		8.801					
85 Dibromomethane	93		8.857					
86 Dichlorobromomethane	83		8.913					
88 2-Chloroethyl vinyl ether	63		9.038					
87 2-Nitropropane	41		9.038					
89 cis-1,3-Dichloropropene	75		9.220					
90 4-Methyl-2-pentanone (MIBK)	43		9.276					
13 Dimethyl disulfide	94		9.388					19
91 Toluene	91		9.513					
92 Ethyl methacrylate	69		9.569					
93 trans-1,3-Dichloropropene	75		9.597					19
94 1,1,2-Trichloroethane	97		9.764					
95 2-Hexanone	43		9.862					
96 1,3-Dichloropropane	76		9.904					
97 Tetrachloroethene	164		9.946					
98 Chlorodibromomethane	129		10.100					
99 Tetrahydrothiophene	60		10.156					
100 Ethylene Dibromide	107		10.239					
101 1-Chlorohexane	91		10.463					
102 Chlorobenzene	112		10.588					
103 1,1,1,2-Tetrachloroethane	131		10.616					
104 Ethylbenzene	106		10.630					
105 m-Xylene & p-Xylene	106		10.700					
106 Styrene	104		11.035					
109 o-Xylene	106		11.035					
107 Bromoform	173		11.245					
108 Isopropylbenzene	105		11.301					
110 cis-1,4-Dichloro-2-butene	53		11.315					
111 Cyclohexanone	55		11.440					
112 1,1,2,2-Tetrachloroethane	83		11.496					
113 trans-1,4-Dichloro-2-butene	53		11.538					
114 1,2,3-Trichloropropane	110		11.580					
115 N-Propylbenzene	120		11.636					
116 Bromobenzene	156		11.650					
120 1,3,5-Trimethylbenzene	105		11.748					19
117 2-Chlorotoluene	126		11.776					
118 4-Chlorotoluene	126		11.859					
119 tert-Butylbenzene	119		12.083					19
121 1,2,4-Trimethylbenzene	105		12.111					19
122 sec-Butylbenzene	134		12.264					
123 4-Isopropyltoluene	119		12.362					19
124 1,3-Dichlorobenzene	146		12.446					
126 1,4-Dichlorobenzene	146		12.516					
125 1,2,3-Trimethylbenzene	105		12.516					
127 n-Butylbenzene	91		12.753					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
128 1,2-Dichlorobenzene	146		12.907					
14 n-Nonyl Aldehyde	57	13.312	13.312	0.0	1	1100	0	
129 1,2-Dibromo-3-Chloropropane	157		13.717					
21 1,3,5-Trichlorobenzene	180		13.968					
130 1,2,4-Trichlorobenzene	180		14.792					
131 Hexachlorobutadiene	225		14.960					
132 Naphthalene	128		15.197					19
133 1,2,3-Trichlorobenzene	180		15.560					
S 137 Total BTEX	1		0.000					7
S 138 Xylenes, Total	106				0		0	7
S 139 Xylenes, Total (URS)	1				0		0	7
S 134 Trihalomethanes, Total	1				0		0	7
S 135 1,3-Dichloropropene, Total	1				0		0	7
S 136 1,2-Dichloroethene, Total	1				0		0	7
S 140 1,2-Dichloroethene, Total (URS)	96				0		0	7
T 142 2,3-dichloro-1-propene TIC	75		1.000					1
T 141 Dichloroacetonitrile TIC	74		1.000					1

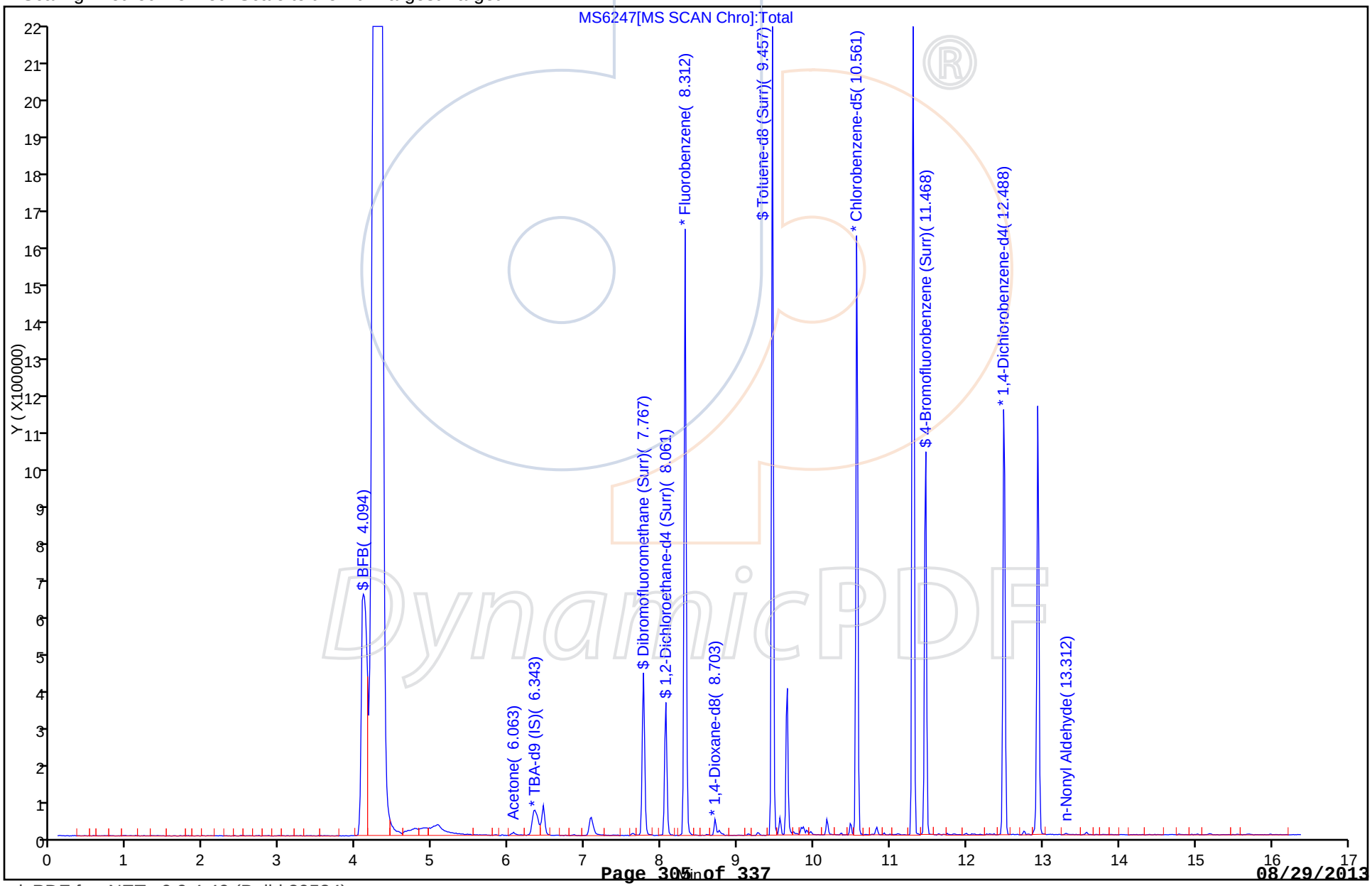
QC Flag Legend

Processing Flags
1 - Missing Peaks
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Evaluating unlicensed DynamicPDF feature. Click here for details. [4:0:d1:v6.0]

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6247.D
Injection Date: 21-Aug-2013 23:57:30 Limit Group: MSV - 8260B Water and Solid
Client ID: Instrument ID: VMS_MS1
Lims Batch ID: 188217 Lims Sample ID: 8
Operator ID: bergerb Purge Vol: 5.000 mL
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



DynamicPDF for .NET v6.0.4.40 (Build 20524)

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-187564/2-A

Matrix: Solid (TCLP) Lab File ID: MS6246.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 2(mL) Date Analyzed: 08/21/2013 23:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188217 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	46.2		10	2.0	1.6
78-93-3	2-Butanone (MEK)	203		100	32	18
56-23-5	Carbon tetrachloride	50.1		10	4.0	1.9
108-90-7	Chlorobenzene	42.6		10	2.0	1.7
67-66-3	Chloroform	46.7		10	2.0	1.6
107-06-2	1,2-Dichloroethane	47.6		10	4.0	1.3
75-35-4	1,1-Dichloroethene	45.4		10	4.0	2.3
127-18-4	Tetrachloroethene	45.0		10	4.0	2.0
79-01-6	Trichloroethene	46.0		10	2.0	1.6
75-01-4	Vinyl chloride	52.7		10	8.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-129
2037-26-5	Toluene-d8 (Surr)	90		78-120
460-00-4	4-Bromofluorobenzene (Surr)	91		78-121
1868-53-7	Dibromofluoromethane (Surr)	101		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6246.D
Lims ID: LCS 280-187564/2-A Client ID:
Inject. Date: 21-Aug-2013 23:36:30 Dil. Factor: 1.0000
Sample Type: LCS
Sample ID: LCS 280-187564/2-A 2ml
Misc. Info.:
Operator: bergerb Instrument ID: VMS_MS1
Purge Vol: 5.000 mL ALS Bottle#: 11
Lims Batch ID: 188217 Lims Sample ID: 11
Detector: MS SCAN

Method: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b\AQ_VMS1_8260.m
Last Update: 22-Aug-2013 17:34:38 Calib Date: 16-Aug-2013 17:42:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b\MS6059.D
Limit Group: MSV - 8260B Water and Solid
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 (60.25) Column Dia: 0.25 mm
Process Host: XAWRK049

First Level Reviewer: bergerb Date: 22-Aug-2013 00:02:07

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 150 TBA-d9 (IS)	65	6.329	6.343	-0.014	0	175027	250.0	
* 1 Fluorobenzene	96	8.312	8.312	0.0	97	1380931	12.5	
* 149 1,4-Dioxane-d8	96	8.759	8.759	0.0	0	26810	250.0	
* 2 Chlorobenzene-d5	119	10.561	10.561	0.0	82	305462	12.5	
* 3 1,4-Dichlorobenzene-d4	152	12.488	12.502	-0.014	95	417133	12.5	
$ 5 Dibromofluoromethane (Surr)	111	7.767	7.767	0.0	56	318838	10.1	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	8.061	8.061	0.0	90	311155	10.2	
$ 7 Toluene-d8 (Surr)	98	9.457	9.457	0.0	94	1380564	9.05	
$ 8 4-Bromofluorobenzene (Surr)	95	11.468	11.468	0.0	86	465693	9.13	
24 Dichlorodifluoromethane	85	4.569	4.569	0.0	85	275387	5.45	
26 Chloromethane	50	4.779	4.792	-0.013	89	343758	5.09	
27 Vinyl chloride	62	4.932	4.946	-0.014	83	313801	5.27	
147 Butadiene	54	4.946	4.960	-0.014	92	230905	4.85	
29 Bromomethane	94	5.309	5.323	-0.014	91	159292	4.36	
31 Chloroethane	64	5.393	5.393	0.0	92	168603	4.49	
32 Dichlorofluoromethane	67	5.533	5.533	0.0	79	457854	5.00	
33 Trichlorofluoromethane	101	5.644	5.644	0.0	83	349301	4.94	
36 Ethyl ether	59	5.812	5.826	-0.014	87	66516	4.20	
39 Acrolein	56	5.952	5.966	-0.014	89	64620	47.7	
40 Acetone	43	6.049	6.063	-0.014	92	91390	22.5	
42 1,1,2-Trichloro-1,2,2-trifluoroe	151	6.077	6.091	-0.014	88	152251	4.76	
43 1,1-Dichloroethene	96	6.105	6.105	0.0	85	165984	4.54	
45 Iodomethane	142	6.287	6.287	0.0	98	252504	4.63	
46 Methyl acetate	43	6.287	6.301	-0.014	97	238819	25.3	
47 3-Chloro-1-propene	41	6.357	6.371	-0.014	85	382565	4.27	
48 Carbon disulfide	76	6.399	6.399	0.0	100	759655	4.30	
49 2-Methyl-2-propanol	59	6.413	6.399	0.014	7	46445	40.6	
50 Methylene Chloride	84	6.455	6.454	0.0	88	201330	5.03	
51 Acrylonitrile	53	6.580	6.594	-0.014	98	199010	47.1	
52 Methyl tert-butyl ether	73	6.636	6.650	-0.014	90	204127	4.45	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
53 trans-1,2-Dichloroethene	96	6.678	6.692	-0.014	90	191414	4.70	
54 Hexane	57	6.860	6.859	0.001	93	314175	4.46	
55 Vinyl acetate	43	6.915	6.929	-0.014	88	302593	9.43	
57 1,1-Dichloroethane	63	6.999	6.999	0.0	86	378468	4.74	
61 2-Butanone (MEK)	43	7.362	7.362	0.0	94	132165	20.3	
62 sec-Butyl Alcohol	45	7.404	7.404	0.0	92	94052	113.2	
64 cis-1,2-Dichloroethene	96	7.432	7.432	0.0	72	172393	4.66	
65 2,2-Dichloropropane	77	7.474	7.474	0.0	90	306060	4.78	
67 Chlorobromomethane	128	7.628	7.628	0.0	82	55066	4.82	
68 Chloroform	83	7.642	7.642	0.0	82	313363	4.67	
69 Tetrahydrofuran	42	7.670	7.670	0.0	87	30127	9.13	
70 Isobutyl alcohol	41	7.823	7.823	0.0	77	48006	269.3	
71 1,1,1-Trichloroethane	97	7.879	7.879	0.0	89	326648	4.89	
72 Cyclohexane	56	7.963	7.963	0.0	96	418369	4.93	
73 1,1-Dichloropropene	75	7.977	7.977	0.0	79	290531	5.23	
74 Carbon tetrachloride	117	8.019	8.019	0.0	70	283271	5.01	
75 1,2-Dichloroethane	62	8.116	8.116	0.0	75	167423	4.76	
77 Benzene	78	8.144	8.144	0.0	97	714647	4.62	
9 n-Heptane	43	8.228	8.228	0.0	95	409003	4.98	
79 Trichloroethene	95	8.591	8.591	0.0	93	176682	4.60	
80 2-Pentanone	43	8.605	8.605	0.0	89	144883	15.5	
82 1,2-Dichloropropane	63	8.759	8.759	0.0	85	164744	4.58	
83 Methylcyclohexane	55	8.787	8.787	0.0	95	348735	4.96	
84 1,4-Dioxane	88	8.801	8.801	0.0	12	9122	89.2	
85 Dibromomethane	93	8.857	8.857	0.0	82	54129	4.68	
86 Dichlorobromomethane	83	8.913	8.913	0.0	90	171224	4.39	
89 cis-1,3-Dichloropropene	75	9.220	9.220	0.0	82	180162	4.32	
90 4-Methyl-2-pentanone (MIBK)	43	9.262	9.276	-0.014	93	245119	20.1	
91 Toluene	91	9.513	9.513	0.0	91	756701	4.99	
92 Ethyl methacrylate	69	9.569	9.569	0.0	91	75581	4.20	
93 trans-1,3-Dichloropropene	75	9.597	9.597	0.0	95	156021	4.75	
94 1,1,2-Trichloroethane	97	9.751	9.764	-0.013	89	73298	4.88	
95 2-Hexanone	43	9.862	9.862	0.0	95	184052	21.9	
96 1,3-Dichloropropane	76	9.904	9.904	0.0	96	148235	4.41	
97 Tetrachloroethene	164	9.946	9.946	0.0	89	144767	4.50	
98 Chlorodibromomethane	129	10.100	10.100	0.0	82	79315	4.30	
100 Ethylene Dibromide	107	10.239	10.239	0.0	97	63297	4.35	
101 1-Chlorohexane	91	10.463	10.463	0.0	84	249533	4.66	
102 Chlorobenzene	112	10.589	10.588	0.0	89	453621	4.26	
103 1,1,1,2-Tetrachloroethane	131	10.616	10.616	0.0	82	130399	4.22	
104 Ethylbenzene	106	10.616	10.630	-0.014	90	279294	4.40	
105 m-Xylene & p-Xylene	106	10.700	10.700	0.0	99	329125	4.35	
106 Styrene	104	11.035	11.035	0.0	82	420033	4.31	
109 o-Xylene	106	11.035	11.035	0.0	90	308898	4.44	
107 Bromoform	173	11.245	11.245	0.0	84	32395	3.95	
108 Isopropylbenzene	105	11.301	11.301	0.0	97	880926	4.70	
111 Cyclohexanone	55	11.440	11.440	0.0	86	66225	182.8	
112 1,1,2,2-Tetrachloroethane	83	11.496	11.496	0.0	76	82327	4.67	
113 trans-1,4-Dichloro-2-butene	53	11.538	11.538	0.0	49	22932	4.94	
114 1,2,3-Trichloropropane	110	11.580	11.580	0.0	68	21744	4.73	
115 N-Propylbenzene	120	11.636	11.636	0.0	97	252561	4.68	
116 Bromobenzene	156	11.650	11.650	0.0	94	160162	4.57	

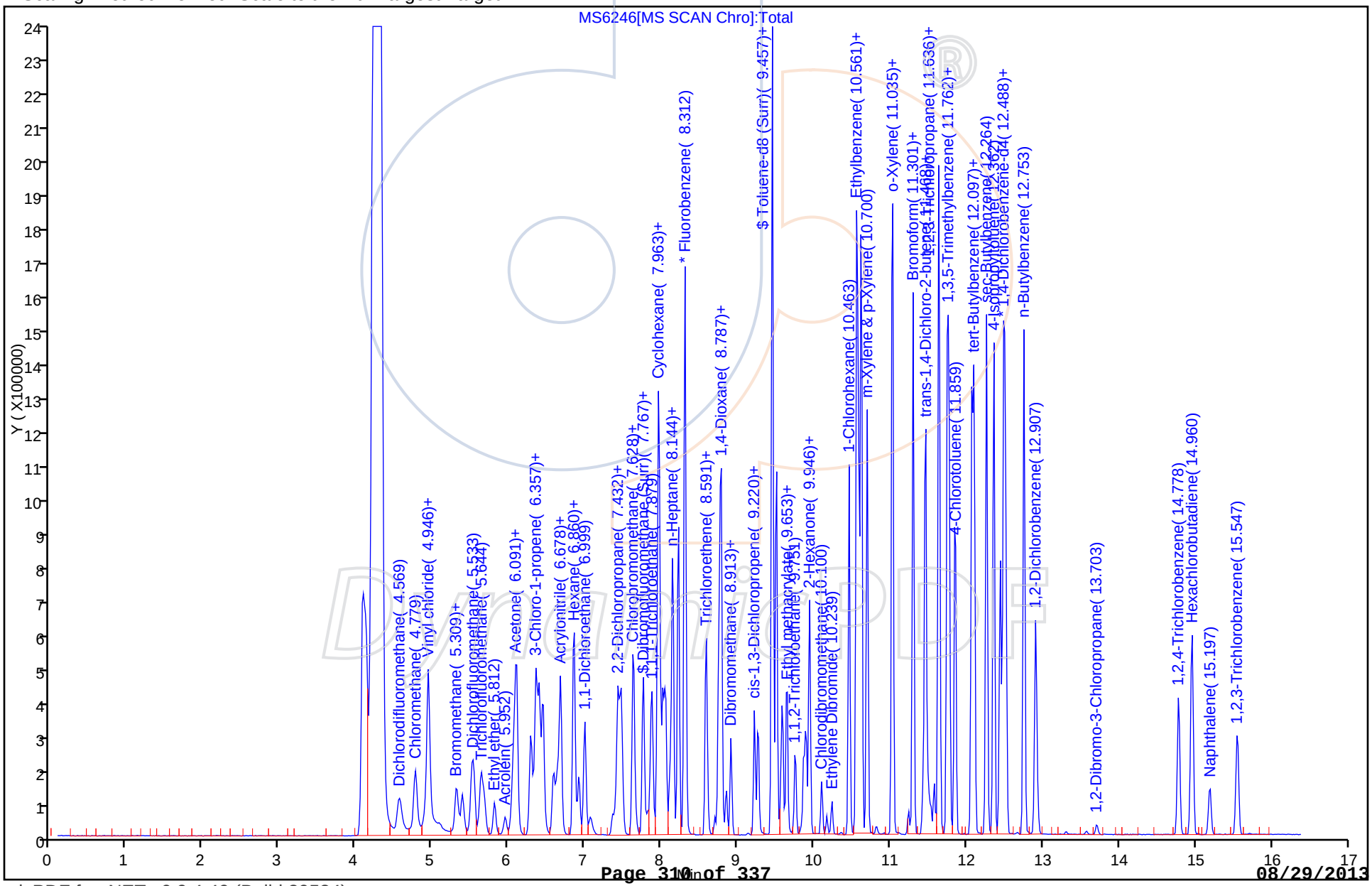
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
120 1,3,5-Trimethylbenzene	105	11.748	11.748	0.0	92	724126	4.65	
117 2-Chlorotoluene	126	11.776	11.776	0.0	95	210271	4.67	
118 4-Chlorotoluene	126	11.859	11.859	0.0	99	195855	4.48	
119 tert-Butylbenzene	119	12.069	12.083	-0.014	92	704376	4.66	
121 1,2,4-Trimethylbenzene	105	12.097	12.111	-0.014	98	746397	4.70	
122 sec-Butylbenzene	134	12.264	12.264	0.0	96	212434	4.77	
123 4-Isopropyltoluene	119	12.362	12.362	0.0	96	864627	4.70	
124 1,3-Dichlorobenzene	146	12.446	12.446	0.0	82	352310	4.54	
126 1,4-Dichlorobenzene	146	12.516	12.516	0.0	89	336228	4.36	
127 n-Butylbenzene	91	12.753	12.753	0.0	96	866804	4.72	
128 1,2-Dichlorobenzene	146	12.907	12.907	0.0	92	270918	4.46	
129 1,2-Dibromo-3-Chloropropane	157	13.717	13.717	0.0	17	8807	4.30	
130 1,2,4-Trichlorobenzene	180	14.778	14.792	-0.014	88	166286	4.24	
131 Hexachlorobutadiene	225	14.960	14.960	0.0	92	157721	4.38	
132 Naphthalene	128	15.197	15.197	0.0	95	162695	3.86	
133 1,2,3-Trichlorobenzene	180	15.547	15.560	-0.013	92	137723	4.43	
S 138 Xylenes, Total	106				0		8.79	
S 139 Xylenes, Total (URS)	1				0		8.79	
S 134 Trihalomethanes, Total	1				0		17.3	
S 135 1,3-Dichloropropene, Total	1				0		9.07	
S 136 1,2-Dichloroethene, Total	1				0		9.36	
S 140 1,2-Dichloroethene, Total (URS)	96				0		9.36	

Evaluating unlicensed DynamicPDF feature. Click here for details. [4:0:d1:v6.0]

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_MS1\20130821-14625.b\MS6246.D		
Injection Date:	21-Aug-2013 23:36:30	Limit Group:	MSV - 8260B Water and Solid
Client ID:		Instrument ID:	VMS_MS1
Lims Batch ID:	188217	Lims Sample ID:	11
Operator ID:	bergerb	Purge Vol:	5.000 mL
Column Type:	DB-624 (60.25)	Column Dia:	0.25 mm

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



DynamicPDF for .NET v6.0.4.40 (Build 20524)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Instrument ID: VMS_MS1 Start Date: 08/16/2013 11:20

Analysis Batch Number: 187554 End Date: 08/16/2013 18:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-187554/1		08/16/2013 11:20	1	MS6041.D	DB-624 (60.25) 0.25(mm)
STD003 280-187554/8 IC		08/16/2013 12:26	1	MS6044.D	DB-624 (60.25) 0.25(mm)
STD01 280-187554/9 IC		08/16/2013 12:47	1	MS6045.D	DB-624 (60.25) 0.25(mm)
STD02 280-187554/10 IC		08/16/2013 13:08	1	MS6046.D	DB-624 (60.25) 0.25(mm)
STD05 280-187554/11 IC		08/16/2013 13:29	1	MS6047.D	DB-624 (60.25) 0.25(mm)
STD10 280-187554/12 IC		08/16/2013 13:50	1	MS6048.D	DB-624 (60.25) 0.25(mm)
STD30 280-187554/13 IC		08/16/2013 14:11	1	MS6049.D	DB-624 (60.25) 0.25(mm)
STD60 280-187554/14 IC		08/16/2013 14:32	1	MS6050.D	DB-624 (60.25) 0.25(mm)
ICV 280-187554/15		08/16/2013 15:14	1	MS6052.D	DB-624 (60.25) 0.25(mm)
STD01 280-187554/16 IC		08/16/2013 15:56	1	MS6054.D	DB-624 (60.25) 0.25(mm)
STD02 280-187554/17 IC		08/16/2013 16:17	1	MS6055.D	DB-624 (60.25) 0.25(mm)
STD05 280-187554/18 IC		08/16/2013 16:38	1	MS6056.D	DB-624 (60.25) 0.25(mm)
ICIS 280-187554/19		08/16/2013 16:59	1	MS6057.D	DB-624 (60.25) 0.25(mm)
STD30 280-187554/20 IC		08/16/2013 17:20	1	MS6058.D	DB-624 (60.25) 0.25(mm)
STD60 280-187554/21 IC		08/16/2013 17:42	1	MS6059.D	DB-624 (60.25) 0.25(mm)
ICV 280-187554/22		08/16/2013 18:24	1	MS6061.D	DB-624 (60.25) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Instrument ID: VMS_MS1 Start Date: 08/21/2013 19:22

Analysis Batch Number: 188217 End Date: 08/22/2013 05:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-188217/1		08/21/2013 19:22	1	MS6235.D	DB-624 (60.25) 0.25(mm)
CCV 280-188217/2		08/21/2013 20:15	1	MS6237.D	DB-624 (60.25) 0.25(mm)
CCV 280-188217/3		08/21/2013 20:36	1	MS6238.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		08/21/2013 21:51	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/21/2013 22:12	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/21/2013 22:54	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/21/2013 23:15	1		DB-624 (60.25) 0.25(mm)
LCS 280-187564/2-A		08/21/2013 23:36	1	MS6246.D	DB-624 (60.25) 0.25(mm)
LB 280-187564/1-A		08/21/2013 23:57	1	MS6247.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 00:39	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 01:00	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 01:21	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 01:42	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 02:03	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 02:24	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 02:45	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 03:05	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 03:26	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 03:47	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 04:08	1		DB-624 (60.25) 0.25(mm)
280-45380-3	774776CARBON080813	08/22/2013 04:29	1	MS6260.D	DB-624 (60.25) 0.25(mm)
280-45380-4	785786CARBON080813	08/22/2013 04:50	1	MS6261.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 05:11	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		08/22/2013 05:31	1		DB-624 (60.25) 0.25(mm)

GC/MS VOA Continuing Calibration Review Checklist *TestAmerica Denver*

Instrument ID and Date: MS 1 08/21/13 pm Work List 14625

Check Method Used: Analysis ☐ 624 ☑ 8260B ☐ Other VOA _____

VOA Preparation ☐ 5mL ☑ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Continuing Calibration					
1. BFB meets criteria?	✓			✓	
2. ICAL date and instrument ID verified?	✓			✓	
3. Do SPCC RRFs and CCC %Ds meet method criteria?	✓			✓	
4. Does %D meet criteria for non-CCC compounds?	✓			✓	
5. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	✓			✓	
6. Label number of standard used recorded?	✓			✓	
7. Manual integrations documented and checked?			✓	N/A	
8. Do the Internal Standards meet criteria for %D against ICAL?	✓			✓	
9. Does this CCV pass Q4 criteria?	✓				

1st Level Reviewer: [signature] Date: 08/21/13 pm

2nd Level Reviewer: [signature] Date: 8/21/13

Sequence Name: C:\MSDChem\1\sequence\0822113pm.S
Comment:
Operator: bergerb
Data Path: C:\MSDChem\1\DATA\0822113pm\

Top — Pre-Seq Cmd:
Instrument Control — Pre-Seq Cmd:
Data Analysis — Pre-Seq Cmd:

Top — Post-Seq Cmd:
Instrument Control — Post-Seq Cmd:
Data Analysis — Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info		
1)	Sample	100	MS6226	BFB	bfb
2)	Sample	100	MS6229	BFB	bfb
3)	Sample	100	MS6230	BFB	bfb
4)	Sample	100	MS6231	BFB	bfb
5)	Sample	100	MS6232	BFB	bfb
6)	Sample	100	MS6233	BFB	bfb tun adj
7)	Sample	100	MS6234	BFB	bfb tun adj
8)	Sample	100	MS6235	BFB	bfb orig tun 1922
9)	Sample	1	MS6236	8260	blank
10)	Sample	2	MS6237	8260	ccv m
11)	Sample	3	MS6238	8260	ccv s
12)	Sample	4	MS6239	8260	lcs
13)	Sample	5	MS6240	8260	mb af
14)	Sample	6	MS6241	8260	LB3 280-187965/1-A 2ml af
15)	Sample	7	MS6242	8260	LB 280-187690/1-A 2ml af
16)	Sample	8	MS6243	8260	LB 280-187564/1-A 2ml af DNR
17)	Sample	9	MS6244	8260	LCS 280-187965/2-A 2ml
18)	Sample	10	MS6245	8260	LCS 280-187690/2-A 2ml
19)	Sample	11	MS6246	8260	LCS 280-187564/2-A 2ml
20)	Sample	12	MS6247	8260	LB 280-187564/1-A 2ml af
21)	Sample	13	MS6248	8260	blank
22)	Sample	14	MS6249	8260	550-8632-B-1-A 0.2ml af SS111 ERR 00.1ml
23)	Sample	15	MS6250	8260	550-8632-B-1-A 0.2ml af ms E
24)	Sample	16	MS6251	8260	550-8632-B-1-A 0.2ml af msd E
25)	Sample	17	MS6252	8260	550-8970-A-2-A 2ml SST ND
26)	Sample	18	MS6253	8260	280-45605-A-1-B 0.5ml
27)	Sample	19	MS6254	8260	280-45605-A-1-B 0.5ml ms
28)	Sample	20	MS6255	8260	280-45605-A-1-B 0.5ml msd
29)	Sample	21	MS6256	8260	280-45326-B-1-C 2ml
30)	Sample	22	MS6257	8260	280-45326-B-1-C 2ml ms
31)	Sample	23	MS6258	8260	280-45326-B-1-C 2ml msd
32)	Sample	24	MS6259	8260	280-45326-A-2-A 2ml
33)	Sample	25	MS6260	8260	280-45380-A-3-A 2ml
34)	Sample	26	MS6261	8260	280-45380-A-4-A 2ml
35)	Sample	27	MS6262	8260	280-45556-B-1-A 2ml
36)	Sample	28	MS6263	8260	550-8443-A-2-A 2ml aff 0531
37)	Sample	29	MS6264	8260	blank
38)	Sample	30	MS6265	8260	blank
39)	Sample	31	MS6266	8260	blank

5/17/2013

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Denver

Instrument: MS1

DV-MS-0010 (8260B) (Circle)

Purge Volume: (5ml/25ml) (Circle)

Tune Time: 1922:0531

Lims Batch: 188217

*Run rejected because of poor purge or QC issue. Do not report
-Unless noted, volume of water used is 20 ml.

TestAmerica Laboratories
Worklist Report

Worklist Name: 082113pm
Worklist Number: 14625
Instrument Name: VMS_MS1
Chrom Method: AQ_VMS1_8260
Purge Volume: 5.000000
Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_MS1\20130821-14625.b
Upload Directory: \\Corpalsapp06\280-DN-RawData\Organics\MS\VMS_MS1
Run Reagent: MV-567649_00001 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00005 Amount Added: 0.800000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0014625-001	# 1 BFB	MV-BFB_00010	BFB		voaWater	1.000000	uL	1.000000
280-0014625-002	# 2 CCV	MV-Gas/Ket A_00009 MV-567649_00001 MV-Main A_00007	CCV		voaWater	20.00	mL	1.000000
280-0014625-003	# 3 CCV	MV-Supp A_00004	CCV		voaWater	20.00	mL	1.000000
280-0014625-004	# 4 LCS	MV-Main B_00001 MV-Gas/Ket B_00004	LCS		voaWater	20.00	mL	1.000000
280-0014625-005	# 5 MB		MB		voaWater	20.00	mL	1.000000
280-0014625-006	# 6 LB3 280-187965/1-A		LB3		voaWater	2.000000	mL	1.000000
280-0014625-007	# 7 LB 280-187690/1-A		LB		voaWater	2.000000	mL	1.000000
280-0014625-008	# 8 LB 280-187564/1-A		LB		voaWater	2.000000	mL	1.000000
280-0014625-009	# 9 LCS 280-187965/2-A	MV-Main B_00001 MV-Gas/Ket B_00004	LCS		voaWater	2.000000	mL	1.000000
280-0014625-010	#10 LCS 280-187690/2-A	MV-Main B_00001 MV-Gas/Ket B_00004	LCS		voaWater	2.000000	mL	1.000000
280-0014625-011	#11 LCS 280-187564/2-A	MV-Main B_00001 MV-Gas/Ket B_00004	LCS		voaWater	2.000000	mL	1.000000
280-0014625-012	#12 550-8632-B-1-A		Client		voaWater	~~20.00~~ 0.2 BFB 8/22/13	mL	1.000000
280-0014625-013	#13 550-8632-B-1-A MS	MV-Main B_00001 MV-Gas/Ket B_00004	MS		voaWater	0.200000	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0014625-014	#14 550-8632-B-1-A MSD	MV-Main B_00001 MV-Gas/Ket B_00004	MSD		voaWater	0.200000	mL	1.000000
280-0014625-015	#15 550-8970-A-2-A		Client		voaWater	2.000000	mL	1.000000
280-0014625-016	#16 280-45605-A-1-B		Client		voaWater	0.500000	mL	1.000000
280-0014625-017	#17 280-45605-A-1-B MS	MV-Main B_00001 MV-Gas/Ket B_00004	MS		voaWater	0.500000	mL	1.000000
280-0014625-018	#18 280-45605-A-1-B MSD	MV-Main B_00001 MV-Gas/Ket B_00004	MSD		voaWater	0.500000	mL	1.000000
280-0014625-019	#19 280-45326-B-1-C		Client		voaWater	2.000000	mL	1.000000
280-0014625-020	#20 280-45326-B-1-C MS	MV-Main B_00001 MV-Gas/Ket B_00004	MS		voaWater	2.000000	mL	1.000000
280-0014625-021	#21 280-45326-B-1-C MSD	MV-Main B_00001 MV-Gas/Ket B_00004	MSD		voaWater	2.000000	mL	1.000000
280-0014625-022	#22 280-45326-A-2-A		Client		voaWater	~~20.00~~ 2	mL	1.000000
280-0014625-023	#23 280-45380-A-3-A		Client		voaWater	~~20.00~~ 2	mL	1.000000
280-0014625-024	#24 280-45380-A-4-A		Client		voaWater	~~20.00~~ 2	mL	1.000000
280-0014625-025	#25 280-45556-B-1-A		Client		voaWater	~~20.00~~ 2	mL	1.000000
280-0014625-026	#26 550-8443-A-2-A		Client		voaWater	~~20.00~~ 2	mL	1.000000
280-0014625-027	#27 blank		Client		voaWater	20.00	mL	1.000000

8.8.B 08/22/13

TestAmerica Denver
~~TestAmerica Denver~~
GC/MS Initial Calibration Review Checklist
~~GC/MS Initial Calibration Review Checklist~~ MAIN

Instrument ID and Date: MS1 8-16-13 ICAL Batch/ICV lines 167554 ICV-15
~~Instrument ID and Date:~~
Calibration Event 15473 Work List 144983 2nd Day Batch/ICV lines
~~Calibration Event~~

Check Method Used: Analysis ☐ 624 ☒ 8260B ☐ Other VOA
~~Check Method Used:~~ ~~Analysis~~

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High
~~VOA Preparation~~ ~~5mL~~ ~~20mL~~ ~~5035 Low~~ ~~5035 High~~ ~~5030 Low~~ ~~5030 High~~

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Initial Calibration ~~Initial Calibration~~					
1. BFB meets criteria? ~~1. BFB meets criteria?~~	/			X	
2. ICAL date and instrument ID verified? ~~2. ICAL date and instrument ID verified?~~	/			X	
3. Does the Form VI match the data in the Chrom source method? ~~3. Does the Form VI match the data in the Chrom source method?~~	/			X	
4. Sufficient number of calibration points used? ~~4. Sufficient number of calibration points used?~~	/			X	Some points ≤ RL removed ~~Some points < RL removed~~
5. Reasons for removal of points documented? ~~5. Reasons for removal of points documented?~~	/			X	
6. %RSD or correlation coefficient within method limits? ~~6. %RSD or correlation coefficient within method limits?~~	/			X	
7. Response factors meet criteria? ~~7. Response factors meet criteria?~~	/			X	
8. Isomeric pairs checked for correct peak assignment? ~~8. Isomeric pairs checked for correct peak assignment?~~ Vinyl acetate/Isopropyl ether; Vinyl acetate/Isopropyl ether; 1,3- /1,4- /1,2-Dichlorobenzene; 1,3- /1,4- /1,2-Dichlorobenzene; Ethylbenzene/Xylenes; Ethylbenzene/Xylenes; 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene; 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene; 2-Nitropropane between Bromodichloromethane &MIBK; 2-Nitropropane between Bromodichloromethane &MIBK; 2-/4-Chlorotoluene / n-propylbenzene; 2-/4-Chlorotoluene / n-propylbenzene; MIBK/2-Hexanone; MIBK/2-Hexanone; Methyl/Ethyl Methacrylate; Methyl/Ethyl Methacrylate; 1,1-Dichloroethene/cis-1,2 & trans-1,2-Dichloroethene; 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene; 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane; 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene / 1,2,3-Trichloropropane	/			X	
9. Data checked for detector saturation? ~~9. Data checked for detector saturation?~~	/			X	
10. Label number of standards used recorded? ~~10. Label number of standards used recorded?~~	/			X	
11. Manual integrations documented and checked? ~~11. Manual integrations documented and checked?~~			/	N/A	
12. 2nd source ICV recovery 80-120% (±20% diff) for DoD projects, 65-135% (±35%, or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section. ~~12. 2nd source ICV recovery 80-120% (±20% diff) for DoD projects, 65-135% (±35%, or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.~~	/			X ±20% except: Chloromethane -20.86% Chloromethane -20.86% Butadiene -22.36% Butadiene -22.36% Vinyl acetate +21.28% Vinyl acetate +21.28% isobutyl alcohol + 172.37% isobutyl alcohol + 172.37% 2-pentanone high pt = 120 2-pentanone high pt = 120	

1st Level Reviewer: Date: 8/22/13
~~1st Level Reviewer:~~ ~~Date:~~

2nd Level Reviewer: Date: 8/22/13
~~2nd Level Reviewer:~~ ~~Date:~~

isobutyl alcohol will need ICV to be NCM'd
~~isobutyl alcohol will need ICV to be NCM'd~~
it a target compound

NO ICAL FOR 2-CLEVE

Sequence Name: C:\MSDChem\1\sequence\081613am.S
Comment:
Operator: wickhamt
Data Path: C:\MSDCHEM\1\DATA\081613am\

Top	Pre-Seq Cmd:	
Instrument Control	Pre-Seq Cmd:	
Data Analysis	Pre-Seq Cmd:	
Top	Post-Seq Cmd:	
Instrument Control	Post-Seq Cmd:	
Data Analysis	Post-Seq Cmd:	

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info		
1)	Sample 100	MS6039	BFB	bfb
2)	Sample 99	MS6040	BFB	bfb
3)	Sample 98	MS6041	BFB	bfb tune adjust 11:20
4)	Sample 1	MS6042	8260	blank
5)	Sample 2	MS6043	8260	blank
6)	Sample 3	MS6044	8260	std003
7)	Sample 4	MS6045	8260	std01
8)	Sample 5	MS6046	8260	std02
9)	Sample 6	MS6047	8260	std05
10)	Sample 7	MS6048	8260	std10
11)	Sample 8	MS6049	8260	std30
12)	Sample 9	MS6050	8260	std60
13)	Sample 10	MS6051	8260	blank
14)	Sample 11	MS6052	8260	icv
15)	Sample 12	MS6053	8260	blank
16)	Sample 13	MS6054	8260	std01
17)	Sample 14	MS6055	8260	std02
18)	Sample 15	MS6056	8260	std05
19)	Sample 16	MS6057	8260	icis
20)	Sample 17	MS6058	8260	std30
21)	Sample 18	MS6059	8260	std60
22)	Sample 19	MS6060	8260	blank
23)	Sample 20	MS6061	8260	icv 18:24

08/14/13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Instrument: MS 1
DV-MS-00107(8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 11-20-18:24
Lims Batch: 187554

*Run rejected because of poor purge or QC issue. Do not report.
= Unless noted, volume of water used is 20 mL

22

355

TestAmerica Laboratories
Worklist Report

Worklist Name: 081613am
Instrument Name: VMS_MS1
Purge Volume: 5.000000
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b
Upload Directory: \\Corpalsapp06\280-DN-RawData\Organics\MS\VMS_MS1
Run Reagent: MV-567649_00001
Run Reagent: MV-ARCH SS A_00005

Worklist Number: 14493
Chrom Method: AQ_VMS1_8260
Units: mL
Amount Added: 1.000000, Units: uL
Amount Added: 0.650000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0014493-001	# 1 BFB	MV-BFB_00010	BFB		voaWater	1.000000	uL	1.000000
280-0014493-002	# 2 CCV	MV-Gas/Ket A_00009 MV-567649_00001 MV-Main A_00003	CCV		voaWater	20.00	mL	1.000000
280-0014493-003	# 3 CCV	MV-Supp A_00004	CCV		voaWater	20.00	mL	1.000000
280-0014493-004	# 4 LCS	MV-Main B_00001 MV-Gas/Ket B_00004	LCS		voaWater	20.00	mL	1.000000
280-0014493-005	# 5 MB		MB		voaWater	20.00	mL	1.000000
280-0014493-006	# 6 280-32357-A-1		Client		voaWater	20.00	mL	1.000000
280-0014493-007	# 7 280-32357-A-2		Client		voaWater	20.00	mL	1.000000
280-0014493-008	# 8 std003	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	1	voaWater	20.00	mL	1.000000
280-0014493-009	# 9 std01	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	2	voaWater	20.00	mL	1.000000
280-0014493-010	#10 std02	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	3	voaWater	20.00	mL	1.000000
280-0014493-011	#11 std05	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	4	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0014493-012	#12 std10	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	5	voaWater	20.00	mL	1.000000
280-0014493-013	#13 std30	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	6	voaWater	20.00	mL	1.000000
280-0014493-014	#14 std60	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	7	voaWater	20.00	mL	1.000000
280-0014493-015	#15 icv	MV-567649_00001 MV-Main B_00001 MV-Gas/Ket B_00004 MV-SS 2-Cleve_00008	ICV		voaWater	20.00	mL	1.000000
280-0014493-016	#16 std01	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	2	voaWater	20.00	mL	1.000000
280-0014493-017	#17 std02	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	3	voaWater	20.00	mL	1.000000
280-0014493-018	#18 std05	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	4	voaWater	20.00	mL	1.000000
280-0014493-019	#19 icis	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	ICIS	5	voaWater	20.00	mL	1.000000
280-0014493-020	#20 std30	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	6	voaWater	20.00	mL	1.000000
280-0014493-021	#21 std60	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	7	voaWater	20.00	mL	1.000000
280-0014493-022	#22 icv	MV-ARCH SS A_00007 MV-Supp B_00001 Freon_B_00001 MV-567649_00001	ICV		voaWater	20.00	mL	1.000000
280-0014493-023	#23 blank		Client		voaWater	20.00	mL	1.000000
280-0014493-024	#24 blank		Client		voaWater	20.00	mL	1.000000
280-0014493-025	#25 280-45286-J-1		Client		voaWater	0.200000	mL	1.000000

TestAmerica Denver

~~TestAmerica Denver~~
~~GC/MS Initial Calibration Review Checklist~~ SSLRPH/FREEDM

~~GC/MS Initial Calibration Review Checklist~~

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Instrument ID and Date: M5L 8-16-13 ICAL Batch/ICV lines 187554 ICIS-19 ICV-22

~~Instrument ID and Date:~~

Calibration Event 15 / 14 Work List 1111933 2nd Day Batch/ICV lines

~~Calibration Event~~

Check Method Used: Analysis ☐ 624 ☒ 8260B ☐ Other VOA

~~Check Method Used: Analysis~~

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

~~VOA Preparation~~

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Initial Calibration					
~~BFB meets criteria?~~					
1. BFB meets criteria?	—			X	
~~ICAL date and instrument ID verified?~~					
2. ICAL date and instrument ID verified?	/			X	
~~Does the Form VI match the data in the Chrom source method?~~					
3. Does the Form VI match the data in the Chrom source method?	/			X	
~~Sufficient number of calibration points used?~~					
4. Sufficient number of calibration points used?	/			X	
~~Reasons for removal of points documented?~~					Some points ≤ RL removed
5. Reasons for removal of points documented?	/			X	~~Some points < RL removed~~
~~%RSD or correlation coefficient within method limits?~~					
6. %RSD or correlation coefficient within method limits?	/			X	
~~Response factors meet criteria?~~					
7. Response factors meet criteria?	/			X	
~~Isomeric pairs checked for correct peak assignment?~~					
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes Ethylbenzene/Xylenes 1,3,5- /1,2,4- Trimethylbenzene / isopropylbenzene 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2-Nitropropane between Bromodichloromethane &MIBK 2-/4-Chlorotoluene / n-propylbenzene 2-/4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone MIBK/2-Hexanone Methyl/Ethyl Methacrylate Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene / 1,2,3-Trichloropropane 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene/1,2,3-Trichloropropane	/			X	
~~Data checked for detector saturation?~~					
9. Data checked for detector saturation?	—			X	
~~Label number of standards used recorded?~~					
10. Label number of standards used recorded?	/			X	
~~Manual integrations documented and checked?~~					ethanol - levels 3, 4, 5
11. Manual integrations documented and checked?	/			X	~~ethanol - levels~~
~~2nd source ICV recovery 80-120% (±20%diff.) for DoD projects, 65-135% (±35% or ±55% of expected for poor performers) for non-DoD?~~					
12. 2nd source ICV recovery 80-120% (±20%diff.) for DoD projects, 65-135% (±35%,or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section. ~~Exceptions noted in comment section.~~	/			X	

1st Level Reviewer: _____ Date: 8-22-13

~~1st Level Reviewer:~~

2nd Level Reviewer: _____ Date: 8/22/13

~~2nd Level Reviewer:~~

Sequence Name: C:\MSDChem\1\sequence\081613am.S
Comment:
Operator: wickhamt
Data Path: C:\MSDCHEM\1\DATA\081613am\

Top	Pre-Seq Cmd:	
Instrument Control	Pre-Seq Cmd:	
Data Analysis	Pre-Seq Cmd:	
Top	Post-Seq Cmd:	
Instrument Control	Post-Seq Cmd:	
Data Analysis	Post-Seq Cmd:	

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info			
1)	Sample	100	MS6039	BFB	bfb
2)	Sample	99	MS6040	BFB	bfb
3)	Sample	98	MS6041	BFB	bfb tune adjust 11:20
4)	Sample	1	MS6042	8260	blank
5)	Sample	2	MS6043	8260	blank
6)	Sample	3	MS6044	8260	std003
7)	Sample	4	MS6045	8260	std01
8)	Sample	5	MS6046	8260	std02
9)	Sample	6	MS6047	8260	std05
10)	Sample	7	MS6048	8260	std10
11)	Sample	8	MS6049	8260	std30
12)	Sample	9	MS6050	8260	std60
13)	Sample	10	MS6051	8260	blank
14)	Sample	11	MS6052	8260	icv
15)	Sample	12	MS6053	8260	blank
16)	Sample	13	MS6054	8260	std01
17)	Sample	14	MS6055	8260	std02
18)	Sample	15	MS6056	8260	std05
19)	Sample	16	MS6057	8260	icis
20)	Sample	17	MS6058	8260	std30
21)	Sample	18	MS6059	8260	std60
22)	Sample	19	MS6060	8260	blank
23)	Sample	20	MS6061	8260	icv 18:34

08/19/13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Instrument: MS 1

DV-MS-0010 (8260B/624) (Circle)

Purge Volume: (25mL/5mL/Eg) (Circle)

Tune Time: 11-20-13 18:34

Lims Batch: 187554

*Run rejected because of poor purge or QC issue. Do not report.
- Unless noted, volume of water used is 20 mL

22

TestAmerica Laboratories
Worklist Report

Worklist Name: 081613am
Instrument Name: VMS_MS1
Purge Volume: 5.000000
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_MS1\20130816-14493.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_MS1
Run Reagent: MV-567649_00001 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00005 Amount Added: 0.650000, Units: uL

Worklist Number: 14493
Chrom Method: AQ_VMS1_8260
Units: mL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0014493-001	# 1 BFB	MV-BFB_00010	BFB		voaWater	1.000000	uL	1.000000
280-0014493-002	# 2 CCV	MV-Gas/Ket A_00009 MV-567649_00001 MV-Main A_00003	CCV		voaWater	20.00	mL	1.000000
280-0014493-003	# 3 CCV	MV-Supp A_00004	CCV		voaWater	20.00	mL	1.000000
280-0014493-004	# 4 LCS	MV-Main B_00001 MV-Gas/Ket B_00004	LCS		voaWater	20.00	mL	1.000000
280-0014493-005	# 5 MB		MB		voaWater	20.00	mL	1.000000
280-0014493-006	# 6 280-32357-A-1		Client		voaWater	20.00	mL	1.000000
280-0014493-007	# 7 280-32357-A-2		Client		voaWater	20.00	mL	1.000000
280-0014493-008	# 8 std003	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	1	voaWater	20.00	mL	1.000000
280-0014493-009	# 9 std01	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	2	voaWater	20.00	mL	1.000000
280-0014493-010	#10 std02	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	3	voaWater	20.00	mL	1.000000
280-0014493-011	#11 std05	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	4	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0014493-012	#12 std10	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	5	voaWater	20.00	mL	1.000000
280-0014493-013	#13 std30	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	6	voaWater	20.00	mL	1.000000
280-0014493-014	#14 std60	MV-567649_00001 MV-Main A_00003 MV-Gas/Ket A_00009 MV-2 Cleve_00015	IC	7	voaWater	20.00	mL	1.000000
280-0014493-015	#15 icv	MV-567649_00001 MV-Main B_00001 MV-Gas/Ket B_00004 MV-SS 2-Cleve_00008	ICV		voaWater	20.00	mL	1.000000
280-0014493-016	#16 std01	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	2	voaWater	20.00	mL	1.000000
280-0014493-017	#17 std02	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	3	voaWater	20.00	mL	1.000000
280-0014493-018	#18 std05	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	4	voaWater	20.00	mL	1.000000
280-0014493-019	#19 icis	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	ICIS	5	voaWater	20.00	mL	1.000000
280-0014493-020	#20 std30	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	6	voaWater	20.00	mL	1.000000
280-0014493-021	#21 std60	MV-567649_00001 MV-ARCH SS A_00007 MV-Supp A_00004 Freon_A_00001	IC	7	voaWater	20.00	mL	1.000000
280-0014493-022	#22 icv	MV-ARCH SS A_00007 MV-Supp B_00001 Freon_B_00001 MV-567649_00001	ICV		voaWater	20.00	mL	1.000000
280-0014493-023	#23 blank		Client		voaWater	20.00	mL	1.000000
280-0014493-024	#24 blank		Client		voaWater	20.00	mL	1.000000
280-0014493-025	#25 280-45286-J-1		Client		voaWater	0.200000	mL	1.000000

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Batch Number: 187564 Batch Start Date: 08/16/13 11:24 Batch Analyst: Bourgery, David F

Batch Method: 1311 Batch End Date: 08/17/13 08:07

Lab Sample ID	Client Sample ID	Method Chain	Basis	ExtractFluid					
LB 280-187564/1		1311, 8260B		t1					
LCS 280-187564/2		1311, 8260B		t1					
280-45380-A-3	774776CARBON080813	1311, 8260B	P	t1					
280-45380-A-4	785786CARBON080813	1311, 8260B	P	t1					

Batch Notes	
First End time	08/17/13 08:07
First Start time	08/16/13 11:24

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-45380-1

SDG No.:

Project: Griffiss AFB 1015-11-01 SVI

Client Sample ID	Lab Sample ID
774776CARBON080813	280-45380-3
785786CARBON080813	280-45380-4

Comments:

Client Sample ID: 774776CARBON080813 Lab Sample ID: 280-45380-3

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG ID.:

Matrix: Solid Date Sampled: 08/08/2013 10:35

Reporting Basis: WET Date Received: 08/12/2013 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ignitability	No				No Unit			1	7.1.2

Client Sample ID: 785786CARBON080813 Lab Sample ID: 280-45380-4

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG ID.:

Matrix: Solid Date Sampled: 08/08/2013 11:31

Reporting Basis: WET Date Received: 08/12/2013 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ignitability	No				No Unit			1	7.1.2

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 189239 Date: 08/28/2013 13:00								
7.1.2	774776CARBON080813	280-45380-3	Ignitability	No	No Unit			
7.1.2	774776CARBON080813	280-45380-3 DU	Ignitability	No	No Unit	NC		

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-45380-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 7.1.2 LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (NONE)	
Ignitability			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-45380-1

SDG No.:

Instrument ID: NOEQUIP Method: 7.1.2

Start Date: 08/28/2013 13:00 End Date: 08/28/2013 13:00

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ign																			
280-45380-3	1	T	13:00	X																			
280-45380-3 DU	1	T	13:00	X																			
280-45380-4	1	T	13:00	X																			

Prep Types

T = Total/NA

Wet Chemistry Data Review Checklist For Gravimetric Methods

Test Name Method #: Ignitability Analysis Date: 05-28-13

SOP #: QA-WC-0063 Analyst: D.B. Instrument: NA

Lot / Sample Numbers	Matrix	Prep Batch	Batch	Method	Special Inst
45380	S	—	189239	7.1.2	Q4
45912	↓	↓	↓	↓	—
45823	↓	↓	↓	↓	Dupl. - Cat. 04
45885	↓	↓	↓	↓	Limited Volume

D.B. 05-28-13

A. Balance, Oven, and DI Water QC Checks	Yes	No	N/A	2nd Level
1. Was the balance calibration verified before and after processing samples and noted in the "Balance Calibration Log" for the date(s) the samples were processed?			✓	X
2. Was the oven temperature within method requirements and recorded in the "Oven Temperature" logbook for the date(s) the samples were processed?			✓	X
3. Was the daily conductivity check of the deionized water recorded in the "Conductivity Logbook"?			✓	X
B. Method Requirements				
1. If sample is visibly oily, was this noted on the benchsheet?			✓	✓
2. Was final residue weight within minimum/maximum requirements?			✓	✓
3. Were the initial and final drying dates and times recorded on the benchsheet and were all samples dried for at least one hour?			✓	✓
C. Sample Results				
1. TDS/Conductivity ratio or historical data checked?			✓	✓
2. For % Moisture, was the Final Dried Weight < the Initial Pan Weight or is the result greater than 100%?			✓	✓
3. Were sample analyses done within holding time?	✓			✓
4. Were special client requirements met?	✓			✓
5. Were data that were manually transcribed from instrument printouts into TALS verified 100% including significant figures and units?	✓			✓
6. Do the prep and analysis dates in TALS reflect the actual dates? Lots/Dates report checked?	✓			✓
7. STD/True Value information is updated and included?			✓	✓
8. Are raw data copies prepared, scanned, and uploaded?	✓			✓
D. Preparation/Matrix QC				
1. Method blank < RL or all reported samples > 10 X RL?			✓	✓
2. Method blank < ½ RL or NCM provided?			✓	✓
3. LCS/LCSD run for batch and within QC limits?			✓	✓
4. DUP run for batch and RPD < 20% for samples >5 X RL?	✓			✓

Analyst: D.B. Date: 05-28-13

Comments: D.B. 05-28-13

2nd Level Reviewer: [signature] Date: 8/28/13

Comments:

Revision 2.0
5/18/10
QA\Edit\FORMS\Data Review\Gravimetric Review Checklist

Due 05-30-13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Ignitability of Solids for Waste Characterization Per 40 CFR 261.21

TestAmerica Denver

SOP DV-WC-0063

Lot Sample Number	Work Order Number	Free Liquid? (If YES, document sample disposition in COMMENTS.)		Ignites in contact with flame? (If NO, report as NOT ignitable. If YES, continue.)		Burns ONLY in contact with flame? (If YES, report as NOT ignitable.)		Burns persistently & vigorously after flame removed? (If YES, continue. If NO, report as NOT ignitable.)		Ignites when stirred? (If YES, report as ignitable. If NO continue.)		Ignites when water added? (If YES, report as ignitable. If NO continue.)		Ignites when heated? (If YES, report as ignitable. If NO report as NOT ignitable.)		Ignitable?	
		YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
480-45380-A-3			✓		✓												✓
= A-3 DU			✓		✓												✓
480-45380-A-4			✓		✓												✓
480-45912-A-1			✓		✓												✓
480-45923-B-3			✓		✓												✓
480-45965-A-1			✓		✓												✓

COMMENTS:

Analyst: [signature] Date: 05-28-13 Batch # (optional): 160239

Shipping and Receiving Documents

4.6°c IR1
AB
8/12/13

280-45380 Chain of Custody

AFCEC
CHAIN OF CUSTODY RECORD

COC#: 1 SDG#: 1 Cooler ID: A

Ship to: Elaine Walker Test America 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0156	Project Name: Griffiss AFB 1015-11-01 SVI Sampler Name: Katrina Mattice	Send Results to: Katrina Mattice FPM Remediations Inc 584 Phoenix Dr Rome, NY 13441
Carrier: Fedex	Sampler Signature: Katrina Mattice	Phone: (315) 336-7721 Ext 212

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2013	Time	MATRIX	SMCODE	SBD/SED	SACODE	No. of Containers	VOCs (Note 1) and Ignitibility Method 1030 8 Oz. Glass Jar	VOCs (Note 2) 40mL vial (HCl)	Comments
774776Water080813	774776-TankWater	8/8	1005	WG	G	0/0	N	3	-	3	
785786Water080813	785786-TankWater	8/8	1101	WG	G	0/0	N	3	-	3	
774776Carbon080813	774776-CarbonDrums	8/8	1035	S	G	0/0	N	1	1	-	
785786Carbon080813	785786-CarbonDrums	8/8	1131	S	G	0/0	N	1	1	-	
080813AB	Trip Blank	8/8	0825	WQ	NA	0/0	TB	2	-	2	

Page 337 of 373

Sample Condition Upon Receipt at Laboratory:

Cooler Temperature:

Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0

Note 1: VOCs according to TCLP for landfill disposal.

Note 2: VOCs method SW 8260.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig) Katrina Mattice	Date: 8/9/13	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM Remediations Inc	Time: 1700	Company Name:	Time:
#1 Received by: (Sig)	Date:	#2 Received by: (Sig)	Date: 8/12/13	#3 Received by: (Sig)	Date:
Company Name: FPM Remediations Inc	Time:	Company Name. TAL	Time: 0900	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil
GS = Gas Soil
S = Solid

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
AC = Air Container

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

08/29/2013

373

Login Sample Receipt Checklist

Client: FPM Remediations Inc

Job Number: 280-45380-1

Login Number: 45380

List Source: TestAmerica Denver

List Number: 1

Creator: Bindel, Aaron M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CAMERON GREAT LAKES, INC.

MOLECULAR FILTRATION SPECIALISTS

Approval Date: _____ **Approval Number:** _____

Approval By: _____ **Title:** _____

SPENT CARBON PROFILE FORM

A. Generator Information

1. Generating Facility: Air Force
2. Site Address: former Griffiss Air Force Base

Mailing Address: AFCEC C/O PRM Remediations INC.
106 Hanscom Rd
Rome NY 13441

3. EPA I.D. Number NY4571924451
   Is this a SUPERFUND site? YES X NO
4. Generator Technical Representative: Katrina Mathys, P.E.
5. Phone No.: (315) 336-7721 Title: Environmental Engineer
   Fax No.: (315) 336-7722
6. Generator Business Representative: Cathy Jerrard, P.E.
7. Phone No.: (315) 356-0810 Fax No.: (315) 356-0816
   xt-204

B. Cameron Great Lakes Distributor Information(if applicable)

1. Distributor Name: _____
2. Distributor Representative: _____
3. Phone No.: (___) _____ - _____ Fax No.: (___) _____ - _____
4. Who is Cameron Great Lakes to contact regarding this form?
   ( )A-4 above
   ( )B-2 above
   ( )Other Name: _____
   Company: _____
   Phone No.: (___) _____ - _____ Fax No.: (___) _____ - _____

REQUIRED: Ship Amt: _____ Distributor PO# _____

Generator Certification

I hereby certify that to the best of my knowledge, all information submitted in this and all attached documents is true and accurate, and that all know or suspected chemical contaminants and potential hazards have been disclosed.

Signature _____ Date 5/28/2015

Name (type or print) CATHERINE JERRARD Title (type or print) ENGINEER

C. **Spent Carbon Identification**

1. Describe the carbon treatment system and detail the source of, or process which created the contaminants that are on this carbon (examples; system filtering gasoline leaking underground storage tank, wastewater treatment for spent solvent used for degreasing printed circuit boards, ground water cleanup of spilled chemical from drum storage area, air filtration of office building, waste water treatment from a municipal sewage plant, etc.):
Carbon used to filter vapor at chlorinated solvent soil vapor extraction systems. Sites include SD052 (Building 714 and 716) and ST006 (Building 101). SD052 has a system that recovers vapor degassing from the groundwater table and ST006 has a system that recovers vapor degassing from soil residuals.

2. Treatment System:
   a. Total Carbon by volume or weight: 2000lbs (10 - 55gal drums)
   b. No. of Filters:_____ c. Flow Rate:_____( )GPM( )CFM
   d. Service Duration between carbon changeouts:
      _____Number of Months
      _____Days used per month
      _____Hours used per day
   e. Anticipated Spent Carbon Quantity Generated:
      _____Volume or Pounds (dry) per _____(wk, mo, yr)
      circle one circle one

3. Type of Carbon: a. U.S. Mesh Size:_____
   b. Liquid or Vapor:_____
4. Shipping Container Type: 55 gallon metal drums
5. Spent Carbon Color: black
6. Foreign Material Present (rocks, dirt, etc.) ( )YES ( )NO
   If yes, describe:_____
7. A chemical analysis of the influent stream or spent carbon must be provided. Please attach. Please list organic contaminants and concentrations in ( ) Influent Stream, or (X) on spent carbon below. See attached Results J61445-1

Chemical Component	Concentration(ppm/ppb)

8. Does the Influent Stream (X) or Spent Carbon (X) Contain:
   Metals ____YES_X_NO PCB's ____YES_X_NO
   Radioactives ____YES_X_NO Dioxins ____YES_X_NO
   If any item above is "yes" attach analysis and describe:

D. Spent Carbon Hazardous Characterization

Questions 1a, 2a, & 3, must be answered. If the answer to part (a) is "no" you need not complete the rest of that particular question.

1A. Is the spent carbon a Hazardous Waste as defined by U.S. EPA regulations under the Resource Conservation and Recovery Act(RCRA) as set fourth in 40 CFR, Part 261?
_____YES__X__NO

1B. If "yes", list U.S. EPA Hazardous Waste Code(s):
_____ _____ _____ _____

2A. Is the spent carbon a Hazardous Waste as defined by your State's regulations?_____YES_X_NO

2B. If "yes", list Generator State's waste code(s):
_____ _____ _____ _____

3. Generator's State Agency Information:
Agency Name: New York State Department of Environmental
Agency Address: conservation

E. Spent Carbon Handling Instructions

1. Required personal protection equipment or special handling instructions?
None

2. **Do you have MSDS(s) for all contaminants in influent stream or on spent carbon?**
_____YES_X___NO Please attach to original copy of this form.
Spent carbon sampling results provided.

Call "Profile Form Assistance" at 800-777-4044 with any questions.

Mail Signed Original to:
Cameron Great Lakes
2335 NW 29TH Ave.
Portland, OR 97210

This form and lab analyses (without MSDS's) may be faxed to
503-225-0137
to expedite the approval process.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-61445-1

Job Description: Griffiss AFB 1015-11-01 SVI

For:
FPM Remediations Inc
584 Phoenix Drive
Rome, NY 13441

Attention: Daniel Baldyga

Approved for release.
Elaine M Walker
Project Manager II
10/30/2014 2:22 PM

Elaine M Walker, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0156
elaine.walker@testamericainc.com
10/30/2014

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

Table of Contents

Cover Title Page 1
Data Summaries 4
Report Narrative 4
Manual Integration Summary 5
Sample Summary 13
Executive Summary 14
Method Summary 15
Method / Analyst Summary 16
Sample Datasheets 17
Surrogate Summary 23
QC Data Summary 25
Data Qualifiers 33
QC Association Summary 34
Lab Chronicle 35
Reagent Traceability 37
Certification Summary 48
Organic Sample Data 49
GC/MS VOA 49
Method 8260B DOD 49
Method 8260B DOD QC Summary 50
Method 8260B DOD Sample Data 60
Standards Data 67
Method 8260B DOD ICAL Data 67
Method 8260B DOD CCAL Data 136
Raw QC Data 169
Method 8260B DOD Tune Data 169

Table of Contents

Method 8260B DOD Blank Data 175

Method 8260B DOD LCS/LCSD Data 183

Method 8260B DOD Run Logs 198

Method 8260B 205

Method 8260B QC Summary 206

Method 8260B Sample Data 209

Standards Data 215

Method 8260B CCAL Data 215

Raw QC Data 230

Method 8260B Tune Data 230

Method 8260B Blank Data 233

Method 8260B LCS/LCSD Data 239

Method 8260B Run Logs 244

Method 8260B Prep Data 258

Inorganic Sample Data 259

General Chemistry Data 259

Gen Chem Cover Page 260

Gen Chem Sample Data 261

Gen Chem MDL 263

Gen Chem Analysis Run Log 265

Gen Chem Raw Data 267

Gen Chem Prep Data 270

Shipping and Receiving Documents 271

Client Chain of Custody 272

Sample Receipt Checklist 273

CASE NARRATIVE
Client: FPM Remediations Inc
Project: Griffiss AFB 1015-11-01 SVI
Report Number: 280-61445-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
Three samples were received on 10/18/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.9ºC.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples 774776CARBON101414 (280-61445-1) and 101CARBON101614 (280-61445-2) were analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 10/21/2014 and analyzed on 10/26/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Sample 101414TB (280-61445-3) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The sample was analyzed on 10/23/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

IGNITABILITY
Samples 774776CARBON101414 (280-61445-1) and 101CARBON101614 (280-61445-2) were analyzed for Ignitability in accordance with EPA SW-846 Method 7.1.2. The samples were analyzed on 10/21/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS
Samples 774776CARBON101414 (280-61445-1) and 101CARBON101614 (280-61445-2) were analyzed for percent solids in accordance with ASTM D2216-90. The samples were analyzed on 10/20/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 249697

Lab Sample ID: CCV 280-249697/2 Client Sample ID:

Date Analyzed: 10/26/14 11:07 Lab File ID: H5995.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.29	Peak Tail	linesj	10/26/14 11:39

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 248996

Lab Sample ID: STD02 280-248996/11 IC Client Sample ID:

Date Analyzed: 10/22/14 10:15 Lab File ID: H5779.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methyl-2-propanol	4.10	Shouldering	linesj	10/22/14 18:31

Lab Sample ID: STD01 280-248996/17 IC Client Sample ID:

Date Analyzed: 10/22/14 12:47 Lab File ID: H5786.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.70	Assign Peak	wickhamt	10/22/14 14:55
Acetonitrile	3.85	Baseline	linesj	10/22/14 18:34

Lab Sample ID: STD02 280-248996/18 IC Client Sample ID:

Date Analyzed: 10/22/14 13:09 Lab File ID: H5787.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.68	Assign Peak	wickhamt	10/22/14 14:55

Lab Sample ID: STD05 280-248996/19 IC Client Sample ID:

Date Analyzed: 10/22/14 13:30 Lab File ID: H5788.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.68	Assign Peak	wickhamt	10/22/14 14:55
Acetonitrile	3.85	Split Peak	wickhamt	10/22/14 14:53

Lab Sample ID: ICIS 280-248996/20 Client Sample ID:

Date Analyzed: 10/22/14 13:52 Lab File ID: H5789.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.67	Assign Peak	linesj	10/22/14 18:38

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 248996

Lab Sample ID: STD30 280-248996/21 IC Client Sample ID:

Date Analyzed: 10/22/14 14:13 Lab File ID: H5790.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.66	Assign Peak	linesj	10/22/14 18:38

Lab Sample ID: STD60 280-248996/22 IC Client Sample ID:

Date Analyzed: 10/22/14 14:35 Lab File ID: H5791.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.68	Assign Peak	wickhamt	10/22/14 14:56

Lab Sample ID: ICV 280-248996/23 Client Sample ID:

Date Analyzed: 10/22/14 15:19 Lab File ID: H5793.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.68	Assign Peak	linesj	10/22/14 18:39

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 249165

Lab Sample ID: LCSD 280-249165/5 Client Sample ID:

Date Analyzed: 10/23/14 10:48 Lab File ID: H5838.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloroethene	9.78	Split Peak	moanm	10/23/14 11:36

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 249697

Lab Sample ID: CCV 280-249697/2 Client Sample ID:

Date Analyzed: 10/26/14 11:07 Lab File ID: H5995.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.29	Peak Tail	linesj	10/26/14 11:39

PR
10/28/14

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 248996

Lab Sample ID: STD02 280-248996/11 IC Client Sample ID:

Date Analyzed: 10/22/14 10:15 Lab File ID: H5779.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methyl-2-propanol	4.10	Shouldering	linesj	10/22/14 18:31

Lab Sample ID: STD01 280-248996/17 IC Client Sample ID:

Date Analyzed: 10/22/14 12:47 Lab File ID: H5786.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.70	Assign Peak	wickhamt	10/22/14 14:55
Acetonitrile	3.85	Baseline	linesj	10/22/14 18:34

Lab Sample ID: STD02 280-248996/18 IC Client Sample ID:

Date Analyzed: 10/22/14 13:09 Lab File ID: H5787.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.68	Assign Peak	wickhamt	10/22/14 14:55

Lab Sample ID: STD05 280-248996/19 IC Client Sample ID:

Date Analyzed: 10/22/14 13:30 Lab File ID: H5788.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.68	Assign Peak	wickhamt	10/22/14 14:55
Acetomitrile	3.85	Split Peak	wickhamt	10/22/14 14:53

Lab Sample ID: ICIS 280-248996/20 Client Sample ID:

Date Analyzed: 10/22/14 13:52 Lab File ID: H5789.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.67	Assign Peak	linesj	10/22/14 18:38

PR
10/28/14

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 248996

Lab Sample ID: STD30 280-248996/21 IC Client Sample ID:

Date Analyzed: 10/22/14 14:13 Lab File ID: H5790.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.66	Assign Peak	linesj	10/22/14 18:38

Lab Sample ID: STD60 280-248996/22 IC Client Sample ID:

Date Analyzed: 10/22/14 14:35 Lab File ID: H5791.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.68	Assign Peak	wickhamt	10/22/14 14:56

Lab Sample ID: ICV 280-248996/23 Client Sample ID:

Date Analyzed: 10/22/14 15:19 Lab File ID: H5793.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.68	Assign Peak	linesj	10/22/14 18:39

PR
10/28/14

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 249165

Lab Sample ID: LCSD 280-249165/5 Client Sample ID:

Date Analyzed: 10/23/14 10:48 Lab File ID: H5838.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloroethene	9.78	Split Peak	moanm	10/23/14 11:36

FR
10/28/14

SAMPLE SUMMARY

Client: FPM Remediations Inc

Job Number: 280-61445-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-61445-1	774776CARBON101414	Solid	10/14/2014 1500	10/18/2014 1025
280-61445-2	101CARBON101614	Solid	10/16/2014 1200	10/18/2014 1025
280-61445-3TB	101414TB	Water	10/14/2014 1400	10/18/2014 1025

EXECUTIVE SUMMARY - Detections

Client: FPM Remediations Inc

Job Number: 280-61445-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-61445-1	**774776CARBON101414**					
Ignitability		NO			No Unit	7.1.2
Percent Moisture		2.1		0.10	%	Moisture
280-61445-2	**101CARBON101614**					
Ignitability		NO			No Unit	7.1.2
Percent Moisture		36		0.10	%	Moisture

METHOD SUMMARY

Client: FPM Remediations Inc

Job Number: 280-61445-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
TCLP Extraction	TAL DEN		SW846 1311
Purge and Trap	TAL DEN		SW846 5030B
Ignitablity,Solids	TAL DEN	SW846 7.1.2	
Percent Moisture	TAL DEN	EPA Moisture	
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260C	
Purge and Trap	TAL DEN		SW846 5030B

Lab References:

TAL DEN = TestAmerica Denver

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: FPM Remediations Inc

Job Number: 280-61445-1

Method	Analyst	Analyst ID
SW846 8260B	Lines, Jeremy N	JNL
SW846 8260C	Moan, Matthew R	MRM
SW846 7.1.2	Woolley, Mark -	MW1
EPA Moisture	Baez, Oscar 1	OB1

Client: FPM Remediations Inc Job Number: 280-61445-1

Client Sample ID: **774776CARBON101414**

Lab Sample ID: 280-61445-1 Date Sampled: 10/14/2014 1500
Client Matrix: Solid Date Received: 10/18/2014 1025

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	280-249697	Instrument ID:	VMS_H
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	H6019.D
Dilution:	1.0	Leach Batch:	280-249035	Initial Weight/Volume:	2 mL
Analysis Date:	10/26/2014 1955			Final Weight/Volume:	20 mL
Prep Date:	10/26/2014 1955				
Leach Date:	10/21/2014 1900				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	DL	LOQ
Benzene		2.0	U	1.6	10
2-Butanone (MEK)		32	U	18	100
Carbon tetrachloride		4.0	U	1.9	10
Chlorobenzene		2.0	U	1.7	10
Chloroform		2.0	U	1.6	10
1,2-Dichloroethane		4.0	U	1.3	10
1,1-Dichloroethene		4.0	U	2.3	10
Tetrachloroethene		4.0	U	2.0	10
Trichloroethene		2.0	U	1.6	10
Vinyl chloride		8.0	U	1.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		64 - 129
Toluene-d8 (Surr)	97		78 - 120
4-Bromofluorobenzene (Surr)	99		78 - 121
Dibromofluoromethane (Surr)	100		79 - 119

Client: FPM Remediations Inc Job Number: 280-61445-1

Client Sample ID: **101CARBON101614**

Lab Sample ID: 280-61445-2 Date Sampled: 10/16/2014 1200
Client Matrix: Solid Date Received: 10/18/2014 1025

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	280-249697	Instrument ID:	VMS_H
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	H6020.D
Dilution:	1.0	Leach Batch:	280-249035	Initial Weight/Volume:	2 mL
Analysis Date:	10/26/2014 2017			Final Weight/Volume:	20 mL
Prep Date:	10/26/2014 2017				
Leach Date:	10/21/2014 1900				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	DL	LOQ
Benzene		2.0	U	1.6	10
2-Butanone (MEK)		32	U	18	100
Carbon tetrachloride		4.0	U	1.9	10
Chlorobenzene		2.0	U	1.7	10
Chloroform		2.0	U	1.6	10
1,2-Dichloroethane		4.0	U	1.3	10
1,1-Dichloroethene		4.0	U	2.3	10
Tetrachloroethene		4.0	U	2.0	10
Trichloroethene		2.0	U	1.6	10
Vinyl chloride		8.0	U	1.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		64 - 129
Toluene-d8 (Surr)	106		78 - 120
4-Bromofluorobenzene (Surr)	102		78 - 121
Dibromofluoromethane (Surr)	107		79 - 119

Client: FPM Remediations Inc | Job Number: 280-61445-1

Client Sample ID: **101414TB**

Lab Sample ID: 280-61445-3TB | Date Sampled: 10/14/2014 1400
Client Matrix: Water | Date Received: 10/18/2014 1025

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-249165	Instrument ID:	VMS_H
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	H5853.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	10/23/2014 1623			Final Weight/Volume:	20 mL
Prep Date:	10/23/2014 1623				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.40	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	0.79	3.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1-Dichloroethane	0.40	U	0.16	1.0
1,1-Dichloroethene	0.40	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.40	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	80	U	71	220
1-Chlorohexane	0.20	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Chlorotoluene	0.40	U	0.17	1.0
4-Isopropyltoluene	0.40	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.20	U	0.16	1.0
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon disulfide	0.80	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.40	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.20	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.20	U	0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Cyclohexane	0.40	U	0.28	2.0
Dibromomethane	0.40	U	0.17	1.0

Client: FPM Remediations Inc Job Number: 280-61445-1

Client Sample ID: **101414TB**

Lab Sample ID: 280-61445-3TB Date Sampled: 10/14/2014 1400
Client Matrix: Water Date Received: 10/18/2014 1025

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-249165	Instrument ID:	VMS_H
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	H5853.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	10/23/2014 1623			Final Weight/Volume:	20 mL
Prep Date:	10/23/2014 1623				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.40	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	2.0	U	1.6	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
Methylcyclohexane	0.40	U	0.36	2.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.20	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.20	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.40	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 120
4-Bromofluorobenzene (Surr)	100		75 - 120
Dibromofluoromethane (Surr)	103		85 - 115
Toluene-d8 (Surr)	104		85 - 120

Client: FPM Remediations Inc Job Number: 280-61445-1

General Chemistry

Client Sample ID: **774776CARBON101414**

Lab Sample ID: 280-61445-1 Date Sampled: 10/14/2014 1500
Client Matrix: Solid Date Received: 10/18/2014 1025

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Ignitability	NO		No Unit			1.0	7.1.2
Analysis Batch: 280-248972	Analysis Date: 10/21/2014 1934						DryWt Corrected: N
Percent Moisture	2.1		%	0.10	0.10	1.0	Moisture
Analysis Batch: 280-248751	Analysis Date: 10/20/2014 1326						DryWt Corrected: N

Client: FPM Remediations Inc

Job Number: 280-61445-1

General Chemistry

Client Sample ID: **101CARBON101614**

Lab Sample ID: 280-61445-2

Client Matrix: Solid

Date Sampled: 10/16/2014 1200

Date Received: 10/18/2014 1025

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Ignitability	NO		No Unit			1.0	7.1.2
Analysis Batch: 280-248972	Analysis Date: 10/21/2014 1934						DryWt Corrected: N
Percent Moisture	36		%	0.10	0.10	1.0	Moisture
Analysis Batch: 280-248751	Analysis Date: 10/20/2014 1326						DryWt Corrected: N

Client: FPM Remediations Inc

Job Number: 280-61445-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-61445-1	774776CARBON101414	100	90	97	99
280-61445-2	101CARBON101614	107	97	106	102
LB 280-249035/1-A		103	95	99	95
LCS 280-249035/2-A		96	93	103	98

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	79-119
DCA = 1,2-Dichloroethane-d4 (Surr)	64-129
TOL = Toluene-d8 (Surr)	78-120
BFB = 4-Bromofluorobenzene (Surr)	78-121

Client: FPM Remediations Inc

Job Number: 280-61445-1

Surrogate Recovery Report

8260C Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-61445-3	101414TB	103	95	104	100
MB 280-249165/6		102	96	105	104
LCS 280-249165/4		98	96	110	95
LCSD 280-249165/5		98	97	108	92

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	85-115
DCA = 1,2-Dichloroethane-d4 (Surr)	70-120
TOL = Toluene-d8 (Surr)	85-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Client: FPM Remediations Inc

Job Number: 280-61445-1

TCLP SPLPE Leachate Blank - Batch: 280-249697

Method: 8260B
Preparation: 5030B
TCLP

Lab Sample ID:	LB 280-249035/1-A	Analysis Batch:	280-249697	Instrument ID:	VMS_H
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	H6000.D
Dilution:	1.0	Leach Batch:	280-249035	Initial Weight/Volume:	2 mL
Analysis Date:	10/26/2014 1257	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	10/26/2014 1257				
Leach Date:	10/21/2014 1900				

Analyte	Result	Qual	DL	LOQ
Benzene	2.0	U	1.6	10
2-Butanone (MEK)	32	U	18	100
Carbon tetrachloride	4.0	U	1.9	10
Chlorobenzene	2.0	U	1.7	10
Chloroform	2.0	U	1.6	10
1,2-Dichloroethane	4.0	U	1.3	10
1,1-Dichloroethene	4.0	U	2.3	10
Tetrachloroethene	4.0	U	2.0	10
Trichloroethene	2.0	U	1.6	10
Vinyl chloride	8.0	U	1.0	10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	64 - 129
Toluene-d8 (Surr)	99	78 - 120
4-Bromofluorobenzene (Surr)	95	78 - 121
Dibromofluoromethane (Surr)	103	79 - 119

Client: FPM Remediations Inc

Job Number: 280-61445-1

Lab Control Sample - Batch: 280-249697

Method: 8260B
Preparation: 5030B
TCLP

Lab Sample ID:	LCS 280-249035/2-A	Analysis Batch:	280-249697	Instrument ID:	VMS_H
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	H5999.D
Dilution:	1.0	Leach Batch:	280-249035	Initial Weight/Volume:	2 mL
Analysis Date:	10/26/2014 1235	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	10/26/2014 1235				
Leach Date:	10/21/2014 1900				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	50.0	47.3	95	74 - 135	
2-Butanone (MEK)	200	188	94	44 - 150	
Carbon tetrachloride	50.0	50.1	100	67 - 135	
Chlorobenzene	50.0	46.5	93	76 - 135	
Chloroform	50.0	46.8	94	76 - 120	
1,2-Dichloroethane	50.0	44.8	90	70 - 135	
1,1-Dichloroethene	50.0	54.5	109	71 - 136	
Tetrachloroethene	50.0	50.1	100	70 - 135	
Trichloroethene	50.0	46.4	93	73 - 135	
Vinyl chloride	50.0	37.1	74	40 - 144	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	64 - 129
Toluene-d8 (Surr)	103	78 - 120
4-Bromofluorobenzene (Surr)	98	78 - 121
Dibromofluoromethane (Surr)	96	79 - 119

Client: FPM Remediations Inc

Job Number: 280-61445-1

Method Blank - Batch: 280-249165

Method: 8260C
Preparation: 5030B

Lab Sample ID:	MB 280-249165/6	Analysis Batch:	280-249165	Instrument ID:	VMS_H
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	H5831.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	10/23/2014 0759	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	10/23/2014 0759				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.40	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	0.79	3.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1-Dichloroethane	0.40	U	0.16	1.0
1,1-Dichloroethene	0.40	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.40	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	80	U	71	220
1-Chlorohexane	0.20	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Chlorotoluene	0.40	U	0.17	1.0
4-Isopropyltoluene	0.40	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.20	U	0.16	1.0
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon disulfide	0.80	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.40	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.20	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.20	U	0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Cyclohexane	0.40	U	0.28	2.0

Client: FPM Remediations Inc

Job Number: 280-61445-1

Method Blank - Batch: 280-249165

Method: 8260C
Preparation: 5030B

Lab Sample ID:	MB 280-249165/6	Analysis Batch:	280-249165	Instrument ID:	VMS_H
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	H5831.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	10/23/2014 0759	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	10/23/2014 0759				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Dibromomethane	0.40	U	0.17	1.0
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.40	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	2.0	U	1.6	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
Methylcyclohexane	0.40	U	0.36	2.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.20	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.20	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.40	U	0.10	1.5

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	70 - 120
4-Bromofluorobenzene (Surr)	104	75 - 120
Dibromofluoromethane (Surr)	102	85 - 115
Toluene-d8 (Surr)	105	85 - 120

Client: FPM Remediations Inc

Job Number: 280-61445-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-249165

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-249165/4	Analysis Batch:	280-249165	Instrument ID:	VMS_H
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	H5830.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	10/23/2014 0738	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	10/23/2014 0738				20 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-249165/5	Analysis Batch:	280-249165	Instrument ID:	VMS_H
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	H5838.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	10/23/2014 1048	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	10/23/2014 1048				20 mL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	108	104	80 - 130	4	30		
1,1,1-Trichloroethane	110	105	65 - 130	5	30		
1,1,2,2-Tetrachloroethane	97	92	65 - 130	5	30		
1,1,2-Trichloroethane	97	94	75 - 125	3	30		
1,1-Dichloroethane	106	100	70 - 135	6	30		
1,1-Dichloroethene	116	112	70 - 130	3	30		
1,1-Dichloropropene	114	108	75 - 130	6	30		
1,2,3-Trichlorobenzene	111	100	55 - 140	10	30		
1,2,3-Trichloropropane	102	96	75 - 125	6	30		
1,2,4-Trichlorobenzene	108	102	65 - 135	6	30		
1,2,4-Trimethylbenzene	104	96	75 - 130	8	30		
1,2-Dibromo-3-Chloropropane	103	99	50 - 130	4	30		J
1,2-Dichlorobenzene	106	97	70 - 120	8	30		
1,2-Dichloroethane	99	97	70 - 130	2	30		
1,2-Dichloropropane	96	94	75 - 125	2	30		
1,3,5-Trimethylbenzene	106	98	75 - 130	7	30		
1,3-Dichlorobenzene	110	102	75 - 125	7	30		
1,3-Dichloropropane	102	98	75 - 125	4	30		
1,4-Dichlorobenzene	102	96	75 - 125	7	30		
2,2-Dichloropropane	110	107	70 - 135	3	30		
2-Butanone (MEK)	110	105	30 - 150	5	30		
2-Chlorotoluene	101	93	75 - 125	8	30		
2-Hexanone	118	110	55 - 130	7	30		
4-Chlorotoluene	107	99	75 - 130	8	30		
4-Isopropyltoluene	106	101	75 - 130	5	30		
4-Methyl-2-pentanone (MIBK)	112	111	60 - 135	1	30		
Acetone	110	98	40 - 140	11	30		
Benzene	108	103	80 - 120	5	30		
Bromobenzene	105	99	75 - 125	6	30		
Bromoform	106	103	70 - 130	3	30		
Bromomethane	109	104	30 - 145	4	30		
Carbon disulfide	110	105	35 - 160	5	30		
Carbon tetrachloride	111	108	65 - 140	3	30		
Chlorobenzene	108	104	80 - 120	4	30		
Chlorobromomethane	102	100	65 - 130	3	30		
Chlorodibromomethane	103	102	60 - 135	1	30		

Client: FPM Remediations Inc

Job Number: 280-61445-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-249165

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-249165/4	Analysis Batch:	280-249165	Instrument ID:	VMS_H
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	H5830.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	10/23/2014 0738	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	10/23/2014 0738				20 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-249165/5	Analysis Batch:	280-249165	Instrument ID:	VMS_H
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	H5838.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	10/23/2014 1048	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	10/23/2014 1048				20 mL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloroethane	111	106	60 - 135	5	30		
Chloroform	103	99	65 - 135	4	30		
Chloromethane	111	106	40 - 125	4	30		
cis-1,2-Dichloroethene	107	103	70 - 125	3	30		
cis-1,3-Dichloropropene	108	107	70 - 130	1	30		
Dibromomethane	93	96	75 - 125	4	30		
Dichlorobromomethane	98	94	75 - 120	5	30		
Dichlorodifluoromethane	116	116	30 - 155	0	30		
Ethylbenzene	110	104	75 - 125	6	30		
Ethylene Dibromide	104	101	80 - 120	3	30		
Hexachlorobutadiene	116	105	50 - 140	10	30		
Isopropylbenzene	105	100	75 - 125	5	30		
Methyl tert-butyl ether	103	99	65 - 125	5	30		J
Methylene Chloride	101	99	55 - 140	2	30		J
m-Xylene & p-Xylene	106	102	75 - 130	4	30		
Naphthalene	99	95	55 - 140	4	30		
n-Butylbenzene	107	101	70 - 135	6	30		
N-Propylbenzene	108	103	70 - 130	5	30		
o-Xylene	107	102	80 - 120	4	30		
sec-Butylbenzene	109	101	70 - 125	8	30		
Styrene	104	101	65 - 135	3	30		
tert-Butylbenzene	105	99	70 - 130	5	30		
Tetrachloroethene	110	96	45 - 150	14	30		M
Toluene	106	102	75 - 120	4	30		
trans-1,2-Dichloroethene	110	107	60 - 140	3	30		
trans-1,3-Dichloropropene	104	101	55 - 140	2	30		
Trichloroethene	99	98	70 - 125	2	30		
Trichlorofluoromethane	110	107	60 - 145	3	30		
Vinyl chloride	108	103	50 - 145	5	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	97	70 - 120
4-Bromofluorobenzene (Surr)	95	92	75 - 120
Dibromofluoromethane (Surr)	98	98	85 - 115
Toluene-d8 (Surr)	110	108	85 - 120

Client: FPM Remediations Inc

Job Number: 280-61445-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-249165

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-249165/4	Units: ug/L		LCSD Lab Sample ID:	LCSD 280-249165/5
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/23/2014 0738			Analysis Date:	10/23/2014 1048
Prep Date:	10/23/2014 0738			Prep Date:	10/23/2014 1048
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual	
1,1,1,2-Tetrachloroethane	5.00	5.00	5.42	5.21	
1,1,1-Trichloroethane	5.00	5.00	5.52	5.23	
1,1,2,2-Tetrachloroethane	5.00	5.00	4.87	4.61	
1,1,2-Trichloroethane	5.00	5.00	4.83	4.68	
1,1-Dichloroethane	5.00	5.00	5.31	5.00	
1,1-Dichloroethene	5.00	5.00	5.79	5.60	
1,1-Dichloropropene	5.00	5.00	5.72	5.41	
1,2,3-Trichlorobenzene	5.00	5.00	5.54	5.01	
1,2,3-Trichloropropane	5.00	5.00	5.09	4.78	
1,2,4-Trichlorobenzene	5.00	5.00	5.40	5.11	
1,2,4-Trimethylbenzene	5.00	5.00	5.22	4.82	
1,2-Dibromo-3-Chloropropane	5.00	5.00	5.13	4.94	J
1,2-Dichlorobenzene	5.00	5.00	5.29	4.86	
1,2-Dichloroethane	5.00	5.00	4.96	4.86	
1,2-Dichloropropane	5.00	5.00	4.79	4.71	
1,3,5-Trimethylbenzene	5.00	5.00	5.28	4.92	
1,3-Dichlorobenzene	5.00	5.00	5.50	5.10	
1,3-Dichloropropane	5.00	5.00	5.09	4.89	
1,4-Dichlorobenzene	5.00	5.00	5.11	4.78	
2,2-Dichloropropane	5.00	5.00	5.51	5.35	
2-Butanone (MEK)	20.0	20.0	22.0	21.0	
2-Chlorotoluene	5.00	5.00	5.07	4.66	
2-Hexanone	20.0	20.0	23.6	22.0	
4-Chlorotoluene	5.00	5.00	5.36	4.93	
4-Isopropyltoluene	5.00	5.00	5.31	5.04	
4-Methyl-2-pentanone (MIBK)	20.0	20.0	22.3	22.1	
Acetone	20.0	20.0	21.9	19.6	
Benzene	5.00	5.00	5.40	5.14	
Bromobenzene	5.00	5.00	5.27	4.95	
Bromoform	5.00	5.00	5.30	5.16	
Bromomethane	5.00	5.00	5.46	5.22	
Carbon disulfide	5.00	5.00	5.52	5.27	
Carbon tetrachloride	5.00	5.00	5.53	5.39	
Chlorobenzene	5.00	5.00	5.38	5.19	
Chlorobromomethane	5.00	5.00	5.12	5.00	
Chlorodibromomethane	5.00	5.00	5.13	5.08	
Chloroethane	5.00	5.00	5.57	5.28	
Chloroform	5.00	5.00	5.14	4.96	
Chloromethane	5.00	5.00	5.55	5.31	

Client: FPM Remediations Inc

Job Number: 280-61445-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-249165

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-249165/4	Units:	ug/L	LCSD Lab Sample ID:	LCSD 280-249165/5
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/23/2014 0738			Analysis Date:	10/23/2014 1048
Prep Date:	10/23/2014 0738			Prep Date:	10/23/2014 1048
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual	
cis-1,2-Dichloroethene	5.00	5.00	5.33	5.16	
cis-1,3-Dichloropropene	5.00	5.00	5.40	5.34	
Dibromomethane	5.00	5.00	4.63	4.82	
Dichlorobromomethane	5.00	5.00	4.90	4.68	
Dichlorodifluoromethane	5.00	5.00	5.81	5.81	
Ethylbenzene	5.00	5.00	5.51	5.21	
Ethylene Dibromide	5.00	5.00	5.21	5.04	
Hexachlorobutadiene	5.00	5.00	5.78	5.24	
Isopropylbenzene	5.00	5.00	5.26	5.00	
Methyl tert-butyl ether	5.00	5.00	5.17	4.94	J
Methylene Chloride	5.00	5.00	5.06	4.96	J
m-Xylene & p-Xylene	5.00	5.00	5.30	5.09	
Naphthalene	5.00	5.00	4.97	4.75	
n-Butylbenzene	5.00	5.00	5.34	5.05	
N-Propylbenzene	5.00	5.00	5.39	5.13	
o-Xylene	5.00	5.00	5.35	5.12	
sec-Butylbenzene	5.00	5.00	5.45	5.05	
Styrene	5.00	5.00	5.20	5.05	
tert-Butylbenzene	5.00	5.00	5.24	4.97	
Tetrachloroethene	5.00	5.00	5.52	4.79	M
Toluene	5.00	5.00	5.29	5.08	
trans-1,2-Dichloroethene	5.00	5.00	5.52	5.35	
trans-1,3-Dichloropropene	5.00	5.00	5.19	5.07	
Trichloroethene	5.00	5.00	4.97	4.89	
Trichlorofluoromethane	5.00	5.00	5.51	5.33	
Vinyl chloride	5.00	5.00	5.41	5.17	

DATA REPORTING QUALIFIERS

Client: FPM Remediations Inc Job Number: 280-61445-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.

Quality Control Results

Client: FPM Remediations Inc

Job Number: 280-61445-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-249035					
LCS 280-249035/2-A	Lab Control Sample	P	Solid	1311	
LB 280-249035/1-A	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-61445-1	774776CARBON101414	P	Solid	1311	
280-61445-2	101CARBON101614	P	Solid	1311	
Analysis Batch:280-249165					
LCS 280-249165/4	Lab Control Sample	T	Water	8260C	
LCSD 280-249165/5	Lab Control Sample Duplicate	T	Water	8260C	
MB 280-249165/6	Method Blank	T	Water	8260C	
280-61445-3TB	101414TB	T	Water	8260C	
Analysis Batch:280-249697					
LCS 280-249035/2-A	Lab Control Sample	P	Solid	8260B	
LB 280-249035/1-A	TCLP SPLPE Leachate Blank	P	Solid	8260B	
280-61445-1	774776CARBON101414	P	Solid	8260B	
280-61445-2	101CARBON101614	P	Solid	8260B	

Report Basis
P = TCLP
T = Total

General Chemistry

Analysis Batch:280-248751					
280-61445-1	774776CARBON101414	T	Solid	Moisture	
280-61445-2	101CARBON101614	T	Solid	Moisture	
Analysis Batch:280-248972					
280-61445-1	774776CARBON101414	T	Solid	7.1.2	
280-61445-2	101CARBON101614	T	Solid	7.1.2	

Report Basis
T = Total

Client: FPM Remediations Inc Job Number: 280-61445-1

Laboratory Chronicle

Lab ID: 280-61445-1 **Client ID: 774776CARBON101414**

Sample Date/Time: 10/14/2014 15:00 Received Date/Time: 10/18/2014 10:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-61445-B-1-A		280-249697		10/26/2014 19:55	1	TAL DEN	JNL
A:8260B	280-61445-B-1-A		280-249697		10/26/2014 19:55	1	TAL DEN	JNL
A:7.1.2	280-61445-A-1		280-248972		10/21/2014 19:34	1	TAL DEN	MW1
A:Moisture	280-61445-A-1		280-248751		10/20/2014 13:26	1	TAL DEN	OB1

Lab ID: 280-61445-2 **Client ID: 101CARBON101614**

Sample Date/Time: 10/16/2014 12:00 Received Date/Time: 10/18/2014 10:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-61445-B-2-A		280-249697		10/26/2014 20:17	1	TAL DEN	JNL
A:8260B	280-61445-B-2-A		280-249697		10/26/2014 20:17	1	TAL DEN	JNL
A:7.1.2	280-61445-A-2		280-248972		10/21/2014 19:34	1	TAL DEN	MW1
A:Moisture	280-61445-A-2		280-248751		10/20/2014 13:26	1	TAL DEN	OB1

Lab ID: 280-61445-3 **Client ID: 101414TB**

Sample Date/Time: 10/14/2014 14:00 Received Date/Time: 10/18/2014 10:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-61445-A-3		280-249165		10/23/2014 16:23	1	TAL DEN	MRM
A:8260C	280-61445-A-3		280-249165		10/23/2014 16:23	1	TAL DEN	MRM

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 280-249165/6		280-249165		10/23/2014 07:59	1	TAL DEN	MRM
A:8260C	MB 280-249165/6		280-249165		10/23/2014 07:59	1	TAL DEN	MRM

Lab ID: LB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LB 280-249035/1-A		280-249697		10/26/2014 12:57	1	TAL DEN	JNL
A:8260B	LB 280-249035/1-A		280-249697		10/26/2014 12:57	1	TAL DEN	JNL

Client: FPM Remediations Inc

Job Number: 280-61445-1

Laboratory Chronicle

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 280-249035/2-A		280-249697		10/26/2014 12:35	1	TAL DEN	JNL
A:8260B	LCS 280-249035/2-A		280-249697		10/26/2014 12:35	1	TAL DEN	JNL
P:5030B	LCS 280-249165/4		280-249165		10/23/2014 07:38	1	TAL DEN	MRM
A:8260C	LCS 280-249165/4		280-249165		10/23/2014 07:38	1	TAL DEN	MRM

Lab ID: LCSD **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCSD 280-249165/5		280-249165		10/23/2014 10:48	1	TAL DEN	MRM
A:8260C	LCSD 280-249165/5		280-249165		10/23/2014 10:48	1	TAL DEN	MRM

Lab References:

TAL DEN = TestAmerica Denver

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MV-2cleve+AVA_00005	10/31/14	08/04/14	P&T Methanol, Lot 62345	20 mL	MV-567643_00007	400 uL	2-Chloroethyl vinyl ether	40 ug/mL
					MV-567646_00016	400 uL	Vinyl acetate	80 ug/mL
					MV-568720_00003	405 uL	Acrolein	399.938 ug/mL
.MV-567643_00007	02/29/16	RESTEK, Lot A093368			(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
.MV-567646_00016	10/31/14	RESTEK, Lot A0102473			(Purchased Reagent)		Vinyl acetate	4000 ug/mL
.MV-568720_00003	10/31/14	RESTEK, Lot A0104246			(Purchased Reagent)		Acrolein	19750 ug/mL
MV-568718-D_00002	12/31/18	RESTEK, Lot A099955			(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
MV-ARCH SS A_00028	03/16/15	09/16/14	P&T Methanol, Lot 62345	100 mL	MV-567650_00019	10 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MV-567650_00019	01/31/19	Restek, Lot A0101000			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-ARCH SS A_00029	04/03/15	10/03/14	P&T Methanol, Lot 62345	100 mL	MV-567650_00019	10 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MV-567650_00019	01/31/19	Restek, Lot A0101000			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-Gas/Ket A_00028	02/28/15	10/06/14	P&T Methanol, Lot 62345	10 mL	MV-567642_00016	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645_00015	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Dichlorofluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
					MV-567648_00022	800 uL	Cyclohexanone	1600 ug/mL
.MV-567642_00016	02/29/16	RESTEK, Lot A093365			(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645_00015	02/28/15	RESTEK, Lot A093341			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.MV-567648_00022	02/28/17		RESTEK, Lot A0101574		(Purchased Reagent)		Cyclohexanone	20000 ug/mL
MV-Gas/Ket B_00014	12/12/14	06/12/14	P&T Methanol, Lot 62345	10 mL	MV-567642.sec_00009	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645.sec_00016	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MV-567642.sec_00009	02/28/16		RESTEK, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645.sec_00016	11/30/15		RESTEK, Lot A099261		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MV-Main A_00018	10/31/14	07/08/14	P&T Methanol, Lot 62345	25 mL	MV-567641_00014	500 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	800 ug/mL
							2,2-Dichloropropane	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-568034_00009	1000 uL	1-Chlorohexane	40 ug/mL
.MV-567641_00014	02/29/16		RESTEK, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-568034_00009	10/31/14	RESTEK, Lot A094874			(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
MV-Main A_00019	04/06/15	10/06/14	P&T Methanol, Lot 62345	25 mL	MV-567641_00007	500 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	800 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							2-Methyl-2-propanol	400 ug/mL
							3-Chloro-1-propene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Acrylonitrile	400 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl ether	40 ug/mL
							Ethyl methacrylate	40 ug/mL
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexane	40 ug/mL
							Iodomethane	40 ug/mL
							Isobutyl alcohol	1000 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							n-Heptane	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Tetrahydrofuran	80 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							trans-1,4-Dichloro-2-butene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-568034_00013	1000 uL	1-Chlorohexane	40 ug/mL
							2-Pentanone	160 ug/mL
							sec-Butyl Alcohol	1200 ug/mL
.MV-567641_00007	02/29/16		RESTEK, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-568034_00013	01/31/16	RESTEK, Lot A0104827			(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main B_00008	02/01/15	08/01/14	P&T Methanol, Lot 62345	20 mL	MV-567641.sec_00010	400 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	800 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-568034.sec_00009	800 uL	1-Chlorohexane	40 ug/mL
.MV-567641.sec_00010	02/29/16		RESTEK, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-568034.sec_00009	01/31/16	RESTEK, Lot A0104804.sec			(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
MV-Supp A_00010	04/14/15	10/14/14	P&T Methanol, Lot 62345	10 mL	568722_00001	200 uL	1,2,3-Trimethylbenzene	40 ug/mL
							1,3,5-Trichlorobenzene	40 ug/mL
							2-Chloro-1,3-butadiene	40 ug/mL
							2-Nitropropane	80 ug/mL
							Ethyl acetate	80 ug/mL
							Isopropyl alcohol	400 ug/mL
							Methacrylonitrile	400 ug/mL
							Methyl methacrylate	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butanol	1000 ug/mL
					568723_00001	200 uL	Acetonitrile	400 ug/mL
							Isopropyl ether	40 ug/mL
							Propionitrile	400 ug/mL
							Tert-amyl methyl ether	40 ug/mL
							Tert-butyl ethyl ether	40 ug/mL
					MV-568035_00010	800 uL	Ethylene oxide	8000 ug/mL
							Propene oxide	2000 ug/mL
					MV-568036_00007	400 uL	cis-1,4-Dichloro-2-butene	40 ug/mL
							Tetrahydrothiophene	40 ug/mL
.568722_00001	06/30/15		RESTEK, Lot A0100262		(Purchased Reagent)		1,2,3-Trimethylbenzene	2000 ug/mL
							1,3,5-Trichlorobenzene	2000 ug/mL
							2-Chloro-1,3-butadiene	2000 ug/mL
							2-Nitropropane	4000 ug/mL
							Ethyl acetate	4000 ug/mL
							Isopropyl alcohol	20000 ug/mL
							Methacrylonitrile	20000 ug/mL
							Methyl methacrylate	4000 ug/mL
							n-Butanol	50000 ug/mL
.568723_00001	12/31/15		RESTEK, Lot A099930		(Purchased Reagent)		Acetonitrile	20000 ug/mL
							Isopropyl ether	2000 ug/mL
							Propionitrile	20000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
							Tert-butyl ethyl ether	2000 ug/mL
.MV-568035_00010	06/30/15		RESTEK, Lot A0104015		(Purchased Reagent)		Ethylene oxide	100000 ug/mL
							Propene oxide	25000 ug/mL
.MV-568036_00007	12/31/15		RESTEK, Lot A0104018		(Purchased Reagent)		cis-1,4-Dichloro-2-butene	1000 ug/mL
							Tetrahydrothiophene	1000 ug/mL

Certification Summary

Client: FPM Remediations Inc
TestAmerica Job ID: 280-61445-1
Project/Site: Griffiss AFB 1015-11-01 SVI

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Florida	NELAP	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Illinois	NELAP	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAP	7	E-10166
TestAmerica Denver	Louisiana	NELAP	6	02096
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Minnesota	NELAP	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAP	1	205310
TestAmerica Denver	New Jersey	NELAP	2	CO004
TestAmerica Denver	New Mexico	State Program	6	CO00026
TestAmerica Denver	New York	NELAP	2	11964
TestAmerica Denver	North Carolina (WW/SW)	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAP	10	4025
TestAmerica Denver	Pennsylvania	NELAP	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002001
TestAmerica Denver	Texas	NELAP	6	T104704183-13-8
TestAmerica Denver	USDA	Federal		P330-13-00202
TestAmerica Denver	Utah	NELAP	8	CO00026
TestAmerica Denver	Virginia	NELAP	3	460232
TestAmerica Denver	Washington	State Program	10	C583
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	2907.01

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B DOD

Volatile Organic Compounds (GC/MS) by Method 8260B/DOD

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 (75.5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
101414TB	280-61445-3	103	95	104	100
	MB 280-249165/6	102	96	105	104
	LCS 280-249165/4	98	96	110	95
	LCSD 280-249165/5	98	97	108	92

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	85-115
DCA = 1,2-Dichloroethane-d4 (Surr)	70-120
TOL = Toluene-d8 (Surr)	85-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: H5830.D

Lab ID: LCS 280-249165/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.42	108	80-130	
1,1,1-Trichloroethane	5.00	5.52	110	65-130	
1,1,2,2-Tetrachloroethane	5.00	4.87	97	65-130	
1,1,2-Trichloroethane	5.00	4.83	97	75-125	
1,1-Dichloroethane	5.00	5.31	106	70-135	
1,1-Dichloroethene	5.00	5.79	116	70-130	
1,1-Dichloropropene	5.00	5.72	114	75-130	
1,2,3-Trichlorobenzene	5.00	5.54	111	55-140	
1,2,3-Trichloropropane	5.00	5.09	102	75-125	
1,2,4-Trichlorobenzene	5.00	5.40	108	65-135	
1,2,4-Trimethylbenzene	5.00	5.22	104	75-130	
1,2-Dibromo-3-Chloropropane	5.00	5.13	103	50-130	
1,2-Dichlorobenzene	5.00	5.29	106	70-120	
1,2-Dichloroethane	5.00	4.96	99	70-130	
1,2-Dichloropropane	5.00	4.79	96	75-125	
1,3,5-Trimethylbenzene	5.00	5.28	106	75-130	
1,3-Dichlorobenzene	5.00	5.50	110	75-125	
1,3-Dichloropropane	5.00	5.09	102	75-125	
1,4-Dichlorobenzene	5.00	5.11	102	75-125	
2,2-Dichloropropane	5.00	5.51	110	70-135	
2-Butanone (MEK)	20.0	22.0	110	30-150	
2-Chlorotoluene	5.00	5.07	101	75-125	
2-Hexanone	20.0	23.6	118	55-130	
4-Chlorotoluene	5.00	5.36	107	75-130	
4-Isopropyltoluene	5.00	5.31	106	75-130	
4-Methyl-2-pentanone (MIBK)	20.0	22.3	112	60-135	
Acetone	20.0	21.9	110	40-140	
Benzene	5.00	5.40	108	80-120	
Bromobenzene	5.00	5.27	105	75-125	
Bromoform	5.00	5.30	106	70-130	
Bromomethane	5.00	5.46	109	30-145	
Carbon disulfide	5.00	5.52	110	35-160	
Carbon tetrachloride	5.00	5.53	111	65-140	
Chlorobenzene	5.00	5.38	108	80-120	
Chlorobromomethane	5.00	5.12	102	65-130	
Chlorodibromomethane	5.00	5.13	103	60-135	
Chloroethane	5.00	5.57	111	60-135	
Chloroform	5.00	5.14	103	65-135	
Chloromethane	5.00	5.55	111	40-125	
cis-1,2-Dichloroethene	5.00	5.33	107	70-125	
cis-1,3-Dichloropropene	5.00	5.40	108	70-130	
Dibromomethane	5.00	4.63	93	75-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: H5830.D

Lab ID: LCS 280-249165/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorobromomethane	5.00	4.90	98	75-120	
Dichlorodifluoromethane	5.00	5.81	116	30-155	
Ethylbenzene	5.00	5.51	110	75-125	
Ethylene Dibromide	5.00	5.21	104	80-120	
Hexachlorobutadiene	5.00	5.78	116	50-140	
Isopropylbenzene	5.00	5.26	105	75-125	
Methyl tert-butyl ether	5.00	5.17	103	65-125	
Methylene Chloride	5.00	5.06	101	55-140	
m-Xylene & p-Xylene	5.00	5.30	106	75-130	
Naphthalene	5.00	4.97	99	55-140	
n-Butylbenzene	5.00	5.34	107	70-135	
N-Propylbenzene	5.00	5.39	108	70-130	
o-Xylene	5.00	5.35	107	80-120	
sec-Butylbenzene	5.00	5.45	109	70-125	
Styrene	5.00	5.20	104	65-135	
tert-Butylbenzene	5.00	5.24	105	70-130	
Tetrachloroethene	5.00	5.52	110	45-150	
Toluene	5.00	5.29	106	75-120	
trans-1,2-Dichloroethene	5.00	5.52	110	60-140	
trans-1,3-Dichloropropene	5.00	5.19	104	55-140	
Trichloroethene	5.00	4.97	99	70-125	
Trichlorofluoromethane	5.00	5.51	110	60-145	
Vinyl chloride	5.00	5.41	108	50-145	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: H5838.D

Lab ID: LCSD 280-249165/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.21	104	4	30	80-130	
1,1,1-Trichloroethane	5.00	5.23	105	5	30	65-130	
1,1,2,2-Tetrachloroethane	5.00	4.61	92	5	30	65-130	
1,1,2-Trichloroethane	5.00	4.68	94	3	30	75-125	
1,1-Dichloroethane	5.00	5.00	100	6	30	70-135	
1,1-Dichloroethene	5.00	5.60	112	3	30	70-130	
1,1-Dichloropropene	5.00	5.41	108	6	30	75-130	
1,2,3-Trichlorobenzene	5.00	5.01	100	10	30	55-140	
1,2,3-Trichloropropane	5.00	4.78	96	6	30	75-125	
1,2,4-Trichlorobenzene	5.00	5.11	102	6	30	65-135	
1,2,4-Trimethylbenzene	5.00	4.82	96	8	30	75-130	
1,2-Dibromo-3-Chloropropane	5.00	4.94 J	99	4	30	50-130	
1,2-Dichlorobenzene	5.00	4.86	97	8	30	70-120	
1,2-Dichloroethane	5.00	4.86	97	2	30	70-130	
1,2-Dichloropropane	5.00	4.71	94	2	30	75-125	
1,3,5-Trimethylbenzene	5.00	4.92	98	7	30	75-130	
1,3-Dichlorobenzene	5.00	5.10	102	7	30	75-125	
1,3-Dichloropropane	5.00	4.89	98	4	30	75-125	
1,4-Dichlorobenzene	5.00	4.78	96	7	30	75-125	
2,2-Dichloropropane	5.00	5.35	107	3	30	70-135	
2-Butanone (MEK)	20.0	21.0	105	5	30	30-150	
2-Chlorotoluene	5.00	4.66	93	8	30	75-125	
2-Hexanone	20.0	22.0	110	7	30	55-130	
4-Chlorotoluene	5.00	4.93	99	8	30	75-130	
4-Isopropyltoluene	5.00	5.04	101	5	30	75-130	
4-Methyl-2-pentanone (MIBK)	20.0	22.1	111	1	30	60-135	
Acetone	20.0	19.6	98	11	30	40-140	
Benzene	5.00	5.14	103	5	30	80-120	
Bromobenzene	5.00	4.95	99	6	30	75-125	
Bromoform	5.00	5.16	103	3	30	70-130	
Bromomethane	5.00	5.22	104	4	30	30-145	
Carbon disulfide	5.00	5.27	105	5	30	35-160	
Carbon tetrachloride	5.00	5.39	108	3	30	65-140	
Chlorobenzene	5.00	5.19	104	4	30	80-120	
Chlorobromomethane	5.00	5.00	100	3	30	65-130	
Chlorodibromomethane	5.00	5.08	102	1	30	60-135	
Chloroethane	5.00	5.28	106	5	30	60-135	
Chloroform	5.00	4.96	99	4	30	65-135	
Chloromethane	5.00	5.31	106	4	30	40-125	
cis-1,2-Dichloroethene	5.00	5.16	103	3	30	70-125	
cis-1,3-Dichloropropene	5.00	5.34	107	1	30	70-130	
Dibromomethane	5.00	4.82	96	4	30	75-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: H5838.D

Lab ID: LCSD 280-249165/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorobromomethane	5.00	4.68	94	5	30	75-120	
Dichlorodifluoromethane	5.00	5.81	116	0	30	30-155	
Ethylbenzene	5.00	5.21	104	6	30	75-125	
Ethylene Dibromide	5.00	5.04	101	3	30	80-120	
Hexachlorobutadiene	5.00	5.24	105	10	30	50-140	
Isopropylbenzene	5.00	5.00	100	5	30	75-125	
Methyl tert-butyl ether	5.00	4.94 J	99	5	30	65-125	
Methylene Chloride	5.00	4.96 J	99	2	30	55-140	
m-Xylene & p-Xylene	5.00	5.09	102	4	30	75-130	
Naphthalene	5.00	4.75	95	4	30	55-140	
n-Butylbenzene	5.00	5.05	101	6	30	70-135	
N-Propylbenzene	5.00	5.13	103	5	30	70-130	
o-Xylene	5.00	5.12	102	4	30	80-120	
sec-Butylbenzene	5.00	5.05	101	8	30	70-125	
Styrene	5.00	5.05	101	3	30	65-135	
tert-Butylbenzene	5.00	4.97	99	5	30	70-130	
Tetrachloroethene	5.00	4.79	96	14	30	45-150	M
Toluene	5.00	5.08	102	4	30	75-120	
trans-1,2-Dichloroethene	5.00	5.35	107	3	30	60-140	
trans-1,3-Dichloropropene	5.00	5.07	101	2	30	55-140	
Trichloroethene	5.00	4.89	98	2	30	70-125	
Trichlorofluoromethane	5.00	5.33	107	3	30	60-145	
Vinyl chloride	5.00	5.17	103	5	30	50-145	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab File ID: H5831.D Lab Sample ID: MB 280-249165/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: VMS_H Date Analyzed: 10/23/2014 07:59

GC Column: DB-624 (75.53) ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-249165/4	H5830.D	10/23/2014 07:38
	LCSD 280-249165/5	H5838.D	10/23/2014 10:48
101414TB	280-61445-3	H5853.D	10/23/2014 16:23

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab File ID: H5774.D BFB Injection Date: 10/22/2014

Instrument ID: VMS_H BFB Injection Time: 08:13

Analysis Batch No.: 248996

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	47.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.2	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	64.2	
175	5.0 - 9.0 % of mass 174	4.7	(7.3)1
176	95.0 - 101.0 % of mass 174	63.0	(98.2)1
177	5.0 - 9.0 % of mass 176	4.8	(7.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD003 280-248996/9	H5777.D	10/22/2014	09:32
	STD01 280-248996/10	H5778.D	10/22/2014	09:54
	STD02 280-248996/11	H5779.D	10/22/2014	10:15
	STD05 280-248996/12	H5780.D	10/22/2014	10:37
	STD10 280-248996/13	H5781.D	10/22/2014	10:58
	STD30 280-248996/14	H5782.D	10/22/2014	11:20
	STD60 280-248996/15	H5783.D	10/22/2014	11:42
	ICV 280-248996/16	H5785.D	10/22/2014	12:25
	STD01 280-248996/17	H5786.D	10/22/2014	12:47
	STD02 280-248996/18	H5787.D	10/22/2014	13:09
	STD05 280-248996/19	H5788.D	10/22/2014	13:30
	ICIS 280-248996/20	H5789.D	10/22/2014	13:52
	STD30 280-248996/21	H5790.D	10/22/2014	14:13
	STD60 280-248996/22	H5791.D	10/22/2014	14:35
	ICV 280-248996/23	H5793.D	10/22/2014	15:19
	ICV 280-248996/24	H5795.D	10/22/2014	16:02

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab File ID: H5826.D BFB Injection Date: 10/23/2014

Instrument ID: VMS_H BFB Injection Time: 06:19

Analysis Batch No.: 249165

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.8	
75	30.0 - 60.0 % of mass 95	45.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	63.4	
175	5.0 - 9.0 % of mass 174	4.8	(7.6)1
176	95.0 - 101.0 % of mass 174	62.2	(98.1)1
177	5.0 - 9.0 % of mass 176	4.8	(7.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-249165/2	H5828.D	10/23/2014	06:54
	CCV 280-249165/3	H5829.D	10/23/2014	07:16
	LCS 280-249165/4	H5830.D	10/23/2014	07:38
	MB 280-249165/6	H5831.D	10/23/2014	07:59
	LCSD 280-249165/5	H5838.D	10/23/2014	10:48
101414TB	280-61445-3	H5853.D	10/23/2014	16:23

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Sample No.: ICIS 280-248996/20 Date Analyzed: 10/22/2014 13:52

Instrument ID: VMS_H GC Column: DB-624 (75.53) ID: 0.53(mm)

Lab File ID (Standard): H5789.D Heated Purge: (Y/N) N

Calibration ID: 20141

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		180785	4.01	697679	6.80	205090	11.13
UPPER LIMIT		361570	4.51	1395358	7.30	410180	11.63
LOWER LIMIT		90393	3.51	348840	6.30	102545	10.63
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-248996/23		177396	4.01	704735	6.79	200724	11.13
ICV 280-248996/24		162507	4.01	705606	6.80	209351	11.15
CCV 280-249165/2		197908	3.99	814759	6.78	220777	11.13
CCV 280-249165/3		155395	4.00	783418	6.78	229332	11.13
LCS 280-249165/4		180442	4.01	793432	6.78	216563	11.13
LCSD 280-249165/5		195621	4.01	780333	6.80	212031	11.13
280-61445-3	101414TB	181168	4.03	772228	6.81	229322	11.15
CCV 280-249697/2		212090	3.99	789974	6.79	221826	11.13
CCV 280-249697/3		197460	4.01	740773	6.80	228527	11.13
LCS 280-249035/2-A		188293	4.01	746022	6.80	212126	11.15
LB 280-249035/1-A		186501	4.01	719622	6.80	219550	11.15
280-61445-1	774776CARBON101414	179369	4.00	714306	6.80	219686	11.13
280-61445-2	101CARBON101614	162665	4.01	685476	6.79	207265	11.13

TBA = TBA-d9 (IS)
FB = Fluorobenzene
CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Sample No.: ICIS 280-248996/20 Date Analyzed: 10/22/2014 13:52

Instrument ID: VMS_H GC Column: DB-624 (75.53) ID: 0.53(mm)

Lab File ID (Standard): H5789.D Heated Purge: (Y/N) N

Calibration ID: 20141

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		345328	14.15				
UPPER LIMIT		690656	14.65				
LOWER LIMIT		172664	13.65				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-248996/23		359242	14.14				
ICV 280-248996/24		348781	14.14				
CCV 280-249165/2		410363	14.12				
CCV 280-249165/3		391173	14.13				
LCS 280-249165/4		397454	14.13				
LCSD 280-249165/5		395582	14.13				
280-61445-3	101414TB	400240	14.14				
CCV 280-249697/2		410002	14.14				
CCV 280-249697/3		387882	14.15				
LCS 280-249035/2-A		385478	14.15				
LB 280-249035/1-A		381829	14.15				
280-61445-1	774776CARBON101414	371087	14.15				
280-61445-2	101CARBON101614	358386	14.14				

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-61445-1

SDG No.:

Client Sample ID: 101414TB | Lab Sample ID: 280-61445-3

Matrix: Water | Lab File ID: H5853.D

Analysis Method: 8260C | Date Collected: 10/14/2014 14:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/23/2014 16:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 249165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.40	U	1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	0.20	U	1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	0.40	U	1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	0.40	U	1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	0.40	U	1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.40	U	1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.20	U	1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	0.20	U	1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	0.40	U	1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	80	U	220	80	71
544-10-5	1-Chlorohexane	0.20	U	1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	3.2	U	6.0	3.2	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	3.2	U	5.0	3.2	1.4
106-43-4	4-Chlorotoluene	0.40	U	1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.20	U	1.0	0.20	0.16
108-86-1	Bromobenzene	0.20	U	1.0	0.20	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.40	U	2.0	0.40	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-61445-1

SDG No.:

Client Sample ID: 101414TB | Lab Sample ID: 280-61445-3

Matrix: Water | Lab File ID: H5853.D

Analysis Method: 8260C | Date Collected: 10/14/2014 14:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/23/2014 16:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 249165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.20	U	1.0	0.20	0.17
74-97-5	Chlorobromomethane	0.40	U	1.0	0.40	0.10
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.20	U	1.0	0.20	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.0	0.20	0.16
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.20	U	1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.20	U	1.0	0.20	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.40	U	1.0	0.40	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	0.40	U	5.0	0.40	0.25
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.40	U	1.0	0.40	0.32
103-65-1	N-Propylbenzene	0.20	U	1.0	0.20	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.20	U	1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.40	U	1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Client Sample ID: 101414TB Lab Sample ID: 280-61445-3

Matrix: Water Lab File ID: H5853.D

Analysis Method: 8260C Date Collected: 10/14/2014 14:00

Sample wt/vol: 20(mL) Date Analyzed: 10/23/2014 16:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 249165 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		70-120
460-00-4	4-Bromofluorobenzene (Surr)	100		75-120
1868-53-7	Dibromofluoromethane (Surr)	103		85-115
2037-26-5	Toluene-d8 (Surr)	104		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5853.D
Lims ID: 280-61445-A-3 Lab Sample ID: 280-61445-3
Client ID: 101414TB
Sample Type: Client
Inject. Date: 23-Oct-2014 16:23:30 ALS Bottle#: 27 Worklist Smp#: 29
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-61445-A-3 ph<2
Operator ID: moanm Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141023-28646.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 24-Oct-2014 14:35:32 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: moanm Date: 24-Oct-2014 14:35:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.026	3.996	0.030	98	181168	250.0	
* 2 Fluorobenzene	96	6.811	6.782	0.029	98	772228	12.5	
* 3 1,4-Dioxane-d8	96		8.670				0	
* 4 Chlorobenzene-d5	119	11.146	11.134	0.012	88	229322	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.141	14.128	0.013	96	400240	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.976	5.946	0.030	93	429220	9.55	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.393	6.381	0.012	83	182576	8.77	
$ 10 Toluene-d8 (Surr)	98	8.918	8.906	0.012	93	915470	9.60	
$ 11 4-Bromofluorobenzene (Surr	95	12.800	12.788	0.012	85	500203	9.27	
28 Dichlorodifluoromethane	85		2.197				ND	
30 Chloromethane	50		2.284				ND	
32 Vinyl chloride	62		2.423				ND	
35 Bromomethane	94		2.719				ND	
36 Chloroethane	64		2.771				ND	
38 Trichlorofluoromethane	101		3.067				ND	
45 1,1-Dichloroethene	96		3.485				ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.520				ND	
47 Acetone	43		3.520				ND	
50 Carbon disulfide	76		3.746				ND	
53 Methyl acetate	43		3.851				ND	
54 Methylene Chloride	84		3.973				ND	
56 Methyl tert-butyl ether	73		4.251				ND	
58 trans-1,2-Dichloroethene	96		4.251				ND	
60 1,1-Dichloroethane	63		4.704				ND	
65 cis-1,2-Dichloroethene	96		5.383				ND	
67 2-Butanone (MEK)	43		5.383				ND	
66 2,2-Dichloropropane	77		5.400				ND	
73 Chlorobromomethane	128		5.679				ND	
75 Chloroform	83		5.748				ND	
76 1,1,1-Trichloroethane	97		5.992				ND	
77 Cyclohexane	56		6.062				ND	
78 1,1-Dichloropropene	75		6.184				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
79 Carbon tetrachloride	117		6.201				ND	
81 Benzene	78		6.445				ND	
82 1,2-Dichloroethane	62		6.462				ND	
86 Trichloroethene	95		7.263				ND	
89 Methylcyclohexane	55		7.524				ND	
90 1,2-Dichloropropane	63		7.559				ND	
92 Dibromomethane	93		7.716				ND	
93 1,4-Dioxane	88		7.750				ND	
94 Dichlorobromomethane	83		7.925				ND	
100 trans-1,3-Dichloropropene	75		8.516				ND	
98 4-Methyl-2-pentanone (MIBK	43		8.743				ND	
99 Toluene	91		8.986				ND	
97 cis-1,3-Dichloropropene	75		9.300				ND	
102 1,1,2-Trichloroethane	97		9.578				ND	
103 Tetrachloroethene	164		9.787				ND	
104 1,3-Dichloropropane	76		9.822				ND	
105 2-Hexanone	43		9.944				ND	
108 Chlorodibromomethane	129		10.170				ND	
109 Ethylene Dibromide	107		10.362				ND	
110 1-Chlorohexane	91		11.128				ND	
111 Chlorobenzene	112		11.163				ND	
112 1,1,1,2-Tetrachloroethane	131		11.302				ND	
113 Ethylbenzene	106		11.337				ND	
114 m-Xylene & p-Xylene	106		11.511				ND	
115 o-Xylene	106		12.085				ND	
116 Styrene	104		12.120				ND	
117 Bromoform	173		12.364				ND	
118 Isopropylbenzene	105		12.590				ND	
121 1,1,2,2-Tetrachloroethane	83		12.973				ND	
122 Bromobenzene	156		12.973				ND	
123 1,2,3-Trichloropropane	110		13.026				ND	
125 N-Propylbenzene	120		13.113				ND	
126 2-Chlorotoluene	126		13.200				ND	
127 1,3,5-Trimethylbenzene	105		13.321				ND	
128 4-Chlorotoluene	126		13.339				ND	
129 tert-Butylbenzene	119		13.687				ND	
130 1,2,4-Trimethylbenzene	105		13.739				ND	
131 sec-Butylbenzene	134		13.931				ND	
132 1,3-Dichlorobenzene	146		14.053				ND	
133 4-Isopropyltoluene	119		14.087				ND	
134 1,4-Dichlorobenzene	146		14.157				ND	
137 n-Butylbenzene	91		14.523				ND	
138 1,2-Dichlorobenzene	146		14.558				ND	
139 1,2-Dibromo-3-Chloropropan	157		15.341				ND	
144 1,2,3-Trichlorobenzene	180		16.090				ND	
142 Hexachlorobutadiene	225		16.246				ND	
143 Naphthalene	128		16.316				ND	
141 1,2,4-Trichlorobenzene	180		16.542				ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

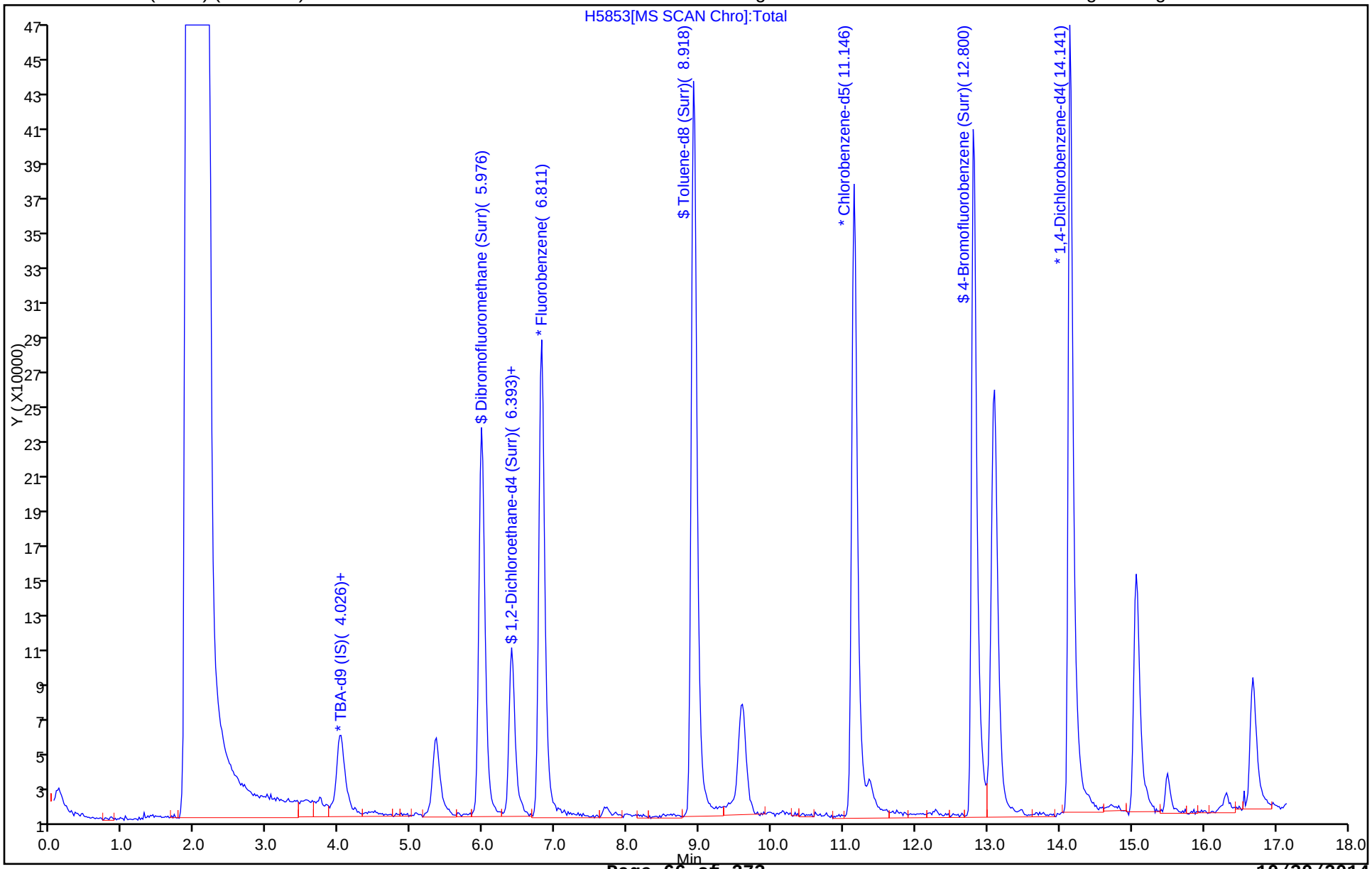
Report Date: 24-Oct-2014 14:36:22 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5853.D

Injection Date:	23-Oct-2014 16:23:30	Instrument ID:	VMS_H	Operator ID:	moanm
Lims ID:	280-61445-A-3	Lab Sample ID:	280-61445-3	Worklist Smp#:	29
Client ID:	101414TB				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD003 280-248996/9	H5777.D
Level 2	STD01 280-248996/10	H5778.D
Level 3	STD02 280-248996/11	H5779.D
Level 4	STD05 280-248996/12	H5780.D
Level 5	STD10 280-248996/13	H5781.D
Level 6	STD30 280-248996/14	H5782.D
Level 7	STD60 280-248996/15	H5783.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.5489 0.7370	0.5822 0.7434	0.5604	0.7420	0.7085	Ave		0.6603				14.0		15.0			
Chloromethane	0.3338 0.4453	0.4181 0.4910	0.4148	0.4656	0.4595	Ave		0.4326			0.1000	12.0		15.0			
Vinyl chloride	0.3904 0.4382	0.3955 0.4488	0.3813	0.4272	0.4193	Ave		0.4144				6.2		30.0			
Bromomethane	0.3787 0.4074	0.4036 0.4045	0.3867	0.4000	0.4001	Ave		0.3973				2.7		15.0			
Chloroethane	0.2170 0.2717	0.2964 0.2768	0.2742	0.2713	0.2655	Ave		0.2676				9.1		15.0			
Dichlorofluoromethane	1.0597 1.0061	0.9694 1.0281	0.9102	0.9618	0.9674	Ave		0.9861				5.0		15.0			
Trichlorofluoromethane	0.7781 0.9275	0.8503 0.9434	0.8209	0.8951	0.8840	Ave		0.8713				6.7		15.0			
Ethyl ether	0.1971 0.2082	0.2026 0.2049	0.2074	0.2049	0.2032	Ave		0.2040				1.8		15.0			
Acrolein	 0.0105	0.0064 0.0104	0.0094	0.0113	0.0102	Lin2	-0.041	0.0110							0.9950		0.9900
1,1-Dichloroethene	0.3674 0.3992	0.4012 0.3969	0.3946	0.3892	0.3885	Ave		0.3910				2.9		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.4925 0.5763	0.5319 0.5768	0.5386	0.5571	0.5618	Ave		0.5479				5.4		15.0			
Acetone	 0.0315	0.0432 0.0301	0.0456	0.0365	0.0313	Lin1	0.0798	0.0302							0.9980		0.9900
Iodomethane	0.9068 0.9963	0.9207 1.0095	0.9227	0.9652	0.9325	Ave		0.9505				4.2		15.0			
Carbon disulfide	1.4520 1.3654	1.3751 1.3753	1.3173	1.3611	1.3403	Ave		1.3695				3.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Allyl chloride	0.9046 0.7181	0.7333 0.7233	0.6812	0.6814	0.6994	Ave		0.7345				11.0		15.0			
Methyl acetate	0.1450 0.1468	0.1361 0.1447	0.1432	0.1439	0.1428	Ave		0.1432				2.4		15.0			
Methylene Chloride	1.1700 0.3893	0.5968 0.3852	0.4816	0.4231	0.3919	Lin2	0.2378	0.3722							0.9990		0.9900
	1.0980	1.4989 1.0436	1.1690	1.1078	1.1276	Ave		1.1741				14.0		15.0			
Acrylonitrile	0.0342 0.0355	0.0344 0.0361	0.0368	0.0360	0.0352	Ave		0.0355				2.6		15.0			
trans-1,2-Dichloroethene	0.4309 0.4634	0.4584 0.4692	0.4529	0.4662	0.4591	Ave		0.4572				2.8		15.0			
Methyl tert-butyl ether	0.7292 0.7586	0.7054 0.7444	0.7517	0.7550	0.7332	Ave		0.7396				2.5		15.0			
Hexane	2.3577 2.3038	2.3242 2.2215	2.0870	2.2000	2.2721	Ave		2.2523				4.1		15.0			
1,1-Dichloroethane	0.9034 0.8558	0.8701 0.8644	0.8562	0.8345	0.8301	Ave		0.8592			0.1000	2.8		15.0			
Vinyl acetate	0.1640	0.0942 0.1646	0.1343	0.1280	0.1415	Lin2	-0.125	0.1570							0.9930		0.9900
2-Butanone (MEK)	0.0685	0.0770 0.0670	0.0723	0.0732	0.0658	Ave		0.0706				6.0		15.0			
cis-1,2-Dichloroethene	0.4480 0.4944	0.4537 0.4984	0.4720	0.4749	0.4740	Ave		0.4736				4.0		15.0			
2,2-Dichloropropane	2.8849 0.7220	1.3917 0.6984	1.0456	0.8298	0.7563	Lin2	0.6579	0.7027							0.9990		0.9900
2-Butanol	1.2135	0.9559 1.2950	1.0633	1.1077	1.1592	Ave		1.1324				10.0		15.0			
Chlorobromomethane	0.1993 0.2394	0.2150 0.2445	0.2261	0.2331	0.2245	Ave		0.2260				6.8		15.0			
Tetrahydrofuran	0.0460	0.0554 0.0468	0.0595	0.0463	0.0446	Ave		0.0498				12.0		15.0			
Chloroform	0.9566 0.9176	0.9271 0.9210	0.9076	0.9113	0.8885	Ave		0.9185				2.3		30.0			
1,1,1-Trichloroethane	0.7831 0.8286	0.8150 0.8393	0.8107	0.8124	0.8079	Ave		0.8138				2.2		15.0			
Cyclohexane	0.9075 0.7688	0.7391 0.7570	0.7543	0.7450	0.7406	Ave		0.7732				7.8		15.0			
1,1-Dichloropropene	0.7149 0.7037	0.7297 0.7027	0.6926	0.6978	0.6804	Ave		0.7031				2.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.7730 0.8064	0.8058 0.8155	0.7877	0.7911	0.7710	Ave		0.7929				2.2		15.0			
Isobutyl alcohol	 0.4577	0.3706 0.4959	0.4275	0.4738	0.4522	Ave		0.4463				9.7		15.0			
Benzene	1.3111 1.3982	1.3628 1.4263	1.3573	1.3768	1.3478	Ave		1.3686				2.7		15.0			
1,2-Dichloroethane	 0.3811	0.3682 0.3749	0.3898	0.3817	0.3681	Ave		0.3773				2.3		15.0			
	0.9252 0.9284	0.9396 0.9107	0.8913	0.9076	0.9060	Ave		0.9155				1.8		15.0			
Trichloroethene	0.7513 0.6054	0.6733 0.6090	0.6107	0.6171	0.5918	Ave		0.6369				8.9		15.0			
2-Pentanone	 0.1614	0.1466 0.1564	0.1537	0.1615	0.1584	Ave		0.1563				3.6		15.0			
Methylcyclohexane	0.6799 0.7012	0.7372 0.6860	0.6808	0.7029	0.6922	Ave		0.6972				2.8		15.0			
1,2-Dichloropropane	0.6453 0.5173	0.5687 0.5155	0.5340	0.5306	0.5109	Ave		0.5460				8.8		30.0			
Dibromomethane	0.3134 0.2996	0.3122 0.2957	0.3039	0.3050	0.2957	Ave		0.3037				2.4		15.0			
1,4-Dioxane	 0.0015	 0.0013	0.0011	0.0012	0.0014	Ave		0.0013				9.9		15.0			
Dichlorobromomethane	0.9139 0.8507	0.8733 0.8436	0.8732	0.8298	0.8109	Ave		0.8565				3.9		15.0			
2-Chloroethyl vinyl ether	 0.1107	0.1185 0.1097	0.1258	0.1043	0.0998	Ave		0.1115				8.5		15.0			
trans-1,3-Dichloropropene	0.6658 0.7228	0.6952 0.7110	0.6974	0.7146	0.6991	Ave		0.7008				2.6		15.0			
4-Methyl-2-pentanone (MIBK)	0.2458 0.2326	0.2168 0.2244	0.2430	0.2429	0.2323	Ave		0.2340				4.6		15.0			
Toluene	1.6243 1.6372	1.6082 1.6398	1.6022	1.6445	1.6019	Ave		1.6226				1.1		30.0			
cis-1,3-Dichloropropene	1.8589 1.8724	1.9423 1.7847	1.8614	1.8073	1.7547	Ave		1.8403				3.4		15.0			
Ethyl methacrylate	 1.5979	1.4635 1.5301	1.5030	1.6450	1.5791	Ave		1.5531				4.3		15.0			
1,1,2-Trichloroethane	0.4988 0.3397	0.3721 0.3122	0.3499	0.3413	0.3198	Lin2	0.0525	0.3231							0.9990		0.9900
Tetrachloroethene	1.6689 2.0681	2.0141 2.0109	1.9834	1.9996	2.0086	Ave		1.9648				6.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichloropropane	1.8642 2.0315	1.9829 1.9144	1.9998	2.0059	1.9676	Ave		1.9666				3.0		15.0			
2-Hexanone	0.4347 0.5590	0.5453 0.5199	0.5845	0.6008	0.5442	Ave		0.5412				10.0		15.0			
Chlorodibromomethane	1.7610 2.2771	2.1449 2.1752	2.2219	2.1251	2.1635	Ave		2.1241				7.9		15.0			
Ethylene Dibromide	1.1406 1.5492	1.3785 1.4783	1.4871	1.5386	1.4933	Ave		1.4379				9.9		15.0			
1-Chlorohexane	3.1362 2.9192	3.0881 2.7745	2.8606	2.9113	2.8425	Ave		2.9332				4.5		15.0			
Chlorobenzene	3.5142 4.1942	4.0607 4.0641	4.0689	4.1266	4.0553	Ave		4.0120			0.3000	5.6		15.0			
1,1,1,2-Tetrachloroethane	1.7606 2.1162	1.9712 2.0457	2.0289	2.0374	2.0491	Ave		2.0013				5.7		15.0			
Ethylbenzene	1.7351 2.0684	2.0564 1.9743	1.9810	2.0520	2.0406	Ave		1.9868				5.9		30.0			
m-Xylene & p-Xylene	2.4799 2.7841	2.7855 2.6751	2.8044	2.7311	2.6544	Ave		2.7021				4.2		15.0			
o-Xylene	2.0405 2.4723	2.4058 2.3715	2.4039	2.4442	2.3614	Ave		2.3571				6.1		15.0			
Styrene	3.2947 4.0635	3.8465 3.9045	3.9291	3.9219	3.9522	Ave		3.8446				6.5		15.0			
Bromoform	0.9713 1.3269	1.1366 1.2587	1.2454	1.2607	1.2843	Ave		1.2120			0.1000	10.0		15.0			
Isopropylbenzene	4.1517 4.1500	4.3209 4.2322	4.0941	4.1638	4.0404	Ave		4.1647				2.2		15.0			
Cyclohexanone	0.0219 0.0206	0.0211 0.0186	0.0217	0.0208	0.0206	Ave		0.0208				5.2		15.0			
Bromobenzene	0.9387 1.1145	1.0481 1.1653	1.0678	1.1055	1.0813	Ave		1.0745				6.6		15.0			
1,1,2,2-Tetrachloroethane	1.0864 0.9066	0.9284 0.9128	0.9388	0.8972	0.9313	Ave		0.9431			0.3000	6.9		15.0			
1,2,3-Trichloropropane	0.2055 0.2032	0.2145 0.2024	0.2176	0.2129	0.2059	Ave		0.2089				2.9		15.0			
trans-1,4-Dichloro-2-butene	 0.1753	0.2107 0.1759	0.2015	0.1968	0.1874	Ave		0.1913				7.5		15.0			
N-Propylbenzene	0.9522 1.0225	1.0374 1.0316	1.0348	1.0414	0.9943	Ave		1.0163				3.2		15.0			
2-Chlorotoluene	0.8600 0.8666	0.8751 0.8693	0.8212	0.8311	0.8030	Ave		0.8466				3.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	3.3434 3.0560	3.2448 3.2494	3.0909	3.1564	3.0977	Ave		3.1769				3.3		15.0			
4-Chlorotoluene	0.9421 0.9855	1.0035 1.0374	1.0656	1.0547	1.0402	Ave		1.0184				4.3		15.0			
tert-Butylbenzene	3.7245 3.3789	3.4868 3.3887	3.3534	3.4432	3.2964	Ave		3.4388				4.1		15.0			
1,2,4-Trimethylbenzene	3.1849 3.0331	3.0711 3.0543	2.9493	3.0750	2.9537	Ave		3.0459				2.6		15.0			
sec-Butylbenzene	0.9277 0.9271	0.9649 0.9226	0.9644	0.9463	0.9152	Ave		0.9383				2.2		15.0			
1,3-Dichlorobenzene	1.4083 1.6468	1.5888 1.6635	1.6426	1.6568	1.6261	Ave		1.6047				5.6		15.0			
4-Isopropyltoluene	4.1381 3.8655	3.8814 3.8266	3.8119	3.9609	3.7752	Ave		3.8942				3.2		15.0			
1,4-Dichlorobenzene	2.5174 2.4750	2.5223 2.4709	2.3627	2.4871	2.3604	Ave		2.4565				2.8		15.0			
n-Butylbenzene	4.1372 3.9089	4.0298 3.8866	3.8474	3.9065	3.7460	Ave		3.9232				3.2		15.0			
1,2-Dichlorobenzene	1.5290 1.7146	1.6385 1.7174	1.6295	1.6942	1.6369	Ave		1.6514				4.0		15.0			
1,2-Dibromo-3-Chloropropane	 0.1722	0.1519 0.1680	0.1639	0.1676	0.1712	Ave		0.1658				4.5		15.0			
1,2,3-Trichlorobenzene	0.9646 1.2179	1.1230 1.2119	1.1958	1.2188	1.1711	Ave		1.1576				7.9		15.0			
Hexachlorobutadiene	1.0025 1.1174	1.1732 1.0674	1.1610	1.1304	1.0964	Ave		1.1069				5.3		15.0			
Naphthalene	 1.3872	1.2449 1.3686	1.3118	1.3617	1.3467	Ave		1.3368				3.9		15.0			
1,2,4-Trichlorobenzene	0.8165 0.9802	0.9457 0.9489	0.9905	0.9057	0.9602	Ave		0.9354				6.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD003 280-248996/9	H5777.D
Level 2	STD01 280-248996/10	H5778.D
Level 3	STD02 280-248996/11	H5779.D
Level 4	STD05 280-248996/12	H5780.D
Level 5	STD10 280-248996/13	H5781.D
Level 6	STD30 280-248996/14	H5782.D
Level 7	STD60 280-248996/15	H5783.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	8989 1199726	32139 2320959	63624	203766	392170	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloromethane	FB	Ave	5467 724865	23081 1533132	47094	127846	254363	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	6394 713373	21830 1401198	43288	117321	232101	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromomethane	FB	Ave	6201 663118	22282 1262916	43903	109842	221473	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloroethane	FB	Ave	3554 442290	16362 864132	31136	74510	146978	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	17354 1637774	53513 3209852	103342	264121	535470	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	12743 1509763	46936 2945471	93205	245801	489357	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl ether	FB	Ave	3228 338959	11182 639867	23542	56267	112479	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Acrolein	FB	Lin2	 171590	3551 324474	10708	30993	56591	 300	10.00 600	20.0	50.0	100.0
1,1-Dichloroethene	FB	Ave	6017 649836	22147 1239267	44795	106874	215050	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	8066 938122	29362 1800925	61144	152991	310962	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Acetone	FB	Lin1	 205151	9536 376320	20698	40081	69370	 120	4.00 240	8.00	20.0	40.0
Iodomethane	FB	Ave	14851 1621877	50824 3151920	104763	265058	516164	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	23778 2222682	75910 4294182	149555	373754	741923	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Allyl chloride	FB	Ave	14815 1168964	40478 2258483	77339	187109	387164	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	11870 1194446	37557 2258939	81295	197562	395340	1.50 150	5.00 300	10.0	25.0	50.0
Methylene Chloride	FB	Lin2	19161 633776	32947 1202820	54678	116188	216947	0.300 30.0	1.00 60.0	2.00	5.00	10.0
	TBA	Ave	 219780	9761 361678	17755	38596	75655	 300	10.0 600	20.0	50.0	100
Acrylonitrile	FB	Ave	5608 578086	18971 1127565	41781	98776	194686	3.00 300	10.0 600	20.0	50.0	100
trans-1,2-Dichloroethene	FB	Ave	7057 754255	25302 1464945	51416	128032	254145	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	11942 1234854	38939 2324070	85341	207320	405834	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Hexane	CBZ	Ave	11751 1016872	35057 1945543	65618	167504	341717	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	14795 1393123	48031 2698767	97204	229163	459508	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl acetate	FB	Lin2	 533769	10399 1027827	30485	70272	156661	 60.0	2.00 120	4.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	 445997	16994 836981	32845	80420	145615	 120	4.00 240	8.00	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	7337 804777	25043 1556100	53589	130403	262393	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Lin2	47245 1175223	76825 2180612	118710	227873	418622	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Butanol	TBA	Ave	 728696	18676 1346426	48450	115775	233321	 900	30.0 1800	60.0	150	300
Chlorobromomethane	FB	Ave	3264 389739	11866 763465	25671	64020	124283	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	 149826	6118 292009	13516	25443	49380	 60.0	2.00 120	4.00	10.0	20.0
Chloroform	FB	Ave	15666 1493686	51178 2875762	103046	250251	491808	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	12824 1348822	44988 2620463	92037	223079	447200	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	14862 1251546	40799 2363498	85643	204573	409927	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	11707 1145566	40281 2194157	78638	191619	376631	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	12659 1312607	44483 2546172	89432	217254	426798	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Isobutyl alcohol	TBA	Ave	 229036	6034 429616	16233	41266	75844	 750	25.0 1500	50.0	125	250

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	21472 2275989	75228 4453430	154104	378083	746074	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichloroethane	FB	Ave	 620331	20326 1170453	44259	104821	203759	 30.0	1.00 60.0	2.00	5.00	10.0
	FB	Ave	15152 1511306	51866 2843503	101193	249237	501502	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	12303 985408	37170 1901317	69338	169461	327570	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Pentanone	FB	Ave	 1050633	32368 1953078	69786	177379	350647	 120	4.00 240	8.00	20.0	40.0
Methylcyclohexane	FB	Ave	11134 1141374	40697 2141999	77299	193016	383157	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	10567 842043	31395 1609437	60628	145711	282777	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	5133 487691	17235 923189	34502	83765	163700	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dioxane	FB	Ave	 47331	 83176	2609	6833	16037	 600	 1200	40.0	100	200
Dichlorobromomethane	FB	Ave	14967 1384752	48207 2633962	99135	227877	448878	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chloroethyl vinyl ether	FB	Ave	 180195	6543 342516	14277	28649	55239	 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,3-Dichloropropene	FB	Ave	10903 1176605	38374 2220027	79184	196230	387002	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	16100 1514669	47875 2802173	110341	266850	514367	1.20 120	4.00 240	8.00	20.0	40.0
Toluene	FB	Ave	26601 2665025	88777 5120019	181906	451584	886723	0.300 30.0	1.00 60.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBZ	Ave	9265 826471	29297 1563011	58524	137607	263907	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl methacrylate	CBZ	Ave	 705300	22075 1339976	47257	125243	237501	 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloroethane	FB	Lin2	8168 552955	20542 974775	39722	93723	177045	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	8318 912848	30380 1761121	62362	152241	302088	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichloropropane	CBZ	Ave	9291 896699	29909 1676573	62877	152728	295928	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Hexanone	CBZ	Ave	8666 986941	32901 1821363	73511	182981	327402	1.20 120	4.00 240	8.00	20.0	40.0
Chlorodibromomethane	CBZ	Ave	8777 1005112	32352 1905000	69861	161797	325392	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Ethylene Dibromide	CBZ	Ave	5685 683789	20793 1294624	46755	117144	224589	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1-Chlorohexane	CBZ	Ave	15631 1288534	46579 2429865	89942	221661	427501	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobenzene	CBZ	Ave	17515 1851311	61249 3559195	127931	314187	609904	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	8775 934067	29733 1791600	63793	155122	308175	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	8648 912983	31018 1729070	62284	156232	306905	0.300 30.0	1.00 60.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBZ	Ave	12360 1228892	42015 2342811	88173	207942	399221	0.300 30.0	1.00 60.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	10170 1091268	36288 2076897	75583	186097	355149	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Styrene	CBZ	Ave	16421 1793604	58018 3419414	123537	298602	594398	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromoform	CBZ	Ave	4841 585705	17143 1102323	39157	95986	193164	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	33210 3368989	117978 6329950	234561	570176	1110978	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexanone	CBZ	Ave	4374 364360	12756 653067	27328	63370	124024	12.0 1200	40.0 2400	80.0	200	400
Bromobenzene	DCB	Ave	7509 904747	28616 1742888	61178	151388	297316	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCB	Ave	8690 735974	25350 1365264	53789	122861	256083	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	1644 164968	5857 302747	12467	29147	56615	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	 142330	5754 263134	11545	26949	51532	 30.0	1.00 60.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	7617 830030	28324 1542997	59286	142603	273388	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	6879 703508	23895 1300219	47046	113805	220793	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	26744 2480870	88595 4860012	177086	432234	851767	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	7536 800004	27400 1551613	61054	144424	286021	0.300 30.0	1.00 60.0	2.00	5.00	10.0
tert-Butylbenzene	DCB	Ave	29793 2743007	95203 5068366	192123	471496	906383	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	25476 2462230	83853 4568184	168974	421082	812175	0.300 30.0	1.00 60.0	2.00	5.00	10.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 09:32 Calibration End Date: 10/22/2014 11:42 Calibration ID: 20140

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
sec-Butylbenzene	DCB	Ave	7421 752588	26346 1379905	55256	129588	251661	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	11265 1336824	43380 2488104	94109	226878	447128	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Isopropyltoluene	DCB	Ave	33101 3137998	105978 5723340	218394	542398	1038060	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	20137 2009162	68870 3695601	135363	340580	649034	0.300 30.0	1.00 60.0	2.00	5.00	10.0
n-Butylbenzene	DCB	Ave	33094 3173197	110030 5813104	220427	534937	1030011	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	12231 1391864	44738 2568658	93356	232005	450079	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	 139758	4148 251235	9391	22953	47066	 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	7716 988691	30661 1812601	68511	166904	322001	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Ave	8019 907128	32034 1596525	66516	154795	301481	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Naphthalene	DCB	Ave	 1126127	33991 2046930	75159	186468	370302	 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	6531 795753	25822 1419275	56748	124024	264016	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5777.D
Lims ID: std003
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 22-Oct-2014 09:32:30 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std003
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:12 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 13:54:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.996	4.014	-0.018	96	168947	250.0	250.0	
* 2 Fluorobenzene	96	6.782	6.799	-0.017	98	682357	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.117	11.134	-0.017	88	207667	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.128	14.146	-0.018	96	333296	12.5	12.5	
28 Dichlorodifluoromethane	85	2.203	2.202	0.001	95	8989	0.3000	0.2494	
30 Chloromethane	50	2.290	2.289	0.001	96	5467	0.3000	0.2315	
31 Butadiene	54	2.394	2.411	-0.017	0	4394	NC	NC	
32 Vinyl chloride	62	2.429	2.446	-0.017	86	6394	0.3000	0.2827	
35 Bromomethane	94	2.708	2.724	-0.016	88	6201	0.3000	0.2859	
36 Chloroethane	64	2.777	2.777	0.000	93	3554	0.3000	0.2433	
37 Dichlorofluoromethane	67	2.986	2.986	0.000	93	17354	0.3000	0.3224	
38 Trichlorofluoromethane	101	3.056	3.073	-0.017	76	12743	0.3000	0.2679	
40 Ethyl ether	59	3.247	3.247	0.000	83	3228	0.3000	0.2898	
44 Acrolein	56		3.386					ND	
45 1,1-Dichloroethene	96	3.491	3.508	-0.017	96	6017	0.3000	0.2819	
46 1,1,2-Trichloro-1,2,2-trif	151	3.526	3.543	-0.017	94	8066	0.3000	0.2697	
47 Acetone	43		3.543					ND	
48 Iodomethane	142	3.665	3.682	-0.017	98	14851	0.3000	0.2862	
50 Carbon disulfide	76	3.735	3.752	-0.017	99	23778	0.3000	0.3181	
52 3-Chloro-1-propene	41	3.839	3.839	0.000	82	14815	0.3000	0.3695	
53 Methyl acetate	43	3.839	3.856	-0.017	85	11870	1.50	1.52	
54 Methylene Chloride	84	3.979	3.978	0.001	96	19161	0.3000	0.3042	
55 2-Methyl-2-propanol	59		4.100					ND	
57 Acrylonitrile	53	4.257	4.239	0.018	39	5608	3.00	2.90	
56 Methyl tert-butyl ether	73	4.257	4.257	0.000	81	11942	0.3000	0.2958	
58 trans-1,2-Dichloroethene	96	4.257	4.257	0.000	97	7057	0.3000	0.2828	
59 Hexane	57	4.518	4.535	-0.017	92	11751	0.3000	0.3140	
60 1,1-Dichloroethane	63	4.710	4.727	-0.017	94	14795	0.3000	0.3154	
61 Vinyl acetate	43		4.744					ND	
65 cis-1,2-Dichloroethene	96	5.389	5.388	0.001	81	7337	0.3000	0.2838	
67 2-Butanone (MEK)	43		5.388					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.319	5.406	-0.087	59	47245	0.3000	0.2954	
71 sec-Butyl Alcohol	45		5.597					ND	
73 Chlorobromomethane	128	5.667	5.684	-0.017	94	3264	0.3000	0.2646	
74 Tetrahydrofuran	42		5.736					ND	
75 Chloroform	83	5.754	5.754	0.000	92	15666	0.3000	0.3124	
76 1,1,1-Trichloroethane	97	5.998	5.997	0.001	97	12824	0.3000	0.2887	
77 Cyclohexane	56	6.068	6.085	-0.017	88	14862	0.3000	0.3521	
78 1,1-Dichloropropene	75	6.190	6.189	0.001	93	11707	0.3000	0.3050	
79 Carbon tetrachloride	117	6.224	6.206	0.018	91	12659	0.3000	0.2925	
80 Isobutyl alcohol	41		6.311					ND	
81 Benzene	78	6.451	6.450	0.001	98	21472	0.3000	0.2874	
82 1,2-Dichloroethane	62		6.468					ND	
84 n-Heptane	43	6.729	6.746	-0.017	92	15152	0.3000	0.3032	
86 Trichloroethene	95	7.269	7.268	0.001	95	12303	0.3000	0.3538	
88 2-Pentanone	43		7.495					ND	
89 Methylcyclohexane	55	7.513	7.512	0.001	89	11134	0.3000	0.2926	
90 1,2-Dichloropropane	63	7.548	7.564	-0.016	92	10567	0.3000	0.3545	
92 Dibromomethane	93	7.722	7.721	0.001	91	5133	0.3000	0.3097	
93 1,4-Dioxane	88		7.756					ND	
94 Dichlorobromomethane	83	7.913	7.930	-0.017	96	14967	0.3000	0.3201	
96 2-Chloroethyl vinyl ether	63		8.313					ND	
100 trans-1,3-Dichloropropene	75	8.523	8.522	0.001	90	10903	0.3000	0.2850	
98 4-Methyl-2-pentanone (MIBK	43	8.749	8.748	0.001	96	16100	1.20	1.26	
99 Toluene	91	8.993	8.992	0.001	98	26601	0.3000	0.3003	
97 cis-1,3-Dichloropropene	75	9.306	9.305	0.001	89	9265	0.3000	0.3030	
101 Ethyl methacrylate	69		9.445					ND	
102 1,1,2-Trichloroethane	97	9.567	9.584	-0.017	38	8168	0.3000	0.3006	
103 Tetrachloroethene	164	9.776	9.793	-0.017	92	8318	0.3000	0.2548	
104 1,3-Dichloropropane	76	9.828	9.828	0.000	83	9291	0.3000	0.2844	
105 2-Hexanone	43	9.950	9.949	0.001	94	8666	1.20	0.9638	
108 Chlorodibromomethane	129	10.176	10.176	0.000	87	8777	0.3000	0.2487	
109 Ethylene Dibromide	107	10.368	10.367	0.001	97	5685	0.3000	0.2380	
110 1-Chlorohexane	91	11.134	11.133	0.001	38	15631	0.3000	0.3208	
111 Chlorobenzene	112	11.169	11.168	0.001	92	17515	0.3000	0.2628	
112 1,1,1,2-Tetrachloroethane	131	11.308	11.307	0.001	73	8775	0.3000	0.2639	
113 Ethylbenzene	106	11.343	11.342	0.001	98	8648	0.3000	0.2620	
114 m-Xylene & p-Xylene	106	11.517	11.516	0.001	0	12360	0.3000	0.2753	
115 o-Xylene	106	12.092	12.091	0.001	90	10170	0.3000	0.2597	
116 Styrene	104	12.109	12.108	0.001	85	16421	0.3000	0.2571	
117 Bromoform	173	12.370	12.369	0.001	91	4841	0.3000	0.2404	
118 Isopropylbenzene	105	12.596	12.596	0.000	97	33210	0.3000	0.2991	
120 Cyclohexanone	55	12.718	12.718	0.000	89	4374	12.0	12.7	
121 1,1,2,2-Tetrachloroethane	83	12.997	12.979	0.018	67	8690	0.3000	0.3456	
122 Bromobenzene	156	12.979	12.979	0.000	91	7509	0.3000	0.2621	
123 1,2,3-Trichloropropane	110	13.049	13.031	0.018	39	1644	0.3000	0.2952	
124 trans-1,4-Dichloro-2-buten	53		13.048					ND	
125 N-Propylbenzene	120	13.119	13.101	0.018	99	7617	0.3000	0.2811	
126 2-Chlorotoluene	126	13.206	13.205	0.001	96	6879	0.3000	0.3047	
127 1,3,5-Trimethylbenzene	105	13.310	13.327	-0.017	94	26744	0.3000	0.3157	
128 4-Chlorotoluene	126	13.328	13.344	-0.016	97	7536	0.3000	0.2775	
129 tert-Butylbenzene	119	13.693	13.693	0.001	92	29793	0.3000	0.3249	
130 1,2,4-Trimethylbenzene	105	13.745	13.745	0.000	94	25476	0.3000	0.3137	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.937	13.936	0.001	94	7421	0.3000	0.2966	
132 1,3-Dichlorobenzene	146	14.059	14.058	0.001	90	11265	0.3000	0.2633	
133 4-Isopropyltoluene	119	14.094	14.093	0.001	97	33101	0.3000	0.3188	
134 1,4-Dichlorobenzene	146	14.146	14.163	-0.017	41	20137	0.3000	0.3074	
137 n-Butylbenzene	91	14.529	14.528	0.001	97	33094	0.3000	0.3164	
138 1,2-Dichlorobenzene	146	14.546	14.546	0.000	95	12231	0.3000	0.2778	
139 1,2-Dibromo-3-Chloropropan	157		15.346					ND	
144 1,2,3-Trichlorobenzene	180	16.096	16.095	0.001	93	7716	0.3000	0.2500	
142 Hexachlorobutadiene	225	16.235	16.252	-0.017	94	8019	0.3000	0.2717	
143 Naphthalene	128		16.321					ND	
141 1,2,4-Trichlorobenzene	180	16.548	16.548	0.000	88	6531	0.3000	0.2619	
S 151 1,2-Dichloroethene, Total	96				0		0.6000	0.5666	
S 145 Trihalomethanes, Total	1				0		1.20	1.12	
S 146 Xylenes, Total (URS)	1				0		0.6000	0.5350	
S 147 Total BTEX	1				0			1.38	
S 148 1,3-Dichloropropene, Total	1				0		0.6000	0.5880	
S 149 1,2-Dichloroethene, Total	1				0		0.6000	0.5666	
S 150 Xylenes, Total	106				0		0.6000	0.5350	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00019	Amount Added:	0.15	Units: uL
MV-Gas/Ket A_00028	Amount Added:	0.15	Units: uL
MV-2cleve+AVA_00005	Amount Added:	0.15	Units: uL

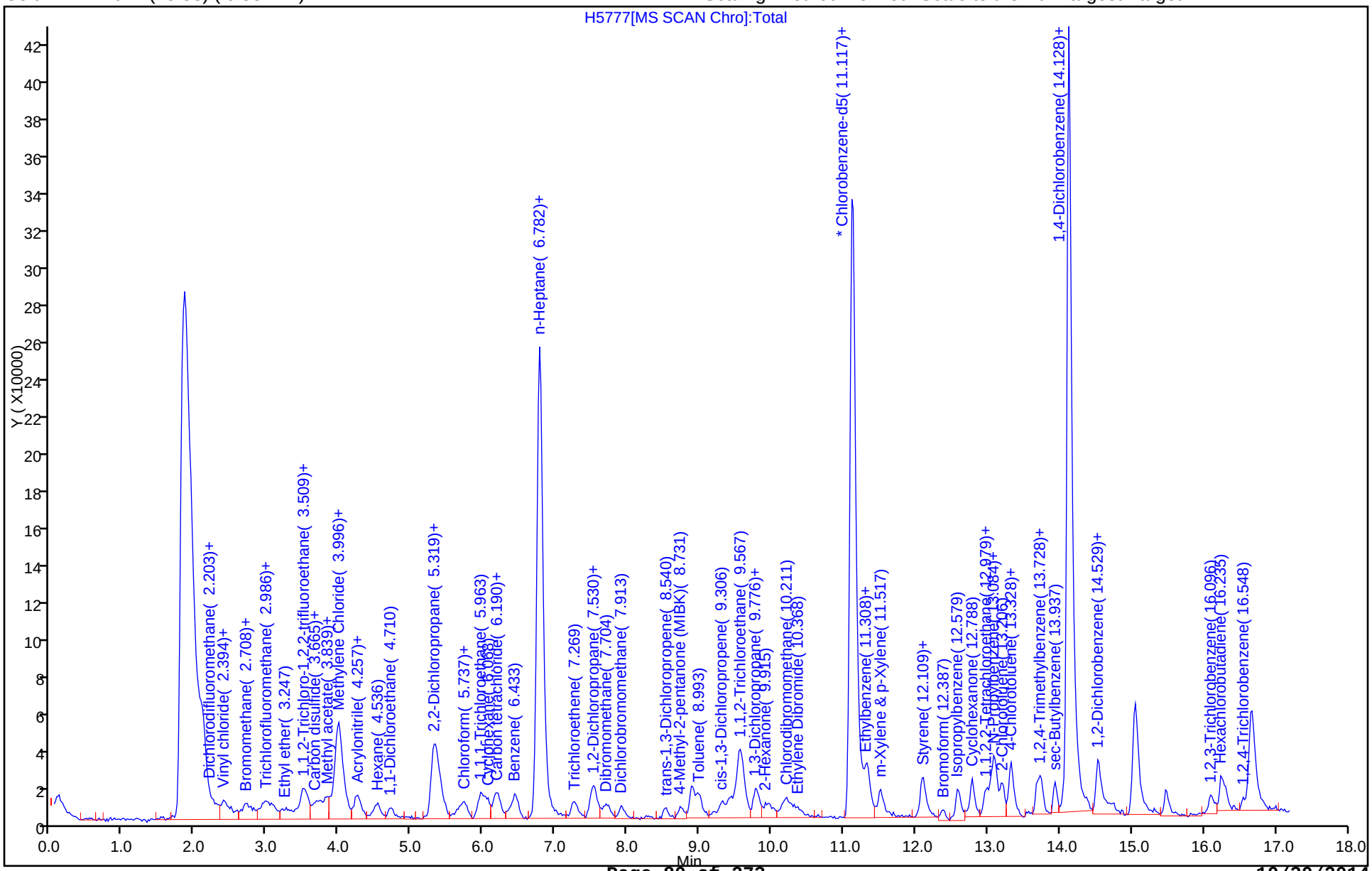
Report Date: 22-Oct-2014 18:48:13 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5777.D

Injection Date:	22-Oct-2014 09:32:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std003			Worklist Smp#:	9
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5778.D
Lims ID: std01
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Oct-2014 09:54:30 ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std01
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:13 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 13:56:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.007	4.014	-0.007	96	162806	250.0	250.0	
* 2 Fluorobenzene	96	6.793	6.799	-0.006	98	690023	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.128	11.134	-0.006	88	188542	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.140	14.146	-0.006	96	341299	12.5	12.5	
28 Dichlorodifluoromethane	85	2.197	2.202	-0.005	97	32139	1.00	0.8817	
30 Chloromethane	50	2.284	2.289	-0.005	98	23081	1.00	0.9665	
31 Butadiene	54	2.406	2.411	-0.005	0	15436	NC	NC	
32 Vinyl chloride	62	2.423	2.446	-0.023	97	21830	1.00	0.9543	
35 Bromomethane	94	2.702	2.724	-0.022	92	22282	1.00	1.02	
36 Chloroethane	64	2.771	2.777	-0.006	99	16362	1.00	1.11	
37 Dichlorofluoromethane	67	2.980	2.986	-0.006	97	53513	1.00	0.9831	
38 Trichlorofluoromethane	101	3.085	3.073	0.012	98	46936	1.00	0.9758	
40 Ethyl ether	59	3.241	3.247	-0.006	92	11182	1.00	0.99	
44 Acrolein	56	3.398	3.386	0.012	58	3551	10.0	9.61	
45 1,1-Dichloroethene	96	3.502	3.508	-0.006	96	22147	1.00	1.03	
46 1,1,2-Trichloro-1,2,2-trif	151	3.537	3.543	-0.006	96	29362	1.00	0.9709	
47 Acetone	43	3.537	3.543	-0.006	41	9536	4.00	3.08	
48 Iodomethane	142	3.677	3.682	-0.005	99	50824	1.00	0.9686	
50 Carbon disulfide	76	3.746	3.752	-0.006	99	75910	1.00	1.00	
52 3-Chloro-1-propene	41	3.851	3.839	0.012	90	40478	1.00	1.00	
53 Methyl acetate	43	3.851	3.856	-0.005	81	37557	5.00	4.75	
54 Methylene Chloride	84	3.990	3.978	0.012	99	32947	1.00	0.9646	
55 2-Methyl-2-propanol	59	4.094	4.100	-0.006	91	9761	10.0	12.8	
57 Acrylonitrile	53	4.251	4.239	0.012	44	18971	10.0	9.69	
56 Methyl tert-butyl ether	73	4.269	4.257	0.011	88	38939	1.00	0.9537	
58 trans-1,2-Dichloroethene	96	4.269	4.257	0.011	98	25302	1.00	1.00	
59 Hexane	57	4.530	4.535	-0.005	93	35057	1.00	1.03	
60 1,1-Dichloroethane	63	4.721	4.727	-0.006	95	48031	1.00	1.01	
61 Vinyl acetate	43	4.739	4.744	-0.005	36	10399	2.00	1.99	
65 cis-1,2-Dichloroethene	96	5.400	5.388	0.012	83	25043	1.00	0.9579	
67 2-Butanone (MEK)	43	5.383	5.388	-0.005	43	16994	4.00	4.36	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.400	5.406	-0.006	70	76825	1.00	1.04	
71 sec-Butyl Alcohol	45	5.609	5.597	0.012	94	18676	30.0	25.3	
73 Chlorobromomethane	128	5.679	5.684	-0.005	97	11866	1.00	0.9511	
74 Tetrahydrofuran	42	5.748	5.736	0.012	40	6118	2.00	2.23	
75 Chloroform	83	5.766	5.754	0.012	92	51178	1.00	1.01	
76 1,1,1-Trichloroethane	97	5.992	5.997	-0.005	99	44988	1.00	1.00	
77 Cyclohexane	56	6.079	6.085	-0.006	90	40799	1.00	0.9559	
78 1,1-Dichloropropene	75	6.184	6.189	-0.005	96	40281	1.00	1.04	
79 Carbon tetrachloride	117	6.218	6.206	0.012	96	44483	1.00	1.02	
80 Isobutyl alcohol	41	6.323	6.311	0.012	90	6034	25.0	20.8	
81 Benzene	78	6.445	6.450	-0.005	97	75228	1.00	1.00	
82 1,2-Dichloroethane	62	6.462	6.468	-0.006	92	20326	1.00	0.9759	
84 n-Heptane	43	6.741	6.746	-0.005	94	51866	1.00	1.03	
86 Trichloroethene	95	7.263	7.268	-0.005	99	37170	1.00	1.06	
88 2-Pentanone	43	7.489	7.495	-0.006	72	32368	4.00	3.75	
89 Methylcyclohexane	55	7.524	7.512	0.012	92	40697	1.00	1.06	
90 1,2-Dichloropropane	63	7.559	7.564	-0.005	95	31395	1.00	1.04	
92 Dibromomethane	93	7.716	7.721	-0.005	96	17235	1.00	1.03	
93 1,4-Dioxane	88		7.756					ND	
94 Dichlorobromomethane	83	7.925	7.930	-0.006	98	48207	1.00	1.02	
96 2-Chloroethyl vinyl ether	63	8.325	8.313	0.012	90	6543	1.00	1.06	
100 trans-1,3-Dichloropropene	75	8.534	8.522	0.012	92	38374	1.00	0.99	
98 4-Methyl-2-pentanone (MIBK	43	8.743	8.748	-0.005	96	47875	4.00	3.71	
99 Toluene	91	9.004	8.992	0.012	99	88777	1.00	0.99	
97 cis-1,3-Dichloropropene	75	9.317	9.305	0.012	98	29297	1.00	1.06	
101 Ethyl methacrylate	69	9.439	9.445	-0.006	86	22075	1.00	0.9423	
102 1,1,2-Trichloroethane	97	9.578	9.584	-0.006	50	20542	1.00	0.9893	
103 Tetrachloroethene	164	9.787	9.793	-0.006	97	30380	1.00	1.03	
104 1,3-Dichloropropane	76	9.822	9.828	-0.006	88	29909	1.00	1.01	
105 2-Hexanone	43	9.944	9.949	-0.005	97	32901	4.00	4.03	
108 Chlorodibromomethane	129	10.170	10.176	-0.006	90	32352	1.00	1.01	
109 Ethylene Dibromide	107	10.362	10.367	-0.005	97	20793	1.00	0.9587	
110 1-Chlorohexane	91	11.145	11.133	0.012	90	46579	1.00	1.05	
111 Chlorobenzene	112	11.163	11.168	-0.005	93	61249	1.00	1.01	
112 1,1,1,2-Tetrachloroethane	131	11.302	11.307	-0.005	77	29733	1.00	0.9850	
113 Ethylbenzene	106	11.337	11.342	-0.005	99	31018	1.00	1.04	
114 m-Xylene & p-Xylene	106	11.528	11.516	0.012	0	42015	1.00	1.03	
115 o-Xylene	106	12.085	12.091	-0.006	97	36288	1.00	1.02	
116 Styrene	104	12.120	12.108	0.012	93	58018	1.00	1.00	
117 Bromoform	173	12.381	12.369	0.012	94	17143	1.00	0.9378	
118 Isopropylbenzene	105	12.590	12.596	-0.006	96	117978	1.00	1.04	
120 Cyclohexanone	55	12.730	12.718	0.012	90	12756	40.0	40.7	
121 1,1,2,2-Tetrachloroethane	83	12.991	12.979	0.012	68	25350	1.00	0.9845	
122 Bromobenzene	156	12.973	12.979	-0.006	93	28616	1.00	0.9754	
123 1,2,3-Trichloropropane	110	13.026	13.031	-0.005	76	5857	1.00	1.03	
124 trans-1,4-Dichloro-2-buten	53	13.060	13.048	0.012	59	5754	1.00	1.10	
125 N-Propylbenzene	120	13.113	13.101	0.012	99	28324	1.00	1.02	
126 2-Chlorotoluene	126	13.217	13.205	0.012	97	23895	1.00	1.03	
127 1,3,5-Trimethylbenzene	105	13.321	13.327	-0.006	97	88595	1.00	1.02	
128 4-Chlorotoluene	126	13.339	13.344	-0.005	98	27400	1.00	0.9854	
129 tert-Butylbenzene	119	13.704	13.693	0.012	93	95203	1.00	1.01	
130 1,2,4-Trimethylbenzene	105	13.757	13.745	0.012	96	83853	1.00	1.01	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.931	13.936	-0.005	94	26346	1.00	1.03	
132 1,3-Dichlorobenzene	146	14.070	14.058	0.012	96	43380	1.00	0.99	
133 4-Isopropyltoluene	119	14.105	14.093	0.012	98	105978	1.00	1.00	
134 1,4-Dichlorobenzene	146	14.157	14.163	-0.006	97	68870	1.00	1.03	
137 n-Butylbenzene	91	14.523	14.528	-0.005	98	110030	1.00	1.03	
138 1,2-Dichlorobenzene	146	14.558	14.546	0.012	98	44738	1.00	0.99	
139 1,2-Dibromo-3-Chloropropan	157	15.341	15.346	-0.005	85	4148	1.00	0.9163	
144 1,2,3-Trichlorobenzene	180	16.107	16.095	0.012	95	30661	1.00	0.9701	
142 Hexachlorobutadiene	225	16.246	16.252	-0.006	97	32034	1.00	1.06	
143 Naphthalene	128	16.333	16.321	0.012	97	33991	1.00	0.9312	
141 1,2,4-Trichlorobenzene	180	16.560	16.548	0.012	93	25822	1.00	1.01	
S 151 1,2-Dichloroethene, Total	96				0		2.00	1.96	
S 145 Trihalomethanes, Total	1				0		4.00	3.98	
S 146 Xylenes, Total (URS)	1				0		2.00	2.05	
S 147 Total BTEX	1				0			5.07	
S 148 1,3-Dichloropropene, Total	1				0		2.00	2.05	
S 149 1,2-Dichloroethene, Total	1				0		2.00	1.96	
S 150 Xylenes, Total	106				0		2.00	2.05	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00019	Amount Added:	0.50	Units: uL
MV-Gas/Ket A_00028	Amount Added:	0.50	Units: uL
MV-2cleve+AVA_00005	Amount Added:	0.50	Units: uL

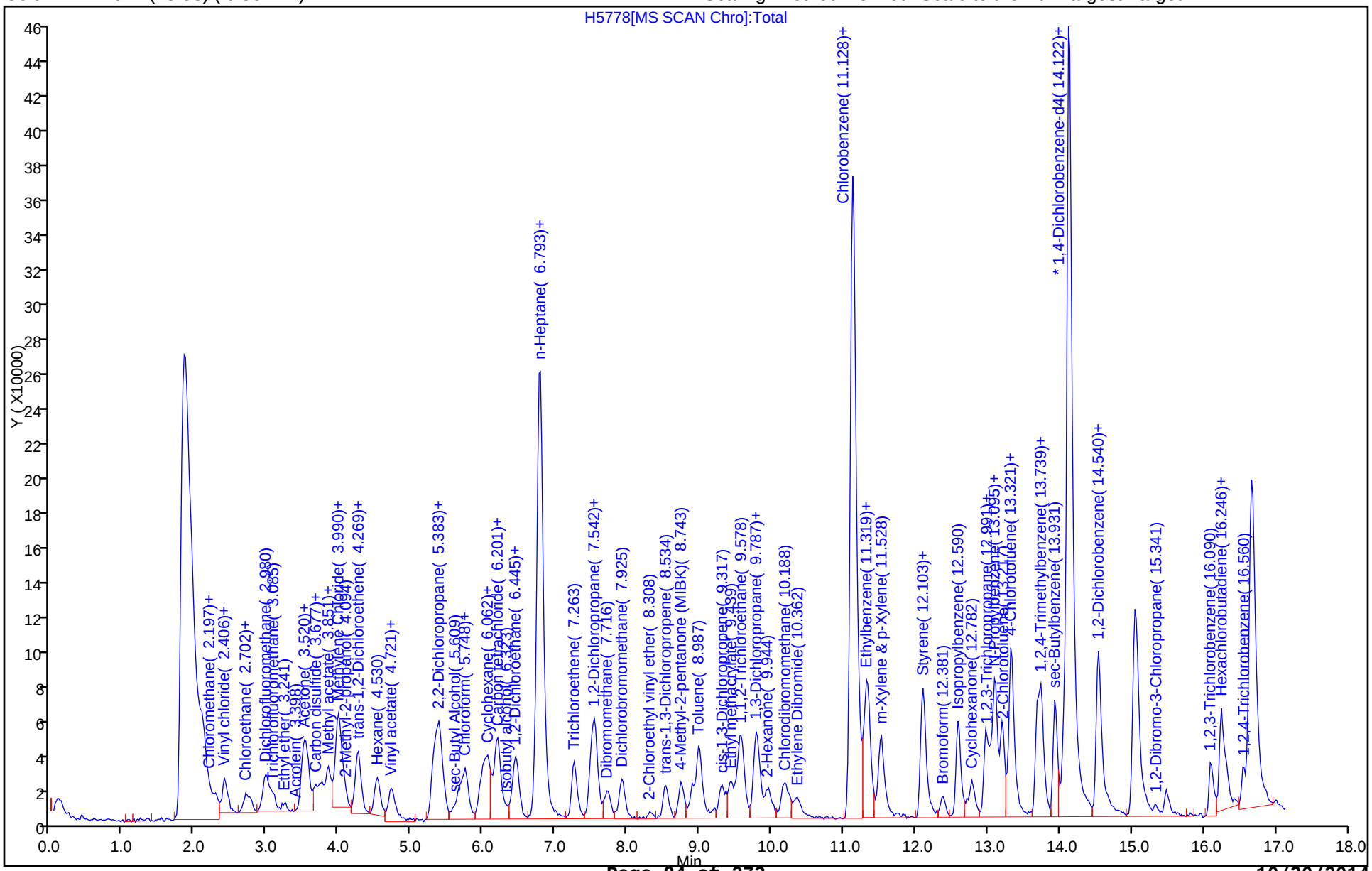
Report Date: 22-Oct-2014 18:48:14 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5778.D

Injection Date:	22-Oct-2014 09:54:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std01			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5779.D
Lims ID: std02
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Oct-2014 10:15:30 ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std02
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:14 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 13:58:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.014	4.014	0.000	96	189853	250.0	250.0	
* 2 Fluorobenzene	96	6.782	6.799	-0.017	98	709587	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	88	196509	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.129	14.146	-0.017	97	358080	12.5	12.5	
28 Dichlorodifluoromethane	85	2.203	2.202	0.001	97	63624	2.00	1.70	
30 Chloromethane	50	2.290	2.289	0.001	98	47094	2.00	1.92	
31 Butadiene	54	2.412	2.411	0.001	0	31437	NC	NC	
32 Vinyl chloride	62	2.430	2.446	-0.016	97	43288	2.00	1.84	
35 Bromomethane	94	2.708	2.724	-0.016	92	43903	2.00	1.95	
36 Chloroethane	64	2.778	2.777	0.001	99	31136	2.00	2.05	
37 Dichlorofluoromethane	67	2.969	2.986	-0.017	97	103342	2.00	1.85	
38 Trichlorofluoromethane	101	3.074	3.073	0.001	98	93205	2.00	1.88	
40 Ethyl ether	59	3.230	3.247	-0.017	93	23542	2.00	2.03	
44 Acrolein	56	3.405	3.386	0.018	97	10708	20.0	20.9	
45 1,1-Dichloroethene	96	3.509	3.508	0.001	97	44795	2.00	2.02	
46 1,1,2-Trichloro-1,2,2-trif	151	3.544	3.543	0.001	96	61144	2.00	1.97	
47 Acetone	43	3.544	3.543	0.001	40	20698	8.00	9.42	
48 Iodomethane	142	3.683	3.682	0.001	100	104763	2.00	1.94	
50 Carbon disulfide	76	3.753	3.752	0.001	99	149555	2.00	1.92	
52 3-Chloro-1-propene	41	3.857	3.839	0.018	84	77339	2.00	1.85	
53 Methyl acetate	43	3.857	3.856	0.001	93	81295	10.0	10.0	
54 Methylene Chloride	84	3.979	3.978	0.001	97	54678	2.00	1.95	
55 2-Methyl-2-propanol	59	4.101	4.100	0.001	94	17755	20.0	19.9	M
57 Acrylonitrile	53	4.240	4.239	0.001	98	41781	20.0	20.8	
56 Methyl tert-butyl ether	73	4.275	4.257	0.018	98	85341	2.00	2.03	
58 trans-1,2-Dichloroethene	96	4.258	4.257	0.001	98	51416	2.00	1.98	
59 Hexane	57	4.536	4.535	0.001	94	65618	2.00	1.85	
60 1,1-Dichloroethane	63	4.728	4.727	0.001	95	97204	2.00	1.99	
61 Vinyl acetate	43	4.745	4.744	0.001	39	30485	4.00	4.22	
65 cis-1,2-Dichloroethene	96	5.389	5.388	0.001	83	53589	2.00	1.99	
67 2-Butanone (MEK)	43	5.389	5.388	0.001	52	32845	8.00	8.19	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.407	5.406	0.001	92	118710	2.00	2.04	
71 sec-Butyl Alcohol	45	5.598	5.597	0.001	96	48450	60.0	56.3	
73 Chlorobromomethane	128	5.685	5.684	0.001	96	25671	2.00	2.00	
74 Tetrahydrofuran	42	5.737	5.736	0.001	48	13516	4.00	4.78	
75 Chloroform	83	5.755	5.754	0.001	93	103046	2.00	1.98	
76 1,1,1-Trichloroethane	97	6.016	5.997	0.019	99	92037	2.00	1.99	
77 Cyclohexane	56	6.068	6.085	-0.017	92	85643	2.00	1.95	
78 1,1-Dichloropropene	75	6.190	6.189	0.001	96	78638	2.00	1.97	
79 Carbon tetrachloride	117	6.207	6.206	0.001	97	89432	2.00	1.99	
80 Isobutyl alcohol	41	6.329	6.311	0.018	94	16233	50.0	47.9	
81 Benzene	78	6.451	6.450	0.001	97	154104	2.00	1.98	
82 1,2-Dichloroethane	62	6.469	6.468	0.001	95	44259	2.00	2.07	
84 n-Heptane	43	6.747	6.746	0.001	96	101193	2.00	1.95	
86 Trichloroethene	95	7.269	7.268	0.001	99	69338	2.00	1.92	
88 2-Pentanone	43	7.496	7.495	0.001	97	69786	8.00	7.86	
89 Methylcyclohexane	55	7.531	7.512	0.019	91	77299	2.00	1.95	
90 1,2-Dichloropropane	63	7.565	7.564	0.001	90	60628	2.00	1.96	
92 Dibromomethane	93	7.722	7.721	0.001	96	34502	2.00	2.00	
93 1,4-Dioxane	88	7.757	7.756	0.001	31	2609	40.0	34.7	
94 Dichlorobromomethane	83	7.931	7.930	0.001	99	99135	2.00	2.04	
96 2-Chloroethyl vinyl ether	63	8.314	8.313	0.001	93	14277	2.00	2.26	
100 trans-1,3-Dichloropropene	75	8.523	8.522	0.001	94	79184	2.00	1.99	
98 4-Methyl-2-pentanone (MIBK	43	8.749	8.748	0.001	96	110341	8.00	8.31	
99 Toluene	91	8.993	8.992	0.001	99	181906	2.00	1.97	
97 cis-1,3-Dichloropropene	75	9.306	9.305	0.001	98	58524	2.00	2.02	
101 Ethyl methacrylate	69	9.428	9.445	-0.017	90	47257	2.00	1.94	
102 1,1,2-Trichloroethane	97	9.585	9.584	0.001	71	39722	2.00	2.00	
103 Tetrachloroethene	164	9.776	9.793	-0.017	97	62362	2.00	2.02	
104 1,3-Dichloropropane	76	9.829	9.828	0.001	88	62877	2.00	2.03	
105 2-Hexanone	43	9.951	9.949	0.001	99	73511	8.00	8.64	
108 Chlorodibromomethane	129	10.177	10.176	0.001	89	69861	2.00	2.09	
109 Ethylene Dibromide	107	10.368	10.367	0.001	100	46755	2.00	2.07	
110 1-Chlorohexane	91	11.134	11.133	0.001	91	89942	2.00	1.95	
111 Chlorobenzene	112	11.169	11.168	0.001	94	127931	2.00	2.03	
112 1,1,1,2-Tetrachloroethane	131	11.308	11.307	0.001	86	63793	2.00	2.03	
113 Ethylbenzene	106	11.343	11.342	0.001	99	62284	2.00	1.99	
114 m-Xylene & p-Xylene	106	11.517	11.516	0.001	0	88173	2.00	2.08	
115 o-Xylene	106	12.092	12.091	0.001	98	75583	2.00	2.04	
116 Styrene	104	12.109	12.108	0.001	94	123537	2.00	2.04	
117 Bromoform	173	12.370	12.369	0.001	95	39157	2.00	2.06	
118 Isopropylbenzene	105	12.597	12.596	0.001	96	234561	2.00	1.97	
120 Cyclohexanone	55	12.719	12.718	0.001	90	27328	80.0	83.6	
121 1,1,2,2-Tetrachloroethane	83	12.980	12.979	0.001	94	53789	2.00	1.99	
122 Bromobenzene	156	12.980	12.979	0.001	96	61178	2.00	1.99	
123 1,2,3-Trichloropropane	110	13.032	13.031	0.001	81	12467	2.00	2.08	
124 trans-1,4-Dichloro-2-buten	53	13.049	13.048	0.001	64	11545	2.00	2.11	
125 N-Propylbenzene	120	13.102	13.101	0.001	99	59286	2.00	2.04	
126 2-Chlorotoluene	126	13.206	13.205	0.001	97	47046	2.00	1.94	
127 1,3,5-Trimethylbenzene	105	13.311	13.327	-0.016	94	177086	2.00	1.95	
128 4-Chlorotoluene	126	13.345	13.344	0.001	98	61054	2.00	2.09	
129 tert-Butylbenzene	119	13.694	13.693	0.002	94	192123	2.00	1.95	
130 1,2,4-Trimethylbenzene	105	13.746	13.745	0.001	96	168974	2.00	1.94	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.937	13.936	0.001	94	55256	2.00	2.06	
132 1,3-Dichlorobenzene	146	14.059	14.058	0.001	96	94109	2.00	2.05	
133 4-Isopropyltoluene	119	14.094	14.093	0.001	97	218394	2.00	1.96	
134 1,4-Dichlorobenzene	146	14.164	14.163	0.001	95	135363	2.00	1.92	
137 n-Butylbenzene	91	14.529	14.528	0.001	97	220427	2.00	1.96	
138 1,2-Dichlorobenzene	146	14.547	14.546	0.001	97	93356	2.00	1.97	
139 1,2-Dibromo-3-Chloropropan	157	15.330	15.346	-0.016	86	9391	2.00	1.98	
144 1,2,3-Trichlorobenzene	180	16.096	16.095	0.001	95	68511	2.00	2.07	
142 Hexachlorobutadiene	225	16.253	16.252	0.001	97	66516	2.00	2.10	
143 Naphthalene	128	16.322	16.321	0.001	97	75159	2.00	1.96	
141 1,2,4-Trichlorobenzene	180	16.549	16.548	0.001	95	56748	2.00	2.12	
S 151 1,2-Dichloroethene, Total	96				0		4.00	3.97	
S 145 Trihalomethanes, Total	1				0		8.00	8.16	
S 146 Xylenes, Total (URS)	1				0		4.00	4.12	
S 147 Total BTEX	1				0			10.1	
S 148 1,3-Dichloropropene, Total	1				0		4.00	4.01	
S 149 1,2-Dichloroethene, Total	1				0		4.00	3.97	
S 150 Xylenes, Total	106				0		4.00	4.12	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00019	Amount Added:	1.00	Units: uL
MV-Gas/Ket A_00028	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00005	Amount Added:	1.00	Units: uL

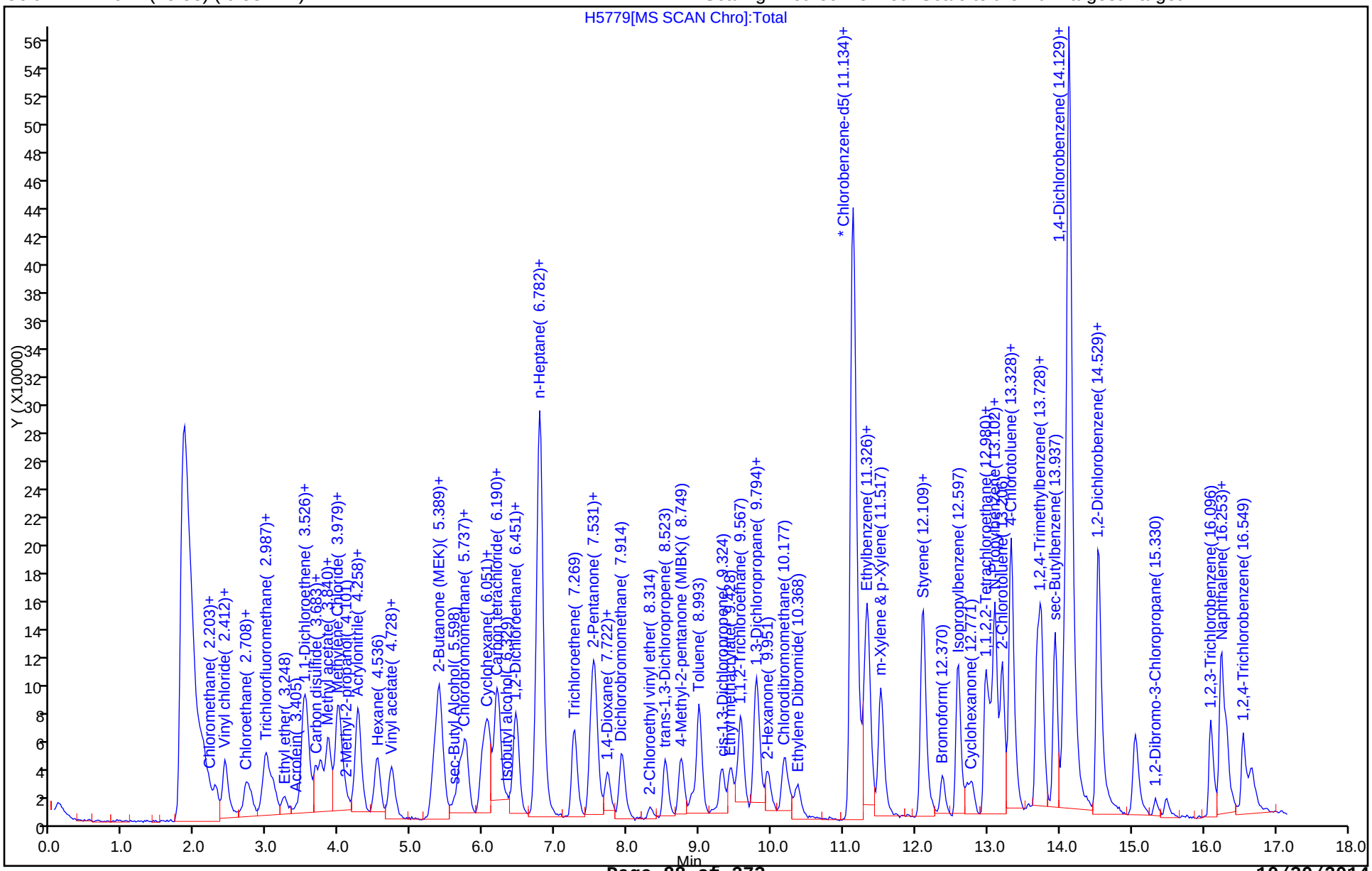
Report Date: 22-Oct-2014 18:48:14 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5779.D

Injection Date:	22-Oct-2014 10:15:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std02			Worklist Smp#:	11
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



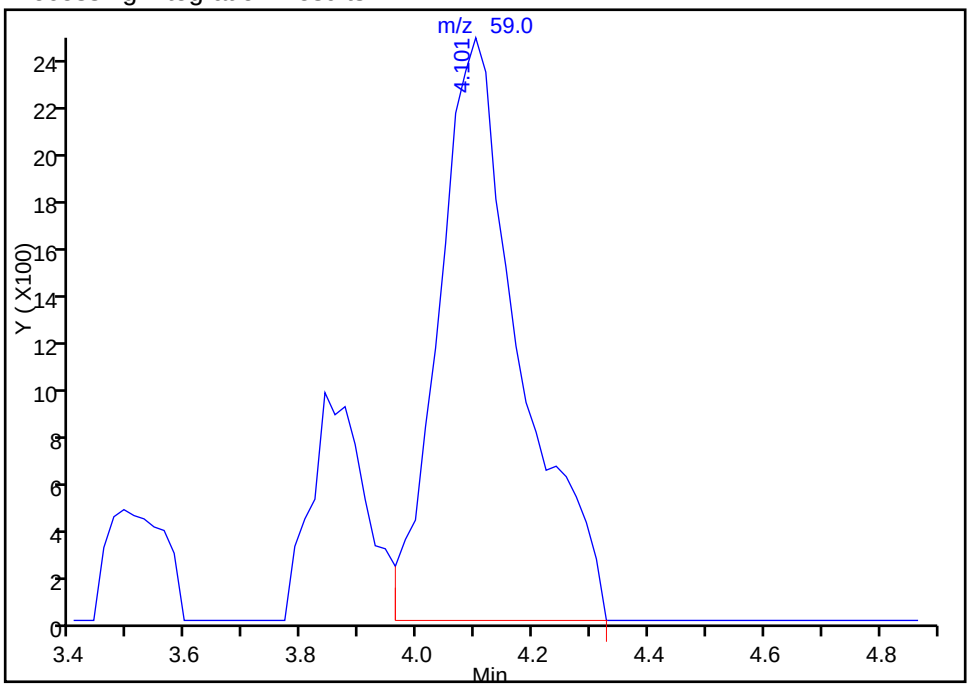
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5779.D
Injection Date: 22-Oct-2014 10:15:30 Instrument ID: VMS_H
Lims ID: std02
Client ID:
Operator ID: wickhamt ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

55 2-Methyl-2-propanol, CAS: 75-65-0

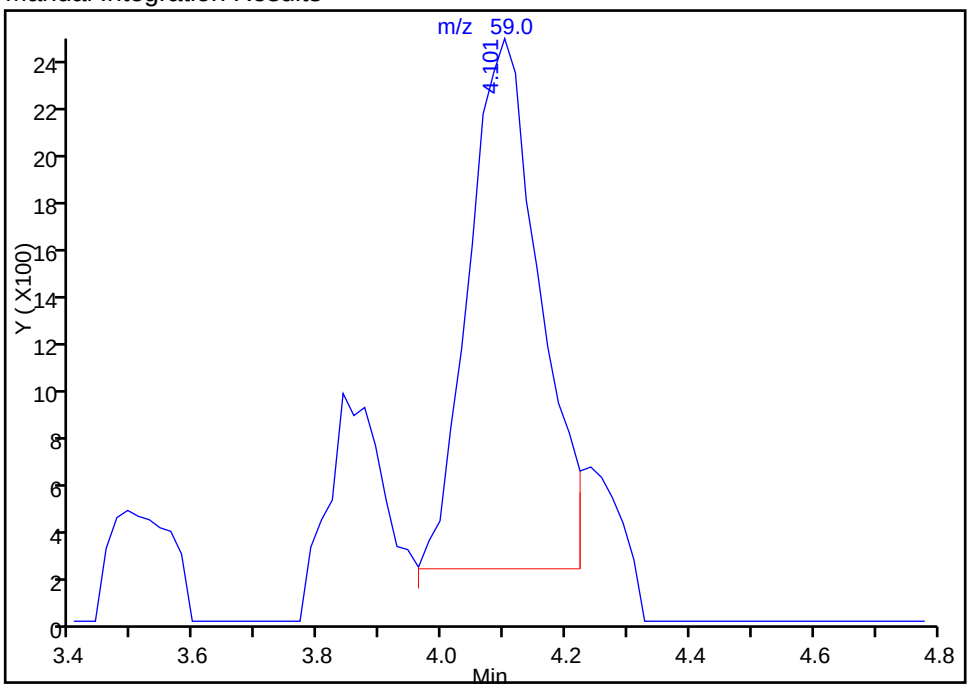
Processing Integration Results

RT: 4.10
Response: 24006
Amount: 24.142202



Manual Integration Results

RT: 4.10
Response: 17755
Amount: 19.912460



Reviewer: linesj, 22-Oct-2014 18:31:24
Audit Action: Manually Integrated
Audit Reason: Shouldering

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5780.D
Lims ID: std05
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Oct-2014 10:37:30 ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std05
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:15 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 13:59:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.010	4.014	-0.004	95	174202	250.0	250.0	
* 2 Fluorobenzene	96	6.796	6.799	-0.003	98	686517	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.131	11.134	-0.003	92	190344	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.125	14.146	-0.021	97	342342	12.5	12.5	
28 Dichlorodifluoromethane	85	2.200	2.202	-0.002	97	203766	5.00	5.62	
30 Chloromethane	50	2.304	2.289	0.015	99	127846	5.00	5.38	
31 Butadiene	54	2.409	2.411	-0.002	0	85429	NC	NC	
32 Vinyl chloride	62	2.444	2.446	-0.002	98	117321	5.00	5.15	
35 Bromomethane	94	2.722	2.724	-0.002	90	109842	5.00	5.03	
36 Chloroethane	64	2.774	2.777	-0.003	99	74510	5.00	5.07	
37 Dichlorofluoromethane	67	2.983	2.986	-0.003	97	264121	5.00	4.88	
38 Trichlorofluoromethane	101	3.088	3.073	0.015	99	245801	5.00	5.14	
40 Ethyl ether	59	3.244	3.247	-0.003	95	56267	5.00	5.02	
44 Acrolein	56	3.401	3.386	0.015	98	30993	50.0	55.1	
45 1,1-Dichloroethene	96	3.506	3.508	-0.002	97	106874	5.00	4.98	
46 1,1,2-Trichloro-1,2,2-trif	151	3.540	3.543	-0.003	97	152991	5.00	5.08	
47 Acetone	43	3.540	3.543	-0.003	37	40081	20.0	21.5	
48 Iodomethane	142	3.680	3.682	-0.002	99	265058	5.00	5.08	
50 Carbon disulfide	76	3.749	3.752	-0.003	99	373754	5.00	4.97	
52 3-Chloro-1-propene	41	3.854	3.839	0.015	87	187109	5.00	4.64	
53 Methyl acetate	43	3.854	3.856	-0.002	97	197562	25.0	25.1	
54 Methylene Chloride	84	3.976	3.978	-0.002	96	116188	5.00	5.04	
55 2-Methyl-2-propanol	59	4.115	4.100	0.015	34	38596	50.0	47.2	
57 Acrylonitrile	53	4.237	4.239	-0.002	99	98776	50.0	50.7	
56 Methyl tert-butyl ether	73	4.272	4.257	0.015	95	207320	5.00	5.10	
58 trans-1,2-Dichloroethene	96	4.272	4.257	0.015	99	128032	5.00	5.10	
59 Hexane	57	4.533	4.535	-0.002	94	167504	5.00	4.88	
60 1,1-Dichloroethane	63	4.724	4.727	-0.003	95	229163	5.00	4.86	
61 Vinyl acetate	43	4.742	4.744	-0.002	36	70272	10.0	8.95	
65 cis-1,2-Dichloroethene	96	5.386	5.388	-0.002	84	130403	5.00	5.01	
67 2-Butanone (MEK)	43	5.386	5.388	-0.002	51	80420	20.0	20.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.403	5.406	-0.003	88	227873	5.00	4.97	
71 sec-Butyl Alcohol	45	5.612	5.597	0.015	96	115775	150.0	146.7	
73 Chlorobromomethane	128	5.682	5.684	-0.002	97	64020	5.00	5.16	
74 Tetrahydrofuran	42	5.734	5.736	-0.002	40	25443	10.0	9.31	
75 Chloroform	83	5.751	5.754	-0.003	92	250251	5.00	4.96	
76 1,1,1-Trichloroethane	97	6.013	5.997	0.016	98	223079	5.00	4.99	
77 Cyclohexane	56	6.082	6.085	-0.003	93	204573	5.00	4.82	
78 1,1-Dichloropropene	75	6.187	6.189	-0.002	96	191619	5.00	4.96	
79 Carbon tetrachloride	117	6.221	6.206	0.015	97	217254	5.00	4.99	
80 Isobutyl alcohol	41	6.308	6.311	-0.003	95	41266	125.0	132.7	
81 Benzene	78	6.448	6.450	-0.002	97	378083	5.00	5.03	
82 1,2-Dichloroethane	62	6.465	6.468	-0.003	95	104821	5.00	5.06	
84 n-Heptane	43	6.744	6.746	-0.002	94	249237	5.00	4.96	
86 Trichloroethene	95	7.266	7.268	-0.002	98	169461	5.00	4.84	
88 2-Pentanone	43	7.492	7.495	-0.003	97	177379	20.0	20.7	
89 Methylcyclohexane	55	7.527	7.512	0.015	92	193016	5.00	5.04	
90 1,2-Dichloropropane	63	7.562	7.564	-0.002	92	145711	5.00	4.86	
92 Dibromomethane	93	7.719	7.721	-0.002	97	83765	5.00	5.02	
93 1,4-Dioxane	88	7.771	7.756	0.015	30	6833	100.0	93.9	
94 Dichlorobromomethane	83	7.928	7.930	-0.002	99	227877	5.00	4.84	
96 2-Chloroethyl vinyl ether	63	8.328	8.313	0.015	92	28649	5.00	4.68	
100 trans-1,3-Dichloropropene	75	8.537	8.522	0.015	93	196230	5.00	5.10	
98 4-Methyl-2-pentanone (MIBK	43	8.746	8.748	-0.002	97	266850	20.0	20.8	
99 Toluene	91	8.990	8.992	-0.002	98	451584	5.00	5.07	
97 cis-1,3-Dichloropropene	75	9.320	9.305	0.015	98	137607	5.00	4.91	
101 Ethyl methacrylate	69	9.442	9.445	-0.003	90	125243	5.00	5.30	
102 1,1,2-Trichloroethane	97	9.581	9.584	-0.003	90	93723	5.00	5.12	
103 Tetrachloroethene	164	9.790	9.793	-0.003	97	152241	5.00	5.09	
104 1,3-Dichloropropane	76	9.825	9.828	-0.003	89	152728	5.00	5.10	
105 2-Hexanone	43	9.947	9.949	-0.002	98	182981	20.0	22.2	
108 Chlorodibromomethane	129	10.173	10.176	-0.003	91	161797	5.00	5.00	
109 Ethylene Dibromide	107	10.365	10.367	-0.002	99	117144	5.00	5.35	
110 1-Chlorohexane	91	11.131	11.133	-0.002	96	221661	5.00	4.96	
111 Chlorobenzene	112	11.166	11.168	-0.002	93	314187	5.00	5.14	
112 1,1,1,2-Tetrachloroethane	131	11.305	11.307	-0.002	94	155122	5.00	5.09	
113 Ethylbenzene	106	11.340	11.342	-0.002	98	156232	5.00	5.16	
114 m-Xylene & p-Xylene	106	11.514	11.516	-0.002	0	207942	5.00	5.05	
115 o-Xylene	106	12.088	12.091	-0.003	98	186097	5.00	5.18	
116 Styrene	104	12.123	12.108	0.015	95	298602	5.00	5.10	
117 Bromoform	173	12.367	12.369	-0.002	96	95986	5.00	5.20	
118 Isopropylbenzene	105	12.593	12.596	-0.003	96	570176	5.00	5.00	
120 Cyclohexanone	55	12.733	12.718	0.015	91	63370	200.0	200.2	
121 1,1,2,2-Tetrachloroethane	83	12.976	12.979	-0.003	93	122861	5.00	4.76	
122 Bromobenzene	156	12.976	12.979	-0.003	94	151388	5.00	5.14	
123 1,2,3-Trichloropropane	110	13.029	13.031	-0.002	78	29147	5.00	5.10	
124 trans-1,4-Dichloro-2-buten	53	13.046	13.048	-0.002	71	26949	5.00	5.14	
125 N-Propylbenzene	120	13.116	13.101	0.015	99	142603	5.00	5.12	
126 2-Chlorotoluene	126	13.203	13.205	-0.002	98	113805	5.00	4.91	
127 1,3,5-Trimethylbenzene	105	13.325	13.327	-0.002	95	432234	5.00	4.97	
128 4-Chlorotoluene	126	13.342	13.344	-0.002	98	144424	5.00	5.18	
129 tert-Butylbenzene	119	13.690	13.693	-0.002	93	471496	5.00	5.01	
130 1,2,4-Trimethylbenzene	105	13.742	13.745	-0.003	96	421082	5.00	5.05	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.934	13.936	-0.002	94	129588	5.00	5.04	
132 1,3-Dichlorobenzene	146	14.056	14.058	-0.002	97	226878	5.00	5.16	
133 4-Isopropyltoluene	119	14.091	14.093	-0.002	98	542398	5.00	5.09	
134 1,4-Dichlorobenzene	146	14.160	14.163	-0.003	95	340580	5.00	5.06	
137 n-Butylbenzene	91	14.526	14.528	-0.002	98	534937	5.00	4.98	
138 1,2-Dichlorobenzene	146	14.561	14.546	0.015	98	232005	5.00	5.13	
139 1,2-Dibromo-3-Chloropropan	157	15.344	15.346	-0.002	87	22953	5.00	5.06	
144 1,2,3-Trichlorobenzene	180	16.093	16.095	-0.002	95	166904	5.00	5.26	
142 Hexachlorobutadiene	225	16.249	16.252	-0.003	97	154795	5.00	5.11	
143 Naphthalene	128	16.319	16.321	-0.002	97	186468	5.00	5.09	
141 1,2,4-Trichlorobenzene	180	16.545	16.548	-0.003	95	124024	5.00	4.84	
S 151 1,2-Dichloroethene, Total	96				0		10.0	10.1	
S 145 Trihalomethanes, Total	1				0		20.0	20.0	
S 146 Xylenes, Total (URS)	1				0		10.0	10.2	
S 147 Total BTEX	1				0			25.5	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.0	
S 149 1,2-Dichloroethene, Total	1				0		10.0	10.1	
S 150 Xylenes, Total	106				0		10.0	10.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00019	Amount Added:	2.50	Units: uL
MV-Gas/Ket A_00028	Amount Added:	2.50	Units: uL
MV-2cleve+AVA_00005	Amount Added:	2.50	Units: uL

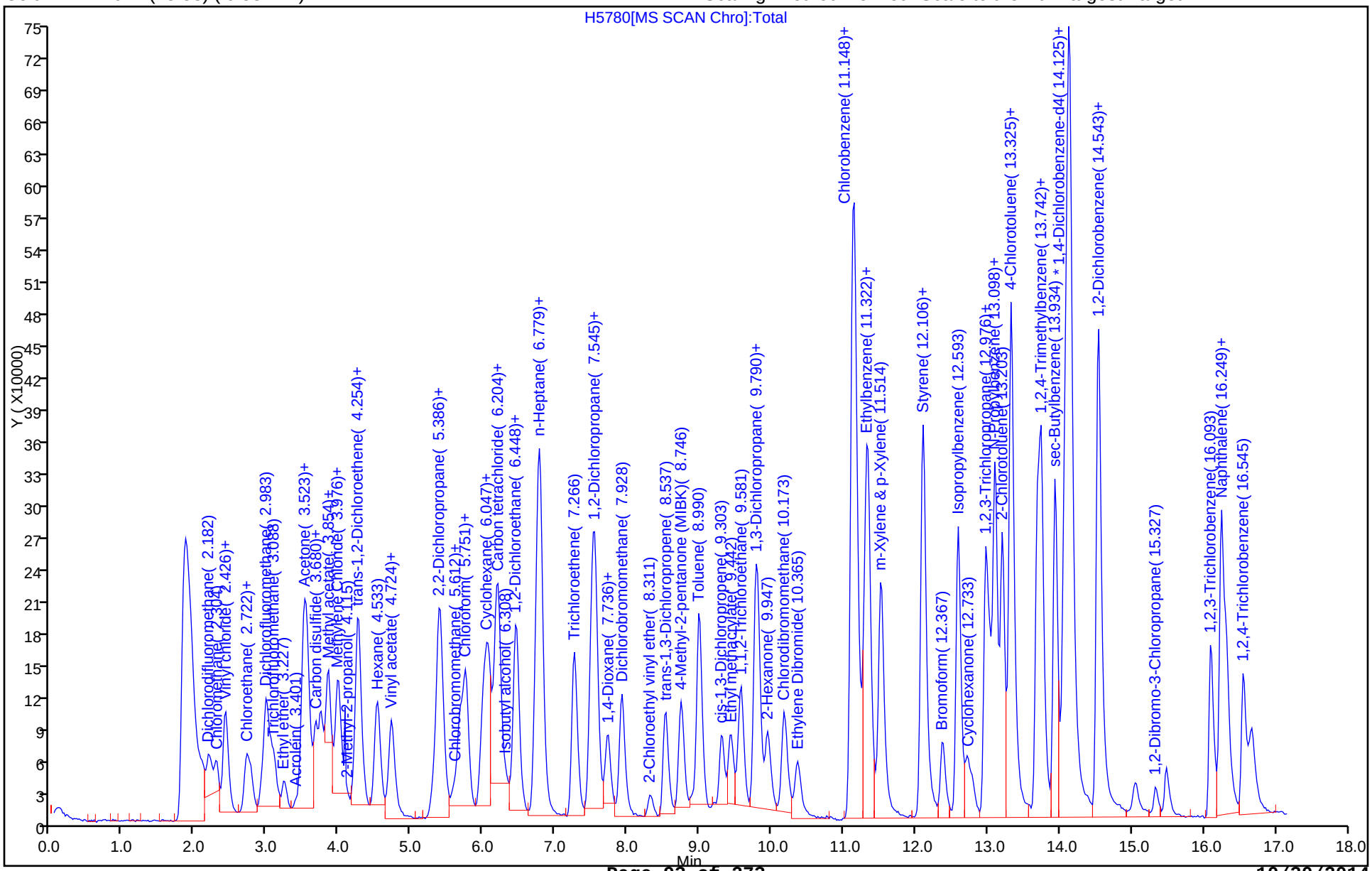
Report Date: 22-Oct-2014 18:48:15 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5780.D

Injection Date:	22-Oct-2014 10:37:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std05			Worklist Smp#:	12
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5781.D
Lims ID: std10
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 22-Oct-2014 10:58:30 ALS Bottle#: 7 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std10
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:16 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 13:52:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.995	3.995	0.000	95	167738	250.0	250.0	
* 2 Fluorobenzene	96	6.798	6.798	0.000	98	691927	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.133	11.133	0.000	88	187998	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.128	14.128	0.000	96	343707	12.5	12.5	
28 Dichlorodifluoromethane	85	2.202	2.202	0.000	97	392170	10.0	10.7	
30 Chloromethane	50	2.289	2.289	0.000	98	254363	10.0	10.6	
31 Butadiene	54	2.411	2.411	0.000	0	168552	NC	NC	
32 Vinyl chloride	62	2.446	2.446	0.000	98	232101	10.0	10.1	
35 Bromomethane	94	2.724	2.724	0.000	90	221473	10.0	10.1	
36 Chloroethane	64	2.777	2.777	0.000	99	146978	10.0	9.92	
37 Dichlorofluoromethane	67	2.986	2.986	0.000	97	535470	10.0	9.81	
38 Trichlorofluoromethane	101	3.073	3.073	0.000	99	489357	10.0	10.1	
40 Ethyl ether	59	3.247	3.247	0.000	95	112479	10.0	9.96	
44 Acrolein	56	3.386	3.386	0.000	98	56591	100.0	96.7	
45 1,1-Dichloroethene	96	3.508	3.508	0.000	97	215050	10.0	9.94	
46 1,1,2-Trichloro-1,2,2-trif	151	3.543	3.543	0.000	97	310962	10.0	10.3	
47 Acetone	43	3.543	3.543	0.000	35	69370	40.0	38.8	
48 Iodomethane	142	3.682	3.682	0.000	99	516164	10.0	9.81	
50 Carbon disulfide	76	3.752	3.752	0.000	98	741923	10.0	9.79	
52 3-Chloro-1-propene	41	3.839	3.839	0.000	89	387164	10.0	9.52	
53 Methyl acetate	43	3.856	3.856	0.000	93	395340	50.0	49.9	
54 Methylene Chloride	84	3.978	3.978	0.000	97	216947	10.0	9.89	
55 2-Methyl-2-propanol	59	4.100	4.100	0.000	96	75655	100.0	96.0	
57 Acrylonitrile	53	4.239	4.239	0.000	99	194686	100.0	99.2	
56 Methyl tert-butyl ether	73	4.257	4.257	0.000	97	405834	10.0	9.91	
58 trans-1,2-Dichloroethene	96	4.257	4.257	0.000	98	254145	10.0	10.0	
59 Hexane	57	4.535	4.535	0.000	95	341717	10.0	10.1	
60 1,1-Dichloroethane	63	4.727	4.727	0.000	96	459508	10.0	9.66	
61 Vinyl acetate	43	4.744	4.744	0.000	96	156661	20.0	18.8	
65 cis-1,2-Dichloroethene	96	5.388	5.388	0.000	84	262393	10.0	10.0	
67 2-Butanone (MEK)	43	5.388	5.388	0.000	48	145615	40.0	37.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.406	5.406	0.000	87	418622	10.0	9.83	
71 sec-Butyl Alcohol	45	5.597	5.597	0.000	97	233321	300.0	307.1	
73 Chlorobromomethane	128	5.684	5.684	0.000	97	124283	10.0	9.93	
74 Tetrahydrofuran	42	5.736	5.736	0.000	90	49380	20.0	17.9	
75 Chloroform	83	5.754	5.754	0.000	94	491808	10.0	9.67	
76 1,1,1-Trichloroethane	97	5.997	5.997	0.000	99	447200	10.0	9.93	
77 Cyclohexane	56	6.085	6.085	0.000	93	409927	10.0	9.58	
78 1,1-Dichloropropene	75	6.189	6.189	0.000	97	376631	10.0	9.68	
79 Carbon tetrachloride	117	6.206	6.206	0.000	97	426798	10.0	9.72	
80 Isobutyl alcohol	41	6.311	6.311	0.000	93	75844	250.0	253.3	
81 Benzene	78	6.450	6.450	0.000	97	746074	10.0	9.85	
82 1,2-Dichloroethane	62	6.468	6.468	0.000	95	203759	10.0	9.76	
84 n-Heptane	43	6.746	6.746	0.000	95	501502	10.0	9.90	
86 Trichloroethene	95	7.268	7.268	0.000	98	327570	10.0	9.29	
88 2-Pentanone	43	7.495	7.495	0.000	97	350647	40.0	40.5	
89 Methylcyclohexane	55	7.512	7.512	0.000	92	383157	10.0	9.93	
90 1,2-Dichloropropane	63	7.564	7.564	0.000	93	282777	10.0	9.36	
92 Dibromomethane	93	7.721	7.721	0.000	96	163700	10.0	9.74	
93 1,4-Dioxane	88	7.756	7.756	0.000	30	16037	200.0	218.6	
94 Dichlorobromomethane	83	7.930	7.930	0.000	99	448878	10.0	9.47	
96 2-Chloroethyl vinyl ether	63	8.313	8.313	0.000	92	55239	10.0	8.95	
100 trans-1,3-Dichloropropene	75	8.522	8.522	0.000	93	387002	10.0	9.98	
98 4-Methyl-2-pentanone (MIBK	43	8.748	8.748	0.000	96	514367	40.0	39.7	
99 Toluene	91	8.992	8.992	0.000	99	886723	10.0	9.87	
97 cis-1,3-Dichloropropene	75	9.305	9.305	0.000	98	263907	10.0	9.54	
101 Ethyl methacrylate	69	9.445	9.445	0.000	90	237501	10.0	10.2	
102 1,1,2-Trichloroethane	97	9.584	9.584	0.000	90	177045	10.0	9.74	
103 Tetrachloroethene	164	9.793	9.793	0.000	98	302088	10.0	10.2	
104 1,3-Dichloropropane	76	9.828	9.828	0.000	89	295928	10.0	10.0	
105 2-Hexanone	43	9.949	9.949	0.000	98	327402	40.0	40.2	
108 Chlorodibromomethane	129	10.176	10.176	0.000	90	325392	10.0	10.2	
109 Ethylene Dibromide	107	10.367	10.367	0.000	98	224589	10.0	10.4	
110 1-Chlorohexane	91	11.133	11.133	0.000	95	427501	10.0	9.69	
111 Chlorobenzene	112	11.168	11.168	0.000	92	609904	10.0	10.1	
112 1,1,1,2-Tetrachloroethane	131	11.307	11.307	0.000	95	308175	10.0	10.2	
113 Ethylbenzene	106	11.342	11.342	0.000	99	306905	10.0	10.3	
114 m-Xylene & p-Xylene	106	11.516	11.516	0.000	0	399221	10.0	9.82	
115 o-Xylene	106	12.091	12.091	0.000	98	355149	10.0	10.0	
116 Styrene	104	12.108	12.108	0.000	94	594398	10.0	10.3	
117 Bromoform	173	12.369	12.369	0.000	95	193164	10.0	10.6	
118 Isopropylbenzene	105	12.596	12.596	0.000	96	1110978	10.0	9.70	
120 Cyclohexanone	55	12.718	12.718	0.000	92	124024	400.0	396.7	
121 1,1,2,2-Tetrachloroethane	83	12.979	12.979	0.000	94	256083	10.0	9.88	
122 Bromobenzene	156	12.979	12.979	0.000	95	297316	10.0	10.1	
123 1,2,3-Trichloropropane	110	13.031	13.031	0.000	80	56615	10.0	9.86	
124 trans-1,4-Dichloro-2-buten	53	13.048	13.048	0.000	70	51532	10.0	9.80	
125 N-Propylbenzene	120	13.101	13.101	0.000	99	273388	10.0	9.78	
126 2-Chlorotoluene	126	13.205	13.205	0.000	97	220793	10.0	9.48	
127 1,3,5-Trimethylbenzene	105	13.327	13.327	0.000	94	851767	10.0	9.75	
128 4-Chlorotoluene	126	13.344	13.344	0.000	98	286021	10.0	10.2	
129 tert-Butylbenzene	119	13.693	13.693	0.000	93	906383	10.0	9.59	
130 1,2,4-Trimethylbenzene	105	13.745	13.745	0.000	96	812175	10.0	9.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.936	13.936	0.000	94	251661	10.0	9.75	
132 1,3-Dichlorobenzene	146	14.058	14.058	0.000	98	447128	10.0	10.1	
133 4-Isopropyltoluene	119	14.093	14.093	0.000	97	1038060	10.0	9.69	
134 1,4-Dichlorobenzene	146	14.163	14.163	0.000	94	649034	10.0	9.61	
137 n-Butylbenzene	91	14.528	14.528	0.000	98	1030011	10.0	9.55	
138 1,2-Dichlorobenzene	146	14.546	14.546	0.000	97	450079	10.0	9.91	
139 1,2-Dibromo-3-Chloropropan	157	15.346	15.346	0.000	88	47066	10.0	10.3	
144 1,2,3-Trichlorobenzene	180	16.095	16.095	0.000	95	322001	10.0	10.1	
142 Hexachlorobutadiene	225	16.252	16.252	0.000	97	301481	10.0	9.91	
143 Naphthalene	128	16.321	16.321	0.000	97	370302	10.0	10.1	
141 1,2,4-Trichlorobenzene	180	16.548	16.548	0.000	95	264016	10.0	10.3	
S 151 1,2-Dichloroethene, Total	96				0		20.0	20.1	
S 145 Trihalomethanes, Total	1				0		40.0	39.9	
S 146 Xylenes, Total (URS)	1				0		20.0	19.8	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.5	
S 149 1,2-Dichloroethene, Total	1				0		20.0	20.1	
S 150 Xylenes, Total	106				0		20.0	19.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00019	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00028	Amount Added:	5.00	Units: uL
MV-2cleve+AVA_00005	Amount Added:	5.00	Units: uL

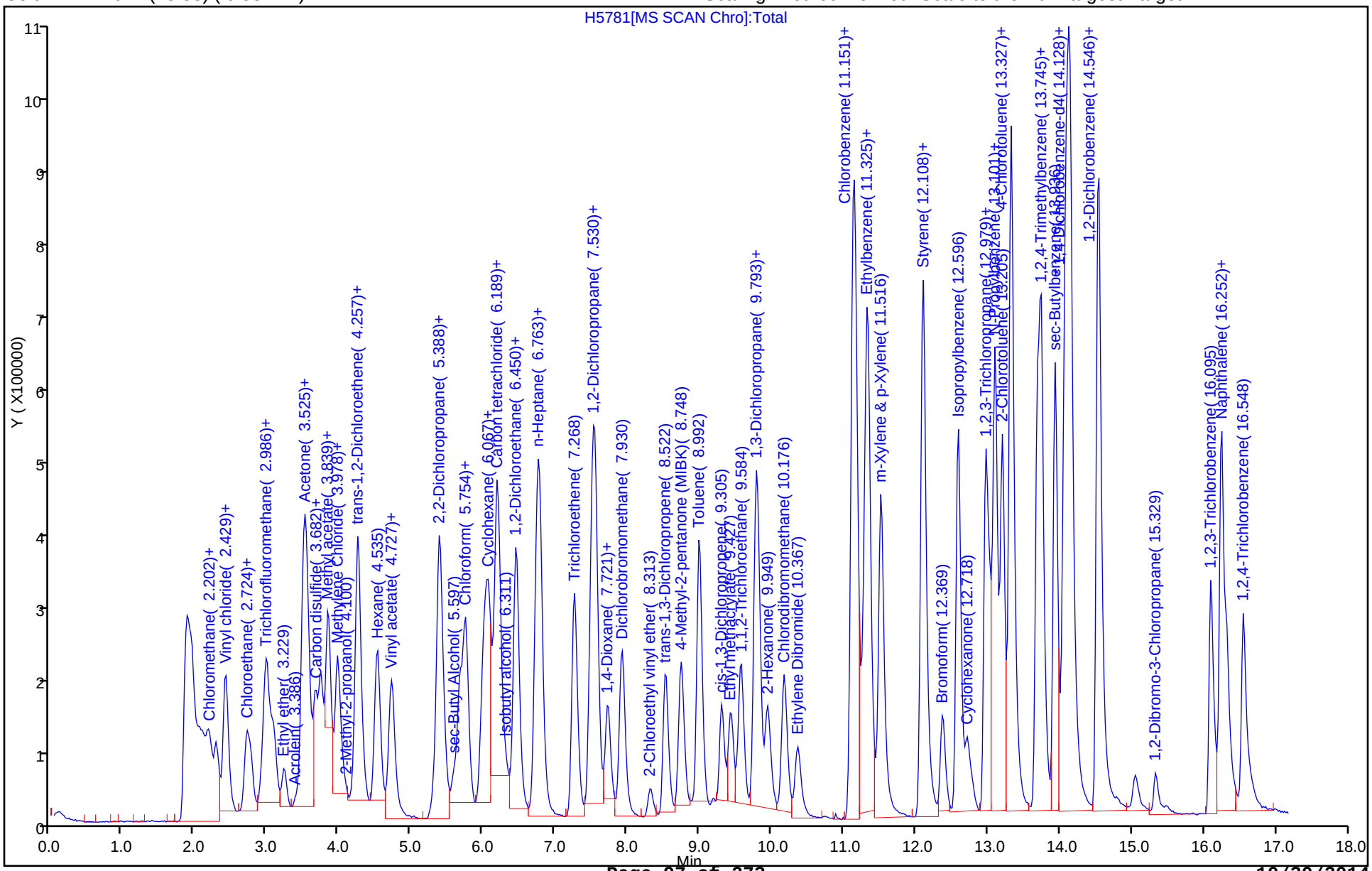
Report Date: 22-Oct-2014 18:48:17 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5781.D

Injection Date:	22-Oct-2014 10:58:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std10			Worklist Smp#:	13
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5782.D
Lims ID: std30
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Oct-2014 11:20:30 ALS Bottle#: 8 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std30
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:17 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 14:01:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.008	3.995	0.013	94	166807	250.0	250.0	
* 2 Fluorobenzene	96	6.794	6.798	-0.004	98	678261	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.129	11.133	-0.004	88	183914	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.141	14.128	0.013	96	338248	12.5	12.5	
28 Dichlorodifluoromethane	85	2.198	2.202	-0.004	98	1199726	30.0	33.5	
30 Chloromethane	50	2.302	2.289	0.013	98	724865	30.0	30.9	
31 Butadiene	54	2.424	2.411	0.013	0	524668	NC	NC	
32 Vinyl chloride	62	2.442	2.446	-0.004	98	713373	30.0	31.7	
35 Bromomethane	94	2.720	2.724	-0.004	90	663118	30.0	30.8	
36 Chloroethane	64	2.772	2.777	-0.005	99	442290	30.0	30.5	
37 Dichlorofluoromethane	67	2.981	2.986	-0.005	97	1637774	30.0	30.6	
38 Trichlorofluoromethane	101	3.068	3.073	-0.005	100	1509763	30.0	31.9	
40 Ethyl ether	59	3.242	3.247	-0.005	95	338959	30.0	30.6	
44 Acrolein	56	3.382	3.386	-0.004	98	171590	300.0	291.4	
45 1,1-Dichloroethene	96	3.504	3.508	-0.004	97	649836	30.0	30.6	
46 1,1,2-Trichloro-1,2,2-trif	151	3.538	3.543	-0.005	98	938122	30.0	31.6	
47 Acetone	43	3.538	3.543	-0.005	36	205151	120.0	122.5	
48 Iodomethane	142	3.678	3.682	-0.004	99	1621877	30.0	31.4	
50 Carbon disulfide	76	3.747	3.752	-0.005	99	2222682	30.0	29.9	
52 3-Chloro-1-propene	41	3.834	3.839	-0.005	88	1168964	30.0	29.3	
53 Methyl acetate	43	3.852	3.856	-0.004	98	1194446	150.0	153.7	
54 Methylene Chloride	84	3.974	3.978	-0.004	95	633776	30.0	30.7	
55 2-Methyl-2-propanol	59	4.096	4.100	-0.004	95	219780	300.0	280.5	
57 Acrylonitrile	53	4.235	4.239	-0.004	100	578086	300.0	300.5	
56 Methyl tert-butyl ether	73	4.252	4.257	-0.005	95	1234854	30.0	30.8	
58 trans-1,2-Dichloroethene	96	4.252	4.257	-0.005	99	754255	30.0	30.4	
59 Hexane	57	4.531	4.535	-0.004	94	1016872	30.0	30.7	
60 1,1-Dichloroethane	63	4.722	4.727	-0.005	96	1393123	30.0	29.9	
61 Vinyl acetate	43	4.740	4.744	-0.004	96	533769	60.0	63.5	
65 cis-1,2-Dichloroethene	96	5.384	5.388	-0.004	84	804777	30.0	31.3	
67 2-Butanone (MEK)	43	5.384	5.388	-0.004	98	445997	120.0	116.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.401	5.406	-0.005	90	1175223	30.0	29.9	
71 sec-Butyl Alcohol	45	5.593	5.597	-0.004	96	728696	900.0	964.4	
73 Chlorobromomethane	128	5.680	5.684	-0.004	97	389739	30.0	31.8	
74 Tetrahydrofuran	42	5.732	5.736	-0.004	95	149826	60.0	55.5	
75 Chloroform	83	5.749	5.754	-0.005	94	1493686	30.0	30.0	
76 1,1,1-Trichloroethane	97	6.011	5.997	0.014	98	1348822	30.0	30.5	
77 Cyclohexane	56	6.080	6.085	-0.005	94	1251546	30.0	29.8	
78 1,1-Dichloropropene	75	6.185	6.189	-0.004	96	1145566	30.0	30.0	
79 Carbon tetrachloride	117	6.202	6.206	-0.004	97	1312607	30.0	30.5	
80 Isobutyl alcohol	41	6.307	6.311	-0.004	92	229036	750.0	769.2	
81 Benzene	78	6.446	6.450	-0.004	96	2275989	30.0	30.6	
82 1,2-Dichloroethane	62	6.463	6.468	-0.005	95	620331	30.0	30.3	
84 n-Heptane	43	6.742	6.746	-0.004	96	1511306	30.0	30.4	
86 Trichloroethene	95	7.264	7.268	-0.004	99	985408	30.0	28.5	
88 2-Pentanone	43	7.490	7.495	-0.005	97	1050633	120.0	123.9	
89 Methylcyclohexane	55	7.525	7.512	0.013	91	1141374	30.0	30.2	
90 1,2-Dichloropropane	63	7.560	7.564	-0.004	96	842043	30.0	28.4	
92 Dibromomethane	93	7.717	7.721	-0.004	97	487691	30.0	29.6	
93 1,4-Dioxane	88	7.734	7.756	-0.022	30	47331	600.0	658.1	
94 Dichlorobromomethane	83	7.926	7.930	-0.004	99	1384752	30.0	29.8	
96 2-Chloroethyl vinyl ether	63	8.309	8.313	-0.004	92	180195	30.0	29.8	
100 trans-1,3-Dichloropropene	75	8.535	8.522	0.013	93	1176605	30.0	30.9	
98 4-Methyl-2-pentanone (MIBK	43	8.744	8.748	-0.004	96	1514669	120.0	119.3	
99 Toluene	91	9.005	8.992	0.013	98	2665025	30.0	30.3	
97 cis-1,3-Dichloropropene	75	9.301	9.305	-0.004	98	826471	30.0	30.5	
101 Ethyl methacrylate	69	9.440	9.445	-0.005	90	705300	30.0	30.9	
102 1,1,2-Trichloroethane	97	9.580	9.584	-0.004	90	552955	30.0	31.4	
103 Tetrachloroethene	164	9.788	9.793	-0.005	98	912848	30.0	31.6	
104 1,3-Dichloropropane	76	9.823	9.828	-0.005	89	896699	30.0	31.0	
105 2-Hexanone	43	9.945	9.949	-0.004	98	986941	120.0	123.9	
108 Chlorodibromomethane	129	10.171	10.176	-0.005	90	1005112	30.0	32.2	
109 Ethylene Dibromide	107	10.363	10.367	-0.004	99	683789	30.0	32.3	
110 1-Chlorohexane	91	11.129	11.133	-0.004	98	1288534	30.0	29.9	
111 Chlorobenzene	112	11.181	11.168	0.013	92	1851311	30.0	31.4	
112 1,1,1,2-Tetrachloroethane	131	11.303	11.307	-0.004	97	934067	30.0	31.7	
113 Ethylbenzene	106	11.338	11.342	-0.004	99	912983	30.0	31.2	
114 m-Xylene & p-Xylene	106	11.512	11.516	-0.004	0	1228892	30.0	30.9	
115 o-Xylene	106	12.087	12.091	-0.004	98	1091268	30.0	31.5	
116 Styrene	104	12.121	12.108	0.013	94	1793604	30.0	31.7	
117 Bromoform	173	12.383	12.369	0.013	96	585705	30.0	32.8	
118 Isopropylbenzene	105	12.591	12.596	-0.005	96	3368989	30.0	29.9	
120 Cyclohexanone	55	12.713	12.718	-0.005	93	364360	1200.0	1191.3	
121 1,1,2,2-Tetrachloroethane	83	12.974	12.979	-0.005	95	735974	30.0	28.8	
122 Bromobenzene	156	12.974	12.979	-0.005	94	904747	30.0	31.1	
123 1,2,3-Trichloropropane	110	13.027	13.031	-0.004	81	164968	30.0	29.2	
124 trans-1,4-Dichloro-2-buten	53	13.044	13.048	-0.004	73	142330	30.0	27.5	
125 N-Propylbenzene	120	13.114	13.101	0.013	99	830030	30.0	30.2	
126 2-Chlorotoluene	126	13.201	13.205	-0.004	97	703508	30.0	30.7	
127 1,3,5-Trimethylbenzene	105	13.305	13.327	-0.022	95	2480870	30.0	28.9	
128 4-Chlorotoluene	126	13.340	13.344	-0.004	98	800004	30.0	29.0	
129 tert-Butylbenzene	119	13.688	13.693	-0.004	93	2743007	30.0	29.5	
130 1,2,4-Trimethylbenzene	105	13.740	13.745	-0.005	94	2462230	30.0	29.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.932	13.936	-0.004	94	752588	30.0	29.6	
132 1,3-Dichlorobenzene	146	14.054	14.058	-0.004	98	1336824	30.0	30.8	
133 4-Isopropyltoluene	119	14.106	14.093	0.013	98	3137998	30.0	29.8	
134 1,4-Dichlorobenzene	146	14.158	14.163	-0.005	96	2009162	30.0	30.2	
137 n-Butylbenzene	91	14.524	14.528	-0.004	98	3173197	30.0	29.9	
138 1,2-Dichlorobenzene	146	14.559	14.546	0.013	98	1391864	30.0	31.1	
139 1,2-Dibromo-3-Chloropropan	157	15.342	15.346	-0.004	89	139758	30.0	31.2	
144 1,2,3-Trichlorobenzene	180	16.108	16.095	0.013	95	988691	30.0	31.6	
142 Hexachlorobutadiene	225	16.247	16.252	-0.005	98	907128	30.0	30.3	
143 Naphthalene	128	16.317	16.321	-0.004	97	1126127	30.0	31.1	
141 1,2,4-Trichlorobenzene	180	16.543	16.548	-0.005	95	795753	30.0	31.4	
S 151 1,2-Dichloroethene, Total	96				0		60.0	61.7	
S 145 Trihalomethanes, Total	1				0		120.0	124.8	
S 146 Xylenes, Total (URS)	1				0		60.0	62.4	
S 147 Total BTEX	1				0			154.5	
S 148 1,3-Dichloropropene, Total	1				0		60.0	61.5	
S 149 1,2-Dichloroethene, Total	1				0		60.0	61.7	
S 150 Xylenes, Total	106				0		60.0	62.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00019	Amount Added:	15.00	Units: uL
MV-Gas/Ket A_00028	Amount Added:	15.00	Units: uL
MV-2cleve+AVA_00005	Amount Added:	15.00	Units: uL

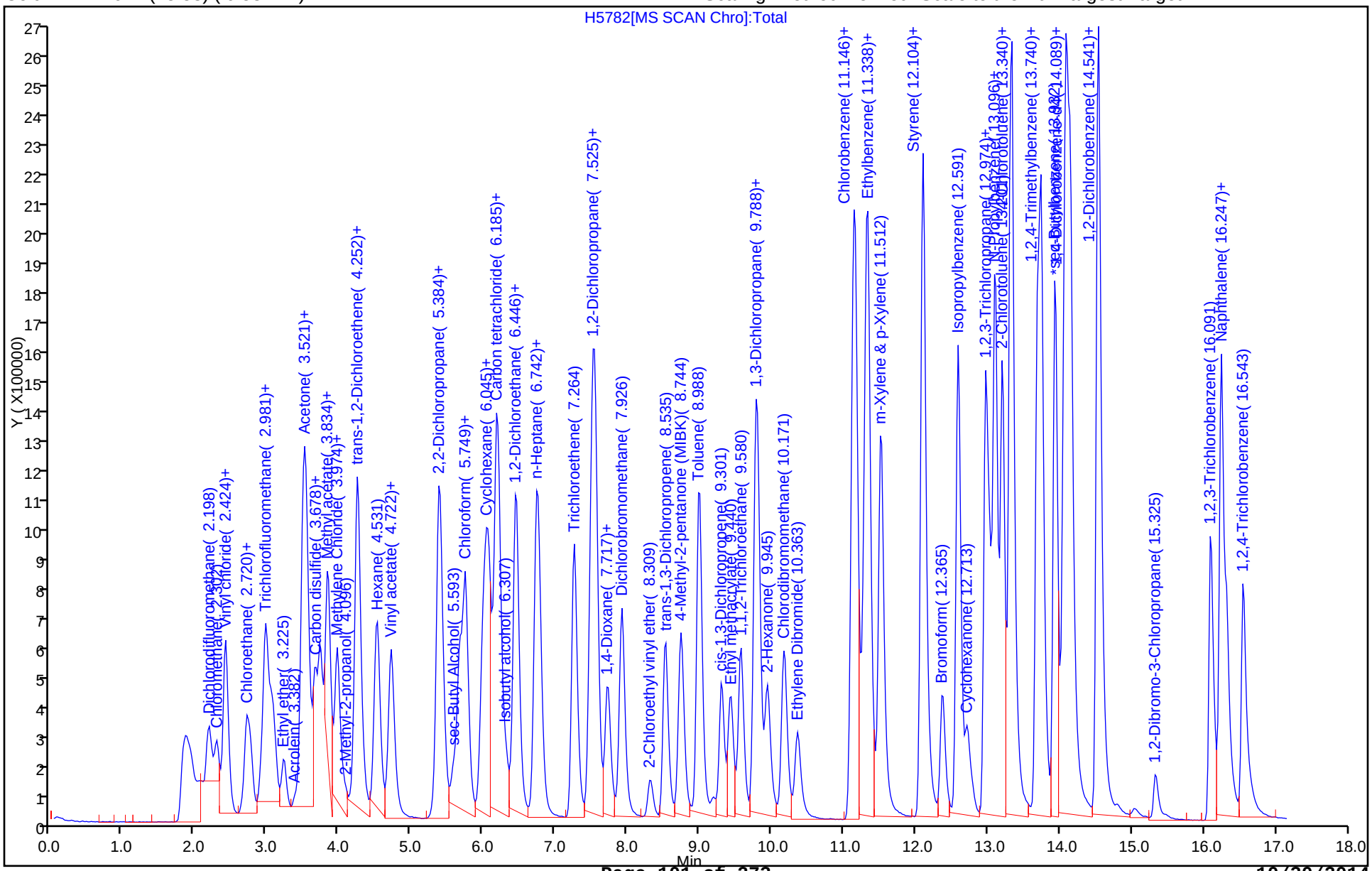
Report Date: 22-Oct-2014 18:48:17 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5782.D

Injection Date:	22-Oct-2014 11:20:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std30			Worklist Smp#:	14
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5783.D
Lims ID: std60
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Oct-2014 11:42:30 ALS Bottle#: 9 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std60
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:18 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 14:02:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.029	3.995	0.034	95	144403	250.0	250.0	
* 2 Fluorobenzene	96	6.797	6.798	-0.001	98	650473	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.132	11.133	-0.001	89	182452	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.144	14.128	0.016	94	311598	12.5	12.5	
28 Dichlorodifluoromethane	85	2.201	2.202	-0.001	99	2320959	60.0	67.5	
30 Chloromethane	50	2.322	2.289	0.033	97	1533132	60.0	68.1	
31 Butadiene	54	2.427	2.411	0.016	0	1033744	NC	NC	
32 Vinyl chloride	62	2.444	2.446	-0.002	99	1401198	60.0	65.0	
35 Bromomethane	94	2.723	2.724	-0.001	90	1262916	60.0	61.1	
36 Chloroethane	64	2.775	2.777	-0.002	99	864132	60.0	62.1	
37 Dichlorofluoromethane	67	2.984	2.986	-0.002	98	3209852	60.0	62.6	
38 Trichlorofluoromethane	101	3.071	3.073	-0.002	100	2945471	60.0	65.0	
40 Ethyl ether	59	3.245	3.247	-0.002	95	639867	60.0	60.3	
44 Acrolein	56	3.384	3.386	-0.002	98	324474	599.9	570.8	
45 1,1-Dichloroethene	96	3.506	3.508	-0.002	96	1239267	60.0	60.9	
46 1,1,2-Trichloro-1,2,2-trif	151	3.541	3.543	-0.002	97	1800925	60.0	63.2	
47 Acetone	43	3.541	3.543	-0.002	55	376320	240.0	236.7	
48 Iodomethane	142	3.680	3.682	-0.002	99	3151920	60.0	63.7	
50 Carbon disulfide	76	3.750	3.752	-0.002	99	4294182	60.0	60.3	
52 3-Chloro-1-propene	41	3.855	3.839	0.016	90	2258483	60.0	59.1	
53 Methyl acetate	43	3.855	3.856	-0.001	98	2258939	300.0	303.1	
54 Methylene Chloride	84	3.976	3.978	-0.002	95	1202820	60.0	61.5	
55 2-Methyl-2-propanol	59	4.098	4.100	-0.002	94	361678	600.0	533.3	
57 Acrylonitrile	53	4.238	4.239	-0.001	99	1127565	600.0	611.2	
56 Methyl tert-butyl ether	73	4.272	4.257	0.015	97	2324070	60.0	60.4	
58 trans-1,2-Dichloroethene	96	4.255	4.257	-0.002	98	1464945	60.0	61.6	
59 Hexane	57	4.534	4.535	-0.001	95	1945543	60.0	59.2	
60 1,1-Dichloroethane	63	4.725	4.727	-0.002	96	2698767	60.0	60.4	
61 Vinyl acetate	43	4.742	4.744	-0.002	97	1027827	120.0	126.6	
65 cis-1,2-Dichloroethene	96	5.387	5.388	-0.001	87	1556100	60.0	63.1	
67 2-Butanone (MEK)	43	5.404	5.388	0.016	99	836981	240.0	227.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.404	5.406	-0.002	89	2180612	60.0	58.7	
71 sec-Butyl Alcohol	45	5.613	5.597	0.016	98	1346426	1800.0	2058.4	
73 Chlorobromomethane	128	5.683	5.684	-0.001	97	763465	60.0	64.9	
74 Tetrahydrofuran	42	5.735	5.736	-0.001	92	292009	120.0	112.7	
75 Chloroform	83	5.752	5.754	-0.002	95	2875762	60.0	60.2	
76 1,1,1-Trichloroethane	97	6.013	5.997	0.016	99	2620463	60.0	61.9	
77 Cyclohexane	56	6.083	6.085	-0.002	92	2363498	60.0	58.7	
78 1,1-Dichloropropene	75	6.187	6.189	-0.002	95	2194157	60.0	60.0	
79 Carbon tetrachloride	117	6.205	6.206	-0.001	97	2546172	60.0	61.7	
80 Isobutyl alcohol	41	6.327	6.311	0.016	92	429616	1500.0	1666.7	
81 Benzene	78	6.449	6.450	-0.001	96	4453430	60.0	62.5	
82 1,2-Dichloroethane	62	6.466	6.468	-0.002	96	1170453	60.0	59.6	
84 n-Heptane	43	6.745	6.746	-0.001	94	2843503	60.0	59.7	
86 Trichloroethene	95	7.267	7.268	-0.001	99	1901317	60.0	57.4	
88 2-Pentanone	43	7.493	7.495	-0.002	97	1953078	240.0	240.1	
89 Methylcyclohexane	55	7.528	7.512	0.016	91	2141999	60.0	59.0	
90 1,2-Dichloropropane	63	7.563	7.564	-0.001	96	1609437	60.0	56.6	
92 Dibromomethane	93	7.737	7.721	0.016	97	923189	60.0	58.4	
93 1,4-Dioxane	88	7.754	7.756	-0.002	51	83176	1200.0	1205.9	
94 Dichlorobromomethane	83	7.928	7.930	-0.002	99	2633962	60.0	59.1	
96 2-Chloroethyl vinyl ether	63	8.329	8.313	0.016	92	342516	60.0	59.0	
100 trans-1,3-Dichloropropene	75	8.538	8.522	0.016	93	2220027	60.0	60.9	
98 4-Methyl-2-pentanone (MIBK	43	8.747	8.748	-0.001	96	2802173	240.0	230.2	
99 Toluene	91	9.008	8.992	0.016	98	5120019	60.0	60.6	
97 cis-1,3-Dichloropropene	75	9.304	9.305	-0.001	98	1563011	60.0	58.2	
101 Ethyl methacrylate	69	9.443	9.445	-0.002	89	1339976	60.0	59.1	
102 1,1,2-Trichloroethane	97	9.582	9.584	-0.002	89	974775	60.0	57.8	
103 Tetrachloroethene	164	9.791	9.793	-0.002	98	1761121	60.0	61.4	
104 1,3-Dichloropropane	76	9.826	9.828	-0.002	90	1676573	60.0	58.4	
105 2-Hexanone	43	9.948	9.949	-0.001	98	1821363	240.0	230.6	
108 Chlorodibromomethane	129	10.174	10.176	-0.002	90	1905000	60.0	61.4	
109 Ethylene Dibromide	107	10.366	10.367	-0.001	99	1294624	60.0	61.7	
110 1-Chlorohexane	91	11.149	11.133	0.016	98	2429865	60.0	56.8	
111 Chlorobenzene	112	11.184	11.168	0.016	93	3559195	60.0	60.8	
112 1,1,1,2-Tetrachloroethane	131	11.306	11.307	-0.001	97	1791600	60.0	61.3	
113 Ethylbenzene	106	11.341	11.342	-0.001	99	1729070	60.0	59.6	
114 m-Xylene & p-Xylene	106	11.532	11.516	0.016	0	2342811	60.0	59.4	
115 o-Xylene	106	12.107	12.091	0.016	97	2076897	60.0	60.4	
116 Styrene	104	12.124	12.108	0.016	94	3419414	60.0	60.9	
117 Bromoform	173	12.385	12.369	0.016	96	1102323	60.0	62.3	
118 Isopropylbenzene	105	12.594	12.596	-0.002	96	6329950	60.0	61.0	
120 Cyclohexanone	55	12.733	12.718	0.015	93	653067	2400.0	2152.3	
121 1,1,2,2-Tetrachloroethane	83	12.995	12.979	0.016	94	1365264	60.0	58.1	
122 Bromobenzene	156	12.977	12.979	-0.002	94	1742888	60.0	65.1	
123 1,2,3-Trichloropropane	110	13.029	13.031	-0.002	81	302747	60.0	58.1	
124 trans-1,4-Dichloro-2-buten	53	13.047	13.048	-0.001	74	263134	60.0	55.2	
125 N-Propylbenzene	120	13.116	13.101	0.015	99	1542997	60.0	60.9	
126 2-Chlorotoluene	126	13.221	13.205	0.016	98	1300219	60.0	61.6	
127 1,3,5-Trimethylbenzene	105	13.325	13.327	-0.002	94	4860012	60.0	61.4	
128 4-Chlorotoluene	126	13.343	13.344	-0.001	98	1551613	60.0	61.1	
129 tert-Butylbenzene	119	13.691	13.693	-0.001	93	5068366	60.0	59.1	
130 1,2,4-Trimethylbenzene	105	13.761	13.745	0.016	97	4568184	60.0	60.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.952	13.936	0.016	94	1379905	60.0	59.0	
132 1,3-Dichlorobenzene	146	14.074	14.058	0.016	98	2488104	60.0	62.2	
133 4-Isopropyltoluene	119	14.109	14.093	0.016	97	5723340	60.0	59.0	
134 1,4-Dichlorobenzene	146	14.161	14.163	-0.002	95	3695601	60.0	60.3	
137 n-Butylbenzene	91	14.527	14.528	-0.001	98	5813104	60.0	59.4	
138 1,2-Dichlorobenzene	146	14.561	14.546	0.015	99	2568658	60.0	62.4	
139 1,2-Dibromo-3-Chloropropan	157	15.345	15.346	-0.001	89	251235	60.0	60.8	
144 1,2,3-Trichlorobenzene	180	16.111	16.095	0.016	95	1812601	60.0	62.8	
142 Hexachlorobutadiene	225	16.250	16.252	-0.002	98	1596525	60.0	57.9	
143 Naphthalene	128	16.320	16.321	-0.001	97	2046930	60.0	61.4	
141 1,2,4-Trichlorobenzene	180	16.546	16.548	-0.002	94	1419275	60.0	60.9	
S 151 1,2-Dichloroethene, Total	96				0		120.0	124.7	
S 145 Trihalomethanes, Total	1				0		240.0	243.0	
S 146 Xylenes, Total (URS)	1				0		120.0	119.8	
S 147 Total BTEX	1				0			302.6	
S 148 1,3-Dichloropropene, Total	1				0		120.0	119.1	
S 149 1,2-Dichloroethene, Total	1				0		120.0	124.7	
S 150 Xylenes, Total	106				0		120.0	119.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00019	Amount Added:	30.00	Units: uL
MV-Gas/Ket A_00028	Amount Added:	30.00	Units: uL
MV-2cleve+AVA_00005	Amount Added:	30.00	Units: uL

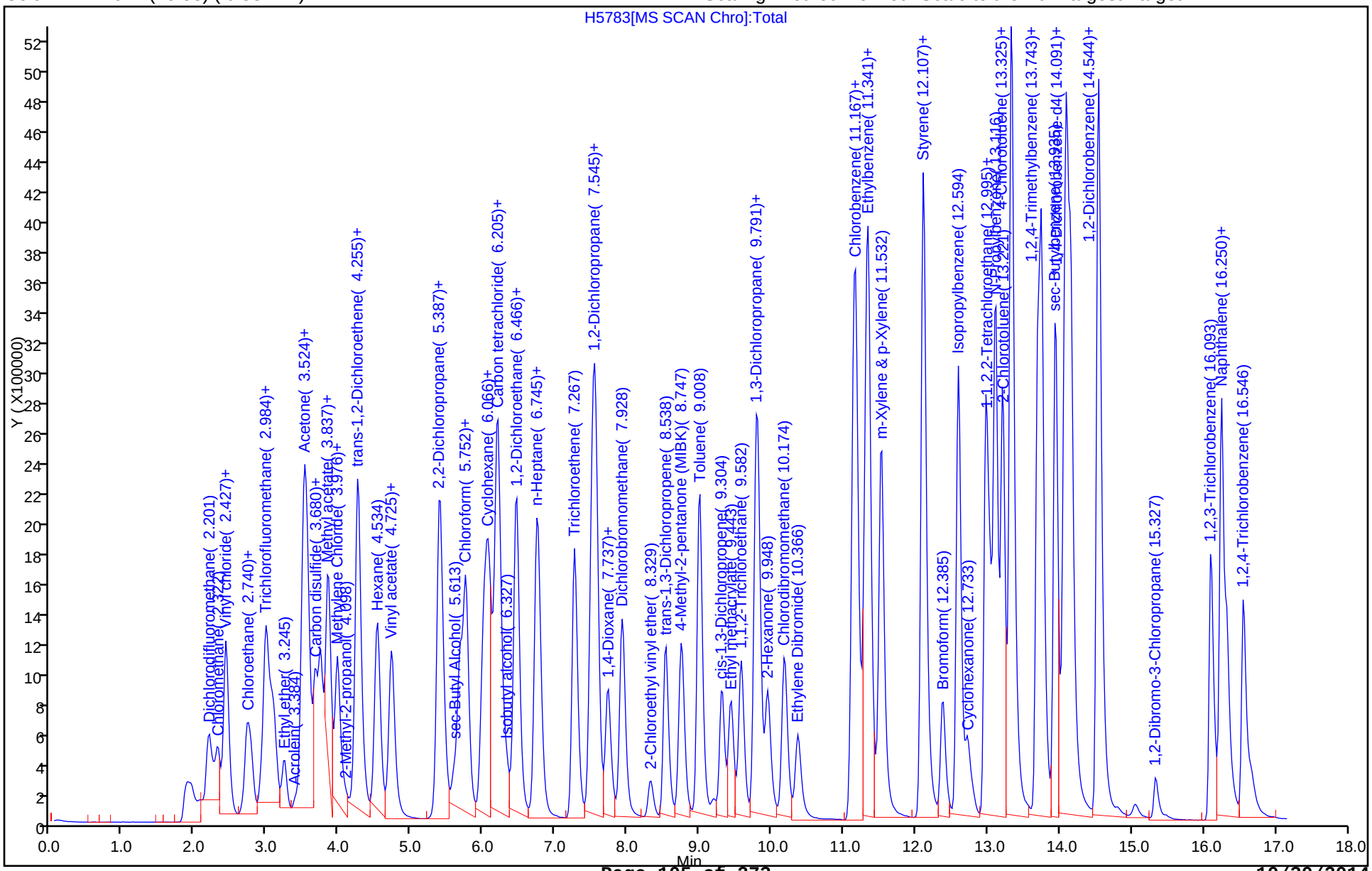
Report Date: 22-Oct-2014 18:48:18 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5783.D

Injection Date:	22-Oct-2014 11:42:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std60			Worklist Smp#:	15
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 12:47 Calibration End Date: 10/22/2014 14:35 Calibration ID: 20141

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 280-248996/17	H5786.D
Level 2	STD02 280-248996/18	H5787.D
Level 3	STD05 280-248996/19	H5788.D
Level 4	ICIS 280-248996/20	H5789.D
Level 5	STD30 280-248996/21	H5790.D
Level 6	STD60 280-248996/22	H5791.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	0.0060 0.0071	0.0067	0.0068	0.0074	0.0070	Ave		0.0068				7.3		15.0			
Propene oxide	0.0275 0.0316	0.0310	0.0299	0.0314	0.0307	Ave		0.0303				4.9		15.0			
Isopropyl alcohol	0.0042 0.0065	0.0047	0.0059	0.0064	0.0065	Lin2	-0.025	0.0065							0.9980		0.9900
Acetonitrile	+++++ 0.0090	0.0078	0.0071	0.0087	0.0092	Ave		0.0084				11.0		15.0			
Isopropyl ether	0.3297 0.3699	0.3635	0.3666	0.3778	0.3623	Ave		0.3617				4.6		15.0			
2-Chloro-1,3-butadiene	0.6467 0.6572	0.6839	0.6634	0.6722	0.6539	Ave		0.6629				2.0		15.0			
Tert-butyl ethyl ether	1.3515 1.2676	1.3648	1.2835	1.2922	1.2278	Ave		1.2979				4.0		15.0			
Ethyl acetate	0.0647 0.0779	0.0766	0.0769	0.0741	0.0766	Ave		0.0745				6.7		15.0			
Propionitrile	0.0103 0.0138	0.0130	0.0134	0.0141	0.0132	Ave		0.0129				11.0		15.0			
Methacrylonitrile	0.0825 0.0997	0.0929	0.0928	0.1010	0.0968	Ave		0.0943				7.1		15.0			
Tert-amyl methyl ether	0.9871 1.1045	1.0803	1.0663	1.1333	1.0674	Ave		1.0732				4.6		15.0			
	0.0034 0.0042	0.0031	0.0033	0.0042	0.0040	Ave		0.0037				13.0		15.0			
Methyl methacrylate	0.0843 0.0698	0.0870	0.0765	0.0762	0.0677	Ave		0.0769				9.9		15.0			
2-Nitropropane	0.0384 0.0385	0.0432	0.0387	0.0374	0.0394	Ave		0.0393				5.2		15.0			
	0.5145 0.5898	0.5321	0.5392	0.5987	0.5672	Ave		0.5569				6.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 12:47 Calibration End Date: 10/22/2014 14:35 Calibration ID: 20141

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
cis-1,4-Dichloro-2-butene	0.1683 0.1609	0.1633	0.1673	0.1818	0.1587	Ave		0.1667				4.9		15.0			
	2.6418 2.8340	2.9659	2.8711	2.9643	2.7656	Ave		2.8404				4.4		15.0			
	1.4184 1.5498	1.5672	1.5665	1.5927	1.4968	Ave		1.5319				4.2		15.0			
Dibromofluoromethane (Surr)	0.8426 0.6991	0.7039	0.7263	0.7095	0.6843	Ave		0.7276				8.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3972 0.3246	0.3212	0.3308	0.3327	0.3162	Ave		0.3371				8.9		15.0			
Toluene-d8 (Surr)	6.3084 4.8790	4.9970	5.1529	4.9926	4.8432	Ave		5.1955				11.0		15.0			
4-Bromofluorobenzene (Surr)	1.9916 1.5287	1.7559	1.7018	1.6472	1.4832	Ave		1.6847				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 12:47 Calibration End Date: 10/22/2014 14:35 Calibration ID: 20141

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 280-248996/17	H5786.D
Level 2	STD02 280-248996/18	H5787.D
Level 3	STD05 280-248996/19	H5788.D
Level 4	ICIS 280-248996/20	H5789.D
Level 5	STD30 280-248996/21	H5790.D
Level 6	STD60 280-248996/22	H5791.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
	FB	Ave	65403 4753978	145701	380168	826987	2366752	200 12000	400	1000	2000	6000
Propene oxide	FB	Ave	75423 5246268	168826	417781	876080	2594307	50.0 3000	100	250	500	1500
Isopropyl alcohol	FB	Lin2	2296 215879	5178	16453	35467	109280	10.0 600	20.0	50.0	100	300
Acetonitrile	FB	Ave	+++++ 299861	8499	19802	48591	154785	+++++ 600	20.0	50.0	100	300
Isopropyl ether	FB	Ave	18079 1230204	39657	102289	210857	611949	1.00 60.0	2.00	5.00	10.0	30.0
2-Chloro-1,3-butadiene	FB	Ave	35460 2185514	74606	185084	375201	1104425	1.00 60.0	2.00	5.00	10.0	30.0
Tert-butyl ethyl ether	FB	Ave	74101 4215562	148893	358110	721209	2073706	1.00 60.0	2.00	5.00	10.0	30.0
Ethyl acetate	FB	Ave	7092 518453	16724	42901	82766	258667	2.00 120	4.00	10.0	20.0	60.0
Propionitrile	FB	Ave	5621 457386	14131	37451	78645	222159	10.0 600	20.0	50.0	100	300
Methacrylonitrile	FB	Ave	45253 3316121	101324	258900	563624	1634984	10.0 600	20.0	50.0	100	300
Tert-amyl methyl ether	FB	Ave	54118 3673121	117855	297511	632564	1802686	1.00 60.0	2.00	5.00	10.0	30.0
	FB	Ave	4717 352755	8387	23192	58108	168975	25.0 1500	50.0	125	250	750
Methyl methacrylate	FB	Ave	9248 464506	18991	42691	85028	228765	2.00 120	4.00	10.0	20.0	60.0
2-Nitropropane	FB	Ave	4212 256081	9433	21587	41723	132974	2.00 120	4.00	10.0	20.0	60.0
	CBZ	Ave	7949 571443	17076	43957	98237	277521	1.00 60.0	2.00	5.00	10.0	30.0
cis-1,4-Dichloro-2-butene	DCB	Ave	4675 272256	8835	23456	50219	136210	1.00 60.0	2.00	5.00	10.0	30.0

Lab Name: TestAmerica Denver Job No.: 280-61445-1 Analy Batch No.: 248996

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75.5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2014 12:47 Calibration End Date: 10/22/2014 14:35 Calibration ID: 20141

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
	DCB	Ave	73406 4794459	160436	402476	818928	2373824	1.00 60.0	2.00	5.00	10.0	30.0
	DCB	Ave	39412 2621978	84774	219599	440009	1284772	1.00 60.0	2.00	5.00	10.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	46198 2324944	76796	202650	395994	1155746	1.00 60.0	2.00	5.00	10.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	21775 1079528	35044	92303	185693	534020	1.00 60.0	2.00	5.00	10.0	30.0
Toluene-d8 (Surr)	CBZ	Ave	97460 4726826	160357	420041	819144	2369596	1.00 60.0	2.00	5.00	10.0	30.0
4-Bromofluorobenzene (Surr)	DCB	Ave	55339 2586245	94983	238557	455058	1273079	1.00 60.0	2.00	5.00	10.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5786.D
Lims ID: std01
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Oct-2014 12:47:30 ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std01
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub96

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:52:04 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 14:47:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.008	4.014	-0.006	96	162508	250.0	250.0	
* 2 Fluorobenzene	96	6.794	6.799	-0.005	98	685350	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.146	11.134	0.012	88	193115	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.141	14.146	-0.005	95	347324	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.958	5.964	-0.006	92	46198	1.00	1.16	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.394	6.381	0.013	82	21775	1.00	1.18	
$ 10 Toluene-d8 (Surr)	98	8.918	8.906	0.012	93	97460	1.00	1.21	
$ 11 4-Bromofluorobenzene (Surr	95	12.800	12.788	0.012	86	55339	1.00	1.18	
34 Ethylene oxide	43	2.685	2.673	0.012	99	65403	200.0	174.5	
39 Ethanol	45		3.195					ND	
43 Propene oxide	58	3.347	3.335	0.012	96	75423	50.0	45.3	
49 Isopropyl alcohol	45	3.695	3.666	0.029	32	2296	10.0	10.4	M
51 Acetonitrile	41	3.852	3.857	-0.005	32	4284	10.0	9.35	M
62 Isopropyl ether	87	4.774	4.780	-0.006	98	18079	1.00	0.9118	
63 2-Chloro-1,3-butadiene	53	4.827	4.832	-0.005	89	35460	1.00	0.9757	
64 Tert-butyl ethyl ether	59	5.192	5.198	-0.006	98	74101	1.00	1.04	
69 Ethyl acetate	43	5.471	5.441	0.030	93	7092	2.00	1.74	
70 Propionitrile	54	5.506	5.494	0.012	90	5621	10.0	7.92	
72 Methacrylonitrile	41	5.662	5.650	0.012	93	45253	10.0	8.75	
83 Tert-amyl methyl ether	73	6.585	6.573	0.012	97	54118	1.00	0.9198	
85 n-Butanol	56	7.194	7.182	0.012	79	4717	25.0	23.2	
91 Methyl methacrylate	100	7.717	7.705	0.012	94	9248	2.00	2.19	
95 2-Nitropropane	41	8.222	8.244	-0.022	93	4212	2.00	1.96	
107 Tetrahydrothiophene	60	10.171	10.159	0.012	86	7949	1.00	0.9238	
119 cis-1,4-Dichloro-2-butene	53	12.696	12.701	-0.005	0	4675	1.00	1.01	
135 1,2,3-Trimethylbenzene	105	14.228	14.216	0.012	97	73406	1.00	0.9301	
140 1,3,5-Trichlorobenzene	180	15.534	15.539	-0.005	97	39412	1.00	0.9259	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00029	Amount Added:	0.08	Units: uL
MV-Supp A_00010	Amount Added:	0.50	Units: uL

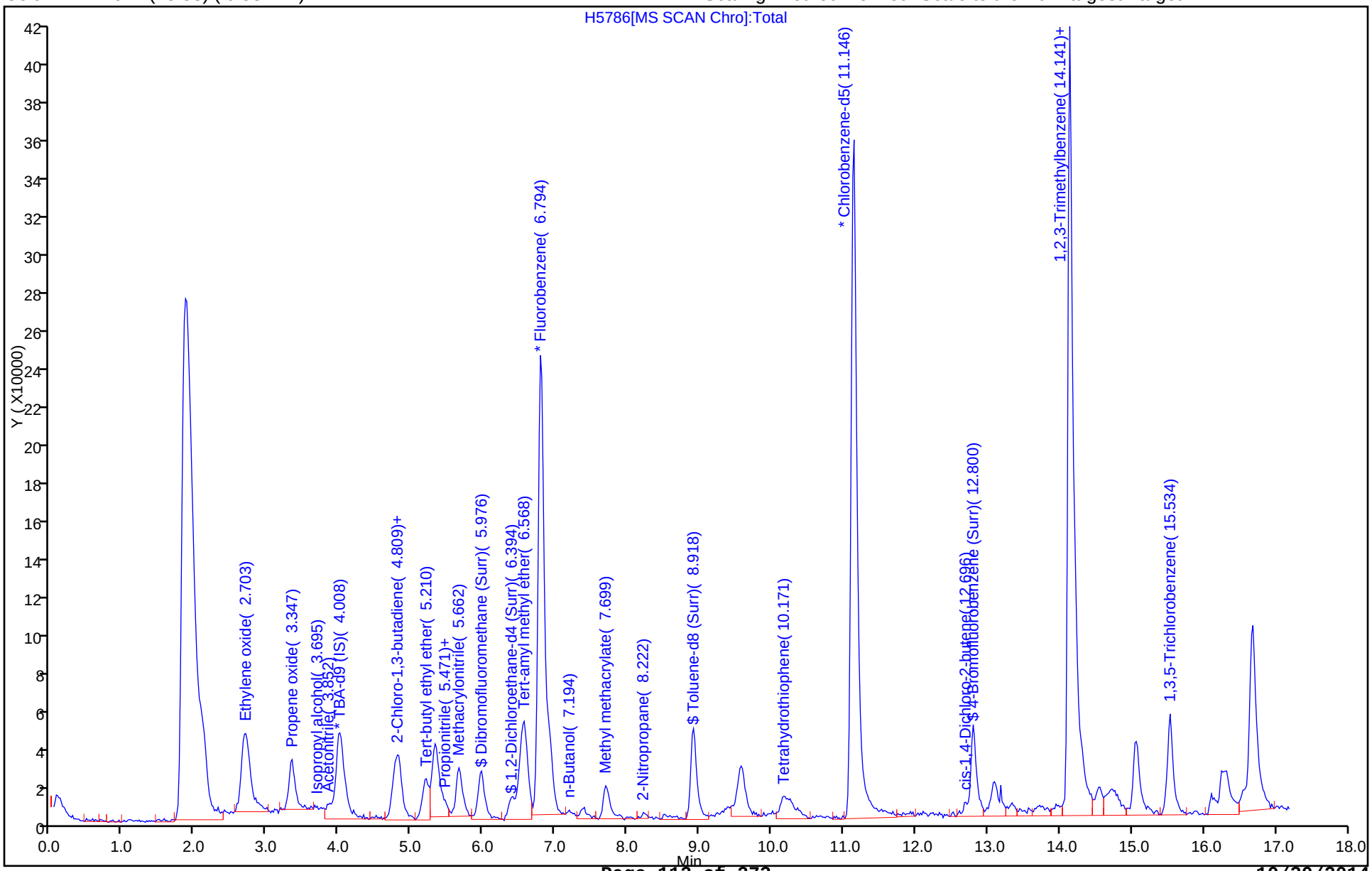
Report Date: 22-Oct-2014 18:52:04 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5786.D

Injection Date:	22-Oct-2014 12:47:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std01			Worklist Smp#:	17
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



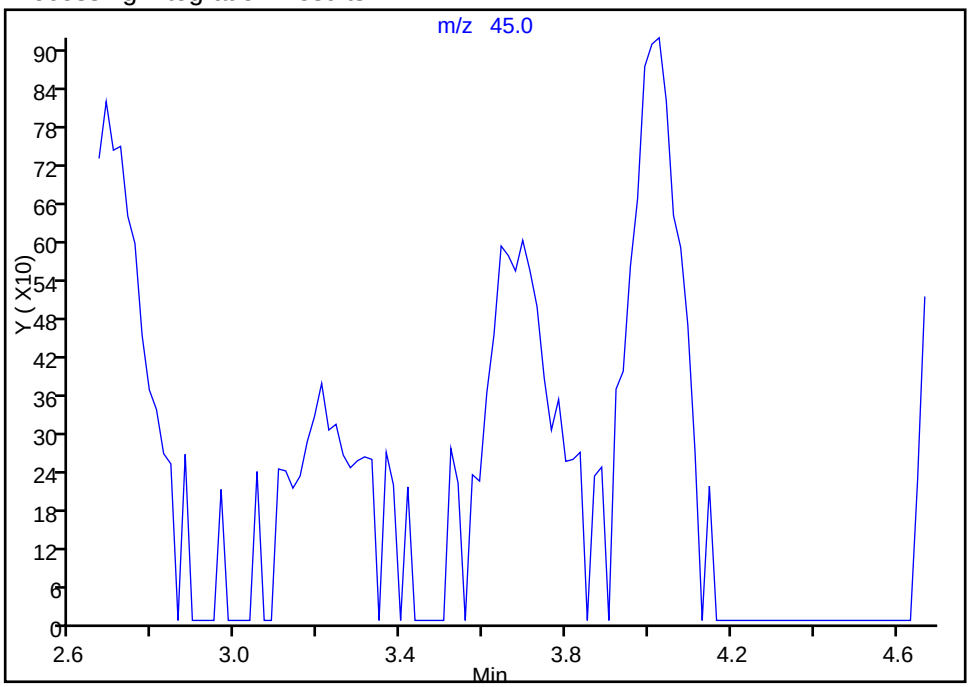
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5786.D				
Injection Date:	22-Oct-2014 12:47:30	Instrument ID:	VMS_H		
Lims ID:	std01				
Client ID:					
Operator ID:	wickhamt	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

49 Isopropyl alcohol, CAS: 67-63-0

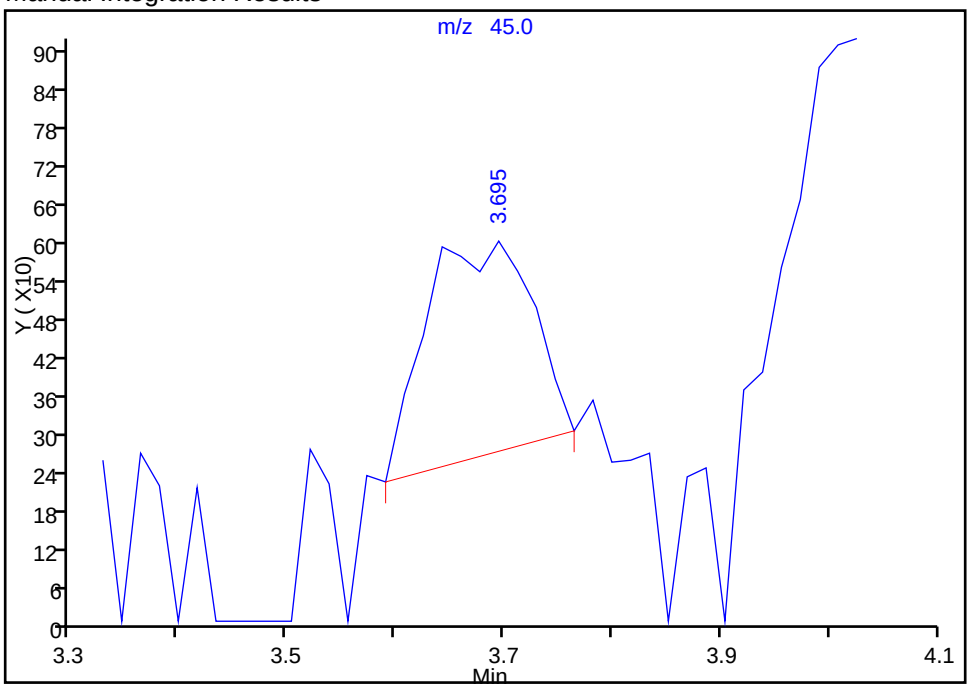
Not Detected
Expected RT: 3.67

Processing Integration Results



Manual Integration Results

RT: 3.70
Response: 2296
Amount: 10.351673



Reviewer: wickhamt, 22-Oct-2014 14:55:45
Audit Action: Manually Integrated
Audit Reason: Assign Peak

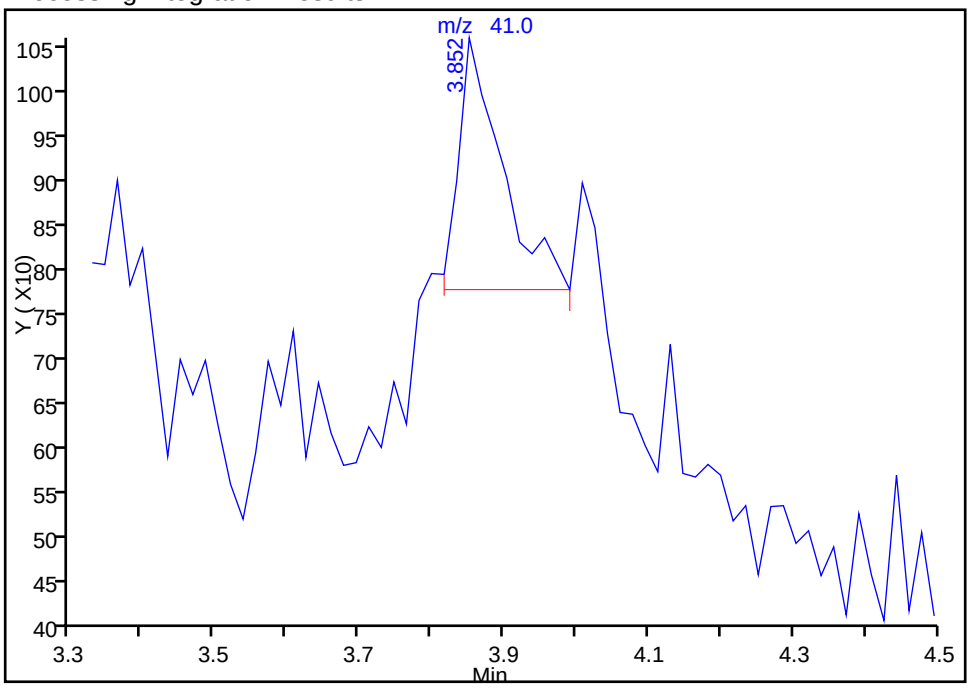
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5786.D				
Injection Date:	22-Oct-2014 12:47:30	Instrument ID:	VMS_H		
Lims ID:	std01				
Client ID:					
Operator ID:	wickhamt	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

51 Acetonitrile, CAS: 75-05-8

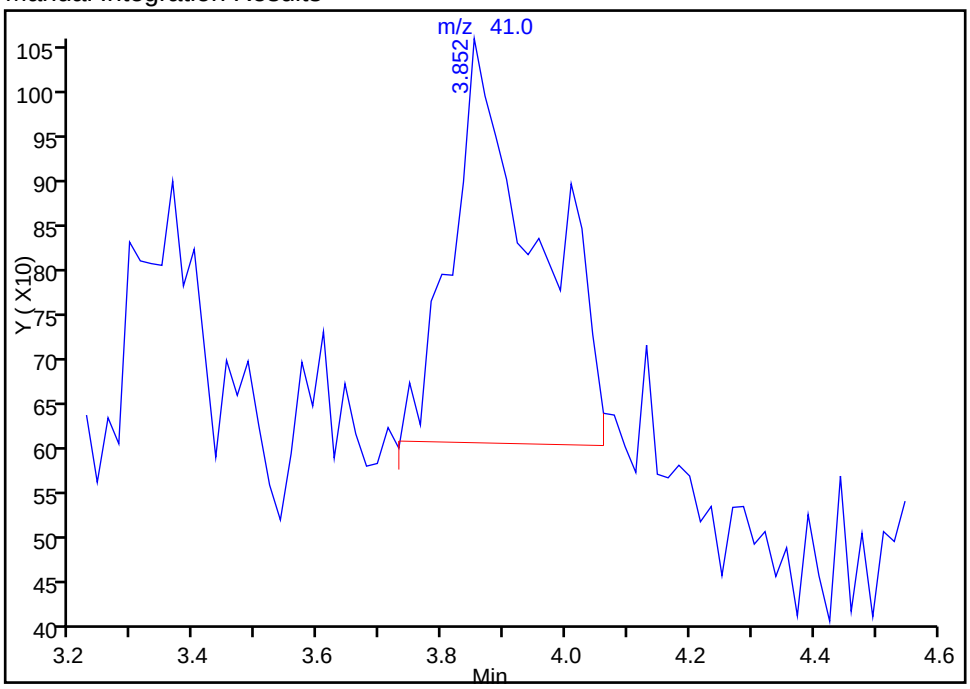
Processing Integration Results

RT: 3.85
Response: 1162
Amount: 8.924798



Manual Integration Results

RT: 3.85
Response: 4284
Amount: 9.351829



Reviewer: linesj, 22-Oct-2014 18:34:29
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5787.D
Lims ID: std02
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Oct-2014 13:09:30 ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std02
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub96

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:20 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 14:48:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.997	3.995	0.002	97	161035	250.0	250.0	
* 2 Fluorobenzene	96	6.800	6.798	0.002	98	681834	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.135	11.133	0.002	90	200568	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.147	14.128	0.019	95	338089	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.964	5.964	0.000	93	76796	2.00	1.93	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.399	6.381	0.018	83	35044	2.00	1.91	
$ 10 Toluene-d8 (Surr)	98	8.906	8.906	0.000	93	160357	2.00	1.92	
$ 11 4-Bromofluorobenzene (Surr	95	12.789	12.788	0.001	86	94983	2.00	2.08	
34 Ethylene oxide	43	2.674	2.673	0.001	99	145701	400.0	390.7	
39 Ethanol	45		3.195					ND	
43 Propene oxide	58	3.335	3.335	0.000	96	168826	100.0	102.0	
49 Isopropyl alcohol	45	3.683	3.666	0.017	39	5178	20.0	18.6	M
51 Acetonitrile	41	3.858	3.857	0.001	36	8499	20.0	18.6	
62 Isopropyl ether	87	4.763	4.780	-0.017	98	39657	2.00	2.01	
63 2-Chloro-1,3-butadiene	53	4.832	4.832	0.000	89	74606	2.00	2.06	
64 Tert-butyl ethyl ether	59	5.198	5.198	0.000	98	148893	2.00	2.10	
69 Ethyl acetate	43	5.442	5.441	0.001	95	16724	4.00	4.12	
70 Propionitrile	54	5.494	5.494	0.000	90	14131	20.0	20.0	
72 Methacrylonitrile	41	5.651	5.650	0.001	93	101324	20.0	19.7	
83 Tert-amyl methyl ether	73	6.591	6.573	0.018	96	117855	2.00	2.01	
85 n-Butanol	56	7.200	7.182	0.018	81	8387	50.0	41.5	
91 Methyl methacrylate	100	7.705	7.705	0.000	94	18991	4.00	4.53	
95 2-Nitropropane	41	8.227	8.244	-0.017	95	9433	4.00	4.40	
107 Tetrahydrothiophene	60	10.160	10.159	0.001	85	17076	2.00	1.91	
119 cis-1,4-Dichloro-2-butene	53	12.684	12.701	-0.017	0	8835	2.00	1.96	
135 1,2,3-Trimethylbenzene	105	14.216	14.216	0.000	98	160436	2.00	2.09	
140 1,3,5-Trichlorobenzene	180	15.539	15.539	0.000	97	84774	2.00	2.05	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00029	Amount Added:	0.16	Units: uL
MV-Supp A_00010	Amount Added:	1.00	Units: uL

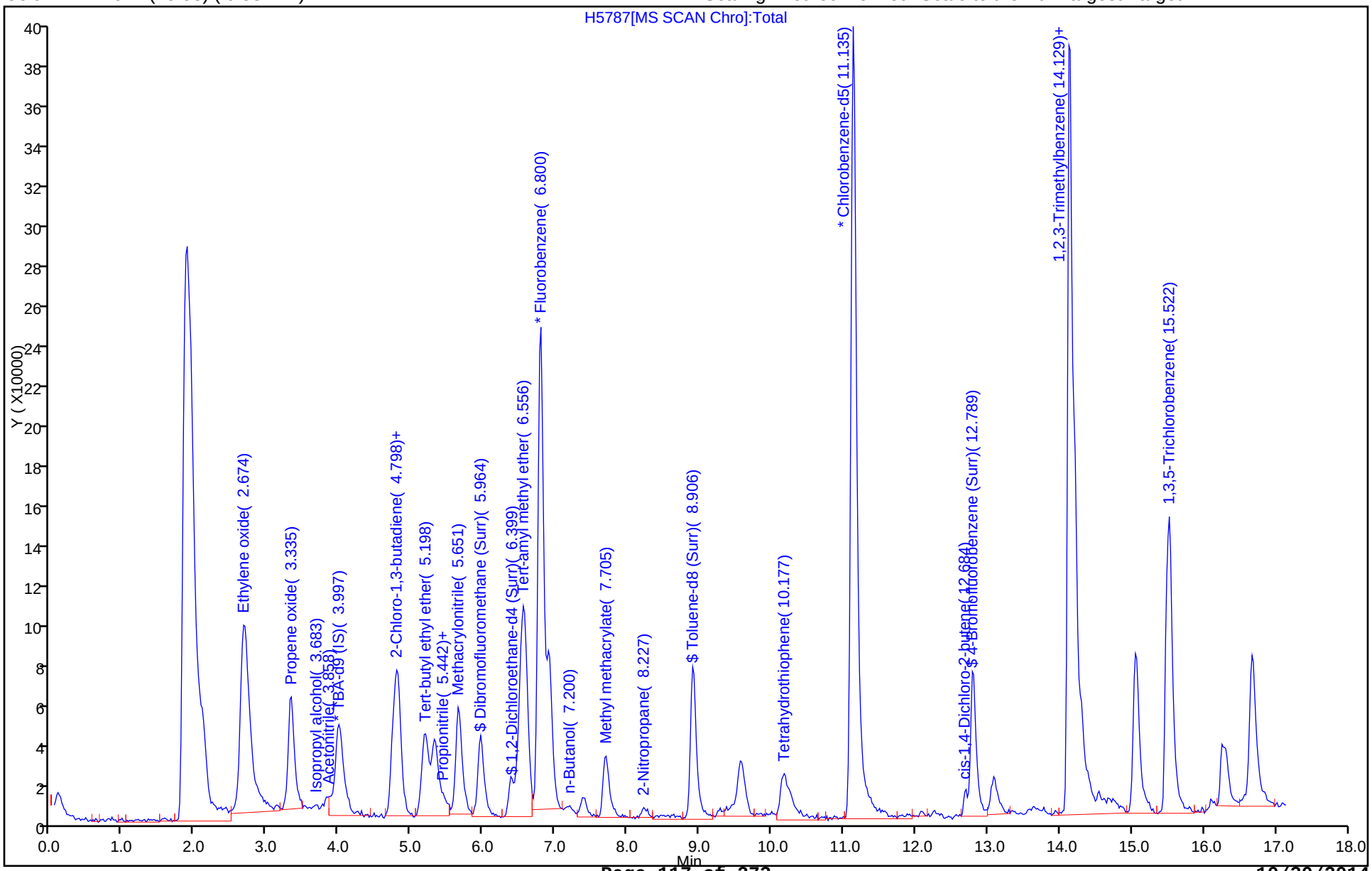
Report Date: 22-Oct-2014 18:48:20 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5787.D

Injection Date:	22-Oct-2014 13:09:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std02			Worklist Smp#:	18
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



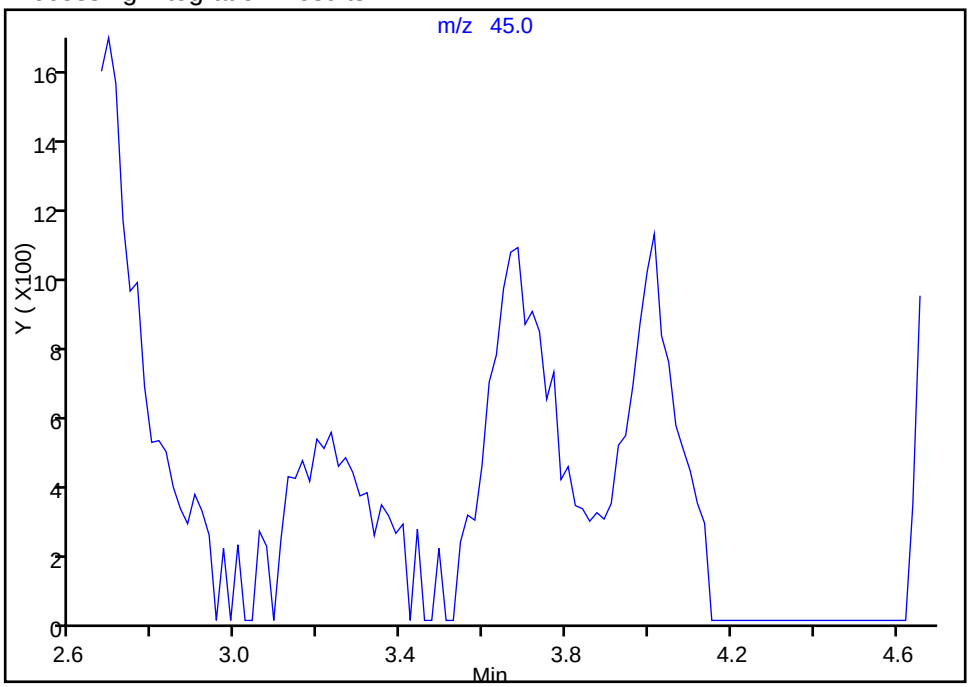
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5787.D				
Injection Date:	22-Oct-2014 13:09:30	Instrument ID:	VMS_H		
Lims ID:	std02				
Client ID:					
Operator ID:	wickhamt	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

49 Isopropyl alcohol, CAS: 67-63-0

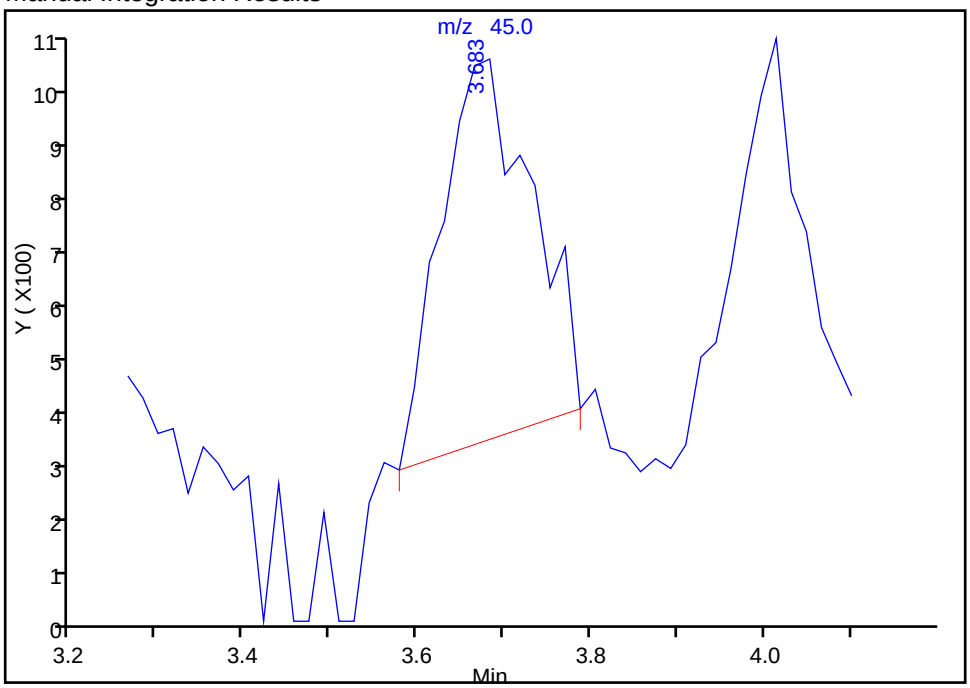
Not Detected
Expected RT: 3.67

Processing Integration Results



Manual Integration Results

RT: 3.68
Response: 5178
Amount: 18.560351



Reviewer: wickhamt, 22-Oct-2014 14:55:17
Audit Action: Manually Integrated
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5788.D
Lims ID: std05
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Oct-2014 13:30:30 ALS Bottle#: 14 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std05
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub96

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:20 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 14:49:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.008	3.995	0.013	96	153271	250.0	250.0	
* 2 Fluorobenzene	96	6.793	6.798	-0.005	99	697516	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.146	11.133	0.013	89	203788	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.140	14.128	0.012	95	350458	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.975	5.964	0.011	93	202650	5.00	4.99	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.393	6.381	0.012	83	92303	5.00	4.91	
$ 10 Toluene-d8 (Surr)	98	8.917	8.906	0.011	93	420041	5.00	4.96	
$ 11 4-Bromofluorobenzene (Surr	95	12.800	12.788	0.012	86	238557	5.00	5.05	
34 Ethylene oxide	43	2.685	2.673	0.012	98	380168	1000.0	996.6	
39 Ethanol	45	3.172	3.195	-0.023	89	10092	NC	NC	
43 Propene oxide	58	3.329	3.335	-0.006	96	417781	250.0	246.7	
49 Isopropyl alcohol	45	3.677	3.666	0.011	28	16453	50.0	49.5	M
51 Acetonitrile	41	3.851	3.857	-0.006	45	19802	50.0	42.5	M
62 Isopropyl ether	87	4.774	4.780	-0.006	98	102289	5.00	5.07	
63 2-Chloro-1,3-butadiene	53	4.826	4.832	-0.006	89	185084	5.00	5.00	
64 Tert-butyl ethyl ether	59	5.192	5.198	-0.006	98	358110	5.00	4.94	
69 Ethyl acetate	43	5.453	5.441	0.012	99	42901	10.0	10.3	
70 Propionitrile	54	5.505	5.494	0.011	94	37451	50.0	51.9	
72 Methacrylonitrile	41	5.662	5.650	0.012	94	258900	50.0	49.2	
83 Tert-amyl methyl ether	73	6.584	6.573	0.011	98	297511	5.00	4.97	
85 n-Butanol	56	7.176	7.182	-0.006	85	23192	125.0	112.1	
91 Methyl methacrylate	100	7.699	7.705	-0.006	95	42691	10.0	9.94	
95 2-Nitropropane	41	8.238	8.244	-0.006	98	21587	10.0	9.85	
107 Tetrahydrothiophene	60	10.171	10.159	0.012	88	43957	5.00	4.84	
119 cis-1,4-Dichloro-2-butene	53	12.695	12.701	-0.006	0	23456	5.00	5.02	
135 1,2,3-Trimethylbenzene	105	14.210	14.216	-0.006	98	402476	5.00	5.05	
140 1,3,5-Trichlorobenzene	180	15.533	15.539	-0.006	98	219599	5.00	5.11	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

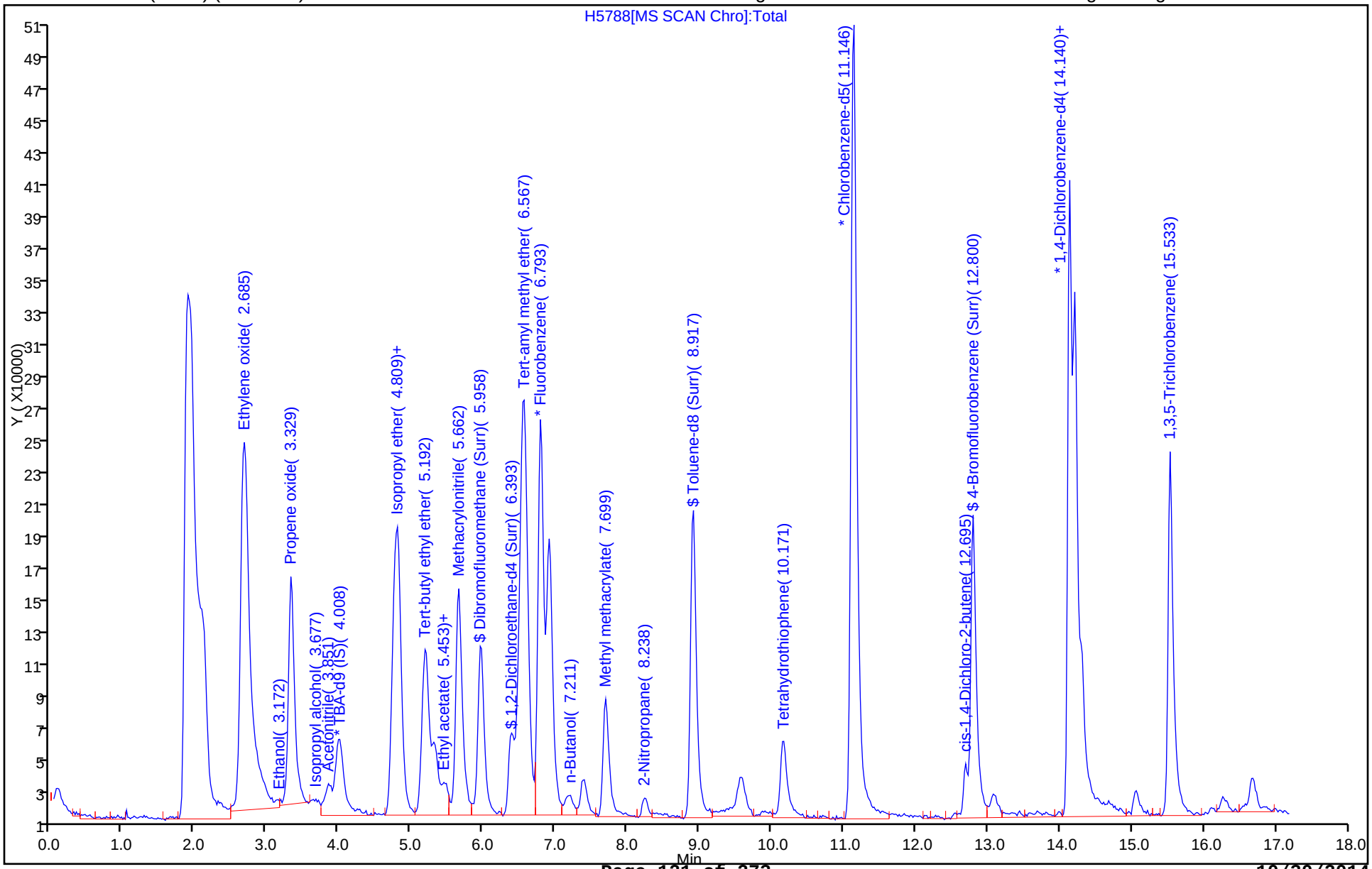
MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00029	Amount Added:	0.40	Units: uL
MV-Supp A_00010	Amount Added:	2.50	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5788.D

Injection Date:	22-Oct-2014 13:30:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std05			Worklist Smp#:	19
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



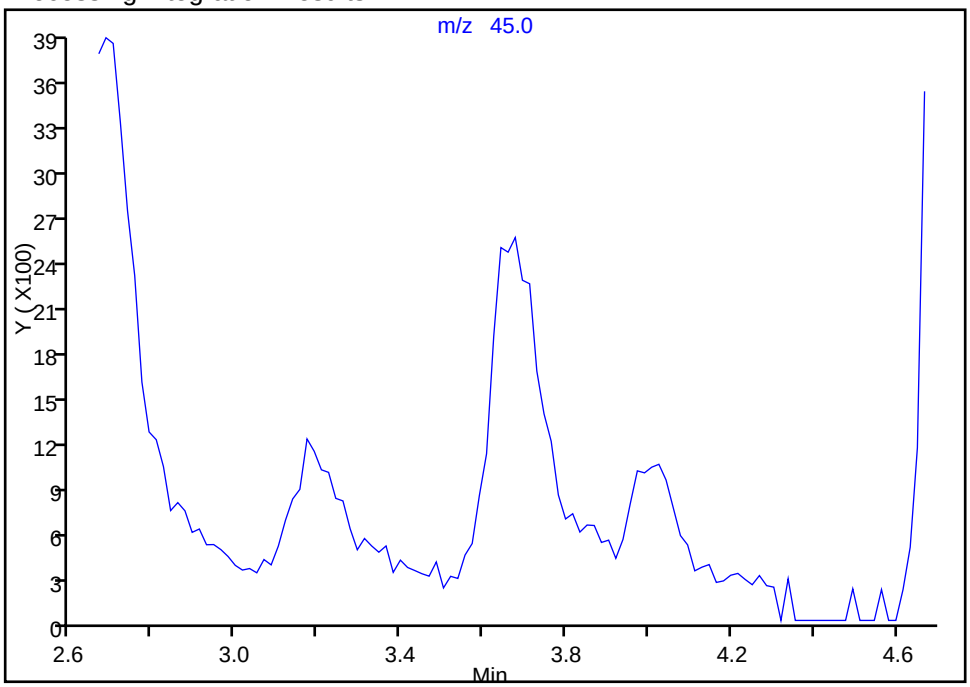
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5788.D				
Injection Date:	22-Oct-2014 13:30:30	Instrument ID:	VMS_H		
Lims ID:	std05				
Client ID:					
Operator ID:	wickhamt	ALS Bottle#:	14	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

49 Isopropyl alcohol, CAS: 67-63-0

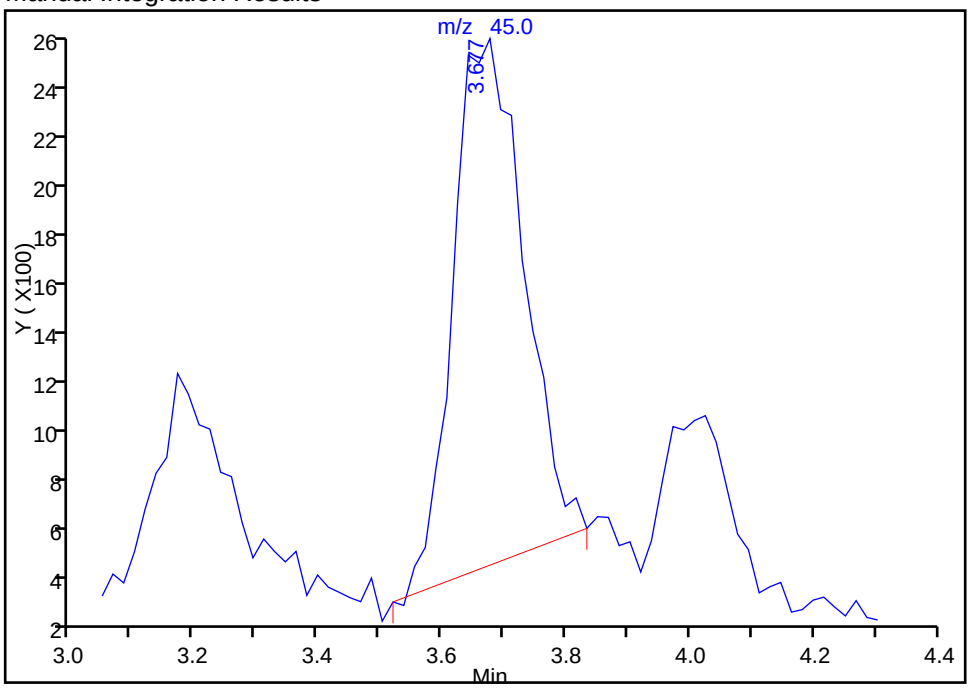
Not Detected
Expected RT: 3.67

Processing Integration Results



Manual Integration Results

RT: 3.68
Response: 16453
Amount: 49.494435



Reviewer: wickhamt, 22-Oct-2014 14:55:00
Audit Action: Manually Integrated
Audit Reason: Assign Peak

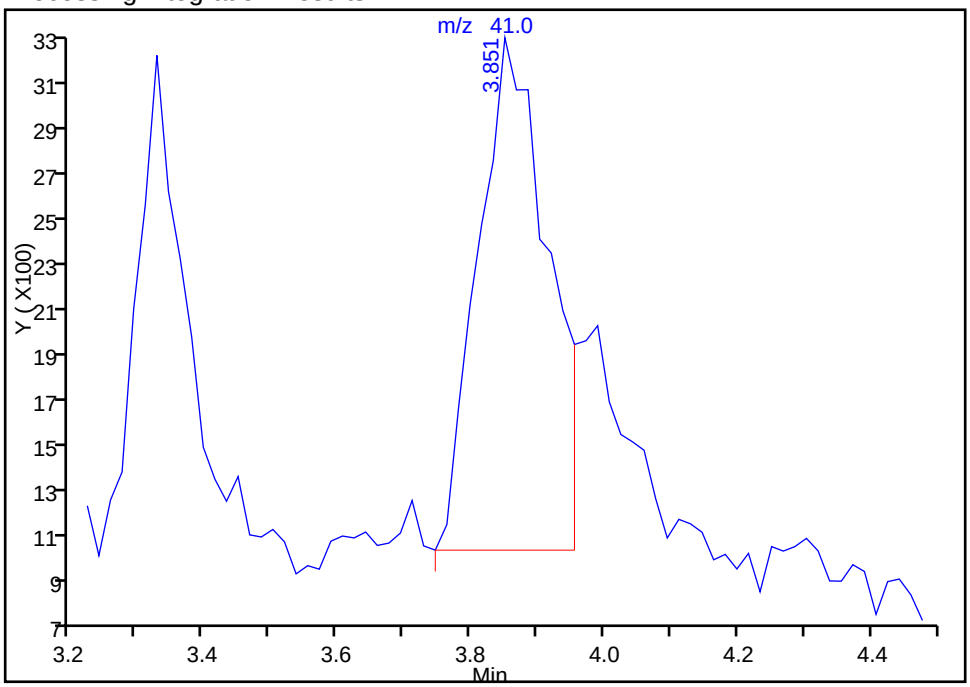
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5788.D
Injection Date: 22-Oct-2014 13:30:30 Instrument ID: VMS_H
Lims ID: std05
Client ID:
Operator ID: wickhamt ALS Bottle#: 14 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

51 Acetonitrile, CAS: 75-05-8

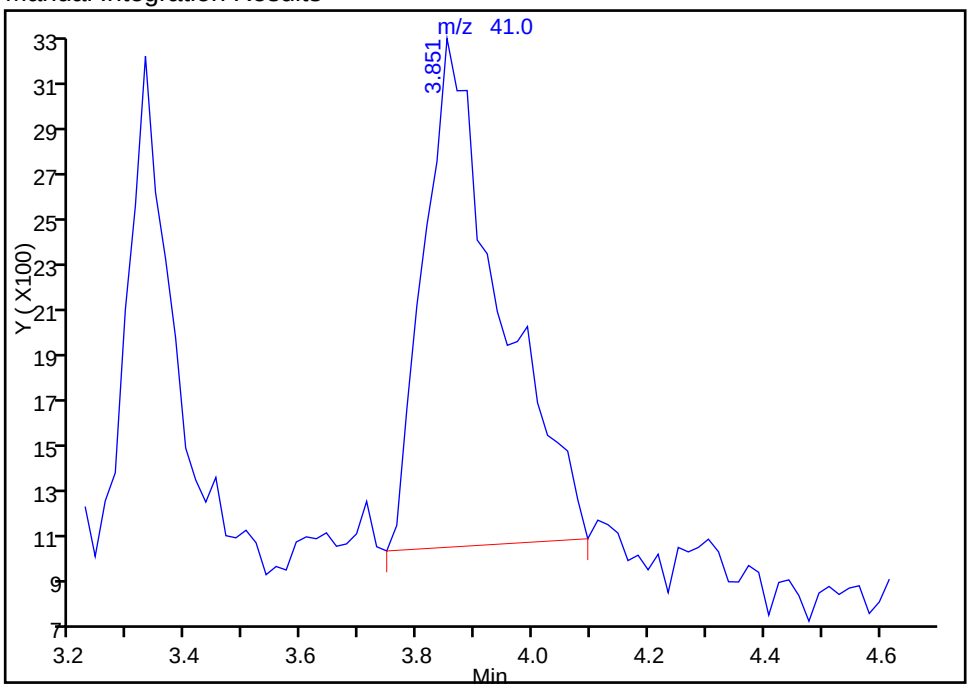
Processing Integration Results

RT: 3.85
Response: 16063
Amount: 37.037148



Manual Integration Results

RT: 3.85
Response: 19802
Amount: 42.473140



Reviewer: wickhamt, 22-Oct-2014 14:53:14
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5789.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 22-Oct-2014 13:52:30 ALS Bottle#: 15 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icis
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub96

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:21 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 14:47:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.014	4.014	0.000	97	180785	250.0	250.0	
* 2 Fluorobenzene	96	6.799	6.799	0.000	99	697679	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	90	205090	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.146	14.146	0.000	95	345328	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.964	5.964	0.000	93	395994	10.0	9.75	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.381	6.381	0.000	83	185693	10.0	9.87	
$ 10 Toluene-d8 (Surr)	98	8.906	8.906	0.000	93	819144	10.0	9.61	
$ 11 4-Bromofluorobenzene (Surr	95	12.788	12.788	0.000	86	455058	10.0	9.78	
34 Ethylene oxide	43	2.673	2.673	0.000	99	826987	2000.0	2167.4	
39 Ethanol	45	3.195	3.195	0.000	90	22338	NC	NC	
43 Propene oxide	58	3.335	3.335	0.000	96	876080	500.0	517.2	
49 Isopropyl alcohol	45	3.666	3.666	0.000	25	35467	100.0	102.2	M
51 Acetonitrile	41	3.857	3.857	0.000	44	48591	100.0	104.2	
62 Isopropyl ether	87	4.780	4.780	0.000	98	210857	10.0	10.4	
63 2-Chloro-1,3-butadiene	53	4.832	4.832	0.000	89	375201	10.0	10.1	
64 Tert-butyl ethyl ether	59	5.198	5.198	0.000	98	721209	10.0	9.96	
69 Ethyl acetate	43	5.441	5.441	0.000	98	82766	20.0	19.9	
70 Propionitrile	54	5.494	5.494	0.000	98	78645	100.0	108.9	
72 Methacrylonitrile	41	5.650	5.650	0.000	94	563624	100.0	107.1	
83 Tert-amyl methyl ether	73	6.573	6.573	0.000	98	632564	10.0	10.6	
85 n-Butanol	56	7.182	7.182	0.000	87	58108	250.0	280.7	
91 Methyl methacrylate	100	7.705	7.705	0.000	95	85028	20.0	19.8	
95 2-Nitropropane	41	8.244	8.244	0.000	96	41723	20.0	19.0	
107 Tetrahydrothiophene	60	10.159	10.159	0.000	88	98237	10.0	10.8	
119 cis-1,4-Dichloro-2-butene	53	12.701	12.701	0.000	0	50219	10.0	10.9	
135 1,2,3-Trimethylbenzene	105	14.216	14.216	0.000	97	818928	10.0	10.4	
140 1,3,5-Trichlorobenzene	180	15.539	15.539	0.000	97	440009	10.0	10.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00029	Amount Added:	0.80	Units: uL
MV-Supp A_00010	Amount Added:	5.00	Units: uL

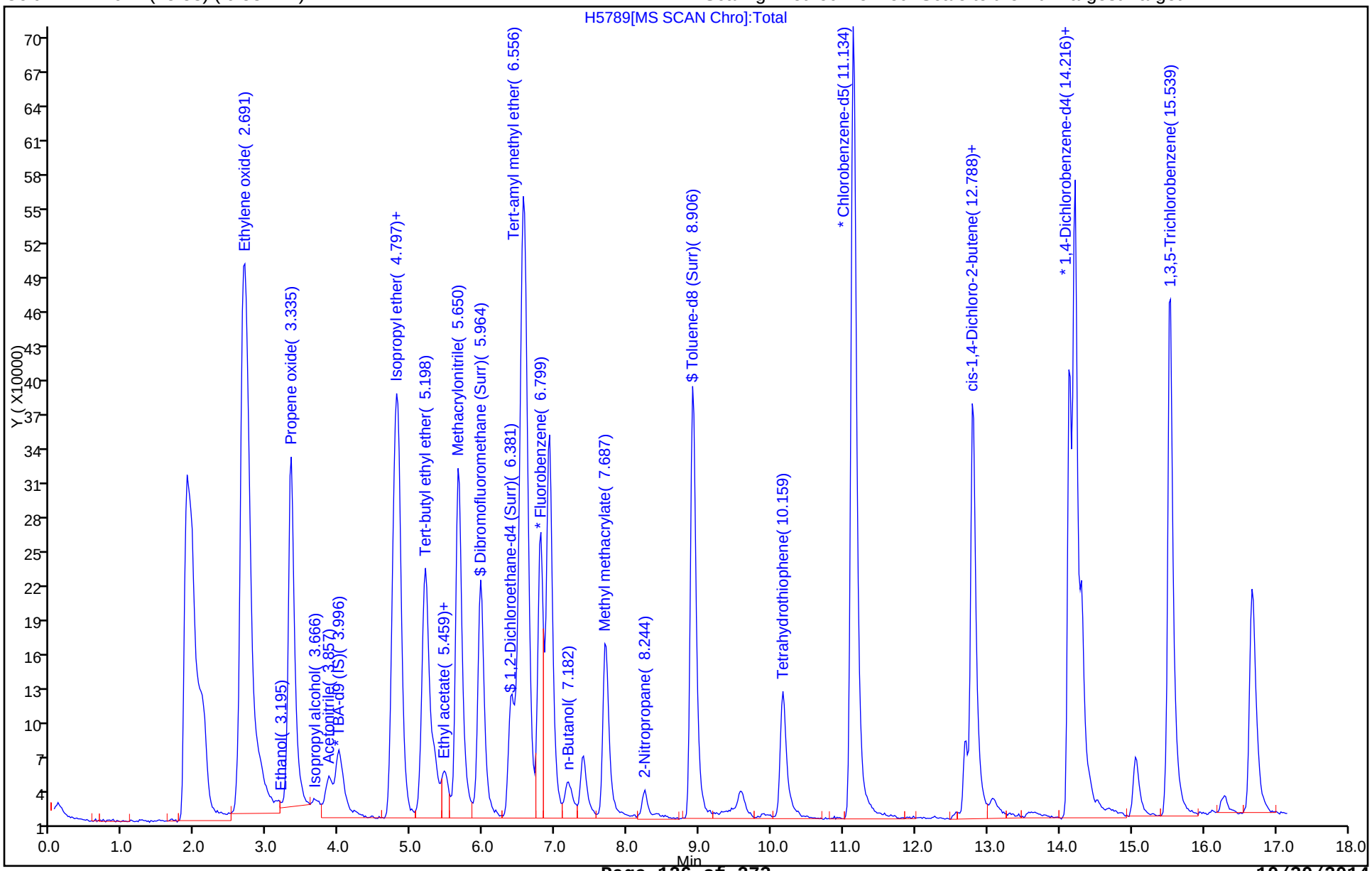
Report Date: 22-Oct-2014 18:48:22 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5789.D

Injection Date:	22-Oct-2014 13:52:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	icis			Worklist Smp#:	20
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



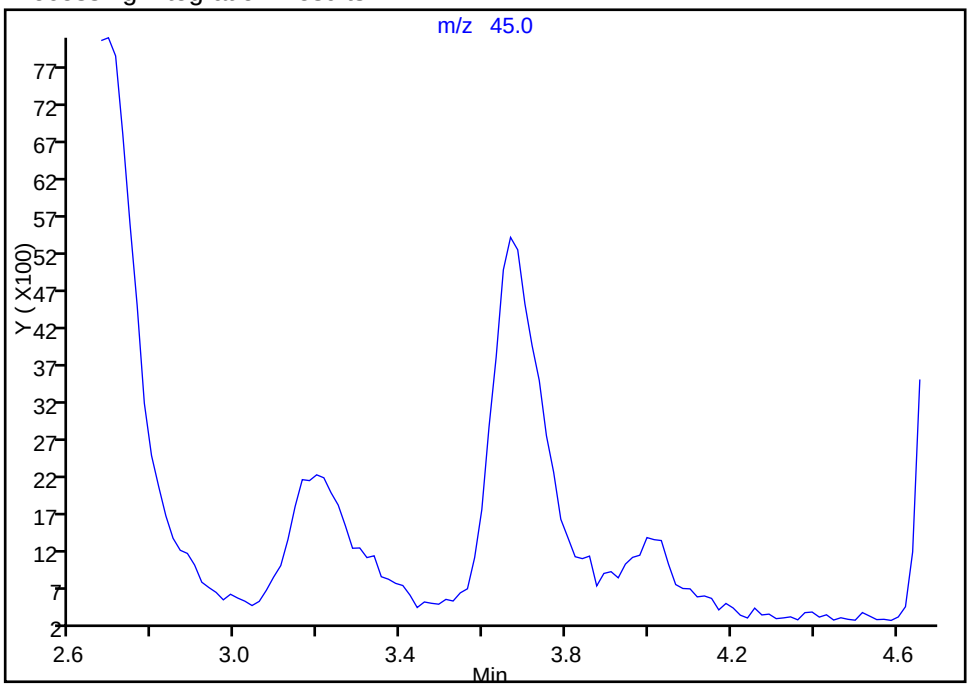
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5789.D				
Injection Date:	22-Oct-2014 13:52:30	Instrument ID:	VMS_H		
Lims ID:	icis				
Client ID:					
Operator ID:	wickhamt	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

49 Isopropyl alcohol, CAS: 67-63-0

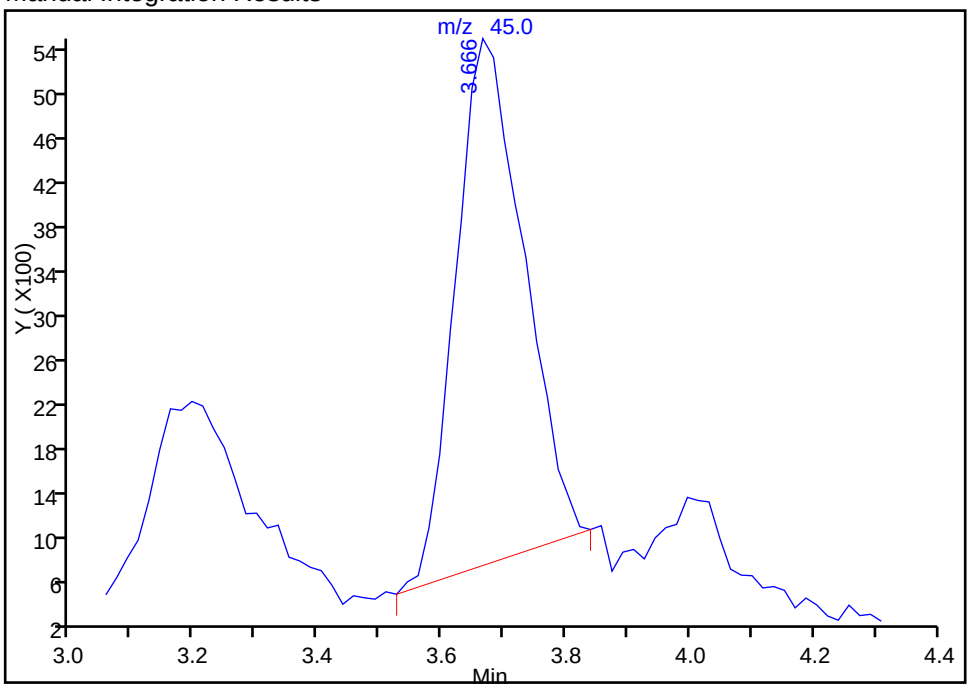
Not Detected
Expected RT: 3.67

Processing Integration Results



Manual Integration Results

RT: 3.67
Response: 35467
Amount: 102.1952



Reviewer: linesj, 22-Oct-2014 18:38:29
Audit Action: Manually Integrated
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5790.D
Lims ID: std30
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Oct-2014 14:13:30 ALS Bottle#: 16 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std30
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub96

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:22 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 14:50:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.009	4.014	-0.005	97	161223	250.0	250.0	
* 2 Fluorobenzene	96	6.795	6.799	-0.004	99	703709	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.130	11.134	-0.004	90	203861	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.141	14.146	-0.005	96	357644	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.959	5.964	-0.005	93	1155746	30.0	28.2	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.377	6.381	-0.004	83	534020	30.0	28.1	
$ 10 Toluene-d8 (Surr)	98	8.919	8.906	0.012	93	2369596	30.0	28.0	
$ 11 4-Bromofluorobenzene (Surr	95	12.801	12.788	0.013	86	1273079	30.0	26.4	
34 Ethylene oxide	43	2.686	2.673	0.013	99	2366752	6000.0	6149.6	
39 Ethanol	45	3.208	3.195	0.013	94	57089	NC	NC	
43 Propene oxide	58	3.330	3.335	-0.005	96	2594307	1500.0	1518.6	
49 Isopropyl alcohol	45	3.661	3.666	-0.005	61	109280	300.0	304.2	M
51 Acetonitrile	41	3.870	3.857	0.013	43	154785	300.0	329.1	
62 Isopropyl ether	87	4.775	4.780	-0.005	98	611949	30.0	30.1	
63 2-Chloro-1,3-butadiene	53	4.827	4.832	-0.005	89	1104425	30.0	29.6	
64 Tert-butyl ethyl ether	59	5.193	5.198	-0.005	99	2073706	30.0	28.4	
69 Ethyl acetate	43	5.454	5.441	0.013	99	258667	60.0	61.7	
70 Propionitrile	54	5.489	5.494	-0.005	96	222159	300.0	305.0	
72 Methacrylonitrile	41	5.663	5.650	0.013	93	1634984	300.0	308.0	
83 Tert-amyl methyl ether	73	6.586	6.573	0.013	98	1802686	30.0	29.8	
85 n-Butanol	56	7.178	7.182	-0.004	87	168975	750.0	809.4	
91 Methyl methacrylate	100	7.700	7.705	-0.005	95	228765	60.0	52.8	
95 2-Nitropropane	41	8.240	8.244	-0.004	96	132974	60.0	60.2	
107 Tetrahydrothiophene	60	10.155	10.159	-0.004	94	277521	30.0	30.6	
119 cis-1,4-Dichloro-2-butene	53	12.696	12.701	-0.005	0	136210	30.0	28.6	
135 1,2,3-Trimethylbenzene	105	14.211	14.216	-0.005	99	2373824	30.0	29.2	
140 1,3,5-Trichlorobenzene	180	15.534	15.539	-0.005	98	1284772	30.0	29.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00029	Amount Added:	2.40	Units: uL
MV-Supp A_00010	Amount Added:	15.00	Units: uL

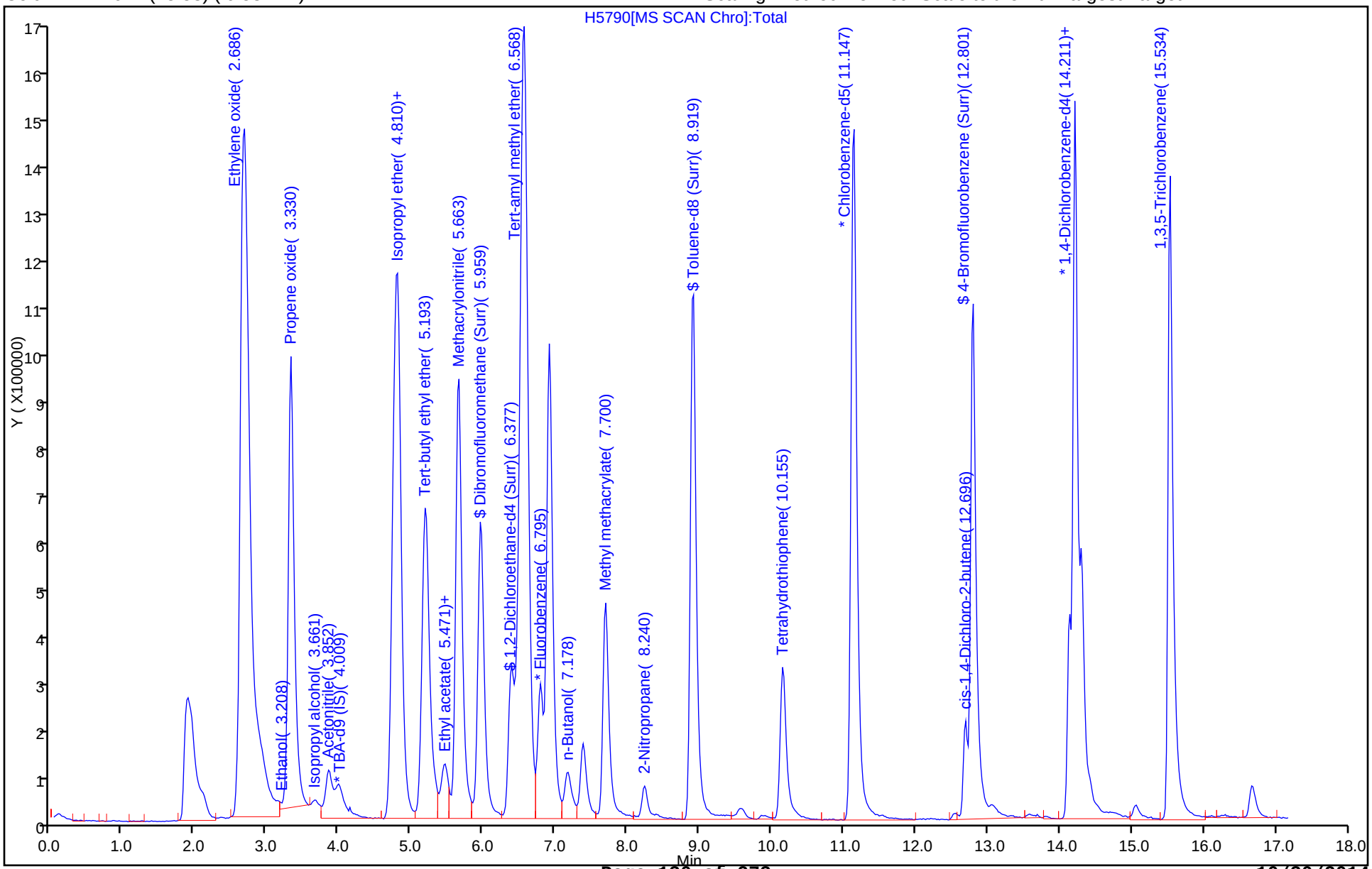
Report Date: 22-Oct-2014 18:48:22 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5790.D

Injection Date:	22-Oct-2014 14:13:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std30			Worklist Smp#:	21
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



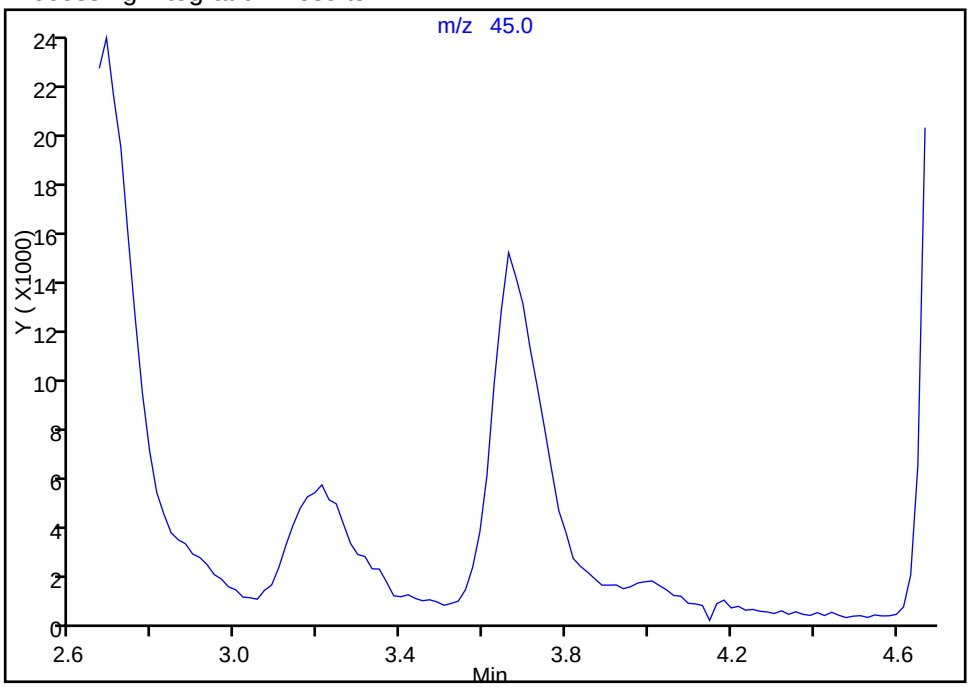
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5790.D				
Injection Date:	22-Oct-2014 14:13:30	Instrument ID:	VMS_H		
Lims ID:	std30				
Client ID:					
Operator ID:	wickhamt	ALS Bottle#:	16	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

49 Isopropyl alcohol, CAS: 67-63-0

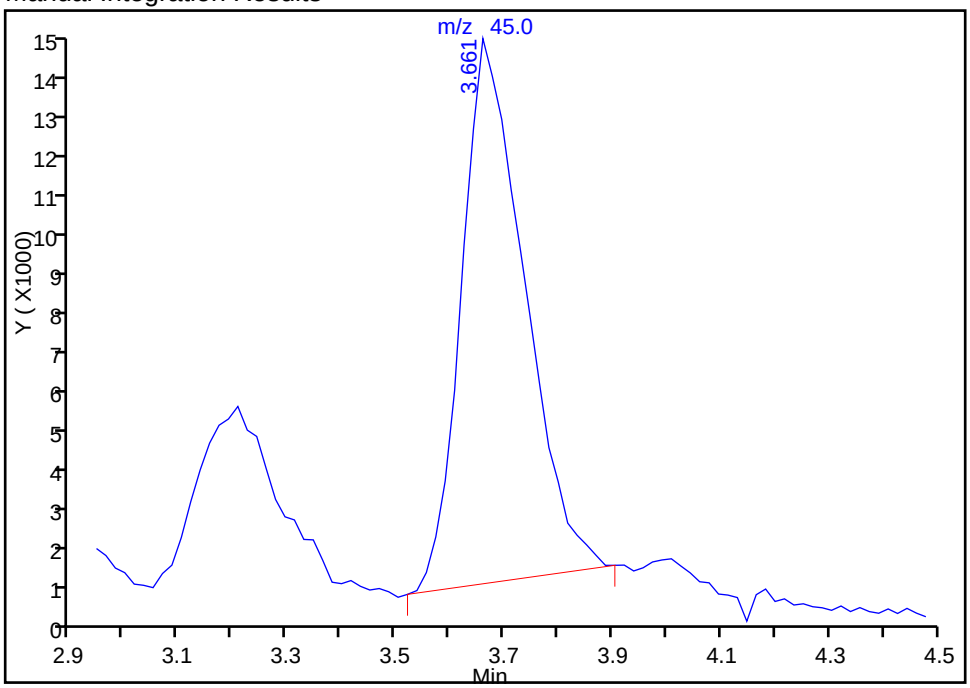
Not Detected
Expected RT: 3.67

Processing Integration Results



Manual Integration Results

RT: 3.66
Response: 109280
Amount: 304.2266



Reviewer: linesj, 22-Oct-2014 18:38:42
Audit Action: Manually Integrated
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D
Lims ID: std60
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Oct-2014 14:35:30 ALS Bottle#: 17 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: std60
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub96

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:23 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: wickhamt Date: 22-Oct-2014 14:56:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.027	4.014	0.013	97	173131	250.0	250.0	
* 2 Fluorobenzene	96	6.795	6.799	-0.004	98	692827	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.130	11.134	-0.004	89	201835	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.142	14.146	-0.004	96	352453	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.960	5.964	-0.004	93	2324944	60.0	57.6	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.378	6.381	-0.003	83	1079528	60.0	57.8	
$ 10 Toluene-d8 (Surr)	98	8.919	8.906	0.013	93	4726826	60.0	56.3	
$ 11 4-Bromofluorobenzene (Surr	95	12.802	12.788	0.014	86	2586245	60.0	54.4	
34 Ethylene oxide	43	2.687	2.673	0.014	99	4753978	12000	12546	
39 Ethanol	45	3.226	3.195	0.031	89	114789	NC	NC	
43 Propene oxide	58	3.331	3.335	-0.004	96	5246268	3000.0	3119.1	
49 Isopropyl alcohol	45	3.679	3.666	0.013	27	215879	600.0	606.5	M
51 Acetonitrile	41	3.871	3.857	0.014	82	299861	600.0	647.5	
62 Isopropyl ether	87	4.776	4.780	-0.004	99	1230204	60.0	61.4	
63 2-Chloro-1,3-butadiene	53	4.828	4.832	-0.004	89	2185514	60.0	59.5	
64 Tert-butyl ethyl ether	59	5.211	5.198	0.013	99	4215562	60.0	58.6	
69 Ethyl acetate	43	5.455	5.441	0.014	99	518453	120.0	125.6	
70 Propionitrile	54	5.490	5.494	-0.004	97	457386	600.0	637.8	
72 Methacrylonitrile	41	5.664	5.650	0.014	94	3316121	600.0	634.6	
83 Tert-amyl methyl ether	73	6.586	6.573	0.013	98	3673121	60.0	61.8	
85 n-Butanol	56	7.178	7.182	-0.004	88	352755	1500.0	1716.2	
91 Methyl methacrylate	100	7.701	7.705	-0.004	95	464506	120.0	108.9	
95 2-Nitropropane	41	8.240	8.244	-0.004	96	256081	120.0	117.7	
107 Tetrahydrothiophene	60	10.155	10.159	-0.004	93	571443	60.0	63.5	
119 cis-1,4-Dichloro-2-butene	53	12.697	12.701	-0.004	0	272256	60.0	57.9	
135 1,2,3-Trimethylbenzene	105	14.212	14.216	-0.004	99	4794459	60.0	59.9	
140 1,3,5-Trichlorobenzene	180	15.535	15.539	-0.004	98	2621978	60.0	60.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00029	Amount Added:	4.80	Units: uL
MV-Supp A_00010	Amount Added:	30.00	Units: uL

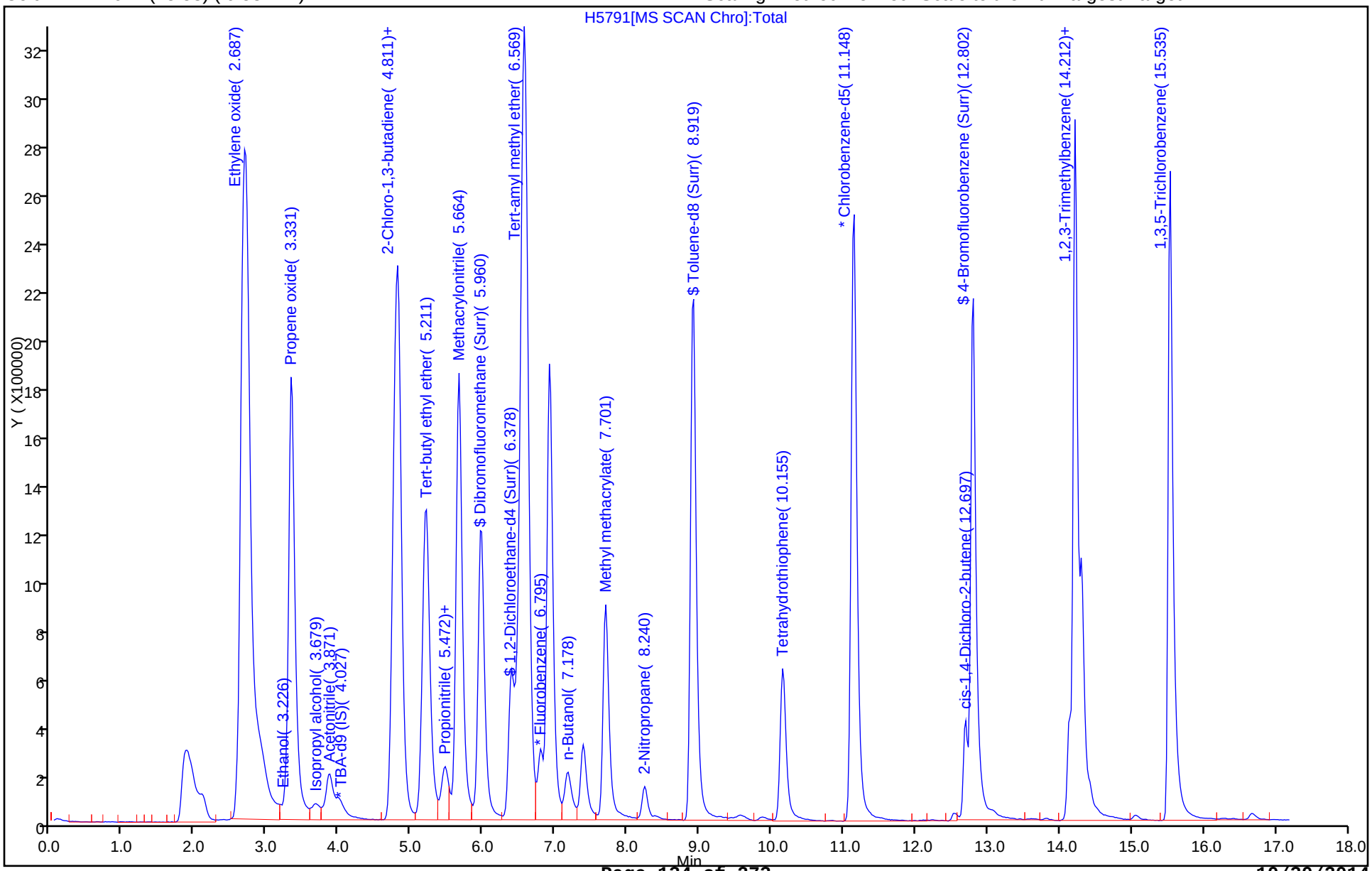
Report Date: 22-Oct-2014 18:48:23 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Injection Date:	22-Oct-2014 14:35:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	std60			Worklist Smp#:	22
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



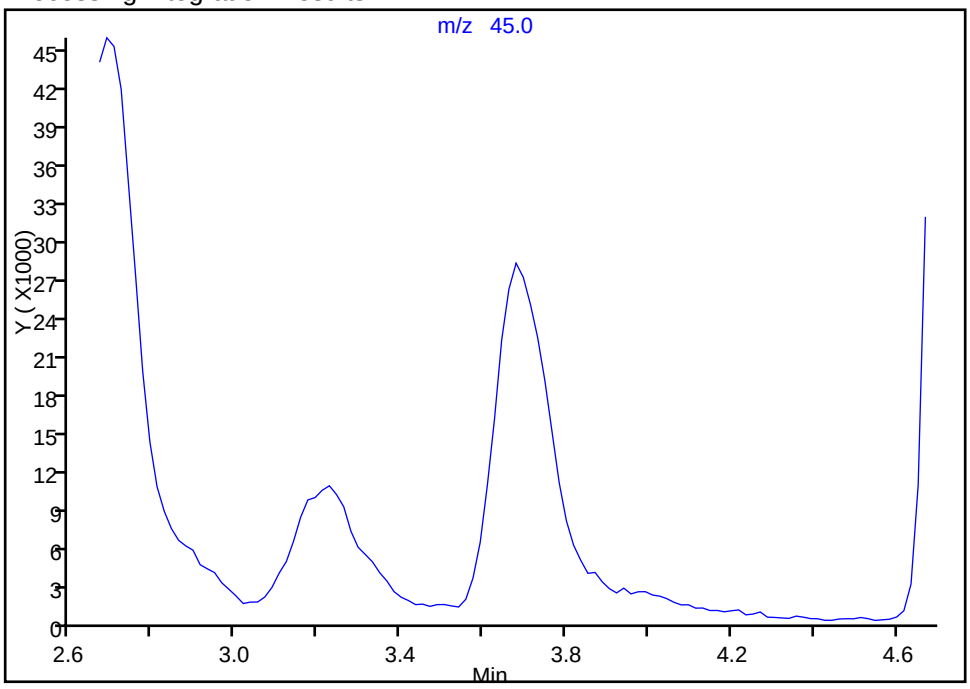
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D				
Injection Date:	22-Oct-2014 14:35:30	Instrument ID:	VMS_H		
Lims ID:	std60				
Client ID:					
Operator ID:	wickhamt	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

49 Isopropyl alcohol, CAS: 67-63-0

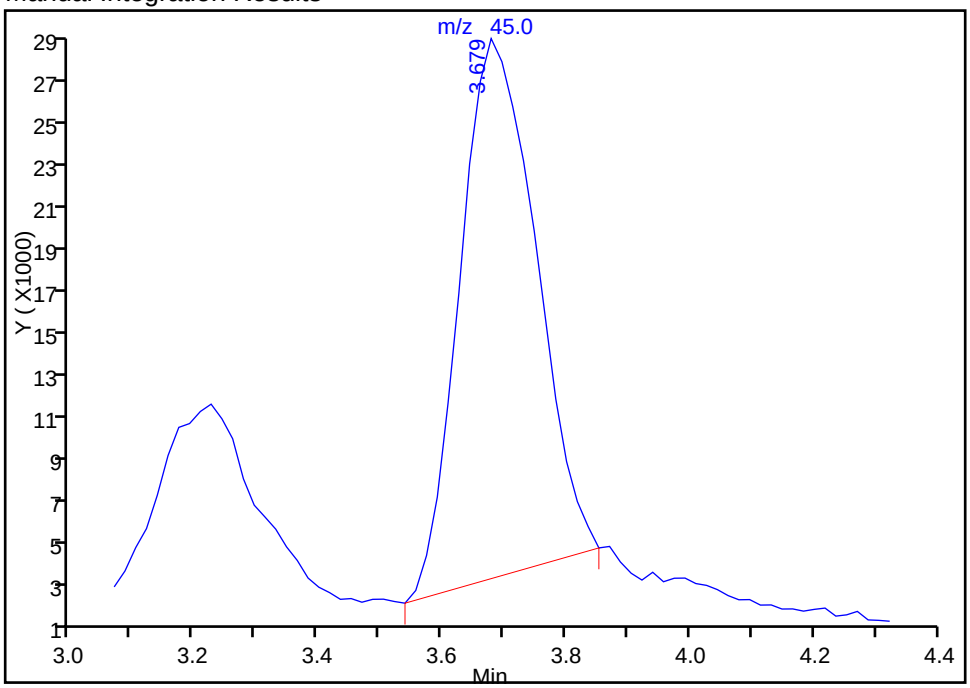
Not Detected
Expected RT: 3.67

Processing Integration Results



RT: 3.68
Response: 215879
Amount: 606.5318

Manual Integration Results



Reviewer: wickhamt, 22-Oct-2014 14:56:51
Audit Action: Manually Integrated
Audit Reason: Assign Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: ICV 280-248996/16 Calibration Date: 10/22/2014 12:25

Instrument ID: VMS_H Calib Start Date: 10/22/2014 09:32

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 11:42

Lab File ID: H5785.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2040	0.2001		9.81	10.0	-1.9	35.0
Acrolein	Lin2		0.0090		85.9	100	-14.1	55.0
1,1-Dichloroethene	Ave	0.3910	0.3911		10.0	10.0	0.0	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.5479	0.5573		10.2	10.0	1.7	35.0
Iodomethane	Ave	0.9505	1.005		10.6	10.0	5.8	35.0
Carbon disulfide	Ave	1.370	1.300		9.49	10.0	-5.1	20.0
Allyl chloride	Ave	0.7345	0.6363		8.66	10.0	-13.4	35.0
Methyl acetate	Ave	0.1432	0.1331		46.5	50.0	-7.0	55.0
Methylene Chloride	Lin2		0.3810		9.60	10.0	-4.0	20.0
2-Methyl-2-propanol	Ave	1.174	1.015		86.4	100	-13.6	50.0
Acrylonitrile	Ave	0.0355	0.0332		93.7	100	-6.3	55.0
Methyl tert-butyl ether	Ave	0.7396	0.7135		9.65	10.0	-3.5	20.0
trans-1,2-Dichloroethene	Ave	0.4572	0.4545		9.94	10.0	-0.6	20.0
Hexane	Ave	2.252	2.106		9.35	10.0	-6.5	20.0
1,1-Dichloroethane	Ave	0.8592	0.8294	0.1000	9.65	10.0	-3.5	20.0
Vinyl acetate	Lin2		0.1442		19.2	20.0	-4.1	55.0
cis-1,2-Dichloroethene	Ave	0.4736	0.4663		9.84	10.0	-1.6	20.0
2,2-Dichloropropane	Lin2		0.6985		9.00	10.0	-10.0	20.0
2-Butanol	Ave	1.132	1.201		318	300	6.0	50.0
Chlorobromomethane	Ave	0.2260	0.2271		10.1	10.0	0.5	20.0
Tetrahydrofuran	Ave	0.0498	0.0420		16.9	20.0	-15.6	55.0
Chloroform	Ave	0.9185	0.8779		9.56	10.0	-4.4	20.0
1,1,1-Trichloroethane	Ave	0.8138	0.7785		9.57	10.0	-4.3	20.0
Cyclohexane	Ave	0.7732	0.6821		8.82	10.0	-11.8	35.0
1,1-Dichloropropene	Ave	0.7031	0.6988		9.94	10.0	-0.6	20.0
Carbon tetrachloride	Ave	0.7929	0.7548		9.52	10.0	-4.8	20.0
Isobutyl alcohol	Ave	0.4463	0.4419		248	250	-1.0	50.0
Benzene	Ave	1.369	1.327		9.70	10.0	-3.0	20.0
1,2-Dichloroethane	Ave	0.3773	0.3557		9.43	10.0	-5.7	20.0
Trichloroethene	Ave	0.6369	0.5721		8.98	10.0	-10.2	20.0
2-Pentanone	Ave	0.1563	0.1556		39.8	40.0	-0.4	55.0
Methylcyclohexane	Ave	0.6972	0.6290		9.02	10.0	-9.8	35.0
1,2-Dichloropropane	Ave	0.5460	0.5068		9.28	10.0	-7.2	20.0
Dibromomethane	Ave	0.3037	0.2837		9.34	10.0	-6.6	20.0
1,4-Dioxane	Ave	0.0013	0.0014		213	200	6.4	55.0
Dichlorobromomethane	Ave	0.8565	0.7994		9.33	10.0	-6.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1115	0.1042		9.35	10.0	-6.5	55.0
trans-1,3-Dichloropropene	Ave	0.7008	0.6843		9.76	10.0	-2.4	20.0
Toluene	Ave	1.623	1.554		9.57	10.0	-4.3	20.0
cis-1,3-Dichloropropene	Ave	1.840	1.831		9.95	10.0	-0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: ICV 280-248996/16 Calibration Date: 10/22/2014 12:25

Instrument ID: VMS_H Calib Start Date: 10/22/2014 09:32

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 11:42

Lab File ID: H5785.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl methacrylate	Ave	1.553	1.443		9.29	10.0	-7.1	35.0
1,1,2-Trichloroethane	Lin2		0.3173		9.66	10.0	-3.4	20.0
Tetrachloroethene	Ave	1.965	1.844		9.38	10.0	-6.2	20.0
1,3-Dichloropropane	Ave	1.967	1.824		9.27	10.0	-7.3	20.0
Chlorodibromomethane	Ave	2.124	2.099		9.88	10.0	-1.2	20.0
Ethylene Dibromide	Ave	1.438	1.394		9.70	10.0	-3.0	20.0
1-Chlorohexane	Ave	2.933	2.678		9.13	10.0	-8.7	35.0
Chlorobenzene	Ave	4.012	3.812	0.3000	9.50	10.0	-5.0	20.0
1,1,1,2-Tetrachloroethane	Ave	2.001	1.942		9.70	10.0	-3.0	20.0
Ethylbenzene	Ave	1.987	1.864		9.38	10.0	-6.2	20.0
m-Xylene & p-Xylene	Ave	2.702	2.498		9.24	10.0	-7.6	20.0
o-Xylene	Ave	2.357	2.182		9.26	10.0	-7.4	20.0
Styrene	Ave	3.845	3.620		9.42	10.0	-5.8	20.0
Bromoform	Ave	1.212	1.198	0.1000	9.88	10.0	-1.2	20.0
Isopropylbenzene	Ave	4.165	3.895		9.35	10.0	-6.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9431	0.8591	0.3000	9.11	10.0	-8.9	20.0
Bromobenzene	Ave	1.074	1.057		9.84	10.0	-1.6	20.0
1,2,3-Trichloropropane	Ave	0.2089	0.1986		9.51	10.0	-4.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1913	0.1792		9.37	10.0	-6.3	55.0
N-Propylbenzene	Ave	1.016	0.9494		9.34	10.0	-6.6	20.0
2-Chlorotoluene	Ave	0.8466	0.8048		9.51	10.0	-4.9	20.0
1,3,5-Trimethylbenzene	Ave	3.177	2.990		9.41	10.0	-5.9	20.0
4-Chlorotoluene	Ave	1.018	0.9309		9.14	10.0	-8.6	20.0
tert-Butylbenzene	Ave	3.439	3.202		9.31	10.0	-6.9	20.0
1,2,4-Trimethylbenzene	Ave	3.046	2.856		9.38	10.0	-6.2	20.0
sec-Butylbenzene	Ave	0.9383	0.8892		9.48	10.0	-5.2	20.0
1,3-Dichlorobenzene	Ave	1.605	1.561		9.73	10.0	-2.7	20.0
4-Isopropyltoluene	Ave	3.894	3.693		9.48	10.0	-5.2	20.0
1,4-Dichlorobenzene	Ave	2.457	2.418		9.84	10.0	-1.6	20.0
n-Butylbenzene	Ave	3.923	3.684		9.39	10.0	-6.1	20.0
1,2-Dichlorobenzene	Ave	1.651	1.699		10.3	10.0	2.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1658	0.1682		10.1	10.0	1.5	20.0
1,2,3-Trichlorobenzene	Ave	1.158	1.218		10.5	10.0	5.2	20.0
Hexachlorobutadiene	Ave	1.107	1.108		10.0	10.0	0.1	20.0
Naphthalene	Ave	1.337	1.339		10.0	10.0	0.2	20.0
1,2,4-Trichlorobenzene	Ave	0.9354	0.9754		10.4	10.0	4.3	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5785.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 22-Oct-2014 12:25:30 ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: wickhamt Instrument ID: VMS_H
Sublist:

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 19:15:41 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: linesj Date: 22-Oct-2014 19:57:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.013	4.014	-0.001	96	162373	250.0	250.0	
* 2 Fluorobenzene	96	6.799	6.799	0.000	98	687546	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	90	193750	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.146	14.146	0.000	96	343540	12.5	12.5	
40 Ethyl ether	59	3.247	3.247	0.000	94	110062	10.0	9.81	
44 Acrolein	56	3.404	3.386	0.018	98	49689	100.0	85.9	
45 1,1-Dichloroethene	96	3.508	3.508	0.000	98	215138	10.0	10.0	
46 1,1,2-Trichloro-1,2,2-trif	151	3.543	3.543	0.000	97	306557	10.0	10.2	
48 Iodomethane	142	3.682	3.682	0.000	99	552985	10.0	10.6	
50 Carbon disulfide	76	3.752	3.752	0.000	99	714790	10.0	9.49	
52 3-Chloro-1-propene	41	3.856	3.839	0.017	88	350009	10.0	8.66	
53 Methyl acetate	43	3.856	3.856	0.000	97	366148	50.0	46.5	
54 Methylene Chloride	84	3.996	3.978	0.018	95	209577	10.0	9.60	
55 2-Methyl-2-propanol	59	4.100	4.100	0.000	96	65892	100.0	86.4	
57 Acrylonitrile	53	4.239	4.239	0.000	97	182692	100.0	93.7	
56 Methyl tert-butyl ether	73	4.274	4.257	0.017	95	392462	10.0	9.65	
58 trans-1,2-Dichloroethene	96	4.274	4.257	0.017	99	250011	10.0	9.94	
59 Hexane	57	4.535	4.535	0.000	95	326487	10.0	9.35	
60 1,1-Dichloroethane	63	4.727	4.727	0.000	96	456191	10.0	9.65	
61 Vinyl acetate	43	4.762	4.744	0.018	96	158658	20.0	19.2	
65 cis-1,2-Dichloroethene	96	5.389	5.388	0.001	84	256455	10.0	9.84	
66 2,2-Dichloropropane	77	5.406	5.406	0.000	87	384209	10.0	9.00	
71 sec-Butyl Alcohol	45	5.615	5.597	0.018	96	233919	300.0	318.0	
73 Chlorobromomethane	128	5.684	5.684	0.000	97	124928	10.0	10.1	
74 Tetrahydrofuran	42	5.754	5.736	0.018	59	46190	20.0	16.9	
75 Chloroform	83	5.772	5.754	0.018	94	482864	10.0	9.56	
76 1,1,1-Trichloroethane	97	6.015	5.997	0.018	99	428227	10.0	9.57	
77 Cyclohexane	56	6.085	6.085	0.000	90	375202	10.0	8.82	
78 1,1-Dichloropropene	75	6.189	6.189	0.000	96	384373	10.0	9.94	
79 Carbon tetrachloride	117	6.224	6.206	0.018	96	415186	10.0	9.52	
80 Isobutyl alcohol	41	6.329	6.311	0.018	92	71757	250.0	247.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
81 Benzene	78	6.451	6.450	0.001	97	730069	10.0	9.70	
82 1,2-Dichloroethane	62	6.485	6.468	0.017	95	195671	10.0	9.43	
84 n-Heptane	43	6.746	6.746	0.000	95	447520	10.0	8.89	
86 Trichloroethene	95	7.269	7.268	0.001	99	314651	10.0	8.98	
88 2-Pentanone	43	7.495	7.495	0.000	97	342365	40.0	39.8	
89 Methylcyclohexane	55	7.530	7.512	0.018	91	345957	10.0	9.02	
90 1,2-Dichloropropane	63	7.565	7.564	0.001	96	278759	10.0	9.28	
92 Dibromomethane	93	7.739	7.721	0.018	96	156036	10.0	9.34	
93 1,4-Dioxane	88	7.756	7.756	0.000	31	15512	200.0	212.8	
94 Dichlorobromomethane	83	7.930	7.930	0.000	99	439707	10.0	9.33	
96 2-Chloroethyl vinyl ether	63	8.331	8.313	0.018	92	57333	10.0	9.35	
100 trans-1,3-Dichloropropene	75	8.540	8.522	0.018	93	376410	10.0	9.76	
99 Toluene	91	9.010	8.992	0.018	99	854488	10.0	9.57	
97 cis-1,3-Dichloropropene	75	9.323	9.305	0.018	98	283843	10.0	9.95	
101 Ethyl methacrylate	69	9.445	9.445	0.000	90	223726	10.0	9.29	
102 1,1,2-Trichloroethane	97	9.584	9.584	0.000	90	174526	10.0	9.66	
103 Tetrachloroethene	164	9.793	9.793	0.000	97	285778	10.0	9.38	
104 1,3-Dichloropropane	76	9.828	9.828	0.000	88	282656	10.0	9.27	
108 Chlorodibromomethane	129	10.176	10.176	0.000	90	325351	10.0	9.88	
109 Ethylene Dibromide	107	10.368	10.367	0.001	99	216085	10.0	9.70	
110 1-Chlorohexane	91	11.151	11.133	0.018	96	415047	10.0	9.13	
111 Chlorobenzene	112	11.186	11.168	0.018	92	590920	10.0	9.50	
112 1,1,1,2-Tetrachloroethane	131	11.308	11.307	0.001	95	301004	10.0	9.70	
113 Ethylbenzene	106	11.343	11.342	0.001	99	288942	10.0	9.38	
114 m-Xylene & p-Xylene	106	11.534	11.516	0.018	0	387153	10.0	9.24	
115 o-Xylene	106	12.091	12.091	0.000	98	338192	10.0	9.26	
116 Styrene	104	12.126	12.108	0.018	94	561115	10.0	9.42	
117 Bromoform	173	12.387	12.369	0.018	95	185628	10.0	9.88	
118 Isopropylbenzene	105	12.596	12.596	0.000	96	1070449	10.0	9.35	
121 1,1,2,2-Tetrachloroethane	83	12.979	12.979	0.000	94	236095	10.0	9.11	
122 Bromobenzene	156	12.979	12.979	0.000	94	290477	10.0	9.84	
123 1,2,3-Trichloropropane	110	13.031	13.031	0.000	79	54587	10.0	9.51	
124 trans-1,4-Dichloro-2-buten	53	13.049	13.048	0.001	69	49244	10.0	9.37	
125 N-Propylbenzene	120	13.118	13.101	0.017	99	260923	10.0	9.34	
126 2-Chlorotoluene	126	13.205	13.205	0.000	97	221177	10.0	9.51	
127 1,3,5-Trimethylbenzene	105	13.327	13.327	0.000	94	821746	10.0	9.41	
128 4-Chlorotoluene	126	13.345	13.344	0.001	98	255826	10.0	9.14	
129 tert-Butylbenzene	119	13.693	13.693	0.001	93	879948	10.0	9.31	
130 1,2,4-Trimethylbenzene	105	13.745	13.745	0.000	97	784921	10.0	9.38	
131 sec-Butylbenzene	134	13.937	13.936	0.001	94	244375	10.0	9.48	
132 1,3-Dichlorobenzene	146	14.058	14.058	0.000	97	429093	10.0	9.73	
133 4-Isopropyltoluene	119	14.111	14.093	0.018	97	1015058	10.0	9.48	
134 1,4-Dichlorobenzene	146	14.163	14.163	0.000	95	664456	10.0	9.84	
137 n-Butylbenzene	91	14.529	14.528	0.001	98	1012594	10.0	9.39	
138 1,2-Dichlorobenzene	146	14.563	14.546	0.017	97	466825	10.0	10.3	
139 1,2-Dibromo-3-Chloropropan	157	15.329	15.346	-0.017	90	46231	10.0	10.1	
144 1,2,3-Trichlorobenzene	180	16.113	16.095	0.018	96	334683	10.0	10.5	
142 Hexachlorobutadiene	225	16.252	16.252	0.000	97	304568	10.0	10.0	
143 Naphthalene	128	16.322	16.321	0.001	97	368096	10.0	10.0	
141 1,2,4-Trichlorobenzene	180	16.565	16.548	0.017	95	268079	10.0	10.4	
S 151 1,2-Dichloroethene, Total	96				0		20.0	19.8	
S 145 Trihalomethanes, Total	1				0		40.0	38.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 146 Xylenes, Total (URS)	1				0		20.0	18.5	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.7	
S 149 1,2-Dichloroethene, Total	1				0		20.0	19.8	
S 150 Xylenes, Total	106				0		20.0	18.5	

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main B_00008	Amount Added:	5.00	Units: uL
MV-SS 2-Cleve_00017	Amount Added:	5.00	Units: uL

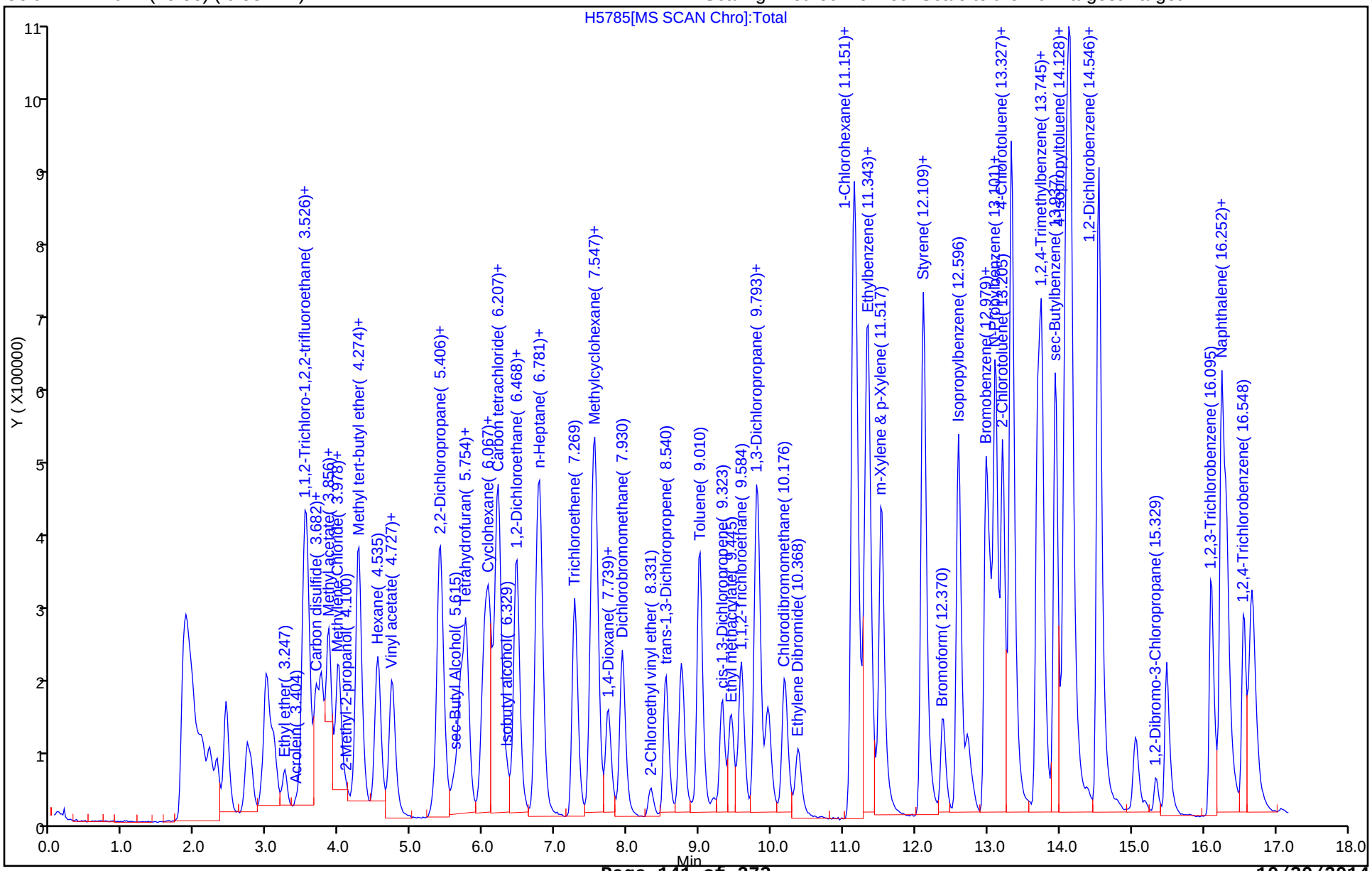
Report Date: 22-Oct-2014 19:57:15 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5785.D

Injection Date:	22-Oct-2014 12:25:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	icv			Worklist Smp#:	16
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: ICV 280-248996/23 Calibration Date: 10/22/2014 15:19

Instrument ID: VMS_H Calib Start Date: 08/25/2014 12:58

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 08/25/2014 14:47

Lab File ID: H5793.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Ave	0.0008	0.0007			500	-8.5	50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5793.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 22-Oct-2014 15:19:30 ALS Bottle#: 19 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: wickhamt Instrument ID: VMS_H
Sublist:

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:54 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: linesj Date: 22-Oct-2014 18:49:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.008	4.014	-0.006	97	177396	250.0	250.0	
* 2 Fluorobenzene	96	6.793	6.799	-0.006	99	704735	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.128	11.134	-0.006	89	200724	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.140	14.146	-0.006	96	359242	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.958	5.964	-0.006	93	392976	10.0	9.58	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.376	6.381	-0.005	83	184471	10.0	9.71	
$ 10 Toluene-d8 (Surr)	98	8.917	8.906	0.011	93	800017	10.0	9.59	
$ 11 4-Bromofluorobenzene (Surr	95	12.800	12.788	0.012	86	452417	10.0	9.34	
34 Ethylene oxide	43	2.685	2.673	0.012	99	786268	2000.0	2040.0	
39 Ethanol	45	3.190	3.195	-0.005	88	20730	NC	NC	
43 Propene oxide	58	3.329	3.335	-0.006	96	888775	500.0	519.5	
49 Isopropyl alcohol	45	3.677	3.666	0.011	94	33089	100.0	94.7	M
51 Acetonitrile	41	3.869	3.857	0.012	49	37984	100.0	80.6	
62 Isopropyl ether	87	4.774	4.780	-0.006	98	212877	10.0	10.4	
63 2-Chloro-1,3-butadiene	53	4.826	4.832	-0.006	89	353190	10.0	9.45	
64 Tert-butyl ethyl ether	59	5.192	5.198	-0.006	99	729158	10.0	9.96	
69 Ethyl acetate	43	5.453	5.441	0.012	98	116784	20.0	27.8	
70 Propionitrile	54	5.488	5.494	-0.006	96	77986	100.0	106.9	
72 Methacrylonitrile	41	5.662	5.650	0.012	93	553348	100.0	104.1	
83 Tert-amyl methyl ether	73	6.584	6.573	0.011	98	642465	10.0	10.6	
85 n-Butanol	56	7.194	7.182	0.012	88	55963	250.0	267.7	
87 Ethyl acrylate	55	7.681	7.703	-0.022	0	20828	NC	NC	
91 Methyl methacrylate	100	7.699	7.705	-0.006	95	83429	20.0	19.2	
95 2-Nitropropane	41	8.238	8.244	-0.006	96	45849	20.0	20.7	
107 Tetrahydrothiophene	60	10.153	10.159	-0.006	75	85300	10.0	9.54	
119 cis-1,4-Dichloro-2-butene	53	12.695	12.701	-0.006	0	47540	10.0	9.92	
135 1,2,3-Trimethylbenzene	105	14.210	14.216	-0.006	99	797862	10.0	9.77	
140 1,3,5-Trichlorobenzene	180	15.533	15.539	-0.006	97	439500	10.0	9.98	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00029	Amount Added:	0.80	Units: uL
MV-Supp B_00004	Amount Added:	5.00	Units: uL

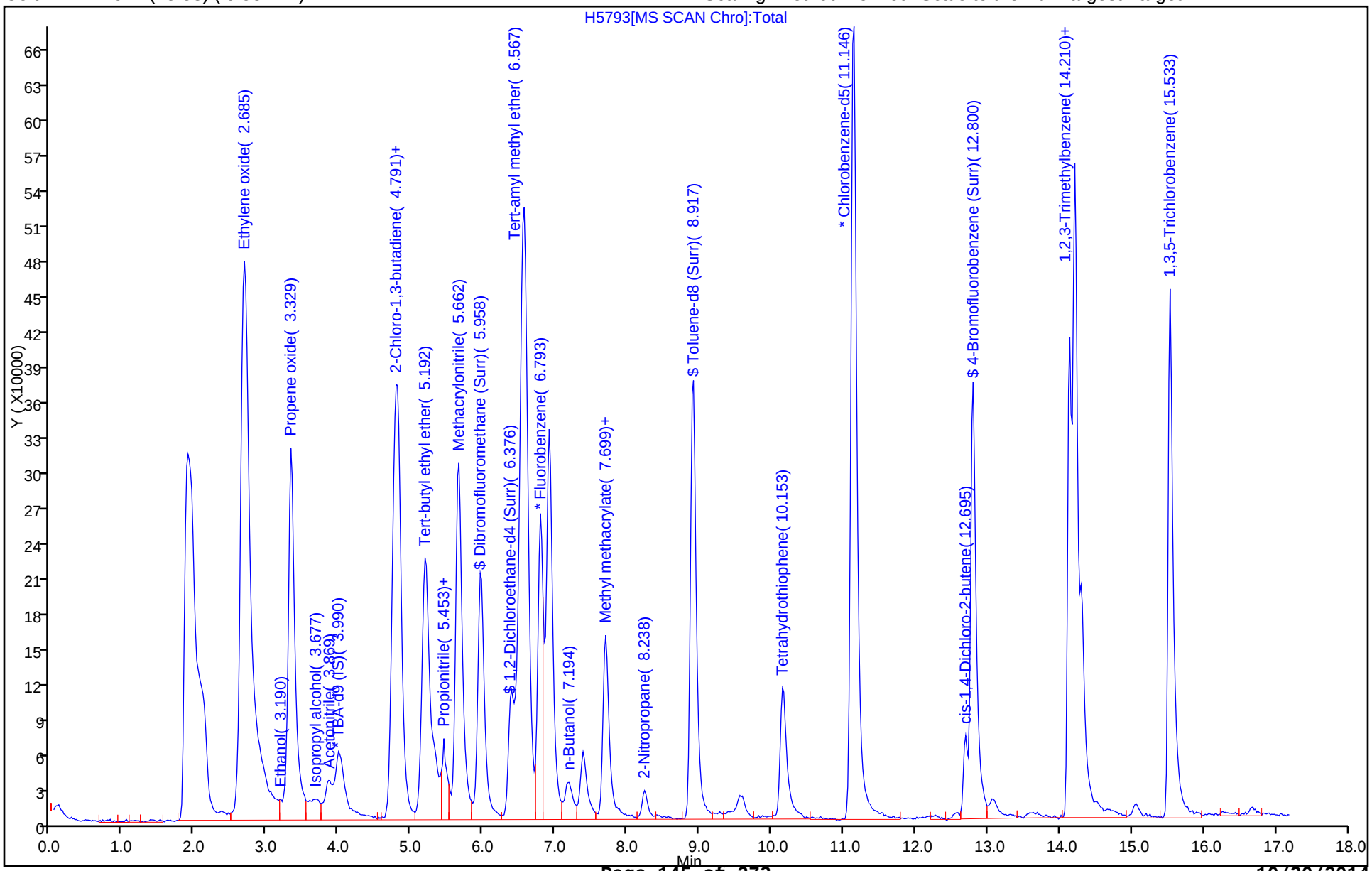
Report Date: 22-Oct-2014 18:51:25 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5793.D

Injection Date:	22-Oct-2014 15:19:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	icv			Worklist Smp#:	23
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: ICV 280-248996/23 Calibration Date: 10/22/2014 15:19

Instrument ID: VMS_H Calib Start Date: 10/22/2014 12:47

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 14:35

Lab File ID: H5793.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropyl alcohol	Lin2		0.0059		94.7	100	-5.3	50.0
Acetonitrile	Ave	0.0084	0.0067		80.6	100	-19.4	55.0
Isopropyl ether	Ave	0.3617	0.3776		10.4	10.0	4.4	35.0
2-Chloro-1,3-butadiene	Ave	0.6629	0.6265		9.45	10.0	-5.5	35.0
Tert-butyl ethyl ether	Ave	1.298	1.293		9.96	10.0	-0.4	35.0
Ethyl acetate	Ave	0.0745	0.1036		27.8	20.0	39.1	55.0
Propionitrile	Ave	0.0129	0.0138		107	100	6.9	35.0
Methacrylonitrile	Ave	0.0943	0.0982		104	100	4.1	50.0
Tert-amyl methyl ether	Ave	1.073	1.140		10.6	10.0	6.2	35.0
Methyl methacrylate	Ave	0.0769	0.0740		19.2	20.0	-3.8	35.0
2-Nitropropane	Ave	0.0393	0.0407		20.7	20.0	3.6	55.0
cis-1,4-Dichloro-2-butene	Ave	0.1667	0.1654		9.92	10.0	-0.8	55.0
Dibromofluoromethane (Surr)	Ave	0.7276	0.6970		9.58	10.0	-4.2	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3371	0.3272		9.71	10.0	-2.9	35.0
Toluene-d8 (Surr)	Ave	5.196	4.982		9.59	10.0	-4.1	35.0
4-Bromofluorobenzene (Surr)	Ave	1.685	1.574		9.34	10.0	-6.6	35.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5793.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 22-Oct-2014 15:19:30 ALS Bottle#: 19 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: wickhamt Instrument ID: VMS_H
Sublist:

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:54 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: linesj Date: 22-Oct-2014 18:49:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.008	4.014	-0.006	97	177396	250.0	250.0	
* 2 Fluorobenzene	96	6.793	6.799	-0.006	99	704735	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.128	11.134	-0.006	89	200724	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.140	14.146	-0.006	96	359242	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.958	5.964	-0.006	93	392976	10.0	9.58	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.376	6.381	-0.005	83	184471	10.0	9.71	
$ 10 Toluene-d8 (Surr)	98	8.917	8.906	0.011	93	800017	10.0	9.59	
$ 11 4-Bromofluorobenzene (Surr	95	12.800	12.788	0.012	86	452417	10.0	9.34	
34 Ethylene oxide	43	2.685	2.673	0.012	99	786268	2000.0	2040.0	
39 Ethanol	45	3.190	3.195	-0.005	88	20730	NC	NC	
43 Propene oxide	58	3.329	3.335	-0.006	96	888775	500.0	519.5	
49 Isopropyl alcohol	45	3.677	3.666	0.011	94	33089	100.0	94.7	M
51 Acetonitrile	41	3.869	3.857	0.012	49	37984	100.0	80.6	
62 Isopropyl ether	87	4.774	4.780	-0.006	98	212877	10.0	10.4	
63 2-Chloro-1,3-butadiene	53	4.826	4.832	-0.006	89	353190	10.0	9.45	
64 Tert-butyl ethyl ether	59	5.192	5.198	-0.006	99	729158	10.0	9.96	
69 Ethyl acetate	43	5.453	5.441	0.012	98	116784	20.0	27.8	
70 Propionitrile	54	5.488	5.494	-0.006	96	77986	100.0	106.9	
72 Methacrylonitrile	41	5.662	5.650	0.012	93	553348	100.0	104.1	
83 Tert-amyl methyl ether	73	6.584	6.573	0.011	98	642465	10.0	10.6	
85 n-Butanol	56	7.194	7.182	0.012	88	55963	250.0	267.7	
87 Ethyl acrylate	55	7.681	7.703	-0.022	0	20828	NC	NC	
91 Methyl methacrylate	100	7.699	7.705	-0.006	95	83429	20.0	19.2	
95 2-Nitropropane	41	8.238	8.244	-0.006	96	45849	20.0	20.7	
107 Tetrahydrothiophene	60	10.153	10.159	-0.006	75	85300	10.0	9.54	
119 cis-1,4-Dichloro-2-butene	53	12.695	12.701	-0.006	0	47540	10.0	9.92	
135 1,2,3-Trimethylbenzene	105	14.210	14.216	-0.006	99	797862	10.0	9.77	
140 1,3,5-Trichlorobenzene	180	15.533	15.539	-0.006	97	439500	10.0	9.98	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00029	Amount Added:	0.80	Units: uL
MV-Supp B_00004	Amount Added:	5.00	Units: uL

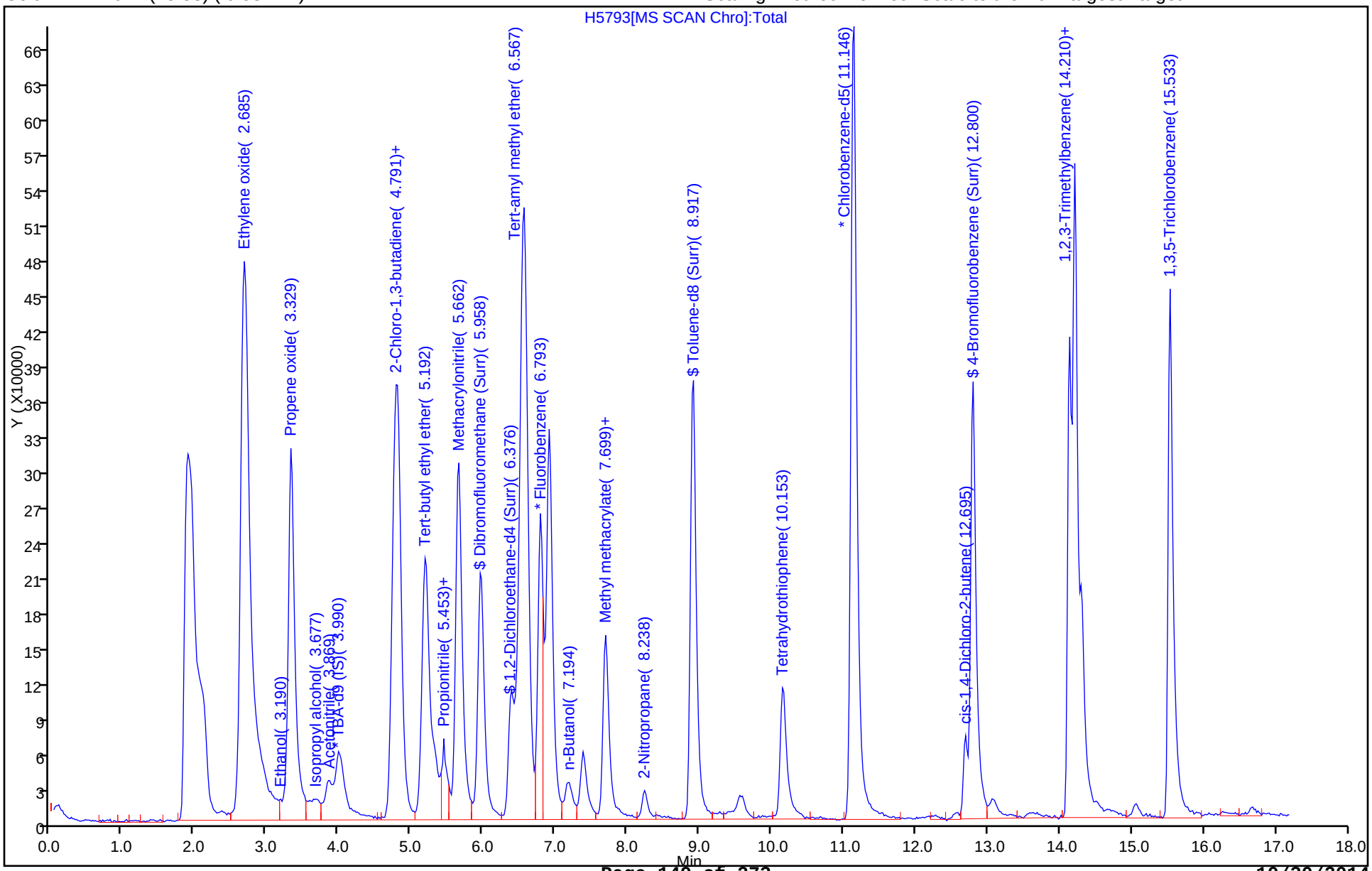
Report Date: 22-Oct-2014 18:51:25 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5793.D

Injection Date:	22-Oct-2014 15:19:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	icv			Worklist Smp#:	23
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



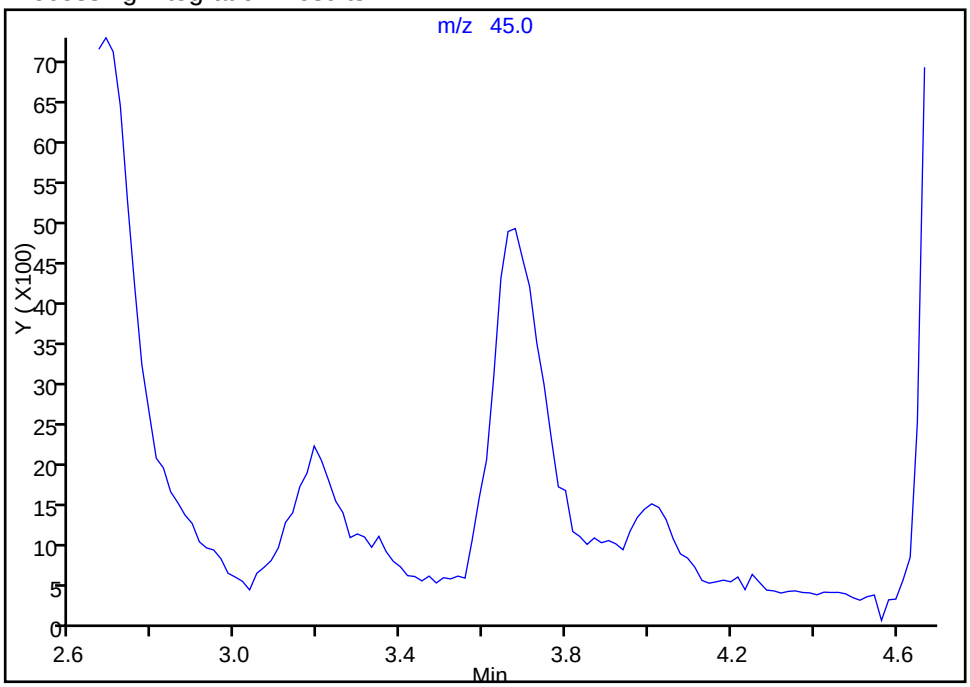
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5793.D
Injection Date: 22-Oct-2014 15:19:30 Instrument ID: VMS_H
Lims ID: icv
Client ID:
Operator ID: wickhamt ALS Bottle#: 19 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

49 Isopropyl alcohol, CAS: 67-63-0

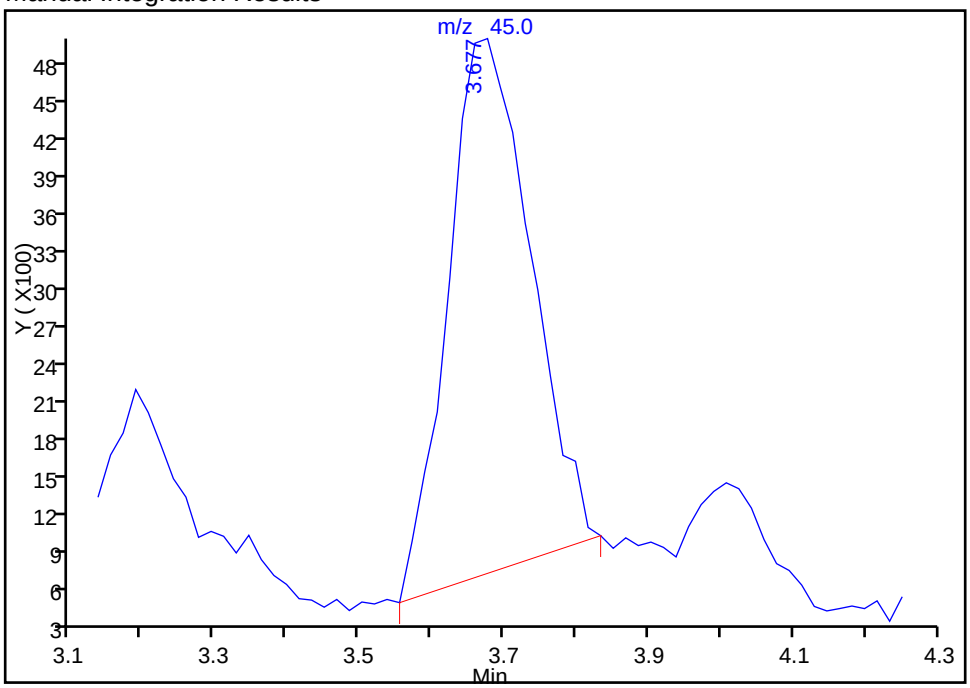
Not Detected
Expected RT: 3.67

Processing Integration Results



Manual Integration Results

RT: 3.68
Response: 33089
Amount: 94.684335



Reviewer: linesj, 22-Oct-2014 18:39:04
Audit Action: Manually Integrated
Audit Reason: Assign Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: ICV 280-248996/24 Calibration Date: 10/22/2014 16:02

Instrument ID: VMS_H Calib Start Date: 10/22/2014 09:32

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 11:42

Lab File ID: H5795.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.6603	0.6885		10.4	10.0	4.3	20.0
Chloromethane	Ave	0.4326	0.4229	0.1000	9.78	10.0	-2.2	20.0
Vinyl chloride	Ave	0.4144	0.3983		9.61	10.0	-3.9	20.0
Bromomethane	Ave	0.3973	0.3939		9.91	10.0	-0.9	20.0
Chloroethane	Ave	0.2676	0.2602		9.72	10.0	-2.8	20.0
Dichlorofluoromethane	Ave	0.9861	0.9456		9.59	10.0	-4.1	50.0
Trichlorofluoromethane	Ave	0.8713	0.8480		9.73	10.0	-2.7	20.0
Acetone	Lin1		0.0347		43.3	40.0	8.2	20.0
2-Butanone (MEK)	Ave	0.0706	0.0777		44.0	40.0	10.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2340	0.2592		44.3	40.0	10.8	20.0
2-Hexanone	Ave	0.5412	0.5738		42.4	40.0	6.0	20.0
Cyclohexanone	Ave	0.0208	0.0202		388	400	-3.0	55.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5795.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 22-Oct-2014 16:02:30 ALS Bottle#: 21 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: wickhamt Instrument ID: VMS_H
Sublist:

Method: \\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 22-Oct-2014 18:48:54 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: linesj Date: 22-Oct-2014 16:31:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.010	4.014	-0.004	97	162507	250.0	250.0	
* 2 Fluorobenzene	96	6.796	6.799	-0.003	98	705606	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.148	11.134	0.014	88	209351	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.142	14.146	-0.004	96	348781	12.5	12.5	
28 Dichlorodifluoromethane	85	2.199	2.202	-0.003	97	388655	10.0	10.4	
30 Chloromethane	50	2.304	2.289	0.015	99	238709	10.0	9.78	
31 Butadiene	54	2.408	2.411	-0.003	0	163797	NC	NC	
32 Vinyl chloride	62	2.443	2.446	-0.003	98	224831	10.0	9.61	
35 Bromomethane	94	2.722	2.724	-0.002	90	222350	10.0	9.91	
36 Chloroethane	64	2.774	2.777	-0.003	99	146853	10.0	9.72	
37 Dichlorofluoromethane	67	2.983	2.986	-0.003	98	533769	10.0	9.59	
38 Trichlorofluoromethane	101	3.087	3.073	0.014	100	478668	10.0	9.73	
47 Acetone	43	3.540	3.543	-0.003	100	78304	40.0	43.3	
67 2-Butanone (MEK)	43	5.403	5.388	0.015	99	175517	40.0	44.0	
98 4-Methyl-2-pentanone (MIBK	43	8.763	8.748	0.015	96	585189	40.0	44.3	
105 2-Hexanone	43	9.964	9.949	0.015	98	384403	40.0	42.4	
120 Cyclohexanone	55	12.732	12.718	0.014	92	135103	400.0	388.1	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

MV-568718-D_00002 Amount Added: 1.00 Units: uL
MV-Gas/Ket B_00014 Amount Added: 5.00 Units: uL

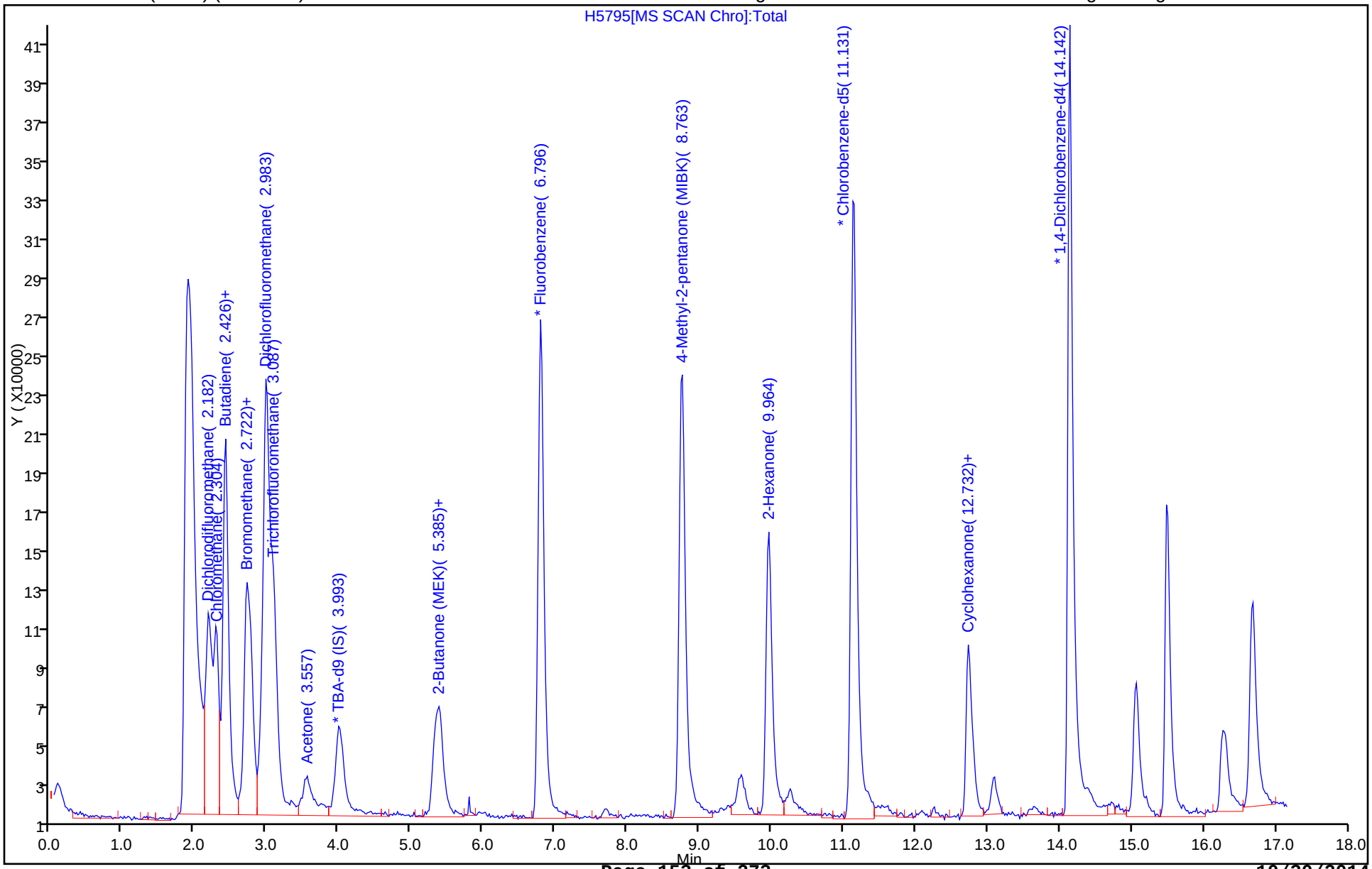
Report Date: 22-Oct-2014 18:51:19 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5795.D

Injection Date:	22-Oct-2014 16:02:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	icv			Worklist Smp#:	24
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249165/2 Calibration Date: 10/23/2014 06:54

Instrument ID: VMS_H Calib Start Date: 10/22/2014 09:32

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 11:42

Lab File ID: H5828.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.6603	0.7159		10.8	10.0	8.4	20.0
Chloromethane	Ave	0.4326	0.4614	0.1000	10.7	10.0	6.7	20.0
Vinyl chloride	Ave	0.4144	0.4423		10.7	10.0	6.7	20.0
Bromomethane	Ave	0.3973	0.4167		10.5	10.0	4.9	20.0
Chloroethane	Ave	0.2676	0.2796		10.4	10.0	4.5	20.0
Dichlorofluoromethane	Ave	0.9861	1.022		10.4	10.0	3.6	50.0
Trichlorofluoromethane	Ave	0.8713	0.9573		11.0	10.0	9.9	20.0
Ethyl ether	Ave	0.2040	0.2143		10.5	10.0	5.0	35.0
Acrolein	Lin2		0.0048		91.9	200	-54.1*	50.0
1,1-Dichloroethene	Ave	0.3910	0.4226		10.8	10.0	8.1	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.5479	0.6213		11.3	10.0	13.4	50.0
Acetone	Lin1		0.0330		41.1	40.0	2.6	20.0
Iodomethane	Ave	0.9505	1.015		10.7	10.0	6.7	35.0
Carbon disulfide	Ave	1.370	1.460		10.7	10.0	6.6	20.0
Allyl chloride	Ave	0.7345	0.7518		10.2	10.0	2.4	35.0
Methyl acetate	Ave	0.1432	0.1424		49.7	50.0	-0.6	50.0
Methylene Chloride	Lin2		0.4065		10.3	10.0	2.8	20.0
2-Methyl-2-propanol	Ave	1.174	1.023		87.1	100	-12.9	50.0
Acrylonitrile	Ave	0.0355	0.0354		99.9	100	-0.0	50.0
Methyl tert-butyl ether	Ave	0.7396	0.7636		10.3	10.0	3.2	20.0
trans-1,2-Dichloroethene	Ave	0.4572	0.4926		10.8	10.0	7.8	20.0
Hexane	Ave	2.252	2.530		11.2	10.0	12.3	20.0
1,1-Dichloroethane	Ave	0.8592	0.8816	0.1000	10.3	10.0	2.6	20.0
Vinyl acetate	Lin2		0.0724		19.2	40.0	-51.9*	50.0
2-Butanone (MEK)	Ave	0.0706	0.0674		38.1	40.0	-4.6	20.0
cis-1,2-Dichloroethene	Ave	0.4736	0.5171		10.9	10.0	9.2	20.0
2,2-Dichloropropane	Lin2		0.8698		11.4	10.0	14.4	20.0
2-Butanol	Ave	1.132	1.203		319	300	6.2	50.0
Chlorobromomethane	Ave	0.2260	0.2379		10.5	10.0	5.3	20.0
Tetrahydrofuran	Ave	0.0498	0.0443		17.8	20.0	-11.0	50.0
Chloroform	Ave	0.9185	0.9547		10.4	10.0	3.9	20.0
1,1,1-Trichloroethane	Ave	0.8138	0.8951		11.0	10.0	10.0	20.0
Cyclohexane	Ave	0.7732	0.8153		10.5	10.0	5.5	35.0
1,1-Dichloropropene	Ave	0.7031	0.7533		10.7	10.0	7.1	20.0
Carbon tetrachloride	Ave	0.7929	0.8535		10.8	10.0	7.6	20.0
Isobutyl alcohol	Ave	0.4463	0.4417		247	250	-1.0	50.0
Benzene	Ave	1.369	1.462		10.7	10.0	6.8	20.0
1,2-Dichloroethane	Ave	0.3773	0.3858		10.2	10.0	2.2	20.0
Trichloroethene	Ave	0.6369	0.6428		10.1	10.0	0.9	20.0
2-Pentanone	Ave	0.1563	0.1560		39.9	40.0	-0.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249165/2 Calibration Date: 10/23/2014 06:54

Instrument ID: VMS_H Calib Start Date: 10/22/2014 09:32

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 11:42

Lab File ID: H5828.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.6972	0.7707		11.1	10.0	10.5	35.0
1,2-Dichloropropane	Ave	0.5460	0.5374		9.84	10.0	-1.6	20.0
Dibromomethane	Ave	0.3037	0.3017		9.93	10.0	-0.7	20.0
1,4-Dioxane	Ave	0.0013	0.0016		246	200	22.9	50.0
Dichlorobromomethane	Ave	0.8565	0.8854		10.3	10.0	3.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1115	0.0491		8.80	20.0	-56.0*	50.0
trans-1,3-Dichloropropene	Ave	0.7008	0.7477		10.7	10.0	6.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2340	0.2344		40.1	40.0	0.2	20.0
Toluene	Ave	1.623	1.723		10.6	10.0	6.2	20.0
cis-1,3-Dichloropropene	Ave	1.840	1.935		10.5	10.0	5.2	20.0
Ethyl methacrylate	Ave	1.553	1.613		10.4	10.0	3.8	35.0
1,1,2-Trichloroethane	Lin2		0.3532		10.8	10.0	7.7	20.0
Tetrachloroethene	Ave	1.965	2.257		11.5	10.0	14.9	20.0
1,3-Dichloropropane	Ave	1.967	2.087		10.6	10.0	6.1	20.0
2-Hexanone	Ave	0.5412	0.5718		42.3	40.0	5.6	20.0
Chlorodibromomethane	Ave	2.124	2.293		10.8	10.0	7.9	20.0
Ethylene Dibromide	Ave	1.438	1.569		10.9	10.0	9.1	20.0
1-Chlorohexane	Ave	2.933	3.255		11.1	10.0	11.0	35.0
Chlorobenzene	Ave	4.012	4.372	0.3000	10.9	10.0	9.0	20.0
1,1,1,2-Tetrachloroethane	Ave	2.001	2.178		10.9	10.0	8.8	20.0
Ethylbenzene	Ave	1.987	2.220		11.2	10.0	11.7	20.0
m-Xylene & p-Xylene	Ave	2.702	2.944		10.9	10.0	9.0	20.0
o-Xylene	Ave	2.357	2.588		11.0	10.0	9.8	20.0
Styrene	Ave	3.845	4.201		10.9	10.0	9.3	20.0
Bromoform	Ave	1.212	1.309	0.1000	10.8	10.0	8.0	20.0
Isopropylbenzene	Ave	4.165	4.425		10.6	10.0	6.2	20.0
Cyclohexanone	Ave	0.0208	0.0223		429	400	7.3	50.0
1,1,2,2-Tetrachloroethane	Ave	0.9431	0.8981	0.3000	9.52	10.0	-4.8	20.0
Bromobenzene	Ave	1.074	1.132		10.5	10.0	5.4	20.0
1,2,3-Trichloropropane	Ave	0.2089	0.2052		9.83	10.0	-1.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1913	0.1930		10.1	10.0	0.9	50.0
N-Propylbenzene	Ave	1.016	1.092		10.7	10.0	7.4	20.0
2-Chlorotoluene	Ave	0.8466	0.8376		9.89	10.0	-1.1	20.0
1,3,5-Trimethylbenzene	Ave	3.177	3.301		10.4	10.0	3.9	20.0
4-Chlorotoluene	Ave	1.018	1.080		10.6	10.0	6.1	20.0
tert-Butylbenzene	Ave	3.439	3.567		10.4	10.0	3.7	20.0
1,2,4-Trimethylbenzene	Ave	3.046	3.170		10.4	10.0	4.1	20.0
sec-Butylbenzene	Ave	0.9383	0.996		10.6	10.0	6.2	20.0
1,3-Dichlorobenzene	Ave	1.605	1.695		10.6	10.0	5.6	20.0
4-Isopropyltoluene	Ave	3.894	4.149		10.7	10.0	6.5	20.0
1,4-Dichlorobenzene	Ave	2.457	2.541		10.3	10.0	3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249165/2 Calibration Date: 10/23/2014 06:54

Instrument ID: VMS_H Calib Start Date: 10/22/2014 09:32

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 11:42

Lab File ID: H5828.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butylbenzene	Ave	3.923	4.180		10.7	10.0	6.5	20.0
1,2-Dichlorobenzene	Ave	1.651	1.745		10.6	10.0	5.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1658	0.1692		10.2	10.0	2.1	20.0
1,2,3-Trichlorobenzene	Ave	1.158	1.244		10.7	10.0	7.4	20.0
Hexachlorobutadiene	Ave	1.107	1.215		11.0	10.0	9.8	20.0
Naphthalene	Ave	1.337	1.310		9.80	10.0	-2.0	20.0
1,2,4-Trichlorobenzene	Ave	0.9354	1.000		10.7	10.0	7.0	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5828.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2014 06:54:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141023-28646.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 24-Oct-2014 14:36:24 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: moanm Date: 23-Oct-2014 07:36:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.990	3.990	0.000	96	197908	250.0	250.0	
* 2 Fluorobenzene	96	6.775	6.775	0.000	98	814759	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.128	11.128	0.000	89	220777	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.122	14.122	0.000	96	410363	12.5	12.5	
28 Dichlorodifluoromethane	85	2.197	2.197	0.000	98	466623	10.0	10.8	
30 Chloromethane	50	2.284	2.284	0.000	98	300729	10.0	10.7	
31 Butadiene	54	2.406	2.406	0.000	0	209826	NC	NC	
32 Vinyl chloride	62	2.423	2.423	0.000	97	288296	10.0	10.7	
35 Bromomethane	94	2.719	2.719	0.000	91	271601	10.0	10.5	
36 Chloroethane	64	2.771	2.771	0.000	99	182238	10.0	10.4	
37 Dichlorofluoromethane	67	2.963	2.963	0.000	96	665886	10.0	10.4	
38 Trichlorofluoromethane	101	3.067	3.067	0.000	99	623993	10.0	11.0	
40 Ethyl ether	59	3.224	3.224	0.000	94	139679	10.0	10.5	
44 Acrolein	56	3.381	3.381	0.000	98	63146	200.0	91.9	
45 1,1-Dichloroethene	96	3.485	3.485	0.000	96	275472	10.0	10.8	
46 1,1,2-Trichloro-1,2,2-trif	151	3.520	3.520	0.000	97	404994	10.0	11.3	
47 Acetone	43	3.520	3.520	0.000	33	86058	40.0	41.1	
48 Iodomethane	142	3.659	3.659	0.000	99	661326	10.0	10.7	
50 Carbon disulfide	76	3.746	3.746	0.000	99	951440	10.0	10.7	
52 3-Chloro-1-propene	41	3.833	3.833	0.000	90	490008	10.0	10.2	
53 Methyl acetate	43	3.851	3.851	0.000	97	464094	50.0	49.7	
54 Methylene Chloride	84	3.973	3.973	0.000	97	264970	10.0	10.3	
55 2-Methyl-2-propanol	59	4.077	4.077	0.000	92	80951	100.0	87.1	
57 Acrylonitrile	53	4.234	4.234	0.000	98	230975	100.0	99.9	
56 Methyl tert-butyl ether	73	4.251	4.251	0.000	91	497747	10.0	10.3	
58 trans-1,2-Dichloroethene	96	4.251	4.251	0.000	98	321107	10.0	10.8	
59 Hexane	57	4.512	4.512	0.000	94	446891	10.0	11.2	
60 1,1-Dichloroethane	63	4.704	4.704	0.000	96	574632	10.0	10.3	
61 Vinyl acetate	43	4.739	4.739	0.000	96	188717	40.0	19.2	
65 cis-1,2-Dichloroethene	96	5.383	5.383	0.000	83	337077	10.0	10.9	
67 2-Butanone (MEK)	43	5.383	5.383	0.000	76	175610	40.0	38.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.400	5.400	0.000	90	566919	10.0	11.4	
71 sec-Butyl Alcohol	45	5.592	5.592	0.000	95	285654	300.0	318.6	
73 Chlorobromomethane	128	5.679	5.679	0.000	97	155041	10.0	10.5	
74 Tetrahydrofuran	42	5.731	5.731	0.000	39	57735	20.0	17.8	
75 Chloroform	83	5.748	5.748	0.000	94	622253	10.0	10.4	
76 1,1,1-Trichloroethane	97	5.992	5.992	0.000	98	583400	10.0	11.0	
77 Cyclohexane	56	6.062	6.062	0.000	93	531435	10.0	10.5	
78 1,1-Dichloropropene	75	6.184	6.184	0.000	96	490976	10.0	10.7	
79 Carbon tetrachloride	117	6.201	6.201	0.000	96	556346	10.0	10.8	
80 Isobutyl alcohol	41	6.305	6.305	0.000	95	87423	250.0	247.5	
81 Benzene	78	6.445	6.445	0.000	96	952782	10.0	10.7	
82 1,2-Dichloroethane	62	6.462	6.462	0.000	96	251433	10.0	10.2	
84 n-Heptane	43	6.741	6.741	0.000	95	650541	10.0	10.9	
86 Trichloroethene	95	7.263	7.263	0.000	99	418987	10.0	10.1	
88 2-Pentanone	43	7.489	7.489	0.000	97	406753	40.0	39.9	
89 Methylcyclohexane	55	7.524	7.524	0.000	91	502313	10.0	11.1	
90 1,2-Dichloropropane	63	7.559	7.559	0.000	97	350299	10.0	9.84	
92 Dibromomethane	93	7.716	7.716	0.000	97	196621	10.0	9.93	
93 1,4-Dioxane	88	7.750	7.750	0.000	30	21237	200.0	245.8	
94 Dichlorobromomethane	83	7.925	7.925	0.000	99	577111	10.0	10.3	
96 2-Chloroethyl vinyl ether	63	8.308	8.308	0.000	92	63960	20.0	8.80	
100 trans-1,3-Dichloropropene	75	8.516	8.516	0.000	93	487346	10.0	10.7	
98 4-Methyl-2-pentanone (MIBK	43	8.743	8.743	0.000	96	611114	40.0	40.1	
99 Toluene	91	8.986	8.986	0.000	99	1123331	10.0	10.6	
97 cis-1,3-Dichloropropene	75	9.300	9.300	0.000	98	341794	10.0	10.5	
101 Ethyl methacrylate	69	9.439	9.439	0.000	89	284829	10.0	10.4	
102 1,1,2-Trichloroethane	97	9.578	9.578	0.000	89	230240	10.0	10.8	
103 Tetrachloroethene	164	9.787	9.787	0.000	98	398719	10.0	11.5	
104 1,3-Dichloropropane	76	9.822	9.822	0.000	89	368670	10.0	10.6	
105 2-Hexanone	43	9.944	9.944	0.000	98	403953	40.0	42.3	
108 Chlorodibromomethane	129	10.170	10.170	0.000	90	404925	10.0	10.8	
109 Ethylene Dibromide	107	10.362	10.362	0.000	98	277171	10.0	10.9	
110 1-Chlorohexane	91	11.128	11.128	0.000	97	574861	10.0	11.1	
111 Chlorobenzene	112	11.163	11.163	0.000	92	772125	10.0	10.9	
112 1,1,1,2-Tetrachloroethane	131	11.302	11.302	0.000	95	384641	10.0	10.9	
113 Ethylbenzene	106	11.337	11.337	0.000	98	392131	10.0	11.2	
114 m-Xylene & p-Xylene	106	11.511	11.511	0.000	0	520004	10.0	10.9	
115 o-Xylene	106	12.085	12.085	0.000	98	457127	10.0	11.0	
116 Styrene	104	12.120	12.120	0.000	95	741913	10.0	10.9	
117 Bromoform	173	12.364	12.364	0.000	95	231132	10.0	10.8	
118 Isopropylbenzene	105	12.590	12.590	0.000	96	1452524	10.0	10.6	
120 Cyclohexanone	55	12.730	12.730	0.000	90	157549	400.0	429.1	
121 1,1,2,2-Tetrachloroethane	83	12.973	12.973	0.000	94	294820	10.0	9.52	
122 Bromobenzene	156	12.973	12.973	0.000	94	371677	10.0	10.5	
123 1,2,3-Trichloropropane	110	13.026	13.026	0.000	79	67369	10.0	9.83	
124 trans-1,4-Dichloro-2-buten	53	13.043	13.043	0.000	64	63372	10.0	10.1	
125 N-Propylbenzene	120	13.113	13.113	0.000	99	358421	10.0	10.7	
126 2-Chlorotoluene	126	13.200	13.200	0.000	97	274963	10.0	9.89	
127 1,3,5-Trimethylbenzene	105	13.321	13.321	0.000	94	1083666	10.0	10.4	
128 4-Chlorotoluene	126	13.339	13.339	0.000	98	354709	10.0	10.6	
129 tert-Butylbenzene	119	13.687	13.687	0.000	93	1171026	10.0	10.4	
130 1,2,4-Trimethylbenzene	105	13.739	13.739	0.000	94	1040790	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.931	13.931	0.000	94	327004	10.0	10.6	
132 1,3-Dichlorobenzene	146	14.053	14.053	0.000	97	556508	10.0	10.6	
133 4-Isopropyltoluene	119	14.087	14.087	0.000	97	1361915	10.0	10.7	
134 1,4-Dichlorobenzene	146	14.157	14.157	0.000	95	834322	10.0	10.3	
137 n-Butylbenzene	91	14.523	14.523	0.000	98	1372108	10.0	10.7	
138 1,2-Dichlorobenzene	146	14.558	14.558	0.000	97	572769	10.0	10.6	
139 1,2-Dibromo-3-Chloropropan	157	15.341	15.341	0.000	90	55544	10.0	10.2	
144 1,2,3-Trichlorobenzene	180	16.090	16.090	0.000	95	408254	10.0	10.7	
142 Hexachlorobutadiene	225	16.246	16.246	0.000	97	399008	10.0	11.0	
143 Naphthalene	128	16.316	16.316	0.000	97	430059	10.0	9.80	
141 1,2,4-Trichlorobenzene	180	16.542	16.542	0.000	95	328429	10.0	10.7	
S 151 1,2-Dichloroethene, Total	96				0		20.0	21.7	
S 145 Trihalomethanes, Total	1				0		40.0	42.3	
S 146 Xylenes, Total (URS)	1				0		20.0	21.9	
S 148 1,3-Dichloropropene, Total	1				0		20.0	21.2	
S 149 1,2-Dichloroethene, Total	1				0		20.0	21.7	
S 150 Xylenes, Total	106				0		20.0	21.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-2cleve+AVA_00005	Amount Added:	10.00	Units: uL
MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00018	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00028	Amount Added:	5.00	Units: uL

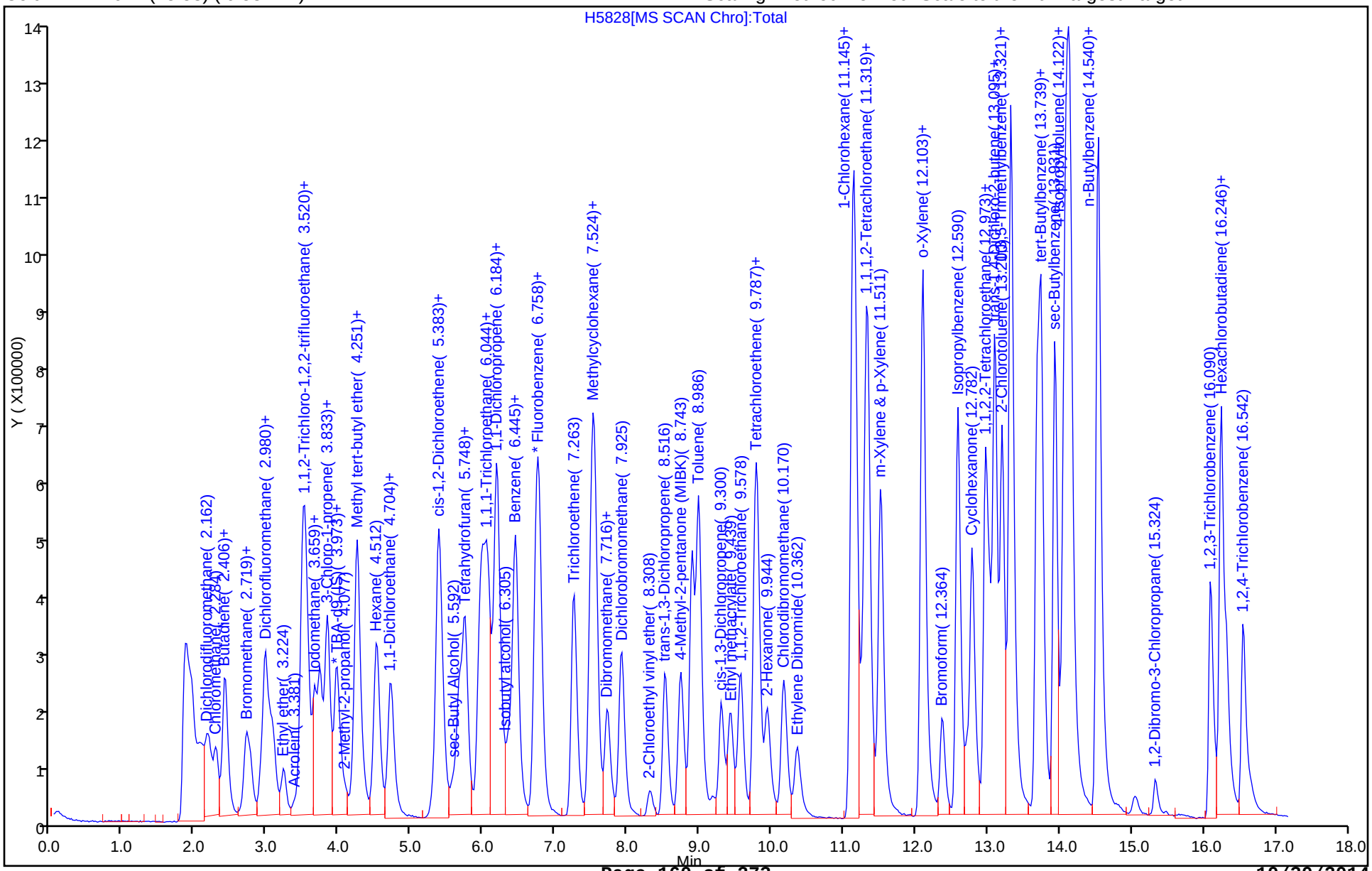
Report Date: 24-Oct-2014 14:36:24 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5828.D

Injection Date:	23-Oct-2014 06:54:30	Instrument ID:	VMS_H	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249165/3 Calibration Date: 10/23/2014 07:16

Instrument ID: VMS_H Calib Start Date: 08/25/2014 12:58

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 08/25/2014 14:47

Lab File ID: H5829.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Ave	0.0008	0.0005			500	-32.3	50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5829.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2014 07:16:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\Denchrom\ChromData\VMS_H\20141023-28646.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 24-Oct-2014 14:36:24 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: moanm Date: 24-Oct-2014 14:21:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.996	3.996	0.000	96	155395	250.0	250.0	
* 2 Fluorobenzene	96	6.782	6.782	0.000	99	783418	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	90	229332	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.128	14.128	0.000	96	391173	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.946	5.946	0.000	93	432054	9.25	9.47	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.381	6.381	0.000	83	191437	9.25	9.06	
$ 10 Toluene-d8 (Surr)	98	8.906	8.906	0.000	93	919248	9.25	9.64	
$ 11 4-Bromofluorobenzene (Surr	95	12.788	12.788	0.000	86	492895	9.25	9.35	
34 Ethylene oxide	43	2.690	2.690	0.000	99	924223	2000.0	2157.1	
39 Ethanol	45	3.195	3.195	0.000	90	17050	NC	NC	
43 Propene oxide	58	3.317	3.317	0.000	96	1043699	500.0	548.8	
49 Isopropyl alcohol	45		3.662					ND	
51 Acetonitrile	41	3.839	3.839	0.000	37	36891	100.0	70.5	
62 Isopropyl ether	87	4.762	4.762	0.000	98	252423	10.0	11.1	
63 2-Chloro-1,3-butadiene	53	4.814	4.814	0.000	89	470606	10.0	11.3	
64 Tert-butyl ethyl ether	59	5.180	5.180	0.000	99	857186	10.0	10.5	
69 Ethyl acetate	43	5.441	5.441	0.000	99	104257	20.0	22.3	
70 Propionitrile	54	5.476	5.476	0.000	95	81055	100.0	100.0	
72 Methacrylonitrile	41	5.650	5.650	0.000	93	643728	100.0	108.9	
83 Tert-amyl methyl ether	73	6.573	6.573	0.000	98	735337	10.0	10.9	
85 n-Butanol	56	7.182	7.182	0.000	89	50537	250.0	217.4	
87 Ethyl acrylate	55	7.687	7.687	0.000	0	17228	NC	NC	
91 Methyl methacrylate	100	7.687	7.687	0.000	95	94142	20.0	19.5	
95 2-Nitropropane	41	8.227	8.227	0.000	96	53049	20.0	21.6	
107 Tetrahydrothiophene	60	10.142	10.142	0.000	88	111889	10.0	11.0	
119 cis-1,4-Dichloro-2-butene	53	12.683	12.683	0.000	0	57887	10.0	11.1	
135 1,2,3-Trimethylbenzene	105	14.215	14.215	0.000	97	986238	10.0	11.1	
140 1,3,5-Trichlorobenzene	180	15.521	15.521	0.000	97	542703	10.0	11.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

MV-Supp A_00009	Amount Added:	5.00	Units: uL	
MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

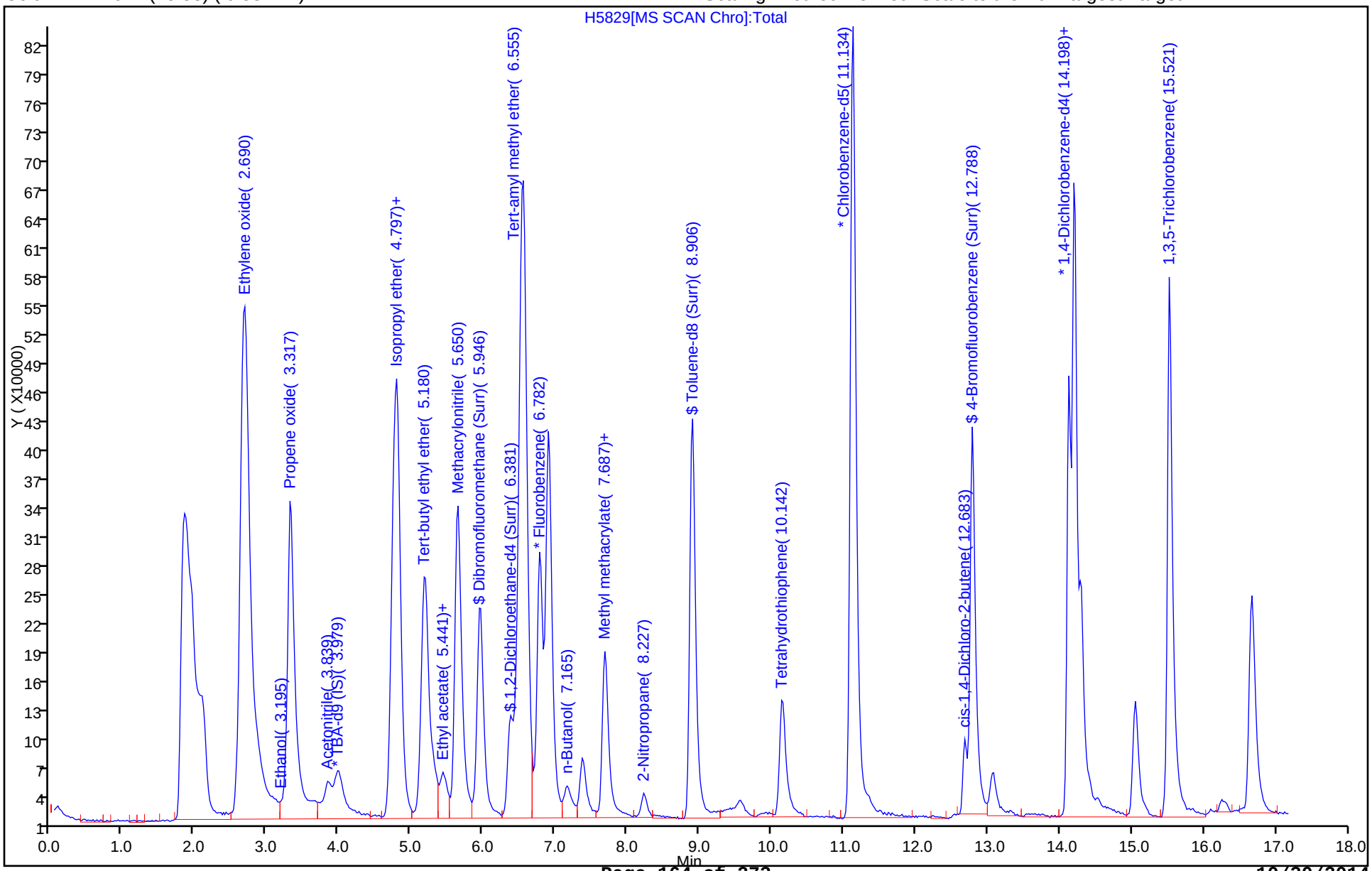
Report Date: 24-Oct-2014 14:36:25 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5829.D

Injection Date:	23-Oct-2014 07:16:30	Instrument ID:	VMS_H	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249165/3 Calibration Date: 10/23/2014 07:16

Instrument ID: VMS_H Calib Start Date: 10/22/2014 12:47

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 14:35

Lab File ID: H5829.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0084	0.0059		70.5	100	-29.5	50.0
Isopropyl ether	Ave	0.3617	0.4028		11.1	10.0	11.4	35.0
2-Chloro-1,3-butadiene	Ave	0.6629	0.7509		11.3	10.0	13.3	35.0
Tert-butyl ethyl ether	Ave	1.298	1.368		10.5	10.0	5.4	35.0
Ethyl acetate	Ave	0.0745	0.0832		22.3	20.0	11.7	50.0
Propionitrile	Ave	0.0129	0.0129		100	100	-0.0	50.0
Methacrylonitrile	Ave	0.0943	0.1027		109	100	8.9	50.0
Tert-amyl methyl ether	Ave	1.073	1.173		10.9	10.0	9.3	35.0
Methyl methacrylate	Ave	0.0769	0.0751		19.5	20.0	-2.4	35.0
2-Nitropropane	Ave	0.0393	0.0423		21.6	20.0	7.8	50.0
cis-1,4-Dichloro-2-butene	Ave	0.1667	0.1850		11.1	10.0	11.0	50.0
Isopropyl alcohol	Lin2				32.0	100	-100.0*	50.0
Dibromofluoromethane (Surr)	Ave	0.7276	0.7453		9.47	9.25	2.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3371	0.3302		9.06	9.25	-2.0	20.0
Toluene-d8 (Surr)	Ave	5.196	5.417		9.64	9.25	4.3	20.0
4-Bromofluorobenzene (Surr)	Ave	1.685	1.703		9.35	9.25	1.1	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5829.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2014 07:16:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\Denchrom\ChromData\VMS_H\20141023-28646.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 24-Oct-2014 14:36:24 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: moanm Date: 24-Oct-2014 14:21:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.996	3.996	0.000	96	155395	250.0	250.0	
* 2 Fluorobenzene	96	6.782	6.782	0.000	99	783418	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	90	229332	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.128	14.128	0.000	96	391173	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.946	5.946	0.000	93	432054	9.25	9.47	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.381	6.381	0.000	83	191437	9.25	9.06	
$ 10 Toluene-d8 (Surr)	98	8.906	8.906	0.000	93	919248	9.25	9.64	
$ 11 4-Bromofluorobenzene (Surr	95	12.788	12.788	0.000	86	492895	9.25	9.35	
34 Ethylene oxide	43	2.690	2.690	0.000	99	924223	2000.0	2157.1	
39 Ethanol	45	3.195	3.195	0.000	90	17050	NC	NC	
43 Propene oxide	58	3.317	3.317	0.000	96	1043699	500.0	548.8	
49 Isopropyl alcohol	45		3.662					ND	
51 Acetonitrile	41	3.839	3.839	0.000	37	36891	100.0	70.5	
62 Isopropyl ether	87	4.762	4.762	0.000	98	252423	10.0	11.1	
63 2-Chloro-1,3-butadiene	53	4.814	4.814	0.000	89	470606	10.0	11.3	
64 Tert-butyl ethyl ether	59	5.180	5.180	0.000	99	857186	10.0	10.5	
69 Ethyl acetate	43	5.441	5.441	0.000	99	104257	20.0	22.3	
70 Propionitrile	54	5.476	5.476	0.000	95	81055	100.0	100.0	
72 Methacrylonitrile	41	5.650	5.650	0.000	93	643728	100.0	108.9	
83 Tert-amyl methyl ether	73	6.573	6.573	0.000	98	735337	10.0	10.9	
85 n-Butanol	56	7.182	7.182	0.000	89	50537	250.0	217.4	
87 Ethyl acrylate	55	7.687	7.687	0.000	0	17228	NC	NC	
91 Methyl methacrylate	100	7.687	7.687	0.000	95	94142	20.0	19.5	
95 2-Nitropropane	41	8.227	8.227	0.000	96	53049	20.0	21.6	
107 Tetrahydrothiophene	60	10.142	10.142	0.000	88	111889	10.0	11.0	
119 cis-1,4-Dichloro-2-butene	53	12.683	12.683	0.000	0	57887	10.0	11.1	
135 1,2,3-Trimethylbenzene	105	14.215	14.215	0.000	97	986238	10.0	11.1	
140 1,3,5-Trichlorobenzene	180	15.521	15.521	0.000	97	542703	10.0	11.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

MV-Supp A_00009	Amount Added:	5.00	Units: uL	
MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

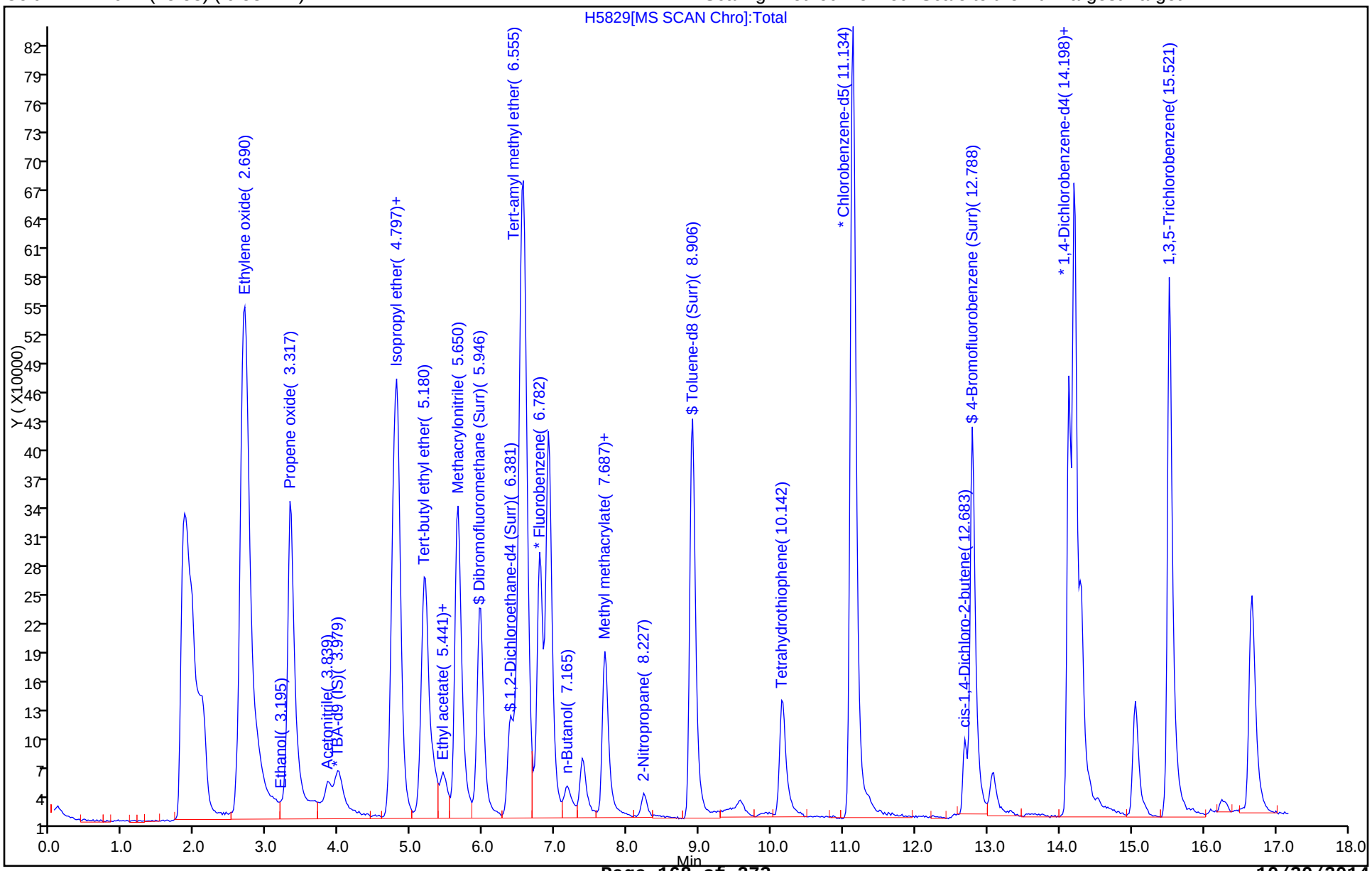
Report Date: 24-Oct-2014 14:36:25 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5829.D

Injection Date:	23-Oct-2014 07:16:30	Instrument ID:	VMS_H	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5774.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	22-Oct-2014 08:13:30	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Operator ID:	wickhamt	Instrument ID:	VMS_H		
Method:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\AQ_VMSH_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	22-Oct-2014 18:52:05	Calib Date:	22-Oct-2014 14:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK005				
First Level Reviewer: linesj		Date:	22-Oct-2014 18:48:12		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.476	2.476	0.000	79	104811	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

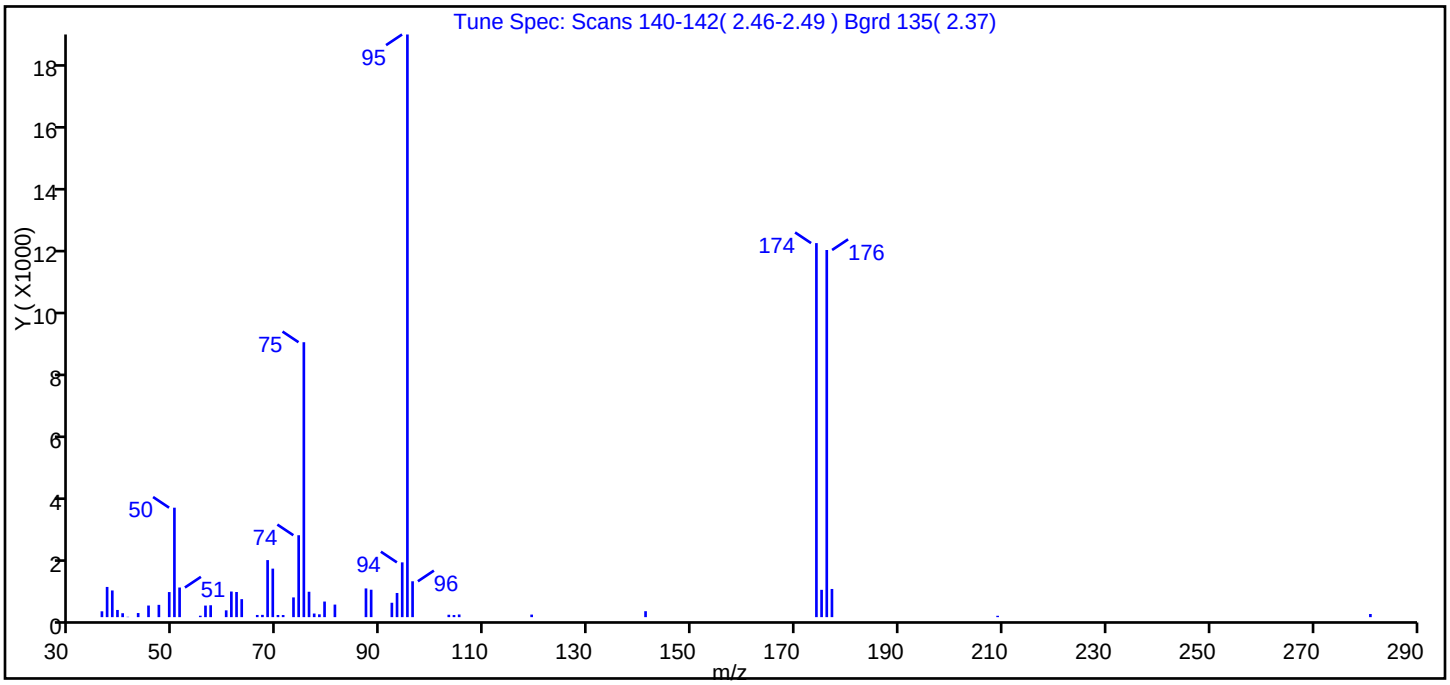
Reagents:

MV-BFB_00015 Amount Added: 1.00 Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5774.D
Injection Date: 22-Oct-2014 08:13:30 Instrument ID: VMS_H
Lims ID: BFB
Client ID:
Operator ID: wickhamt ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.80
75	30.00 - 60.00% of mass 95	47.20
96	5.00 - 9.00% of mass 95	6.20
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	64.20
175	5.00 - 9.00% of mass 174	4.70 (7.30)
176	95.00 - 101.00% of mass 174	63.00 (98.20)
177	5.00 - 9.00% of mass 176	4.80 (7.70)

Data File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5774.D\AQ_VMSH_8260.rslt\spectra.d
Injection Date: 22-Oct-2014 08:13:30
Spectrum: Tune Spec: Scans 140-142(2.46-2.49) Bgrd 135(2.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 51

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	185	56.00	366	74.00	2590	96.00	1134
37.00	955	57.00	376	75.00	8693	103.00	76
38.00	844	60.00	215	76.00	803	104.00	67
39.00	227	61.00	810	77.00	114	105.00	84
40.00	124	62.00	795	78.00	89	119.00	81
41.00	11	63.00	569	79.00	493	141.00	188
43.00	130	66.00	69	81.00	397	174.00	11827
45.00	367	67.00	72	87.00	908	175.00	864
47.00	389	68.00	1804	88.00	867	176.00	11609
49.00	793	69.00	1534	92.00	455	177.00	891
50.00	3461	70.00	68	93.00	764	209.00	43
51.00	937	71.00	67	94.00	1732	281.00	99
55.00	45	73.00	624	95.00	18424		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5826.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 23-Oct-2014 06:19:30 ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: bfb
Operator ID: moanm Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141023-28646.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 24-Oct-2014 14:36:23 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK001

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.482	2.482	0.000	80	127202	NR	NR	7

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
7 - Failed Limit of Detection

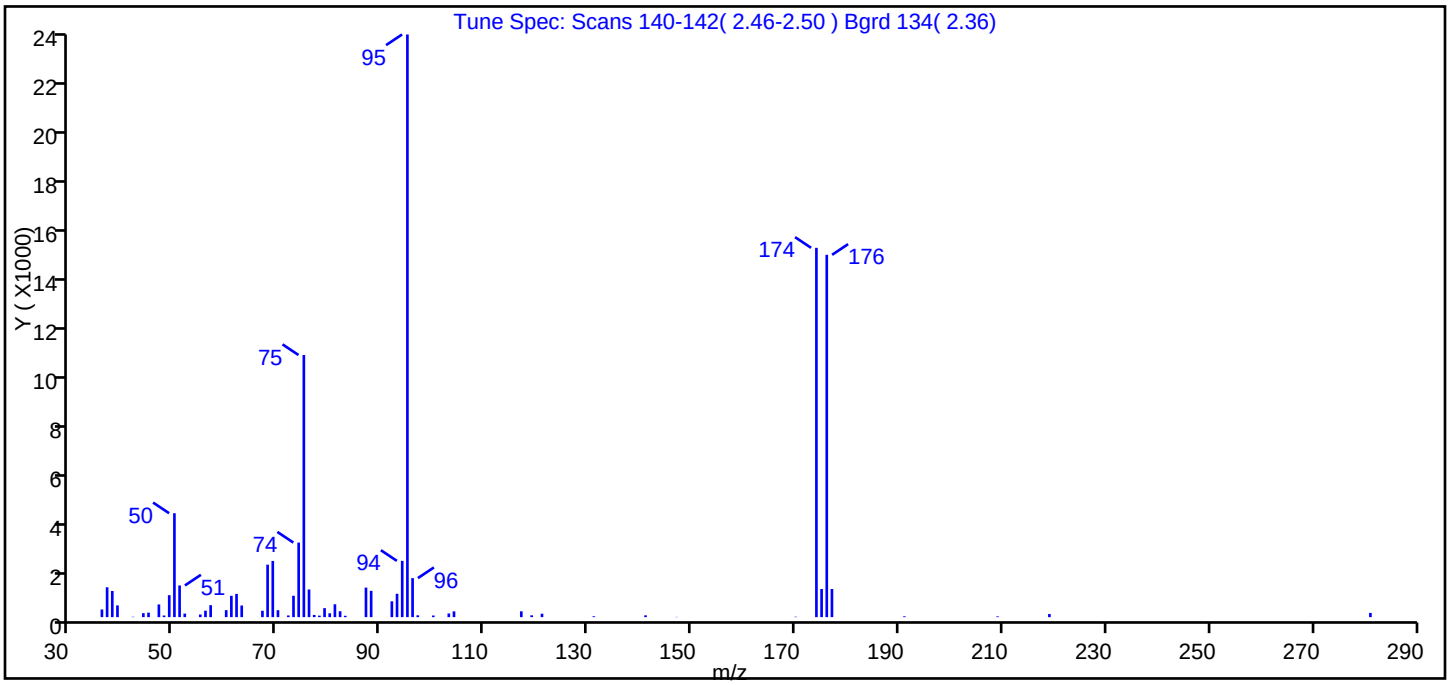
Reagents:

MV-BFB_00015 Amount Added: 1.00 Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5826.D
Injection Date: 23-Oct-2014 06:19:30 Instrument ID: VMS_H
Lims ID: BFB
Client ID:
Operator ID: moanm ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.80
75	30.00 - 60.00% of mass 95	45.00
96	5.00 - 9.00% of mass 95	6.70
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	63.40
175	5.00 - 9.00% of mass 174	4.80 (7.60)
176	95.00 - 101.00% of mass 174	62.20 (98.10)
177	5.00 - 9.00% of mass 176	4.80 (7.80)

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5826.D\AQ_VMSH_8260.rslt\spectra.d
Injection Date: 23-Oct-2014 06:19:30
Spectrum: Tune Spec: Scans 140-142(2.46-2.50) Bgrd 134(2.36)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 62

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	314	60.00	288	80.00	158	119.00	75
37.00	1225	61.00	875	81.00	528	121.00	140
38.00	1072	62.00	953	82.00	243	131.00	35
39.00	481	63.00	477	83.00	56	141.00	74
42.00	15	67.00	262	87.00	1211	147.00	9
44.00	163	68.00	2152	88.00	1079	170.00	17
45.00	183	69.00	2306	92.00	650	174.00	15146
47.00	520	70.00	285	93.00	959	175.00	1155
48.00	67	72.00	69	94.00	2308	176.00	14860
49.00	901	73.00	877	95.00	23896	177.00	1155
50.00	4262	74.00	3058	96.00	1601	191.00	33
51.00	1299	75.00	10750	97.00	75	209.00	30
52.00	146	76.00	1135	100.00	67	219.00	127
55.00	107	77.00	90	103.00	150	281.00	173
56.00	264	78.00	62	104.00	237		
57.00	491	79.00	370	117.00	239		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-61445-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-249165/6

Matrix: Water | Lab File ID: H5831.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/23/2014 07:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 249165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.40	U	1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	0.20	U	1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.8	U	3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	0.40	U	1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	0.40	U	1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	0.40	U	1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.40	U	1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.20	U	1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	0.20	U	1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	0.40	U	1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	80	U	220	80	71
544-10-5	1-Chlorohexane	0.20	U	1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	3.2	U	6.0	3.2	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	3.2	U	5.0	3.2	1.4
106-43-4	4-Chlorotoluene	0.40	U	1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.20	U	1.0	0.20	0.16
108-86-1	Bromobenzene	0.20	U	1.0	0.20	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.40	U	2.0	0.40	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-61445-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-249165/6

Matrix: Water | Lab File ID: H5831.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/23/2014 07:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 249165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.20	U	1.0	0.20	0.17
74-97-5	Chlorobromomethane	0.40	U	1.0	0.40	0.10
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.20	U	1.0	0.20	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.0	0.20	0.16
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.20	U	1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.20	U	1.0	0.20	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.40	U	1.0	0.40	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	0.40	U	5.0	0.40	0.25
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.40	U	1.0	0.40	0.32
103-65-1	N-Propylbenzene	0.20	U	1.0	0.20	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.20	U	1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.40	U	1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 280-249165/6

Matrix: Water Lab File ID: H5831.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 10/23/2014 07:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 249165 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		70-120
460-00-4	4-Bromofluorobenzene (Surr)	104		75-120
1868-53-7	Dibromofluoromethane (Surr)	102		85-115
2037-26-5	Toluene-d8 (Surr)	105		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5831.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 23-Oct-2014 07:59:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: moanm Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141023-28646.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 13:35:43 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: phakdeer Date: 27-Oct-2014 13:35:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.996	3.996	0.000	97	156248	250.0	250.0	
* 2 Fluorobenzene	96	6.781	6.782	-0.001	98	782604	12.5	12.5	
* 3 1,4-Dioxane-d8	96		8.670					0	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	87	227519	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.128	14.128	0.000	96	386368	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.946	5.946	0.000	93	429490	9.25	9.43	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.363	6.381	-0.018	83	186540	9.25	8.84	
$ 10 Toluene-d8 (Surr)	98	8.905	8.906	-0.001	93	919934	9.25	9.73	
$ 11 4-Bromofluorobenzene (Surr	95	12.788	12.788	0.000	85	498610	9.25	9.58	
$ 152 Trifluorotoluene (Surr)	1		0.000					ND	
$ 7 BFB	95	2.394	2.482	-0.088	0	676		NR	7
27 Chlorotrifluoroethene	116		2.148					ND	
28 Dichlorodifluoromethane	85		2.197					ND	
30 Chloromethane	50		2.284					ND	
29 1,2-Dichloro-1,1,2,2-tetra	85		2.322					ND	
31 Butadiene	54		2.406					ND	
32 Vinyl chloride	62		2.423					ND	
33 2-Chloro-1,1,1-Trifluoroet	118		2.479					ND	
34 Ethylene oxide	43		2.690					ND	
35 Bromomethane	94		2.719					ND	
36 Chloroethane	64		2.771					ND	
37 Dichlorofluoromethane	67		2.963					ND	
38 Trichlorofluoromethane	101		3.067					ND	
39 Ethanol	45		3.195					ND	
40 Ethyl ether	59		3.224					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		3.280					ND	
43 Propene oxide	58		3.317					ND	
42 1,1,1-Trifluoro-2,2-dichlo	83		3.332					ND	
44 Acrolein	56		3.381					ND	
45 1,1-Dichloroethene	96		3.485					ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.520					ND	
47 Acetone	43		3.520					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
48 Iodomethane	142		3.659					ND	
49 Isopropyl alcohol	45		3.662					ND	
50 Carbon disulfide	76		3.746					ND	
52 3-Chloro-1-propene	41		3.833					ND	
51 Acetonitrile	41		3.839					ND	
53 Methyl acetate	43		3.851					ND	
54 Methylene Chloride	84		3.973					0	
55 2-Methyl-2-propanol	59		4.077					ND	
57 Acrylonitrile	53		4.234					ND	
56 Methyl tert-butyl ether	73		4.251					ND	
58 trans-1,2-Dichloroethene	96		4.251					ND	
59 Hexane	57		4.512					ND	
60 1,1-Dichloroethane	63		4.704					ND	
61 Vinyl acetate	43		4.739					ND	
62 Isopropyl ether	87		4.762					ND	
63 2-Chloro-1,3-butadiene	53		4.814					ND	
64 Tert-butyl ethyl ether	59		5.180					ND	
65 cis-1,2-Dichloroethene	96		5.383					ND	
67 2-Butanone (MEK)	43		5.383					ND	
66 2,2-Dichloropropane	77		5.400					ND	
69 Ethyl acetate	43		5.441					ND	
70 Propionitrile	54		5.476					ND	
71 sec-Butyl Alcohol	45		5.592					ND	
72 Methacrylonitrile	41		5.650					ND	
73 Chlorobromomethane	128		5.679					ND	
74 Tetrahydrofuran	42		5.731					ND	
75 Chloroform	83		5.748					ND	
76 1,1,1-Trichloroethane	97		5.992					ND	
77 Cyclohexane	56		6.062					ND	
78 1,1-Dichloropropene	75		6.184					ND	
79 Carbon tetrachloride	117		6.201					ND	
80 Isobutyl alcohol	41		6.305					ND	
81 Benzene	78		6.445					ND	
82 1,2-Dichloroethane	62		6.462					ND	
83 Tert-amyl methyl ether	73		6.573					ND	
84 n-Heptane	43		6.741					0	
85 n-Butanol	56		7.182					ND	
86 Trichloroethene	95		7.263					ND	
88 2-Pentanone	43		7.489					ND	
89 Methylcyclohexane	55		7.524					ND	
90 1,2-Dichloropropane	63		7.559					ND	
87 Ethyl acrylate	55	7.669	7.687	-0.018	0	543		NC	
91 Methyl methacrylate	100		7.687					ND	
92 Dibromomethane	93		7.716					ND	
93 1,4-Dioxane	88		7.750					ND	
94 Dichlorobromomethane	83		7.925					ND	
95 2-Nitropropane	41		8.227					ND	
96 2-Chloroethyl vinyl ether	63		8.308					ND	
100 trans-1,3-Dichloropropene	75		8.516					ND	
98 4-Methyl-2-pentanone (MIBK	43		8.743					ND	
99 Toluene	91		8.986					ND	
97 cis-1,3-Dichloropropene	75		9.300					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 Ethyl methacrylate	69		9.439					ND	
102 1,1,2-Trichloroethane	97		9.578					ND	
103 Tetrachloroethene	164		9.787					ND	
104 1,3-Dichloropropane	76		9.822					0	
105 2-Hexanone	43		9.944					ND	
107 Tetrahydrothiophene	60		10.142					ND	
108 Chlorodibromomethane	129		10.170					ND	
106 n-Butyl acetate	43		10.226					ND	
109 Ethylene Dibromide	107		10.362					ND	
110 1-Chlorohexane	91		11.128					0	
111 Chlorobenzene	112		11.163					ND	
112 1,1,1,2-Tetrachloroethane	131		11.302					ND	
113 Ethylbenzene	106		11.337					ND	
114 m-Xylene & p-Xylene	106		11.511					ND	
115 o-Xylene	106		12.085					ND	
116 Styrene	104		12.120					ND	
117 Bromoform	173		12.364					ND	
118 Isopropylbenzene	105		12.590					0	
119 cis-1,4-Dichloro-2-butene	53		12.683					ND	
120 Cyclohexanone	55		12.730					ND	
121 1,1,2,2-Tetrachloroethane	83		12.973					ND	
122 Bromobenzene	156		12.973					ND	
123 1,2,3-Trichloropropane	110		13.026					ND	
124 trans-1,4-Dichloro-2-buten	53		13.043					ND	
125 N-Propylbenzene	120		13.113					ND	
126 2-Chlorotoluene	126		13.200					ND	
127 1,3,5-Trimethylbenzene	105		13.321					ND	
128 4-Chlorotoluene	126		13.339					ND	
129 tert-Butylbenzene	119		13.687					ND	
130 1,2,4-Trimethylbenzene	105		13.739					ND	
131 sec-Butylbenzene	134		13.931					ND	
22 Pentachloroethane	167		13.936					ND	
132 1,3-Dichlorobenzene	146		14.053					ND	
133 4-Isopropyltoluene	119		14.087					ND	
134 1,4-Dichlorobenzene	146		14.157					0	
135 1,2,3-Trimethylbenzene	105		14.215					ND	
136 Benzyl chloride	126		14.352					ND	
137 n-Butylbenzene	91		14.523					0	
138 1,2-Dichlorobenzene	146		14.558					0	
139 1,2-Dibromo-3-Chloropropan	157		15.341					ND	
140 1,3,5-Trichlorobenzene	180		15.521					ND	
144 1,2,3-Trichlorobenzene	180		16.090					0	
142 Hexachlorobutadiene	225		16.246					0	
143 Naphthalene	128		16.316					ND	
141 1,2,4-Trichlorobenzene	180		16.542					0	
159 4-Ethyltoluene	1		0.000					ND	
12 3-Ethylpentane	1		0.000					ND	
21 2,4-Dimethylpentane	1		0.000					ND	
15 Dimethyl disulfide	1		0.000					ND	
14 2-Butoxyethanol TIC	1		0.000					ND	
23 2-Methylhexane	1		0.000					ND	
24 3-Methylhexane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
17 2,2,3-Trimethylbutane	1		0.000					ND	
157 Propene	1		0.000					ND	
20 2-Methylnaphthalene	142		0.000					ND	
13 n-Nonyl Aldehyde	1		0.000					ND	
19 2,3-Dimethylpentane	1		0.000					ND	
18 2,2-Dimethylpentane	1		0.000					ND	
16 3,3-Dimethylpentane	1		0.000					ND	
158 Dicyclopentadiene	1		0.000					ND	
25 Dichloroacetonitrile TIC	74		1.000					ND	
26 2,3-dichloro-1-propene TIC	75		1.000					ND	
68 Propene oxide TIC	58		5.334					ND	
S 151 1,2-Dichloroethene, Total	96		2.000					0	
S 145 Trihalomethanes, Total	1		0.000					0	
S 146 Xylenes, Total (URS)	1		0.000					0	
S 147 Total BTEX	1		0.000					0	
S 148 1,3-Dichloropropene, Total	1		0.000					0	
S 149 1,2-Dichloroethene, Total	1		0.000					0	
S 150 Xylenes, Total	106		0.000					0	
S 160 TAH	1				0			0	
T 153 Propene TIC	1		0.000					0	
T 155 4-Ethyltoluene TIC	1		0.000					0	
T 154 Dicyclopentadiene TIC	1		0.000					0	
T 156 1,3-Butadiene TIC	1		0.000					0	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard
NC - Not Calibrated
ND - Not Detected or Marked ND
7 - Failed Limit of Detection

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

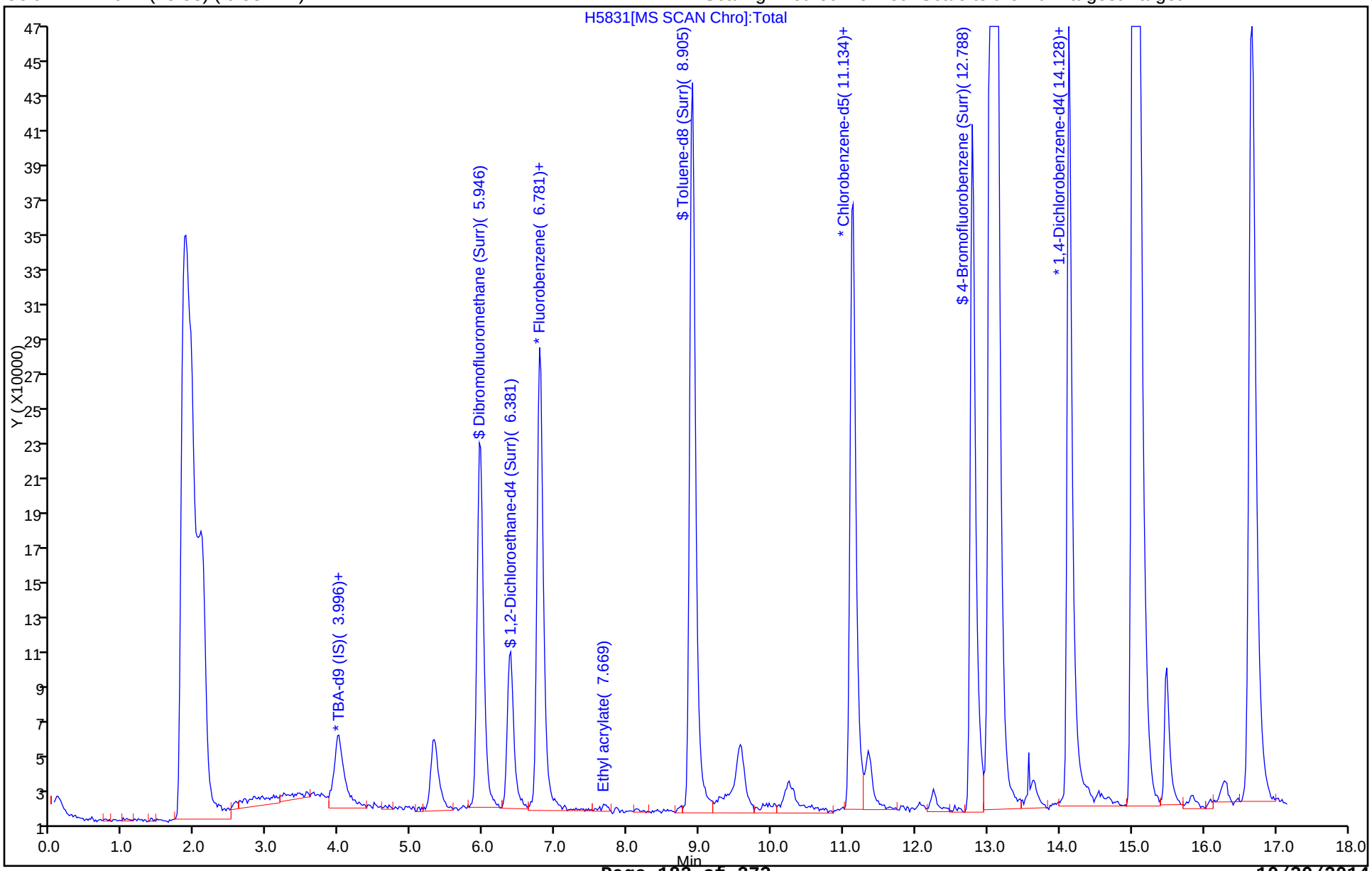
Report Date: 27-Oct-2014 13:35:47 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5831.D

Injection Date:	23-Oct-2014 07:59:30	Instrument ID:	VMS_H	Operator ID:	moanm
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-249165/4

Matrix: Water Lab File ID: H5830.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 10/23/2014 07:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 249165 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	5.42		1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	5.52		1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.87		1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.01		3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	4.83		1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	5.31		1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	5.79		1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	5.72		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	5.54		1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	5.09		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	5.40		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	5.22		1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	5.13		5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	5.29		1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	4.96		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.79		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	5.28		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	5.50		1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	5.09		1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	5.11		1.0	0.40	0.16
123-91-1	1,4-Dioxane	82.5	J	220	80	71
544-10-5	1-Chlorohexane	5.43		1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	5.51		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	22.0		6.0	3.2	1.8
95-49-8	2-Chlorotoluene	5.07		1.0	0.40	0.17
591-78-6	2-Hexanone	23.6		5.0	3.2	1.4
106-43-4	4-Chlorotoluene	5.36		1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	5.31		1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	22.3		5.0	3.2	1.0
67-64-1	Acetone	21.9		10	6.4	1.9
71-43-2	Benzene	5.40		1.0	0.20	0.16
108-86-1	Bromobenzene	5.27		1.0	0.20	0.17
75-25-2	Bromoform	5.30		1.0	0.40	0.19
74-83-9	Bromomethane	5.46		2.0	0.40	0.21
75-15-0	Carbon disulfide	5.52		2.0	0.80	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-61445-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-249165/4

Matrix: Water | Lab File ID: H5830.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/23/2014 07:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 249165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	5.53		2.0	0.40	0.19
108-90-7	Chlorobenzene	5.38		1.0	0.20	0.17
74-97-5	Chlorobromomethane	5.12		1.0	0.40	0.10
124-48-1	Chlorodibromomethane	5.13		1.0	0.40	0.17
75-00-3	Chloroethane	5.57		2.0	1.6	0.41
67-66-3	Chloroform	5.14		1.0	0.20	0.16
74-87-3	Chloromethane	5.55		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	5.33		1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	5.40		1.0	0.20	0.16
110-82-7	Cyclohexane	5.34		2.0	0.40	0.28
74-95-3	Dibromomethane	4.63		1.0	0.40	0.17
75-27-4	Dichlorobromomethane	4.90		1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	5.81		2.0	0.80	0.31
100-41-4	Ethylbenzene	5.51		1.0	0.20	0.16
106-93-4	Ethylene Dibromide	5.21		1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	5.78		1.0	0.40	0.36
98-82-8	Isopropylbenzene	5.26		1.0	0.40	0.19
79-20-9	Methyl acetate	25.3		5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	5.17		5.0	0.40	0.25
108-87-2	Methylcyclohexane	5.31		2.0	0.40	0.36
75-09-2	Methylene Chloride	5.06		5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	5.30		2.0	0.80	0.34
91-20-3	Naphthalene	4.97		1.0	0.80	0.22
104-51-8	n-Butylbenzene	5.34		1.0	0.40	0.32
103-65-1	N-Propylbenzene	5.39		1.0	0.20	0.16
95-47-6	o-Xylene	5.35		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	5.45		1.0	0.40	0.17
100-42-5	Styrene	5.20		1.0	0.40	0.17
98-06-6	tert-Butylbenzene	5.24		1.0	0.40	0.16
127-18-4	Tetrachloroethene	5.52		1.0	0.40	0.20
108-88-3	Toluene	5.29		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	5.52		1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	5.19		1.0	0.40	0.19
79-01-6	Trichloroethene	4.97		1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	5.51		2.0	0.80	0.29
75-01-4	Vinyl chloride	5.41		1.5	0.40	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-249165/4

Matrix: Water Lab File ID: H5830.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 10/23/2014 07:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 249165 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		70-120
460-00-4	4-Bromofluorobenzene (Surr)	95		75-120
1868-53-7	Dibromofluoromethane (Surr)	98		85-115
2037-26-5	Toluene-d8 (Surr)	110		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5830.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 23-Oct-2014 07:38:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: moanm Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141023-28646.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 24-Oct-2014 14:36:24 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: moanm Date: 24-Oct-2014 14:22:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.013	3.996	0.017	94	180442	250.0	250.0	
* 2 Fluorobenzene	96	6.781	6.782	-0.001	97	793432	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	88	216563	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.128	14.128	0.000	97	397454	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.946	5.946	0.000	93	419828	9.25	9.09	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.381	6.381	0.000	82	189995	9.25	8.88	
$ 10 Toluene-d8 (Surr)	98	8.905	8.906	-0.001	93	913450	9.25	10.1	
$ 11 4-Bromofluorobenzene (Surr	95	12.788	12.788	0.000	85	470158	9.25	8.78	
28 Dichlorodifluoromethane	85	2.203	2.197	0.006	98	243559	5.00	5.81	
30 Chloromethane	50	2.290	2.284	0.006	99	152332	5.00	5.55	
31 Butadiene	54	2.412	2.406	0.006	0	102895	NC	NC	
32 Vinyl chloride	62	2.429	2.423	0.006	97	142365	5.00	5.41	
35 Bromomethane	94	2.708	2.719	-0.011	90	137632	5.00	5.46	
36 Chloroethane	64	2.777	2.771	0.006	99	94655	5.00	5.57	
37 Dichlorofluoromethane	67	2.969	2.963	0.006	97	336159	5.00	5.37	
38 Trichlorofluoromethane	101	3.073	3.067	0.006	99	304733	5.00	5.51	
40 Ethyl ether	59	3.230	3.224	0.006	95	69842	5.00	5.39	
44 Acrolein	56	3.387	3.381	0.006	95	35404	50.0	54.5	
45 1,1-Dichloroethene	96	3.491	3.485	0.006	97	143708	5.00	5.79	
46 1,1,2-Trichloro-1,2,2-trif	151	3.526	3.520	0.006	97	208890	5.00	6.01	
47 Acetone	43	3.543	3.520	0.023	35	47113	20.0	21.9	
48 Iodomethane	142	3.665	3.659	0.006	99	349722	5.00	5.80	
50 Carbon disulfide	76	3.752	3.746	0.006	99	479631	5.00	5.52	
52 3-Chloro-1-propene	41	3.839	3.833	0.006	88	220747	5.00	4.73	
53 Methyl acetate	43	3.857	3.851	0.006	97	230195	25.0	25.3	
54 Methylene Chloride	84	3.978	3.973	0.005	95	134753	5.00	5.06	
55 2-Methyl-2-propanol	59	4.100	4.077	0.023	92	34174	50.0	40.3	
57 Acrylonitrile	53	4.240	4.234	0.006	100	112173	50.0	49.8	
56 Methyl tert-butyl ether	73	4.257	4.251	0.006	98	242687	5.00	5.17	
58 trans-1,2-Dichloroethene	96	4.257	4.251	0.006	99	160315	5.00	5.52	
59 Hexane	57	4.518	4.512	0.006	94	224308	5.00	5.75	
60 1,1-Dichloroethane	63	4.727	4.704	0.023	96	289613	5.00	5.31	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
61 Vinyl acetate	43	4.745	4.739	0.005	96	103560	10.0	11.2	
65 cis-1,2-Dichloroethene	96	5.389	5.383	0.006	82	160334	5.00	5.33	
67 2-Butanone (MEK)	43	5.389	5.383	0.006	48	98707	20.0	22.0	
66 2,2-Dichloropropane	77	5.406	5.400	0.006	88	287674	5.00	5.51	
71 sec-Butyl Alcohol	45	5.598	5.592	0.006	95	123712	150.0	151.4	
73 Chlorobromomethane	128	5.685	5.679	0.006	97	73507	5.00	5.12	
74 Tetrahydrofuran	42	5.737	5.731	0.006	39	26031	10.0	8.24	
75 Chloroform	83	5.754	5.748	0.006	93	299949	5.00	5.14	
76 1,1,1-Trichloroethane	97	5.998	5.992	0.006	98	285019	5.00	5.52	
77 Cyclohexane	56	6.068	6.062	0.006	90	262232	5.00	5.34	
78 1,1-Dichloropropene	75	6.189	6.184	0.005	97	255137	5.00	5.72	
79 Carbon tetrachloride	117	6.207	6.201	0.006	97	278494	5.00	5.53	
80 Isobutyl alcohol	41	6.329	6.305	0.024	91	37914	125.0	117.7	
81 Benzene	78	6.451	6.445	0.006	96	469086	5.00	5.40	
82 1,2-Dichloroethane	62	6.468	6.462	0.006	95	118895	5.00	4.96	
84 n-Heptane	43	6.747	6.741	0.006	95	306940	5.00	5.28	
86 Trichloroethene	95	7.251	7.263	-0.012	99	200887	5.00	4.97	
88 2-Pentanone	43	7.495	7.489	0.006	97	203615	20.0	20.5	
89 Methylcyclohexane	55	7.513	7.524	-0.011	91	235066	5.00	5.31	
90 1,2-Dichloropropane	63	7.565	7.559	0.006	93	166023	5.00	4.79	
92 Dibromomethane	93	7.722	7.716	0.006	97	89176	5.00	4.63	
93 1,4-Dioxane	88	7.739	7.750	-0.011	29	6943	100.0	82.5	
94 Dichlorobromomethane	83	7.930	7.925	0.006	99	266371	5.00	4.90	
96 2-Chloroethyl vinyl ether	63	8.313	8.308	0.005	92	39781	5.00	5.62	
100 trans-1,3-Dichloropropene	75	8.522	8.516	0.006	93	230800	5.00	5.19	
98 4-Methyl-2-pentanone (MIBK	43	8.749	8.743	0.006	96	331300	20.0	22.3	
99 Toluene	91	8.992	8.986	0.006	99	545349	5.00	5.29	
97 cis-1,3-Dichloropropene	75	9.306	9.300	0.006	98	172294	5.00	5.40	
101 Ethyl methacrylate	69	9.445	9.439	0.006	90	135845	5.00	5.05	
102 1,1,2-Trichloroethane	97	9.567	9.578	-0.011	90	102464	5.00	4.83	
103 Tetrachloroethene	164	9.776	9.787	-0.011	97	187895	5.00	5.52	
104 1,3-Dichloropropane	76	9.828	9.822	0.006	87	173388	5.00	5.09	
105 2-Hexanone	43	9.950	9.944	0.006	98	220951	20.0	23.6	
108 Chlorodibromomethane	129	10.176	10.170	0.006	90	188880	5.00	5.13	
109 Ethylene Dibromide	107	10.368	10.362	0.006	99	129872	5.00	5.21	
110 1-Chlorohexane	91	11.134	11.128	0.006	95	275721	5.00	5.43	
111 Chlorobenzene	112	11.169	11.163	0.006	93	373796	5.00	5.38	
112 1,1,1,2-Tetrachloroethane	131	11.308	11.302	0.006	94	188100	5.00	5.42	
113 Ethylbenzene	106	11.343	11.337	0.006	99	189522	5.00	5.51	
114 m-Xylene & p-Xylene	106	11.517	11.511	0.006	0	248253	5.00	5.30	
115 o-Xylene	106	12.091	12.085	0.006	95	218420	5.00	5.35	
116 Styrene	104	12.109	12.120	-0.011	94	346116	5.00	5.20	
117 Bromoform	173	12.370	12.364	0.006	96	111263	5.00	5.30	
118 Isopropylbenzene	105	12.596	12.590	0.006	96	697005	5.00	5.26	
120 Cyclohexanone	55	12.718	12.730	-0.012	90	73594	200.0	204.3	
121 1,1,2,2-Tetrachloroethane	83	12.979	12.973	0.006	94	145928	5.00	4.87	
122 Bromobenzene	156	12.979	12.973	0.006	94	180121	5.00	5.27	
123 1,2,3-Trichloropropane	110	13.031	13.026	0.005	80	33784	5.00	5.09	
124 trans-1,4-Dichloro-2-buten	53	13.049	13.043	0.006	78	31160	5.00	5.12	
125 N-Propylbenzene	120	13.101	13.113	-0.012	99	174330	5.00	5.39	
126 2-Chlorotoluene	126	13.206	13.200	0.006	97	136477	5.00	5.07	
127 1,3,5-Trimethylbenzene	105	13.310	13.321	-0.011	95	533453	5.00	5.28	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
128 4-Chlorotoluene	126	13.345	13.339	0.006	98	173667	5.00	5.36	
129 tert-Butylbenzene	119	13.693	13.687	0.006	93	572579	5.00	5.24	
130 1,2,4-Trimethylbenzene	105	13.745	13.739	0.006	96	505092	5.00	5.22	
131 sec-Butylbenzene	134	13.937	13.931	0.006	94	162671	5.00	5.45	
132 1,3-Dichlorobenzene	146	14.059	14.053	0.006	96	280595	5.00	5.50	
133 4-Isopropyltoluene	119	14.093	14.087	0.006	97	657777	5.00	5.31	
134 1,4-Dichlorobenzene	146	14.146	14.157	-0.011	95	399211	5.00	5.11	
137 n-Butylbenzene	91	14.529	14.523	0.006	98	666018	5.00	5.34	
138 1,2-Dichlorobenzene	146	14.546	14.558	-0.012	97	277684	5.00	5.29	
139 1,2-Dibromo-3-Chloropropan	157	15.330	15.341	-0.011	88	27040	5.00	5.13	
144 1,2,3-Trichlorobenzene	180	16.096	16.090	0.006	95	203732	5.00	5.54	
142 Hexachlorobutadiene	225	16.252	16.246	0.006	97	203534	5.00	5.78	
143 Naphthalene	128	16.322	16.316	0.006	97	211076	5.00	4.97	
141 1,2,4-Trichlorobenzene	180	16.548	16.542	0.006	95	160716	5.00	5.40	
S 151 1,2-Dichloroethene, Total	96				0		10.0	10.9	
S 145 Trihalomethanes, Total	1				0		20.0	20.5	
S 146 Xylenes, Total (URS)	1				0		10.0	10.7	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.6	
S 149 1,2-Dichloroethene, Total	1				0		10.0	10.9	
S 150 Xylenes, Total	106				0		10.0	10.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Main B_00008	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00014	Amount Added:	2.50	Units: uL	
MV-SS 2-Cleve_00017	Amount Added:	2.50	Units: uL	
MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

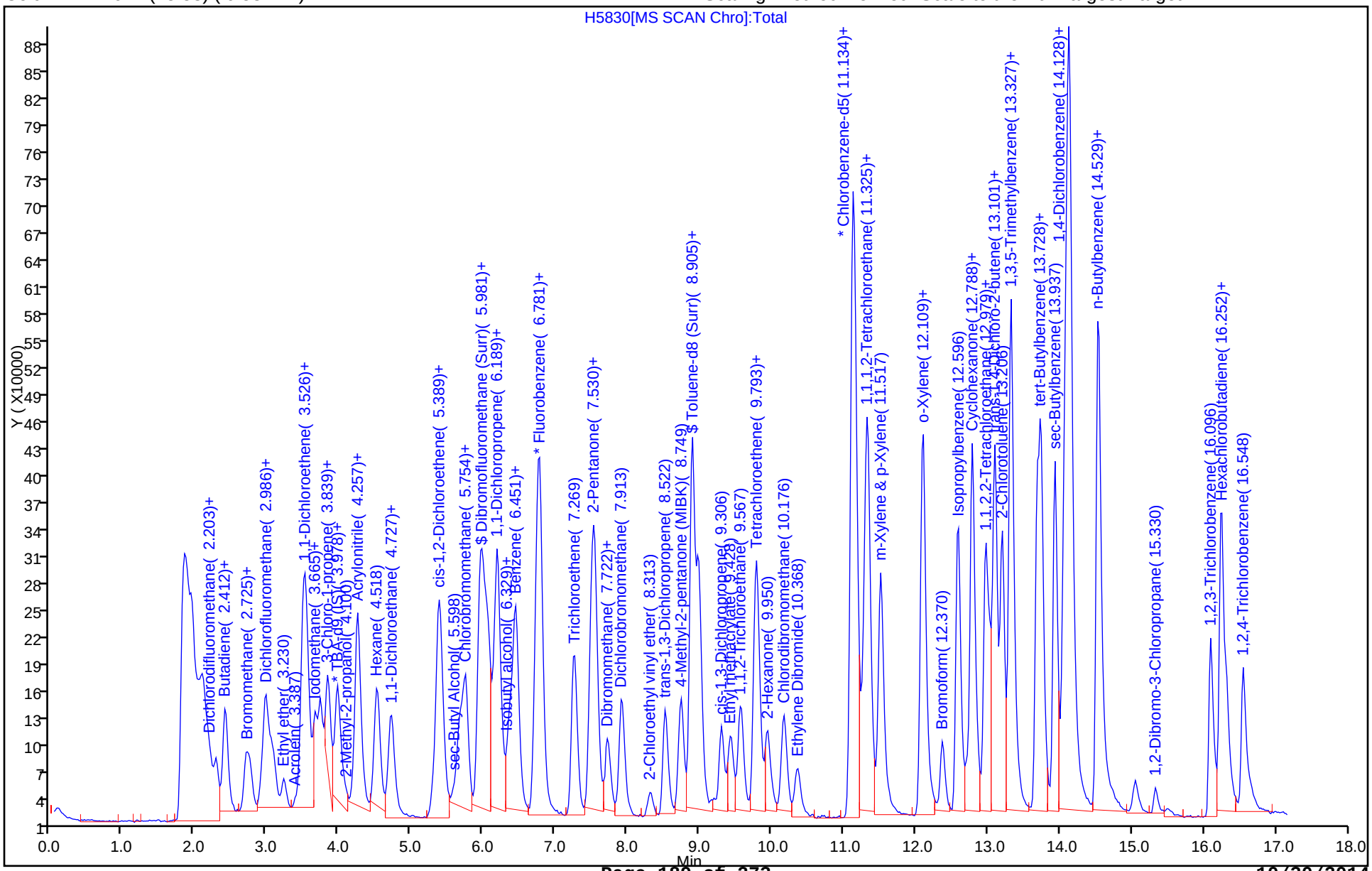
Report Date: 24-Oct-2014 14:36:25 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5830.D

Injection Date:	23-Oct-2014 07:38:30	Instrument ID:	VMS_H	Operator ID:	moanm
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-249165/5

Matrix: Water Lab File ID: H5838.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 10/23/2014 10:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 249165 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	5.21		1.0	0.40	0.17
71-55-6	1,1,1-Trichloroethane	5.23		1.0	0.20	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.61		1.0	0.40	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.64		3.0	2.8	0.79
79-00-5	1,1,2-Trichloroethane	4.68		1.0	0.40	0.32
75-34-3	1,1-Dichloroethane	5.00		1.0	0.40	0.16
75-35-4	1,1-Dichloroethene	5.60		1.0	0.40	0.14
563-58-6	1,1-Dichloropropene	5.41		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	5.01		1.0	0.40	0.18
96-18-4	1,2,3-Trichloropropane	4.78		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	5.11		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	4.82		1.0	0.20	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	4.94	J	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	4.86		1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	4.86		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.71		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	4.92		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	5.10		1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	4.89		1.0	0.40	0.15
106-46-7	1,4-Dichlorobenzene	4.78		1.0	0.40	0.16
123-91-1	1,4-Dioxane	98.0	J	220	80	71
544-10-5	1-Chlorohexane	5.41		1.0	0.20	0.17
594-20-7	2,2-Dichloropropane	5.35		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	21.0		6.0	3.2	1.8
95-49-8	2-Chlorotoluene	4.66		1.0	0.40	0.17
591-78-6	2-Hexanone	22.0		5.0	3.2	1.4
106-43-4	4-Chlorotoluene	4.93		1.0	0.40	0.17
99-87-6	4-Isopropyltoluene	5.04		1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	22.1		5.0	3.2	1.0
67-64-1	Acetone	19.6		10	6.4	1.9
71-43-2	Benzene	5.14		1.0	0.20	0.16
108-86-1	Bromobenzene	4.95		1.0	0.20	0.17
75-25-2	Bromoform	5.16		1.0	0.40	0.19
74-83-9	Bromomethane	5.22		2.0	0.40	0.21
75-15-0	Carbon disulfide	5.27		2.0	0.80	0.45

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Client Sample ID: Lab Sample ID: LCSD 280-249165/5

Matrix: Water Lab File ID: H5838.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 10/23/2014 10:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 249165 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	5.39		2.0	0.40	0.19
108-90-7	Chlorobenzene	5.19		1.0	0.20	0.17
74-97-5	Chlorobromomethane	5.00		1.0	0.40	0.10
124-48-1	Chlorodibromomethane	5.08		1.0	0.40	0.17
75-00-3	Chloroethane	5.28		2.0	1.6	0.41
67-66-3	Chloroform	4.96		1.0	0.20	0.16
74-87-3	Chloromethane	5.31		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	5.16		1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	5.34		1.0	0.20	0.16
110-82-7	Cyclohexane	4.99		2.0	0.40	0.28
74-95-3	Dibromomethane	4.82		1.0	0.40	0.17
75-27-4	Dichlorobromomethane	4.68		1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	5.81		2.0	0.80	0.31
100-41-4	Ethylbenzene	5.21		1.0	0.20	0.16
106-93-4	Ethylene Dibromide	5.04		1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	5.24		1.0	0.40	0.36
98-82-8	Isopropylbenzene	5.00		1.0	0.40	0.19
79-20-9	Methyl acetate	24.1		5.0	2.0	1.6
1634-04-4	Methyl tert-butyl ether	4.94	J	5.0	0.40	0.25
108-87-2	Methylcyclohexane	5.11		2.0	0.40	0.36
75-09-2	Methylene Chloride	4.96	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	5.09		2.0	0.80	0.34
91-20-3	Naphthalene	4.75		1.0	0.80	0.22
104-51-8	n-Butylbenzene	5.05		1.0	0.40	0.32
103-65-1	N-Propylbenzene	5.13		1.0	0.20	0.16
95-47-6	o-Xylene	5.12		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	5.05		1.0	0.40	0.17
100-42-5	Styrene	5.05		1.0	0.40	0.17
98-06-6	tert-Butylbenzene	4.97		1.0	0.40	0.16
127-18-4	Tetrachloroethene	4.79	M	1.0	0.40	0.20
108-88-3	Toluene	5.08		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	5.35		1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	5.07		1.0	0.40	0.19
79-01-6	Trichloroethene	4.89		1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	5.33		2.0	0.80	0.29
75-01-4	Vinyl chloride	5.17		1.5	0.40	0.10

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Matrix: Water Lab File ID: H5838.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 10/23/2014 10:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 249165 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-120
460-00-4	4-Bromofluorobenzene (Surr)	92		75-120
1868-53-7	Dibromofluoromethane (Surr)	98		85-115
2037-26-5	Toluene-d8 (Surr)	108		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5838.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 23-Oct-2014 10:48:30 ALS Bottle#: 12 Worklist Smp#: 5
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Operator ID: moanm Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141023-28646.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 24-Oct-2014 14:36:24 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: moanm Date: 23-Oct-2014 11:36:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.013	3.996	0.017	96	195621	250.0	250.0	
* 2 Fluorobenzene	96	6.799	6.782	0.017	98	780333	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	88	212031	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.128	14.128	0.000	97	395582	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.963	5.946	0.017	93	410843	9.25	9.04	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.381	6.381	0.000	82	188151	9.25	8.94	
$ 10 Toluene-d8 (Surr)	98	8.905	8.906	-0.001	93	880138	9.25	9.99	
$ 11 4-Bromofluorobenzene (Surr	95	12.788	12.788	0.000	85	454027	9.25	8.52	
28 Dichlorodifluoromethane	85	2.203	2.197	0.006	97	239585	5.00	5.81	
30 Chloromethane	50	2.290	2.284	0.006	99	143487	5.00	5.31	
31 Butadiene	54	2.411	2.406	0.005	0	97785	NC	NC	
32 Vinyl chloride	62	2.446	2.423	0.023	98	133841	5.00	5.17	
35 Bromomethane	94	2.725	2.719	0.006	90	129566	5.00	5.22	
36 Chloroethane	64	2.777	2.771	0.006	99	88269	5.00	5.28	
37 Dichlorofluoromethane	67	2.969	2.963	0.006	97	312137	5.00	5.07	
38 Trichlorofluoromethane	101	3.073	3.067	0.006	99	289719	5.00	5.33	
40 Ethyl ether	59	3.230	3.224	0.006	93	65473	5.00	5.14	
44 Acrolein	56	3.386	3.381	0.005	99	35074	50.0	54.9	
45 1,1-Dichloroethene	96	3.508	3.485	0.023	97	136730	5.00	5.60	
46 1,1,2-Trichloro-1,2,2-trif	151	3.543	3.520	0.023	96	193037	5.00	5.64	
47 Acetone	43	3.543	3.520	0.023	35	42044	20.0	19.6	
48 Iodomethane	142	3.682	3.659	0.023	99	325829	5.00	5.49	
50 Carbon disulfide	76	3.752	3.746	0.006	99	450461	5.00	5.27	
52 3-Chloro-1-propene	41	3.856	3.833	0.023	89	205337	5.00	4.48	
53 Methyl acetate	43	3.856	3.851	0.005	98	215486	25.0	24.1	
54 Methylene Chloride	84	3.978	3.973	0.005	97	130085	5.00	4.96	
55 2-Methyl-2-propanol	59	4.083	4.077	0.006	95	41107	50.0	44.7	
57 Acrylonitrile	53	4.239	4.234	0.005	100	105849	50.0	47.8	
56 Methyl tert-butyl ether	73	4.257	4.251	0.006	92	228045	5.00	4.94	
58 trans-1,2-Dichloroethene	96	4.257	4.251	0.006	99	152658	5.00	5.35	
59 Hexane	57	4.535	4.512	0.023	94	209871	5.00	5.49	
60 1,1-Dichloroethane	63	4.727	4.704	0.023	95	268000	5.00	5.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
61 Vinyl acetate	43	4.744	4.739	0.005	96	94304	10.0	10.4	
65 cis-1,2-Dichloroethene	96	5.389	5.383	0.006	82	152653	5.00	5.16	
67 2-Butanone (MEK)	43	5.389	5.383	0.006	51	92671	20.0	21.0	
66 2,2-Dichloropropane	77	5.406	5.400	0.006	88	275605	5.00	5.35	
71 sec-Butyl Alcohol	45	5.597	5.592	0.005	96	128091	150.0	144.6	
73 Chlorobromomethane	128	5.684	5.679	0.005	97	70473	5.00	5.00	
74 Tetrahydrofuran	42	5.754	5.731	0.023	39	27138	10.0	8.73	
75 Chloroform	83	5.754	5.748	0.006	94	284283	5.00	4.96	
76 1,1,1-Trichloroethane	97	6.015	5.992	0.023	98	265759	5.00	5.23	
77 Cyclohexane	56	6.085	6.062	0.023	90	240809	5.00	4.99	
78 1,1-Dichloropropene	75	6.189	6.184	0.005	96	237453	5.00	5.41	
79 Carbon tetrachloride	117	6.207	6.201	0.006	96	266866	5.00	5.39	
80 Isobutyl alcohol	41	6.329	6.305	0.024	95	39247	125.0	112.4	
81 Benzene	78	6.451	6.445	0.005	96	438750	5.00	5.14	
82 1,2-Dichloroethane	62	6.468	6.462	0.006	95	114380	5.00	4.86	
84 n-Heptane	43	6.746	6.741	0.005	95	285273	5.00	4.99	
86 Trichloroethene	95	7.269	7.263	0.006	99	194592	5.00	4.89	
88 2-Pentanone	43	7.495	7.489	0.006	98	195820	20.0	20.1	
89 Methylcyclohexane	55	7.530	7.524	0.006	91	222275	5.00	5.11	
90 1,2-Dichloropropane	63	7.565	7.559	0.006	96	160498	5.00	4.71	
92 Dibromomethane	93	7.721	7.716	0.005	97	91432	5.00	4.82	
93 1,4-Dioxane	88	7.756	7.750	0.006	34	8113	100.0	98.0	
94 Dichlorobromomethane	83	7.930	7.925	0.006	99	250333	5.00	4.68	
96 2-Chloroethyl vinyl ether	63	8.313	8.308	0.005	91	36108	5.00	5.19	
100 trans-1,3-Dichloropropene	75	8.522	8.516	0.006	93	221905	5.00	5.07	
98 4-Methyl-2-pentanone (MIBK	43	8.749	8.743	0.006	97	323332	20.0	22.1	
99 Toluene	91	8.992	8.986	0.006	99	514976	5.00	5.08	
97 cis-1,3-Dichloropropene	75	9.306	9.300	0.006	98	166807	5.00	5.34	
101 Ethyl methacrylate	69	9.445	9.439	0.006	89	133460	5.00	5.07	
102 1,1,2-Trichloroethane	97	9.584	9.578	0.006	90	97644	5.00	4.68	
103 Tetrachloroethene	164	9.776	9.787	-0.011	89	159717	5.00	4.79	M
104 1,3-Dichloropropane	76	9.828	9.822	0.006	88	163069	5.00	4.89	
105 2-Hexanone	43	9.950	9.944	0.006	98	202409	20.0	22.0	
108 Chlorodibromomethane	129	10.176	10.170	0.006	89	183182	5.00	5.08	
109 Ethylene Dibromide	107	10.368	10.362	0.006	99	123005	5.00	5.04	
110 1-Chlorohexane	91	11.134	11.128	0.006	95	269204	5.00	5.41	
111 Chlorobenzene	112	11.169	11.163	0.005	92	352959	5.00	5.19	
112 1,1,1,2-Tetrachloroethane	131	11.308	11.302	0.006	93	176973	5.00	5.21	
113 Ethylbenzene	106	11.343	11.337	0.006	99	175606	5.00	5.21	
114 m-Xylene & p-Xylene	106	11.517	11.511	0.006	0	233329	5.00	5.09	
115 o-Xylene	106	12.091	12.085	0.006	97	204537	5.00	5.12	
116 Styrene	104	12.109	12.120	-0.011	94	329644	5.00	5.05	
117 Bromoform	173	12.370	12.364	0.006	95	106170	5.00	5.16	
118 Isopropylbenzene	105	12.596	12.590	0.006	96	659154	5.00	5.00	
120 Cyclohexanone	55	12.718	12.730	-0.012	90	75070	200.0	212.9	
121 1,1,2,2-Tetrachloroethane	83	12.979	12.973	0.006	94	137714	5.00	4.61	
122 Bromobenzene	156	12.979	12.973	0.006	96	168261	5.00	4.95	
123 1,2,3-Trichloropropane	110	13.031	13.026	0.005	79	31593	5.00	4.78	
124 trans-1,4-Dichloro-2-buten	53	13.049	13.043	0.006	75	29989	5.00	4.95	
125 N-Propylbenzene	120	13.101	13.113	-0.012	99	164964	5.00	5.13	
126 2-Chlorotoluene	126	13.205	13.200	0.005	97	124786	5.00	4.66	
127 1,3,5-Trimethylbenzene	105	13.327	13.321	0.006	95	494641	5.00	4.92	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
128 4-Chlorotoluene	126	13.345	13.339	0.006	99	158951	5.00	4.93	
129 tert-Butylbenzene	119	13.693	13.687	0.006	93	540587	5.00	4.97	
130 1,2,4-Trimethylbenzene	105	13.745	13.739	0.006	96	464719	5.00	4.82	
131 sec-Butylbenzene	134	13.937	13.931	0.006	94	149885	5.00	5.05	
132 1,3-Dichlorobenzene	146	14.058	14.053	0.005	96	259157	5.00	5.10	
133 4-Isopropyltoluene	119	14.093	14.087	0.006	98	621716	5.00	5.04	
134 1,4-Dichlorobenzene	146	14.163	14.157	0.006	95	371961	5.00	4.78	
137 n-Butylbenzene	91	14.529	14.523	0.006	98	627298	5.00	5.05	
138 1,2-Dichlorobenzene	146	14.546	14.558	-0.012	97	254188	5.00	4.86	
139 1,2-Dibromo-3-Chloropropan	157	15.347	15.341	0.006	88	25931	5.00	4.94	
144 1,2,3-Trichlorobenzene	180	16.095	16.090	0.005	95	183439	5.00	5.01	
142 Hexachlorobutadiene	225	16.252	16.246	0.006	98	183530	5.00	5.24	
143 Naphthalene	128	16.322	16.316	0.006	97	200859	5.00	4.75	
141 1,2,4-Trichlorobenzene	180	16.548	16.542	0.006	95	151132	5.00	5.11	
S 151 1,2-Dichloroethene, Total	96				0		10.0	10.5	
S 145 Trihalomethanes, Total	1				0		20.0	19.9	
S 146 Xylenes, Total (URS)	1				0		10.0	10.2	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.4	
S 149 1,2-Dichloroethene, Total	1				0		10.0	10.5	
S 150 Xylenes, Total	106				0		10.0	10.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-Main B_00008	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00014	Amount Added:	2.50	Units: uL	
MV-SS 2-Cleve_00017	Amount Added:	2.50	Units: uL	
MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

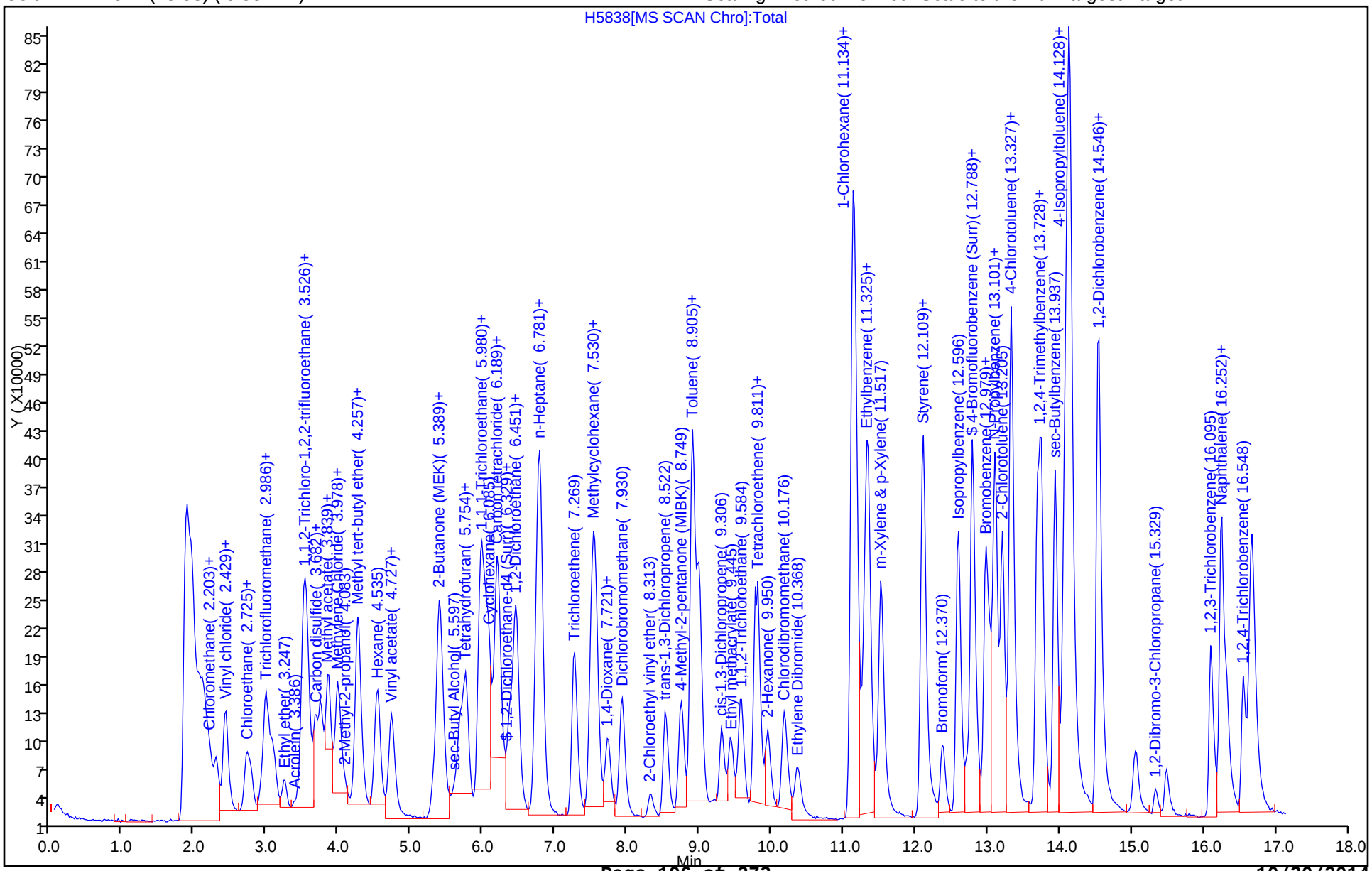
Report Date: 24-Oct-2014 14:36:26 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5838.D

Injection Date:	23-Oct-2014 10:48:30	Instrument ID:	VMS_H	Operator ID:	moanm
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



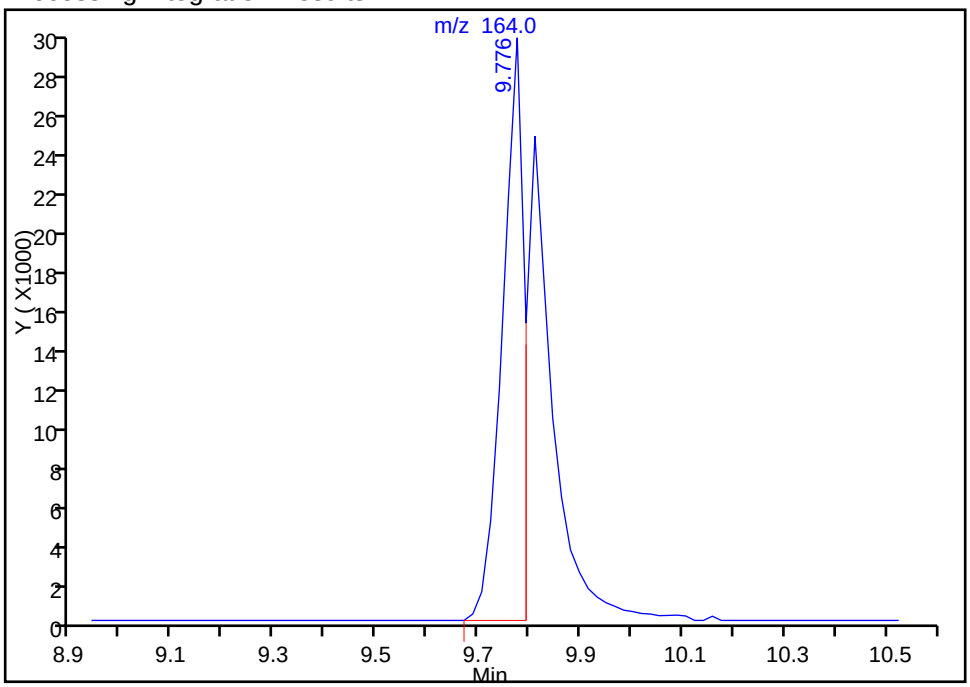
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141023-28646.b\H5838.D
Injection Date: 23-Oct-2014 10:48:30 Instrument ID: VMS_H
Lims ID: LCSD
Client ID:
Operator ID: moanm ALS Bottle#: 12 Worklist Smp#: 5
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

103 Tetrachloroethene, CAS: 127-18-4

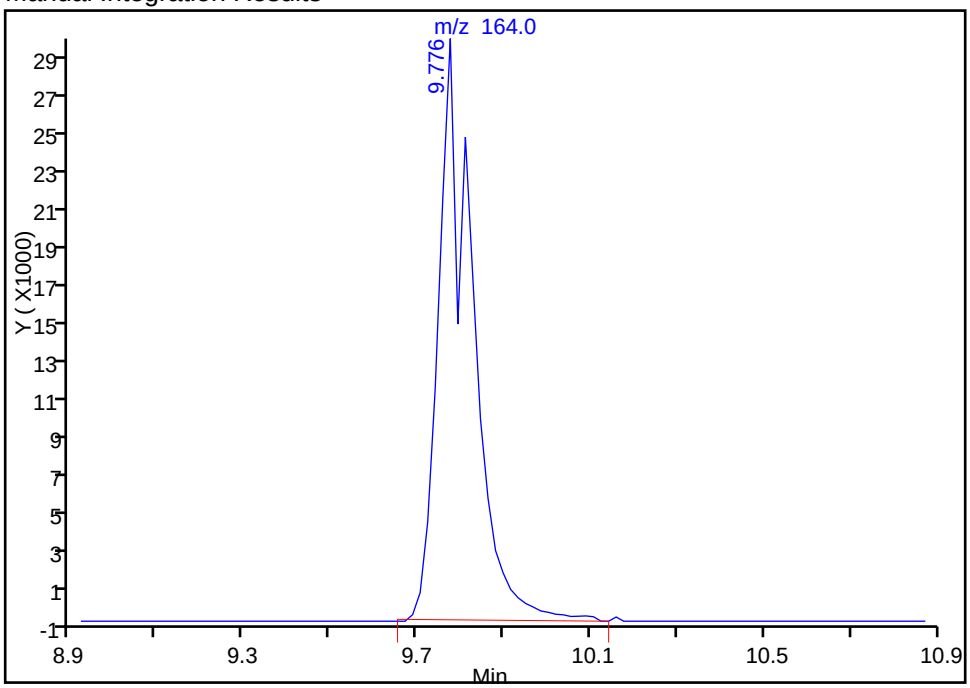
Processing Integration Results

RT: 9.78
Response: 87375
Amount: 2.621661



Manual Integration Results

RT: 9.78
Response: 159717
Amount: 4.792262



Reviewer: moanm, 23-Oct-2014 11:36:14
Audit Action: Manually Integrated
Audit Reason: Split Peak

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Start Date: 10/22/2014 08:13

Analysis Batch Number: 248996 End Date: 10/22/2014 16:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-248996/1		10/22/2014 08:13	1	H5774.D	DB-624 (75.53) 0.53(mm)
STD003 280-248996/9 IC		10/22/2014 09:32	1	H5777.D	DB-624 (75.53) 0.53(mm)
STD01 280-248996/10 IC		10/22/2014 09:54	1	H5778.D	DB-624 (75.53) 0.53(mm)
STD02 280-248996/11 IC		10/22/2014 10:15	1	H5779.D	DB-624 (75.53) 0.53(mm)
STD05 280-248996/12 IC		10/22/2014 10:37	1	H5780.D	DB-624 (75.53) 0.53(mm)
STD10 280-248996/13 IC		10/22/2014 10:58	1	H5781.D	DB-624 (75.53) 0.53(mm)
STD30 280-248996/14 IC		10/22/2014 11:20	1	H5782.D	DB-624 (75.53) 0.53(mm)
STD60 280-248996/15 IC		10/22/2014 11:42	1	H5783.D	DB-624 (75.53) 0.53(mm)
ICV 280-248996/16		10/22/2014 12:25	1	H5785.D	DB-624 (75.53) 0.53(mm)
STD01 280-248996/17 IC		10/22/2014 12:47	1	H5786.D	DB-624 (75.53) 0.53(mm)
STD02 280-248996/18 IC		10/22/2014 13:09	1	H5787.D	DB-624 (75.53) 0.53(mm)
STD05 280-248996/19 IC		10/22/2014 13:30	1	H5788.D	DB-624 (75.53) 0.53(mm)
ICIS 280-248996/20		10/22/2014 13:52	1	H5789.D	DB-624 (75.53) 0.53(mm)
STD30 280-248996/21 IC		10/22/2014 14:13	1	H5790.D	DB-624 (75.53) 0.53(mm)
STD60 280-248996/22 IC		10/22/2014 14:35	1	H5791.D	DB-624 (75.53) 0.53(mm)
ICV 280-248996/23		10/22/2014 15:19	1	H5793.D	DB-624 (75.53) 0.53(mm)
ICV 280-248996/24		10/22/2014 16:02	1	H5795.D	DB-624 (75.53) 0.53(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Start Date: 10/23/2014 06:19

Analysis Batch Number: 249165 End Date: 10/23/2014 16:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-249165/1		10/23/2014 06:19	1	H5826.D	DB-624 (75.53) 0.53(mm)
CCV 280-249165/2		10/23/2014 06:54	1	H5828.D	DB-624 (75.53) 0.53(mm)
CCV 280-249165/3		10/23/2014 07:16	1	H5829.D	DB-624 (75.53) 0.53(mm)
LCS 280-249165/4		10/23/2014 07:38	1	H5830.D	DB-624 (75.53) 0.53(mm)
MB 280-249165/6		10/23/2014 07:59	1	H5831.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 08:32	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 08:59	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 09:21	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 09:43	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 10:04	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 10:26	10		DB-624 (75.53) 0.53(mm)
LCSD 280-249165/5		10/23/2014 10:48	1	H5838.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 11:12	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 11:34	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 11:55	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 12:17	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 12:39	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 13:01	4		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 13:28	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 13:50	10		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 14:12	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 14:34	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 14:56	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 15:18	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 15:40	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 16:01	1		DB-624 (75.53) 0.53(mm)
280-61445-3	101414TB	10/23/2014 16:23	1	H5853.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		10/23/2014 16:45	1		DB-624 (75.53) 0.53(mm)

GC/MS VOA Continuing Calibration Review Checklist *TestAmerica Denver*

Instrument ID and Date: H 10/23/14 Work List 286646

Check Method Used: Analysis ☐ 624 ☒ 8260B ☐ Other VOA _____

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Continuing Calibration					
1. BFB meets criteria?	+			/	
2. ICAL date and instrument ID verified?	+			-	
3. Do SPCC RRFs and CCC %Ds meet method criteria?	+			-	
4. Does %D meet criteria for non-CCC compounds?	+			-	
5. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	+			-	
6. Label number of standard used recorded?	+			/	
7. Manual integrations documented and checked?			+	-	
8. Do the Internal Standards meet criteria for %D against ICAL?	+			-	
9. Does this CCV pass Q4 criteria?	+			-	

Acrolein, Vinyl Acetate, 2-Chloro Ethyl Vinyl Ether, IPA NTC

1st Level Reviewer: _____ Date: 10-23-14

2nd Level Reviewer: _____ Date: 10/23/14

Sequence Name: C:\HPCHEM\1\SEQUENCE\102314am.S
Comment:
Operator: moanm
Data Path: C:\HPCHEM\1\DATA\102314am\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver 578
Instrument: 4
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 6:19 - 16:45
Lims Batch: 249165
WL 28642

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	H5826	BFB	bfb
2	Sample	1	H5827	8260	blk
3	Sample	2	H5828	8260	ccv
4	Sample	3	H5829	8260	ccv
5	Sample	4	H5830	8260	lcs
6	Sample	5	H5831	8260	mb
7	Sample	6	H5832	8260	280-61352-A-1 ph<2
8	Sample	7	H5833	8260	280-61352-B-2 ph<2
9	Sample	8	H5834	8260	280-61353-A-1 ph<2
10	Sample	9	H5835	8260	280-61353-A-2 ph<2
11	Sample	10	H5836	8260	280-61353-A-3 ph<2 -E
12	Sample	11	H5837	8260	280-61353-A-3 ph<2 2mL-D
13	Sample	12	H5838	8260	lcsd
14	Sample	13	H5839	8260	280-61427-B-1 ph<2
15	Sample	14	H5840	8260	280-61427-A-2 ph<2
16	Sample	15	H5841	8260	280-61427-A-3 ph<2
17	Sample	16	H5842	8260	280-61427-A-4 ph<2
18	Sample	17	H5843	8260	280-61427-A-5 ph<2 -D
19	Sample	18	H5844	8260	280-61427-A-5 ph<2 5mL-D
20	Sample	19	H5845	8260	280-61427-A-6 ph<2 -55 Lreanlz
21	Sample	20	H5846	8260	280-61427-A-6 ph<2 2mL-D
22	Sample	21	H5847	8260	280-61427-A-7 ph<2
23	Sample	22	H5848	8260	280-61427-A-8 ph<2
24	Sample	23	H5849	8260	280-61427-A-9 ph<2
25	Sample	24	H5850	8260	280-61427-A-10 ph<2
26	Sample	25	H5851	8260	280-61427-A-11 ph<2
27	Sample	26	H5852	8260	280-61427-A-12 ph<2
28	Sample	27	H5853	8260	280-61445-A-3 ph<2
29	Sample	28	H5854	8260	280-61427-B-6ph<2 -E

TestAmerica Laboratories
Worklist Report

Worklist Name: 102314am
Worklist Number: 28646
Instrument Name: VMS_H
Chrom Method: AQ_VMSH_8260
Purge Volume: 20.00
Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_H\20141023-28646.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00002 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00028 Amount Added: 0.740000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028646-001	# 1 BFB	MV-BFB_00015	BFB		voaWater	1.000000	uL	1.000000
280-0028646-002	# 2 CCV	MV-2cleve+AVA_00005 MV-568718-D_00002 MV-Main A_00018 MV-Gas/Ket A_00028	CCV		voaWater	20.00	mL	1.000000
280-0028646-003	# 3 CCV	MV-Supp A_00009	CCV		voaWater	20.00	mL	1.000000
280-0028646-004	# 4 LCS	MV-Main B_00008 MV-Gas/Ket B_00014 MV-SS 2-Cleve_00017	LCS		voaWater	20.00	mL	1.000000
280-0028646-005	# 5 LCSD	MV-Main B_00008 MV-Gas/Ket B_00014 MV-SS 2-Cleve_00017	LCSD		voaWater	20.00	mL	1.000000
280-0028646-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0028646-007	# 7 280-50876-A-1		Client		voaWater	20.00	mL	1.000000
280-0028646-008	# 8 280-50876-A-2		Client		voaWater	20.00	mL	1.000000
280-0028646-009	# 9 280-61352-A-1		Client		voaWater	20.00	mL	1.000000
280-0028646-010	#10 280-61352-B-2		Client		voaWater	20.00	mL	1.000000
280-0028646-011	#11 280-61353-A-1		Client		voaWater	20.00	mL	1.000000
280-0028646-012	#12 280-61353-A-2		Client		voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028646-013	#13 280-61353-A-3		Client		voaWater	20.00	mL	1.000000
280-0028646-014	#14 280-61353-A-3		Client		voaWater	20.00	mL	10.00
280-0028646-015	#15 280-61427-B-1		Client		voaWater	20.00	mL	1.000000
280-0028646-016	#16 280-61427-A-2		Client		voaWater	20.00	mL	1.000000
280-0028646-017	#17 280-61427-A-3		Client		voaWater	20.00	mL	1.000000
280-0028646-018	#18 280-61427-A-4		Client		voaWater	20.00	mL	1.000000
280-0028646-019	#19 280-61427-A-5		Client		voaWater	20.00	mL	1.000000
280-0028646-020	#20 280-61427-A-5		Client		voaWater	20.00	mL	4.000000
280-0028646-021	#21 280-61427-A-6		Client		voaWater	20.00	mL	1.000000
280-0028646-022	#22 280-61427-A-6		Client		voaWater	2.000000	mL	10.00
280-0028646-023	#23 280-61427-A-7		Client		voaWater	20.00	mL	1.000000
280-0028646-024	#24 280-61427-A-8		Client		voaWater	20.00	mL	1.000000
280-0028646-025	#25 280-61427-A-9		Client		voaWater	20.00	mL	1.000000
280-0028646-026	#26 280-61427-A-10		Client		voaWater	20.00	mL	1.000000
280-0028646-027	#27 280-61427-A-11		Client		voaWater	20.00	mL	1.000000
280-0028646-028	#28 280-61427-A-12		Client		voaWater	20.00	mL	1.000000
280-0028646-029	#29 280-61445-A-3		Client		voaWater	20.00	mL	1.000000
280-0028646-030	#30 280-61427-B-6		Client		voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028646-031	#31 Samp 31		Client		voaWater	20.00	mL	1.000000

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): DB-624 (75.5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
774776CARBON101414	280-61445-1	100	90	97	99
101CARBON101614	280-61445-2	107	97	106	102
	LB 280-249035/1-A	103	95	99	95
	LCS 280-249035/2-A	96	93	103	98

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	79-119
DCA = 1,2-Dichloroethane-d4 (Surr)	64-129
TOL = Toluene-d8 (Surr)	78-120
BFB = 4-Bromofluorobenzene (Surr)	78-121

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: H5999.D

Lab ID: LCS 280-249035/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Benzene	50.0	47.3	95	74-135	
2-Butanone (MEK)	200	188	94	44-150	
Carbon tetrachloride	50.0	50.1	100	67-135	
Chlorobenzene	50.0	46.5	93	76-135	
Chloroform	50.0	46.8	94	76-120	
1,2-Dichloroethane	50.0	44.8	90	70-135	
1,1-Dichloroethene	50.0	54.5	109	71-136	
Tetrachloroethene	50.0	50.1	100	70-135	
Trichloroethene	50.0	46.4	93	73-135	
Vinyl chloride	50.0	37.1	74	40-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab File ID: H5993.D BFB Injection Date: 10/26/2014

Instrument ID: VMS_H BFB Injection Time: 10:31

Analysis Batch No.: 249697

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.4	
75	30.0 - 60.0 % of mass 95	45.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	66.4	
175	5.0 - 9.0 % of mass 174	5.1	(7.6)1
176	95.0 - 101.0 % of mass 174	66.2	(99.7)1
177	5.0 - 9.0 % of mass 176	5.0	(7.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-249697/2	H5995.D	10/26/2014	11:07
	CCV 280-249697/3	H5996.D	10/26/2014	11:29
	LCS 280-249035/2-A	H5999.D	10/26/2014	12:35
	LB 280-249035/1-A	H6000.D	10/26/2014	12:57
774776CARBON101414	280-61445-1	H6019.D	10/26/2014	19:55
101CARBON101614	280-61445-2	H6020.D	10/26/2014	20:17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-61445-1

SDG No.:

Client Sample ID: 774776CARBON101414 | Lab Sample ID: 280-61445-1

Matrix: Solid (TCLP) | Lab File ID: H6019.D

Analysis Method: 8260B | Date Collected: 10/14/2014 15:00

Sample wt/vol: 2(mL) | Date Analyzed: 10/26/2014 19:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 249697 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	2.0	U	10	2.0	1.6
78-93-3	2-Butanone (MEK)	32	U	100	32	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	2.0	U	10	2.0	1.7
67-66-3	Chloroform	2.0	U	10	2.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
75-35-4	1,1-Dichloroethene	4.0	U	10	4.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	2.0	U	10	2.0	1.6
75-01-4	Vinyl chloride	8.0	U	10	8.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		64-129
2037-26-5	Toluene-d8 (Surr)	97		78-120
460-00-4	4-Bromofluorobenzene (Surr)	99		78-121
1868-53-7	Dibromofluoromethane (Surr)	100		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H6019.D
Lims ID: 280-61445-B-1-A Lab Sample ID: 280-61445-1
Client ID: 774776CARBON101414
Sample Type: Client
Inject. Date: 26-Oct-2014 19:55:30 ALS Bottle#: 26 Worklist Smp#: 29
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-61445-b-1-a
Operator ID: LINESJ Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141026-28760.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 17:35:10 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: linesj Date: 27-Oct-2014 17:34:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.996	3.991	0.005	97	179369	250.0	
* 2 Fluorobenzene	96	6.799	6.794	0.005	98	714306	12.5	
* 3 1,4-Dioxane-d8	96		8.670				0	
* 4 Chlorobenzene-d5	119	11.134	11.129	0.005	87	219686	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.146	14.141	0.005	95	371087	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.964	5.959	0.005	93	384088	9.24	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.381	6.376	0.005	83	161141	8.36	
$ 10 Toluene-d8 (Surr)	98	8.906	8.918	-0.012	93	815317	8.93	
$ 11 4-Bromofluorobenzene (Surr	95	12.788	12.801	-0.013	87	457737	9.15	
32 Vinyl chloride	62		2.424				ND	
45 1,1-Dichloroethene	96		3.504				ND	
67 2-Butanone (MEK)	43		5.384				ND	
75 Chloroform	83		5.767				0	
79 Carbon tetrachloride	117		6.220				ND	
81 Benzene	78		6.446				ND	
82 1,2-Dichloroethane	62		6.481				ND	
86 Trichloroethene	95		7.264				ND	
103 Tetrachloroethene	164		9.789				ND	
111 Chlorobenzene	112		11.181				ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

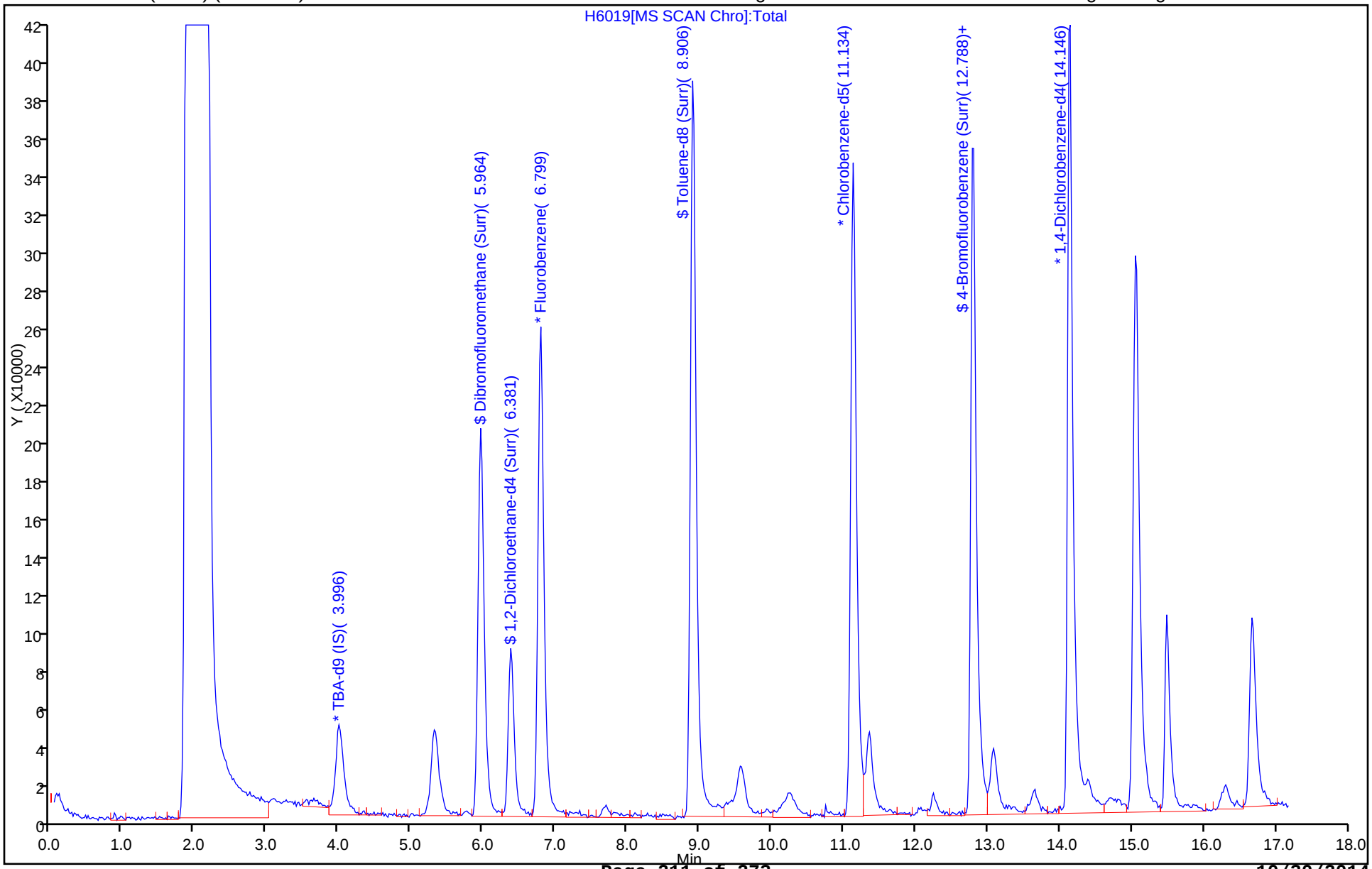
Report Date: 27-Oct-2014 17:35:20 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H6019.D

Injection Date:	26-Oct-2014 19:55:30	Instrument ID:	VMS_H	Operator ID:	LINESJ
Lims ID:	280-61445-B-1-A	Lab Sample ID:	280-61445-1	Worklist Smp#:	29
Client ID:	774776CARBON101414				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-61445-1

SDG No.:

Client Sample ID: 101CARBON101614 | Lab Sample ID: 280-61445-2

Matrix: Solid (TCLP) | Lab File ID: H6020.D

Analysis Method: 8260B | Date Collected: 10/16/2014 12:00

Sample wt/vol: 2(mL) | Date Analyzed: 10/26/2014 20:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 249697 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	2.0	U	10	2.0	1.6
78-93-3	2-Butanone (MEK)	32	U	100	32	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	2.0	U	10	2.0	1.7
67-66-3	Chloroform	2.0	U	10	2.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
75-35-4	1,1-Dichloroethene	4.0	U	10	4.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	2.0	U	10	2.0	1.6
75-01-4	Vinyl chloride	8.0	U	10	8.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-129
2037-26-5	Toluene-d8 (Surr)	106		78-120
460-00-4	4-Bromofluorobenzene (Surr)	102		78-121
1868-53-7	Dibromofluoromethane (Surr)	107		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H6020.D
Lims ID: 280-61445-B-2-A Lab Sample ID: 280-61445-2
Client ID: 101CARBON101614
Sample Type: Client
Inject. Date: 26-Oct-2014 20:17:30 ALS Bottle#: 27 Worklist Smp#: 30
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-61445-b-2-a
Operator ID: LINESJ Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141026-28760.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 17:35:10 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: linesj Date: 27-Oct-2014 17:34:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.007	3.991	0.016	98	162665	250.0	
* 2 Fluorobenzene	96	6.793	6.794	-0.001	98	685476	12.5	
* 3 1,4-Dioxane-d8	96		8.670				0	
* 4 Chlorobenzene-d5	119	11.128	11.129	-0.001	87	207265	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.139	14.141	-0.002	95	358386	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.957	5.959	-0.002	94	396076	9.93	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.375	6.376	-0.001	84	165518	8.95	
$ 10 Toluene-d8 (Surr)	98	8.917	8.918	-0.001	93	844114	9.80	
$ 11 4-Bromofluorobenzene (Surr	95	12.799	12.801	-0.002	86	456543	9.45	
32 Vinyl chloride	62		2.424				ND	
45 1,1-Dichloroethene	96		3.504				ND	
67 2-Butanone (MEK)	43		5.384				ND	
75 Chloroform	83		5.767				0	
79 Carbon tetrachloride	117		6.220				ND	
81 Benzene	78		6.446				ND	
82 1,2-Dichloroethane	62		6.481				ND	
86 Trichloroethene	95		7.264				ND	
103 Tetrachloroethene	164		9.789				ND	
111 Chlorobenzene	112		11.181				ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

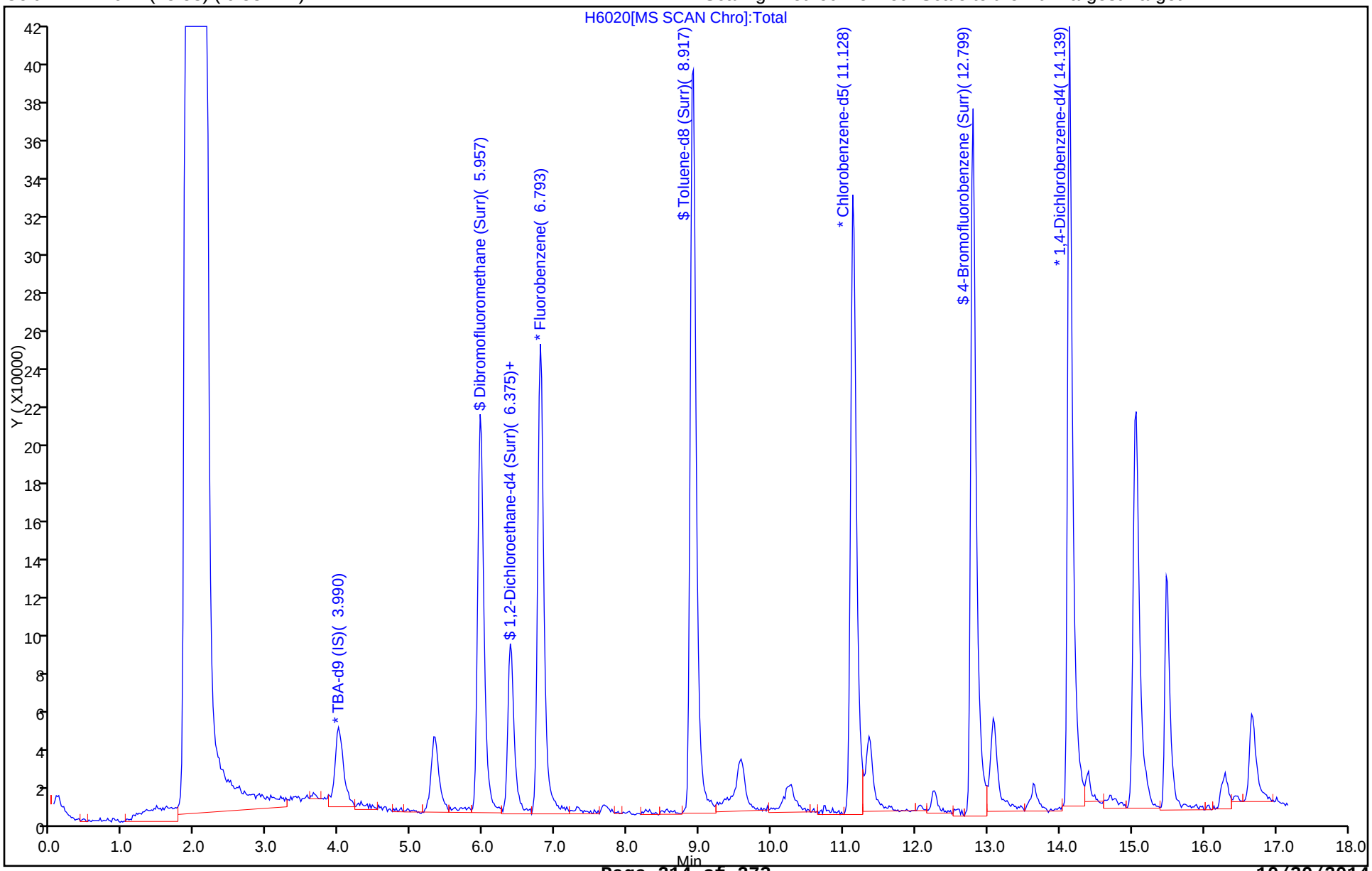
MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

Report Date: 27-Oct-2014 17:35:19 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_H\20141026-28760.b\H6020.D				
Injection Date:	26-Oct-2014 20:17:30	Instrument ID:	VMS_H	Operator ID:	LINESJ
Lims ID:	280-61445-B-2-A	Lab Sample ID:	280-61445-2	Worklist Smp#:	30
Client ID:	101CARBON101614				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249697/2 Calibration Date: 10/26/2014 11:07

Instrument ID: VMS_H Calib Start Date: 10/22/2014 09:32

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 11:42

Lab File ID: H5995.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.6603	0.5735		0.00868	0.0100	-13.2	50.0
Chloromethane	Ave	0.4326	0.3560	0.1000	0.00823	0.0100	-17.7	35.0
Vinyl chloride	Ave	0.4144	0.3387		0.00817	0.0100	-18.3	20.0
Bromomethane	Ave	0.3973	0.3305		0.00832	0.0100	-16.8	35.0
Chloroethane	Ave	0.2676	0.2304		0.00861	0.0100	-13.9	35.0
Trichlorofluoromethane	Ave	0.8713	0.7804		0.00896	0.0100	-10.4	50.0
1,1-Dichloroethene	Ave	0.3910	0.4123		0.0105	0.0100	5.4	20.0
Acetone	Lin1		0.0317		0.0393	0.0400	-1.8	50.0
Carbon disulfide	Ave	1.370	1.346		0.00983	0.0100	-1.7	50.0
Methylene Chloride	Lin2		0.4008		0.0101	0.0100	1.3	35.0
Methyl tert-butyl ether	Ave	0.7396	0.7443		0.0101	0.0100	0.6	35.0
trans-1,2-Dichloroethene	Ave	0.4572	0.4684		0.0102	0.0100	2.5	35.0
1,1-Dichloroethane	Ave	0.8592	0.8049	0.1000	0.00937	0.0100	-6.3	35.0
2-Butanone (MEK)	Ave	0.0706	0.0618		0.0350	0.0400	-12.5	20.0
cis-1,2-Dichloroethene	Ave	0.4736	0.4919		0.0104	0.0100	3.8	35.0
2,2-Dichloropropane	Lin2		0.7911		0.0103	0.0100	3.2	35.0
Chlorobromomethane	Ave	0.2260	0.2347		0.0104	0.0100	3.8	35.0
Chloroform	Ave	0.9185	0.8841		0.00962	0.0100	-3.8	20.0
1,1,1-Trichloroethane	Ave	0.8138	0.8220		0.0101	0.0100	1.0	35.0
1,1-Dichloropropene	Ave	0.7031	0.6890		0.00980	0.0100	-2.0	35.0
Carbon tetrachloride	Ave	0.7929	0.7843		0.00989	0.0100	-1.1	20.0
Benzene	Ave	1.369	1.360		0.00994	0.0100	-0.6	20.0
1,2-Dichloroethane	Ave	0.3773	0.3635		0.00963	0.0100	-3.7	20.0
Trichloroethene	Ave	0.6369	0.6062		0.00952	0.0100	-4.8	20.0
1,2-Dichloropropane	Ave	0.5460	0.4976		0.00911	0.0100	-8.9	20.0
Dibromomethane	Ave	0.3037	0.2927		0.00964	0.0100	-3.6	35.0
Dichlorobromomethane	Ave	0.8565	0.8220		0.00960	0.0100	-4.0	35.0
trans-1,3-Dichloropropene	Ave	0.7008	0.7068		0.0101	0.0100	0.9	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2340	0.2193		0.0375	0.0400	-6.3	50.0
Toluene	Ave	1.623	1.618		0.00997	0.0100	-0.3	20.0
cis-1,3-Dichloropropene	Ave	1.840	1.743		0.00947	0.0100	-5.3	35.0
1,1,2-Trichloroethane	Lin2		0.3262		0.00993	0.0100	-0.7	35.0
Tetrachloroethene	Ave	1.965	2.072		0.0105	0.0100	5.5	20.0
1,3-Dichloropropane	Ave	1.967	1.915		0.00974	0.0100	-2.6	35.0
2-Hexanone	Ave	0.5412	0.4963		0.0367	0.0400	-8.3	50.0
Chlorodibromomethane	Ave	2.124	2.130		0.0100	0.0100	0.3	35.0
Ethylene Dibromide	Ave	1.438	1.482		0.0103	0.0100	3.1	35.0
Chlorobenzene	Ave	4.012	4.034	0.3000	0.0101	0.0100	0.6	20.0
1,1,1,2-Tetrachloroethane	Ave	2.001	1.977		0.00988	0.0100	-1.2	35.0
Ethylbenzene	Ave	1.987	2.016		0.0101	0.0100	1.5	50.0
m-Xylene & p-Xylene	Ave	2.702	2.708		0.0100	0.0100	0.2	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249697/2 Calibration Date: 10/26/2014 11:07

Instrument ID: VMS_H Calib Start Date: 10/22/2014 09:32

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 11:42

Lab File ID: H5995.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
o-Xylene	Ave	2.357	2.393		0.0102	0.0100	1.5	35.0
Styrene	Ave	3.845	3.949		0.0103	0.0100	2.7	35.0
Bromoform	Ave	1.212	1.266	0.1000	0.0104	0.0100	4.4	35.0
Isopropylbenzene	Ave	4.165	4.047		0.00972	0.0100	-2.8	35.0
Bromobenzene	Ave	1.074	1.071		0.00997	0.0100	-0.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.9431	0.8672	0.3000	0.00919	0.0100	-8.1	35.0
1,2,3-Trichloropropane	Ave	0.2089	0.1952		0.00935	0.0100	-6.5	35.0
N-Propylbenzene	Ave	1.016	1.003		0.00986	0.0100	-1.4	35.0
2-Chlorotoluene	Ave	0.8466	0.8086		0.00955	0.0100	-4.5	35.0
1,3,5-Trimethylbenzene	Ave	3.177	3.044		0.00958	0.0100	-4.2	35.0
4-Chlorotoluene	Ave	1.018	0.997		0.00979	0.0100	-2.1	35.0
tert-Butylbenzene	Ave	3.439	3.281		0.00954	0.0100	-4.6	35.0
1,2,4-Trimethylbenzene	Ave	3.046	2.914		0.00957	0.0100	-4.3	35.0
sec-Butylbenzene	Ave	0.9383	0.9047		0.00964	0.0100	-3.6	35.0
1,3-Dichlorobenzene	Ave	1.605	1.706		0.0106	0.0100	6.3	35.0
4-Isopropyltoluene	Ave	3.894	3.773		0.00969	0.0100	-3.1	35.0
1,4-Dichlorobenzene	Ave	2.457	2.259		0.00920	0.0100	-8.0	35.0
n-Butylbenzene	Ave	3.923	3.776		0.00963	0.0100	-3.7	35.0
1,2-Dichlorobenzene	Ave	1.651	1.632		0.00988	0.0100	-1.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.1658	0.1618		0.00976	0.0100	-2.4	50.0
1,2,3-Trichlorobenzene	Ave	1.158	1.169		0.0101	0.0100	1.0	35.0
Hexachlorobutadiene	Ave	1.107	1.106		0.00999	0.0100	-0.0	35.0
Naphthalene	Ave	1.337	1.272		0.00952	0.0100	-4.8	35.0
1,2,4-Trichlorobenzene	Ave	0.9354	0.9264		0.00990	0.0100	-1.0	35.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5995.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 26-Oct-2014 11:07:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCV M
Operator ID: LINESJ Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\Denchrom\ChromData\VMS_H\20141026-28760.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 17:35:41 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: linesj Date: 26-Oct-2014 11:39:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.991	3.991	0.000	95	212090	250.0	250.0	
* 2 Fluorobenzene	96	6.794	6.794	0.000	99	789974	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.129	11.129	0.000	90	221826	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.141	14.141	0.000	96	410002	12.5	12.5	
28 Dichlorodifluoromethane	85	2.181	2.181	0.000	99	362429	10.0	8.68	
30 Chloromethane	50	2.285	2.285	0.000	99	224980	10.0	8.23	M
31 Butadiene	54	2.407	2.407	0.000	0	150538	NC	NC	
32 Vinyl chloride	62	2.424	2.424	0.000	97	214041	10.0	8.17	
35 Bromomethane	94	2.703	2.703	0.000	90	208894	10.0	8.32	
36 Chloroethane	64	2.773	2.773	0.000	99	145580	10.0	8.61	
37 Dichlorofluoromethane	67	2.964	2.964	0.000	96	557302	10.0	8.94	
38 Trichlorofluoromethane	101	3.069	3.069	0.000	100	493218	10.0	8.96	
40 Ethyl ether	59	3.243	3.243	0.000	94	129940	10.0	10.1	
44 Acrolein	56	3.382	3.382	0.000	96	53716	200.0	81.1	
45 1,1-Dichloroethene	96	3.504	3.504	0.000	98	260535	10.0	10.5	
46 1,1,2-Trichloro-1,2,2-trif	151	3.539	3.539	0.000	96	369600	10.0	10.7	
47 Acetone	43	3.539	3.539	0.000	36	80045	40.0	39.3	
48 Iodomethane	142	3.678	3.678	0.000	98	610174	10.0	10.2	
50 Carbon disulfide	76	3.748	3.748	0.000	99	850938	10.0	9.83	
52 3-Chloro-1-propene	41	3.852	3.852	0.000	93	436274	10.0	9.40	
53 Methyl acetate	43	3.852	3.852	0.000	95	449436	50.0	49.7	
54 Methylene Chloride	84	3.974	3.974	0.000	95	253285	10.0	10.1	
55 2-Methyl-2-propanol	59	4.078	4.078	0.000	97	94671	100.0	95.0	
57 Acrylonitrile	53	4.235	4.235	0.000	100	212894	100.0	95.0	
56 Methyl tert-butyl ether	73	4.252	4.252	0.000	94	470367	10.0	10.1	
58 trans-1,2-Dichloroethene	96	4.270	4.270	0.000	100	296000	10.0	10.2	
59 Hexane	57	4.531	4.531	0.000	93	379353	10.0	9.49	
60 1,1-Dichloroethane	63	4.722	4.722	0.000	96	508660	10.0	9.37	
61 Vinyl acetate	43	4.740	4.740	0.000	96	210571	40.0	22.0	
65 cis-1,2-Dichloroethene	96	5.384	5.384	0.000	82	310838	10.0	10.4	
67 2-Butanone (MEK)	43	5.384	5.384	0.000	48	156147	40.0	35.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.401	5.401	0.000	87	499951	10.0	10.3	
71 sec-Butyl Alcohol	45	5.593	5.593	0.000	96	261883	300.0	272.6	
73 Chlorobromomethane	128	5.680	5.680	0.000	97	148316	10.0	10.4	
74 Tetrahydrofuran	42	5.732	5.732	0.000	89	56136	20.0	17.8	
75 Chloroform	83	5.767	5.767	0.000	93	558710	10.0	9.62	
76 1,1,1-Trichloroethane	97	6.011	6.011	0.000	99	519500	10.0	10.1	
77 Cyclohexane	56	6.080	6.080	0.000	90	460952	10.0	9.43	
78 1,1-Dichloropropene	75	6.185	6.185	0.000	97	435435	10.0	9.80	
79 Carbon tetrachloride	117	6.220	6.220	0.000	96	495662	10.0	9.89	
80 Isobutyl alcohol	41	6.324	6.324	0.000	93	82099	250.0	216.9	
81 Benzene	78	6.446	6.446	0.000	96	859745	10.0	9.94	
82 1,2-Dichloroethane	62	6.481	6.481	0.000	96	229730	10.0	9.63	
84 n-Heptane	43	6.742	6.742	0.000	94	573327	10.0	9.91	
86 Trichloroethene	95	7.264	7.264	0.000	98	383083	10.0	9.52	
88 2-Pentanone	43	7.491	7.491	0.000	97	387788	40.0	39.3	
89 Methylcyclohexane	55	7.525	7.525	0.000	91	436473	10.0	9.91	
90 1,2-Dichloropropane	63	7.560	7.560	0.000	96	314501	10.0	9.11	
92 Dibromomethane	93	7.734	7.734	0.000	97	184977	10.0	9.64	
93 1,4-Dioxane	88	7.752	7.752	0.000	32	19128	200.0	228.3	
94 Dichlorobromomethane	83	7.926	7.926	0.000	100	519484	10.0	9.60	
96 2-Chloroethyl vinyl ether	63	8.326	8.326	0.000	92	98198	20.0	13.9	
100 trans-1,3-Dichloropropene	75	8.535	8.535	0.000	92	446694	10.0	10.1	
98 4-Methyl-2-pentanone (MIBK	43	8.744	8.744	0.000	96	554244	40.0	37.5	
99 Toluene	91	9.005	9.005	0.000	99	1022232	10.0	9.97	
97 cis-1,3-Dichloropropene	75	9.319	9.319	0.000	99	309315	10.0	9.47	
101 Ethyl methacrylate	69	9.440	9.440	0.000	88	260545	10.0	9.45	
102 1,1,2-Trichloroethane	97	9.580	9.580	0.000	89	206158	10.0	9.93	
103 Tetrachloroethene	164	9.789	9.789	0.000	97	367762	10.0	10.5	
104 1,3-Dichloropropane	76	9.823	9.823	0.000	88	339755	10.0	9.74	
105 2-Hexanone	43	9.945	9.945	0.000	97	352292	40.0	36.7	
108 Chlorodibromomethane	129	10.189	10.189	0.000	90	377928	10.0	10.0	
109 Ethylene Dibromide	107	10.363	10.363	0.000	99	263078	10.0	10.3	
110 1-Chlorohexane	91	11.147	11.147	0.000	93	508658	10.0	9.77	
111 Chlorobenzene	112	11.181	11.181	0.000	93	715942	10.0	10.1	
112 1,1,1,2-Tetrachloroethane	131	11.321	11.321	0.000	95	350816	10.0	9.88	
113 Ethylbenzene	106	11.356	11.356	0.000	99	357747	10.0	10.1	
114 m-Xylene & p-Xylene	106	11.530	11.530	0.000	0	480543	10.0	10.0	
115 o-Xylene	106	12.104	12.104	0.000	97	424652	10.0	10.2	
116 Styrene	104	12.122	12.122	0.000	94	700822	10.0	10.3	
117 Bromoform	173	12.383	12.383	0.000	96	224603	10.0	10.4	
118 Isopropylbenzene	105	12.592	12.592	0.000	96	1327270	10.0	9.72	
120 Cyclohexanone	55	12.731	12.731	0.000	89	142316	400.0	385.8	
122 Bromobenzene	156	12.975	12.975	0.000	96	351378	10.0	9.97	
121 1,1,2,2-Tetrachloroethane	83	12.992	12.992	0.000	94	284430	10.0	9.19	
123 1,2,3-Trichloropropane	110	13.044	13.044	0.000	79	64021	10.0	9.35	
124 trans-1,4-Dichloro-2-buten	53	13.062	13.062	0.000	65	57757	10.0	9.21	
125 N-Propylbenzene	120	13.114	13.114	0.000	99	328831	10.0	9.86	
126 2-Chlorotoluene	126	13.218	13.218	0.000	97	265214	10.0	9.55	
127 1,3,5-Trimethylbenzene	105	13.323	13.323	0.000	94	998360	10.0	9.58	
128 4-Chlorotoluene	126	13.340	13.340	0.000	98	327172	10.0	9.79	
129 tert-Butylbenzene	119	13.706	13.706	0.000	94	1076096	10.0	9.54	
130 1,2,4-Trimethylbenzene	105	13.758	13.758	0.000	97	955651	10.0	9.57	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.950	13.950	0.000	94	296728	10.0	9.64	
132 1,3-Dichlorobenzene	146	14.071	14.071	0.000	97	559615	10.0	10.6	
133 4-Isopropyltoluene	119	14.106	14.106	0.000	97	1237595	10.0	9.69	
134 1,4-Dichlorobenzene	146	14.158	14.158	0.000	95	740986	10.0	9.20	
137 n-Butylbenzene	91	14.541	14.541	0.000	98	1238690	10.0	9.63	
138 1,2-Dichlorobenzene	146	14.559	14.559	0.000	99	535146	10.0	9.88	
139 1,2-Dibromo-3-Chloropropan	157	15.342	15.342	0.000	88	53076	10.0	9.76	
144 1,2,3-Trichlorobenzene	180	16.108	16.108	0.000	95	383478	10.0	10.1	
142 Hexachlorobutadiene	225	16.248	16.248	0.000	97	362802	10.0	10.0	
143 Naphthalene	128	16.335	16.335	0.000	97	417341	10.0	9.52	
141 1,2,4-Trichlorobenzene	180	16.561	16.561	0.000	96	303874	10.0	9.90	
S 151 1,2-Dichloroethene, Total	96				0		20.0	20.6	
S 145 Trihalomethanes, Total	1				0		40.0	39.7	
S 146 Xylenes, Total (URS)	1				0		20.0	20.2	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.6	
S 149 1,2-Dichloroethene, Total	1				0		20.0	20.6	
S 150 Xylenes, Total	106				0		20.0	20.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

MV-2cleve+AVA_00005	Amount Added:	10.00	Units: uL
MV-568718-D_00002	Amount Added:	1.00	Units: uL
MV-Main A_00018	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00028	Amount Added:	5.00	Units: uL

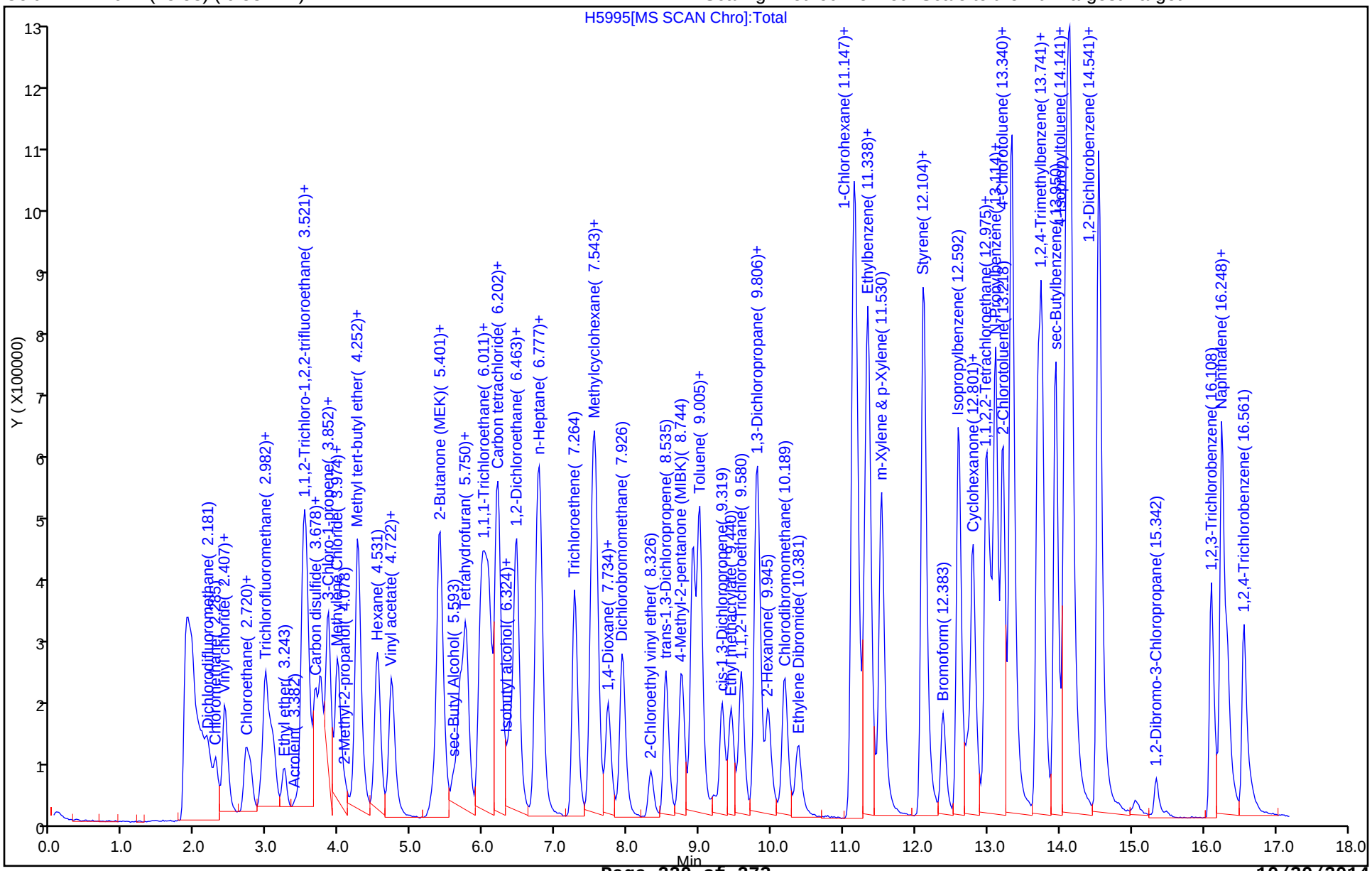
Report Date: 27-Oct-2014 17:35:41 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5995.D

Injection Date:	26-Oct-2014 11:07:30	Instrument ID:	VMS_H	Operator ID:	LINESJ
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



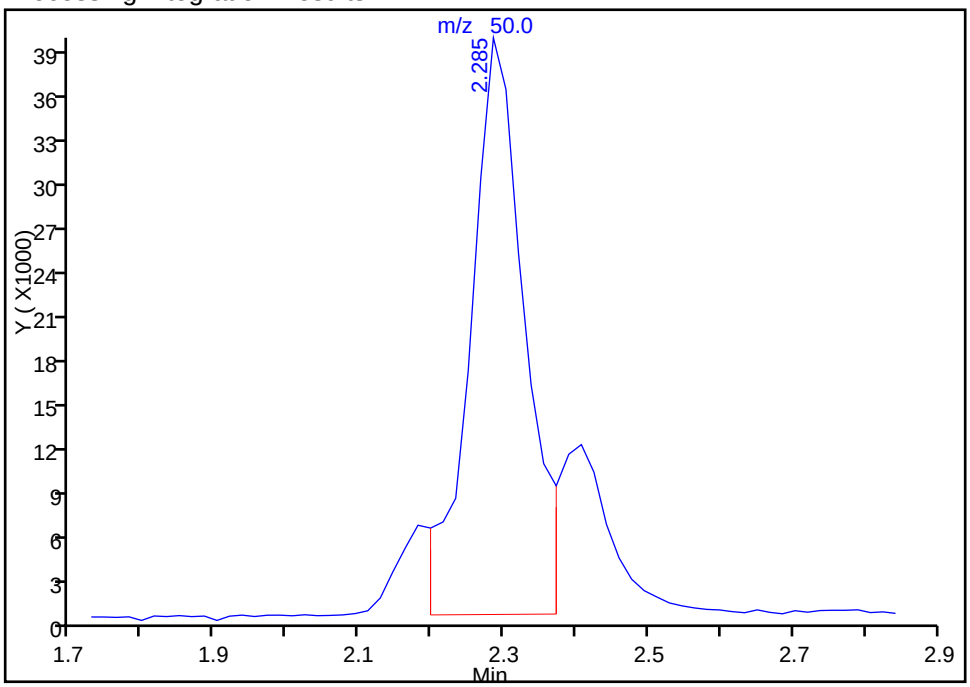
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5995.D
Injection Date: 26-Oct-2014 11:07:30 Instrument ID: VMS_H
Lims ID: CCV
Client ID:
Operator ID: LINESJ ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

30 Chloromethane, CAS: 74-87-3

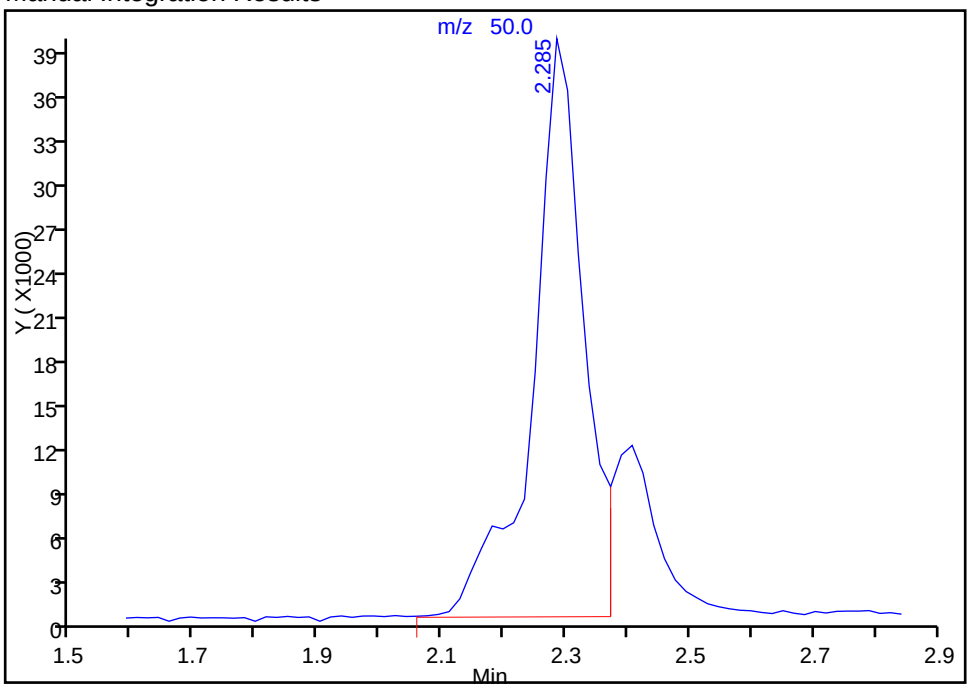
Processing Integration Results

RT: 2.29
Response: 207361
Amount: 7.584792



Manual Integration Results

RT: 2.29
Response: 224980
Amount: 8.229255



Reviewer: linesj, 26-Oct-2014 11:39:58
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249697/3 Calibration Date: 10/26/2014 11:29

Instrument ID: VMS_H Calib Start Date: 08/25/2014 12:58

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 08/25/2014 14:47

Lab File ID: H5996.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Ave	0.0008	0.0008			0.500	0.6	50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5996.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 26-Oct-2014 11:29:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCV S
Operator ID: LINESJ Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\Denchrom\ChromData\VMS_H\20141026-28760.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 17:35:40 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: linesj Date: 26-Oct-2014 12:11:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.014	4.014	0.000	97	197460	250.0	250.0	
* 2 Fluorobenzene	96	6.799	6.799	0.000	99	740773	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	89	228527	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.146	14.146	0.000	96	387882	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.963	5.963	0.000	94	419763	9.25	9.73	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.381	6.381	0.000	83	185004	9.25	9.26	
$ 10 Toluene-d8 (Surr)	98	8.906	8.906	0.000	93	897879	9.25	9.45	
$ 11 4-Bromofluorobenzene (Surr	95	12.805	12.805	0.000	86	487635	9.25	9.33	
34 Ethylene oxide	43	2.690	2.690	0.000	99	857374	2000.0	2116.3	
39 Ethanol	45	3.230	3.230	0.000	94	23938	NC	NC	
43 Propene oxide	58	3.335	3.335	0.000	96	1016622	500.0	565.3	
49 Isopropyl alcohol	45	3.665	3.665	0.000	96	44563	100.0	120.2	M
51 Acetonitrile	41	3.874	3.874	0.000	93	47726	100.0	96.4	
62 Isopropyl ether	87	4.780	4.780	0.000	98	238407	10.0	11.1	
63 2-Chloro-1,3-butadiene	53	4.832	4.832	0.000	89	408998	10.0	10.4	
64 Tert-butyl ethyl ether	59	5.197	5.197	0.000	98	807336	10.0	10.5	
69 Ethyl acetate	43	5.459	5.459	0.000	98	95404	20.0	21.6	
70 Propionitrile	54	5.493	5.493	0.000	97	86715	100.0	113.1	
72 Methacrylonitrile	41	5.667	5.667	0.000	93	599430	100.0	107.3	
83 Tert-amyl methyl ether	73	6.590	6.590	0.000	98	717036	10.0	11.3	
85 n-Butanol	56	7.182	7.182	0.000	88	61286	250.0	278.9	
87 Ethyl acrylate	55	7.687	7.687	0.000	0	25427	NC	NC	
91 Methyl methacrylate	100	7.704	7.704	0.000	95	91797	20.0	20.1	
95 2-Nitropropane	41	8.244	8.244	0.000	96	49127	20.0	21.1	
107 Tetrahydrothiophene	60	10.159	10.159	0.000	91	108404	10.0	10.6	
119 cis-1,4-Dichloro-2-butene	53	12.684	12.684	0.000	0	53131	10.0	10.3	
135 1,2,3-Trimethylbenzene	105	14.216	14.216	0.000	97	945613	10.0	10.7	
140 1,3,5-Trichlorobenzene	180	15.539	15.539	0.000	98	517541	10.0	10.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-Supp A_00009	Amount Added:	5.00	Units: uL	
MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

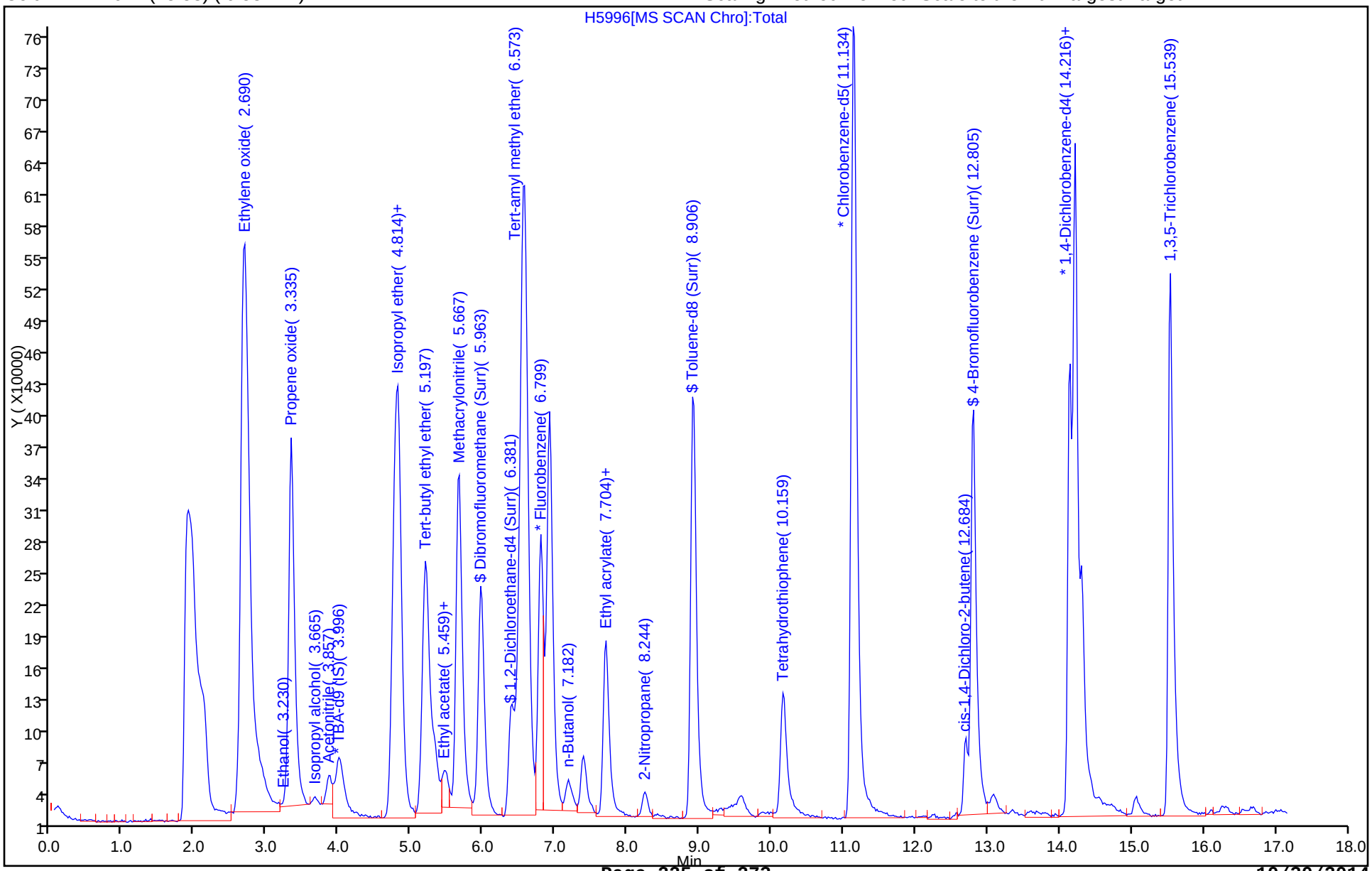
Report Date: 27-Oct-2014 17:35:40 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5996.D

Injection Date:	26-Oct-2014 11:29:30	Instrument ID:	VMS_H	Operator ID:	LINESJ
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Lab Sample ID: CCV 280-249697/3 Calibration Date: 10/26/2014 11:29

Instrument ID: VMS_H Calib Start Date: 10/22/2014 12:47

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 10/22/2014 14:35

Lab File ID: H5996.D Conc. Units: mg/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropyl ether	Ave	0.3617	0.4023		0.0111	0.0100	11.2	35.0
Dibromofluoromethane (Surr)	Ave	0.7276	0.7658		0.00973	0.00925	5.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3371	0.3375		0.00926	0.00925	0.1	20.0
Toluene-d8 (Surr)	Ave	5.196	5.309		0.00945	0.00925	2.2	20.0
4-Bromofluorobenzene (Surr)	Ave	1.685	1.699		0.00933	0.00925	0.8	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5996.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 26-Oct-2014 11:29:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCV S
Operator ID: LINESJ Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\Denchrom\ChromData\VMS_H\20141026-28760.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 17:35:40 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: linesj Date: 26-Oct-2014 12:11:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.014	4.014	0.000	97	197460	250.0	250.0	
* 2 Fluorobenzene	96	6.799	6.799	0.000	99	740773	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.134	11.134	0.000	89	228527	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.146	14.146	0.000	96	387882	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.963	5.963	0.000	94	419763	9.25	9.73	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.381	6.381	0.000	83	185004	9.25	9.26	
$ 10 Toluene-d8 (Surr)	98	8.906	8.906	0.000	93	897879	9.25	9.45	
$ 11 4-Bromofluorobenzene (Surr	95	12.805	12.805	0.000	86	487635	9.25	9.33	
34 Ethylene oxide	43	2.690	2.690	0.000	99	857374	2000.0	2116.3	
39 Ethanol	45	3.230	3.230	0.000	94	23938	NC	NC	
43 Propene oxide	58	3.335	3.335	0.000	96	1016622	500.0	565.3	
49 Isopropyl alcohol	45	3.665	3.665	0.000	96	44563	100.0	120.2	M
51 Acetonitrile	41	3.874	3.874	0.000	93	47726	100.0	96.4	
62 Isopropyl ether	87	4.780	4.780	0.000	98	238407	10.0	11.1	
63 2-Chloro-1,3-butadiene	53	4.832	4.832	0.000	89	408998	10.0	10.4	
64 Tert-butyl ethyl ether	59	5.197	5.197	0.000	98	807336	10.0	10.5	
69 Ethyl acetate	43	5.459	5.459	0.000	98	95404	20.0	21.6	
70 Propionitrile	54	5.493	5.493	0.000	97	86715	100.0	113.1	
72 Methacrylonitrile	41	5.667	5.667	0.000	93	599430	100.0	107.3	
83 Tert-amyl methyl ether	73	6.590	6.590	0.000	98	717036	10.0	11.3	
85 n-Butanol	56	7.182	7.182	0.000	88	61286	250.0	278.9	
87 Ethyl acrylate	55	7.687	7.687	0.000	0	25427	NC	NC	
91 Methyl methacrylate	100	7.704	7.704	0.000	95	91797	20.0	20.1	
95 2-Nitropropane	41	8.244	8.244	0.000	96	49127	20.0	21.1	
107 Tetrahydrothiophene	60	10.159	10.159	0.000	91	108404	10.0	10.6	
119 cis-1,4-Dichloro-2-butene	53	12.684	12.684	0.000	0	53131	10.0	10.3	
135 1,2,3-Trimethylbenzene	105	14.216	14.216	0.000	97	945613	10.0	10.7	
140 1,3,5-Trichlorobenzene	180	15.539	15.539	0.000	98	517541	10.0	10.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-Supp A_00009	Amount Added:	5.00	Units: uL	
MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

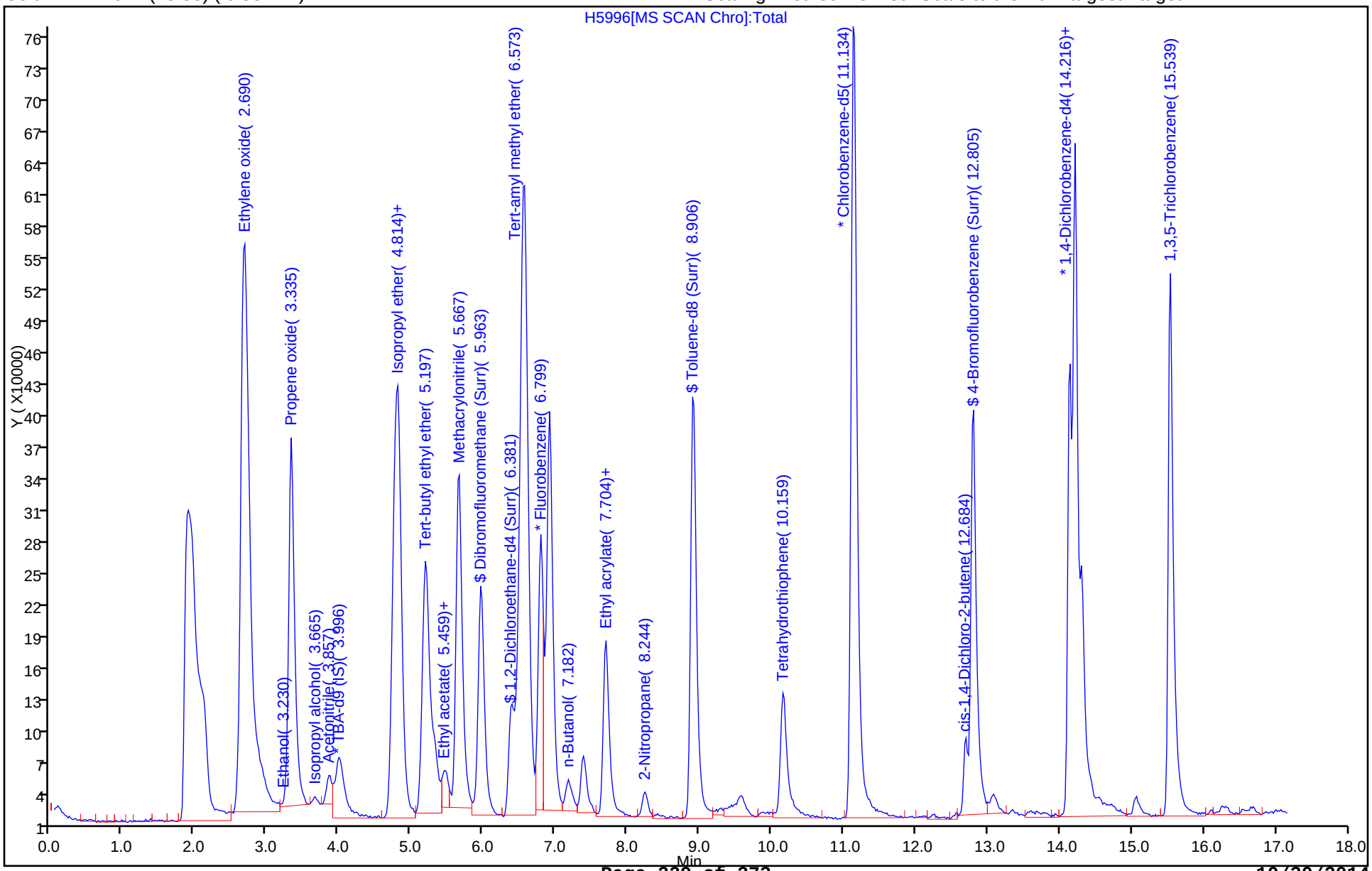
Report Date: 27-Oct-2014 17:35:40 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5996.D

Injection Date:	26-Oct-2014 11:29:30	Instrument ID:	VMS_H	Operator ID:	LINESJ
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5993.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 26-Oct-2014 10:31:30 ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Operator ID: LINESJ Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141026-28760.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 17:35:42 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK020

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.499	2.499	0.000	83	111576	NR	NR	7

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
7 - Failed Limit of Detection

Reagents:

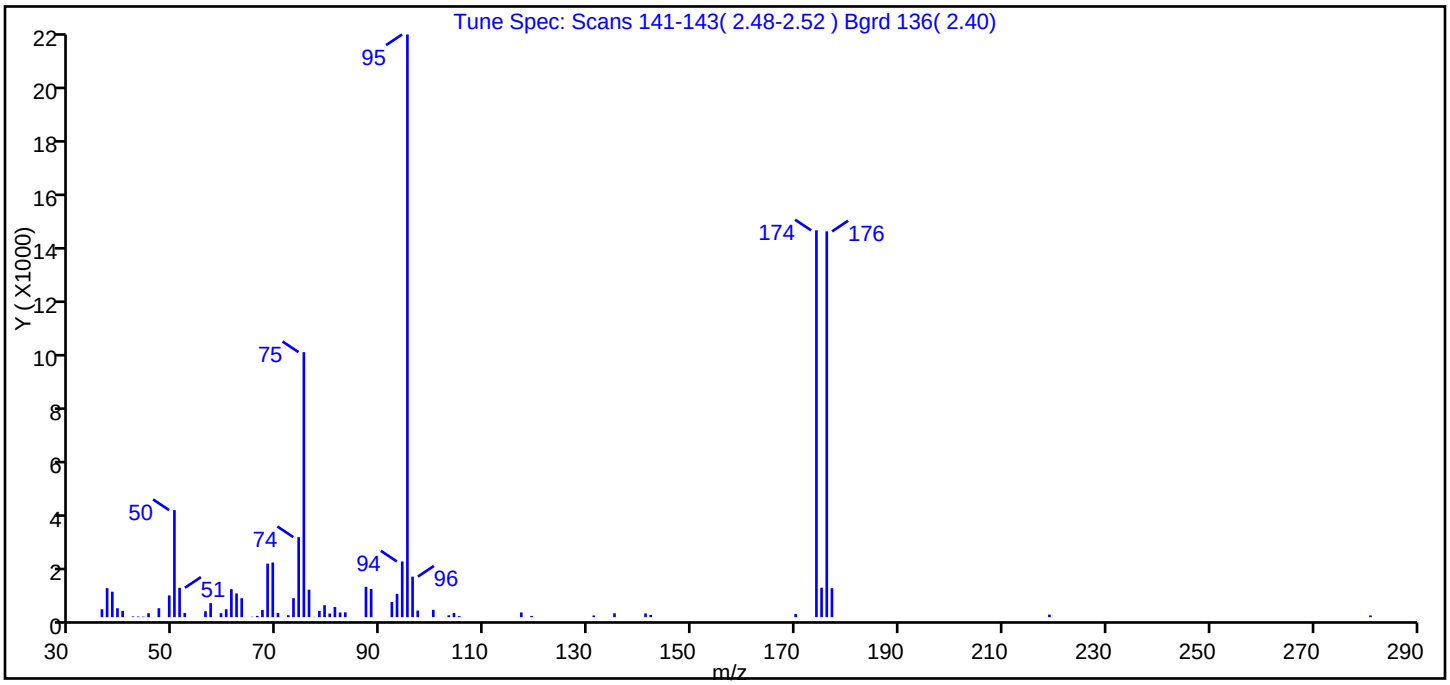
MV-BFB_00015 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5993.D
Injection Date: 26-Oct-2014 10:31:30 Instrument ID: VMS_H
Lims ID: BFB
Client ID:
Operator ID: LINESJ ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.40
75	30.00 - 60.00% of mass 95	45.50
96	5.00 - 9.00% of mass 95	7.00
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	66.40
175	5.00 - 9.00% of mass 174	5.10 (7.60)
176	95.00 - 101.00% of mass 174	66.20 (99.70)
177	5.00 - 9.00% of mass 176	5.00 (7.50)

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5993.D\AQ_VMSH_8260.rslt\spectra.d
Injection Date: 26-Oct-2014 10:31:30
Spectrum: Tune Spec: Scans 141-143(2.48-2.52) Bgrd 136(2.40)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	290	59.00	143	77.00	10	103.00	67
37.00	1064	60.00	291	78.00	226	104.00	155
38.00	932	61.00	1025	79.00	439	105.00	38
39.00	326	62.00	868	80.00	133	117.00	172
40.00	232	63.00	694	81.00	374	119.00	45
42.00	25	65.00	14	82.00	171	131.00	61
43.00	22	66.00	47	83.00	176	135.00	141
44.00	19	67.00	263	87.00	1112	141.00	137
45.00	144	68.00	1961	88.00	1033	142.00	82
47.00	327	69.00	2003	92.00	554	170.00	117
49.00	797	70.00	157	93.00	856	174.00	14180
50.00	3924	72.00	70	94.00	2040	175.00	1081
51.00	1077	73.00	695	95.00	21360	176.00	14141
52.00	151	74.00	2933	96.00	1486	177.00	1062
56.00	216	75.00	9714	97.00	242	219.00	93
57.00	513	76.00	1007	100.00	267	281.00	62

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-61445-1

SDG No.:

Client Sample ID: | Lab Sample ID: LB 280-249035/1-A

Matrix: Solid (TCLP) | Lab File ID: H6000.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 2(mL) | Date Analyzed: 10/26/2014 12:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 249697 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	2.0	U	10	2.0	1.6
78-93-3	2-Butanone (MEK)	32	U	100	32	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	2.0	U	10	2.0	1.7
67-66-3	Chloroform	2.0	U	10	2.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
75-35-4	1,1-Dichloroethene	4.0	U	10	4.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	2.0	U	10	2.0	1.6
75-01-4	Vinyl chloride	8.0	U	10	8.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		64-129
2037-26-5	Toluene-d8 (Surr)	99		78-120
460-00-4	4-Bromofluorobenzene (Surr)	95		78-121
1868-53-7	Dibromofluoromethane (Surr)	103		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H6000.D
Lims ID: LB 280-249035/1-A
Client ID:
Sample Type: LB
Inject. Date: 26-Oct-2014 12:57:30 ALS Bottle#: 7 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lb 280-249035/1-a
Operator ID: LINESJ Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141026-28760.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 17:35:10 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: linesj Date: 27-Oct-2014 16:49:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.013	3.991	0.022	97	186501	250.0	250.0	
* 2 Fluorobenzene	96	6.798	6.794	0.004	98	719622	12.5	12.5	
* 3 1,4-Dioxane-d8	96		8.670					0	
* 4 Chlorobenzene-d5	119	11.151	11.129	0.022	87	219550	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.145	14.141	0.004	95	381829	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.963	5.959	0.004	93	400628	9.25	9.56	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.380	6.376	0.004	83	170735	9.25	8.80	
$ 10 Toluene-d8 (Surr)	98	8.922	8.918	0.004	93	839348	9.25	9.20	
$ 11 4-Bromofluorobenzene (Surr	95	12.804	12.801	0.003	86	454591	9.25	8.83	
$ 152 Trifluorotoluene (Surr)	1		0.000					ND	
$ 7 BFB	95	2.411	2.499	-0.088	0	739		NR	7
27 Chlorotrifluoroethene	116		2.148					ND	
28 Dichlorodifluoromethane	85		2.181					ND	
30 Chloromethane	50		2.285					ND	
29 1,2-Dichloro-1,1,2,2-tetra	85		2.322					ND	
31 Butadiene	54		2.407					ND	
32 Vinyl chloride	62		2.424					ND	
33 2-Chloro-1,1,1-Trifluoroet	118		2.479					ND	
34 Ethylene oxide	43		2.690					ND	
35 Bromomethane	94		2.703					ND	
36 Chloroethane	64		2.773					ND	
37 Dichlorofluoromethane	67		2.964					ND	
38 Trichlorofluoromethane	101		3.069					ND	
39 Ethanol	45		3.230					ND	
40 Ethyl ether	59		3.243					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		3.280					ND	
42 1,1,1-Trifluoro-2,2-dichlo	83		3.332					ND	
43 Propene oxide	58		3.335					ND	
44 Acrolein	56		3.382					ND	
45 1,1-Dichloroethene	96		3.504					ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.539					ND	
47 Acetone	43		3.539					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
49 Isopropyl alcohol	45		3.665					ND	
48 Iodomethane	142		3.678					ND	
50 Carbon disulfide	76		3.748					0	
52 3-Chloro-1-propene	41		3.852					ND	
53 Methyl acetate	43		3.852					ND	
51 Acetonitrile	41		3.874					ND	
54 Methylene Chloride	84		3.974					ND	
55 2-Methyl-2-propanol	59		4.078					ND	
57 Acrylonitrile	53		4.235					ND	
56 Methyl tert-butyl ether	73		4.252					ND	
58 trans-1,2-Dichloroethene	96		4.270					ND	
59 Hexane	57		4.531					ND	
60 1,1-Dichloroethane	63		4.722					ND	
61 Vinyl acetate	43		4.740					ND	
62 Isopropyl ether	87		4.780					ND	
63 2-Chloro-1,3-butadiene	53		4.832					ND	
64 Tert-butyl ethyl ether	59		5.197					ND	
65 cis-1,2-Dichloroethene	96		5.384					ND	
67 2-Butanone (MEK)	43		5.384					ND	
66 2,2-Dichloropropane	77		5.401					ND	
69 Ethyl acetate	43		5.459					ND	
70 Propionitrile	54		5.493					ND	
71 sec-Butyl Alcohol	45		5.593					ND	
72 Methacrylonitrile	41		5.667					ND	
73 Chlorobromomethane	128		5.680					ND	
74 Tetrahydrofuran	42		5.732					ND	
75 Chloroform	83		5.767					ND	
76 1,1,1-Trichloroethane	97		6.011					ND	
77 Cyclohexane	56		6.080					ND	
78 1,1-Dichloropropene	75		6.185					ND	
79 Carbon tetrachloride	117		6.220					ND	
80 Isobutyl alcohol	41		6.324					ND	
81 Benzene	78		6.446					ND	
82 1,2-Dichloroethane	62		6.481					ND	
83 Tert-amyl methyl ether	73		6.590					ND	
84 n-Heptane	43		6.742					ND	
85 n-Butanol	56		7.182					ND	
86 Trichloroethene	95		7.264					ND	
88 2-Pentanone	43		7.491					ND	
89 Methylcyclohexane	55		7.525					ND	
90 1,2-Dichloropropane	63		7.560					ND	
87 Ethyl acrylate	55	7.669	7.687	-0.018	0	513		NC	
91 Methyl methacrylate	100		7.704					ND	
92 Dibromomethane	93		7.734					ND	
93 1,4-Dioxane	88		7.752					ND	
94 Dichlorobromomethane	83		7.926					ND	
95 2-Nitropropane	41		8.244					ND	
96 2-Chloroethyl vinyl ether	63		8.326					ND	
100 trans-1,3-Dichloropropene	75		8.535					ND	
98 4-Methyl-2-pentanone (MIBK	43		8.744					ND	
99 Toluene	91		9.005					ND	
97 cis-1,3-Dichloropropene	75		9.319					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 Ethyl methacrylate	69		9.440					ND	
102 1,1,2-Trichloroethane	97		9.580					ND	
103 Tetrachloroethene	164		9.789					ND	
104 1,3-Dichloropropane	76		9.823					ND	
105 2-Hexanone	43		9.945					ND	
107 Tetrahydrothiophene	60		10.159					ND	
108 Chlorodibromomethane	129		10.189					ND	
106 n-Butyl acetate	43		10.226					ND	
109 Ethylene Dibromide	107		10.363					ND	
110 1-Chlorohexane	91		11.147					ND	
111 Chlorobenzene	112		11.181					ND	
112 1,1,1,2-Tetrachloroethane	131		11.321					ND	
113 Ethylbenzene	106		11.356					ND	
114 m-Xylene & p-Xylene	106		11.530					ND	
115 o-Xylene	106		12.104					ND	
116 Styrene	104		12.122					ND	
117 Bromoform	173		12.383					ND	
118 Isopropylbenzene	105		12.592					ND	
119 cis-1,4-Dichloro-2-butene	53		12.684					ND	
120 Cyclohexanone	55		12.731					ND	
122 Bromobenzene	156		12.975					ND	
121 1,1,2,2-Tetrachloroethane	83		12.992					ND	
123 1,2,3-Trichloropropane	110		13.044					ND	
124 trans-1,4-Dichloro-2-buten	53		13.062					ND	
125 N-Propylbenzene	120		13.114					ND	
126 2-Chlorotoluene	126		13.218					ND	
127 1,3,5-Trimethylbenzene	105		13.323					ND	
128 4-Chlorotoluene	126		13.340					ND	
129 tert-Butylbenzene	119		13.706					ND	
130 1,2,4-Trimethylbenzene	105		13.758					ND	
22 Pentachloroethane	167		13.936					ND	
131 sec-Butylbenzene	134		13.950					ND	
132 1,3-Dichlorobenzene	146		14.071					ND	
133 4-Isopropyltoluene	119		14.106					ND	
134 1,4-Dichlorobenzene	146		14.158					ND	
135 1,2,3-Trimethylbenzene	105		14.216					ND	
136 Benzyl chloride	126		14.352					ND	
137 n-Butylbenzene	91		14.541					ND	
138 1,2-Dichlorobenzene	146		14.559					ND	
139 1,2-Dibromo-3-Chloropropan	157		15.342					ND	
140 1,3,5-Trichlorobenzene	180		15.539					ND	
144 1,2,3-Trichlorobenzene	180		16.108					0	
142 Hexachlorobutadiene	225		16.248					ND	
143 Naphthalene	128		16.335					ND	
141 1,2,4-Trichlorobenzene	180		16.561					ND	
16 3,3-Dimethylpentane	1		0.000					ND	
19 2,3-Dimethylpentane	1		0.000					ND	
157 Propene	1		0.000					ND	
15 Dimethyl disulfide	1		0.000					ND	
14 2-Butoxyethanol TIC	1		0.000					ND	
23 2-Methylhexane	1		0.000					ND	
24 3-Methylhexane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
12 3-Ethylpentane	1		0.000					ND	
158 Dicyclopentadiene	1		0.000					ND	
13 n-Nonyl Aldehyde	1		0.000					ND	
159 4-Ethyltoluene	1		0.000					ND	
18 2,2-Dimethylpentane	1		0.000					ND	
17 2,2,3-Trimethylbutane	1		0.000					ND	
20 2-Methylnaphthalene	142		0.000					ND	
21 2,4-Dimethylpentane	1		0.000					ND	
25 Dichloroacetonitrile TIC	74		1.000					ND	
26 2,3-dichloro-1-propene TIC	75		1.000					ND	
68 Propene oxide TIC	58		5.334					ND	
S 151 1,2-Dichloroethene, Total	96		2.000					0	
S 145 Trihalomethanes, Total	1		0.000					0	
S 146 Xylenes, Total (URS)	1		0.000					0	
S 147 Total BTEX	1		0.000					0	
S 148 1,3-Dichloropropene, Total	1		0.000					0	
S 149 1,2-Dichloroethene, Total	1		0.000					0	
S 150 Xylenes, Total	106		0.000					0	
S 160 TAH	1				0			0	
T 153 Propene TIC	1		0.000					0	
T 155 4-Ethyltoluene TIC	1		0.000					0	
T 154 Dicyclopentadiene TIC	1		0.000					0	
T 156 1,3-Butadiene TIC	1		0.000					0	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard
NC - Not Calibrated
ND - Not Detected or Marked ND
7 - Failed Limit of Detection

Reagents:

MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

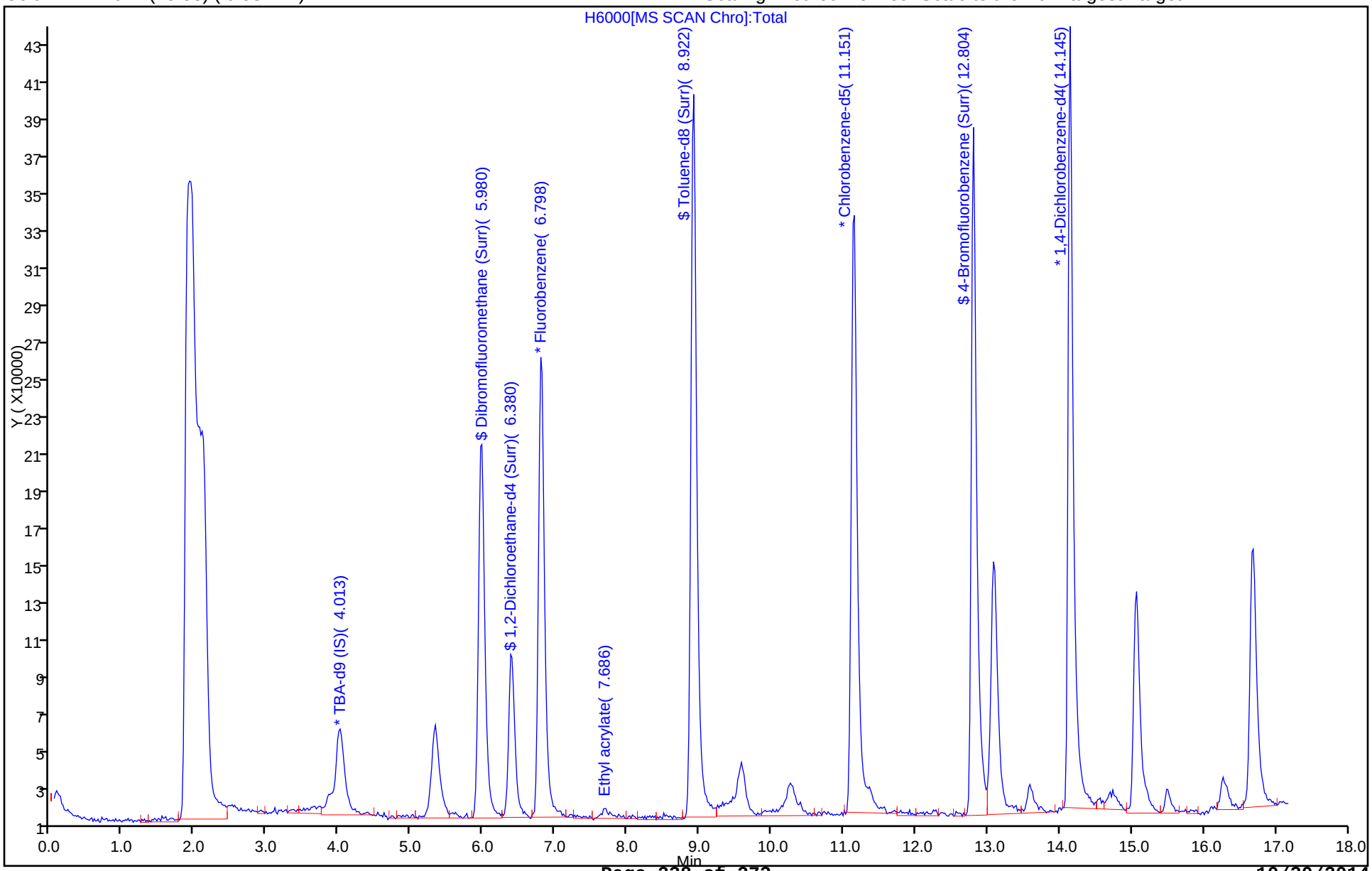
Report Date: 27-Oct-2014 17:35:30 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H6000.D

Injection Date:	26-Oct-2014 12:57:30	Instrument ID:	VMS_H	Operator ID:	LINESJ
Lims ID:	LB 280-249035/1-A			Worklist Smp#:	16
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-249035/2-A

Matrix: Solid (TCLP) Lab File ID: H5999.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 2(mL) Date Analyzed: 10/26/2014 12:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 249697 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	47.3		10	2.0	1.6
78-93-3	2-Butanone (MEK)	188		100	32	18
56-23-5	Carbon tetrachloride	50.1		10	4.0	1.9
108-90-7	Chlorobenzene	46.5		10	2.0	1.7
67-66-3	Chloroform	46.8		10	2.0	1.6
107-06-2	1,2-Dichloroethane	44.8		10	4.0	1.3
75-35-4	1,1-Dichloroethene	54.5		10	4.0	2.3
127-18-4	Tetrachloroethene	50.1		10	4.0	2.0
79-01-6	Trichloroethene	46.4		10	2.0	1.6
75-01-4	Vinyl chloride	37.1		10	8.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-129
2037-26-5	Toluene-d8 (Surr)	103		78-120
460-00-4	4-Bromofluorobenzene (Surr)	98		78-121
1868-53-7	Dibromofluoromethane (Surr)	96		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5999.D
Lims ID: LCS 280-249035/2-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Oct-2014 12:35:30 ALS Bottle#: 6 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs 280-249035/2-a
Operator ID: LINESJ Instrument ID: VMS_H

Method: \\Denchrom\ChromData\VMS_H\20141026-28760.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Oct-2014 17:35:10 Calib Date: 22-Oct-2014 14:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_H\20141022-28601.b\H5791.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: linesj Date: 27-Oct-2014 16:48:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	4.013	3.991	0.022	95	188293	250.0	250.0	
* 2 Fluorobenzene	96	6.799	6.794	0.005	98	746022	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.151	11.129	0.022	87	212126	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.145	14.141	0.004	96	385478	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.980	5.959	0.021	93	386394	9.25	8.90	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.398	6.376	0.022	82	173582	9.25	8.63	
$ 10 Toluene-d8 (Surr)	98	8.923	8.918	0.005	93	841240	9.25	9.54	
$ 11 4-Bromofluorobenzene (Surr	95	12.805	12.801	0.004	87	472050	9.25	9.09	
28 Dichlorodifluoromethane	85	2.202	2.181	0.021	98	160647	5.00	4.08	
30 Chloromethane	50	2.290	2.285	0.005	99	92498	5.00	3.58	
31 Butadiene	54	2.411	2.407	0.004	0	59913	NC	NC	
32 Vinyl chloride	62	2.446	2.424	0.022	97	91821	5.00	3.71	
35 Bromomethane	94	2.725	2.703	0.022	90	90391	5.00	3.81	
36 Chloroethane	64	2.777	2.773	0.004	98	62854	5.00	3.94	
37 Dichlorofluoromethane	67	2.986	2.964	0.022	96	249744	5.00	4.24	
38 Trichlorofluoromethane	101	3.073	3.069	0.004	97	217084	5.00	4.17	
40 Ethyl ether	59	3.247	3.243	0.004	93	58497	5.00	4.80	
45 1,1-Dichloroethene	96	3.526	3.504	0.022	98	127136	5.00	5.45	
46 1,1,2-Trichloro-1,2,2-trif	151	3.560	3.539	0.021	96	181855	5.00	5.56	
47 Acetone	43	3.543	3.539	0.004	35	38136	20.0	18.5	
48 Iodomethane	142	3.682	3.678	0.004	99	311056	5.00	5.48	
50 Carbon disulfide	76	3.769	3.748	0.021	99	412679	5.00	5.05	
52 3-Chloro-1-propene	41	3.856	3.852	0.004	85	184123	5.00	4.20	
53 Methyl acetate	43	3.874	3.852	0.022	96	230480	25.0	27.0	
54 Methylene Chloride	84	3.996	3.974	0.022	94	118751	5.00	4.71	
55 2-Methyl-2-propanol	59	4.100	4.078	0.022	97	44574	50.0	50.4	
57 Acrylonitrile	53	4.257	4.235	0.022	99	90836	50.0	42.9	
56 Methyl tert-butyl ether	73	4.274	4.252	0.022	93	203609	5.00	4.61	
58 trans-1,2-Dichloroethene	96	4.274	4.270	0.004	100	138487	5.00	5.08	
59 Hexane	57	4.535	4.531	0.004	93	186522	5.00	4.88	
60 1,1-Dichloroethane	63	4.744	4.722	0.022	96	243904	5.00	4.76	
65 cis-1,2-Dichloroethene	96	5.406	5.384	0.022	83	141831	5.00	5.02	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
67 2-Butanone (MEK)	43	5.406	5.384	0.022	50	79314	20.0	18.8	
66 2,2-Dichloropropane	77	5.423	5.401	0.022	85	246868	5.00	4.95	
71 sec-Butyl Alcohol	45	5.632	5.593	0.039	96	110900	150.0	130.0	
73 Chlorobromomethane	128	5.702	5.680	0.022	96	66055	5.00	4.90	
74 Tetrahydrofuran	42	5.754	5.732	0.022	39	22213	10.0	7.48	
75 Chloroform	83	5.771	5.767	0.004	94	256782	5.00	4.68	
76 1,1,1-Trichloroethane	97	6.015	6.011	0.004	98	238046	5.00	4.90	
77 Cyclohexane	56	6.085	6.080	0.005	91	210129	5.00	4.55	
78 1,1-Dichloropropene	75	6.207	6.185	0.022	97	215453	5.00	5.13	
79 Carbon tetrachloride	117	6.224	6.220	0.004	97	237126	5.00	5.01	
80 Isobutyl alcohol	41	6.329	6.324	0.004	95	34180	125.0	101.7	
81 Benzene	78	6.468	6.446	0.022	97	386200	5.00	4.73	
82 1,2-Dichloroethane	62	6.485	6.481	0.004	96	100835	5.00	4.48	
84 n-Heptane	43	6.764	6.742	0.022	94	257446	5.00	4.71	
86 Trichloroethene	95	7.286	7.264	0.022	98	176260	5.00	4.64	
88 2-Pentanone	43	7.512	7.491	0.021	98	168096	20.0	18.0	
89 Methylcyclohexane	55	7.530	7.525	0.005	91	194813	5.00	4.68	
90 1,2-Dichloropropane	63	7.582	7.560	0.022	94	144699	5.00	4.44	
92 Dibromomethane	93	7.739	7.734	0.005	96	82964	5.00	4.58	
93 1,4-Dioxane	88	7.756	7.752	0.004	31	7853	100.0	99.3	
94 Dichlorobromomethane	83	7.948	7.926	0.022	99	225225	5.00	4.41	
100 trans-1,3-Dichloropropene	75	8.540	8.535	0.005	92	199351	5.00	4.77	
98 4-Methyl-2-pentanone (MIBK	43	8.766	8.744	0.022	96	274088	20.0	19.6	
99 Toluene	91	9.010	9.005	0.005	99	465882	5.00	4.81	
97 cis-1,3-Dichloropropene	75	9.323	9.319	0.004	98	149603	5.00	4.79	
101 Ethyl methacrylate	69	9.445	9.440	0.005	89	113674	5.00	4.31	
102 1,1,2-Trichloroethane	97	9.602	9.580	0.022	90	89819	5.00	4.50	
103 Tetrachloroethene	164	9.793	9.789	0.004	98	166888	5.00	5.01	
104 1,3-Dichloropropane	76	9.828	9.823	0.005	87	148751	5.00	4.46	
105 2-Hexanone	43	9.967	9.945	0.022	97	178979	20.0	19.5	
108 Chlorodibromomethane	129	10.193	10.189	0.004	90	171873	5.00	4.77	
109 Ethylene Dibromide	107	10.385	10.363	0.022	99	114719	5.00	4.70	
110 1-Chlorohexane	91	11.151	11.147	0.004	92	242842	5.00	4.88	
111 Chlorobenzene	112	11.186	11.181	0.005	95	316347	5.00	4.65	
112 1,1,1,2-Tetrachloroethane	131	11.325	11.321	0.004	95	160050	5.00	4.71	
113 Ethylbenzene	106	11.360	11.356	0.004	99	160860	5.00	4.77	
114 m-Xylene & p-Xylene	106	11.534	11.530	0.004	0	215289	5.00	4.70	
115 o-Xylene	106	12.108	12.104	0.004	95	188480	5.00	4.71	
116 Styrene	104	12.126	12.122	0.004	95	300277	5.00	4.60	
117 Bromoform	173	12.387	12.383	0.004	96	97978	5.00	4.76	
118 Isopropylbenzene	105	12.613	12.592	0.021	95	608513	5.00	4.74	
120 Cyclohexanone	55	12.735	12.731	0.004	89	64090	200.0	181.7	
122 Bromobenzene	156	12.996	12.975	0.021	95	158947	5.00	4.80	
121 1,1,2,2-Tetrachloroethane	83	12.996	12.992	0.004	94	122616	5.00	4.22	
123 1,2,3-Trichloropropane	110	13.049	13.044	0.005	79	28412	5.00	4.41	
124 trans-1,4-Dichloro-2-buten	53	13.066	13.062	0.004	72	24089	5.00	4.08	
125 N-Propylbenzene	120	13.118	13.114	0.004	99	150025	5.00	4.79	
126 2-Chlorotoluene	126	13.223	13.218	0.005	97	117881	5.00	4.52	
127 1,3,5-Trimethylbenzene	105	13.327	13.323	0.004	95	460352	5.00	4.70	
128 4-Chlorotoluene	126	13.345	13.340	0.005	98	144468	5.00	4.60	
129 tert-Butylbenzene	119	13.710	13.706	0.004	93	489938	5.00	4.62	
130 1,2,4-Trimethylbenzene	105	13.762	13.758	0.004	96	427411	5.00	4.55	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.954	13.950	0.004	94	136635	5.00	4.72	
132 1,3-Dichlorobenzene	146	14.076	14.071	0.005	97	250330	5.00	5.06	
133 4-Isopropyltoluene	119	14.111	14.106	0.005	97	558761	5.00	4.65	
134 1,4-Dichlorobenzene	146	14.163	14.158	0.005	95	338726	5.00	4.47	
137 n-Butylbenzene	91	14.546	14.541	0.005	98	559627	5.00	4.63	
138 1,2-Dichlorobenzene	146	14.563	14.559	0.004	98	237662	5.00	4.67	
139 1,2-Dibromo-3-Chloropropan	157	15.347	15.342	0.005	89	23835	5.00	4.66	
144 1,2,3-Trichlorobenzene	180	16.113	16.108	0.005	95	171643	5.00	4.81	
142 Hexachlorobutadiene	225	16.252	16.248	0.004	97	173509	5.00	5.08	
143 Naphthalene	128	16.339	16.335	0.004	97	186380	5.00	4.52	
141 1,2,4-Trichlorobenzene	180	16.565	16.561	0.004	95	137380	5.00	4.76	
S 151 1,2-Dichloroethene, Total	96				0		10.0	10.1	
S 145 Trihalomethanes, Total	1				0		20.0	18.6	
S 146 Xylenes, Total (URS)	1				0		10.0	9.41	
S 148 1,3-Dichloropropene, Total	1				0		10.0	9.56	
S 149 1,2-Dichloroethene, Total	1				0		10.0	10.1	
S 150 Xylenes, Total	106				0		10.0	9.41	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Main B_00008	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00014	Amount Added:	2.50	Units: uL	
MV-568718-D_00002	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00028	Amount Added:	0.74	Units: uL	Run Reagent

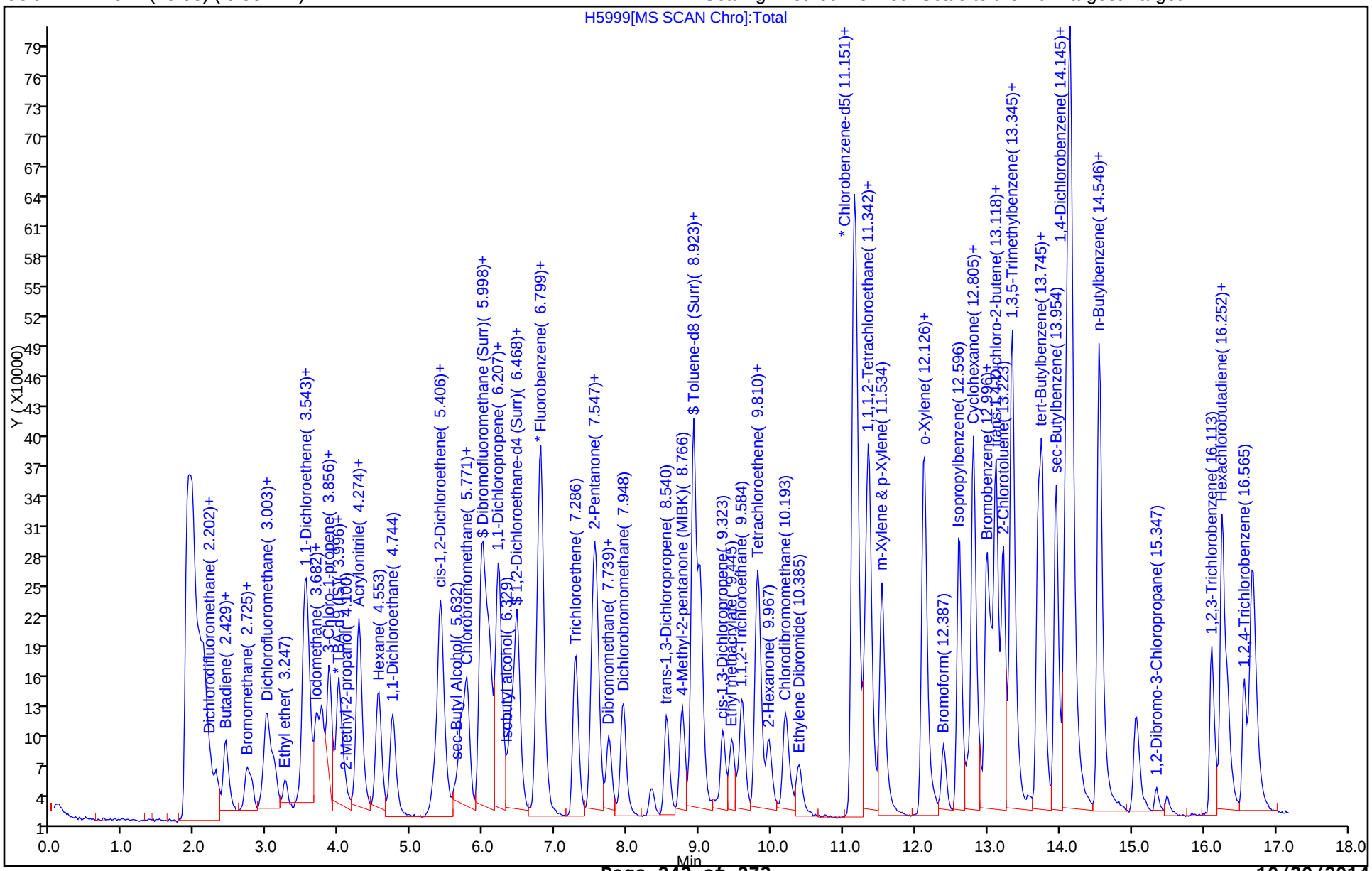
Report Date: 27-Oct-2014 17:35:31 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20141026-28760.b\H5999.D

Injection Date:	26-Oct-2014 12:35:30	Instrument ID:	VMS_H	Operator ID:	LINESJ
Lims ID:	LCS 280-249035/2-A			Worklist Smp#:	15
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	AQ_VMSH_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: VMS_H Start Date: 10/26/2014 10:31

Analysis Batch Number: 249697 End Date: 10/26/2014 20:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-249697/1		10/26/2014 10:31	1	H5993.D	DB-624 (75.53) 0.53(mm)
CCV 280-249697/2		10/26/2014 11:07	1	H5995.D	DB-624 (75.53) 0.53(mm)
CCV 280-249697/3		10/26/2014 11:29	1	H5996.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 11:51	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 12:13	1		DB-624 (75.53) 0.53(mm)
LCS 280-249035/2-A		10/26/2014 12:35	1	H5999.D	DB-624 (75.53) 0.53(mm)
LB 280-249035/1-A		10/26/2014 12:57	1	H6000.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 13:19	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 13:41	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 14:04	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 14:26	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 14:48	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 15:10	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 15:32	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 15:54	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 16:16	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 16:38	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 17:00	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 17:22	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 17:44	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 18:06	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 18:28	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 18:50	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 19:12	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		10/26/2014 19:33	1		DB-624 (75.53) 0.53(mm)
280-61445-1	774776CARBON101414	10/26/2014 19:55	1	H6019.D	DB-624 (75.53) 0.53(mm)
280-61445-2	101CARBON101614	10/26/2014 20:17	1	H6020.D	DB-624 (75.53) 0.53(mm)

GC/MS VOA Continuing Calibration Review Checklist *TestAmerica Denver*

Instrument ID and Date: H 10/26/14 Work List 29760

Check Method Used: Analysis ☐ 624 ☒ 8260B ☐ Other VOA _____

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Continuing Calibration					
1. BFB meets criteria?	X			✓	
2. ICAL date and instrument ID verified?	X			✓	
3. Do SPCC RRFs and CCC %Ds meet method criteria?	X			✓	
4. Does %D meet criteria for non-CCC compounds?	X			✓	
5. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether; 1,3- /1,4- /1,2-Dichlorobenzene; Ethylbenzene/Xylenes; 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene; 2-Nitropropane between Bromodichloromethane &MIBK; 2- /4-Chlorotoluene / n-propylbenzene; MIBK/2-Hexanone; Methyl/Ethyl Methacrylate; 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene; 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	X			✓	
6. Label number of standard used recorded?	X			✓	
7. Manual integrations documented and checked?	X			✓	Chloromethane IPA
8. Do the Internal Standards meet criteria for %D against ICAL?	X			✓	
9. Does this CCV pass Q4 criteria?	Y			✓	

Acrolein -59.5

1st Level Reviewer: _____ Date: 10/26/14

2nd Level Reviewer: Tam Date: 10-27-14

Sequence Name: C:\HPCHEM\1\SEQUENCE\102614.S
Comment:
Operator: LINESJ
Data Path: C:\HPCHEM\1\DATA\102614PM\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Test America Denver 623
Instrument: 17
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 10/1-2017
Lims Batch: 249697

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	H5993	BFB	BFB
2	Sample	10	H5994	8260	BLK
3	Sample	2	H5995	8260	CCV M
4	Sample	3	H5996	8260	CCV S
5	Sample	4	H5997	8260	LCS
6	Sample	5	H5998	8260	MB
7	Sample	6	H5999	8260	lcs 280-249035/2-a
8	Sample	7	H6000	8260	lb 280-249035/1-a
9	Sample	8	H6001	8260	lcs 280-247809/2-a
10	Sample	9	H6002	8260	lb3 280-247809/1-a
11	Sample	10	H6003	8260	280-60960-ag-1-a
12	Sample	11	H6004	8260	280-61285-a-1-b
13	Sample	12	H6005	8260	280-61285-a-1-b MS
14	Sample	13	H6006	8260	280-61285-a-1-b MSD
15	Sample	14	H6007	8260	280-60960-ag-1-a MS
16	Sample	15	H6008	8260	280-60960-ag-1-a MSD
17	Sample	16	H6009	8260	280-61102-b-1-a
18	Sample	17	H6010	8260	280-61285-a-2-b
19	Sample	18	H6011	8260	280-61285-a-3-b
20	Sample	19	H6012	8260	320-9916-d-1-a
21	Sample	20	H6013	8260	320-9916-d-2-a
22	Sample	21	H6014	8260	280-61421-b-1-a
23	Sample	22	H6015	8260	280-61464-b-1-b .05ML
24	Sample	23	H6016	8260	280-61464-b-1-b .005ML
25	Sample	24	H6017	8260	280-61464-b-2-b .1ML
26	Sample	25	H6018	8260	280-61464-b-2-b .01ML
27	Sample	26	H6019	8260	280-61445-b-1-a
28	Sample	27	H6020	8260	280-61445-b-2-a
29	Sample	28	H6021	8260	SCREENS
30	Sample	29	H6022	8260	SCREENS
31	Sample	30	H6023	8260	280-61736-i-1
32	Sample	31	H6024	8260	280-61736-i-2
33	Sample	32	H6025	8260	280-61736-i-3
34	Sample	33	H6026	8260	280-61736-i-4
35	Sample	34	H6027	8260	280-61710-g-1
36	Sample	35	H6028	8260	280-61710-g-2
37	Sample	36	H6029	8260	280-61710-g-3
38	Sample	37	H6030	8260	280-61710-g-4
39	Sample	38	H6031	8260	280-61711-h-1
40	Sample	39	H6032	8260	280-61711-h-2
41	Sample	40	H6033	8260	280-61711-h-3
42	Sample	41	H6034	8260	280-61711-h-4
43	Sample	42	H6035	8260	280-61711-h-5

Sequence Name: C:\HPCHEM\1\SEQUENCE\102614.S

Line	Type	Vial	DataFile	Method	Sample Name
44	Sample	43	H6036	8260	280-61711-h-6
45	Sample	44	H6037	8260	280-61711-h-7
46	Sample	45	H6038	8260	BLK
47	Sample	46	H6039	8260	BLK
48	Sample	47	H6040	8260	PRIMER

TestAmerica Laboratories
Worklist Report

Worklist Name: 102614 Worklist Number: 28760
Instrument Name: VMS_H Chrom Method: AQ_VMSH_8260
Purge Volume: 20.00 Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_H\20141026-28760.b
Upload Directory: \\Corpalsapp06\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00002 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00028 Amount Added: 0.740000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028760-001	# 1 BFB	MV-BFB_00015	BFB		voaWater	1.000000	uL	1.000000
280-0028760-002	# 2 CCV	MV-2cleve+AVA_00005 MV-568718-D_00002 MV-Main A_00018 MV-Gas/Ket A_00028 MV-ARCH SS A_00028	CCV		voaWater	20.00	mL	1.000000
280-0028760-003	# 3 CCV	MV-Supp A_00009	CCV		voaWater	20.00	mL	1.000000
280-0028760-004	# 4 LCS	MV-Main B_00008 MV-Gas/Ket B_00014 MV-SS 2-Cleve_00017	LCS		voaWater	20.00	mL	1.000000
280-0028760-005	# 5 LCSD	MV-Main B_00008 MV-Gas/Ket B_00014 MV-SS 2-Cleve_00017	LCSD		voaWater	20.00	mL	1.000000
280-0028760-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0028760-007	# 7 280-50876-A-1		Client		voaWater	20.00	mL	1.000000
280-0028760-008	# 8 280-50876-A-2		Client		voaWater	20.00	mL	1.000000
280-0028760-009	# 9 LCS 280-247809/2-A	MV-Main B_00008 MV-Gas/Ket B_00014	LCS		voaWater	2.000000	mL	1.000000
280-0028760-010	#10 LB3 280-247809/1-A		LB3		voaWater	2.000000	mL	1.000000
280-0028760-011	#11 280-60960-AG-1-A		Client		voaWater	2.000000	mL	1.000000
280-0028760-012	#12 280-60960-AG-1-A MS	MV-Main B_00008 MV-Gas/Ket B_00014	MS		voaWater	2.000000	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028760-013	#13 280-60960-AG-1-A MSD	MV-Main B_00008 MV-Gas/Ket B_00014	MSD		voaWater	2.000000	mL	1.000000
280-0028760-014	#14 280-61102-B-1-A		Client		voaWater	2.000000	mL	1.000000
280-0028760-015	#15 LCS 280-249035/2-A	MV-Main B_00008 MV-Gas/Ket B_00014	LCS		voaWater	2.000000	mL	1.000000
280-0028760-016	#16 LB 280-249035/1-A		LB		voaWater	2.000000	mL	1.000000
280-0028760-017	#17 280-61285-A-1-B		Client		voaWater	2.000000	mL	1.000000
280-0028760-018	#18 280-61285-A-1-B MS	MV-Main B_00008 MV-Gas/Ket B_00014	MS		voaWater	2.000000	mL	1.000000
280-0028760-019	#19 280-61285-A-1-B MSD	MV-Main B_00008 MV-Gas/Ket B_00014	MSD		voaWater	2.000000	mL	1.000000
280-0028760-020	#20 280-61285-A-2-B		Client		voaWater	2.000000	mL	1.000000
280-0028760-021	#21 280-61285-A-3-B		Client		voaWater	2.000000	mL	1.000000
280-0028760-022	#22 320-9916-D-1-A		Client		voaWater	2.000000	mL	1.000000
280-0028760-023	#23 320-9916-D-2-A		Client		voaWater	2.000000	mL	1.000000
280-0028760-024	#24 280-61421-B-1-A		Client		voaWater	2.000000	mL	1.000000
280-0028760-025	#25 280-61464-B-1-B		Client		voaWater	0.050000	mL	1.000000
280-0028760-026	#26 280-61464-B-1-B		Client		voaWater	0.005000	mL	1.000000
280-0028760-027	#27 280-61464-B-2-B		Client		voaWater	0.100000	mL	1.000000
280-0028760-028	#28 280-61464-B-2-B		Client		voaWater	0.010000	mL	1.000000
280-0028760-029	#29 280-61445-B-1-A		Client		voaWater	2.000000	mL	1.000000
280-0028760-030	#30 280-61445-B-2-A		Client		voaWater	2.000000	mL	1.000000

Main

TestAmerica Denver
GC/MS Initial Calibration Review Checklist

TestAmerica

Instrument ID and Date: H 10/22/14 ICAL Batch/ICV lines 248996 -16 -24 (6=s)
Calibration Event 20140 Work List 28601 2nd Day Batch/ICV lines

Check Method Used: Analysis ☐ 624 ☒ 8260B ☐ Other VOA

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Initial Calibration					
1. BFB meets criteria?	X				
2. ICAL date and instrument ID verified?	X				
3. Does the Form VI match the data in the Chrom source method?	X				
4. Sufficient number of calibration points used?	X				
5. Reasons for removal of points documented?	X				Some points < RL removed
6. %RSD or correlation coefficient within method limits?	X				
7. Response factors meet criteria?	X				
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	X				
9. Data checked for detector saturation?	X				
10. Label number of standards used recorded?	X				
11. Manual integrations documented and checked?	X				2-Methyl-2-Propanol
12. 2nd source ICV recovery 80-120% (±20%drift) for DoD projects; 65-135% (±35%, or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	X				

1st Level Reviewer: [signature] Date: 10/22/14

2nd Level Reviewer: ADS Date: 10/22/14

Sequence Name: C:\HPCHEM\1\SEQUENCE\102214am.S
Comment:
Operator: wickhamt
Data Path: C:\HPCHEM\1\DATA\102214am\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

TestAmerica Denver 628
Instrument: 14
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 813-1602
Lims Batch: 248996

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	H5774	BFB	BFB
2	Sample	1	H5775	8260	blank
3	Sample	2	H5776	8260	blank
4	Sample	3	H5777	8260	std003
5	Sample	4	H5778	8260	std01
6	Sample	5	H5779	8260	std02
7	Sample	6	H5780	8260	std05
8	Sample	7	H5781	8260	std10
9	Sample	8	H5782	8260	std30
10	Sample	9	H5783	8260	std60
11	Sample	10	H5784	8260	blank
12	Sample	11	H5785	8260	icv
13	Sample	12	H5786	8260	std01
14	Sample	13	H5787	8260	std02
15	Sample	14	H5788	8260	std05
16	Sample	15	H5789	8260	icis
17	Sample	16	H5790	8260	std30
18	Sample	17	H5791	8260	std60
19	Sample	18	H5792	8260	blank
20	Sample	19	H5793	8260	icv
21	Sample	20	H5794	8260	blank
22	Sample	21	H5795	8260	icv
23	Sample	22	H5796	8260	blk
24					

TestAmerica Laboratories
Worklist Report

Worklist Name: 102214i Worklist Number: 280601
Instrument Name: VMS_H Chrom Method: AQ_VMSH_8260
Purge Volume: 20.00 Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_H\20141022-280601.b
Upload Directory: \\Corpdatasapp05\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00002 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00028 Amount Added: 0.670000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028601-001	# 1 BFB	MV-BFB_00015	BFB		voaWater	1.000000	uL	1.000000
280-0028601-002	# 2 CCV	MV-2cleve+AVA_00005 MV-568718-D_00002 MV-Main A_00018 MV-Gas/Ket A_00028	CCV		voaWater	20.00	mL	1.000000
280-0028601-003	# 3 CCV	MV-Supp A_00009	CCV		voaWater	20.00	mL	1.000000
280-0028601-004	# 4 LCS	MV-Main B_00008 MV-Gas/Ket B_00014 MV-SS 2-Cleve_00017	LCS		voaWater	20.00	mL	1.000000
280-0028601-005	# 5 LCSD	MV-Main B_00008 MV-Gas/Ket B_00014 MV-SS 2-Cleve_00017	LCSD		voaWater	20.00	mL	1.000000
280-0028601-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0028601-007	# 7 280-50876-A-1		Client		voaWater	20.00	mL	1.000000
280-0028601-008	# 8 280-50876-A-2		Client		voaWater	20.00	mL	1.000000
280-0028601-009	# 9 std003	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	1	voaWater	20.00	mL	1.000000
280-0028601-010	#10 std01	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	2	voaWater	20.00	mL	1.000000
280-0028601-011	#11 std02	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028601-012	#12 std05	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	4	voaWater	20.00	mL	1.000000
280-0028601-013	#13 std10	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	5	voaWater	20.00	mL	1.000000
280-0028601-014	#14 std30	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	6	voaWater	20.00	mL	1.000000
280-0028601-015	#15 std60	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	7	voaWater	20.00	mL	1.000000
280-0028601-016	#16 icv	MV-568718-D_00002 MV-Main B_00008 MV-SS 2-Cleve_00017	ICV		voaWater	20.00	mL	1.000000
280-0028601-017	#17 std01	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	IC	2	voaWater	20.00	mL	1.000000
280-0028601-018	#18 std02	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	IC	3	voaWater	20.00	mL	1.000000
280-0028601-019	#19 std05	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	IC	4	voaWater	20.00	mL	1.000000
280-0028601-020	#20 icis	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	ICIS	5	voaWater	20.00	mL	1.000000
280-0028601-021	#21 std30	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	IC	6	voaWater	20.00	mL	1.000000
280-0028601-022	#22 std60	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	IC	7	voaWater	20.00	mL	1.000000
280-0028601-023	#23 icv	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp B_00004	ICV		voaWater	20.00	mL	1.000000
280-0028601-024	#24 icv	MV-568718-D_00002 MV-Gas/Ket B_00014	ICV		voaWater	20.00	mL	1.000000

5 of 11

TestAmerica Denver
GC/MS Initial Calibration Review Checklist

TestAmerica

Instrument ID and Date: H 10/22/14 ICAL Batch/ICV lines 248096 -23 LCS -20
Calibration Event 20141 Work List 28601 2nd Day Batch/ICV lines 10/23/14

Check Method Used: Analysis ☐ 624 ☑ 8260B ☐ Other VOA _____

VOA Preparation ☐ 5mL ☑ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Initial Calibration					
1. BFB meets criteria?	Y			//	
2. ICAL date and instrument ID verified?	Y			//	
3. Does the Form VI match the data in the Chrom source method?	Y			//	
4. Sufficient number of calibration points used?	Y			//	
5. Reasons for removal of points documented?	Y			//	Some points < RL removed
6. %RSD or correlation coefficient within method limits?	Y			//	
7. Response factors meet criteria?	Y			/	
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	Y			/	
9. Data checked for detector saturation?	Y			//	
10. Label number of standards used recorded?	Y			//	
11. Manual integrations documented and checked?	Y				IPA Acetonitrile
12. 2nd source ICV recovery 80-120% (±20% drift) for DoD projects. 65-135% (±35%, or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	Y			/	Ethyl Acetate #39-1

1st Level Reviewer: _____ Date: 10/22/14

2nd Level Reviewer: AOD Date: 10/22/14

NO Ethanol

Sequence Name: C:\HPCHEM\1\SEQUENCE\102214am.S
Comment:
Operator: wickhamt
Data Path: C:\HPCHEM\1\DATA\102214am\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Test America Denver 632
Instrument: 17
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g)
Tune Time: 813-1602 **(Circle)**
Lims Batch: 248996

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	H5774	BFB	BFB
2	Sample	1	H5775	8260	blank
3	Sample	2	H5776	8260	blank
4	Sample	3	H5777	8260	std003
5	Sample	4	H5778	8260	std01
6	Sample	5	H5779	8260	std02
7	Sample	6	H5780	8260	std05
8	Sample	7	H5781	8260	std10
9	Sample	8	H5782	8260	std30
10	Sample	9	H5783	8260	std60
11	Sample	10	H5784	8260	blank
12	Sample	11	H5785	8260	icv
13	Sample	12	H5786	8260	std01
14	Sample	13	H5787	8260	std02
15	Sample	14	H5788	8260	std05
16	Sample	15	H5789	8260	icis
17	Sample	16	H5790	8260	std30
18	Sample	17	H5791	8260	std60
19	Sample	18	H5792	8260	blank
20	Sample	19	H5793	8260	icv
21	Sample	20	H5794	8260	blank
22	Sample	21	H5795	8260	icv
23	Sample	22	H5796	8260	blk
24					

TestAmerica Laboratories
Worklist Report

Worklist Name: 102214i
Worklist Number: 28601
Instrument Name: VMS_H
Chrom Method: AQ_VMSH_8260
Purge Volume: 20.00
Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_H\20141022-28601.b
Upload Directory: \\Corpltalsapp06\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00002 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00028 Amount Added: 0.670000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028601-001	# 1 BFB	MV-BFB_00015	BFB		voaWater	1.000000	uL	1.000000
280-0028601-002	# 2 CCV	MV-2cleve+AVA_00005 MV-568718-D_00002 MV-Main A_00018 MV-Gas/Ket A_00028	CCV		voaWater	20.00	mL	1.000000
280-0028601-003	# 3 CCV	MV-Supp A_00009	CCV		voaWater	20.00	mL	1.000000
280-0028601-004	# 4 LCS	MV-Main B_00008 MV-Gas/Ket B_00014 MV-SS 2-Cleve_00017	LCS		voaWater	20.00	mL	1.000000
280-0028601-005	# 5 LCSD	MV-Main B_00008 MV-Gas/Ket B_00014 MV-SS 2-Cleve_00017	LCSD		voaWater	20.00	mL	1.000000
280-0028601-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0028601-007	# 7 280-50876-A-1		Client		voaWater	20.00	mL	1.000000
280-0028601-008	# 8 280-50876-A-2		Client		voaWater	20.00	mL	1.000000
280-0028601-009	# 9 std003	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	1	voaWater	20.00	mL	1.000000
280-0028601-010	#10 std01	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	2	voaWater	20.00	mL	1.000000
280-0028601-011	#11 std02	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0028601-012	#12 std05	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	4	voaWater	20.00	mL	1.000000
280-0028601-013	#13 std10	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	5	voaWater	20.00	mL	1.000000
280-0028601-014	#14 std30	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	6	voaWater	20.00	mL	1.000000
280-0028601-015	#15 std60	MV-568718-D_00002 MV-Main A_00019 MV-Gas/Ket A_00028 MV-2cleve+AVA_00005	IC	7	voaWater	20.00	mL	1.000000
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280-0028601-019	#19 std05	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	IC	4	voaWater	20.00	mL	1.000000
280-0028601-020	#20 icis	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	ICIS	5	voaWater	20.00	mL	1.000000
280-0028601-021	#21 std30	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	IC	6	voaWater	20.00	mL	1.000000
280-0028601-022	#22 std60	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp A_00010	IC	7	voaWater	20.00	mL	1.000000
280-0028601-023	#23 icv	MV-568718-D_00002 MV-ARCH SS A_00029 MV-Supp B_00004	ICV		voaWater	20.00	mL	1.000000
280-0028601-024	#24 icv	MV-568718-D_00002 MV-Gas/Ket B_00014	ICV		voaWater	20.00	mL	1.000000

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Batch Number: 249035 Batch Start Date: 10/21/14 19:00 Batch Analyst: Knauf, James R

Batch Method: 1311 Batch End Date: 10/22/14 11:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	ExtractFluid					
LB 280-249035/1		1311, 8260B		T1					
LCS 280-249035/2		1311, 8260B		T1					
280-61445-B-1	774776CARBON101414	1311, 8260B	P	T1					
280-61445-B-2	101CARBON101614	1311, 8260B	P	T1					

Batch Notes	

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-61445-1

SDG No.:

Project: Griffiss AFB 1015-11-01 SVI

Client Sample ID	Lab Sample ID
774776CARBON101414	280-61445-1
101CARBON101614	280-61445-2

Comments:

Client Sample ID: 774776CARBON101414 Lab Sample ID: 280-61445-1

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG ID.:

Matrix: Solid Date Sampled: 10/14/2014 15:00

Reporting Basis: WET Date Received: 10/18/2014 10:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ignitability	NO				No Unit			1	7.1.2

Client Sample ID: 101CARBON101614 Lab Sample ID: 280-61445-2

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG ID.:

Matrix: Solid Date Sampled: 10/16/2014 12:00

Reporting Basis: WET Date Received: 10/18/2014 10:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ignitability	NO				No Unit			1	7.1.2

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-61445-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (%)	
Percent Moisture		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-61445-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 7.1.2 LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (NONE)	
Ignitability			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 10/20/2014 13:26 End Date: 10/20/2014 13:26

Lab Sample ID	D / F	Type	Time	Analytes																			
				Moist																			
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
280-61445-1	1	T	13:26	X																			
280-61445-2	1	T	13:26	X																			
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
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ZZZZZZ			13:26																				
ZZZZZZ			13:26																				
ZZZZZZ			13:26																				

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Instrument ID: NOEQUIP Method: 7.1.2

Start Date: 10/21/2014 19:34 End Date: 10/21/2014 19:34

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ign																			
280-61445-1	1	T	19:34	X																			
280-61445-2	1	T	19:34	X																			

Prep Types

T = Total/NA

Wet Chemistry Data Review Checklist for Gravimetric Methods

Method(s):	Instrument:	SOP#:	Analyst:
Run Date:	Prep Batch(s):		Analytical Batch:

A. Balance, Oven, and DI Water QC Checks	Yes	No	N/A	2nd
Was the balance calibration verified before and after processing samples and noted in the "Balance Calibration Log" for the date(s) the samples were processed?				
Was the oven temperature within method requirements and recorded in the "Oven Temperature" logbook for the date(s) the samples were processed?				
Was the daily conductivity check of the deionized water recorded in the "Conductivity Logbook"?				
B. Method Requirements				
If sample is visibly oily, was this noted on the benchsheet?				
Was final residue weight within minimum/maximum requirements?				
Were the initial and final drying dates and times recorded on the benchsheet and were all samples dried for at least one hour?				
C. Sample Results				
TDS/Conductivity ratio or historical data checked?				
For % Moisture, was the Final Dried Weight < the Initial Pan Weight or is the result greater than 100%?				
Were sample analyses done within holding time? **If no, create HTV NCM. NCM#**				
Were special client requirements met?				
Were data that were manually transcribed from instrument printouts into TALS verified 100% including significant figures and units?				
Do the prep and analysis dates in TALS reflect the actual dates?				
STD/True Value information is updated and included?				
D. Preparation/Matrix QC				
Method blank ≤ ½ RL or all reported samples > 10 X RL? - **(HEM, SGT HEM, TDS, TSS MB <RL)**				
Method blank ≤ ½ RL or NCM provided? - **(HEM, SGT HEM, TDS, TSS MB <RL)**				
LCS/LCSD run for batch and within QC limits?				
DUP run for batch and RPD ≤ 20% for samples >5 X RL?				
DUP run at required frequency and RPD within acceptance limits or NCM written?				

Menu or Tab	Check	1st	2nd
Analyst Desktop	Create or and open batch		
View Batch Info	Confirm all fields are populated		
	Edit Analyst ID as is appropriate		
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)		
Sample List	In edit mode, if prompted to process samples, select "Yes"		
	Confirm samples are identified (Blue P Icon)		
	Confirm correct analysis date and time are listed		
	Confirm samples have the correct dilution factors		
	Confirm samples have the correct method chain assigned		
	Confirm that solid samples have the % moisture listed		
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.		
	Confirm that data are entered correctly. Verify pH is recorded when appropriate for the method.		
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new verify that the correct COA has been attached to the source standard		
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon		
	Check for any QC failures		
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or sample that are over-range.		
	Address any results that are reported without passing QC with an NCM.		
QC Links	Confirm QC links are correct.		
Hist. Data Check	Check historical data. Print charts for outliners. Take corrective action as is appropriate		
Sample List	Re-calculate data and set to appropriate review status (1st or 2nd level review)		
	Scan and attach raw data & save batch		

Analyst:	Date:	Analyst Comments:
2nd Level Reviewer:	Date:	Reviewer Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Wet Chemistry Data Review Checklist Direct Measurement Methods (pH, Conductance, etc.)

Method(s): 7.1, 2 | Instrument: N/A | SOP#: DW-WSC-00063 | Analyst: [illegible]

Run Date: 10/21/14 | Prep Batch(s): N/A | Analytical Batch: 241882

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
Was the instrument properly standardized?			✓	
Second-source ICV analyzed immediately after instrument standardization & recovery ± 10% of true value?			✓	✓
ICB analyzed immediately after ICV & results < the RL?			✓	✓
CCV analyzed after every ten samples & recovery ± 10% of true value?			✓	✓
CCB analyzed after every CCV & all results < the RL?			✓	✓
B. Sample Results				
pH sample and duplicate within ± 0.1 units?			✓	✓
Are all sample dilutions appropriate and do associated RLs reflect required dilutions or limited sample volumes?			✓	✓
All reported results bracketed by in control CCV results?			✓	✓
Sample analyses done within holding time? If no, create HTV NCM. NCM #	✓			✓
Preparation benchsheet completed and included in package (if applicable)?	✓			✓
Special client requirements reviewed and met?	✓			✓
Was data manually transcribed from instrument printouts into TALS verified 100% including significant figures and correct units? (If Applicable)	✓			✓
Do the prep and analysis dates in TALS reflect the actual dates?	✓		✓	✓
STD True Value information is updated and included?			✓	✓
C. Preparation/Matrix QC				
Method blank < ½ RL or all reported samples > 10x blank?			✓	✓
Method blank < ½ RL or NCM provided?			✓	✓
LCS/LCSD run for batch and within QC limits?			✓	✓
Sample DUP run at required frequency and RPD within established limits?	✓		✓	✓

Menu or Tab	Check	1st	2nd
Analyst Desktop	Create or open batch		✓
View Batch Info	Confirm all fields are populated		✓
	Edit Analyst ID as is appropriate		✓
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)		✓
Sample List	If prompted to process samples, select "Yes"		✓
	Confirm samples are identified (Blue P Icon)		✓
	Confirm correct analysis date and time are listed		✓
	Confirm samples have the correct dilution factors		✓
	Confirm samples have the correct method chain assigned		✓
	Confirm that solid samples have the % moisture listed	N/A	✓
Worksheet	Populate all appropriate fields in the worksheet. Initial amount, final amount, pH, etc.	✓	✓
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new verify that the correct COA has been attached to the source standard		✓
Results	Check for special instructions (Log in, Method and Sample comments) - red notebook icon		✓
	Check for any QC failures		✓
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range)		✓
	Address any results that are reported without passing QC with an NCM		✓
QC Links	Confirm QC links are correct		✓
Hist. Data Check	Check historical data. Print charts for outliners. Take corrective action as is appropriate		✓
Sample List	Re-calculate data and set to appropriate review status ((1st or 2nd level review))		✓
	Scan and attach raw data & save batch		✓

Analyst:	Analyst	Date: 10/22/14	Analyst Comments:
2nd Level Reviewer:	2nd	Date: 10/22/14	Reviewer Comments: N/A

646

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Denver

10/30/2014

Ignitability of Solids for Waste Characterization Per 40 CFR 261.21

SOP DV-WC-0063

Lot Sample Number	Work Order Number	Free Liquid?		Ignites in contact with flame?		Burns ONLY in contact with flame?		Burns persistently & vigorously after flame removed?		Ignites when stirred?		Ignites when water added?		Ignites when heated?		Ignitable?	
		If YES, document sample disposition in COMMENTS.		If NO, report as NOT ignitable. If YES, continue.		If YES, report as NOT ignitable.		If YES, continue. If NO, report as NOT ignitable.		If YES, report as ignitable. If NO continue.		If YES, report as ignitable. If NO continue.		If YES, report as ignitable. If NO report as NOT ignitable.			
		YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
61464-1			✓	✓			✓	✓		✓			✓		✓	✓	✓
61464-1Du			✓	✓			✓	✓		✓			✓		✓	✓	✓
61464-2			✓	✓			✓	✓		✓			✓		✓	✓	✓
61421-1			✓		✓												✓
61397-1			✓		✓												✓
61408-1		✓			✓												✓
61445-1			✓		✓												✓
61445-2			✓		✓												✓
								10/21/14									

COMMENTS: 61408-1 1/2" STANDING WATER

61464 1,2 WET PAINT RAGS - BURN WHEN STIRRED, NOT WITH WATER OR WHEN HEATED

61397-1 THICK WASTE OIL

Analyst: M WOOLLEY Date: 10/21/14 Batch # (optional): _____

Page 269 of 1273

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-61445-1

SDG No.:

Batch Number: 248751 Batch Start Date: 10/20/14 13:26 Batch Analyst: Baez, Oscar 1

Batch Method: Moisture Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
280-61445-A-1	774776CARBON101414	Moisture	T	11	1.36 g	16.53 g	16.21 g		
280-61445-A-2	101CARBON101614	Moisture	T	12	1.33 g	16.92 g	11.30 g		

Batch Notes	
Balance ID	H31422 No Unit
Date and Time Samples in Desiccator	10/21/14 0736
Date and Time Samples out of Desiccator	10/21/14 0848
Date samples were placed in the oven	10/20/14
Oven Temp when samples are put in oven	105 Degrees C
Time samples were place in the oven	1421
Date samples were removed from oven	10/21/14
Oven Temp when samples removed from oven	105 Degrees C
Time Samples were removed from oven	0736
Oven ID	F35973
ID number of the thermometer	244378
Uncorrected In Temperature	105 Celsius
Uncorrected Out Temperature	105 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

280-61445 Chain of Custody

AFCEC
CHAIN OF CUSTODY RECORD

1.9 °C +0.0
IR6 10/18/14
transferred by JD

COC#: 1 SDG#: 1 Cooler ID: A

Ship to: Elaine Walker Test America 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0156	Project Name: Griffiss AFB 1015-11-01 SVI Sampler Name: Katrina Mattice	Send Results to: Katrina Mattice FPM Remediations Inc 584 Phoenix Dr Rome, NY 13441
Carrier: Fedex	Sampler Signature: Katrina Mattice	Phone: (315) 336-7721 Ext 212

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2014	Time	MATRIX	SMCODE	SBD/SED	SACODE	No. of Containers	VOCs (Note 1) 8 0z. Glass Jar	Ignitibility Method 1030 4 0z. Glass Jar	VOCs (Note 2) 40mL vial (HCl)	Comments
774776Carbon101414	774776-CarbonDrums	10/14	1500	S	G	0/0	N	2	1	1	-	VOCs according to TCLP for landfill disposal
101Carbon101614	101-CarbonDrums	10/16	1200	S	G	0/0	N	2	1	1	-	VOCs according to TCLP for landfill disposal
101414TB	Trip Blank	10/14	1400	WQ	NA	0/0	TB	2	-		2	

Sample Condition Upon Receipt at Laboratory: Cooler Temperature:

Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0

Note 1: VOCs according to TCLP for landfill disposal.

Note 2: VOCs method SW 8260.

#1 Released by: (Sig) Katrina Mattice	Date: 10/17/14	#2 Released by: (Sig) TA Syr REC'D/IL	Date: 10-17-14	#3 Released by: (Sig)	Date:
Company Name: FPM	Time: 1400	Company Name: ~~FPM Remediations Inc~~	Time: 19:00	Company Name:	Time:
#1 Received by: (Sig) [illegible]	Date: 10/17/14	#2 Received by: (Sig) [illegible]	Date: 10-18-14	#3 Received by: (Sig)	Date:
Company Name: ~~FPM Remediations Inc~~ TEST AMERICA, SYR	Time: 1400	Company Name: TA-Syr	Time: 10:25	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil
GS = Gas Soil
S = Solid

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
AC = Air Container

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

Login Sample Receipt Checklist

Client: FPM Remediations Inc

Job Number: 280-61445-1

Login Number: 61445

List Source: TestAmerica Denver

List Number: 1

Creator: Conquest, Tyler W

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number
1-800-843-8265

Please print or type

BILL OF LADING

1. Document No. SYR11536 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address
AIR FORCE - GRIFFISS AIR BASE c/o FPM REMEDIATIONS, INC.
584 PHOENIX ROAD
ROME NY 13441

Site Address: SAME

4. Generator's Phone (315) 336-7721 X212

5. Transporter 1 Company Name: ENVIRONMENTAL PROD & SVCS OF VT, INC | 6. NYR000115733

A. State Transporter's ID: 41D5647

7. Transporter 2 Company Name: NEW ENGLAND DISPOSAL TECH | 8. MAC300006059

B. Transporter 1 Phone: 800 843-8265

C. State Transporter's ID:

D. Transporter 2 Phone: 508 768-1339

9. Designated Facility Name and Site Address: CAMERON GREAT LAKES, INC.
1756 HUBBARD AVE
HM BATAVIA IL 60510 | 10.

E. State Facility's ID:

F. Facility's Phone: 630 761-0000

	11. Shipping Name	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a.	NON-RCRA, NON-DOT SOLIDS, N.O.S. (SPENT CARBON)	31	DM	7750	P
b.					
c.					
d.					

G. Additional Descriptions for Materials Listed Above

a. APP #:NO APPROVAL # REQUIRED 31 x 55 GAL

b.

c.

d. JOB #N14594

15. Special Handling Instructions and Additional Information

1)

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

Printed/Typed Name: Catherine Jerrard | Signature: Catherine Jerrard | Date: Month 6 Day 30 Year 15

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Lee Thomas | Signature | Date: Month 6 Day 30 Year 15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Carl Hunter | Signature | Date: Month 07 Day 27 Year 15

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the materials covered by this bill of lading except as noted in Item 19.

Printed/Typed Name: JOE Kinghorn | Signature | Date: Month 7 Day 29 Year 15

BILL OF LADING